

Philips Consumer Electronics Company

A Division of Philips Electronics North America Corp.

Technical Service Data

Service Company

Technical Publications Dept.

401 East Old Andrew Johnson Hwy.

Jefferson City, TN 37760

MANUAL 7541**Chassis: PTV700,
PTV705, PTV706,
PTV710, PTV711,
PTV715, PTV720,
& PTV725**

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MANUAL 7541**PTV700, PTV705, PTV706, PTV710,
PTV711, PTV715, PTV720, & PTV725
SERIES PROJECTION TV**

INDEX: PAGE - 3 / FRAME - 1-A4

CROSLEYCP4620 W101 46"
CP5220 W101 52"PTV705
PTV705**MAGNAVOX (Continued)**FP5250 W101 52" PTV711
FP5251 G101 52" PTV711
FP4770 G101 47" PTV715
FP5370 G101 53" PTV715**FIVE STAR**

5T4610 W101 46" PTV700

MAGNAVOXFP4640 W101 46" PTV710
FP5240 W101 52" PTV710
FP4620 W101 46" PTV705
FP4625 W101 46" PTV706
FP5220 W101 52" PTV705
FP4650 W101 46" PTV711
FP4651 G101 46" PTV711**PHILIPS**47UP70 G101 47" PTV715
53UP70 G101 53" PTV715
52UP52 C101 52" PTV720
52UP54 C101 52" PTV720
52UP56 W101 52" PTV725**SEARS**

626.54908 590 46" PTV700

REFER TO BACK COVER FOR SAFETY GUIDELINES/SAFETY NOTICE**SAFETY NOTICE****ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS
AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING
ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.****CAUTION****USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING.**

IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Philips Consumer Electronics Company** Equipment. The service procedures recommended by Philips and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. There possibly exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Philips could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Philips has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Philips must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

** Hereafter throughout this manual, Philips Consumer Electronics Company will be referred to as Philips.

WARNING

Critical components having special safety characteristics are identified with a **Δ** by the Ref. No. in the parts list and enclosed within a broken line

* (where several critical components are grouped in one area) along with the safety symbol **Δ** on the schematics or exploded views.

Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from Philips Consumer Electronics Company. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

* Broken Line: 

TABLE OF CONTENTS

Note: The location of information in this manual is indicated by both page number and microfiche number. Paper manual users should refer only to page numbers. Microfiche users refer only to microfiche frame numbers.

Frame Numbers such as 1-A1 refer to Microfiche No. 95-7541, Card 1 of 3, Frame A1.

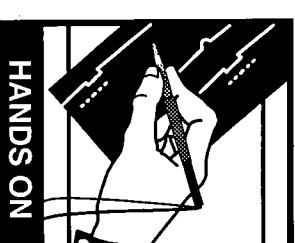
Note: Frame numbers shown indicate both the fiche card and the frame number (eg, 2-A1 refers to card 2 (2 of 3) frame A1).

Description	Page/Frame
Training Information	3 / 1-A5
Remote Control Operation	4 / 1-A6
Wiring Diagrams	5 / 1-A8
Model Listings	7 / 1-D1
Chassis Break-Down List	7 / 1-A6
Model Information/Cabinet Parts	8 / 1-A14
Panel List	12 / 1-A16
Service Adjustments	13 / 1-B3
Small Signal P.C. Board Zone Map	19 / 2-11
Small Signal Panel P.C. Board Overlays	20 / 2-11
Small Signal Panel Schematic Diagram	23 / 2-15
Small Signal Panel Replacement Parts List	29 / 2-113
Large Signal Panel P.C. Board Overlays	35 / 2-11
Large Signal P.C. Board Zone Map	37 / 2-11
Large Signal Panel Schematic Diagram	39 / 2-15
Large Signal Panel Replacement Parts List	43 / 2-113
Digital Convergence P.C. Board Zone Map	46 / 2-11
Digital Convergence P.C. Board Overlays	47 / 2-11
Digital Convergence Panel Schematic Diagram	49 / 2-15
Digital Convergence Panel Replacement Parts List	52 / 2-113
Red CRT Panel (00APT149)	55 / 1-D17
Green CRT Panel (00APT150)	57 / 1-F1
Blue CRT Panel (00APT151)	59 / 1-F5
ATC660 Customer Control Information	61 / 2-B1
ATC662 Customer Control Information	62 / 2-B3
Front Jack Panel (00AVJ170)	63 / 2-B5
Crossover Panel (00A10510)	63 / 2-B6
Wallvision Switch Panel (00A10553)	64 / 2-E1
Audio Amplifier Panel (00AMP016)	65 / 2-C1
Audio Power Supply Panel (00APW052)	67 / 2-C1
Dolby Prologic Panel (00A10467)	69 / 3-11
PIP Panel (00APP012)	73 / 1-H9
Remote Locator Panel (00A10538)	75 / 1-J9
Safety Guidelines	76 / 2-G5

FT
PHILIPS
TECHNICAL
TRAINING

Supplying the Technician's Needs

HANDS-ON TRAINING



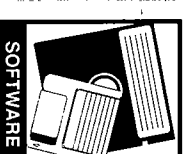
Philips Technical Training provides the Hands-On training needed to guarantee a student the best opportunity to learn Theory, Operation, and Troubleshooting. Each class includes complete coverage of all product circuit theory and any component theory as needed. The class also includes the operational theory of the product from the customer standpoint. And most importantly, our classes include the opportunity for each student to work with a product that has been bugged, allowing for troubleshooting experience on that unit.

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You can order these products individually or in libraries. To get your Technical Training Catalog, call: 615-475-0044 or FAX: 615-475-0221

UR14 REMOTE TRANSMITTER "QUICK-USE" GUIDE
(00G14DB & 00M14DB TRANSMITTERS)

TV-CBL-VCR "SYSTEM" Buttons

The remote's TV-CBL-VCR System buttons control how buttons on the remote are used.

For example:

With the "TV" system button pressed:
the Menu, (M)▲▼, and (+, -) buttons are used to select and adjust on-screen TV features.

With the "CBL" system button pressed:
the Power, Channel Number, and Channel Up▲/Down▼ buttons on the remote work with Cable TV Converters.

With the "VCR" system button pressed:
the Menu, (M)▲▼, and (+, -) buttons on the remote work. Stop, Play, Pause, and other VCR features.

Note: For more details on how the TV remote works with VCRs and Cable Converters, see the other owner's manual supplied with your TV.

VCR Buttons

For use of VCR buttons see the "Using the Remote With a VCR" in your other owner's manual.

Menu (▲▲) Buttons

Press the M button to show on-screen controls. Press M ▲ or ▼ buttons to move up (or down) the list of controls.

(-) and (+) Buttons

Press to adjust the selected on-screen (Menu) feature control.

Volume Buttons

Press to adjust the TV sound level.

Smart Picture Button

Press to select from a list of factory preset picture control levels (set for a number of different types of viewing sources and programs). See "Smart Picture" section in your other owner's manual for details.

Smart Sound/Enter Button

Press to control TV sound levels during program changes or commercial breaks. See "Smart Sound" section in your other owner's manual. Also can be used as an Enter button when sending channel commands to remote-controlled cable converters or VCRs.

TV/VCR Button

For use with accessory VCRs. Also can be used to quickly select the VCRAUX mode as well as channels 3 and 4 on the TV.

Power Button

Press to turn the TV (or select VCR/Cable Converter) ON and OFF.

Status/Exit Button

Press to see the current channel number on the TV screen. Also press this button to clear the TV screen after control adjustments.

Alternate Channel Button

Press to select the previously viewed channel! For example: You are watching channel 4 and change to channel 10 (using the channel number buttons). Press A/CH and your TV will switch between channel 10 and 4. See the "ALT. CHN." control section (in your other owner's manual) to see how to select a series of channels using the A/CH button.

Channel Scan Button

Press to scan up or down through channel numbers.

PIP Buttons

Press to operate Picture-In-Picture features. See "PIP" section in your other owner's manual for details.

Mute Button

Press to turn the sound OFF on the TV. Press again to return the sound to its previous level.

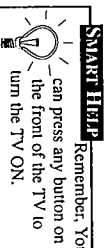
Number Buttons

Press the number buttons to select TV channels. Press two number buttons to select single digit channels. For example: press "0" then "6" for channel 6.

TV-VCR-CBL System Buttons

Press to send remote signals to either the TV or accessory VCRs and Cable TV Converters.

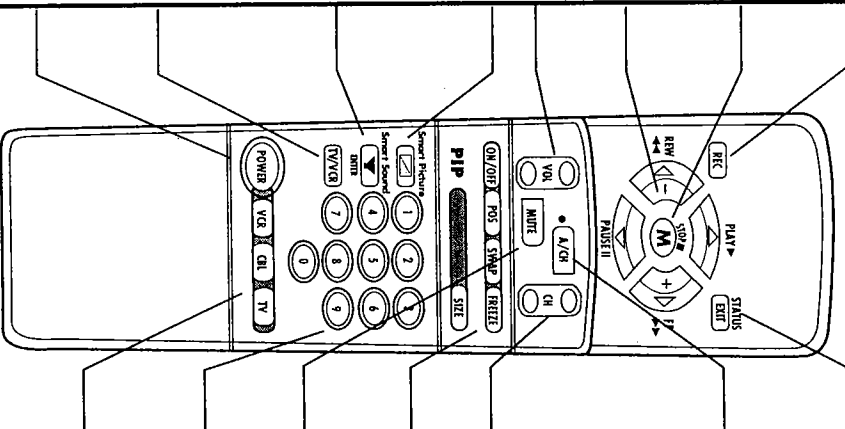
You can also press the STATUS button (on the remote) to see what channel the TV is ON.



Remember: You can press any button on the front of the TV to turn the TV ON.

The tuned channel number will always briefly appear when the TV is first turned ON (and with channel changes.)

You can also press the STATUS button (on the remote) to see what channel the TV is ON.



Remember: You can press any button on the front of the TV to turn the TV ON.

The tuned channel number will always briefly appear when the TV is first turned ON (and with channel changes.)

You can also press the STATUS button (on the remote) to see what channel the TV is ON.

USING THE REMOTE'S VCR BUTTONS

When using the TV remote with a VCR, first make certain it is set to control your VCR (by the REMOTE CODE or SEARCH method - see earlier section).

1 Press the VCR System button on the remote.

2 Point the top of the remote toward the front of the VCR (remote sensor window) when pressing buttons.



Record Button

Hold the RECORD button down, and then press the PLAY button to begin a VCR recording.

Rewind Button

Press to rewind tapes. For some VCRs you may need to press STOP button first then REWIND. In playback mode, hold button down to view picture moving rapidly in reverse.

Pause Button

Press to temporarily stop the tape during a playback or recording. Press again to release Pause.

TV-VCR Button

Press to the VCR position ("VCR" indicator on the VCR will light) to view the playback of a tape. Press again to place in the TV position ("VCR" indicator on the VCR will go OFF) to view one program while recording another program. When used with the TV the TV/VCR button works as a source button. Each press cycles the TV between channels 3 and 4; or the VCRAUX input mode. It is a quick one-button way to select these channels and modes (without directly entering the TV's Menu system.)

Play Button

Press to playback a tape. Hold down after pressing the RECORD button to start a recording.

Stop Button

Press to stop the tape.

Fast Forward Button

Press to rapidly advance the tape. For some VCRs you may need to press STOP first then FF. In playback mode hold button down to view the picture moving rapidly in the forward direction.

Channel Scan Buttons

Press to scan up or down through VCR channel numbers.

Number Buttons

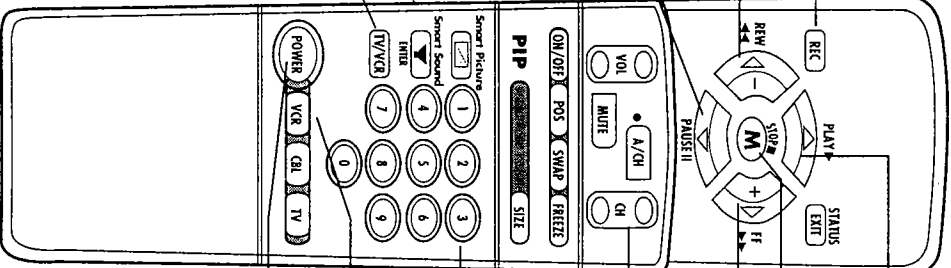
Press buttons for direct VCR channel selections.

VCR System Button

Press to send remote commands to the VCR.

Power Button

Press to turn the VCR ON and OFF.

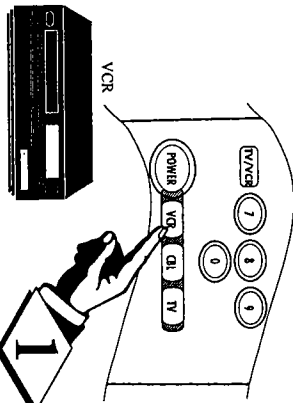


Remember, the VCR buttons on the remote will not operate your VCR if those features are not already found on your VCR remote control. Note: All VCR functions (particularly Search, Rewind, Fast Forward, etc.) will operate the same as with the original VCR remote control provided with the VCR.

SETTING THE REMOTE TO WORK VCRs

Your remote control is set to work your TV and many infrared remote (IR) control VCRs. However, an easy one-time step may be necessary before the remote will work your VCR.

Try this initial check to see if going on to the following section is necessary.

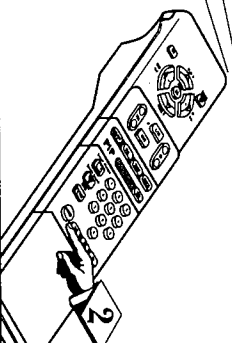


1 Press the VCR System button on the remote.

2 Point remote toward VCR and press the POWER button.

3 Does the remote turn the VCR ON?

If YES, and try the other VCR buttons on the remote. If they also work the VCR, then the remote is ready and no further steps are needed. If NO, continue...



47UP70 G101	47"	PTV715 (Phillips)	FP4620 W101	46"	PTV705 (Magnavox)	FP5220 W101	52"	PTV705 (Magnavox)
53UP70 G101	53"	PTV715 (Phillips)	FP4625 W101	46"	PTV706 (Magnavox)	FP5240 W101	52"	PTV710 (Magnavox)
514610 W101	46"	PTV700 (Five Star)	FP4640 W101	46"	PTV710 (Magnavox)	FP5250 W101	52"	PTV711 (Magnavox)
626.54908 590	46"	PTV700 (Sears)	FP4650 W101	46"	PTV711 (Magnavox)	FP5251 G101	52"	PTV711 (Magnavox)
CP4620 W101	46"	PTV705 (Crosley)	FP4651 G101	46"	PTV711 (Magnavox)	FP5370 G101	53"	PTV715 (Magnavox)
CP5220 W101	46"	PTV705 (Crosley)	FP4770 G101	47"	PTV715 (Magnavox)			



PTV MODEL INFORMATION (Continued)

Note: With the exception of the Owner's Manuals, Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

FP4651 G101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV711

Description	Part No.	Description	Part No.
Remote Transmitter (M175CC BA02)	4835 219 17593	Receptacle Wells f/Battleboard (8 used)	4835 265 97154
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17024
Screen Filter Asm.	4835 750 17143	Hinges f/Glass Door	4835 417 17025
Bottom Mounting Bracket f/Mirror	0014 685 20002	Door Pull (2 used)	4835 412 97109
Support Bracket f/AC Cord	4835 256 97224	Casters (4 used)	4835 528 77071
Top Screen Extrusion	4835 432 17676	Magnetic Catch (2 used)	4835 417 47013
Side Screen Extrusion (2 used)	4835 432 17677	Pop-On/Pop-Off Retainers (2 used)	4835 256 97159
Bottom Screen Extrusion	4835 432 17681	Retainer Hole Wells (12 used)	4835 432 17689
Frame Screen (2 pieces, 2 used)	4835 432 17603	Trim f/Storage Area	4835 432 17692
Frame f/P.C. Board Asm. (3 used)	0014 717 60001	End Base Rail (2 used)	4835 432 17704
Support Frame f/Lack Panel	4835 432 17685	Nameplate	4835 459 17477
Plastic Frame f/Front Jack Panel	4835 432 17695	Gillie Cloth (5 used)	4835 445 57007
Light Barrier	4835 432 17705	Glass Door (2 used)	4835 450 57025
Drip Barrier	4835 459 17508	Backcover-Upper	4835 432 97546
Overlay f/Lack Panel	4835 321 17085	Backcover-Lower	4835 432 97551
Line Cord w/Filter	4835 138 17012	Audio Cable (Literature Bag)	4835 322 57001
Battery, AA	4835 240 27003	Video Cable (Literature Bag)	4835 322 67001
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 57011	Crossover Asm. (2)	4835 240 77063
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 380 27001	Owner's Manual	001B 717 9E001
Mirror, 2nd surface	4835 380 47046	Refer to the 705899-1 Optical Assembly Parts List	
Fresnel Screen, 46"	4835 380 47012		
Lenticular Screen, 46"	4835 380 47012		

FP4770 G101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV715

Description	Part No.	Description	Part No.
Remote Transmitter (M175CC BA02)	4835 219 17593	Hinges f/Glass Door	4835 417 17024
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17025
Bottom Mounting Bracket f/Mirror	0014 685 20002	Latch Magnetic	4835 412 47012
Support Bracket f/AC Cord	4835 256 97224	Door Pull (2 used)	4835 412 97109
Frame f/P.C. Board Asm. (3 used)	0014 717 60001	Casters (4 used)	4835 528 77071
Support Frame f/Jack Panel	4835 432 17685	Speaker Baffle	4835 432 17714
Plastic Frame f/Front Jack Panel	4835 432 17695	Speaker Baffle	4835 432 17715
Light Barrier	4835 432 17705	Front Base Rail	4835 432 17716
Side Screen Extrusions (2 used)	4835 432 17721	Center Trim Rail	0014 729 00001
Drip Barrier	4835 432 17706	Nameplate	4835 459 17477
Top & Bottom Screen Extrusions (2 used)	4835 432 17728	Grille Cloth (2 used)	4835 445 57001
Overlay f/Rear Jack Panel	4835 459 17511	Glass Door (2 used)	4835 450 57025
Line Cord w/Filter	4835 321 17085	BackcoverUpper	4835 432 97548
Battery, AA	4835 138 17012	BackcoverLower	4835 432 97563
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Audio Cable (Literature Bag)	4835 322 57001
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011	Video Cable (Literature Bag)	4835 322 67001
Speaker, 3 X 6", 8 ohm (2 used)	4835 240 37021	Crossover Asm. (2 used)	4835 240 77063
Mirror, 2nd surface	4835 380 27001	Owner's Manual	001B 717 9E001
Fresnel Screen, 46"	4835 380 47046	Curved Screen Filter Asm.	4835 380 47051
Lenticular Screen, 46"	4835 380 47012	Refer to the 705899-1 Optical Assembly Parts List	
Receptacle Wells f/Battleboard (8 used)	4835 265 97154		

WARNING

Critical components having special safety characteristics are identified with a **Δ** by the Ref. No. in the parts list and enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol **Δ** on the schematics or exploded views.

Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

PTV MODEL INFORMATION (Continued)

Note: With the exception of the Owner's Manuals, Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

FP5220 W101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV705

Description	Part No.	Description	Part No.
Remote Transmitter (M145DB BA02)	4835 219 17591	Fresnel Screen	4835 380 47047
Mirror Mounting Brackets (4 used)	0014 671 20003	Lenticular Screen	4835 380 47049
Bottom Mounting Bracket f/Mirror	0014 685 20002	Casters (4 used)	4835 528 77071
Support Bracket f/AC Cord	4835 256 97224	Pop-On/Pop-Off Retainers (12 used)	4835 256 97159
Top Screen Extrusion	4835 432 17678	Retainer Hole Wells (12 used)	4835 265 97341
Side Screen Extrusion (2 used)	4835 432 17679	Screen Frame	4835 432 17565
Bottom Screen Extrusion	4835 432 17682	Base Front Rail	4835 432 17701
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Base Foot Rail (2 used)	4835 432 17702
Plastic Frame f/Rear Jack Panel	4835 432 17685	Upper Back Cover	4835 432 97558
Light Barrier	4835 432 17723	Lower Back Cover	4835 432 97561
Overlay f/Rear Jack Panel	4835 459 17507	Audio Cable (Literature Bag)	4835 322 57001
Line Cord w/Filter	4835 321 17085	Video Cable (Literature Bag)	4835 322 67001
Battery, AA	4835 138 17012	Speaker Baffle Asm.	4835 432 67193
Speaker, 4 X 6", Fullrange, 8 ohm (2 used)	4835 240 47009	Owner's Manual	001B 717 6E001
Mirror, 2nd surface	4835 380 37015	Refer to the 705898-2 Optical Assembly Parts List	

FP5240 W101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV710

Description	Part No.	Description	Part No.
Remote Transmitter (M175CC BA02)	4835 219 17593	Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011
Mirror Mounting Brackets (4 used)	0014 671 20003	Mirror, 2nd Surface	4835 380 37015
Screen Filter Assembly	4835 750 17144	Fresnel Screen	4835 380 47047
Bottom Mounting Bracket f/Mirror	0014 685 20002	Lenticular Screen	4835 380 47049
Support Bracket f/AC Cord	4835 256 97224	Receptacle Wells f/Battleboard (6 used)	4835 265 97154
Top Screen Extrusion	4835 432 17678	Casters (4 used)	4835 528 77071
Side Screen Extrusions (2 used)	4835 432 17679	Pop-On/Pop-Off Retainers (14 used)	4835 256 97159
Bottom Screen Extrusion	4835 432 17682	Retainer Hole Wells (12 used)	4835 265 97341
Screen Frame (2 used)	4835 432 17684	Front Base Rail	4835 432 17697
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Foot Base Rail (2 used)	4835 432 17702
Plastic Frame f/Rear Jack Panel	4835 432 17685	Grille Cloth (2 used)	4835 445 57001
Speaker Grille Cover	4835 432 67202	Back Cover, Upper	4835 432 97557
Plastic Frame f/Front Jack Panel	4835 432 17695	Back Cover, Lower	4835 432 97559
Light Barrier	4835 432 17723	Audio Cable (Literature Bag)	4835 322 57001
Overlay f/Rear Jack Panel	4835 459 17508	Video Cable (Literature Bag)	4835 322 67001
Line Cord w/Filter	4835 321 17085	Crossover Asm. (2 used)	4835 240 77063
Battery, AA	4835 138 17012	Owner's Manual	001B 717 8E001
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Refer to the 705898-2 Optical Assembly Parts List	

FP5250 W101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV710

Description	Part No.	Description	Part No.
Remote Transmitter (M175CC BA02)	4835 219 17593	Receptacle Wells f/Battleboard (8 used)	4835 265 97154
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17024
Screen Filter Asm.	4835 750 17144	Hinges f/Glass Door	4835 417 17025
Bottom Mounting Bracket f/Mirror	0014 685 20002	Door Pull (2 used)	4835 412 97109
Support Bracket f/AC Cord	4835 256 97224	Casters (4 used)	4835 528 77071
Top Screen Edge Extrusion	4835 432 17678	Magnetic Catch (2 used)	4835 417 47013
Side Screen Edge Extrusions (2 used)	4835 432 17679	Pop-On/Pop-Off Retainers (2 used)	4835 256 97159
Bottom Screen Edge Extrusion	4835 432 17682	Retainer Hole Wells (12 used)	4835 265 97341
Frame Screen (2)	4835 432 17604	Front Base Rail	4835 432 17688
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Trim f/Storage Area	4835 432 17692
Plastic Frame f/Rear Jack Panel	4835 432 17685	End Base Rail (2 used)	4835 432 17703
Plastic Frame f/Front Jack Panel	4835 432 17695	Nameplate	4835 459 17477
Light Barrier	4835 432 17705	Grille Cloth (5 used)	4835 445 57001
Drip Barrier	4835 432 17706	Glass Door (2 used)	4835 450 57024
Overlay f/Rear Jack Panel	4835 459 17508	Upper Back Cover	4835 432 97547
Line Cord w/Filter	4835 321 17085	Lower Back Cover	4835 432 97552
Battery, AA	4835 138 17012	Audio Cable (Literature Bag)	4835 322 57001
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Video Cable (Literature Bag)	4835 322 67001
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011	Crossover Asm. (2 used)	4835 240 77063
Mirror, 2nd Surface	4835 380 27011	Owner's Manual	001B 717 9E001
Fresnel Screen	4835 380 47047	Refer to the 705899-2 Optical Assembly Parts List	
Lenticular Screen	4835 380 47049		

PTV MODEL INFORMATION (Continued)

FP5251 G101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV711

Description	Part No.	Description	Part No.
Remote Transmitter (M175CC BA02)	4835 219 17593	Receptacle Wells f/Battleboard (8 used)	4835 265 97154
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17024
Screen Filter Asm.	4835 750 17144	Hinges f/Glass Door	4835 417 17025
Bottom Mounting Bracket f/Mirror	0014 685 20002	Door Pull (2 used)	4835 412 97109
Support Bracket f/AC Cord	4835 256 97224	Casters (4 used)	4835 528 97224
Top Screen Edge Extrusion	4835 432 17678	Magnetic Catch (2 used)	4835 417 47013
Side Screen Edge Extrusions (2 used)	4835 432 17679	Pop-On/Pop-Off Retainers (2 used)	4835 256 97159
Bottom Screen Edge Extrusion	4835 432 17682	Retainer Hole Wells (12 used)	4835 265 97341
Screen Frame (2 used)	4835 432 17604	Front Base Rail	4835 432 17691
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Trim f/Storage Area	4835 432 17692
Plastic Frame f/Rear Jack Panel	4835 432 17685	End Base Rail (2 used)	4835 432 17704
Plastic Frame f/Front Jack Panel	4835 432 17695	Nameplate	4835 459 17477
Light Barrier	4835 432 17705	Grille Cloth (5 used)	4835 445 57007
Drip Barrier	4835 432 17706	Glass Door (2 used)	4835 450 57026
Overlay f/Rear Jack Panel	4835 459 17508	Back Cover - Upper	4835 432 97547
Line Cord w/Filter	4835 321 17085	Back Cover - Lower	4835 432 97552
Battery, AA	4835 138 17012	Audio Cable (Literature Bag)	4835 322 57001
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Video Cable (Literature Bag)	4835 322 67001
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011	Crossover Asm. (2 used)	4835 240 77063
Mirror, 2nd Surface	4835 380 27011	Owner's Manual	001B 717 9E001
Fresnel Screen	4835 380 47047	Refer to the 705898-2 Optical Assembly Parts List	
Lenticular Screen	4835 380 47049		

FP5370 G101 (MAGNAVOX) MODEL REPLACEMENT PARTS LIST - PTV715

Description	Part No.	Description	Part No.
Remote Transmitter (M175CC BA02)	4835 219 17593	Receptacle Wells f/Battleboard (8 used)	4835 265 97154
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17024
Bottom Mounting Bracket f/Mirror	0014 685 20002	Hinges f/Glass Door	4835 417 17025
Support Bracket f/AC Cord	4835 256 97224	Magnetic Latch	4835 412 47012
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Door Pull (2 used)	4835 412 97109
Plastic Frame f/Rear Jack Panel	4835 432 17685	Casters (4 used)	4835 528 97071
Plastic Frame f/Front Jack Panel	4835 432 17695	Center Trim Rail	0014 729 00001
Light Barrier	4835 432 17705	Speaker Baffle	4835 432 17717
Drip Barrier	4835 432 17706	Speaker Baffle	4835 432 17718
Side Screen Edge Extrusions (2 used)	4835 432 17722	Front Base Rail	4835 432 17719
Top Screen Edge Extrusion	0014 730 20002	Nameplate	4835 459 17477
Bottom Screen Edge Extrusion	0014 730 80002	Grille Cloth (2 used)	4835 445 57001
Overlay f/Rear Jack Panel	4835 459 17511	Glass Door (2 used)	4835 450 57026
Line Cord w/Filter	4835 321 17085	Upper Back Cover	4835 432 97549
Battery, AA	4835 138 17012	Lower Back Cover	4835 432 97564
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Audio Cable (Literature Bag)	4835 322 57001
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011	Video Cable (Literature Bag)	4835 322 67001
Speaker, 3" X 6", 8 ohm, RFMTG (2 used)	4835 240 37021	Crossover Asm. (2 used)	4835 240 77063
Mirror, 2nd Surface	4835 380 27011	Owner's Manual	001B 717 9E001
Fresnel Screen	4835 380 47047	Curved Screen Filter Asm.	4835 380 47052
Lenticular Screen	4835 380 47049	Refer to the 705898-2 Optical Assembly Parts List	

5T4610 W101 (FIVE STAR) MODEL REPLACEMENT PARTS LIST - PTV700

Description	Part No.	Description	Part No.
Remote Transmitter (T214AG GA02)	4835 219 17529	Fresnel Screen	4835 380 47046
Mirror Mounting Brackets (4 used)	0014 671 20003	Lenticular Screen	4835 380 47012
Bottom Mounting Bracket f/Mirror	0014 685 20002	Casters (4 used)	4835 528 77071
Support Bracket f/AC Cord	4835 256 97224	Foot, Black (2 used)	4835 462 47063
Top Screen Edge Extrusion	4835 432 17676	Pop-On/Pop-Off Retainers (12 used)	4835 256 97159
Side Screen Edge Extrusions (2 used)	4835 432 17677	Retainer Hole Wells (12 used)	4835 265 97341
Bottom Screen Edge Extrusion	4835 432 17681	Screen Frame	4835 432 17561
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Base Foot Rail (2 used)	4835 432 17702
Plastic Frame f/Jack Panel	4835 432 17685	Nameplate	4835 459 17505
Light Barrier	4835 432 17723	Grille Cloth	4835 445 57001
Overlay f/Jack Panel	4835 459 17507	Lower Back Cover	4835 432 97554
Line Cord w/Filter	4835 321 17085	Upper Back Cover	4835 432 97556
Battery, AAA	4835 138 17001	Baffle Panel	0070 593 30001
Speaker, 4" X 6" 8 ohm (2 used)	4835 240 47011	Owner's Manual	001B 717 4E001
Mirror, 2nd Surface	4835 380 37014	Refer to the 705898-1 Optical Assembly Parts List	

PTV MODEL INFORMATION (Continued)

626.54908 590 (SEARS) MODEL REPLACEMENT PARTS LIST - PTV700

Description	Part No.	Description	Part No.
Remote Transmitter (T214AG GA02)	4835 219 17529	Fresnel Screen	4835 380 47046
Mirror Mounting Brackets (4 used)	0014 671 20003	Lenticular Screen	4835 380 47012
Bottom Mounting Bracket f/Mirror	0014 685 20002	Casters (4 used)	4835 528 77071
Support Bracket f/AC Cord	4835 256 97224	Foot, Black (2 used)	4835 462 47063
Top Screen Edge Extrusion	4835 432 17676	Pop-On/Pop-Off Retainers (12 used)	4835 256 97159
Side Screen Edge Extrusions (2 used)	4835 432 17677	Retainer Hole Wells (12 used)	4835 265 97341
Bottom Screen Edge Extrusion	4835 432 17681	Screen Frame	4835 432 17561
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Foot Base Rail (2 used)	4835 432 17702
Plastic Frame f/Jack Panel	4835 432 17685	Nameplate, LXI	4835 459 17476
Light Barrier	4835 432 17723	Grille Cloth	4835 445 57001
Overlay f/Jack Panel	4835 459 17507	Back Cover, Lower	4835 432 97554
Line Cord w/Filter	4835 321 17085	Back Cover, Upper	4835 432 97556
Battery, AAA	4835 138 17001	Baffle Panel	4835 432 67204
Speaker, 4" X 6" 8 ohm (2 used)	4835 240 47011	Owner's Manual	001B 717 5E001
Mirror, 2nd Surface	4835 380 37014	Refer to the 705898-1 Optical Assembly Parts List	

CP4620 W101 (CROSLEY) MODEL REPLACEMENT PARTS LIST - PTV705

Description	Part No.	Description	Part No.
Remote Transmitter (G145DB BA02)	4835 219 17587	Mirror, 2nd Surface	4835 380 37014
Mirror Mounting Brackets (4 used)	0014 671 20003	Upper Back Cover	4835 432 97556
Bottom Mounting Bracket f/Mirror	0014 685 20002	Lower Back Cover	4835 432 97554
Support Bracket f/AC Cord	4835 256 97224	Fresnel Screen	4835 380 47046
Top Screen Edge Extrusion	4835 432 17676	Lenticular Screen	4835 380 47012
Side Screen Edge Extrusions (2 used)	4835 432 17677	Receptacle Wells f/Battleboard (6 used)	4835 265 97154
Bottom Screen Edge Extrusion	4835 432 17681	Casters (4 used)	4835 528 77071
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Pop-On/Pop-Off Retainers (12 used)	4835 256 97159
Plastic Frame f/Jack Panel	4835 432 17685	Retainer Hole Wells (12 used)	4835 265 97341
Speaker Grille	4835 432 17709	Screen Frame	4835 432 17561
Light Barrier	4835 432 17723	Base Front Rail	4835 432 17699
Overlay f/Jack Panel	4835 459 17507	Base Foot Rail (2 used)	4835 432 17702
Line Cord w/Filter	4835 321 17085	Audio Cable (Literature Bag)	4835 322 57001
Battery, AA	4835 138 17012	Video Cable (Literature Bag)	4835 322 67001
Speaker, 4" X 6", 8 ohm (2 used)	4835 240 47011	Owner's Manual	001B 717 7E001
Part No.		Refer to the 705898-1 Optical Assembly Parts List	

CP5220 W101 (CROSLEY) MODEL REPLACEMENT PARTS LIST - PTV705

Description	Part No.	Description	Part No.
Remote Transmitter (G145DB BA02)	4835 219 17587	Mirror, 2nd Surface	4835 380 37015
Mirror Mounting Brackets (4 used)	0014 671 20003	Fresnel Screen	4835 380 47047
Bottom Mounting Bracket f/Mirror	0014 685 20002	Lenticular Screen	4835 380 47049
Support Bracket f/AC Cord	4835 256 97224	Casters (4 used)	4835 528 77071
Top Screen Edge Extrusion	4835 432 17678	Pop-On/Pop-Off Retainers (12 used)	4835 256 97159
Side Screen Edge Extrusions (2 used)	4835 432 17679	Retainer Hole Wells (12 used)	4835 265 97341
Bottom Screen Edge Extrusion	4835 432 17682	Screen Frame	4835 432 17565
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Base Front Rail	4835 432 17701
Plastic Frame f/Jack Panel	4835 432 17685	Foot Base Rail (2 used)	4835 432 17702
Speaker Grille	4835 432 17711	Upper Back Cover	4835 432 97558
Light Barrier	4835 432 17723	Lower Back Cover	4835 432 97561
Overlay f/Jack Panel	4835 459 17507	Audio Cable (Literature Bag)	4835 322 57001
Line Cord w/Filter	4835 321 17085	Video Cable (Literature Bag)	4835 322 67001
Battery, AA	4835 138 17012	Owner's Manual	001B 717 7E001
Speaker, 4" X 6", 8 ohm (2 used)	4835 240 47011	Refer to the 705898-2 Optical Assembly Parts List	

WARNING

Critical components having special safety characteristics are identified with a **Δ** by the Ref. No. in the parts list and are enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol **Δ** on the schematics or exploded views.

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• Broken Line: ————

PTV MODEL INFORMATION (Continued)

47UP70 G101 (PHILIPS) MODEL REPLACEMENT PARTS LIST - PTV715

Description	Part No.	Description	Part No.
Remote Transmitter (H175CC BA02)	4835 219 17589	Receptacle Wells f/Baffleboard (8 used)	4835 265 97154
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17024
Bottom Mounting Bracket f/Mirror	0014 685 20002	Hinges f/Glass Door	4835 417 17025
Support Bracket f/AC Cord	4835 256 97224	Latch Magnetic	4835 417 47012
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Door Pull (2 used)	4835 412 97109
Plastic Frame f/Rear Jack Panel	4835 432 17685	Casters (4 used)	4835 528 77071
Plastic Frame f/Front Jack Panel	4835 432 17695	Speaker Baffle	4835 432 17714
Light Barrier	4835 432 17705	Speaker Baffle	4835 432 17715
Drip Barrier	4835 432 17706	Front Base Rail	4835 432 17716
Side Screen Edge Extrusions (2 used)	4835 432 17721	Center Trim Rail	0014 729 00001
Top & Bottom Screen Extrusions (2 used)	4835 432 17728	Nameplate	4835 459 17454
Overlay f/Rear Jack Panel	4835 459 17511	Grille Cloth (2 used)	4835 445 57001
Line Cord w/Filter	4835 321 17085	Glass Door (2 used)	4835 450 57025
Battery, AA	4835 138 17012	Upper Back Cover	4835 432 97548
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Lower Back Cover	4835 432 97563
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011	Audio Cable (Literature Bag)	4835 322 57001
Speaker, 3" X 6", 8 ohm - Side (2 used)	4835 240 37021	Video Cable (Literature Bag)	4835 322 67001
Mirror, 2nd Surface	4835 380 27001	Owner's Manual	001B 727 9E001
Fresnel Screen	4835 380 47046	Curved Screen Filter Asm.	4835 380 470 ,1
Lenticular Screen	4835 380 47012	Refer to the 705898-1 Optical Assembly Parts List	

53UP70 G101 (PHILIPS) MODEL REPLACEMENT PARTS LIST - PTV715

Description	Part No.	Description	Part No.
Remote Transmitter (H175CC BA02)	4835 219 17589	Receptacle Wells f/Baffleboard (8 used)	4835 265 97154
Mirror Mounting Brackets (4 used)	0014 671 20003	Hinges f/Glass Door	4835 417 17024
Bottom Mounting Bracket f/Mirror	0014 685 20002	Hinges f/Glass Door	4835 417 17025
Support Bracket f/AC Cord	4835 256 97224	Latch Magnetic	4835 417 47012
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Door Pull (2 used)	4835 412 97109
Plastic Frame f/Rear Jack Panel	4835 432 17685	Casters (4 used)	4835 528 77071
Plastic Frame f/Front Jack Panel	4835 432 17695	Center Trim Rail	0014 729 00001
Light Barrier	4835 432 17705	Speaker Baffle	4835 432 17717
Drip Barrier	4835 432 17706	Speaker Baffle	4835 432 17718
Side Screen Edge Extrusions (2 used)	4835 432 17722	FrontBase Rail	4835 432 17719
Top & Bottom Screen Extrusions (2 used)	4835 432 17729	Nameplate	4835 459 17454
Overlay f/Rear Jack Panel	4835 459 17511	Grille Cloth (2 used)	4835 445 57001
Line Cord w/Filter	4835 321 17085	Glass Door (2 used)	4835 450 57026
Battery, AA	4835 138 17012	Back Cover, Upper	4835 432 97549
Speaker, Tweeter, 2.75", 8 ohm (2 used)	4835 240 27003	Back Cover, Lower	4835 432 97564
Speaker, Midrange, 5.25", 8 ohm (2 used)	4835 240 57011	Audio Cable (Literature Bag)	4835 322 57001
Speaker, 3" X 6", 8 ohm, - Side (2 used)	4835 240 37021	Video Cable (Literature Bag)	4835 322 67001
Mirror, 2nd Surface	4835 380 27011	Owner's Manual	001B 727 9E001
Fresnel Screen	4835 380 47047	Curved Screen Filter Asm.	4835 380 47052
Lenticular Screen	4835 380 47049	Refer to the 705898-2 Optical Assembly Parts List	

52UP52 G101 (PHILIPS - WALLVISION) MODEL REPLACEMENT PARTS LIST - PTV720

Description	Part No.	Description	Part No.
Remote Transmitter (H145CC BA02)	4835 219 17588	Speaker, Woofer, 6", 8 ohm (2 used)	4835 240 57016
Plastic Frame f/Dolby Pro-Logic Panel	4835 432 17675	Mirror, 2nd Surface	4835 380 27012
Mirror Mounting Brackets (4 used)	0014 671 20003	Fresnel Screen	4835 380 47047
Bottom Mounting Bracket f/Mirror	0014 685 20002	Lenticular Screen	4835 380 47049
Support Bracket f/AC Cord	4835 256 97224	Casters (2 used)	4835 528 77065
Top Screen Edge Extrusion	4835 432 17678	Casters (2 used)	4835 528 77066
Side Screen Edge Extrusions (2 used)	4835 432 17679	Pop-On/Pop-Off Retainers (16 used)	4835 256 97159
Bottom Screen Edge Extrusion	4835 432 17682	Retainer Hole Wells (12 used)	4835 265 97341
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Upper Back Cover	4835 432 87085
Plastic Frame f/Rear Jack Panel	4835 432 17685	Lower Back Cover	4835 432 97562
Light Barrier	4835 432 17723	Back Barrier	4835 432 87139
Plastic Frame f/Audio Power Supply Panel	4835 432 17725	Audio Cable (Literature Bag)	4835 322 57001
Overlay f/Jack Panel	4835 459 17509	Video Cable (Literature Bag)	4835 322 67001
Line Cord w/Filter	4835 321 17085	Screen Filter Asm.	0070 569 40004
Battery, AA	4835 138 17012	Owner's Manual	001B 718 1E001
Speaker, Tweeter, 3", 6 ohm (2 used)	4835 240 27022	Refer to the 705898-2 Optical Assembly Parts List	

PTV MODEL INFORMATION (Continued)

Note: With the exception of the Owner's Manuals, Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

52UP54 C101 (PHILIPS - VIDEO GALLERY) MODEL REPLACEMENT PARTS LIST - PTV720

Description	Part No.	Description	Part No.
Remote Transmitter (H145CC BA02)	4835 219 17588	Battery, AA	4835 138 17012
Plastic Frame f/Dolby Pro-Logic Panel	4835 432 17675	Mirror, 2nd Surface	4835 380 27012
Mirror Mounting Brackets (4 used)	0014 671 20003	Fresnel Screen	4835 380 47047
Bottom Mounting Bracket f/Mirror	0014 685 20002	Lenticular Screen	4835 380 47049
Support Bracket f/AC Cord	4835 256 97224	Casters (2 used)	4835 528 77065
Top Screen Edge Extrusion	4835 432 17678	Casters (2 used)	4835 528 77066
Side Screen Edge Extrusions (2 used)	4835 432 17679	Retainer Hole Wells (12 used)	4835 265 97341
Bottom Screen Edge Extrusion	4835 432 17682	Lower Back Cover	4835 432 97562
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Upper Back Cover	4835 432 87085
Plastic Frame f/Rear Jack Panel	4835 432 17685	Audio Cable (Literature Bag)	4835 322 57001
Light Barrier	4835 432 17723	Video Cable (Literature Bag)	4835 322 67001
Plastic Frame f/Audio Power Supply Panel	4835 432 17724	Screen Filter Asm.	0070 569 40004
Overlay f/Jack Panel	4835 459 17509	Owner's Manual 705912-9	001B 718 1E001
Line Cord w/Filter	4835 321 17085	Refer to the 705898-2 Optical Assembly Parts List	

52UP56 W101 (GENERAL VIDEO) MODEL REPLACEMENT PARTS LIST - PTV725

Description	Part No.	Description	Part No.
Mirror Mounting Brackets (4 used)	0014 671 20003	Overlay f/Jack Panel	4835 459 17512
Bottom Mounting Bracket f/Mirror	0014 685 20002	Line Cord w/Filter	4835 321 17085
Support Bracket f/AC Cord	4835 256 97224	Mirror, 2nd Surface	4835 380 37015
Plastic Frame f/P.C. Bd. Asm. (3 used)	0014 717 60001	Fresnel Screen	4835 380 47047
Plastic Frame f/Rear Jack Panel	4835 432 17685	Lenticular Screen	4835 380 47049
Bottom Screen Edge Extrusion	4835 432 17686	Upper Back Cover	0064 724 60002
Top Screen Edge Extrusion	4835 432 17712	Lower Back Cover	0064 743 50001
Side Screen Edge Extrusions (2 used)	4835 432 17713	Cabinet Assembly 690488-1	
Light Barrier	4835 432 17723	Refer to the 705898-2 Optical Assembly Parts List	

WARNING

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OPTICAL ASSEMBLY REPLACEMENT PARTS LIST
00705898-0001 & -0002 : 72 DEGREE OPTICAL ASSEMBLIES
00705899-0001 & -0002 : 90 DEGREE OPTICAL ASSEMBLIES
(Refer to the CRT Optical Detail)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

Ref.	Description	Part No.	Ref.	Description	Part No.
A	Focus/G2 Combo	4835 100 97465	K	Vent Plug	4835 432 17684
A	Pads f/CRT Mounting	0014 664 70001	L	Seal Fastener	4835 290 87147
A	Deflection Yoke	4835 150 17122	M	Cap f/Coupler	4835 432 17736
A	UL/X-Ray Shield (90 Degree Optical Assemblies only)		O	Diaphragm f/Coupler	4835 525 17002
A	Anode Lead Asm.	4835 466 37016	P	Red Coupler f/46" Models	4835 290 87149
A	Shoulder Screws	4835 310 57508	P	Blue Coupler f/46" Models	4835 290 87149
A	Compression Springs (12)	4835 502 97088	P	Red Coupler f/52" Models	4835 290 87151
B	CRT Mounting Bracket	0010 380 40004	P	Blue Coupler f/52" Models	4835 290 87148
D	CRT Mounting Bracket	0073 535 60002	P	Green Coupler f/All	4835 290 87151
A	Blue CRT, 180DNE22(B)-C	4835 310 57337	R	O-Ring Seal	4835 290 87141
A	Red CRT, 180DNE22(R)-C	4835 310 57335	S	Lens, C-Element	4835 381 47016
A	Green CRT, 180DNE22(G)-C	4835 310 57336	W	Green Main Lens	4835 381 47018
F	Screw, 8-32 X 3/8 HWH	0010 642 00106	W	Red Main Lens	4835 381 47017
H	CRT Seal	4835 290 87008	W	Blue Main Lens	4835 381 47017
I	Coolant Kit (enough to do 3 CRTs)	4835 310 57233	X	Screw, 8 X 1/2 TXHSEM	0010 649 10008

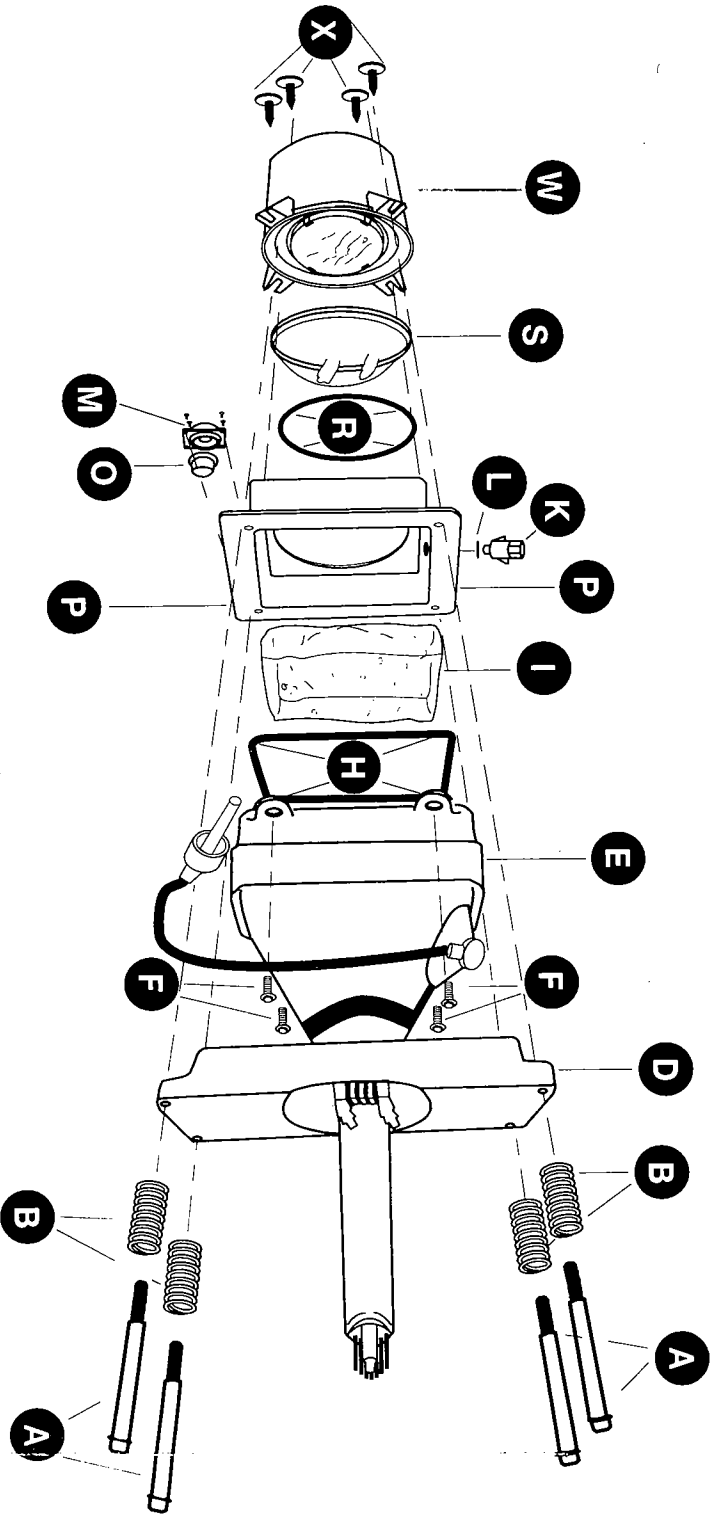
WARNING

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Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

• Broken Line: — — — — —

CRT OPTICAL DETAIL



Note: Remote Transmitters are considered a "non-repairable/replace only" type of item. However, if the only problem with the Transmitter is a broken or lost Battery Door, refer to the list at the bottom of this page.

PTV700 PANEL LIST

To order parts call the TOLL FREE Philips Sales Center number (In U.S.A.): 1-800-851-8885
(In Canada) 1-800-363-PART • 1-800-663-7178 (Fax)

Ref.	Description	Part No.
00A10467 B002	Dolby Pro-Logic Panel	4835 219 77553
00A10510 A001	Crossover Panel	4835 219 57378
00A10538 E005	Remote Locator Panel	4835 219 57534
00A10551 C003	Digital Convergence Panel	4835 219 77573 ✓
00A10551 E005	Digital Convergence Panel	4835 219 77593 ✓
00A10553 C003	Speaker Switch Panel	4835 219 77594
00AMP016 A001	25W X 4Ch. Audio Amp Panel	4835 219 77374
00APD001 J008	Large Signal Panel	4835 219 77575
00APD002 J008	Large Signal Panel	4835 219 77576
00APD003 J008	Large Signal Panel	4835 219 77577
00APT149 A001	Red CRT Panel	4835 219 77578
00APT150 A001	Green CRT Panel	4835 219 77579
00APT151 A001	Blue CRT Panel	4835 219 77581
09APW052 A001	Audio Power Supply Panel	4835 219 77554
00ARR015 A001	IR Remote Receiver Module	4835 219 77582
00ASG018 F006	Small Signal Panel	4835 219 77583
00ASG019 F006	Small Signal Panel	4835 219 77584
00ASG020 F006	Small Signal Panel	4835 219 77585
00ASG021 F006	Small Signal Panel	4835 219 77586
00ASG022 F006	Small Signal Panel	4835 219 77587
00ASG023 F006	Small Signal Panel	4835 219 77588
00ATC660 B002	Customer Control Asm.	4835 219 37055
00ATC662 A001	Customer Control Asm.	4835 219 37056
00AVJ170 C003	Front Jack Panel	4835 219 77591
# 00G145DB BA02	Remote Transmitter, UR514DB	4835 219 17587
# 00H145CC BA02	Remote Transmitter, UR514CC	4835 219 17588
# 00H175CC BA02	Remote Transmitter, UR517CC	4835 219 17589
# 00M145DB BA02	Remote Transmitter, UR514DB	4835 219 17591
# 00M175CC BA02	Remote Transmitter, UR517CC	4835 219 17593
# 00T214AG GA02	Remote Transmitter, "Stick"	4835 219 17529

Battery Doors:

Remote Transmitters	Part No.
G145DB, H145CC, M145DB (147137-5)	4835 432 37081
H175CC, M175CC (147137-6)	4835 432 37084
T214AG (146999-3)	4835 432 37085

+130Vdc B+ Adjust

Note: This control (R455) is located on the Large Signal Panel in zone area A-5.

Upon replacement of the Large Signal Panel, or if suspect of possible problems with the +130Vdc Source arise, check and adjust in the following manner:

1. Connect the positive lead from a .1% Digital Voltmeter to the +130Vdc Source (TP4).
2. Connect the negative lead to the isolated "Cold" ground on the left end of R405 (TP18).
3. Adjust R455 (also located in the top corner of the board) to achieve +130Vdc +/- .5Vdc).

PROGRAMMING FACTORY DEFAULT VALUES

The chassis is controlled by an on-board microcomputer and peripheral parts, altogether known as a "tuning system". The customer picture and sound adjustments are made using either the on-set keyboard or the remote transmitter to enter commands. There are on-screen graphics to show the "menu" list of adjustments.

Service mode makes it possible to change the values of special memory registers in the EEPROM (IC304). These registers control the customer adjustments, PIP setups, graphics intensity and clock calibration. These registers also make many other service adjustments possible that previously would have been handled by conventional controls mounted on the P.C. Board.

Service Mode Entry and Exit:

Using the remote transmitter, enter the following seven-button sequence to activate the service mode:

1. Digit 0
2. Digit 6
3. Digit 2
4. Digit 5
5. Digit 9
6. Digit 6
7. Menu

Depressing the keyboard "PWR" button will exit the service mode, save the current modification, and turn the chassis off.

Important: There are 76 registers within this system. Some of the data held in these registers should not be altered and others which were factory set and unique to the unit under test. It is highly recommended that the current values held in these registers be recorded and/or compared to the Table 1-0 on the following page (with the differences noted). This procedure could save a significant amount of time should a mistake occur causing an undesirable condition to the unit under test.

Description of Service Mode:

This service mode is used for changing control register values from their default values to new values - this includes all factory preset conditions.

When entering this service mode, the tuning system will attempt to retrieve the current register values that are stored in the EEPROM (IC304). If the EEPROM has never been programmed, default data values will be stored as shown listed in the register table. See Table 1-0 on the next page.

Depression of the keyboard "PWR" button while in this test mode, or, setting Register 00 to "00", shall cause the tuning system to write the adjusted values to the EEPROM IC before chassis power is turned off.

Depressing the keyboard 'PWR' button will exit the test mode and turn off the chassis.

Adjustment of Registers in Service Mode:

When the receiver is operating in the service mode, all normal on-screen displays are suppressed and replaced by a special display (see Figure 2). This display has two lines of information at the bottom of the screen. The first line of text shows the factory part number of the Microcomputer, IC300 (613085-3). The next set of characters (GR5X3.0) denotes the version of the software currently operating.

The second line, starting from the left, has the currently tuned channel. Channel 3 is the default when entering the service mode set-up as most signal test generators output on channel 3. If no signal is available on this channel, pressing the Channel Up/Down Button will allow you to select an active channel.

Note: The current channel tuned, as well as the register under test, can also be directly accessed through the use of the following method: Use the Cursor Control Keys (surrounding the Menu Button on the Remote Transmitter) to select either the Channel Number, Register Number, or the Register Value on the screen (selection is indicated by red text on a black background). The default selection when entering the Service Mode Set-Up is the Register Number. Pressing the Left Cursor Key will cause the Channel Number to be selected. Once selected, the number keys may be used to directly access the desired channel number.

The current Register Number (00) is displayed just to the right of the Channel Number. Next is a short description of that register (EXIT). Farthest to the right is the value (in hexadecimal) currently held in that register (1A).

Adjustment of Registers (Continued)

The selections of various registers and the modification of values held in those registers is accomplished through the use of the Cursor Control Keys on the Remote Transmitter.

- a) The cursor-left and cursor-right keys allow you to select among the channel, register, and data held in that register.
- b) The cursor-up and cursor-down keys allow you to adjust the desired item up or down.

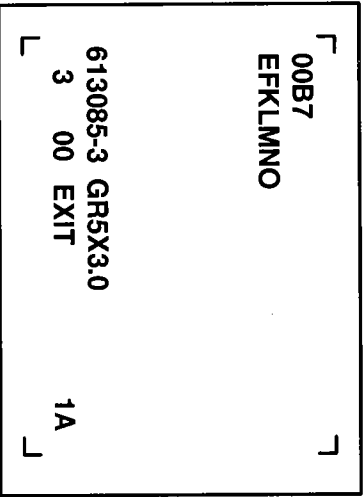


Figure 2

System Information/Diagnostics:

While in the service mode, depressing the Status/Exit Button (on the Remote Transmitter) will cause 2 more lines of information to appear at the top of the screen.

The first line (00B7) is the "run timer" data in hexadecimal form. This data shows the total (in hours) of on-time and in this example, relates to 183 hours.

The next line down from the top displays a string of letters (EFKLMNO) identifying those subsystems which Could Be present but Did Not respond to the micro-controller commands (via the IIC Bus) when the service mode command was first acted upon. The possibilities are listed below:

- A Tuner not responding to IIC.
- B EEPROM (IC304) not responding to IIC.
- G IC120 (Stereo Decoder IC) not responding to IIC.
- D IC1001 (PIP Module) not responding to IIC.
- E Ghost Canceller Module not responding to IIC.
- F RF Switch Module not responding to IIC.
- G Video Processor (IC600) not responding to IIC.
- H Deflection Processor (IC551) not responding to IIC.
- I Source Switch (IC1) not responding to IIC.
- J Digital Convergence Module not responding to IIC.
- K Graphic Equalizer (IC501; on the Pro-Logic Panel) not responding to IIC.
- L Graphic Equalizer (IC601; on the Pro-Logic Panel) not responding to IIC.
- M Audio Controller (IC301; on the Pro-Logic Panel) not responding to IIC.
- N Dolby DAC (IC203; Pro-Logic Panel) not responding to IIC.
- O Pro-Logic DAC (IC203; on the Pro-Logic Panel) not responding to IIC.

Table 1-0: Factory Register Definitions:

REG.	DESCRIPTION	VAL.(HEX)	- Notes -
00	EXIT	1A	00 saves data and powers off (see Warning) (see Warning)
01	EXIT DEFAULTS	1A	
02	BRIGHTNESS	1F	mid-range
03	PICTURE	2F	3/4 of range
04	COLOR	1F	mid-range
05	TINT	1F	mid-range
06	SHARPNESS	1F	mid-range
07	BASS	1F	mid-range
08	TREBLE	1F	mid-range
09	BALANCE	1F	mid-range
10	SF LAG 00	24	System Flags
11	SF LAG 01	00	System Flags
12	SF LAG 02	23	System Flags
13	SF LAG 03	00	System Flags
14	RL ADDRESS	05	Remote Locator Code
15	FEATURE ID	03	Feature Word (01-PTV700, 02=PTV705/706, 03=PTV710/711, 04=PTV715, 06=PTV705/706 01=Magnavox Demo On
16	DEMO ID	00	
17	CLOCK CAL	00	see Clock Calibration Adjustment
18	OSD VERT	22	OSD Vertical Position
19	OSD HORZ	20	OSD Horizontal Position
20	PIP COLOR	1F	PIP Color Control, mid-range
21	PIP TINT	1E	PIP Tint Control, mid-range
22	PIP X1 POS	00	PIP upper left, horiz. start position
23	PIP Y1 POS	05	PIP upper left, vert. start position
24	PIP X2 POS	3F	PIP lower right, horiz. start position
25	PIP Y2 POS	21	PIP lower right, vert. start position
26	P READ POS	0F	
27	P WRITE POS	4C	
28	COLOR DLY	14	
29	BACK BURST	11	PIP background burst level
30	RED HORZ	1F	Customer Center Convergence
31	RED VERT	1F	Customer Center Convergence
32	BLUE HORZ	1F	Customer Center Convergence
33	BLUE VERT	1F	Customer Center Convergence
34	PICTURE HT	1F	
35	LINEARITY	04	
36	VS CORR	0A	
37	V SHIFT	0A	
38	V COMP	00	Do Not Modify (must be 00)
39	PICT WIDTH	00	Do Not Modify (must be 00)
40	E W PARAB	17	Do Not Modify
41	E W CORNERS	05	Do Not Modify
42	TRAPEZUM	15	Do Not Modify
43	H COMP	00	Do Not Modify (must be 00)
44	VSS CORR	00	Do Not Modify (must be 00)
45	HORZ PH	10	
46	RGB BRT	40	
47	RGB CONT	40	
48	SUB COLOR	EA	
49	SUB CONT	E7	
50	RED CUT-OFF	80	
51	GREEN CUT-OFF	80	
52	BLUE CUT-OFF	80	
53	GREEN DRIVE	40	
54	BLUE DRIVE	40	
55	CHROMA	FA	
56	VID CTRL 1	07	
57	VID CTRL 2	C3	
58	DEF CTRL	20	
59	G2 SETUP	1A	
60	SUB BRIGHT	5F	
61	SUB TINT	3F	
62	SURROUND LEVEL	FF	
63	AUD CNTRL 2	70	
64	AUD CNTRL 3	03	
65	AUD ALIGN 1	17	Do Not Modify
66	AUD ALIGN 2	13	Do Not Modify
67	AUD ALIGN 3	08	see Stereo Decoder Alignments, Composite Input Level Adj.
68	DOLBY MODE	82	Wide Band Adj. (Stereo Alignment) Do Not Modify
69	GRAPH EQ 4K	05	
70	GRAPH EQ 12K	05	
71	GRAPH EQ 1K	05	
72	GRAPH EQ 225	05	
73	GRAPH EQ 59	05	
74	ADDRESS	6A	Add. of EEPROM where data is stored.
75	DATA	00	
76	BANK	00	(-2 EEPROM has 1 bank; -8 has 4)

WARNING:

Exit Register 00 - Entering FF in to this register will cause all 76 registers to be rewritten with factory default values.

Exit Default Register 01 - Entering FF in to this register will cause not only all 76 registers to be rewritten but Channel Guide and Smart Picture Settings will be lost as well. In addition, the Auto Programming of active channels (accessible under the help section of the on-screen menu) will have to be performed again as this data has also been lost.

Sub-Contrast Alignment

1. Enter the Service Mode via the previous procedure (06-25-96-Menu) and apply an NTSC Color Bar Pattern Signal to the antenna terminals.
2. Tune the receiver to the applied signal in step 1.
3. Connect an oscilloscope to Pin 53 of IC600. Adjust the Sub-Contrast Register (49) until the video signal observed on the oscilloscope is 1Vp-p +/- 10mV.

Sub-Brightness Adjustment

Note: Refer to the Gray Scale Tracking, Sub-Brightness procedure later in this section for the precise setting of all interrelated controls.

Picture Height Adjustment

1. Enter the Service Mode via the previous procedure (06-25-96-Menu) and apply a crosshatch pattern to the antenna input terminals.
2. Adjust the Picture Height Register (34) to obtain a slight underscan of the raster at the top and bottom of the screen.
3. Adjust the Picture Height Register (34) to obtain a slight overscan at the top and bottom portions of the screen (approx. 8% overscan total).

STEREO DECODER ALIGNMENTS

Note: The following procedure was performed with a Sencore VG91 Universal Video Generator and must be performed while the unit under test is in the Service Mode.

Composite Input Level Adj.

1. Connect an oscilloscope to the Test Point TP101 (Pin 15 of IC120) and then turn the set on.
2. Set the Generator as follows: STD TV Channel 3, RF-IF Range set to HI, RF-IF Level set to NORM (1), Video Pattern = Raster, R-G-B raster controls OFF, Mode Switch set to L+R, Audio Frequency set to 300Hz., & 0 Pilot (max. CCW).
3. Enter the Service Mode via the previous procedure (06-25-96-Menu) and connect the RF Output of the VG91 Generator to the Television Antenna Input.

Composite Input Level Adj. (Continued)

4. Adjust Register 64 (AUD CNTRL 3) to obtain a reading of 1.4Vp-p on the oscilloscope. Note: The default value for the data held in this register is 03.

Wide Band Adjustment

1. Turn the set OFF and connect oscilloscope to TP102 (Pin 38 of IC200).
2. With the VG91 Generator still connected to the tuner input, turn the set ON.
3. Set the Generator as follows: Mode Switch set to L Ch., Audio Frequency set to 300Hz., Stereo Pilot set for 100% NORM.
4. Enter the Service Mode (06-25-96-Menu) and adjust Register 65 (AUD ALIGN 1) for a null reading on the oscilloscope.

Spectrum

1. With the VG91 Generator still connected to the tuner input and the oscilloscope to TP102 (Pin 38 of IC200), turn the set ON.
2. Set the Generator as follows: Mode Switch set to L Ch., Audio Frequency set to 3KHz., Stereo Pilot set for 100% NORM.
3. Adjust Register 66 (AUD ALIGN 2) for a null reading on the oscilloscope.
4. Repeat the Wide Band and Spectrum Adjustments several times to ensure the best possible settings.

FOCUS ADJUSTMENTS (Electrical and Optical)

Control Preset Positions

1. Picture setting at mid-range.
2. Sharpness setting at mid-range.
3. Brightness setting at mid-range.
4. Color setting at minimum.
5. Tint setting at mid-range.

Electrical Focus

1. With the set tuned to a crosshatch pattern this adjustment can be made from the back of the set (with the light shield removed). The pattern will appear clearer if the front of the screen is covered (covered with a dark cloth).
2. Observe the magnified reflections of the individual picture tubes on the back side of the viewing screen.
3. Adjust the respective focus controls (top row on the HV Distributor Block) for the sharpest raster image.

Optical Focus Adjustment

1. This adjustment can be made through the back of the set (with the light shield removed), viewing a crosshatch pattern on the back of the screen. The pattern will appear clearer if the front of the screen is covered (covered with a dark cloth).
2. Cover 2 of the CRT Output Lenses with 7" pieces of cardboard.
3. Loosen the lens retaining wing nuts on the CRT Output Lens and Housing Assembly.

Optical Focus Adjustment (Continued)

4. Move the wingnut in the slot of the uncovered Lens to locate the optimum optical focus point (viewing the picture from the back side of the screen), re-tighten the wing nut.
5. Repeat steps 2 through 4 for the 2 other Output Lenses.

SCREEN (G2) ADJUSTMENT PROCEDURE

1. Remove the Light Barrier in order to view the Main Lens Output of each picture tube.
Note: Any dust should be cleaned from the output lenses, mirror, and back of the screen with a soft cloth.
2. Apply an NTSC Color Bar Pattern Signal to the Antenna Terminals.
3. Turn the set On and tune to the applied signal.
4. Set the customer Picture, Sharpness, Brightness and Tint to mid-range. Place the customer Color setting at minimum.
5. Enter the Service Mode as explained earlier (0, 6, 2, 5, 9, 6, Menu).
6. Ensure the Cut-Off Registers (50, 51, & 52) contain the default value of 80 in each register (correct if necessary).
7. Ensure the Drive Registers (53, & 54) contain the default value of 40 in each register (correct if necessary).
8. Access Register 59 (G2 SETUP) and enter the value of "00" for the data held by that register. The screen will go blank and all on-screen displays will disappear. **Note:** This step places the cathodes of all three CRTs at 190Vdc.
9. Turn all G2 Controls (Bottom Row on HV/Distributor Block) to minimum (fully CCW).
10. Looking directly into the Tube Lens, bring up each of the G2 (Screen) controls (bottom row on the Focus/HV Dist. Module) to just light each tube.
11. Press the Cursor Up Button once on the Transmitter to change the data value to 01 for the G2 Setup Register (59). The picture should now reappear with G2 Controls now properly set.
12. You may now exit the Service Mode by pressing the Power Button on the Front Panel Keyboard or, by accessing the Exit Register (00) and entering a value of "00" for the data held there. Either method saves the new register settings, exits the Service Test Mode, and powers off the set.

Note: If you accidentally power down the chassis while the G2 Setup Register (59) is still at 00, don't worry. Register 59 automatically returns to 1A when the set is turned back on.

PTV700 CENTERING, GEOMETRY, AND CONVERGENCE ADJUSTMENTS

Important: Unlike many previous PTV systems, the 700 series PTVs incorporate a Digital Convergence Panel. This panel does not contain the familiar three rows of adjustment potentiometers as employed in the past PTV systems. Instead geometry and screen convergence settings are contained within IC11 (EEPROM IC) located on the Digital Convergence Panel. These settings may be modified through the following procedures.

Notes:

1. The set should be warmed up for at least 20 minutes before making any screen setup adjustments.
2. The raster of the GREEN CRT must be properly centered before going on to the geometry and convergence procedures.
3. After the green screen is adjusted for correct centering and geometry, its controls will not be used for convergence. The red and blue screen displays will individually be made to conform to the green. Thereby, centering and geometry will be preserved and convergence more easily accomplished.

Setup

1. Remove the protective screen enhancement filter to make the following adjustments.
2. To locate the center of the screen, place strings diagonally across the viewing area (See Figure A). DO NOT TAPE TO THE SCREEN. Use low-tac type masking tape and tape to the cabinet to hold the strings in place.

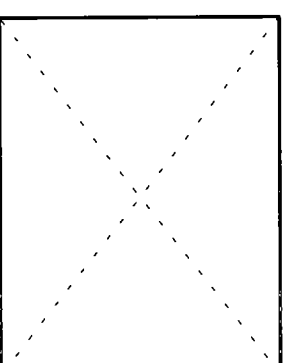


Figure A

3. Connect Pattern Generator (with cross hair and crosshatch available) to ANT Terminals and tune the set to the Generator (Pattern Generator can be connected to the video input if there is a video output on the generator - Video input will have to be selected through the Menu in this case).
4. To prevent customer control and previous adjustment settings from affecting the following procedures, connect a Jumper (on the Digital Convergence Panel) from Pin 1 to Pin 2 of TP4.

Screen Centering

- 1. Perform the Setup Procedure above.
- 2. Adjust Centering Tabs to center each color at the center of the screen (point of string crossing).
- 3. Remove the Jumper from Pins 1 & 2 of TP4.

Yoke Rotation

- 1. Perform the Setup Procedure above.
- 2. Cover the Red and Blue CRT Output Lenses with 7"x7" pieces of cardboard, blocking the light output from these lenses.
- 3. Loosen the Yoke clamp on the Green CRT.
- 4. By rotating the Yoke, visually adjust the vertical Skew (Be sure to hold the Yoke against the bell of the CRT during these adjustments).
- 5. Re-tighten the Yoke clamp on the Green CRT.
- 6. Uncover the Red CRT Output Lens.
- 7. If necessary, loosen the Red CRT's Yoke Clamp and rotate for best horizontal and vertical lines.
- 8. Uncover the Blue CRT Output Lens.
- 9. If necessary, loosen the Blue CRT's Yoke Clamp and rotate for best horizontal and vertical lines.
- 10. Remove the Jumper from Pins 1 & 2 of TP4.

Raster Size

- 1. Perform the Setup Procedure.
- 2. Select the crosshatch pattern.
- 3. Adjust the Vertical Size (Register 34) until the largest curved-in area at the top (or bottom) of the screen is 1/2" from the edge of the screen (one of the curved areas may be less than 1/2" from the edge when the adjustment is complete).
- 4. Adjust the Width Control (Register 39) until both curved-in areas on the right and left sides of the raster are just barely off the edges of the viewable area of the screen.
- 5. Remove the Jumper wire from Pins 1 and 2 of TP4.

Convergence Adjustment Mode Entry and Exit:

Note: This procedure is required for all of the following geometry and convergence adjustments.

Using the remote transmitter, enter the following seven-button sequence to activate the convergence mode.

06 - 25 - 97 - Menu

The "Opening Menu" will appear offering choices:

Channel 3

Use Channel ▲, ▼ to

Select a Channel with Video

Remote control key functions:

▲, ▼, ◀, ▶: Adjust Convergence

M: Advance "cross" location

2, 8, 4, 6: Move "cross" location Up, Down, Left, Right

1: Recalculate

3: Exit Convergence

Status: Abort/Cancel Changes

M: Begin Convergence

Green Geometry Adjustment

Notes:

- 1. Refer to the Screen Centering adjustment before attempting the following procedure.
- 2. This procedure requires special screen templates in order to properly set the green geometry on these systems.

The part numbers for ordering templates are:

46" - 47" Screens: ST4122

52" - 53" Screens: ST4123

Kit (Both Screens): ST4124

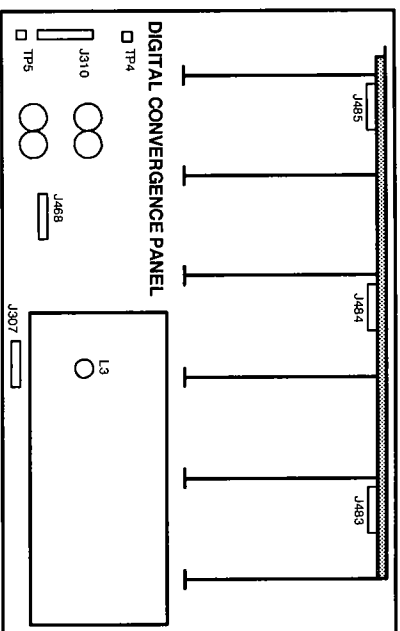


Figure C - Digital Convergence Panel

Green Geometry Adjustment (Continued)

Please enter the "Convergence Adjustment Mode" by following the procedure as detailed in the previous text.

Although a signal pattern will not be seen on the screen, a signal is still required in order to lock the system to vertical and horizontal sync. After entering the "Convergence Adjustment Mode", temporarily pull the Jumper Plug at TP5 on the Digital Convergence Panel. Tune the set to a signal source and then replace the Jumper Plug.

Upon selecting item M from the first menu, the "Convergence Menu" will appear featuring 5 possible selections.

Channel 3

Convergence:

- 1. green geometry
- 2. red To green Convergence
- 3. blue To green Convergence
- 4. green To red Convergence
- 5. green To blue Convergence

Status: Abort/Cancel Changes

Press button # 1 from the menu and the screen will display a small green crosshatch at the left edge of the screen, half way down from the top. Attach the Screen Template with low-tack adhesive tape to the corners of the PTV's Screen Frame.

Green Geometry Adjustment (Continued)

Use the Up (▲), Down (▼), Plus (+), and Minus (-) keys on the Remote Transmitter to position the on-screen crosshatch at the nearest intersection of plotted lines on the Screen Template. When you are satisfied with the positioning of the crosshatch, press the Menu button to move the crosshatch to the next intersection point (to the right).

The following keys also have a special function while in the Convergence Mode:

Key 1 on the Remote Transmitter will force the system

to re-calculate.

Key 2 will cause the crosshatch to move UP a row.

Key 8 will cause the crosshatch to move DOWN a row.

Key 4 will cause the crosshatch to move to the Left. Key 6 will cause the crosshatch to move to the Right.

Although these keys give you the ability to move all around the screen, the recommended method is to follow the path (1 through 5) as shown in Figure D (by pressing the Menu Button to advance from one location to the next).

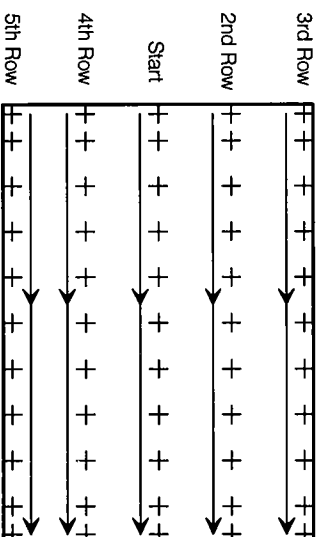


Figure D - Convergence Path

The purpose of following the path as shown is due to the interaction between crosshatch adjustments. Each adjustment slightly effects the locations on either side and to a slightly lesser extent, the locations above and below.

Once you have reached the end of a row, press key # 4 on the transmitter several times noting the previous adjustments for that row, and correct again, if necessary.

When you are satisfied with all the adjustments in a particular row, move to the last location in that row and press the "M" key. The screen will respond with the following: "CALCULATING-PLEASE WAIT".

Note: If the Convergence Mode is exited without storing the data, any changes made will remain until AC Power is removed from the set. When AC is applied to the set again, the original convergence settings will be displayed.

Green Geometry Adjustment (Continued)

Continue with the other rows and adjustment locations. When you reach the end of the 5th row, another screen will appear asking if the set is converged or if you want to continue with more adjustments. Note: This entire procedure should be repeated in order to obtain best results.

If the Green Geometry has been adjusted, red and blue convergence must be adjusted.

Selecting key # 2 (for NO) will cause the display to return to the "Converge Menu" where you may then proceed to item # 2 from this menu: Red to Green Convergence.

Red Convergence Procedure

If necessary, refer to the "Adjustment Mode Entry and Exit" and press 1 to advance to the "Convergence Menu" selections. Note: The Screen Template used to set proper Green Geometry is not required at this point and should be removed.

Upon selecting item 2 from the menu, the screen will display small green and red crosshatch patterns at the left edge of the screen, half way down from the top.

Adjust the Up (▲), Down (▼), Plus (+), and Minus (-) keys to position the Red crosshatch directly on the Green crosshatch at each location. Use the 2, 8, 4 and 6 keys on the transmitter (Up, Down Left and Right respectively) in order to double-check the adjustment's effect on previous or adjacent locations.

Follow the path (1 through 5) as shown in Figure D completing each row by pressing the M key on the transmitter. When you have reached the end of a row, pressing the M key will cause the screen to respond with the following: "CALCULATING-PLEASE WAIT"

Continue with the other rows and adjustment locations. When you reach the end of the 5th row, another screen will appear asking if the set is converged or if you want to continue with more adjustments. Selecting item 1 will infer you are finished and you will then be prompted to either save the adjustments you have made or abandon the procedure. Note: This entire procedure should be repeated in order to obtain best results.

If you wish to converge Blue To Green, press key # 2 on the transmitter in response to the on-screen prompt "IS TV CONVERGED?". Proceed to the Blue Convergence Procedure.

Blue Convergence Procedure

If necessary, refer to the "Adjustment Mode Entry and Exit" on the previous page and press 1 to advance to the "Convergence Menu" selections. Note: The Screen Template used to set proper Green Geometry is not required at this point and should be removed.

Blue Convergence Procedure (Continued)

Upon selecting item 3 from the menu, the screen will display small green and blue crosshatch patterns at the left edge of the screen, half way down from the top.

Use the Up (▲), Down (▼), Plus (+), and Minus (-) keys to position the Blue crosshatch directly on the Green crosshatch at each location. Use the 2, 8, 4 and 6 keys on the transmitter (Up, Down Left and Right respectively) in order to double-check the adjustment's effect on previous or adjacent locations.

Follow the path as shown in **Figure D** completing each row by pressing the M key on the transmitter. When you have reached the end of a row, pressing the M key will cause the screen to respond with the following:

"CALCULATING-PLEASE WAIT"

Continue with the other rows and adjustment locations. When you reach the end of the 5th row, another screen will appear asking if the set is converged or if you want to continue with more adjustments.

Selecting item 1 will infer you are finished and you will then be prompted to either save the adjustments you have made or abandon the procedure. **Note:** This entire procedure should be repeated in order to obtain best results.

Selecting key # 2 (for NO) will cause the display to return to the "Converge Menu" where you may then proceed to make any of the selections shown.

Clock Calibration

The microcomputer's crystal oscillator frequency of approx. 12MHz is applied to a divider program (within the micro) in order to supply a frequency of 2403.846153846 Hz. The 12MHz. oscillator frequency cannot be adjusted, however, a correction factor may be input in to the divider program in order to adjust for a slow or fast clock reading.

This correction factor is selected in the Service Mode by changing the data value held in Register 17. The data within this register can range from 00 (none) to 7F max. (for a fast clock) or FF (for a slow clock). Models are shipped from the factory with a default value of 00 or 80 for NO correction.

One method used for calibration of this clock is accomplished by measuring the frequency at pin 3 on the microcontroller (IC300). This frequency is nominally 2403.846153846 Hz. Using the calibration tables (refer to the following page), look up the closest frequency to the measured frequency and then find the corresponding calibration number in hexadecimal. The clock calibration register should be loaded with this value. **Note:** This does not change the oscillator frequency.

Clock Calibration (Continued)

The more practical method is to simply question the customer on the number of minutes per month the clock is off (assuming the time error has been checked against a known accurate time source). Calculate using the formula below:

Minutes of error per month X 2 = Seconds of error per day

Is it losing (slow) or gaining (fast)?

Enter the Service Mode and look at register 17. If it is 00 or 80 the task is easy. Look up (use Table 1-0 on the following page) the seconds of correction needed, fast or slow, and enter it's "*calibration byte*" in for the data held by register 17.

Normal Example:

4 minutes fast a month X 2 = 8 seconds a day fast

The chart says if the clock is 8 seconds a day fast without correction then use 59. Change register 17 from 00 to 59.

If there is a *calibration byte* in register 17 other than 00 or 80 then the job gets a bit more complex.

Complex Example #1:

Using the error from the "normal example", 8 seconds fast a day, you find register 17 the data value of 16. Look up 16 and you find that there is already a correction for 2 seconds fast a day. You need 8 seconds fast **more** correction (2 + 8 = 10) or a total of 10 seconds fast correction which is 6E Enter 6E for the data held by register 17.

Complex Example #2:

If the clock is 8 seconds fast a day and you find register 17 holds the data value of 96 you have 2 seconds a day correction **in the wrong direction** (slow). You need to "back up" 8 seconds. First if you back up to 80 (no correction) you have used 2 of the 8 seconds leaving 6. Then go 6 seconds in the fast column, from no correction to 6 seconds (43). Enter 43 for the data held by register 17.

TABLE 1-0

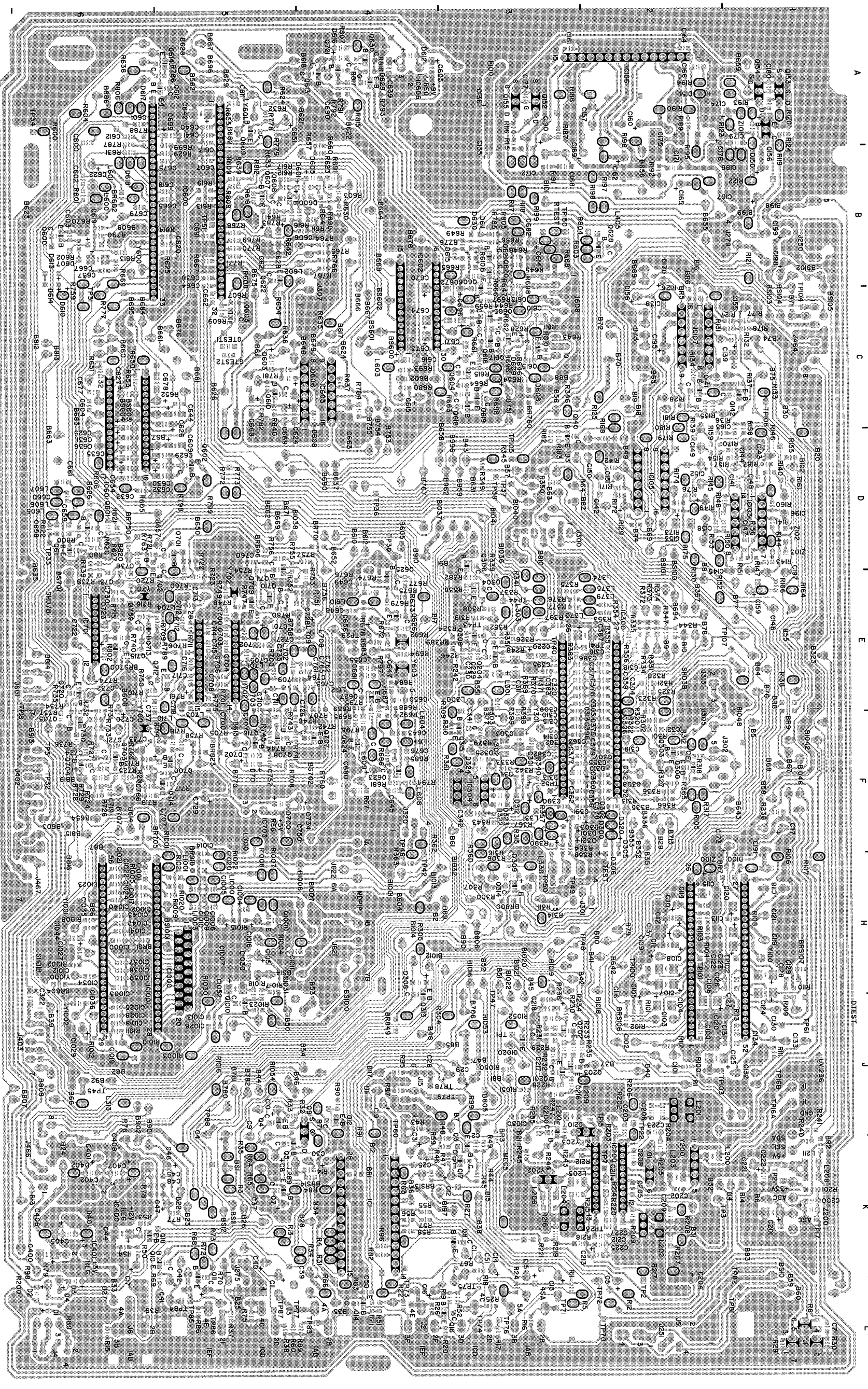
- IF CLOCK IS FAST -

- IF CLOCK IS SLOW -

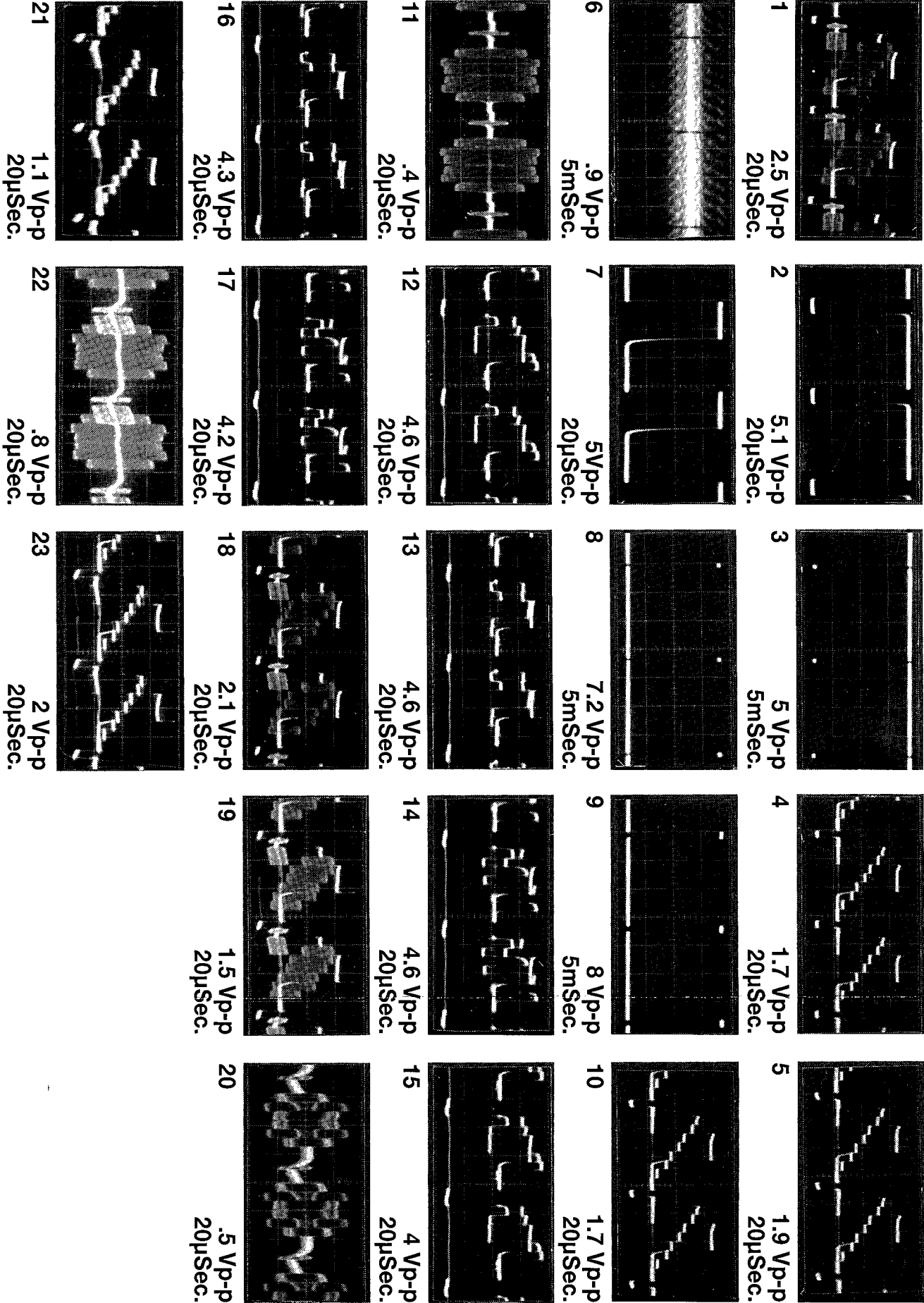
Freq., Hz. [- Comp.]	Cal. Byte (Hex)	(sec./day)	Freq., Hz. [- Comp.]	Cal. Byte (Hex)	(sec./day)
2403.84615	00	0.00	2404.00641	40	5.76
2403.84866	01	0.09	2404.00891	41	5.85
2403.85116	02	0.18	2404.01142	42	5.94
2403.85367	03	0.27	2404.01392	43	6.03
2403.85617	04	0.36	2404.01643	44	6.12
2403.85867	05	0.45	2404.01893	45	6.21
2403.86118	06	0.54	2404.02143	46	6.30
2403.86368	07	0.63	2404.02394	47	6.39
2403.86619	08	0.72	2404.02644	48	6.48
2403.86869	09	0.81	2404.02895	49	6.57
2403.87119	0A	0.90	2404.03145	4A	6.66
2403.87370	0B	0.99	2404.03395	4B	6.75
2403.87620	0C	1.08	2404.03646	4C	6.84
2403.87871	0D	1.17	2404.03896	4D	6.93
2403.88121	0E	1.26	2404.04147	4E	7.02
2403.88371	0F	1.35	2404.04397	4F	7.11
2403.88622	10	1.44	2404.04647	50	7.20
2403.88872	11	1.53	2404.04898	51	7.29
2403.89123	12	1.62	2404.05148	52	7.38
2403.89373	13	1.71	2404.05399	53	7.47
2403.89623	14	1.80	2404.05649	54	7.56
2403.89874	15	1.89	2404.05899	55	7.65
2403.90124	16	1.98	2404.06150	56	7.74
2403.90375	17	2.07	2404.06400	57	7.83
2403.90625	18	2.16	2404.06651	58	7.92
2403.90875	19	2.25	2404.06901	59	8.01
2403.91126	1A	2.34	2404.07151	5A	8.10
2403.91376	1B	2.43	2404.07402	5B	8.19
2403.91627	1C	2.52	2404.07652	5C	8.28
2403.91877	1D	2.61	2404.07903	5D	8.37
2403.92127	1E	2.70	2404.08153	5E	8.46
2403.92378	1F	2.79	2404.08403	5F	8.55
2403.92628	20	2.88	2404.08654	60	8.64
2403.92879	21	2.97	2404.08904	61	8.73
2403.93129	22	3.06	2404.09155	62	8.82
2403.93379	23	3.15	2404.09405	63	8.91
2403.93630	24	3.24	2404.09655	64	9.00
2403.93880	25	3.33	2404.09906	65	9.18
2403.94131	26	3.42	2404.10156	66	9.27
2403.94381	27	3.51	2404.10407	67	9.36
2403.94631	28	3.60	2404.10657	68	9.45
2403.94882	29	3.69	2404.10907	69	9.54
2403.95132	2A	3.78	2404.11158	6A	9.63
2403.95383	2B	3.87	2404.11408	6B	9.72
2403.95633	2C	3.96	2404.11659	6C	9.81
2403.95883	2D	4.05	2404.11909	6D	9.90
2403.96134	2E	4.14	2404.12159	6E	9.99
2403.96384	2F	4.23	2404.12410	6F	10.08
2403.96635	30	4.32	2404.12660	70	10.17
2403.96885	31	4.41	2404.12911	71	10.26
2403.97135	32	4.50	2404.13161	72	10.35
2403.97386	33	4.59	2404.13411	73	10.44
2403.97636	34	4.68	2404.13662	74	10.53
2403.97887	35	4.77	2404.13912	75	10.62
2403.98137	36	4.86	2404.14163	76	10.71
2403.98387	37	4.95	2404.14413	77	10.80
2403.98638	38	5.04	2404.14663	78	10.89
2403.98888	39	5.13	2404.14914	79	10.98
2403.99139	3A	5.22	2404.15164	7A	11.07
2403.99389	3B	5.31	2404.15415	7B	11.16
2403.99639	3C	5.40	2404.15665	7C	11.25
2403.99890	3D	5.49	2404.15915	7D	11.34
2404.00140	3E	5.58	2404.16166	7E	11.43
2404.00391	3F	5.67	2404.16416	7F	11.52

Freq., Hz. [+ Comp.]	Cal. Byte (Hex)	(sec./day)	Freq., z. [+ Comp.]	Cal. Byte (Hex)	(sec./day)
2403.84615	80	0.00	2403.68590	C0	5.76
2403.84365	81	0.09	2403.68339	C1	5.85
2403.84115	82	0.18	2403.68089	C2	5.94
2403.83864	83	0.27	2403.67839	C3	6.03
2403.83614	84	0.36	2403.67588	C4	6.12
2403.83363	85	0.45	2403.67338	C5	6.21
2403.83113	86	0.54	2403.67087	C6	6.30
2403.82863	87	0.63	2403.66837	C7	6.39
2403.82612	88	0.72	2403.66587	C8	6.48
2403.82362	89	0.81	2403.66336	C9	6.57
2403.82111	8A	0.90	2403.66086	CA	6.66
2403.81861	8B	0.99	2403.65835	CB	6.75
2403.81611	8C	1.08	2403.65585	CC	6.84
2403.81360	8D	1.17	2403.65335	CD	6.93
2403.81110	8E	1.26	2403.65084	CE	7.02
2403.80859	8F	1.35	2403.64834	CF	7.11
2403.80609	90	1.44	2403.64583	D0	7.20
2403.80359	91	1.53	2403.64333	D1	7.29
2403.80108	92	1.62	2403.64083	D2	7.38
2403.79858	93	1.71	2403.63832	D3	7.47
2403.79607	94	1.80	2403.63582	D4	7.56
2403.79357	95	1.89	2403.63331	D5	7.65
2403.79107	96	1.98	2403.63081	D6	7.74
2403.78856	97	2.07	2403.62831	D7	7.83
2403.78606	98	2.16	2403.62580	D8	7.92
2403.78355	99	2.25	2403.62330	D9	8.01
2403.78105	9A	2.34	2403.62079	DA	8.10
2403.77855	9B	2.43	2403.61829	DB	8.19
2403.77604	9C	2.52	2403.61579	DC	8.28
2403.77354	9D	2.61	2403.61328	DD	8.37
2403.77103	9E	2.70	2403.61078	DE	8.46
2403.76853	9F	2.79	2403.60827	DF	8.55
2403.76603	A0	2.88	2403.60577	E0	8.64
2403.76352	A1	2.97	2403.60327	E1	8.73
2403.76102	A2	3.06	2403.60076	E2	8.82
2403.75851	A3	3.15	2403.59826	E3	8.91
2403.75601	A4	3.24	2403.59575	E4	9.00
2403.75351	A5	3.33	2403.59325	E5	9.18
2403.75100	A6	3.42	2403.59075	E6	9.27
2403.74850	A7	3.51	2403.58824	E7	9.36
2403.74599	A8	3.60	2403.58574	E8	9.45
2403.74349	A9	3.69	2403.58323	E9	9.54
2403.74099	AA	3.78	2403.58073	EA	9.63
2403.73848	AB	3.87	2403.57823	EB	9.72
2403.73598	AC	3.96	2403.57572	EC	9.81
2403.73347	AD	4.05	2403.57322	ED	9.90
2403.73097	AE	4.14	2403.57071	EE	9.99
2403.72847	AF	4.23	2403.56821	EF	10.08
2403.72596	B0	4.32	2403.56571	FO	10.17
2403.72346	B1	4.41	2403.56320	F1	10.26
2403.72095	B2	4.50	2403.56070	F2	10.35
2403.71845	B3	4.59	2403.55819	F3	10.44
2403.71595	B4	4.68	2403.55569	F4	10.53
2403.71344	B5	4.77	2403.55319	F5	10.62
2403.71094	B6	4.86	2403.55068	F6	10.71
2403.70843	B7	4.95	2403.54818	F7	10.80
2403.70593	B8	5.04	2403.54567	F8	10.89
2403.70343	B9	5.13	2403.54317	F9	10.98
2403.70092	BA	5.22	2403.54067	FA	11.07
2403.69842	BB	5.31	2403.53816	FB	11.16
2403.69591	BC	5.40	2403.53566	FC	11.25
2403.69341	BD	5.49	2403.53315	FD	11.34
2403.69091	BE	5.58	2403.53065	FE	11.43
2403.68840	BF	5.67	2403.52815	FF	11.52

00ASG018, 00ASG019, 00ASG020, 00ASG021, 00ASG022 & 00ASG023 (F006 VERSIONS)
SMALL SIGNAL PANEL P.C. BOARD OVERLAY
(BOTTOM VIEW)



SMALL SIGNAL PANEL WAVEFORM PHOTOS

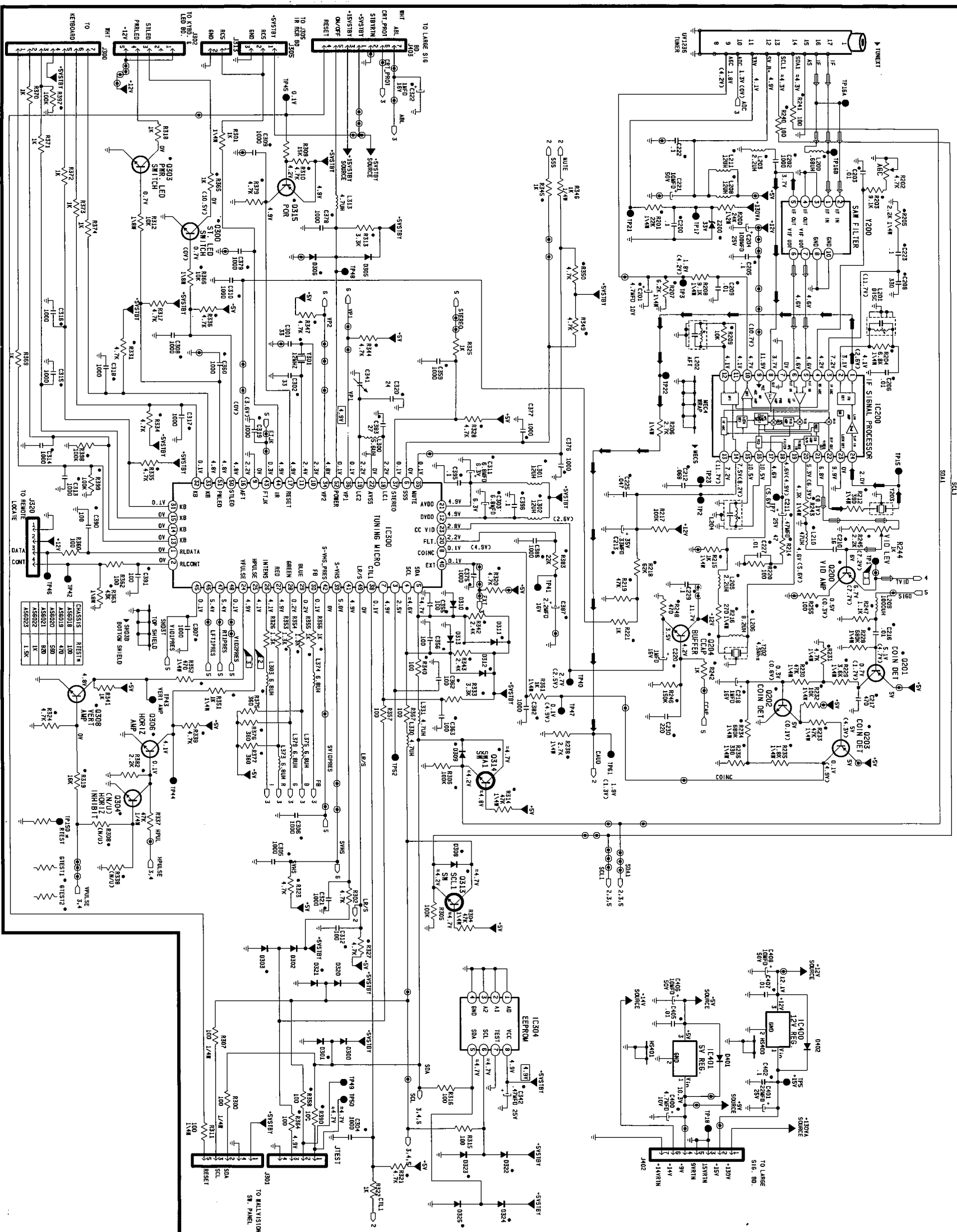


CAUTION: A SEPARATE ISOLATION TRANSFORMER MUST BE USED WHEN SERVICING THIS CHASSIS.

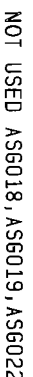
- SMALL SIGNAL PANEL WAVEFORM NOTES:
- UNLESS OTHERWISE SPECIFIED:
1. ALL VOLTAGES AND WAVEFORMS WERE TAKEN WITH AN NTSC COLOR BAR PATTERN SIGNAL APPLIED.
 2. SWEEP TIME/CM SETTINGS ARE SHOWN JUST BELOW THE PHOTOS IN THE CALIBRATED POSITION. HORIZONTAL POSITIONING OF THE WAVEFORMS WERE ADJUSTED FOR MAXIMUM CLARITY.

- SMALL SIGNAL PANEL SCHEMATIC NOTES:
- UNLESS OTHERWISE SPECIFIED:
1. ALL VOLTAGES AND WAVEFORMS WERE TAKEN UNDER THE CONDITIONS FOLLOWS:
 - LINE VOLTAGE MAINTAINED AT 120VAC, 60HZ VIA AN ISOLATION TRANSFORMER. CUSTOMER CONTROLS SET TO FACTORY DEFAULT LEVELS AS FOLLOWS:
 - COLOR, TINT, & BRIGHTNESS SET TO MIDRANGE, PICTURE SET TO APPROXIMATELY 2/3 (BETWEEN MIDRANGE AND MAXIMUM).
 - WAVEFORMS AND VOLTAGES (WITHOUT BRACKETS) WERE TAKEN WITH AN NTSC SIGNAL GENERATOR DELIVERING 10mVp-p AT THE ANTENNA TERMINALS.
 - VOLTAGES SHOWN WITH BRACKETS WERE TAKEN WITH NO SIGNAL APPLIED.
 2. THEY ARE LISTED ONLY WHERE AN APPRECIABLE CHANGE WAS NOTED, OR AS IN THE SOUND CIRCUITRY WHERE NO VOLTAGES WITH SIGNAL WERE TAKEN.
 3. ALL VOLTAGES ARE POSITIVE DC WITH RESPECT TO THE GROUND LOCATED IN THAT AREA OF THE CIRCUITRY AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES. VOLTAGE SOURCES ARE ALSO NOMINAL, WITH THE EXCEPTION OF THE +130Vdc SOURCE (TP4) WHICH IS TIGHTLY REGULATED TO BE WITHIN +.1Vdc, -2Vdc (MEASURED WITH A .1% DIGITAL VOLTMETER).
 4. SCHEMATIC SYMBOLS:
 - = INDICATES THESE COMPONENTS ARE SMD "CHIP" TYPE COMPONENTS AND AS SUCH, WILL BE LOCATED ON THE COPPER SIDE OF THE PRINTED CIRCUIT BOARD.
 - * = INDICATES THESE COMPONENTS WILL VARY DEPENDING UPON SCREEN SIZE, PRODUCTION DATES, AND OPTIONAL FEATURES INSTALLED. SEE THE COMPONENT CHARTS POSTED ON THE SCHEMATIC, OR THE REPLACEMENT PARTS LIST FOR SPECIFIC PART INFORMATION.
 5. NUMBERS 1 THRU 23 WITHIN THIS TYPE OF SYMBOL (EXAMPLE 25) CORRESPOND TO WAVEFORM PHOTOS.
 6. FOR VOLTAGE, WATTAGE AND TOLERANCE RATINGS OF CAPACITORS OR RESISTORS, REFER TO THE ELECTRICAL REPLACEMENT PARTS LIST.

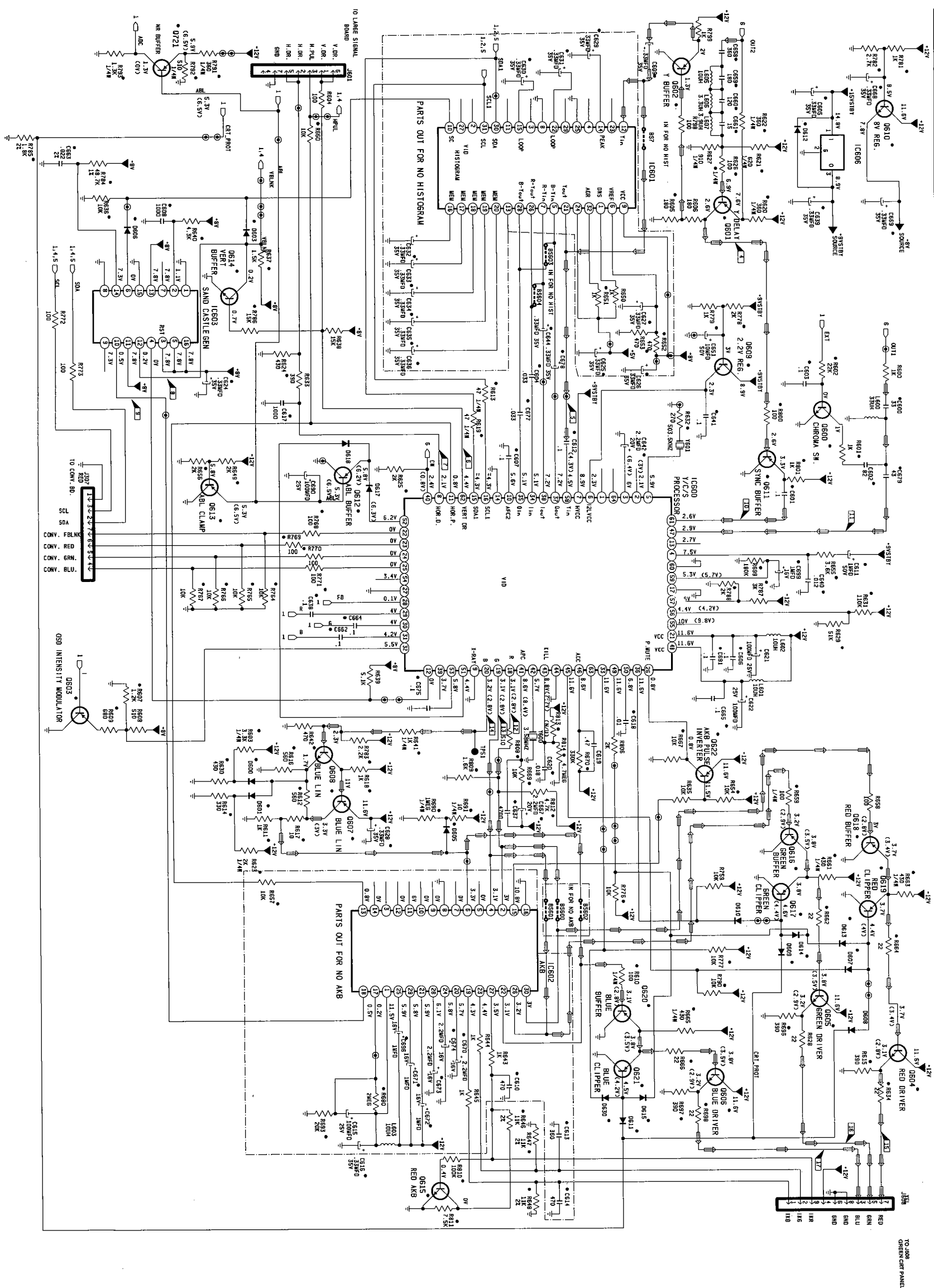
PIP Panel Schematic - Pg. 73/Frame H1
Pro-Logic Panel - Pg. 69/Frame H6
Wallvision Switch Panel - Pg. 64/Frame H12
Front Jack Panel Schematic - Pg. 63/Frame F13



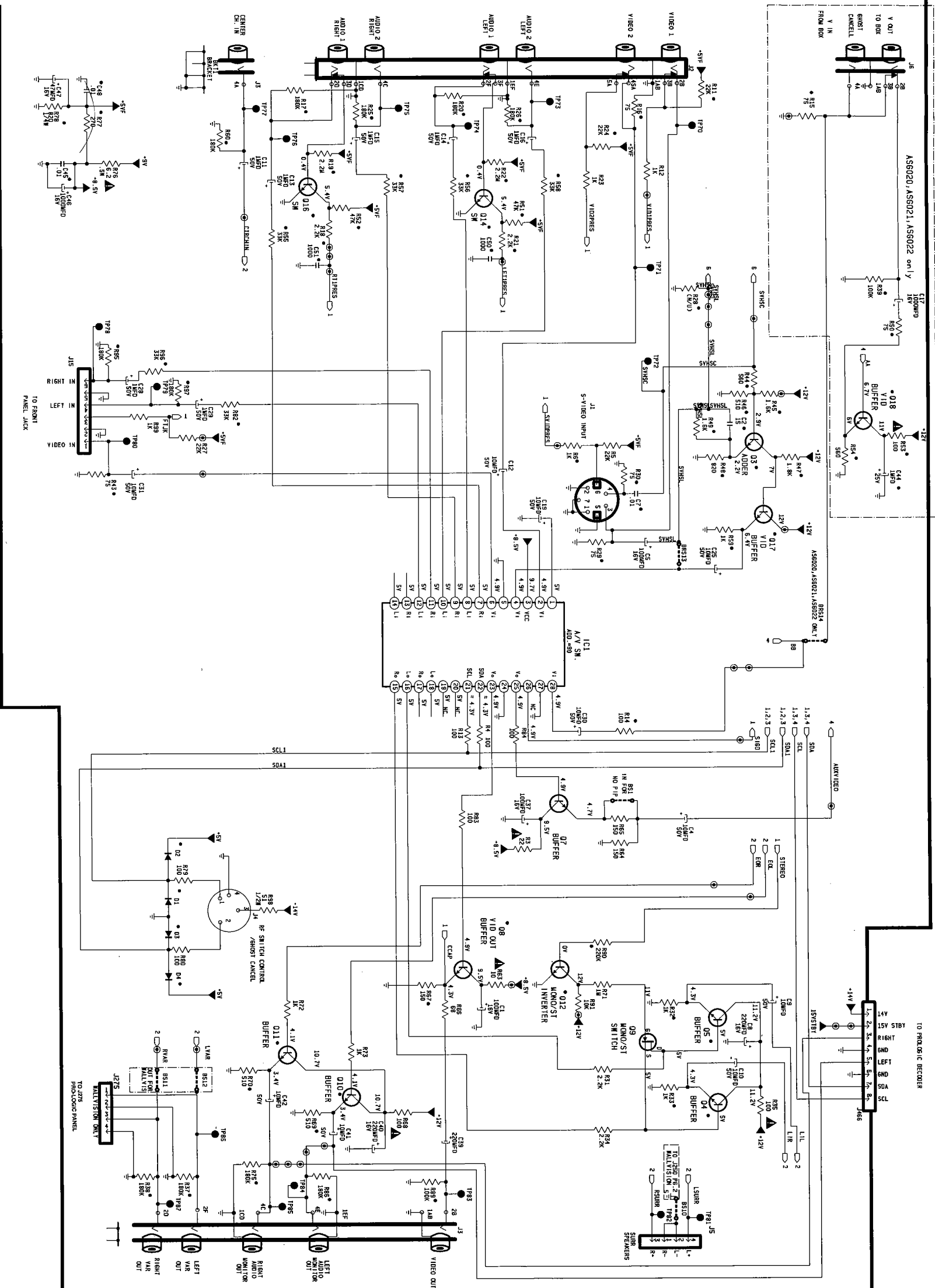
(SECTION - 2 (2 OF 6))



**00ASG018, 00ASG019, 00ASG020, 00ASG021, 00ASG022 & 00ASG023 (F006 VERSIONS)
SMALL SIGNAL PANEL SCHEMATIC DIAGRAM
(SECTION - 3 (3 OF 6))**



00ASG018, 00ASG019, 00ASG020, 00ASG021, 00ASG022 & 00ASG023 (F006 VERSIONS)
SMALL SIGNAL PANEL SCHEMATIC DIAGRAM
(SECTION - 5 (5 OF 6))



To order parts call the TOLL FREE Philips Sales Center number: (In U.S.A.) 1-800-851-8885
(In Canada) 1-800-363-PART • 1-800-663-7178 (Fax)

WARNING

Critical components having special safety characteristics Under no circumstances should the original design be are identified with a Δ by the Ref. No. in the parts list and modified or altered without written permission from Philips enclosed within a broken line • (where several critical Consumer Electronics Company. Philips assumes no components are grouped in one area) along with the safety liability, express or implied, arising out of any unauthorized symbol Δ on the schematics or exploded views. modification of design. Servicer assumes all liability.

Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

• Broken Line: —————

00ASG018, 00ASG019, 00ASG020, 00ASG021,
00ASG022, & 00ASG023 (-F006 VERSIONS)
SMALL SIGNAL PANEL
REPLACEMENT PARTS LIST

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.
• Indicates an SMD "Chip" type of component.

Refer to the previous page/frame for Schematic Information on this panel.

COMPONENT USAGE KEY:

- (A) Indicates component used on ASG018, ASG019, ASG020, ASG021, and ASG022 Panels only.
(B) Indicates component used on ASG020, and ASG021 Panels only.
(C) Indicates component used on ASG020, ASG021, ASG022, and ASG023 Panels only.
(D) Indicates component used on ASG019, ASG020, ASG021, and ASG022 Panels only.
(E) Indicates component used on ASG018, ASG019, and ASG023 Panels only.
(F) Indicates component used on ASG018, and ASG019 Panels only.
(G) Indicates component used on ASG020, ASG021, and ASG022 Panels only.
(H) Indicates component used on ASG018, ASG019, ASG020, and ASG021 Panels only.

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS					
C2	4835 122 87496	15pF., 5%, 50V, Ceramic (G)	C105	4835 122 87527	8200pF., 10%, 50V, Ceramic (H)
C1	4835 124 47493	100uF., 16V, Electrolytic	C106	4835 124 97039	4.7uF., 10V, Electrolytic (A)
C4	4835 124 47499	10uF., 50V, Electrolytic	C107	4835 124 97034	2.2uF., 16V, Electrolytic (A)
C5	4835 124 47493	100uF., 16V, Electrolytic	C108	4835 124 97034	2.2uF., 16V, Electrolytic (A)
C7	4835 122 87024	.01uF., 10%, 50V, Ceramic (G)	C109	4835 124 47499	10uF., 50V, Electrolytic (A)
C8	4835 124 47494	220uF., 16V, Electrolytic	C110	4835 124 47499	10uF., 50V, Electrolytic (A)
C9	4835 124 47499	10uF., 50V, Electrolytic	C111	4835 124 97026	1uF., 16V, Electrolytic (A)
C10	4835 124 47499	10uF., 50V, Electrolytic	C112	4835 124 97026	1uF., 16V, Electrolytic (A)
C11	4835 121 47406	1uF., 50V, Electrolytic (B)	C113	4835 122 87503	.047uF., 10%, 50V, Ceramic (A)
C12	4835 124 47499	10uF., 50V, Electrolytic (C)	C114	4835 122 87375	1uF., +80-20%, 50V, Ceramic (A)
C13	4835 121 47406	1uF., 50V, Electrolytic (A)	C115	4835 124 97039	4.7uF., 10V, Electrolytic (A)
C14	4835 121 47406	1uF., 50V, Electrolytic (A)	C116	4835 124 47499	10uF., 50V, Electrolytic (A)
C15	4835 121 47406	1uF., 50V, Electrolytic (G)	C117	4835 124 47499	10uF., 50V, Electrolytic (A)
C16	4835 121 47406	1uF., 50V, Electrolytic (G)	C118	4835 121 47364	4.7uF., 5%, 100V, Polyester (A)
C17	4835 124 47571	1000uF., 16V, Electrolytic (G)	C119	4835 121 47038	.22uF., 5%, 100V, Polyester (A)
C19	4835 124 47499	10uF., 50V, Electrolytic	C120	4835 124 97039	4.7uF., 10V, Electrolytic (A)
C25	4835 124 47499	10uF., 50V, Electrolytic (G)	C121	4835 121 47038	.22uF., 5%, 100V, Polyester (A)
C28	4835 121 47406	1uF., 50V, Electrolytic (D)	C122	4835 124 97039	4.7uF., 10V, Electrolytic (A)
C29	4835 121 47406	1uF., 50V, Electrolytic (D)	C123	4835 124 97039	4.7uF., 10V, Electrolytic (A)
C30	4835 124 47499	10uF., 50V, Electrolytic	C124	4835 124 97034	2.2uF., 16V, Electrolytic (A)
C31	4835 124 47499	10uF., 50V, Electrolytic (D)	C125	4835 124 97034	2.2uF., 16V, Electrolytic (A)
C37	4835 124 47493	100uF., 16V, Electrolytic	C126	4835 122 87063	.015uF., 10%, 50V, Ceramic (H)
C39	4835 124 47494	220uF., 16V, Electrolytic	C127	4835 122 87063	.015uF., 10%, 50V, Ceramic (H)
C40	4835 124 47494	220uF., 16V, Electrolytic (G)	C128	4835 124 97034	2.2uF., 16V, Electrolytic (H)
C41	4835 124 47499	10uF., 50V, Electrolytic (G)	C129	4835 122 87527	8200pF., 10%, 50V, Ceramic (H)
C42	4835 124 47499	10uF., 50V, Electrolytic (G)	C130	4835 220 17035	.15uF., 5%, 50V, Polyester (H)
C44	4835 124 97045	1uF., 25V, Electrolytic (G)	C131	4835 122 87043	5600pF., 10%, 50V, Ceramic (H)
C45	4835 124 97042	.01uF., 10%, 50V, Ceramic	C132	4835 220 17035	.15uF., 5%, 50V, Polyester (H)
C46	4835 124 47571	1000uF., 16V, Electrolytic	C133	4835 220 17035	.15uF., 5%, 50V, Polyester (H)
C47	4835 124 47567	47uF., 16V, Electrolytic	C135	4835 124 47631	1000uF., 50V, Electrolytic (F)
C48	4835 122 87042	.01uF., 10%, 50V, Ceramic	C136	4835 124 47498	1000uF., 35V, Electrolytic (F)
C50	4835 122 87023	1000pF., 10%, 50V, Ceramic	C137	4835 124 47499	10uF., 50V, Electrolytic (A)
C51	4835 122 87023	1000pF., 10%, 50V, Ceramic	C138	4835 124 47499	10uF., 50V, Electrolytic (H)
C100	4835 122 87043	5600pF., 10%, 50V, Ceramic (H)	C139	4835 124 97034	2.2uF., 16V, Electrolytic (B)
C101	4835 220 17035	.15uF., 5%, 50V, Polyester (H)	C141	4835 122 87504	680pF., 10%, 50V, Ceramic (B)
C102	4835 220 17035	.15uF., 5%, 50V, Polyester (H)			
C103	4835 220 17035	.15uF., 5%, 50V, Polyester (H)			
C104	4835 124 97034	2.2uF., 16V, Electrolytic (H)	C142	4835 124 47499	10uF., 50V, Electrolytic (H)

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS (Continued)					
C143	4835 124 47493	100uF., 16V, Electrolytic (B)	C230	4835 122 87376	220pF., 5%, 50V, Ceramic
C144	4835 122 87504	680pF., 10%, 50V, Ceramic (B)	C301	4835 122 87414	33pF., 5%, 50V, Ceramic
C145	4835 121 47517	.015uF., 5%, 50V, Polyester (B)	C302	4835 122 87414	33pF., 5%, 50V, Ceramic
C146	4835 124 47506	4.7uF., 50V, Electrolytic (B)	C303	4835 124 97043	6.8uF., 6.3V, Electrolytic
C147	4835 122 87014	150pF., 5%, 50V, Ceramic (B)	C304	4835 122 87023	1000pF., 10%, 50V, Ceramic
C148	4835 122 87502	2700pF., 10%, 50V, Ceramic (B)	C305	4835 122 87023	1000pF., 10%, 50V, Ceramic
C149	4835 121 47517	.015uF., 5%, 50V, Polyester (B)	C306	4835 122 87023	1000pF., 10%, 50V, Ceramic
C150	4835 121 47517	.015uF., 5%, 50V, Polyester (B)	C307	4835 122 87023	1000pF., 10%, 50V, Ceramic
C151	4835 121 47406	1uF., 50V, Electrolytic (B)	C308	4835 122 87023	1000pF., 10%, 50V, Ceramic
C152	4835 121 47406	1uF., 50V, Electrolytic (B)	C309	4835 122 87439	1000pF., 10%, 50V, Ceramic
C153	4835 124 97034	2.2uF., 16V, Electrolytic (B)	C310	4835 122 87439	1000pF., 10%, 50V, Ceramic
C155	4835 124 47493	100uF., 16V, Electrolytic (H)	C311	4835 124 97043	6.8uF., 6.3V, Electrolytic
C156	4835 124 47499	10uF., 50V, Electrolytic (H)	C312	4835 122 87012	100pF., 5%, 50V, Ceramic
C157	4835 124 47526	47uF., 25V, Electrolytic (A)	C313	4835 122 87023	1000pF., 10%, 50V, Ceramic
C158	4835 124 47499	10uF., 50V, Electrolytic (H)	C314	4835 122 87023	1000pF., 10%, 50V, Ceramic
C159	4835 124 47506	4.7uF., 50V, Electrolytic (B)	C315	4835 122 87023	1000pF., 10%, 50V, Ceramic
C160	4835 124 47526	47uF., 25V, Electrolytic (A)	C316	4835 122 87023	1000pF., 10%, 50V, Ceramic
C161	4835 122 87528	100pF., 10%, 50V, Ceramic (A)	C317	4835 122 87023	1000pF., 10%, 50V, Ceramic
C162	4835 124 47563	100uF., 50V, Electrolytic (A)	C318	4835 122 87023	1000pF., 10%, 50V, Ceramic
C163	4835 122 87502	2700pF., 10%, 50V, Ceramic (B)	C319	4835 122 87023	1000pF., 10%, 50V, Ceramic
C164	4835 122 87528	100pF., 10%, 50V, Ceramic (A)	C320	4835 122 87413	24pF., 5%, 50V, Ceramic
C165	4835 124 47526	47uF., 25V, Electrolytic (A)	C321	4835 122 87041	1000pF., 10%, 50V, Ceramic
C166	4835 122 87044	1uF., 50V, 20%, Ceramic (A)	C322	4835 124 97026	1uF., 16V, Electrolytic
C167	4835 124 47499	10uF., 50V, Electrolytic (A)	C342	4835 124 97041	47uF., 25V, Electrolytic
C168	4835 122 87044	1uF., 50V, 20%, Ceramic (A)	C355	4835 122 87012	100pF., 5%, 50V, Ceramic
C169	4835 124 47498	1000uF., 35V, Electrolytic (G)	C356	4835 122 87012	100pF., 5%, 50V, Ceramic
C170	4835 121 47406	1uF., 50V, Electrolytic (H)	C359	4835 122 87023	1000pF., 10%, 50V, Ceramic
C171	4835 122 87044	1uF., 50V, 20%, Ceramic (A)	C360	4835 122 87023	1000pF., 10%, 50V, Ceramic
C172	4835 122 87044	1uF., 50V, 20%, Ceramic (A)	C362	4835 122 87012	100pF., 5%, 50V, Ceramic
C173	4835 124 47493	100uF., 16V, Electrolytic (A)	C363	4835 122 87012	100pF., 5%, 50V, Ceramic
C174	4835 124 47499	10uF., 50V, Electrolytic (A)	C375	4835 122 87023	1000pF., 10%, 50V, Ceramic
C175	4835 124 47498	1000uF., 35V, Electrolytic (G)	C376	4835 122 87439	1000pF., 10%, 50V, Ceramic
C177	4835 124 47491	1000uF., 25V, Electrolytic (F)	C378	4835 122 87023	1000pF., 10%, 50V, Ceramic
C178	4835 122 87024	.01uF., 10%, 50V, Ceramic (A)	C379	4835 122 87439	1000pF., 10%, 50V, Ceramic
C179	4835 124 47526	47uF., 25V, Electrolytic (A)	C382	4835 122 87023	1000pF., 10%, 50V, Ceramic
C180	4835 122 87024	1uF., 50V, 20%, Ceramic (A)	C383	4835 122 87381	27pF., 5%, 50V, Ceramic
C186	4835 121 47406	1uF., 50V, Electrolytic (A)	C386	4835 122 87439	1000pF., 10%, 50V, Ceramic
C187	4835 124 47526	47uF., 25V, Electrolytic (A)	C387	4835 124 97034	2.2uF., 16V, Electrolytic
C190	4835 124 47526	47uF., 25V, Electrolytic (A)	C390	4835 122 87012	100pF., 5%, 50V, Ceramic
C191	4835 124 47499	10uF., 50V, Electrolytic (A)	C391	4835 122 87012	100pF., 5%, 50V, Ceramic
C195	4835 124 47499	10uF., 50V, Electrolytic (H)	C395	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C196	4835 122 47092	.047uF., 5%, 100V, Polyester (B)	C396	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C197	4835 122 47092	.047uF., 5%, 100V, Polyester (B)	C400	4835 124 97039	4.7uF., 10V, Electrolytic
C198	4835 124 47506	4.7uF., 50V, Electrolytic (H)	C401	4835 124 47564	22uF., 25V, Electrolytic
C199	4835 124 47506	4.7uF., 50V, Electrolytic (H)	C402	4835 122 87044	.01uF., 10%, 50V, Ceramic
C200	4835 122 87042	1uF., 50V, 20%, Ceramic	C405	4835 122 87042	.01uF., 10%, 50V, Ceramic
C201	4835 124 97039	4.7uF., 10V, Electrolytic	C406	4835 124 47499	10uF., 50V, Electrolytic
C202	4835 122 87023	1000pF., 10%, 50V, Ceramic	C407	4835 122 87042	.01uF., 10%, 50V, Ceramic
C203	4835 122 87024	.01uF., 10%, 50V, Ceramic	C408	4835 124 47499	10uF., 50V, Electrolytic
C204	4835 124 47501	100uF., 25V, Electrolytic	C600	4835 122 87414	33pF., 5%, 50V, Ceramic
C205	4835 122 87044	1uF., 50V, 20%, Ceramic	C601	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C206	4835 122 87042	.01uF., 10%, 50V, Ceramic	C602	4835 122 87375	82pF., 5%, 50V, Ceramic
C208	4835 122 87065	330pF., 10%, 50V, Ceramic	C603	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C209	4835 122 87042	.01uF., 10%, 50V, Ceramic	C604	4835 122 87452	.033uF., 10%, 50V, Ceramic
C210	4835 122 87449	16pF., 5%, 50V, Ceramic	C605	4835 124 97037	.33uF., 35V, Electrolytic
C211	4835 124 97041	.47uF., 25V, Electrolytic	C606	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C212	4835 122 87448	.068uF., 10%, 50V, Ceramic	C607	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C213	4835 124 97037	.33uF., 35V, Electrolytic	C609	4835 124 97037	.33uF., 35V, Electrolytic
C216	4835 122 87042	.01uF., 10%, 50V, Ceramic	C610	4835 122 87532	470pF., 5%, 50V, Ceramic (C)
C217	4835 122 87068	470pF., 10%, 50V, Ceramic	C611	4835 121 47406	1uF., 50V, Electrolytic
C218	4835 124 97026	1uF., 16V, Electrolytic	C612	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C220	4835 124 97026	1uF., 16V, Electrolytic	C613	4835 122 87484	360pF., 5%, 50V, Ceramic (C)
C221	4835 124 47499	10uF., 50V, Electrolytic	C614	4835 122 87532	470pF., 5%, 50V, Ceramic (C)
C222	4835 122 87044	1uF., 50V, 20%, Ceramic	C615	4835 124 47501	100uF., 25V, Electrolytic
C223	4835 122 87044	1uF., 50V, 20%, Ceramic	C616	4835 124 97037	.33uF., 35V, Electrolytic (C)
C225	4835 122 87071	.047uF., 10%, 50V, Ceramic	C617	4835 122 87439	1000pF., 10%, 50V, Ceramic
C227	4835 122 87024	.01uF., 10%, 50V, Ceramic	C618	4835 122 87024	.01uF., 10%, 50V, Ceramic
C229	4835 122 87375	1uF., +80-20%, 50V, Ceramic	C619	4835 121 47222	.47uF., 10%, 100V, Polyester

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

COMPONENT USAGE KEY:			
(A)	Indicates component used on ASG018, ASG019, ASG020, ASG021, and ASG022 Panels only.	(E)	Indicates component used on ASG018, ASG019, and ASG023 Panels only.
(B)	Indicates component used on ASG020, and ASG021 Panels only.	(F)	Indicates component used on ASG018, and ASG019 Panels only.
(C)	Indicates component used on ASG020, ASG021, ASG022, and ASG023 Panels only.	(G)	Indicates component used on ASG020, ASG021, and ASG022 Panels only.
(D)	Indicates component used on ASG019, ASG020, ASG021, and ASG022 Panels only.	(H)	Indicates component used on ASG018, ASG019, ASG020, and ASG021 Panels only.

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS (Continued)					
C620	4835 122 87533	.018uF., 10%, 50V, Ceramic	C712	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C621	4835 124 47501	100uF., 25V, Electrolytic	C713	4835 124 47562	10uF., 35V, Electrolytic (C)
C622	4835 124 47501	100uF., 25V, Electrolytic	C714	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C624	4835 124 97037	.33uF., 35V, Electrolytic (C)	C715	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C625	4835 124 97037	.33uF., 35V, Electrolytic (C)	C716	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C628	4835 124 97037	.33uF., 35V, Electrolytic	C717	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C637	4835 122 87415	4700pF., 10%, 50V, Ceramic	C718	4835 124 47562	10uF., 35V, Electrolytic (C)
C638	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	C719	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C639	4835 124 97037	.33uF., 35V, Electrolytic	C720	4835 124 47526	47uF., 25V, Electrolytic (C)
C640	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	C721	4835 122 87375	.1uF., +80-20%, 50V, Ceramic (C)
C641	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	C722	4835 124 47526	47uF., 25V, Electrolytic (C)
C642	4835 124 97168	2.2uF., 20V, Electrolytic	C723	4835 124 97037	.33uF., 35V, Electrolytic (C)
C643	4835 122 87092	200pF., 5%, 50V, Ceramic (F)	C724	4835 122 87375	.1uF., +80-20%, 50V, Ceramic (C)
C644	4835 124 97037	.33uF., 35V, Electrolytic	C726	4835 122 87371	120pF., 5%, 50V, Ceramic (C)
C645	4835 122 87089	620pF., 5%, 50V, Ceramic (F)	C727	4835 124 97041	.47uF., 25V, Electrolytic (C)
C647	4835 122 87041	1000pF., 10%, 50V, Ceramic (F)	C728	4835 124 47494	220uF., 16V, Electrolytic (C)
C648	4835 122 87046	120pF., 5%, 50V, Ceramic (F)	C729	4835 124 47562	10uF., 35V, Electrolytic
C649	4835 122 87054	51pF., 5%, 50V, Ceramic (F)	C730	4835 122 87375	.1uF., +80-20%, 50V, Ceramic (C)
C650	4835 122 87028	180pF., 5%, 50V, Ceramic (F)	C731	4835 122 87044	.1uF., 50V, 20%, Ceramic (C)
C651	4835 124 47494	10uF., 50V, Electrolytic	C732	4835 124 47526	47uF., 25V, Electrolytic (C)
C655	4835 124 97034	220uF., 16V, Electrolytic (F)	C733	4835 124 47501	100uF., 25V, Electrolytic (C)
C656	4835 124 47493	100uF., 16V, Electrolytic (F)	C736	4835 122 87042	.01uF., 10%, 50V, Ceramic (C)
C658	4835 122 87484	360pF., 5%, 50V, Ceramic	C737	4835 122 87023	1000pF., 10%, 50V, Ceramic (C)
C659	4835 122 87028	180pF., 5%, 50V, Ceramic	C752	4835 122 87023	18pF., 5%, 50V, Ceramic (C)
C660	4835 122 87371	120pF., 5%, 50V, Ceramic	C761	4835 122 87285	39pF., 5%, 50V, Ceramic (C)
C661	4835 122 87047	15pF., 5%, 50V, Ceramic	C763	4835 122 87016	120pF., 5%, 50V, Ceramic (C)
C662	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	C764	4835 122 87371	120pF., 5%, 50V, Ceramic (C)
C663	4835 121 47518	.022uF., 2%, 50V, Polypropylene (C)	C765	4835 122 87016	39pF., 5%, 50V, Ceramic (C)
C664	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	C766	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C665	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	C734	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)
C667	4835 124 97037	.33uF., 35V, Electrolytic	C735	4835 122 87024	.01uF., 10%, 50V, Ceramic
C668	4835 124 97037	.33uF., 35V, Electrolytic	C750	4835 124 47501	100uF., 25V, Electrolytic
C669	4835 124 97034	2.2uF., 16V, Electrolytic (C)	C760	4835 122 87024	.01uF., 10%, 50V, Ceramic
C670	4835 124 97026	1uF., 16V, Electrolytic (C)	C1013	4835 122 87051	220pF., 5%, 50V, Ceramic (A)
C671	4835 124 97026	1uF., 16V, Electrolytic (C)	C1050	4835 124 47526	.1uF., 50V, 20%, Ceramic (A)
C672	4835 124 97026	1uF., 16V, Electrolytic (C)	C1051	4835 124 47526	.1uF., 25V, Electrolytic (D)
C673	4835 124 97034	2.2uF., 16V, Electrolytic (C)	C1052	4835 124 97045	1uF., 25V, Electrolytic (E)
C674	4835 124 97034	2.2uF., 16V, Electrolytic (C)			
C675	4835 122 87375	.1uF., +80-20%, 50V, Ceramic			
C676	4835 122 87038	82pF., 5%, 50V, Ceramic (F)			
C677	4835 122 87452	.033uF., 10%, 50V, Ceramic			
C678	4835 124 97037	.33uF., 35V, Electrolytic			
C679	4835 122 87529	43pF., 5%, 50V, Ceramic			
C680	4835 124 47499	10uF., 50V, Electrolytic			
C681	4835 122 87096	56pF., 5%, 50V, Ceramic (F)			
C696	4835 124 97026	100uF., 25V, Electrolytic (C)			
C691	4835 122 87375	.1uF., +80-20%, 50V, Ceramic			
C699	4835 124 97026	1uF., 16V, Electrolytic			
C700	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			
C701	4835 124 47562	10uF., 35V, Electrolytic (C)			
C702	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			
C703	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			
C704	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			
C705	4835 122 87415	4700pF., 10%, 50V, Ceramic (C)			
C706	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			
C707	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			
C708	4835 122 87376	220pF., 5%, 50V, Ceramic (C)			
C709	4835 122 87526	360pF., 5%, 50V, Ceramic (C)			
C710	4835 124 47562	10uF., 35V, Electrolytic (C)			
C711	4835 122 87024	.01uF., 10%, 50V, Ceramic (C)			

RESISTORS

R3	4835 116 57372	22 ohm, 5%, 1/4W, Metal Film
R4	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R5	4835 116 57412	22k, 5%, 1/10W, Metal Film (G)
R6	4835 111 37002	1k, 5%, 1/10W, Metal Film (G)
R7	4835 111 37123	22k, 5%, 1/10W, Metal Film
R11	4835 111 37009	1k, 5%, 1/10W, Metal Film
R12	4835 116 57319	100 ohm, 5%, 1/4W, Metal Film
R13	4835 116 57318	100 ohm, 5%, 1/10W, Metal Film
R14	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R15	4835 111 37276	75 ohm, 5%, 1/10W, Metal Film (G)
R16	4835 111 37276	75 ohm, 5%, 1/10W, Metal Film (G)
R17	4835 111 37484	180k, 5%, 1/10W, Metal Film (A)
R18	4835 111 37234	2.2k, 5%, 1/10W, Metal Film (D)
R19	4835 111 37406	2.2 Meg, 5%, 1/10W, Metal Film
R20	4835 111 37484	180k, 5%, 1/10W, Metal Film (D)
R21	4835 111 37234	2.2k, 5%, 1/10W, Metal Film (D)
R22	4835 111 37406	2.2 Meg, 5%, 1/10W, Metal Film
R23	4835 116 57319	1k, 5%, 1/4W, Metal Film (C)
R24	4835 111 37009	22k, 5%, 1/10W, Metal Film (C)
R25	4835 111 37484	180k, 5%, 1/10W, Metal Film (G)
R26	4835 111 37484	180k, 5%, 1/10W, Metal Film (G)
R27	4835 116 57412	22k, 5%, 1/4W, Metal Film (D)

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)					
R29	4835 111 37276	75 ohm, 5%, 1/10W, Metal Film	R105	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film (A)
R30	4835 111 37276	75 ohm, 5%, 1/10W, Metal Film (G)	R106	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film (A)
R31	4835 116 57411	2.2k, 5%, 1/4W, Metal Film	R107	4835 116 57159	33 ohm, 5%, 1/3W, Metal Film (A)
R32	4835 111 37002	1k, 5%, 1/10W, Metal Film	R108	4835 111 37234	2.2k, 5%, 1/10W, Metal Film (A)
R33	4835 111 37002	1k, 5%, 1/10W, Metal Film	R115	4835 111 37002	1k, 5%, 1/10W, Metal Film (A)
R34	4835 116 57411	2.2k, 5%, 1/4W, Metal Film	R116	4835 111 37009	22k, 5%, 1/10W, Metal Film (A)
R35	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R117	4835 116 57412	22k, 5%, 1/4W, Metal Film (A)
R37	4835 111 37484	180k, 5%, 1/10W, Metal Film (A)	R118	4835 116 57428	47k, 5%, 1/4W, Metal Film (A)
R38	4835 111 37484	180k, 5%, 1/10W, Metal Film (A)	R119	4835 116 57412	22k, 5%, 1/4W, Metal Film (A)
R39	4835 111 37003	100k, 5%, 1/10W, Metal Film (G)	R120	4835 111 37009	22k, 5%, 1/10W, Metal Film (A)
R43	4835 111 37276	75 ohm, 5%, 1/10W, Metal Film (D)	R121	4835 116 57428	47k, 5%, 1/4W, Metal Film (A)
R44	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film	R122	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film (A)
R45	4835 111 37449	1.6k, 5%, 1/10W, Metal Film (G)	R123	4835 116 57415	2.7k, 5%, 1/4W, Metal Film (A)
R46	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film	R124	4835 111 37016	47k, 5%, 1/10W, Metal Film (A)
R47	4835 111 37231	1.8k, 5%, 1/10W, Metal Film (G)	R129	4835 111 37003	100k, 5%, 1/10W, Metal Film (B)
R48	4835 111 37466	820 ohm, 5%, 1/10W, Metal Film	R130	4835 116 57395	100k, 5%, 1/4W, Metal Film (B)
R49	4835 111 37449	1.6k, 5%, 1/10W, Metal Film (G)	R135	4835 111 37216	10k, 5%, 1/10W, Metal Film (B)
R50	4835 111 37276	75 ohm, 5%, 1/10W, Metal Film (G)	R100	4835 111 37216	10k, 5%, 1/10W, Metal Film (B)
R51	4835 111 37016	47k, 5%, 1/10W, Metal Film (D)	R101	4835 111 37313	20k, 5%, 1/10W, Metal Film (H)
R52	4835 111 37016	47k, 5%, 1/10W, Metal Film (D)	R102	4835 111 37234	2.2k, 5%, 1/10W, Metal Film (H)
R53	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R109	4835 111 37313	20k, 5%, 1/10W, Metal Film (H)
R54	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film	R110	4835 111 37234	2.2k, 5%, 1/10W, Metal Film (H)
R55	4835 111 37248	33k, 5%, 1/10W, Metal Film (A)	R111	4835 111 37216	10k, 5%, 1/10W, Metal Film (H)
R56	4835 111 37248	33k, 5%, 1/10W, Metal Film (A)	R112	4835 111 37009	22k, 5%, 1/10W, Metal Film (H)
R57	4835 111 37248	33k, 5%, 1/10W, Metal Film (G)	R113	4835 111 37009	22k, 5%, 1/10W, Metal Film (H)
R58	4835 111 37248	33k, 5%, 1/10W, Metal Film (G)	R125	4835 116 57395	100k, 5%, 1/4W, Metal Film (H)
R59	4835 111 37002	1k, 5%, 1/10W, Metal Film (G)	R126	4835 116 57395	100k, 5%, 1/4W, Metal Film (H)
R60	4835 111 37484	180k, 5%, 1/10W, Metal Film (B)	R128	4835 111 37216	10k, 5%, 1/10W, Metal Film (H)
R63	4835 116 57362	10 ohm, 5%, 1/4W, Metal Film	R133	4835 116 57428	47k, 5%, 1/4W, Metal Film (H)
R64	4835 116 57399	150 ohm, 5%, 1/4W, Metal Film	R134	4835 111 37003	100k, 5%, 1/10W, Metal Film (H)
R65	4835 116 57399	150 ohm, 5%, 1/4W, Metal Film (D)	R136	4835 111 37216	10k, 5%, 1/10W, Metal Film (B)
R66	4835 116 57437	68 ohm, 5%, 1/4W, Metal Film	R137	4835 111 37003	100k, 5%, 1/10W, Metal Film (B)
R67	4835 111 37334	150 ohm, 5%, 1/10W, Metal Film	R139	4835 116 57428	47k, 5%, 1/4W, Metal Film (B)
R68	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film (G)	R140	4835 111 37016	47k, 5%, 1/10W, Metal Film (B)
R69	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film	R141	4835 111 37016	47k, 5%, 1/10W, Metal Film (B)
R70	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film	R142	4835 111 37003	100k, 5%, 1/10W, Metal Film (B)
R71	4835 116 57322	1 Meg, 5%, 1/4W, Metal Film	R144	4835 116 57574	13k, 5%, 1/4W, Metal Film (B)
R72	4835 116 57319	1k, 5%, 1/4W, Metal Film (G)	R145	4835 116 57409	2k, 5%, 1/4W, Metal Film (B)
R73	4835 116 57319	1k, 5%, 1/4W, Metal Film (G)	R146	4835 116 57429	47 ohm, 5%, 1/4W, Metal Film (B)
R75	4835 111 37484	180k, 5%, 1/10W, Metal Film (G)	R147	4835 111 37004	12k, 5%, 1/10W, Metal Film (B)
R76	4835 116 57373	6.2 ohm, 5%, 1/2W, Metal Film	R148	4835 111 37006	15k, 5%, 1/10W, Metal Film (B)
R77	4835 111 37011	270 ohm, 5%, 1/10W, Metal Film	R149	4835 111 37006	15k, 5%, 1/10W, Metal Film (B)
R78	4835 111 37123	820 ohm, 5%, 1/4W, Metal Film	R150	4835 111 37313	20k, 5%, 1/10W, Metal Film (B)
R79	4835 110 57329	100 ohm, 20%, 1/4W, Carbon Comp.	R151	4835 111 37216	10k, 5%, 1/10W, Metal Film (B)
R80	4835 110 57329	100 ohm, 20%, 1/4W, Carbon Comp.	R152	4835 116 57319	10k, 5%, 1/4W, Metal Film (B)
R82	4835 111 37248	33k, 5%, 1/10W, Metal Film (A)	R155	4835 111 37016	47k, 5%, 1/10W, Metal Film (B)
R83	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R156	4835 111 37313	20k, 5%, 1/10W

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

COMPONENT USAGE KEY:

(A) Indicates component used on ASG018, ASG019, ASG020, ASG021, and ASG022 Panels only.	(E) Indicates component used on ASG018, ASG019, and ASG023 Panels only.
(B) Indicates component used on ASG020, and ASG021 Panels only.	(F) Indicates component used on ASG018, and ASG019 Panels only.
(C) Indicates component used on ASG020, ASG021, ASG022, and ASG023 Panels only.	(G) Indicates component used on ASG020, ASG021, and ASG022 Panels only.
(D) Indicates component used on ASG019, ASG020, ASG021, and ASG022 Panels only.	(H) Indicates component used on ASG018, ASG019, ASG020, and ASG021 Panels only.

Ref.	Part No.	Description
RESISTORS (Continued)		
R177	4835 111 37002	1k, 5%, 1/10W, Metal Film (H)
R178	4835 111 37002	1k, 5%, 1/10W, Metal Film (H)
R179	4835 116 57429	47 ohm, 5%, 1/4W, Metal Film (H)
R180	4835 116 57321	10k, 5%, 1/4W, Metal Film (B)
R181	4835 116 57321	10k, 5%, 1/4W, Metal Film (B)
R182	4835 111 37016	47k, 5%, 1/10W, Metal Film (B)
R183	4835 111 37003	100k, 5%, 1/10W, Metal Film (B)
R186	4835 116 57397	12k, 5%, 1/4W, Metal Film (A)
R187	4835 111 37005	1.5k, 5%, 1/10W, Metal Film (F)
R187	4835 111 37002	1k, 5%, 1/10W, Metal Film (B)
R187	4835 111 37334	150 ohm, 5%, 1/10W, Metal Film (ASG022 only)
R189	4835 111 37334	150 ohm, 5%, 1/10W, Metal Film (ASG022 only)
R189	4835 111 37002	1k, 5%, 1/10W, Metal Film (B)
R189	4835 111 37005	1.5k, 5%, 1/10W, Metal Film (F)
R190	4835 116 57397	12k, 5%, 1/4W, Metal Film (A)
R191	4835 111 37261	4.7 ohm, 5%, 1/10W, Metal Film(A)
R192	4835 111 37261	4.7 ohm, 5%, 1/10W, Metal Film(A)
R193	4835 111 37235	220k, 5%, 1/10W, Metal Film (A)
R194	4835 116 57319	1k, 5%, 1/4W, Metal Film (A)
R195	4835 116 57395	100k, 5%, 1/4W, Metal Film (A)
R196	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film (A)
R197	4835 116 57514	270k, 5%, 1/4W, Metal Film (A)
R198	4835 116 57514	110k, 5%, 1/4W, Metal Film (F)
R198	4835 116 57395	100k, 5%, 1/4W, Metal Film (G)
R199	4835 116 57395	100k, 5%, 1/4W, Metal Film (A)
R200	0023 028 22031	24k, 5%, 1/2W, Carbon Film
R201	4835 111 37043	22k, 5%, 1/4W, Metal Film
R202	4835 100 17016	4.7k, Control Adj., Video Level
R203	4835 111 37279	9.1k, 5%, 1/10W, Metal Film
R204	4835 111 37012	6.8k, 5%, 1/4W, Metal Film
R205	4835 111 37077	2.2k, 5%, 1/4W, Metal Film
R206	4835 116 57415	2.7k, 5%, 1/4W, Metal Film
R207	4835 111 37115	6.2k, 5%, 1/4W, Metal Film
R208	4835 116 57549	9.1k, 5%, 1/4W, Metal Film
R209	4835 111 37023	10k, 5%, 1/4W, Metal Film
R212	4835 111 37095	390 ohm, 5%, 1/4W, Metal Film
R214	4835 111 37262	47 ohm, 5%, 1/10W, Metal Film
R215	4835 111 37022	1k, 5%, 1/4W, Metal Film
R216	4835 111 37032	270 ohm, 5%, 1/4W, Metal Film
R217	4835 116 57395	100k, 5%, 1/4W, Metal Film
R218	4835 111 37356	62k, 5%, 1/4W, Metal Film
R219	4835 111 37038	47k, 5%, 1/4W, Metal Film
R220	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R221	4835 111 37022	1k, 5%, 1/4W, Metal Film
R228	4835 111 37274	680k, 5%, 1/10W, Metal Film
R229	4835 111 37092	3.6k, 5%, 1/4W, Metal Film
R230	4835 111 37037	47k, 5%, 1/4W, Metal Film
R231	4835 111 37037	4.7k, 5%, 1/4W, Metal Film
R232	4835 111 37023	10k, 5%, 1/4W, Metal Film
R233	4835 111 37038	47k, 5%, 1/4W, Metal Film
R234	4835 111 37274	680k, 5%, 1/10W, Metal Film
R235	4835 111 37065	1.8k, 5%, 1/4W, Metal Film
R236	4835 111 37013	330 ohm, 5%, 1/10W, Metal Film
R238	4835 111 37083	2.7k, 5%, 1/4W, Metal Film
R240	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
RESISTORS (Continued)		
R241	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R242	4835 111 37002	1k, 5%, 1/10W, Metal Film
R243	4835 111 37102	4.3k, 5%, 1/4W, Metal Film
R244	4835 100 17014	1k, Control Adj.
R245	4835 111 37224	2.2k, 5%, 1/10W, Metal Film
R246	4835 111 37007	150k, 5%, 1/10W, Metal Film
R247	4835 111 37051	1.1k, 5%, 1/4W, Metal Film
R248	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R255	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film
R300	4835 110 57066	100 ohm, 5%, 1/4W, Carbon Comp.
R301	4835 116 57319	1k, 5%, 1/4W, Metal Film
R302	4835 111 37037	4.7k, 5%, 1/4W, Metal Film
R304	4835 116 57428	47k, 5%, 1/4W, Metal Film
R305	4835 116 57395	100k, 5%, 1/4W, Metal Film
R306	4835 111 37003	100k, 5%, 1/10W, Metal Film
R307	4835 110 57066	100 ohm, 5%, 1/4W, Carbon Comp.
R309	4835 116 57402	15k, 5%, 1/4W, Metal Film
R310	4835 111 37015	4.7k, 5%, 1/10W, Metal Film
R311	4835 110 57066	100 ohm, 5%, 1/4W, Carbon Comp.
R312	4835 116 57321	10k, 5%, 1/4W, Metal Film
R313	4835 111 37247	3.3k, 5%, 1/10W, Metal Film
R314	4835 116 57428	47

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)			RESISTORS (Continued)		
R355	4835 111 37002	1k, 5%, 1/10W, Metal Film	R644	4835 116 57319	1k, 5%, 1/4W, Metal Film (C)
R356	4835 111 37002	1k, 5%, 1/10W, Metal Film	R645	4835 116 57319	1k, 5%, 1/4W, Metal Film (C)
R357	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R646	4835 111 37481	11k, 2%, 1/10W, Metal Film
R358	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R647	4835 111 37481	11k, 2%, 1/10W, Metal Film
R360	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R648	4835 111 37481	11k, 2%, 1/10W, Metal Film
R361	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R649	4835 111 37008	2k, 5%, 1/10W, Metal Film
R362	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R654	4835 111 37216	10k, 5%, 1/10W, Metal Film (C)
R363	4835 111 37374	43k, 5%, 1/10W, Metal Film	R655	4835 111 37251	3.6k, 5%, 1/10W, Metal Film
R364	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R656	4835 111 37008	2k, 5%, 1/10W, Metal Film
R365	4835 111 37002	1k, 5%, 1/10W, Metal Film	R657	4835 111 37216	10k, 5%, 1/10W, Metal Film (C)
R366	4835 111 37216	10k, 5%, 1/10W, Metal Film	R658	4835 116 57318	10k, 5%, 1/10W, Metal Film
R367	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R659	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film
R369	4835 110 57318	1k, 20%, 1/4W, Carbon Comp.	R660	4835 111 37216	10k, 5%, 1/10W, Metal Film
R370	4835 110 57318	1k, 20%, 1/4W, Carbon Comp.	R661	4835 111 37101	430 ohm, 5%, 1/4W, Metal Film
R371	4835 110 57318	1k, 20%, 1/4W, Carbon Comp.	R662	4835 111 37237	22 ohm, 5%, 1/10W, Metal Film
R372	4835 110 57318	1k, 20%, 1/4W, Carbon Comp.	R663	4835 111 37101	430 ohm, 5%, 1/4W, Metal Film
R373	4835 110 57318	1k, 20%, 1/4W, Carbon Comp.	R664	4835 111 37237	22 ohm, 5%, 1/10W, Metal Film
R374	4835 110 57318	1k, 20%, 1/4W, Carbon Comp.	R665	4835 111 37101	430 ohm, 5%, 1/4W, Metal Film
R375	4835 111 37014	360 ohm, 5%, 1/10W, Metal Film	R666	4835 111 37237	22 ohm, 5%, 1/10W, Metal Film
R376	4835 111 37014	360 ohm, 5%, 1/10W, Metal Film	R667	4835 111 37216	10k, 5%, 1/10W, Metal Film (C)
R377	4835 111 37014	360 ohm, 5%, 1/10W, Metal Film	R669	4835 111 37216	10k, 5%, 1/10W, Metal Film
R379	4835 111 37015	4.7k, 5%, 1/10W, Metal Film	R670	4835 111 37249	330k, 5%, 1/10W, Metal Film
R382	4835 111 37234	2.2k, 5%, 1/10W, Metal Film	R671	4835 111 37104	470 ohm, 5%, 1/4W, Metal Film (F)
R383	4835 111 37009	22k, 5%, 1/10W, Metal Film	R672	4835 111 37104	470 ohm, 5%, 1/4W, Metal Film (F)
R390	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R673	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R397	4835 111 37003	100k, 5%, 1/10W, Metal Film	R674	4835 111 37002	1k, 5%, 1/10W, Metal Film (F)
R398	4835 111 37003	100k, 5%, 1/10W, Metal Film	R675	4835 111 37008	2k, 5%, 1/10W, Metal Film (F)
R399	4835 111 37003	100k, 5%, 1/10W, Metal Film	R676	4835 111 37268	620 ohm, 5%, 1/10W, Metal Film
R600	4835 116 57319	1k, 5%, 1/4W, Metal Film	R677	4835 111 37002	1k, 5%, 1/10W, Metal Film (F)
R601	4835 111 37002	1k, 5%, 1/10W, Metal Film	R678	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R602	4835 111 37009	22k, 5%, 1/10W, Metal Film	R679	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R603	4835 111 37035	3.3k, 5%, 1/4W, Metal Film	R680	4835 111 37368	2 Meg, 5%, 1/10W, Metal Film (C)
R604	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R681	4835 111 37002	1k, 5%, 1/10W, Metal Film (F)
R605	4835 111 37229	180 ohm, 5%, 1/10W, Metal Film	R682	4835 111 37107	47 ohm, 5%, 1/4W, Metal Film (F)
R606	4835 116 57467	180 ohm, 5%, 1/4W, Metal Film	R683	4835 111 37018	8.2k, 5%, 1/10W, Metal Film (F)
R607	4835 111 37222	1.2k, 5%, 1/10W, Metal Film	R684	4835 111 37253	390 ohm, 5%, 1/10W, Metal Film
R608	4835 116 57467	510 ohm, 5%, 1/4W, Metal Film	R685	4835 111 37065	1.8k, 5%, 1/4W, Metal Film (F)
R609	4835 111 37271	680 ohm, 5%, 1/10W, Metal Film	R686	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R610	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film	R687	4835 111 37268	620 ohm, 5%, 1/10W, Metal Film
R611	4835 111 37002	1k, 5%, 1/10W, Metal Film	R688	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R612	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film	R689	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film
R613	4835 111 37107	47 ohm, 5%, 1/4W, Metal Film	R690	4835 111 37047	1 Meg, 5%, 1/4W, Metal Film
R614	4835 111 37013	330 ohm, 5%, 1/10W, Metal Film	R691	4835 111 37132	10 ohm, 5%, 1/4W, Metal Film
R615	4835 111 37253	390 ohm, 5%, 1/10W, Metal Film	R692	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R616	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film	R693	4835 111 37313	20k, 5%, 1/10W, Metal Film (C)
R617	4835 111 37363	1k, 5%, 1/10W, Metal Film	R694	4835 111 37333	13k, 5%, 1/10W, Metal Film (F)
R618	4835 111 37102	1k, 5%, 1/10W, Metal Film	R695	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R619	4835 111 37007	47 ohm, 5%, 1/4W, Metal Film	R696	4835 111 37253	390 ohm, 5%, 1/10W, Metal Film
R620	4835 111 37036	360 ohm, 5%, 1/4W, Metal Film	R697	4835 111 37253	390 ohm, 5%, 1/10W, Metal Film
R621	4835 111 37114	620 ohm, 5%, 1/4W, Metal Film	R698	4835 116 57372	22 ohm, 5%, 1/4W, Metal Film
R622	4835 111 37036	360 ohm, 5%, 1/4W, Metal Film	R699	4835 111 37484	180k, 5%, 1/10W, Metal Film
R623	4835 111 37029	2k, 5%, 1/4W, Metal Film	R700	4835 111 37266	510k, 5%, 1/10W, Metal Film (C)
R624	4835 220 17029	430 ohm, 5%, 1/10W, Metal Film	R701	4835 116 57321	10k, 5%, 1/4W, Metal Film (C)
R625	4835 111 37028	2k, 5%, 1/10W, Metal Film	R702	4835 116 57321	10k, 5%, 1/4W, Metal Film (C)
R626	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film	R703	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film (C)
R627	4835 111 37142	910 ohm, 5%, 1/4W, Metal Film	R705	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R628	4835 111 37237	22 ohm, 5%, 1/10W, Metal Film	R706	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film (C)
R629	4835 111 37265	51k, 5%, 1/10W, Metal Film	R707	4835 111 37039	510 ohm, 5%, 1/4W, Metal Film (C)
R630	4835 220 17029	430 ohm, 5%, 1/10W, Metal Film			
R631	4835 111 37219	110k, 5%, 1/10W, Metal Film			
R632	4835 111 37011	270 ohm, 5%, 1/10W, Metal Film			
R633	4835 116 57342	390 ohm, 5%, 1/4W, Metal Film			
R634	4835 116 57372	22 ohm, 5%, 1/4W, Metal Film			
R635	4835 116 57321	10k, 5%, 1/4W, Metal Film (C)			
R636	4835 116 57321	10k, 5%, 1/4W, Metal Film			
R637	4835 111 37005	15k, 5%, 1/10W, Metal Film			
R638	4835 116 57402	1k, 5%, 1/4W, Metal Film			
R641	4835 111 37022	1k, 5%, 1/4W, Metal Film			
R642	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film			
R643	4835 116 57319	1k, 5%, 1/4W, Metal Film (C)			

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

COMPONENT USAGE KEY:

- (A) Indicates component used on ASG018, ASG019, ASG020, ASG021, and ASG022 Panels only.
- (B) Indicates component used on ASG020, and ASG021 Panels only.
- (C) Indicates component used on ASG020, ASG021, ASG022, and ASG023 Panels only.
- (D) Indicates component used on ASG019, ASG020, ASG021, and ASG022 Panels only.
- (E) Indicates component used on ASG018, ASG019, and ASG023 Panels only.
- (F) Indicates component used on ASG018, and ASG019 Panels only.
- (G) Indicates component used on ASG020, ASG021, and ASG022 Panels only.
- (H) Indicates component used on ASG018, ASG019, ASG020, and ASG021 Panels only.

Ref.	Part No.	Description
RESISTORS (Continued)		
R708	4835 111 37023	10k, 5%, 1/4W, Metal Film (C)
R709	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R710	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R711	4835 111 37333	13k, 5%, 1/10W, Metal Film (C)
R712	4835 111 37252	36k, 5%, 1/10W, Metal Film (C)
R713	4835 111 37373	4.3k, 5%, 1/10W, Metal Film (C)
R714	4835 111 37224	1.3k, 5%, 1/10W, Metal Film (C)
R715	4835 111 37224	1.3k, 5%, 1/10W, Metal Film (C)
R716	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R717	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R718	4835 111 37041	560 ohm, 5%, 1/4W, Metal Film(C)
R719	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R720	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film(C)
R721	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R722	4835 111 37041	560 ohm, 5%, 1/4W, Metal Film(C)
R723	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R724	4835 111 37025	12k, 5%, 1/4W, Metal Film (C)
R725	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(C)		
R726	4835 111 37015	4.7k, 5%, 1/10W, Metal Film (C)
R727	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R728	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film
(C)		
R729	4835 111 37041	560 ohm, 5%, 1/4W, Metal Film(C)
R730	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R731	4835 111 37004	12k, 5%, 1/10W, Metal Film (C)
R732	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film(C)
R733	4835 111 37037	4.7k, 5%, 1/4W, Metal Film (C)
R734	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R735	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film
(C)		
R736	4835 111 37041	560 ohm, 5%, 1/4W, Metal Film(C)
R737	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R738	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R739	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R740	4835 111 37325	18 ohm, 5%, 1/4W, Metal Film (C)
R741	4835 111 37008	2k, 5%, 1/10W, Metal Film (C)
R742	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film
(C)		
R743	4835 111 37224	1.3k, 5%, 1/10W, Metal Film (C)
R744	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film
(C)		
R745	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(C)		
R746	4835 111 37373	4.3k, 5%, 1/10W, Metal Film (C)
R747	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R748	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(C)		
R749	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R750	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R751	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R752	4835 111 37032	270 ohm, 5%, 1/4W, Metal Film(C)
R753	4835 111 37041	560 ohm, 5%, 1/4W, Metal Film(C)
R754	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R755	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(C)		
R756	4835 111 37004	12k, 5%, 1/10W, Metal Film (C)
R757	4835 111 37279	9.1k, 5%, 1/10W, Metal Film (C)
R758	4835 111 37449	1.6k, 5%, 1/10W, Metal Film (C)
(C)		
Ref.	Part No.	Description
RESISTORS (Continued)		
R759	4835 116 57321	10k, 5%, 1/4W, Metal Film
R760	4835 111 37449	1.6k, 5%, 1/10W, Metal Film (C)
R761	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R762	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(C)		
R763	4835 111 37015	4.7k, 5%, 1/10W, Metal Film (C)
R764	4835 111 37216	10k, 5%, 1/10W, Metal Film
R765	4835 111 37216	10k, 5%, 1/10W, Metal Film
R766	4835 111 37216	10k, 5%, 1/10W, Metal Film
R767	4835 111 37216	10k, 5%, 1/10W, Metal Film
R768	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R769	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R770	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R771	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R772	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R773	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R774	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film (C)
R775	4835 111 37022	1k, 5%, 1/4W, Metal Film (C)
R776	4835 111 37216	10k, 5%, 1/10W, Metal Film
R777	4835 116 57321	10k, 5%, 1/4W, Metal Film
R778	4835 111 37008	2k, 5%, 1/10W, Metal Film
R779	4835 111 37002	1k, 5%, 1/10W, Metal Film
R780	4835 111 37002	1k, 5%, 1/10W, Metal Film (C)
R781	4835 111 37002	1k, 5%, 1/10W, Metal Film
R782	4835 111 37243	2.7k, 5%, 1/10W, Metal Film
R783	4835 111 37234	2.2k, 5%, 1/10W, Metal Film
R784	4835 111 27035	48.7k, 1%, 1/8W, Metal Film (C)
R785	4835 111 37483	1.8k, 2%, 1/10W, Metal Film
R786	4835 111 37006	15k, 5%, 1/10W, Metal Film
R787	4835 111 37245	3k, 5%, 1/10W, Metal Film
R788	4835 111 37008	2k, 5%, 1/10W, Metal Film
R789	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film (C)
R790	4835 111 37216	10k, 5%, 1/10W, Metal Film
R791	4835 111 37022	1k, 5%, 1/4W, Metal Film
R792	4835 111 37056	1.3k, 5%, 1/4W, Metal Film
R793	4835 111 37056	1.3k, 5%, 1/4W, Metal Film
R794	4835 111 37011	270 ohm, 5%, 1/10W, Metal Film
(F)		
R795	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(F)		
R796	4835 111 37071	220 ohm, 5%, 1/4W, Metal Film (F)
R797	4835 111 37071	220 ohm, 5%, 1/4W, Metal Film (F)
R798	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R799	4835 116 57319	1k, 5%, 1/4W, Metal Film
R800	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
R801	4835 111 37002	1k, 5%, 1/10W, Metal Film
R802	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
(C)		
R806	4835 116 57409	2k, 5%, 1/4W, Metal Film
R808	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film
R809	4835 111 37449	1.6k, 5%, 1/10W, Metal Film
R810	4835 111 37003	100k, 5%, 1/10W, Metal Film (C)
R811	4835 111 37378	7.5k, 5%, 1/10W, Metal Film (C)
R812	4835 111 37015	4.7k, 5%, 1/10W, Metal Film
R814	4835 111 37375	4.7 Meg, 5%, 1/10W, Metal Film
R1016	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film (E)
R1017	4835 111 37262	47 ohm, 5%, 1/10W, Metal Film(E)
R1018	4835 111 37017	560 ohm, 5%, 1/10W, Metal Film
(E)		

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)					
R1023	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film (E)	IC606	4835 209 88009	9V Regulator IC, MC7809CT
R1050	4835 111 37002	1k, 5%, 1/10W, Metal Film	IC700	4835 209 88328	V/C Separation IC, 613076-1 (C)
R1051	4835 111 37002	1k, 5%, 1/10W, Metal Film (E)	IC701	4835 209 87089	Dual Electronic Switch IC, 612686-1 (C)
R1052	4835 111 37005	1.5k, 5%, 1/10W, Metal Film (D)			
R1053	4835 116 57598	750 ohm, 5%, 1/8W, Metal Film (D)			
R1054	4835 116 57328	75 ohm, 5%, 1/4W, Metal Film (G)			
SEMICONDUCTORS					
D1	4835 130 37066	Diode, Silicon (G)	IC703	4835 209 87067	5V Regulator IC, MC7805CT
D2	4835 130 37066	Diode, Silicon (G)	Q3	4835 130 47086	Transistor, NPN (G)
D3	4835 130 37066	Diode, Silicon (G)	Q4	4835 130 47086	Transistor, NPN
D4	4835 130 37066	Diode, Silicon (G)	Q5	4835 130 47086	Transistor, NPN
D150	4835 130 37048	Diode, Silicon (A)	Q7	4835 130 47086	Transistor, NPN
D151	4835 130 37048	Diode, Silicon (A)	Q8	4835 130 47086	Transistor, NPN
D300	4835 130 37048	Diode, Silicon	Q9	4835 130 47083	Transistor, FM1728P4
D301	4835 130 37066	Diode, Silicon	Q10	4835 130 47086	Transistor, NPN (G)
D302	4835 130 37048	Diode, Silicon	Q11	4835 130 47086	Transistor, NPN (G)
D303	4835 130 37066	Diode, Silicon	Q12	4835 130 47086	Transistor, NPN (G)
D305	4835 130 37066	Diode, Silicon	Q14	4835 130 47086	Transistor, NPN (D)
D306	4835 130 37066	Diode, Silicon	Q16	4835 130 47086	Transistor, NPN (D)
D308	4835 130 37066	Diode, Silicon	Q17	4835 130 47086	Transistor, NPN (D)
D309	4835 130 37066	Diode, Silicon	Q18	4835 130 47086	Transistor, NPN (C)
D310	4835 130 37066	Diode, Silicon	Q140	4835 130 47086	Transistor, NPN (B)
D311	4835 130 37066	Diode, Silicon	Q141	4835 130 47086	Transistor, NPN (H)
D312	4835 130 37066	Diode, Silicon	Q142	4835 130 47086	Transistor, NPN (B)
D313	4835 130 37066	Diode, Silicon	Q152	4835 130 47083	Transistor, P-Ch, FET (A)
D320	4835 130 37048	Diode, Silicon	Q154	4835 130 47083	Transistor, P-Ch, FET (A)
D321	4835 130 37066	Diode, Silicon	Q155	4835 130 47083	Transistor, P-Ch, FET (A)
D322	4835 130 37066	Diode, Silicon	Q156	4835 130 47065	Transistor, NPN (A)
D323	4835 130 37066	Diode, Silicon	Q200	4835 130 47112	Transistor, NPN
D324	4835 130 37066	Diode, Silicon	Q201	4835 130 47112	Transistor, NPN
D325	4835 130 37066	Diode, Silicon	Q202	4835 130 47086	Transistor, NPN
D401	4835 130 37048	Diode, Silicon	Q203	4835 130 47112	Transistor, NPN
D402	4835 130 37048	Diode, Silicon	Q204	4835 130 47086	Transistor, NPN
D600	4835 130 37066	Diode, Silicon	Q300	4835 130 47086	Transistor, NPN
D601	4835 130 37066	Diode, Silicon	Q303	4835 130 47086	Transistor, NPN
D605	4835 130 37066	Diode, Silicon	Q306	4835 130 47086	Transistor, NPN
D607	4835 130 37066	Diode, Silicon	Q308	4835 130 47086	Transistor, NPN
D608	4835 130 37048	Diode, Silicon	Q313	4835 130 47086	Transistor, NPN
D609	4835 130 37066	Diode, Silicon	Q314	4835 130 47086	Transistor, NPN
D610	4835 130 37048	Diode, Silicon	Q315	4835 130 47112	Transistor, NPN
D611	4835 130 37066	Diode, Silicon	Q600	4835 130 47086	Transistor, NPN
D612	4835 130 37066	Diode, Silicon	Q601	4835 130 47112	Transistor, NPN
D613	4835 130 37066	Diode, Silicon	Q602	4835 130 47112	Transistor, NPN
D614	4835 130 37066	Diode, Silicon	Q603	4835 130 47112	Transistor, NPN
D615	4835 130 37066	Diode, Silicon	Q604	4835 130 47086	Transistor, NPN
D616	4835 130 37048	Diode, Silicon	Q605	4835 130 47086	Transistor, NPN
D617	4835 130 37048	Diode, Silicon	Q606	4835 130 47086	Transistor, NPN
D618	4835 130 37066	Diode, Silicon	Q607	4835 130 47112	Transistor, NPN
D630	4835 130 37066	Diode, Silicon	Q608	4835 130 47086	Transistor, NPN
D700	4835 130 37066	Diode, Silicon	Q609	4835 130 47086	Transistor, NPN
D701	4835 130 37066	Diode, Silicon (C)	Q610	4835 130 47086	Transistor, NPN
D702	4835 130 37066	Diode, Silicon (C)	Q611	4835 130 47112	Transistor, NPN
IC-1	4835 209 87952	Switch IC, CXA1114P	Q612	4835 130 47112	Transistor, NPN
IC-103	4835 209 17032	Quad OP Amp IC, TL074 (B)	Q613	4835 130 47112	Transistor, NPN
IC-105	4835 209 17033	Mult/Demultiplexer IC, CD4053B (B)	Q614	4835 130 47086	Transistor, NPN
IC-106	4835 209 87082	Audio Power Amp IC, CD4392 (A)	Q615	4835 130 47086	Transistor, NPN
IC-107	4835 209 17033	Mult/Demultiplexer IC, CD4053B (H)	Q616	4835 130 47112	Transistor, NPN
IC-120	4835 209 88337	Stereo Decoder & Audio IC (A)	Q617	4835 130 47112	Transistor, NPN
IC200	4835 209 88019	IF Signal Processor IC, LA7575	Q618	4835 130 47112	Transistor, NPN
IC300	4835 209 88335	Microcomputer IC, 613141-6001	Q619	4835 130 47112	Transistor, NPN
IC304	4835 209 88326	2K EEPROM IC, 613074-2 (E)	Q620	4835 130 47112	Transistor, NPN
IC304	4835 209 88327	8K EEPROM IC, 613074-8 (G)	Q621	4835 130 47112	Transistor, NPN
IC400	4835 209 87077	12V Regulator IC, MC7805CT	Q622	4835 130 47112	Transistor, NPN (C)
IC401	4835 209 87067	5V Regulator IC, MC7805CT	Q623	4835 130 47086	Transistor, NPN (F)
IC600	4835 209 88331	V/C/D Bus Control IC, 613081-1	Q624	4835 130 47086	Transistor, NPN (F)
IC602	4835 209 88329	Kine-Bias/RGB Int. IC, 613080-1 (C)	Q625	4835 130 47086	Transistor, NPN (F)
IC603	4835 209 17028	Multivibrator IC MC14538B (C)	Q626	4835 130 47112	Transistor, NPN (F)
			Q627	4835 130 47112	Transistor, NPN (F)
			Q700	4835 130 47086	Transistor, NPN (C)
			Q701	4835 130 47086	Transistor, NPN (C)

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

COMPONENT USAGE KEY:

- | | |
|---|---|
| <p>(A) Indicates component used on ASG018, ASG019, ASG020, ASG021, and ASG022 Panels only.</p> <p>(B) Indicates component used on ASG020, and ASG021 Panels only.</p> <p>(C) Indicates component used on ASG020, ASG021, ASG022, and ASG023 Panels only.</p> <p>(D) Indicates component used on ASG019, ASG020, ASG021, and ASG022 Panels only.</p> | <p>(E) Indicates component used on ASG018, ASG019, and ASG023 Panels only.</p> <p>(F) Indicates component used on ASG018, and ASG019 Panels only.</p> <p>(G) Indicates component used on ASG020, ASG021, and ASG022 Panels only.</p> <p>(H) Indicates component used on ASG018, ASG019, ASG020, and ASG021 Panels only.</p> |
|---|---|

Ref.	Part No.	Description		Ref.	Part No.	Description	
SEMICONDUCTORS (Continued)				COILS & TRANSFORMER (Continued)			
Q702	4835 130 47112	Transistor, PNP (C)	•	L700	4835 157 67027	Peaking Coil, 10uH. 10%	
Q703	4835 130 47086	Transistor, NPN (C)	•	L701	0036 209 74799	Peaking Coil, 4.7uH., 10% (C)	
Q704	4835 130 47112	Transistor, PNP (C)	•	L702	0036 209 74799	Peaking Coil, 4.7uH., 10% (C)	
Q705	4835 130 47086	Transistor, NPN (C)	•	L703	4835 157 67034	Peaking Coil, 4.7uH., 10% (C)	
Q707	4835 130 47086	Transistor, NPN (C)	•	L704	4835 157 67034	Peaking Coil, 4.7uH., 10% (C)	
Q708	4835 130 47086	Transistor, NPN (C)	•	L707	0036 209 74799	Peaking Coil, 4.7uH., 10%	
Q709	4835 130 47086	Transistor, NPN (C)	•	L708	4835 157 57119	Peaking Coil, 27uH. 5% (C)	
Q710	4835 130 47112	Transistor, PNP (C)	•	L709	4835 157 57119	Peaking Coil, 27uH. 5% (C)	
Q711	4835 130 47086	Transistor, NPN (C)	•	MISCELLANEOUS			
Q712	4835 130 47086	Transistor, NPN (C)	•	BR1	4835 111 37019	0 ohm, "Chip" Jumper	•
Q713	4835 130 47086	Transistor, NPN (C)	•	BR2	4835 111 37019	0 ohm, "Chip" Jumper	•
Q714	4835 130 47112	Transistor, PNP (C)	•	BR3	4835 111 37215	0 ohm, "Chip" Jumper (C)	•
Q715	4835 130 47086	Transistor, NPN (C)	•	BR4	4835 111 37215	0 ohm, "Chip" Jumper (A)	•
Q716	4835 130 47086	Transistor, NPN (C)	•	BR5	4835 111 37019	0 ohm, "Chip" Jumper (A)	•
Q720	4835 130 47112	Transistor, PNP (C)	•	BR6	4835 111 37019	0 ohm, "Chip" Jumper (A)	•
Q721	4835 130 47112	Transistor, PNP	•	BR8	4835 111 37019	0 ohm, "Chip" Jumper (A)	•
Q1010	4835 130 47086	Transistor, NPN (E)	•	BR9	4835 111 37019	0 ohm, "Chip" Jumper (A)	•
Q1020	4835 130 47112	Transistor, PNP (D)	•	BR389	4835 111 37019	0 ohm, "Chip" Jumper	•
Z100	4835 130 37085	Zener Diode, 8.2V (A)		BR602	4835 111 37019	0 ohm, "Chip" Jumper	•
Z101	4835 130 37085	Zener Diode, 8.2V (A)		BR606	4835 111 37019	0 ohm, "Chip" Jumper (A)	•
Z200	4835 130 37823	Zener Diode, 33V		BR701	4835 111 37019	0 ohm, "Chip" Jumper (A)	•
COILS & TRANSFORMERS				BR750	4835 111 37215	0 ohm, "Chip" Jumper	•
L200	4835 150 57053	Peaking Coil, .68uH.	•	BR760	4835 111 37019	0 ohm, "Chip" Jumper	•
L201	4835 157 57113	Adjustable LC Coil, 4.5MHz., DISC		BR800	4835 111 37019	0 ohm, "Chip" Jumper	•
L202	4835 157 57594	Adjustable LC Coil, 45.75MHz., AFT		BR849	4835 111 37019	0 ohm, "Chip" Jumper	•
L203	4835 150 57054	Peaking Coil, 2.2uH.	•	BR823	4835 111 37019	0 ohm, "Chip" Jumper (F)	•
L204	4835 157 57485	Adjustable LC Coil, 45.75		BRS14	4835 111 37215	0 ohm, "Chip" Jumper (G)	•
L205	4835 150 57054	Peaking Coil, 2.2uH.	•	BRS13	4835 111 37215	0 ohm, "Chip" Jumper (F)	•
L206	4835 150 57056	Peaking Coil, 8.2uH.	•	BRS051	4835 111 37215	0 ohm, "Chip" Jumper (G)	•
L208	4835 150 57058	Peaking Coil, 12uH.	•	BRS106	4835 111 37215	0 ohm, "Chip" Jumper (F)	•
L209	4835 157 57828	Peaking Coil, 1.0MH 10%		BRS107	4835 111 37215	0 ohm, "Chip" Jumper (F)	•
L210	4835 150 57055	Peaking Coil, 47uH.	•	BRS700	4835 111 37019	0 ohm, "Chip" Jumper (F)	•
L211	4835 150 57058	Peaking Coil, 12uH.	•	CLP106	0073 598 10002	Spring Clip f/Q106 (A)	
L300	4835 157 58078	Peaking Coil, 5.6uH. 5%		▲ F100	4835 253 37021	Fuse, Pico, 5A (A)	
L301	4835 150 57058	Peaking Coil, 12uH.	•	HS106	4835 325 27017	Silicon Insulator (F)	
L302	4835 150 57058	Peaking Coil, 12uH.	•	HS106	0073 598 20001	Heatsink, (G)	
L303	4835 157 57105	Peaking Coil, 6.8uH., 10%		HS106A	0073 598 50001	Heatsink, (F)	
L313	4835 157 57101	Peaking Coil, 4.7uH., 10%		HS400	0073 166 50007	HEATSINK, TRANS	
L330	4835 157 57101	Peaking Coil, 4.7uH., 10%		HS401	0073 166 50008	HEATSINK, TRANS	
L331	4835 157 57101	Peaking Coil, 4.7uH., 10%		HS703	0073 166 50007	HEATSINK, TRANS	
L373	4835 157 57105	Peaking Coil, 6.8uH., 10%		J1	0018 226 80004	4 Pin Mini Circuit Socket (C)	
L374	4835 157 57105	Peaking Coil, 6.8uH., 10%		J2	0018 225 80007	Phono Jack Asm. (ASG019)	
L375	4835 157 57105	Peaking Coil, 6.8uH., 10%		J2	0018 225 80002	6 Pin Phono Jack Assembly (G)	
L379	4835 157 57105	Peaking Coil, 6.8uH., 10%		J3	0018 225 80004	Jack Asm. (E)	
L405	4835 526 17001	Ferrite Bead (A)		J3	0018 225 80003	Jack Asm. (B)	
L600	0036 209 73309	Peaking Coil, 33uH.		J3	0018 225 80005	Jack Asm. (ASG022 only)	
L601	4835 157 67027	Peaking Coil, 10uH., 10%		J4	0018 228 60003	3 Pin Mini Circuit Socket (G)	
L602	4835 157 67027	Peaking Coil, 10uH., 10%		J5	0018 231 70001	4 Pin Push Terminal (ASG018, ASG019, ASG020& ASG022)	
L603	4835 157 67027	Peaking Coil, 10uH., 10% (C)		J6	0018 231 20001	2 Pin Phono Jack, Vert. (G)	
L604	4835 157 57831	Peaking Coil, 12uH., 5% (F)		J15	0018 169 30006	6 Pin Board Connector (D)	
L605	4835 150 57008	Peaking Coil, 10uH., 5%		J250	0018 222 20405	5 Pin Connector (H)	
L606	4835 157 57832	Peaking Coil, 3.3uH.		J251	0018 169 30004	4 Pin Board Connector (ASG021)	
L607	4835 157 57893	Peaking Coil, 3.9uH., 5%		J275	0018 223 60004	4 Pin Connector, YLW (ASG022 only)	
L608	4835 157 57831	Peaking Coil, 12uH., 5% (F)		J279	0018 165 60304	4 Pin Board Connector (ASG022 only)	
L609	4835 157 67018	Peaking Coil, 22uH., 5% (F)		J300	0018 169 30007	7 Pin Connector	
L610	4835 157 57057	Peaking Coil, 15uH., 5% (F)		J301	0018 169 30005	5 Pin Connector	
L611	4835 157 57833	Peaking Coil, 5.6uH., 5% (F)		J302	0018 169 30005	5 Pin Connector	
L612	4835 157 67019	Peaking Coil, 27uH., 5% (F)					

SMALL SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

COMPONENT USAGE KEY:

- | | |
|---|---|
| <p>(A) Indicates component used on ASG018, ASG019, ASG020, ASG021, and ASG022 Panels only.</p> <p>(B) Indicates component used on ASG020, and ASG021 Panels only.</p> <p>(C) Indicates component used on ASG020, ASG021, ASG022, and ASG023 Panels only.</p> <p>(D) Indicates component used on ASG019, ASG020, ASG021, and ASG022 Panels only.</p> | <p>(E) Indicates component used on ASG018, ASG019, and ASG023 Panels only.</p> <p>(F) Indicates component used on ASG018, and ASG019 Panels only.</p> <p>(G) Indicates component used on ASG020, ASG021, and ASG022 Panels only.</p> <p>(H) Indicates component used on ASG018, ASG019, ASG020, and ASG021 Panels only.</p> |
|---|---|

Ref.	Part No.	Description	Ref.	Part No.	Description
MISCELLANEOUS (Continued)			MISCELLANEOUS (Continued)		
J305	0018 169 30003	3 Pin Board Connector	SHD7B	0073 602 80002	Cover, SM SIGNAL (C)
J307	0018 223 40007	7 Pin Connector, Red	SHD7T	0073 598 90001	Shield, SM SIGNAL (C)
J313	0018 169 30002	2 Pin Connector, WHT	TUNEXT	4835 265 97026	Tuner Connector
J320	0018 169 30004	4 Pin Board Connector	UV1236	4835 210 47081	Varactor Tuner, UV1236
J402	0018 223 60007	7 Pin Connector, YLW	Y100	4835 153 97042	Ceramic Resonator, 503.5kHz. (A)
J403	0018 169 30007	7 Pin Connector	Y200	4835 153 97024	Dual SAW Filter
J466	0018 169 30008	8 Pin Connector, WHT (ASG022 only)	Y202	4835 154 97168	Trap Ceramic, 4.5MHz.
J467	0018 169 30007	7 Pin Connector (A)	Y203	4835 153 57004	Ceramic Filter, 4.5MHz.
J601	0018 169 30007	7 Pin Connector	Y301	4835 242 77244	Crystal, 12MHz.
J608	0018 223 60009	9 Pin Connector, YLW	Y600	4835 242 77022	Crystal, 3.579MHz.
JTEST	0018 165 80004	4 Pin Connector	Y601	4835 153 97004	Ceramic Resonator, 503.5kHz.
MDPIP	4835 219 77569	00APP012 F006, Multi-PIP Module (D)	Y603	4835 152 87002	Comb Filter Module (F)
MEC4	0073 567 50001	Shield, IF	Y700	4835 154 97185	7.00MHz. LPF (C)
MEC5	0073 567 60001	Cover, IF	Y701	4835 154 97185	7.00MHz. LPF (C)
SHD3B	0073 602 80002	Cover, SM SIGNAL	Y702	4835 154 97185	7.00MHz. LPF (C)
SHD3T	0073 598 90001	Shield, SM SIGNAL			

WARNING

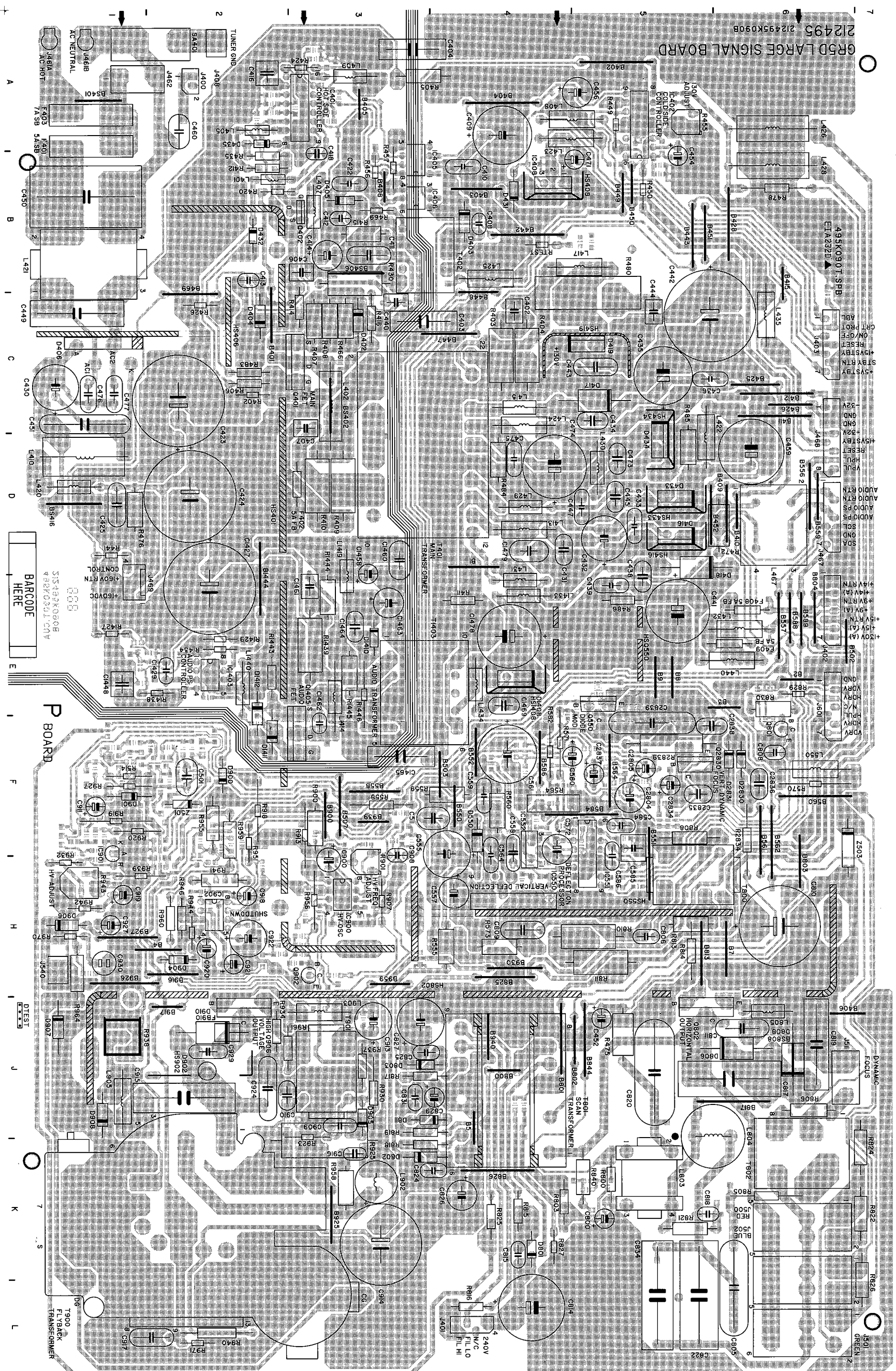
Critical components having special safety characteristics are identified with a **Δ** by the Ref. No. in the parts list and enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol **Δ** on the schematics or exploded views.

Under no circumstances should the original design be modified or altered without written permission from Philips Consumer Electronics Company. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

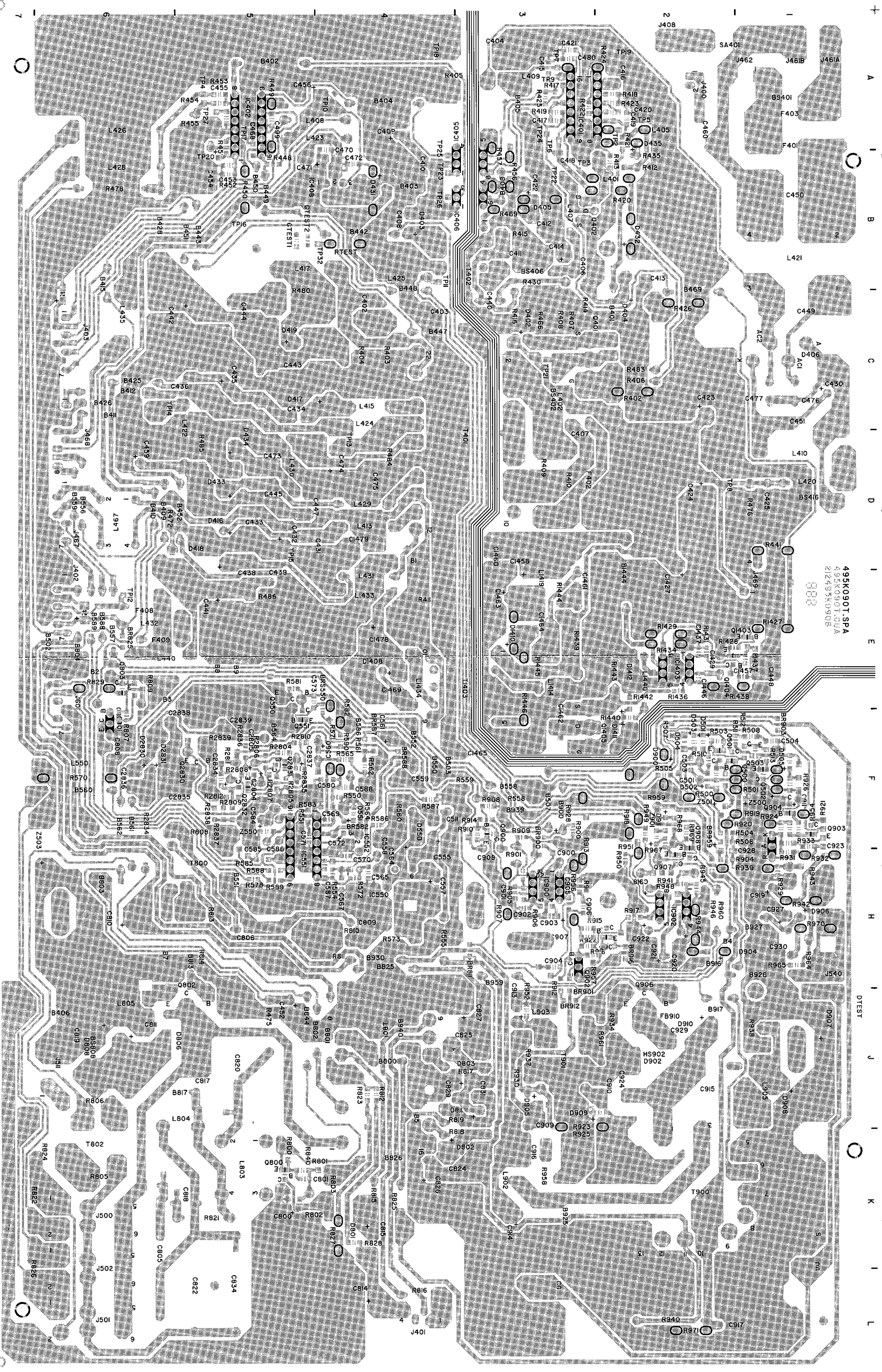
Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

• Broken Line:

(TOP VIEW)



00APD001, 00APD002, & 00APD003 (J008 VERSIONS)
LARGE SIGNAL PANEL P.C. BOARD OVERLAY
(BOTTOM VIEW)



Component zone map for Large Signal Panel (P.C. Bd.212495j080b)

Note: Zone A-1 on this artwork is in the lower left-hand corner. This same zone is physically positioned as the lower front corner within the cabinetry of an actual unit. Also, many of these components are SMD "Chip Type" and as such, will be located on the bottom side of the board.

Ref.	Zone	Ref.	Zone	Ref.	Zone	Ref.	Zone	Ref.	Zone	Ref.	Zone
B1	D-4	C409	A-4	C818	K-5	D904	H-2	L905	J-1	R938	J-1
B2	E-6	C410	B-4	C819	J-6	D905	J-3	R513	F-1	R939	H-2
B3	E-5	C411	B-3	C820	J-5	D906	H-1	R514	F-1	R940	L-2
B4	H-2	C412	B-3	C822	K-5	D907	J-1	R550	F-4	R941	H-2
B5	J-4	C413	B-2	C824	K-4	D908	J-1	R551	F-5	R942	H-1
B7	H-6	C414	B-3	C825	J-4	D909	J-2	R554	H-4	R943	H-1
B8	E-5	C415	A-3	C826	K-4	D910	J-2	R555	H-4	R944	H-2
B9	E-5	C416	A-2	C827	J-3	D911	F-2	R558	F-3	R945	H-2
B401	B-2	C417	A-3	C829	J-4	D1408	E-4	R559	F-4	R946	H-2
B402	A-5	C418	B-3	C831	J-3	D1410	E-3	R560	F-4	R948	H-2
B403	B-4	C419	A-2	C834	K-5	D1411	E-2	R561	F-4	R949	F-2
B404	A-4	C420	A-2	C900	F-3	D1412	F-2	R562	F-4	R950	H-2
B405	A-3	C421	A-3	C901	H-3	D2830	F-6	R564	F-4	R951	H-2
B406	J-7	C422	B-3	C902	H-3	D2831	F-6	R565	F-4	R952	J-3
B408	B-3	C423	C-2	C903	H-3	F401	A-1	R570	F-6	R954	F-1
B409	D-6	C424	D-2	C904	H-3	F402	D-3	R571	E-4	R955	F-2
B410	D-6	C425	D-1	C905	H-3	F403	A-1	R572	H-4	R956	H-3
B411	C-6	C430	C-1	C906	H-3	F408	E-6	R573	H-4	R957	H-3
B412	C-6	C431	D-4	C907	H-3	F409	E-6	R578	H-5	R958	K-3
B415	B-6	C432	D-5	C908	H-3	FB910	J-2	R581	E-5	R959	F-2
B425	C-6	C433	D-5	C909	J-3	HS401	H-3	R582	F-4	R960	H-2
B426	C-6	C434	C-5	C910	J-2	HS406	C-2	R583	F-4	R961	J-2
B428	B-6	C435	C-5	C911	F-1	HS408	B-4	R585	H-5	R964	J-1
B442	B-4	C436	C-6	C913	J-3	HS416	D-5	R586	F-1	R965	H-1
B443	B-5	C438	D-5	C914	K-3	HS419	C-4	R587	F-4	R967	F-2
B447	C-3	C439	E-5	C915	J-2	HS433	D-5	R588	H-5	R968	F-2
B448	C-4	C440	C-3	C916	K-3	HS434	D-5	R589	H-5	R969	F-2
B449	B-5	C441	E-5	C917	L-1	HS550	H-3	R590	F-4	R970	H-1
B450	B-5	C442	C-5	C918	H-2	HSQ550	E-4	R800	K-5	R971	L-2
B451	B-5	C443	C-5	C919	H-1	HS802	H-6	R801	K-5	R1427	E-1
B452	D-5	C444	C-5	C920	H-2	HS902	J-2	R802	K-5	R1428	E-2
B469	C-2	C445	D-5	C921	H-2	HS1408	E-4	R803	K-4	R1429	E-2
B502	E-6	C447	D-5	C922	H-2	IC401	A-2	R805	K-6	R1431	E-2
B503	F-4	C449	C-1	C923	F-1	IC402	B-5	R806	J-6	R1434	E-2
B507	F-3	C450	B-1	C924	J-2	IC405	B-3	R807	E-6	R1436	E-2
B550	F-4	C451	C-1	C927	H-1	IC406	B-3	R808	F-6	R1437	E-1
B552	F-4	C452	J-5	C928	H-2	IC408	B-2	R809	E-6	R1438	E-2
B556	D-6	C453	B-5	C929	J-2	IC550	H-4	R810	H-5	R1439	E-3
B557	E-6	C454	A-5	C930	H-1	IC551	F-4	R811	H-4	R1440	F-2
B558	F-3	C455	A-5	C1427	D-2	IC552	H-4	R812	J-4	R1442	E-2
B559	D-6	C456	A-4	C1429	E-2	IC900	H-3	R813	H-5	R1443	E-2
B560	F-6	C457	C-6	C1437	E-2	IC901	F-1	R814	H-5	R1444	E-3
B561	F-6	C458	E-6	C1446	E-2	IC902	H-2	R815	K-4	R1445	E-3
B562	F-6	C459	D-6	C1448	E-1	IC1403	E-2	R816	L-4	R1446	E-3
B564	F-5	C460	A-2	C1457	E-1	J400	A-2	R817	J-4	R2804	F-5
B584	F-5	C468	B-5	C1458	E-3	J401	L-4	R818	K-4	R2805	F-5
B586	F-4	C470	B-4	C1460	D-3	J402	E-6	R819	J-4	R2806	F-5
B587	F-4	C471	B-4	C1461	E-3	J403	C-6	R821	K-5	R2807	F-5
B588	E-6	C472	B-4	C1462	F-3	J408	A-2	R822	K-7	R2808	F-5
B589	E-6	C473	D-5	C1463	E-3	J461A	A-1	R823	J-4	R2809	F-5
B800	J-4	C474	D-4	C1464	E-3	J461B	A-1	R824	J-7	R2810	F-5
B801	J-4	C475	D-4	C1465	F-3	J462	A-1	R825	K-4	R2811	F-5
B802	J-4	C476	C-1	C1469	E-4	J467	D-6	R826	K-7	R2812	F-5
B803	F-6	C477	C-1	C1478	E-4	J468	C-6	R827	K-4	R2813	F-6
B804	E-6	C480	A-3	C1479	D-4	J469	E-1	R828	K-4	R2835	F-5
B813	H-5	C499	A-5	C2804	F-5	J500	K-6	R829	E-6	R2836	F-5
B817	J-6	C501	F-2	C2805	F-5	J501	L-6	R840	K-6	R2837	F-5
B825	H-4	C503	F-2	C2834	F-5	J502	K-6	R900	F-3	R2838	F-5
B826	K-4	C504	F-1	C2835	F-5	J511	J-6	R901	F-3	R2839	F-6
B844	J-5	C511	F-4	C2836	F-6	J540	H-1	R902	H-3	RTEST	B-4
B900	F-3	C555	F-4	C2837	F-5	J601	E-6	R448	B-5	SA401	A-1
B916	H-1	C557	H-4	C2838	F-5	L401	B-3	R449	A-5	T401	C-3
B917	J-2	C558	F-4	C2839	F-5	L402	C-3	R450	B-5	T402	B-3
B925	K-3	C559	F-4	D402	C-3	L405	A-2	R451	A-5	T800	H-5
B926	H-1	C560	F-4	D403	B-4	L407	B-3	R452	B-5	T801	K-4
B927	H-1	C561	F-4	D404	C-2	L408	A-5	R453	A-5	T802	K-6
B930	H-4	C564	F-4	D405	B-3	L409	A-3	R454	A-5	T900	K-2
B939	F-3	C565	H-4	D406	C-1	L410	D-1	R455	A-5	T901	J-3
B940	J-4	C567	H-4	D416	D-5	L413	D-4	R456	B-3	T1403	E-3
B959	H-3	C569	F-4	D417	C-4	L415	C-4	R457	B-3	Z500	F-1
B1444	D-2	C570	H-4	D418	D-5	L417	B-4	R466	C-3	Z501	F-2
BR582	F-4	C571	F-5	D419	C-5	L420	D-1	R469	B-3	Z503	H-6
BR811	H-3	C572	F-4	D431	B-4	L421	B-1	R472	D-6	Z901	F-2
BR825	E-6	C573	E-5	D432	B-2	L422	D-5	R475	J-5		
BR900	F-3	C580	F-4	D433	D-5	L423	A-5	R476	D-1		
BR901	H-3	C584	F-5	D434	D-5	L424	C-4	R478	B-6		
BR903	F-1	C585	F-5	D435	A-2	L425	B-4	R480	C-4		
BR912	J-3	C586	F-5	D501	F-2	L426	A-6	R483	C-2		
BR916	H-2	C587	H-4	D502	F-2	L428	B-6	R484	D-4		
BR959	H-2	C588	F-4	D503	F-2	L429	D-4	R485	C-5		
BRS550	F-4	C800	K-5	D504	F-2	L430	D-5	R486	E-5		
BS401	A-1	C801	K-5	D505	F-1	L431	E-4	R500	F-2		
BS402	C-3	C805	K-6	D550	H-4	L432	E-5	R501	F-2		
BS406	B-3	C806	H-5	D551	F-4	L435	C-6	R503	F-2		
BS416	D-1	C807	E-6	D801	K-4	L440	E-5	R504	F-2		
BS808	J-6	C808	F-6	D802	K-4	L467	D-6	R505	F-2		
C402	C-4	C809	H-4	D803	J-4	L550	F-6	R506	F-2		
C403	C-4	C810	H-6	D806	J-6	L803	K-5	R507	F-2		
C404	A-4	C811	J-6	D808	J-6	L804	J-5	R508	F-1		
C406	B-3	C814	L-4	D811	J-3	L805	J-6	R510	F-2		
C407	C-3	C815	K-4	D900	F-2	L902	K-3	R511	F-2		
C408	B-4	C817	J-6	D901	F-1	L903	J-2	R512	F-1		

LARGE SIGNAL PANEL WAVEFORM PHOTOS

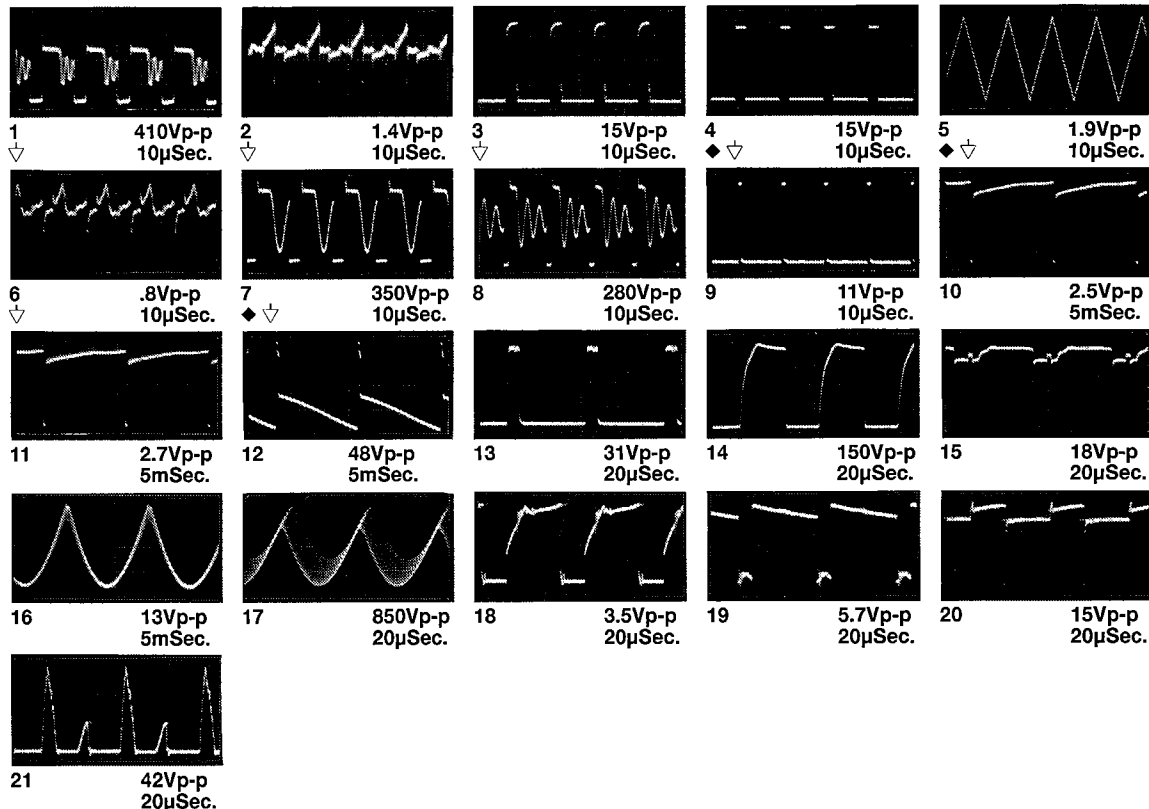
CAUTION: A SEPARATE ISOLATION TRANSFORMER MUST BE USED WHEN SERVICING THIS CHASSIS.

▽ INDICATES "HOT" GROUND (AC GROUND)

LARGE SIGNAL PANEL WAVEFORM NOTES:

UNLESS OTHERWISE SPECIFIED:

1. ALL VOLTAGES AND WAVEFORMS WERE TAKEN WITH AN NTSC COLOR BAR PATTERN SIGNAL APPLIED.
2. SWEEP TIME/CM SETTINGS ARE SHOWN JUST BELOW THE PHOTOS IN THE CALIBRATED POSITION. HORIZONTAL POSITIONING OF THE WAVEFORMS WERE ADJUSTED FOR MAXIMUM CLARITY.



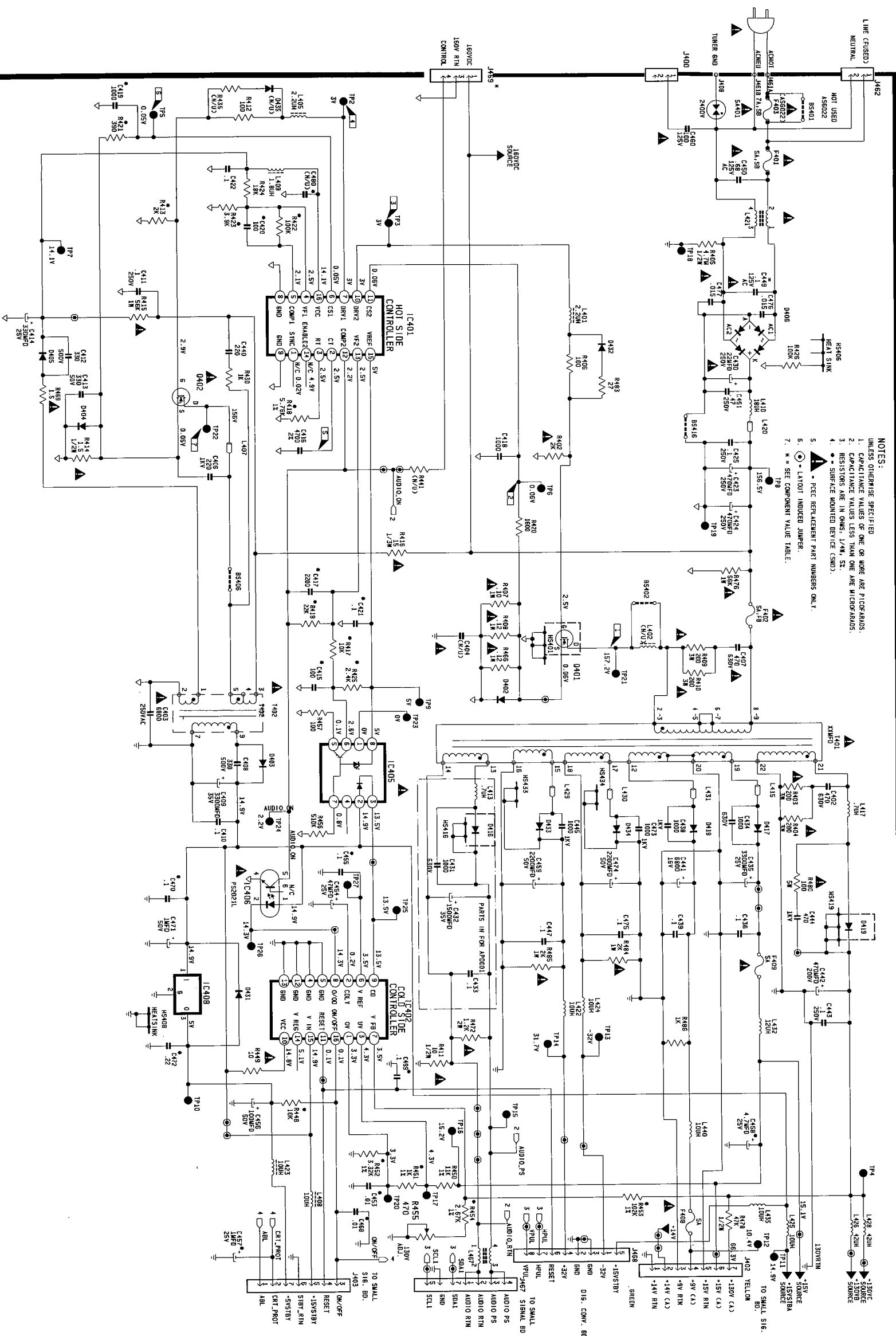
LARGE SIGNAL PANEL SCHEMATIC NOTES:

UNLESS OTHERWISE SPECIFIED:

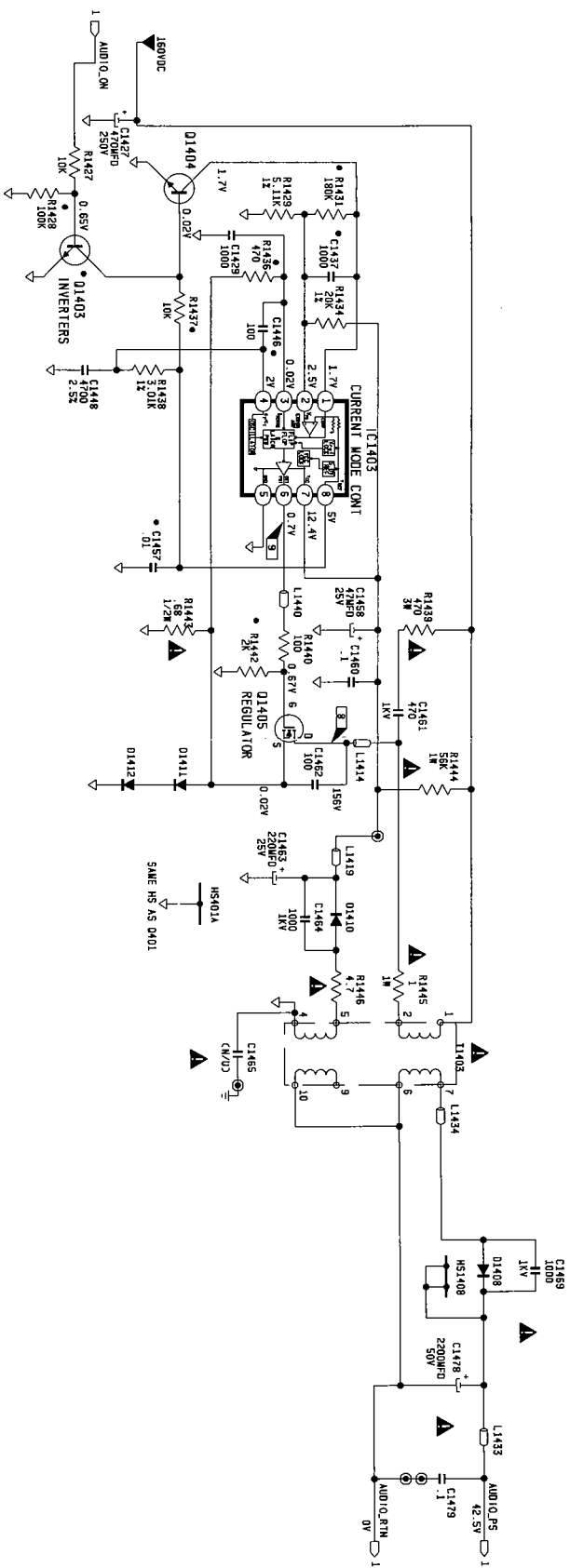
1. ALL VOLTAGES AND WAVEFORMS WERE TAKEN UNDER THE CONDITIONS FOLLOWS:
 - LINE VOLTAGE MAINTAINED AT 120VAC, 60HZ VIA AN ISOLATION TRANSFORMER.
 - CUSTOMER CONTROLS SET TO FACTORY DEFAULT LEVELS AS FOLLOWS:
 - COLOR, TINT, & BRIGHTNESS SET TO MIDRANGE, PICTURE SET TO APPROXIMATELY 2/3 (BETWEEN MIDRANGE AND FULL ON).
2. WAVEFORMS AND VOLTAGES (WITHOUT BRACKETS) WERE TAKEN WITH AN NTSC SIGNAL GENERATOR DELIVERING 10mVp-p AT THE ANTENNA TERMINALS.
3. VOLTAGES SHOWN WITH BRACKETS WERE TAKEN WITH NO SIGNAL APPLIED; THEY ARE LISTED ONLY WHERE AN APPRECIABLE CHANGE WAS NOTED, OR AS IN THE SOUND CIRCUITRY WHERE NO VOLTAGES WITH SIGNAL WERE TAKEN.
4. ALL VOLTAGES ARE POSITIVE DC WITH RESPECT TO THE GROUND LOCATED IN THAT AREA OF THE CIRCUITRY AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES. VOLTAGE SOURCES ARE ALSO NOMINAL, WITH THE EXCEPTION OF THE +130Vdc SOURCE (TP4) WHICH IS TIGHTLY REGULATED TO BE WITHIN +.1Vdc, -2Vdc (MEASURED WITH A .1% DIGITAL VOLTMETER).
5. SCHEMATIC SYMBOLS:
 - = INDICATES THESE COMPONENTS ARE SMD "CHIP" TYPE COMPONENTS AND AS SUCH, WILL BE LOCATED ON THE COPPER SIDE OF THE PRINTED CIRCUIT BOARD.
 - * = INDICATES THESE COMPONENTS WILL VARY DEPENDING UPON SCREEN SIZE, PRODUCTION DATES, AND OPTIONAL FEATURES INSTALLED. SEE THE COMPONENT CHARTS POSTED ON THE SCHEMATIC, OR THE REPLACEMENT PARTS LIST FOR SPECIFIC PART INFORMATION.
6. FOR VOLTAGE, WATTAGE AND TOLERANCE RATINGS OF CAPACITORS OR RESISTORS, REFER TO THE ELECTRICAL REPLACEMENT PARTS LIST.

00APD001, 00APD002, & 00APD003 (J008 VERSIONS) LARGE SIGNAL PANEL SCHEMATIC DIAGRAM (SECTION - 1 (1 OF 4))

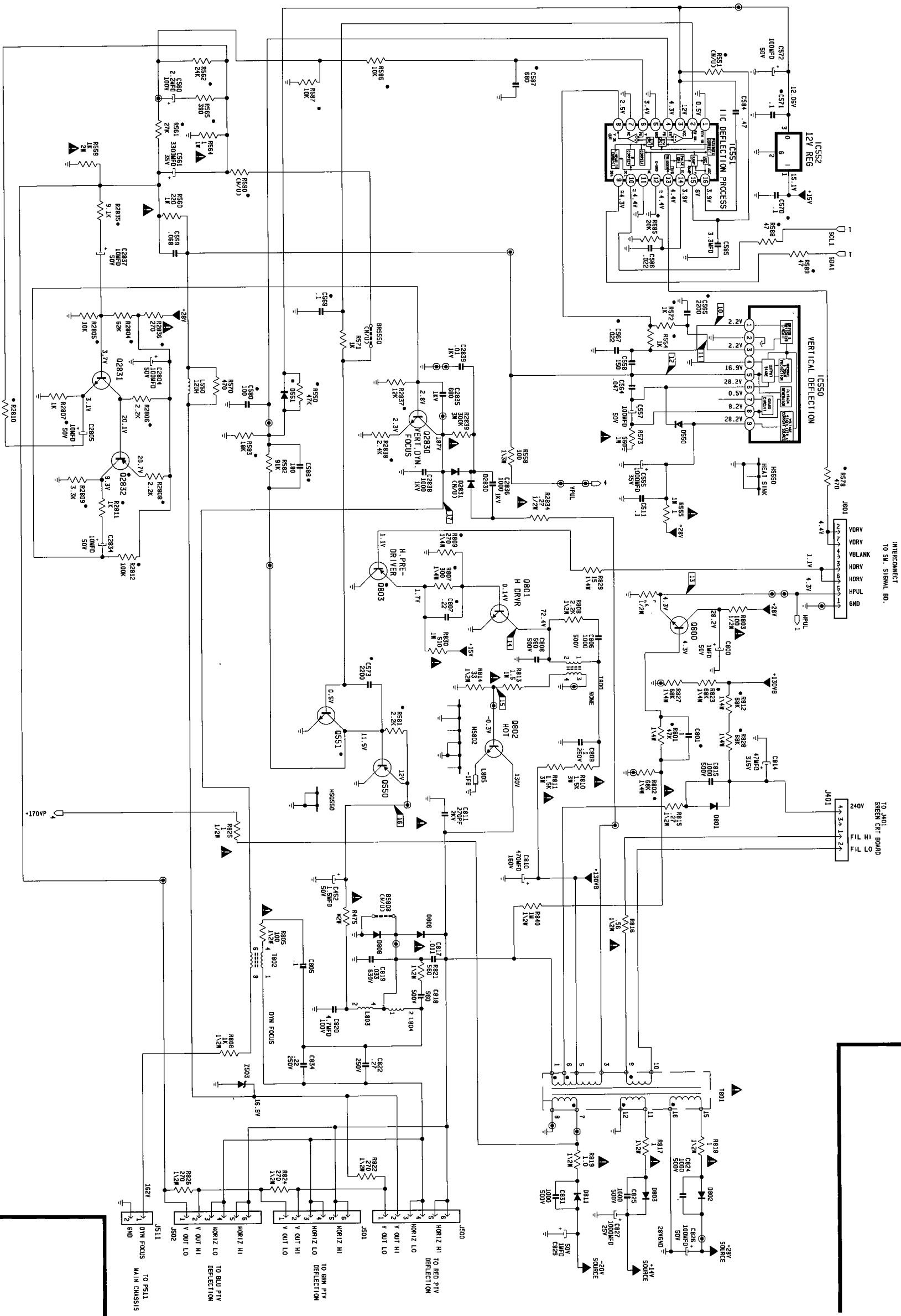
LARGE SIGNAL PANEL INTERCONNECT CHART
Small Signal Panel Schematic - Pg. 23/ Frame(G8)
Digital Convergence Panel Schematic - Pg. 49/ Frame (G12)
Green CRT Panel - Pg. 57/ Frame (G8)
Audio Power Supply Panel Schematic - Pg. 67/ Frame (G12)
Remote Locator Panel - Pg. 75/ Frame (G8)



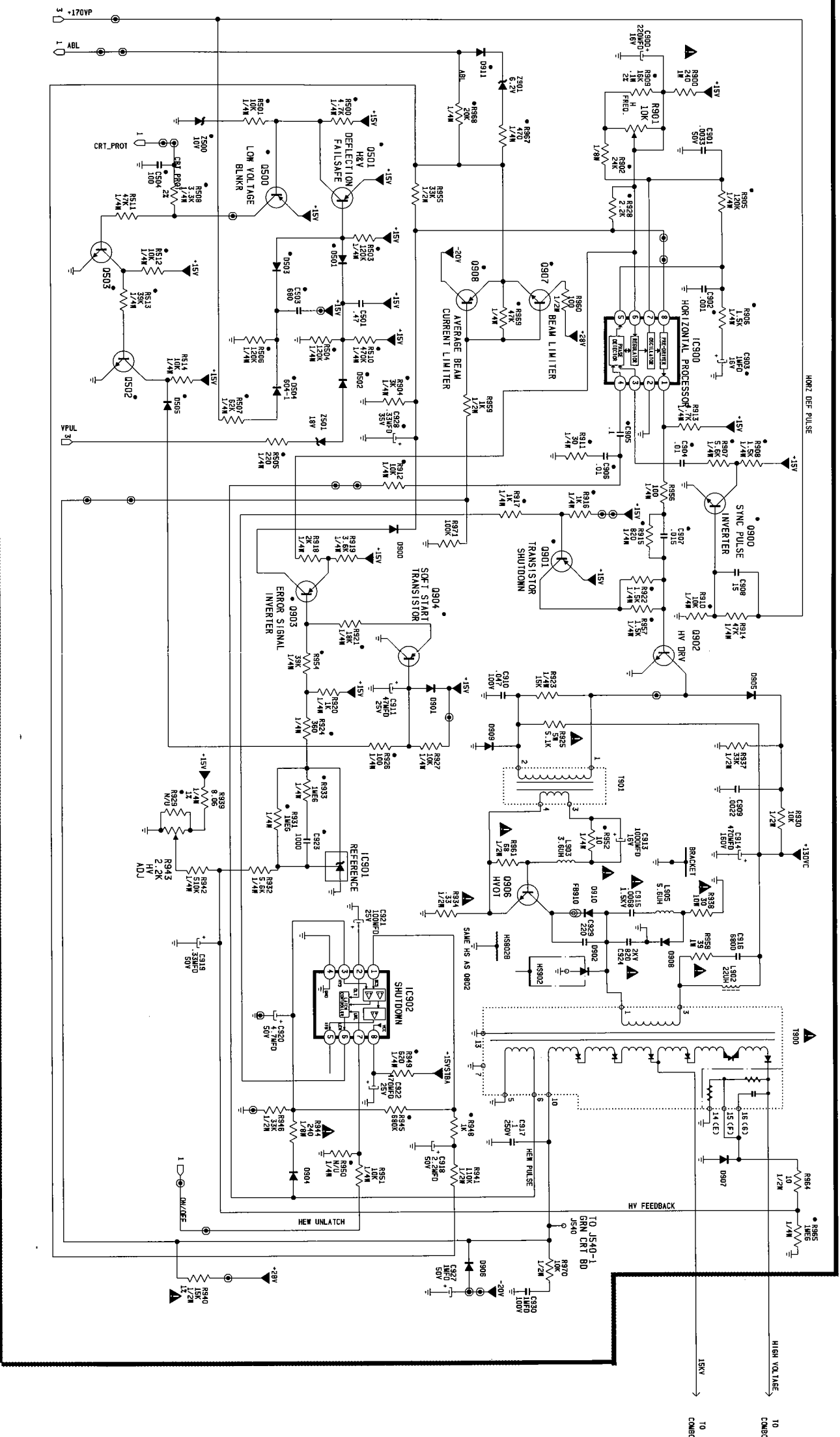
00APD001, 00APD002, & 00APD003 (J008 VERSIONS)
LARGE SIGNAL PANEL SCHEMATIC DIAGRAM
(SECTION - 2 (2 OF 4))



00APD001, 00APD002, & 00APD003 (J008 VERSIONS) LARGE SIGNAL PANEL SCHEMATIC DIAGRAM (SECTION - 3 (3 OF 4))



00APD001, 00APD002, & 00APD003 (J008 VERSIONS) LARGE SIGNAL PANEL SCHEMATIC DIAGRAM (SECTION - 4 (4 OF 4))



CHASSIS	REST VALUE
APD001	1K
APD002	3.3K
APD003	5.6K

1732
*
R1851
THESE PARTS ARE
IN PCB FOR
BLUE TONQUE TEST
615312
0005

To order parts call the TOLL FREE Philips Sales Center number: (In U.S.A.) 1-800-851-8885
(In Canada) 1-800-363-PART • 1-800-663-7178 (Fax)

00APD001, 00APD002, & 00APD003 LARGE SIGNAL PANEL
(J008 VERSIONS)

REPLACEMENT PARTS LIST

(00APD001 J008, Complete Panel: 4835 219 77575)
(00APD002 J008, Complete Panel: 4835 219 77576)
(00APD003 J008, Complete Panel: 4835 219 77577)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.
• Indicates an SMD "Chip" type of component.

Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS					
▲ C402	4835 122 47459	470pF., 10%, 1kV, Ceramic	▲ C472	4835 122 87087	22uF., +80-20%, 50V, Ceramic
▲ C403	4835 122 97082	6800pF., 10%, 250Vac, Metallized Film	C473	4835 122 47373	1000pF., 10%, 1kV, Ceramic
C406	4835 122 47458	220pF., 1kV, 10%, Ceramic	C474	4835 124 47574	2200uF., 50V, Electrolytic
C407	4835 122 47459	470pF., 10%, 1kV, Ceramic	C475	4822 121 41608	1uF., 10%, 100V, Polyester
C408	4835 122 47033	330pF., 10%, 500V, Ceramic	C476	4835 121 47203	0.15uF., 10%, 400V, Polyester
C409	4835 124 47559	3300uF., 35V, Electrolytic	C477	4835 121 47203	0.15uF., 10%, 400V, Polyester
C410	4822 121 41608	1uF., 10%, 100V, Polyester	C499	4835 122 87044	1uF., 50V, 20%, Ceramic
C411	4835 121 47278	1uF., 10%, 250V, Polyester	C501	4835 121 47364	47uF., 5%, 100V, Polyester
C412	4835 122 47033	330pF., 10%, 500V, Ceramic	C503	4835 122 87037	680pF., 5%, 50V, Ceramic
C413	4835 122 47033	330pF., 10%, 500V, Ceramic	C504	4835 122 87025	100pF., 5%, 50V, Ceramic
C414	4835 124 47632	330uF., 25V, Electrolytic	C511	4822 121 42094	1uF., 10%, 50V, Polyester
C415	4835 122 87025	100pF., 5%, 50V, Ceramic	C555	4835 124 47551	1000uF., 35V, Electrolytic
C416	4835 121 47087	4700pF., 2.5%, 63V, Polypropylene	C557	4835 124 47563	100uF., 50V, Electrolytic
C417	4835 122 87524	2200pF., 10%, 50V, Ceramic	C558	4835 122 47074	150pF., 10%, 500V, Ceramic
C418	4835 122 47004	1000pF., 10%, 50V, Ceramic	C559	4835 121 47042	0.06uF., 10%, 100V, Polyester
C419	4835 122 87041	1000pF., 10%, 50V, Ceramic	C561	4835 124 47502	2.2uF., 50V, Electrolytic
C420	4835 122 87025	100pF., 5%, 50V, Ceramic	C564	4835 121 47005	0.047uF., 35V, Electrolytic
C421	4835 122 87044	1uF., 50V, 20%, Ceramic	C565	4835 122 87083	2200pF., 10%, 50V, Ceramic
C422	4822 121 41608	1uF., 10%, 100V, Polyester	C567	4835 122 87064	0.022uF., 10%, 50V, Ceramic
C423	4835 124 47141	470uF., 250V, Electrolytic	C569	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C424	4835 124 47141	470uF., 250V, Electrolytic	C570	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C425	4835 121 47278	1uF., 10%, 250V, Polyester	C571	4835 122 87375	1uF., +80-20%, 50V, Ceramic
▲ C430	4835 124 47021	22uF., 250V, Electrolytic	C572	4835 124 47556	100uF., 50V, Electrolytic
C431	4835 121 47383	1000pF., 10%, 630V, Polypropylene	C573	4835 122 87524	2200pF., 10%, 50V, Ceramic
C432	4835 124 47581	1500uF., 35V, Electrolytic	C580	4835 122 87025	1000pF., 5%, 50V, Ceramic
C433	4822 121 41608	(00ASG001 only)	C584	4822 121 41785	47uF., 63V, Polyester
C434	4835 122 47373	1000pF., 10%, 1kV, Ceramic	C585	4835 121 47516	3.3uF., 50V, Polyester
C435	4835 124 47575	3300uF., 25V, Electrolytic	C587	4835 122 87019	0.022uF., 10%, 100V, Polyester
C436	4822 121 41608	1uF., 10%, 100V, Polyester	C588	4835 122 87028	180pF., 5%, 50V, Ceramic
C438	4835 122 47373	1000pF., 10%, 1kV, Ceramic	C800	4835 121 47406	1uF., 50V, Electrolytic
C439	4822 121 41608	1uF., 10%, 100V, Polyester	C801	4835 122 87375	1uF., +80-20%, 50V, Ceramic
C440	4835 122 47458	220pF., 1kV, 10%, Ceramic	C805	4835 121 47025	1uF., 10%, 250V, Polyester
C441	4835 124 47579	6800uF., 16V, Electrolytic	C806	4835 122 47384	1000pF., 10%, 500V, Ceramic
C442	4835 124 47097	470uF., 200V, Electrolytic	C807	4835 122 87087	22uF., +80-20%, 50V, Ceramic
C443	4835 121 47278	1uF., 10%, 250V, Polyester	C808	4835 122 47212	1uF., 10%, 500V, Ceramic
C444	4835 122 47459	470pF., 10%, 1kV, Ceramic	C809	4835 121 47278	470uF., 160V, Electrolytic
C445	4835 122 47373	1000pF., 10%, 1kV, Ceramic	C810	4835 124 47483	470uF., 160V, Electrolytic
C447	4822 121 41608	1uF., 10%, 100V, Polyester	▲ C811	4835 122 47483	270pF., 10%, 2kV, Ceramic
▲ C449	4835 122 97067	1uF., 10%, 250Vac, Metallized Film	C815	4835 122 47384	1000pF., 10%, 500V, Polypropylene
▲ C450	4835 122 97068	68uF., 10%, 250Vac, Metallized Film	C817	4835 121 47055	47uF., 315V, Electrolytic
C451	4835 121 47411	47uF., 10%, 250V, Polyester	C818	4835 122 47212	560pF., 10%, 500V, Ceramic
C452	4835 124 47568	1.5uF., 50V, Electrolytic	C819	4835 121 47418	0.03uF., 5%, 630V, Polyester
C453	4835 122 87042	0.1uF., 10%, 50V, Ceramic	▲ C820	4835 121 47392	4.7uF., 10%, 100V, Polyester
C454	4835 124 47526	47uF., 25V, Electrolytic	C822	4835 122 97081	27uF., 5%, 250V, Polypropylene
C455	4835 122 87044	1uF., 50V, 20%, Ceramic	C824	4835 122 47384	1000pF., 10%, 500V, Ceramic
C456	4835 124 47563	100uF., 50V, Electrolytic	C825	4835 122 47384	1000pF., 10%, 500V, Ceramic
C457	4835 124 97045	1uF., 25V, Electrolytic	C826	4835 124 47563	100uF., 50V, Electrolytic
C458	4835 124 97169	4.7uF., 25V, Electrolytic	C827	4835 124 47572	1000uF., 25V, Electrolytic
C459	4835 124 47574	2200uF., 50V, Electrolytic	C829	4835 121 47406	1uF., 50V, Electrolytic
▲ C460	4835 122 97084	100pF., 20%, 125Vac, Ceramic	C831	4835 122 47384	1000pF., 10%, 500V, Ceramic
C468	4835 122 87042	(00APD002 & 00APD003 Asm.)	C834	4835 122 97079	22uF., 5%, 250V, Polypropylene
C470	4835 122 87044	1uF., 10%, 50V, Ceramic	C900	4835 124 47494	220uF., 16V, Electrolytic
C471	4835 121 47406	1uF., 50V, Electrolytic	C901	4835 122 87447	3300pF., 5%, 50V, Ceramic
			C902	4835 122 87369	1000pF., 5%, 50V, Ceramic
			C903	4835 124 97026	1uF., 16V, Electrolytic

LARGE SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS (Continued)					
C904	4835 122 87042	0.1uF., 10%, 50V, Ceramic	▲ R407	4835 116 67179	1 ohm, 5%, 1W, Metal Film
C905	4835 122 87044	1uF., 50V, 20%, Ceramic	▲ R408	4835 116 67121	.12 ohm, 5%, 1W, Metal Film
C906	4835 122 87042	0.1uF., 10%, 50V, Ceramic	▲ R409	4835 116 67156	200 ohm, 5%, 3W, Metal Film
C907	4835 122 87063	0.15uF., 10%, 50V, Ceramic	▲ R410	4835 116 67156	200 ohm, 5%, 3W, Metal Film
C908	4835 122 47455	15pF., 10%, 500V, Ceramic	▲ R411	4835 116 67131	10 ohm, 5%, 1/2W, Metal Film
C909	4835 122 47057	2200pF., 10%, 500V, Ceramic	R412	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
C910	4835 121 47081	0.047uF., 10%, 100V, Polyester	▲ R413	4835 111 37029	2k, 5%, 1/4W, Metal Film
C911	4835 124 47526	47uF., 25V, Electrolytic	▲ R414	4835 116 67073	1.5 ohm, 5%, 1/2W, Metal Film
C913	4835 124 47497	1000uF., 16V, Electrolytic	▲ R415	4835 116 57039	56k, 5%, 1W, Metal Film
C914	4835 124 47483	470uF., 160V, Electrolytic	▲ R416	4835 116 57064	15 ohm, 5%, 1/3W, Metal Film
▲ C915	4835 121 47078	6800pF., 5%, 1500V, Polypropylene	R417	4835 111 37023	10k, 5%, 1/4W, Metal Film
C916	4835 122 47094	6800pF., 5%, 100V, Polyester	R418	4835 111 27007	5760 ohm, 1%, 1/8W, Metal Film
C917	4835 121 47278	1uF., 10%, 250V, Polyester	R419	4835 111 37031	22k, 5%, 1/4W, Metal Film
C918	4835 124 47502	2.2uF., 50V, Electrolytic	R420	4835 116 57404	1.6k, 5%, 1/4W, Metal Film
C919	4835 124 47525	33uF., 50V, Electrolytic	R421	4835 111 37095	390 ohm, 5%, 1/4W, Metal Film
C920	4835 124 47506	4.7uF., 50V, Electrolytic	R422	4835 111 37024	100k, 5%, 1/4W, Metal Film
C921	4835 124 47501	100uF., 25V, Electrolytic	R423	4835 111 37096	3.9k, 5%, 1/4W, Metal Film
C922	4835 121 47405	470uF., 25V, Electrolytic	R424	4835 116 57323	18k, 5%, 1/4W, Metal Film
C923	4835 122 87041	1000pF., 10%, 50V, Ceramic	R425	4835 111 37079	2.4k, 5%, 15%, 1/4W, Metal Film
C924	4835 122 57004	820pF., 10%, 2kV, Ceramic	R426	4835 116 57365	100k, 5%, 1/4W, Metal Film
C927	4835 121 47406	1uF., 50V, Electrolytic	R430	4835 116 57242	1k, 5%, 3W, Metal Film
C928	4835 124 97037	33uF., 35V, Electrolytic	R448	4835 111 37023	10k, 5%, 1/4W, Metal Film
C929	4835 122 47456	220pF., 10%, 500V, Ceramic	▲ R449	4835 116 57362	10 ohm, 5%, 1/4W, Metal Film
C930	4835 124 47485	1uF., 100V, N.P. Electrolytic	R450	4835 116 57094	11k, 1%, 1/8W, Metal Film
C1427	4835 124 47141	470uF., 250V, Electrolytic	R451	4835 111 27011	1k, 1%, 1/8W, Metal Film
▲ C1429	4835 122 47384	(00APD002 & 00APD003 Asm.)	R452	4822 121 91183	3320 ohm, 1%, 1/8W, Metal Film
C1437	4835 122 87023	1000pF., 10%, 50V, Ceramic	R453	4835 111 27033	102k, 1%, 1/8W, Metal Film
C1446	4835 122 87012	100pF., 5%, 50V, Ceramic	R454	4835 111 27034	2670 ohm, 1%, 1/8W, Metal Film
C1448	4835 121 47087	(00APD002 & 00APD003 Asm.)	R456	4835 116 57433	510k, 5%, 1/4W, Metal Film
▲ C1457	4835 122 87024	(00APD002 & 00APD003 Asm.)	R457	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
C1458	4835 124 47526	47uF., 25V, Electrolytic	▲ R466	4835 116 67121	.12 ohm, 5%, 1W, Metal Film
C1460	4835 122 47107	1uF., 20%, 100V, Polyester	R469	4835 116 57466	1.5 ohm, 5%, 1/4W, Metal Film
C1461	4835 122 47459	470pF., 10%, 1kV, Ceramic	▲ R472	4835 116 57357	1.2k, 5%, 2W, Metal Film
C1462	4835 122 47028	100pF., 10%, 500V, Ceramic	▲ R475	4835 116 67127	(00APD002 & 00APD003 Asm.)
C1463	4835 124 47537	220uF., 25V, Electrolytic	▲ R476	4835 116 57039	56k, 5%, 1W, Metal Film
C1464	4835 122 47373	(00APD002 & 00APD003 Asm.)	▲ R478	4835 112 27029	47k, 5%, 1/2W, Metal Film
▲ C1469	4835 122 47373	(00APD002 & 00APD003 Asm.)	R480	4835 110 57174	100 ohm, 5%, 5W, Wire Wound
C1478	4835 124 47574	1uF., 20%, 100V, Polyester	▲ R483	4835 116 67154	2k, 5%, 1W, Metal Film
C1479	4835 122 47107	(00APD002 & 00APD003 Asm.)	▲ R484	4835 116 67154	2k, 5%, 1W, Metal Film
C2804	4835 124 47563	100uF., 50V, Electrolytic	R486	4835 111 37037	4.7k, 5%, 1/4W, Metal Film
C2805	4835 124 47499	10uF., 50V, Electrolytic	R500	4835 111 37055	10k, 5%, 1/4W, Metal Film
C2834	4835 124 47499	10uF., 50V, Electrolytic	R501	4835 111 37055	120k, 5%, 1/4W, Metal Film
C2835	4835 122 47461	680pF., 10%, 1kV, Ceramic	R504	4835 111 37055	120k, 5%, 1/4W, Metal Film
C2836	4835 122 47373	1000pF., 10%, 1kV, Ceramic	R505	4835 111 37071	220 ohm, 5%, 1/4W, Metal Film
C2837	4835 124 47499	10uF., 50V, Electrolytic	R506	4835 111 37055	120k, 5%, 1/4W, Metal Film
C2838	4835 122 47373	1000pF., 10%, 1kV, Ceramic	R507	4835 111 37356	62k, 5%, 1/4W, Metal Film
C2839	4835 122 57002	0.1uF., 20%, 2kV, Ceramic	R508	4835 111 37327	3.3k, 2%, 1/4W, Metal Film
RESISTORS					
▲ R402	4835 116 57409	2k, 5%, 1/4W, Metal Film	▲ R510	4835 111 37407	470k, 5%, 1/10W, Metal Film
▲ R403	4835 116 67156	200 ohm, 5%, 3W, Metal Film	R511	4835 111 37016	47k, 5%, 1/10W, Metal Film
▲ R404	4835 116 67156	200 ohm, 5%, 3W, Metal Film	R512	4835 111 37023	10k, 5%, 1/4W, Metal Film
▲ R405	4835 116 57009	4.7 Meg, 5%, 1/2W, Metal Film	R513	4835 111 37097	39k, 5%, 1/4W, Metal Film
▲ R406	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film	R514	4835 116 57321	10k, 5%, 1/4W, Metal Film
			R550	4835 111 37016	47k, 5%, 1/10W, Metal Film
			▲ R554	4835 111 37002	1k, 5%, 1/10W, Metal Film
			R555	4835 116 57117	1 ohm, 5%, 1W, Metal Film
			R558	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film
			▲ R559	4835 116 67153	1k, 5%, 1W, Metal Film
			▲ R561	4835 111 37033	27k, 5%, 1/4W, Metal Film
			R562	4835 111 37081	24k, 5%, 1/4W, Metal Film
			R564	4835 113 67002	1 ohm, 5%, 1W, Wire Wound
			R565	4835 111 37022	1k, 5%, 1/4W, Metal Film
			R570	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
					1k, 5%, 1/4W, Metal Film

LARGE SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)			RESISTORS (Continued)		
R572	4835 111 37002	1k, 5%, 1/10W, Metal Film	R930	4835 110 47173	10k, 5%, 1/2W, Carbon Film
R573	4835 116 57146	560 ohm, 5%, 1W, Metal Film	R931	4835 111 37035	1 Meg, 5%, 1/4W, Metal Film
R578	4835 111 37269	470 ohm, 5%, 1/10W, Metal Film	R932	4835 116 57434	5.6k, 5%, 1/4W, Metal Film
R581	4835 111 37234	2.2k, 5%, 1/10W, Metal Film	R933	4835 111 37047	1 Meg, 5%, 1/4W, Metal Film
R582	4835 116 57509	91k, 5%, 1/4W, Metal Film	R934	4835 116 57114	.33 ohm, 5%, 1/2W, Metal Film
R583	4835 111 37066	18k, 5%, 1/4W, Metal Film	R937	4835 110 47174	33k, 5%, 1/2W, Carbon Film
R586	4835 111 37069	20k, 5%, 1/4W, Metal Film	R938	4835 112 37018	30 ohm, 10%, 10W, Wire Wound
R588	4835 111 37216	10k, 5%, 1/10W, Metal Film	R939	4835 116 57597	8060 ohm, 1%, 1/8W, Metal Film
R587	4835 111 37023	10k, 5%, 1/4W, Metal Film	R940	4835 116 57596	15k, 1%, 1/2W, Metal Film
R588	4835 111 37107	47 ohm, 5%, 1/4W, Metal Film	R941	4835 110 47193	110k, 5%, 1/2W, Carbon Comp.
R589	4835 111 37107	47 ohm, 5%, 1/4W, Metal Film	R942	4835 116 57433	510k, 5%, 1/4W, Metal Film
R800	4835 116 57599	2k, 5%, 1/2W, Metal Film	R943	4835 100 17047	2.2k, Control Adj.
R801	4835 111 37038	47k, 5%, 1/4W, Metal Film	R944	4835 110 67204	240 ohm, 2%, 1/8W, Carbon Film
R802	4835 111 37118	68k, 5%, 1/4W, Metal Film	R945	4835 111 37274	680k, 5%, 1/10W, Metal Film
R803	4835 116 57552	100 ohm, 5%, 1/2W, Metal Film	R946	4835 110 57321	33k, 2%, 1/4W, Carbon Film
R805	4835 116 57552	100 ohm, 5%, 1/2W, Metal Film	R948	4835 111 37002	1k, 5%, 1/10W, Metal Film
R806	4835 110 47165	1k, 20%, 1/2W, Carbon Comp.	R949	4835 111 37114	620 ohm, 5%, 1/4W, Metal Film
R807	4835 111 37244	300 ohm, 5%, 1/10W, Metal Film	R951	4835 116 57321	10k, 5%, 1/4W, Metal Film
R808	4835 110 47083	2.2k, 5%, 1/2W, Carbon Film	R952	4835 111 37132	10 ohm, 5%, 1/4W, Metal Film
R809	4835 111 37032	270 ohm, 5%, 1/4W, Metal Film	R954	4835 111 37037	39k, 5%, 1/4W, Metal Film
R810	4835 116 87072	1.5 k, 5%, 3W, Metal Film	R955	4835 110 47172	33k, 5%, 1/2W, Carbon Film
R811	4835 116 87072	1.5 k, 5%, 3W, Metal Film	R956	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R812	4835 111 37118	68k, 5%, 1/4W, Metal Film	R957	4835 111 37026	1.5k, 5%, 1/4W, Metal Film
R813	4835 110 27004	1.5 ohm, 5%, 1W, Metal Film	R958	4835 116 57356	39 ohm, 5%, 1W, Metal Film
R814	4835 116 57366	33 ohm, 5%, 1/2W, Metal Film	R959	4835 110 47165	1k, 20%, 1/2W, Carbon Comp.
R815	4835 116 57112	.27 ohm, 5%, 1/2W, Metal Film	R960	4835 116 57552	100 ohm, 5%, 1/2W, Metal Film
R816	4835 116 67006	.56 ohm, 5%, 1/2W, Metal Film	R961	4835 110 47165	68 ohm, 5%, 1/2W, Metal Film
R817	4835 116 57441	1 ohm, 5%, 1/2W, Metal Film	R964	4835 116 57164	10 ohm, 20%, 1/2W, Carbon Comp.
R818	4835 116 57441	1 ohm, 5%, 1/2W, Metal Film	R965	4835 111 37047	1 Meg, 5%, 1/4W, Metal Film
R819	4835 116 57441	1 ohm, 5%, 1/2W, Metal Film	R967	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R821	4835 111 57002	560 ohm, 5%, 1/2W, Carbon Film	R968	4835 111 37069	20k, 5%, 1/4W, Metal Film
R822	4835 110 47113	270 ohm, 5%, 1/2W, Carbon Film	R969	4835 111 37038	47k, 5%, 1/4W, Metal Film
R823	4835 111 37118	68k, 5%, 1/4W, Metal Film	R970	4835 116 57321	10k, 5%, 1/4W, Metal Film
R824	4835 110 47113	270 ohm, 5%, 1/2W, Carbon Film	R971	4835 116 57355	100k, 5%, 1/4W, Metal Film
R825	4835 116 57441	1 ohm, 5%, 1/2W, Metal Film	R1427	4835 116 57321	10k, 5%, 1/4W, Metal Film
R826	4835 110 47113	270 ohm, 5%, 1/2W, Carbon Film	R1428	4835 111 37003	100k, 5%, 1/10W, Metal Film
R827	4835 116 57478	68k, 5%, 1/4W, Metal Film	R1429	4835 116 57543	5110 ohm, 1%, 1/8W, Metal Film
R828	4835 111 37118	68k, 5%, 1/4W, Metal Film	R1431	4835 111 37484	180k, 5%, 1/10W, Metal Film
R829	4835 116 57403	15 ohm, 5%, 1/4W, Metal Film	R1434	4835 116 57027	20k, 1%, 1/8W, Metal Film
R830	4835 116 67124	510 ohm, 5%, 1W, Metal Film	R1436	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R840	4835 116 57088	1 Meg, 5%, 1/2W, Metal Film	R1437	4835 111 37216	10k, 5%, 1/10W, Metal Film
R900	4835 116 57355	240 ohm, 5%, 1W, Metal Film	R1438	4835 116 57029	3010 ohm, 1%, 1/8W, Metal Film
R902	4835 111 37241	24k, 5%, 1/10W, Metal Film	R1439	4835 116 67157	470 ohm, 5%, 3W, Metal Film
R904	4835 111 37086	3k, 5%, 1/4W, Metal Film	R1440	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film
R905	4835 111 37055	120k, 5%, 1/4W, Metal Film	R1442	4835 111 37029	2k, 5%, 1/4W, Metal Film
R906	4835 111 37026	5.6k, 5%, 1/4W, Metal Film	R1443	4835 116 57052	68 ohm, 5%, 1/2W, Metal Film
R907	4835 116 57434	1.5k, 5%, 1/4W, Metal Film	R1444	4835 116 57039	56k, 5%, 1W, Metal Film
R908	4835 111 37026	16k, 5%, 1/10W, Metal Film	R1445	4835 116 57117	1 ohm, 5%, 1W, Metal Film
R909	4835 111 37227	10k, 5%, 1/4W, Metal Film	R1446	4835 116 57363	4.7 ohm, 5%, 1/4W, Metal Film
R910	4835 111 37023	30 ohm, 5%, 1/4W, Metal Film	R2804	4835 111 37356	62k, 5%, 1/4W, Metal Film
R911	4835 111 37354	10k, 5%, 1/4W, Metal Film	R2805	4835 111 37216	10k, 5%, 1/10W, Metal Film
R912	4835 111 37023	47k, 5%, 1/4W, Metal Film	R2806	4835 111 37072	2.2k, 5%, 1/4W, Metal Film
R914	4835 111 37038	820 ohm, 5%, 1/4W, Metal Film	R2807	4835 111 37022	1k, 5%, 1/4W, Metal Film
R915	4835 111 37123	1k, 5%, 1/4W, Metal Film			
R916	4835 111 37022	1k, 5%, 1/4W, Metal Film			
R917	4835 111 37022	1k, 5%, 1/4W, Metal Film			
R918	4835 116 57409	2k, 5%, 1/4W, Metal Film			
R919	4835 116 57474	3.6k, 5%, 1/4W, Metal Film			
R920	4835 116 57319	1k, 5%, 1/4W, Metal Film			
R921	4835 111 37066	18k, 5%, 1/4W, Metal Film			
R922	4835 111 37026	1.5k, 5%, 1/4W, Metal Film			
R923	4835 116 57402	15k, 5%, 1/4W, Metal Film			
R924	4835 111 37036	360 ohm, 5%, 1/4W, Metal Film			
R925	4835 116 67181	5.1k, 5%, 5W, Metal Film			
R926	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film			
R927	4835 116 57321	10k, 5%, 1/4W, Metal Film			
R928	4835 111 37372	2.2k, 2%, 1/10W, Metal Film			

LARGE SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)			SEMICONDUCTORS (Continued)		
R2808	4835 111 37072	2.2k, 5%, 1/4W, Metal Film	IC900	4835 209 88008	IC MC1391P
R2809	4835 111 37035	3.3k, 5%, 1/4W, Metal Film	IC901	4835 209 88011	IC TL431
R2810	4835 111 37022	1k, 5%, 1/4W, Metal Film	IC902	4835 209 87838	IC SC78130P ¹
R2811	4835 111 37022	1k, 5%, 1/4W, Metal Film	IC1403	4835 209 17027	Current Mode Controller IC (00APD002 & 00APD003 Asm.)
R2812	4835 111 37024	100k, 5%, 1/4W, Metal Film			
R2834	4835 116 57112	27 ohm, 5%, 1/2W, Metal Film	Q401	4835 130 47888	N-Ch. FET Transistor
R2835	4835 111 37279	9.1k, 5%, 1/10W, Metal Film	Q402	4835 130 47885	N-Ch. FET Transistor
R2836	4835 111 37032	270 ohm, 5%, 1/4W, Metal Film	Q500	4835 130 47112	Transistor, PNP
R2837	4835 111 37025	12k, 5%, 1/4W, Metal Film	Q501	4835 130 47112	Transistor, PNP
R2838	4835 111 37079	2.4k, 5%, 15%, 1/4W, Metal Film	Q502	4835 130 47086	Transistor, PNP
R2839	4835 116 57551	300k, 5%, 5W, Metal Film	Q503	4835 130 47086	Transistor, PNP
SEMICONDUCTORS			Q550	4835 130 47084	Transistor, TIP42C
D402	4835 130 37052	Diode, Silicon	Q551	4835 130 47086	Transistor, PNP
D403	4835 130 37674	Diode, Silicon	Q800	4835 130 47086	Transistor, PNP
D404	4835 130 37052	Diode, Silicon	Q801	4835 130 47771	Transistor, PNP (HOT)
D405	4835 130 37058	Diode, Silicon	Q802	4835 130 47771	Transistor, PNP (HOT)
D406	4835 130 37748	Diode, Silicon	Q803	4835 130 47065	Transistor, PNP
D416	4835 130 37663	Diode, Silicon	Q900	4835 130 47086	Transistor, PNP
		(00ASG001 only)	Q901	4835 130 47112	Transistor, PNP
D417	4835 130 37488	Diode, Silicon	Q902	4835 130 47091	Transistor, PNP
D418	4835 130 37749	Diode, Silicon	Q903	4835 130 47112	Transistor, PNP
D419	4835 130 37491	Diode, Silicon	Q904	4835 130 47112	Transistor, PNP
D431	4835 130 37058	Diode, Silicon	Q906	4835 130 47771	Transistor, PNP (HVOT)
D432	4835 130 37099	Diode, Silicon	Q907	4835 130 47889	Transistor, PNP
D433	4835 130 37663	Diode, Silicon	Q908	4835 130 47891	Transistor, PNP
D434	4835 130 37663	Diode, Silicon	Q1403	4835 130 47086	Transistor, PNP
D501	4835 130 37066	Diode, Silicon	Q1404	4835 130 47086	Transistor, PNP
D502	4835 130 37066	Diode, Silicon	Q1405	4835 130 47887	Transistor, PNP
D503	4835 130 37066	Diode, Silicon	Q2830	4835 130 47893	Transistor, NPN
D504	4835 130 37497	Diode, Silicon	Q2831	4835 130 47086	Transistor, SMBT1159-L2
D505	4835 130 37066	Diode, Silicon	Q2832	4835 130 47112	Transistor, SMBT1161-L1
D550	4835 130 37052	Diode, Silicon	Z500	4835 130 37739	Zener Diode, 10V
D551	4835 130 37066	Diode, Silicon	Z501	4835 130 37671	Zener Diode, 18V
D801	4835 130 37094	Diode, Fast, Soft Recovery	Z503	4835 130 37547	Zener Diode, P6KE62A
D802	4835 130 37052	Diode, Silicon	Z901	4835 130 37751	Zener Diode, 6.2V
D803	4835 130 37094	Diode, Fast, Soft Recovery			
D806	4835 130 37095	Diode, Silicon			
D808	4835 130 37059	Diode, Fast, Soft Recovery			
D811	4835 130 37094	Diode, Fast, Soft Recovery			
D900	4835 130 37048	Diode, Silicon			
D901	4835 130 37048	Diode, Silicon			
D902	4835 130 37095	Diode, Silicon			
D904	4835 130 37058	Diode, Silicon			
D905	4835 130 37094	Diode, Fast, Soft Recovery			
D906	4835 130 37102	Diode, Silicon			
D907	4835 130 37102	Diode, Silicon			
D908	4835 130 37052	Diode, Silicon			
D909	4835 130 37679	Diode, Silicon			
D910	4835 130 37059	Diode, Fast, Soft Recovery			
D911	4835 130 37066	Diode, Silicon			
D1408	4835 130 37663	Diode, Silicon			
D1410	4835 130 37058	Diode, Silicon			
D1411	4835 130 37181	Diode, Silicon			
D1412	4835 130 37181	Diode, Silicon			
D2830	4835 130 37369	Diode, Silicon			
IC401	4835 209 87834	IC SC7811OP			
IC402	4835 209 87712	IC SC78104			
IC405	4835 130 97006	Optical Coupler, 6N136			
IC406	4835 130 37057	Opto Isolator, PS2021L			
IC408	4835 209 87067	IC MC7805CT			
IC550	4835 209 17162	IC TDA3654Q			
IC551	4835 209 88332	IC TA8859P			
IC552	4835 209 87077	IC MC7812CT			

LARGE SIGNAL PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
COILS & TRANSFORMERS (Continued)			RESISTORS (Continued)		
L805	4835 526 17003	Ferrite Bead 3.50X4.5	▲ F408	4835 253 37021	Fuse, Pico, 5A
L902	4835 150 57052	Ferro Coil, 22uH., 10%	▲ F409	4835 253 37021	Fuse, Pico, 5A
L903	4835 152 27001	Suppression Coil 3.6uH.	FB910	4835 526 17002	Ferrite Bead .2D X.28"
L905	4835 152 27038	Suppression Coil 5.7uH.	HS401	0073 604 00002	Heatsink, Chassis
L1414	4835 526 17001	Ferrite Bead (00APD002 & 00APD003 Asm.)	HS406	0073 531 90006	Vertical Heatsink
L1419	4835 526 17001	Ferrite Bead (00APD002 & 00APD003 Asm.)	HS408	4835 466 87004	Heatsink,
L1433	4835 526 17001	Ferrite Bead (00APD002 & 00APD003 Asm.)	HS416	4835 466 87004	Heatsink f/D416 (00ASG001 only)
L1434	4835 526 17001	Ferrite Bead (00APD002 & 00APD003 Asm.)	HS419	0073 562 10006	Heatsink, Diode, Silicon
L1440	4835 526 17001	Ferrite Bead (00APD002 & 00APD003 Asm.)	HS433	4835 466 87004	Heatsink,
▲ T401	4835 148 87317	Transformer	HS434	4835 466 87004	Heatsink,
▲ T402	4835 148 87316	Transformer	HS550	0073 601 50001	Heatsink,
T800	4835 142 47021	Transformer, Horiz. Driver	HS802	0073 604 00002	Heatsink, Chassis
▲ T801	4835 148 87318	Transformer, SCAN-PWR	HS902	0073 525 60006	Heatsink,
T802	4835 142 47025	Transformer, Dynamic Focus	HS1408	4835 466 87004	Heatsink f/D1408 (00APD002 & 00APD003 Asm.)
▲ T900	4835 140 67128	Flyback Transformer	HS550	0073 597 60003	Heatsink,, CRT,
T901	4835 142 47022	Transformer, Horiz. Driver	J401	0018 223 60004	4 Pin Connector, YLW
▲ T1403	4835 140 67007	Transformer, SMPS (00APD002 & 00APD003 Asm.)	J402	0018 223 60007	7 Pin Connector, YLW
MISCELLANEOUS			J403	0018 169 30007	7 Pin Connector
BR582	4835 111 37019	0 ohm, "Chip" Jumper •	J408	4835 265 97017	Contact Pin, .093 D
BR811	4835 111 37019	0 ohm, "Chip" Jumper •	J467	0018 169 30007	7 Pin Connector
BR825	4835 111 37019	0 ohm, "Chip" Jumper •	J468	0018 223 80008	8 Pin Connector, GRN
BR900	4835 111 37215	0 ohm, "Chip" Jumper •	J601	0018 169 30007	7 Pin Connector
BR901	4835 111 37019	0 ohm, "Chip" Jumper •	J400	0018 169 30002	2 Pin Connector, WHT (00APD002 & 00APD003 Asm.)
BR903	4835 111 37019	0 ohm, "Chip" Jumper •	J462	4835 265 97017	Board Connector (00APD002 only)
BR912	4835 111 37019	0 ohm, "Chip" Jumper •	▲ SA401	4835 116 67143	Resistor, Surge Absorber
BR916	4835 111 37019	0 ohm, "Chip" Jumper •		4835 255 47004	Silicon Pad f/Q1405 (00APD002 & 00APD003 Asm.)
BR959	4835 111 37019	0 ohm, "Chip" Jumper •		0046 216 00002	HV Cable Asm. f/T900
BS401	0046 012 60001	Buss Wire (00ASG001 only)		4835 325 27017	Silicon Pad f/D406
▲ F401	4835 253 37022	Fuse, 5A		4835 255 47003	Silicon Insulator f/D419
▲ F402	4835 253 37021	Fuse, Pico, 5A		4835 255 47004	Silicon Pad f/Q906
▲ F403	4835 253 37023	Fuse, 7A (00APD003 only)		4835 325 27002	Mica Insulator f/Q401
				4835 255 47004	Silicon Pad f/IC550
				4835 290 47019	Spring Clip f/Q550
				4835 255 47004	Silicon Pad f/Q802

WARNING

Critical components having special safety characteristics are identified with a ▲ by the Ref. No. in the parts list and enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol ▲ on the schematics or exploded views.

Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

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• Broken Line: ————

Component zone map for Digital Convergence Panel (P.C. Bd. 212496f060b)

Note: Zone A-1 on this artwork is the lower left-hand corner. This same zone is physically positioned as the upper back corner within the cabinetry of an actual unit. Also, many of these components are SMD "Chip Type" and as such, will be located on the bottom side of the board.

Ref Des.	Zone	Ref Des.	Zone	Ref Des.	Zone	Ref Des.	Zone	Ref Des.	Zone	Ref Des.	Zone	Ref Des.	Zone
B1	K-2	B93	J-3	C60	J-1	C276	A-4	J310	A-1	R18	L-2	R113	E-6
B2	E-5	B94	B-6	C61	J-1	C277	A-4	J468	D-1	R19	L-2	R114	F-6
B3	D-2	B95	J-4	C62	J-1	C278	A-4	J483	J-6	R20	L-3	R115	F-6
B4	C-3	B96	J-4	C63	J-1	C279	F-2	J484	E-6	R21	L-2	R116	K-2
B5	E-3	B97	D-5	C64	J-1	C280	B-4	J485	C-6	R22	F-1	R117	K-3
B6	B-3	B98	K-5	C65	J-2	C300	J-5	L1	B-1	R23	J-2	R121	E-4
B7	B-5	B99	E-6	C66	J-1	C300A	J-5	L3	F-1	R24	F-1	R122	F-4
B8	J-6	B100	K-6	C67	H-2	C301	K-5	L4	D-2	R25	F-1	R123	F-4
B9	D-1	B101	J-5	C68	H-2	C302	J-6	L10	C-1	R26	L-2	R125	F-3
B10	L-2	B102	J-6	C69	F-2	C306	K-5	L11	F-1	R27	F-1	R126	F-4
B11	E-6	B103	B-3	C71	F-2	C307	K-5	L12	F-1	R28	F-1	R127	F-4
B12	F-2	B104	B-3	C72	F-2	C308	K-5	L13	F-1	R29	F-1	R128	F-4
B13	H-3	B105	F-6	C73	E-2	C309	K-4	L16	H-1	R30	F-1	R129	E-4
B14	B-6	B106	D-1	C74	F-1	C310	K-6	L17	J-2	R31	F-2	R130	E-4
B15	F-2	B107	H-1	C75	D-2	C311	K-6	L18	K-2	R32	K-2	R132	D-5
B16	K-3	B108	K-2	C76	H-2	C312	K-6	L19	H-2	R33	J-2	R149	D-6
B17	H-3	B109	H-2	C100A	E-5	C320	K-4	L20	H-1	R37	D-2	R150	D-6
B18	F-4	B110	H-1	C100	E-5	C321	J-4	L21	H-2	R38	D-2	R152	E-6
B19	F-2	B111	J-3	C101	F-5	C322	J-4	L22	J-2	R39	D-2	R153	D-5
B20	E-1	B112	F-2	C102	F-6	C325	J-4	Q1	E-2	R40	J-2	R154	D-5
B21	F-3	B113	E-2	C106	F-5	C326	K-4	Q2	D-2	R41	K-2	R155	D-4
B22	C-4	B114	F-2	C107	F-5	C327	J-4	Q4	D-2	R42	K-3	R156	D-5
B23	D-3	B115	E-1	C108	F-6	C328	K-4	Q5	A-1	R43	K-3	R157	E-4
B24	D-3	B116	L-2	C109	F-4	C350A	H-5	Q6	K-3	R44	H-2	R158	E-5
B25	D-1	B117	K-1	C110	F-6	C350	H-5	Q7	K-2	R45	K-3	R159	E-5
B26	E-1	B118	K-1	C111	F-6	C351	H-5	Q10	F-1	R46	K-3	R160	D-5
B27	D-2	B119	B-3	C112	F-6	C352	H-5	Q11	A-2	R47	H-1	R161	D-6
B28	A-4	B120	D-3	C120	F-4	C353	L-5	Q15	B-1	R48	F-2	R162	E-6
B29	D-1	B121	H-3	C121	F-4	C355	H-5	Q50	K-2	R49	H-2	R163	D-6
B30	K-1	B122	H-3	C122	E-4	C356	H-5	Q100	F-5	R50	J-2	R164	E-6
B31	J-1	B123	J-3	C125	E-4	C357	J-5	Q101	F-5	R51	K-3	R165	D-6
B32	H-1	B124	B-3	C126	F-4	C358	J-4	Q102	E-5	R52	K-3	R166	D-4
B33	H-2	B125	K-3	C127	F-4	C359	H-6	Q103	E-5	R53	J-2	R167	D-4
B34	F-2	B126	H-2	C128	F-4	C360	H-6	Q104	F-5	R54	B-2	R171	D-4
B35	H-3	BR1	F-2	C129	F-2	C362	H-6	Q105	F-5	R55	A-2	R172	D-4
B36	J-1	BR2	K-2	C150	D-5	C363	H-6	Q106	F-5	R56	B-2	R173	D-4
B37	J-2	BR3	L-2	C150A	D-5	C370	H-4	Q107	F-4	R57	B-2	R175	D-4
B38	J-2	BR4	H-1	C151	D-5	C371	H-4	Q150	D-5	R58	K-2	R176	E-4
B39	J-2	BR5	F-2	C152	D-5	C372	H-4	Q151	D-5	R59	K-2	R177	E-4
B40	F-2	BR8	F-2	C153	E-5	C375	H-4	Q152	D-5	R60	K-2	R178	D-4
B41	E-1	BR9	F-2	C155	E-5	C376	H-4	Q153	D-5	R61	K-1	R179	E-6
B42	F-2	C1	B-1	C156	D-5	C377	H-4	Q154	D-5	R62	K-1	R180	E-5
B43	J-5	C2	B-2	C157	E-5	C378	H-4	Q155	D-4	R63	K-1	R182	F-6
B44	E-2	C3	A-1	C158	E-4	C379	F-2	Q156	E-5	R64	K-2	R183	F-5
B45	F-2	C4	A-2	C159	D-6	C380	H-4	Q157	E-4	R65	K-2	R199	B-6
B46	E-1	C5	D-2	C160	D-6	D10	E-2	Q200	C-5	R66	K-2	R200	C-6
B47	F-1	C6	D-1	C162	D-6	D11	E-1	Q201	C-5	R67	K-2	R201	C-6
B48	H-1	C7	D-2	C163	D-6	D12	D-2	Q202	B-5	R68	K-2	R202	C-6
B49	D-2	C8	F-1	C170	D-4	D13	E-2	Q203	B-5	R69	J-1	R203	C-5
B50	E-2	C9	L-2	C171	D-4	D60	K-3	Q204	C-5	R70	J-2	R204	C-5
B51	J-2	C10	L-2	C172	D-4	D61	K-3	Q205	C-4	R71	H-1	R205	C-5
B52	D-1	C11	C-1	C175	D-4	D62	K-3	Q206	C-5	R72	H-1	R206	C-5
B53	J-1	C12	C-2	C176	D-4	D53	F-1	Q207	C-4	R73	H-1	R207	C-4
B54	J-1	CA13	H-2	C177	D-4	D54	E-1	Q250	A-5	R74	H-1	R208	D-5
B55	J-1	C13	B-1	C178	D-4	D100	F-5	Q251	A-5	R75	H-1	R209	C-5
B56	H-2	C14	A-2	C180	D-4	D150	E-5	Q252	A-5	R76	H-1	R210	C-5
B57	B-3	C15	B-2	C200	B-5	D200	D-5	Q253	A-5	R77	H-1	R211	C-6
B58	H-3	C16	L-2	C200A	B-5	D250	B-5	Q254	B-5	R78	H-1	R212	C-6
B59	C-5	C17	L-2	C201	C-5	D300	K-5	Q255	B-4	R79	H-1	R213	B-6
B60	B-4	C18	C-2	C202	C-6	D350	J-5	Q256	B-5	R80	H-2	R214	C-6
B61	H-1	C19	H-1	C206	C-5	F1	D-1	Q257	B-4	R81	H-2	R215	C-6
B62	F-2	C20	F-2	C207	C-5	F2	D-1	Q300	K-5	R82	H-2	R221	C-4
B63	F-3	C21	F-2	C208	D-5	F3	D-1	Q301	K-5	R83	H-2	R222	C-4
B64	B-3	C22	F-1	C209	D-4	HS6	C-1	Q302	J-5	R84	F-1	R223	C-4
B65	B-3	C23	F-1	C210	C-6	HS100	F-7	Q303	J-5	R85	K-2	R225	C-3
B66	H-2	C24	F-1	C211	C-6	HS150	D-7	Q304	K-5	R86	H-2	R226	C-4
B67	E-3	C25	F-1	C212	C-6	HS200	C-7	Q305	K-5	R87	F-2	R227	C-4
B68	K-2	C26	J-2	C220	C-4	HS250	B-7	Q306	K-5	R88	F-2	R228	C-4
B69	C-4	C27	K-2	C221	C-4	HS300	K-7	Q307	K-4	R89	H-2	R229	B-4
B70	D-3	C28	H-2	C222	B-4	HS350	H-7	Q350	H-5	R90	K-3	R230	C-4
B71	E-5	C29	H-1	C225	B-4	IC6	C-2	Q351	H-5	R91	A-2	R247	A-6
B72	C-6	C30	H-2	C226	C-4	IC9	L-2	Q352	H-5	R92	K-3	R248	A-5
B73	A-5	C31	F-1	C227	C-4	IC10	K-2	Q353	H-5	R93	E-2	R249	A-6
B74	E-3	C32	F-1	C228	C-4	IC11	L-2	Q354	H-5	R94	F-1	R250	A-6
B75	E-3	C33	F-1	C250	A-5	IC12	J-1	Q355	H-4	R95	F-1	R252	B-6
B76	F-2	C34	K-2	C250A	A-5	IC13	H-2	Q356	J-5	R96	F-1	R253	B-5
B77	D-6	C35	A-2	C251	B-5	IC100	E-6	Q357	J-4	R97	K-3	R254	A-5
B78	C-6	C36	A-2	C252	A-5	IC110	E-4	R1	C-1	R98	H-2	R255	A-5
B79	F-5	C37	F-1	C253	B-4	IC150	D-6	R2	A-2	R99	E-6	R256	A-5
B80	C-3	C38	D-2	C255	B-5	IC160	D-4	R3	J-2	R100	F-6	R257	B-4
B81	E-1	C39	E-1	C256	A-5	IC165	F-2	R5	J-2	R101	F-6	R258	B-5
B82	D-3	C40	K-2	C257	B-5	IC200	C-6	R6	J-2	R102	F-6	R259	B-5
B83	F-2	C41	K-2	C258	B-4	IC210	C-4	R7	J-2	R103	F-5	R260	B-5
B84	J-3	C50	K-3	C259	A-6	IC250	A-6	R8	E-2	R104	F-5	R261	A-6
B85	F-4	C51	F-2	C260	A-6	IC260	A-4	R9	E-2	R105	F-5	R262	B-6
B86	F-4	C52	J-2	C262	A-6	IC265	E-2	R10	E-1	R106	F-5	R263	A-6
B87	B-5	C54	K-1	C263	A-6	IC300	J-6	R11	F-2	R107	F-4	R264	B-6
B88	J-2	C55	J-1	C265	F-2	IC310	J-4	R12	D-2	R108	F-5	R265	A-6
B89	H-5	C56	J-1	C270	A-4	IC350	H-6	R13	D-1	R109	F-5	R266	A-4
B90	F-6	C57	J-1	C271	A-4	IC360	H-4	R14	E-1	R110	F-5	R267	A-4
B91	J-3	C58	J-1	C272	A-4	IC365	F-2	R16	K-2	R111	F-6	R271	A-4
B92	F-6	C59	J-1	C275	A-4	J307	F-1	R17	L-2	R112	F-6	R272	A-4

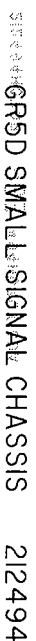
End of List

Component zone map for Small Signal Panel (P.C. Bd. # 212494h070b)

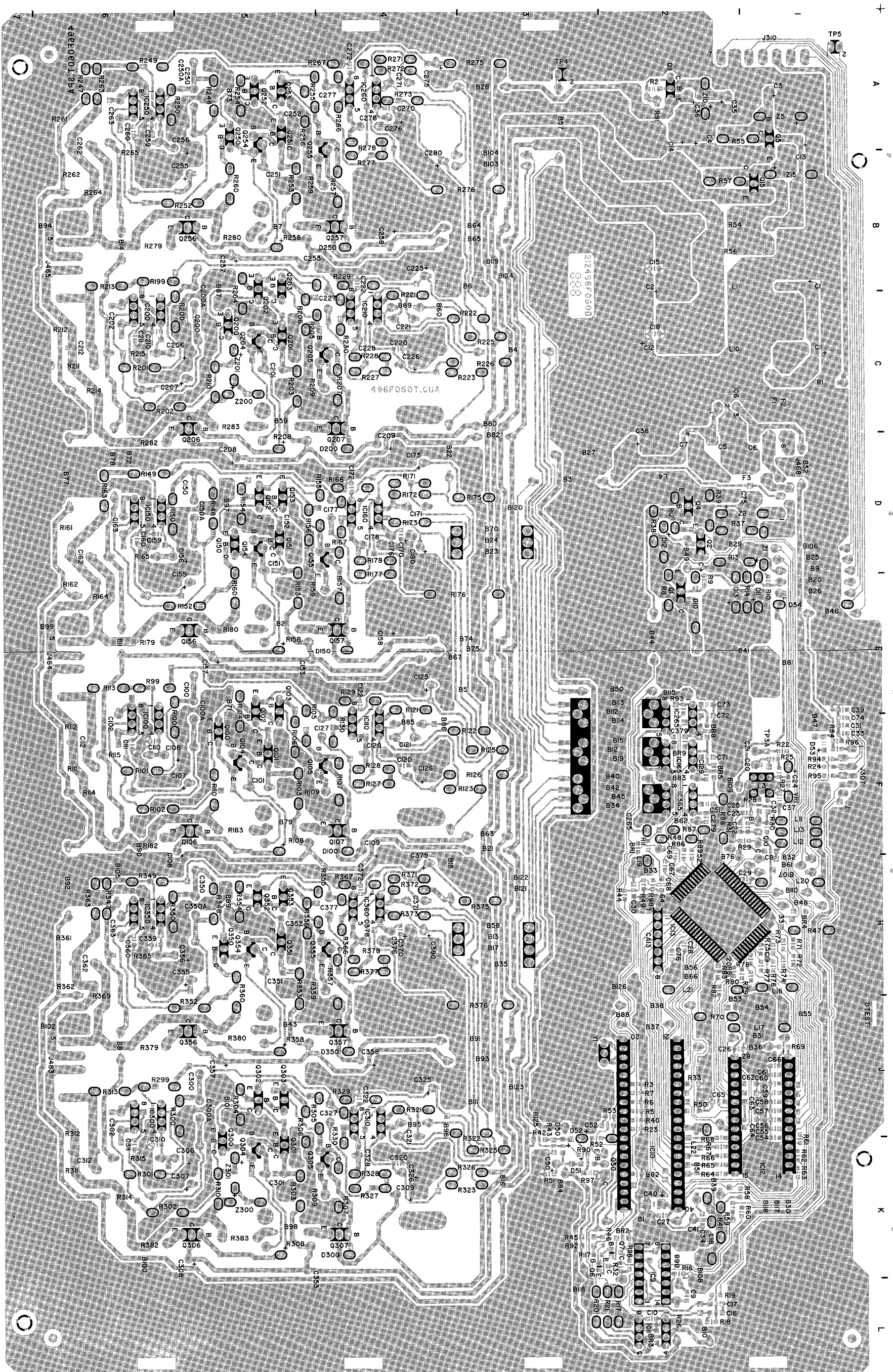
Note: Zone A-1 on this artwork is the lower left-hand corner. This same zone is physically positioned as the upper back corner within the cabinetry of an actual unit. Also, many of these components are SMD "Chip Type" and as such, will be located on the bottom side of the board.

[illegible][illegible]

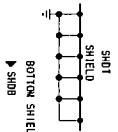
(TOP VIEW)



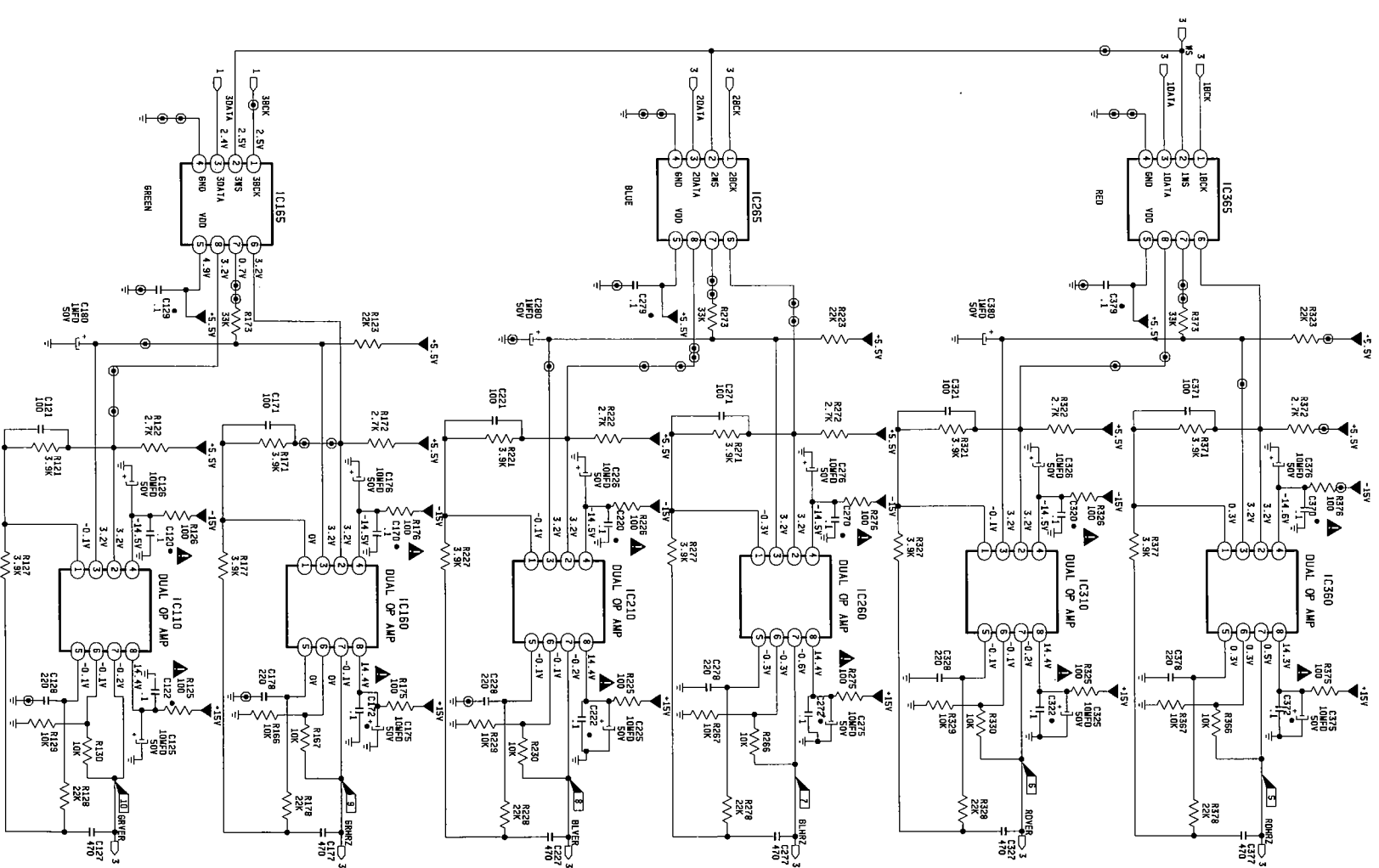
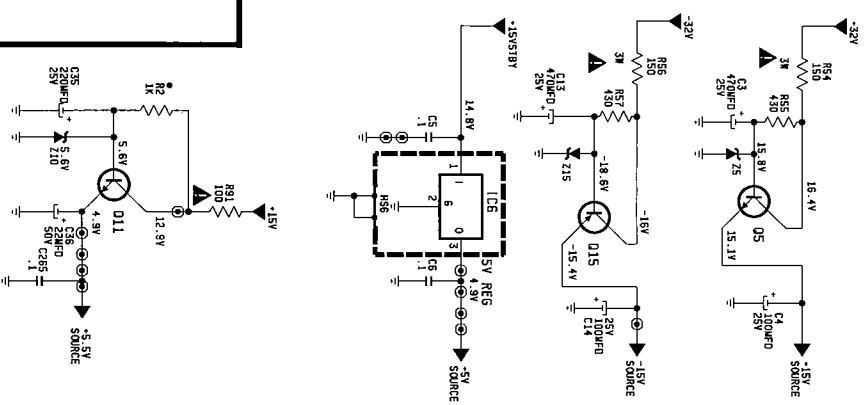
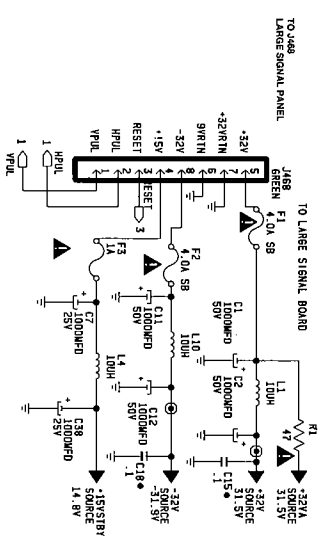
(BOTTOM VIEW)



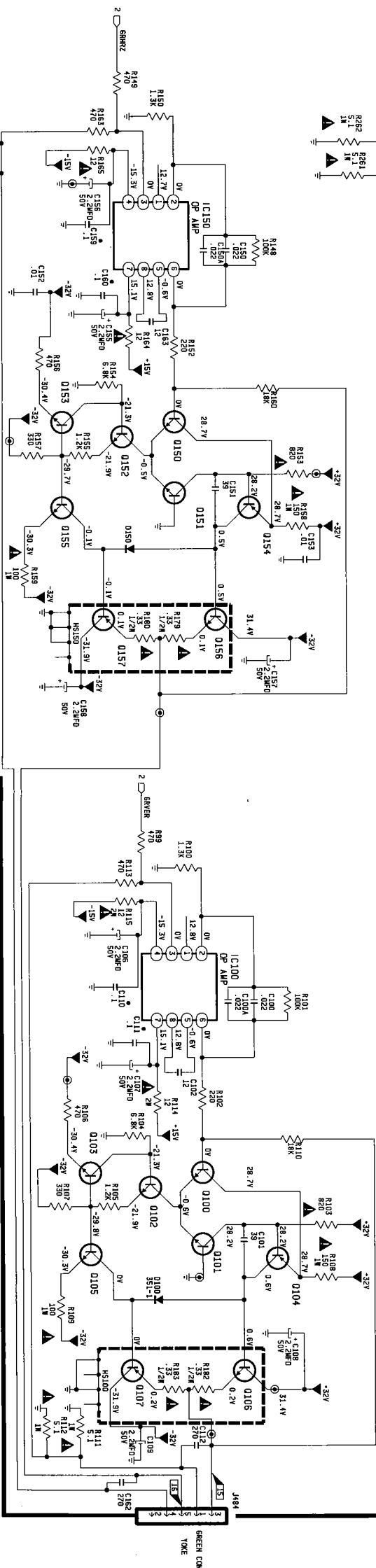
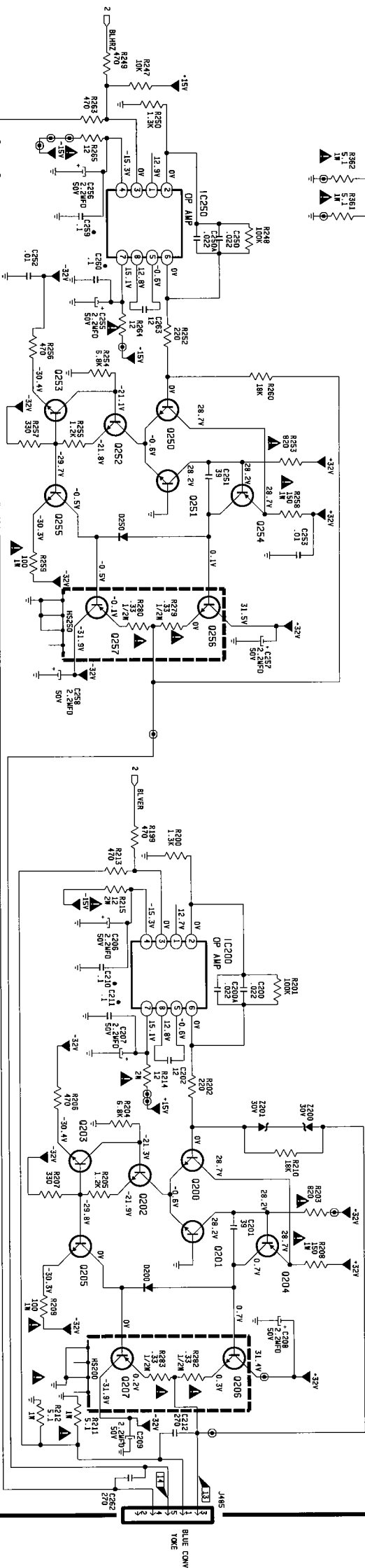
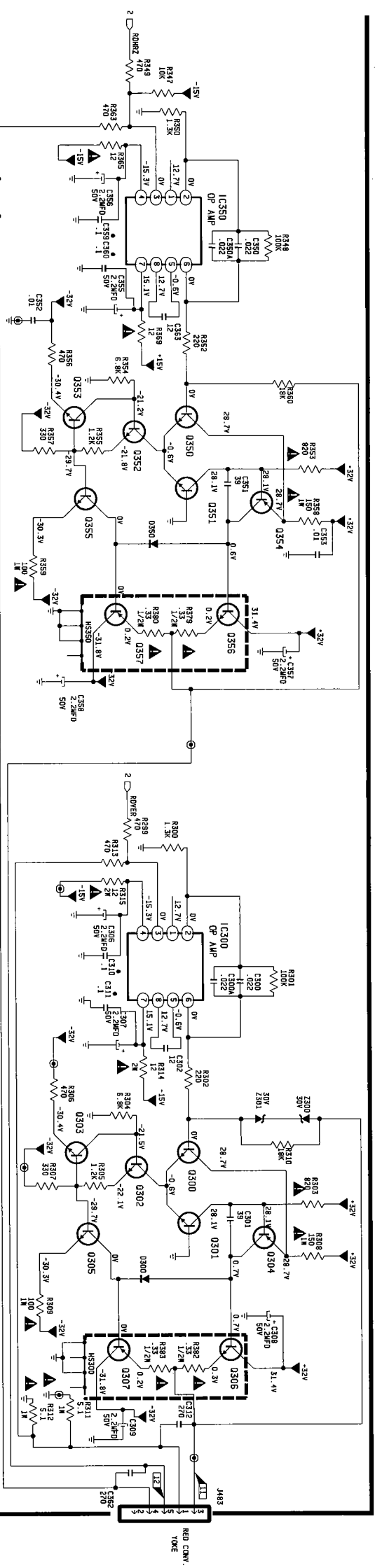
DIGITAL CONVERGENCE PANEL INTERCONNECT CHART
Small Signal Panel Schematic - Pg. 23/ Frame(G8)
Large Signal Panel Schematic - Pg. 39/ Frame (G12)



(SECTION - 2 (2 OF 3))

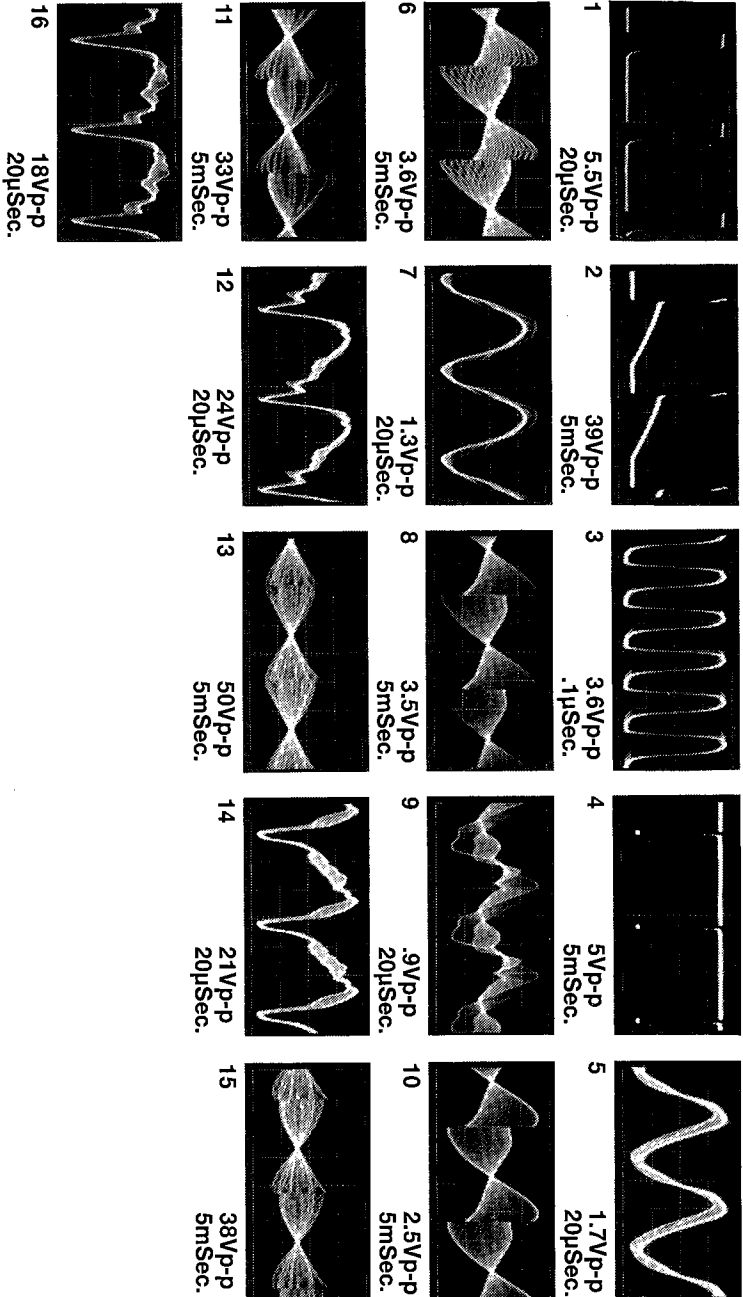


DIGITAL CONVERGENCE PANEL (00A10551 E005) SCHEMATIC DIAGRAM (SECTION - 3 (3 OF 3))



DIGITAL CONVERGENCE PANEL WAVEFORM NOTES:

- UNLESS OTHERWISE SPECIFIED:
- ALL VOLTAGES AND WAVEFORMS WERE TAKEN WITH AN NTSC COLOR BAR PATTERN SIGNAL APPLIED.
 - SWEEP TIME/CM SETTINGS ARE SHOWN JUST BELOW THE PHOTOS IN THE CALIBRATED POSITION. HORIZONTAL POSITIONING OF THE WAVEFORMS WERE ADJUSTED FOR MAXIMUM CLARITY.



DIGITAL CONVERGENCE PANEL SCHEMATIC NOTES:

UNLESS OTHERWISE SPECIFIED:

- ALL VOLTAGES AND WAVEFORMS WERE TAKEN UNDER THE CONDITIONS FOLLOWS:
 - LINE VOLTAGE MAINTAINED AT 120VAC, 60HZ VIA AN ISOLATION TRANSFORMER.
 - CUSTOMER CONTROLS SET TO FACTORY DEFAULT LEVELS AS FOLLOWS:
 - COLOR, TINT, & BRIGHTNESS SET TO MIDRANGE, PICTURE SET TO APPROXIMATELY 2/3 (BETWEEN MIDRANGE AND FULL ON).
- WAVEFORMS AND VOLTAGES (WITHOUT BRACKETS) WERE TAKEN WITH AN NTSC SIGNAL GENERATOR DELIVERING 10mVp-p AT THE ANTENNA TERMINALS.
- VOLTAGES SHOWN WITH BRACKETS WERE TAKEN WITH NO SIGNAL CIRCUITRY WHERE NO VOLTAGES WITH SIGNAL WERE TAKEN.
- ALL VOLTAGES ARE POSITIVE DC WITH RESPECT TO THE GROUND LOCATED IN THAT AREA OF THE CIRCUITRY AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES. VOLTAGE SOURCES ARE ALSO NOMINAL, WITH THE EXCEPTION OF THE +130Vdc SOURCE (TP4) WHICH IS TIGHTLY REGULATED TO BE WITHIN +.1Vdc, -2Vdc (MEASURED WITH A .1% DIGITAL VOLTMETER).
- SCHEMATIC SYMBOLS:
 - = INDICATES THESE COMPONENTS ARE SMD "CHIP" TYPE COMPONENTS AND AS SUCH, WILL BE LOCATED ON THE COPPER SIDE OF THE PRINTED CIRCUIT BOARD.
 - * = INDICATES THESE COMPONENTS WILL VARY DEPENDING UPON SCREEN SIZE, PRODUCTION DATES, AND OPTIONAL FEATURES INSTALLED. SEE THE COMPONENT CHARTS POSTED ON THE SCHEMATIC, OR THE REPLACEMENT PARTS LIST FOR SPECIFIC PART INFORMATION.
- NUMBERS 1 THRU 23 WITHIN THIS TYPE OF SYMBOL (EXAMPLE 25) CORRESPOND TO WAVEFORM PHOTOS.
- FOR VOLTAGE, WATTAGE AND TOLERANCE RATINGS OF CAPACITORS OR RESISTORS, REFER TO THE ELECTRICAL REPLACEMENT PARTS LIST.

To order parts call the TOLL FREE Philips Sales Center number:

(In U.S.A.) 1-800-851-8885

(In Canada) 1-800-363-PART • 1-800-663-7178 (Fax)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

• Indicates an SMD "Chip" type of component.

00A10551 E005 DIGITAL CONVERGENCE

PANEL REPLACEMENT PARTS LIST

(Complete Panel: 4835 219 77517)

Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS			CAPACITORS (Continued)		
C1	4835 124 47573	1000µF., 50V, Electrolytic	C72	4835 122 87077	100µF., 10%, 50V, Ceramic
C2	4835 124 47573	1000µF., 50V, Electrolytic	C73	4835 122 87077	100µF., 10%, 50V, Ceramic
C3	4835 124 47576	470µF., 25V, Electrolytic	C74	4835 122 87376	220µF., 5%, 50V, Ceramic
C4	4835 124 47569	100µF., 25V, Electrolytic	C75	4835 121 47428	1µF., 5%, 100V, Polyester
C5	4835 121 47428	1µF., 5%, 100V, Polyester	C76	4835 122 87381	27µF., 5%, 50V, Ceramic
C6	4835 121 47428	1µF., 5%, 100V, Polyester	C100	4835 121 47459	.022µF., 2.5%, 250V, Polypropylene
C7	4835 124 47571	1000µF., 16V, Electrolytic	C101	4835 122 47021	39µF., 5%, 50V, Ceramic
C8	4835 122 87044	1µF., 50V, 20%, Ceramic	C102	4835 122 47015	12µF., 5%, 50V, Ceramic
C9	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C106	4835 124 47502	2.2µF., 50V, Electrolytic
C10	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C107	4835 124 47502	2.2µF., 50V, Electrolytic
C11	4835 124 47573	1000µF., 50V, Electrolytic	C108	4835 124 47502	2.2µF., 50V, Electrolytic
C12	4835 124 47573	1000µF., 50V, Electrolytic	C109	4835 124 47502	2.2µF., 50V, Electrolytic
C13	4835 124 47576	470µF., 25V, Electrolytic	C110	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C14	4835 124 47569	100µF., 25V, Electrolytic	C111	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C16	4835 122 87025	100µF., 5%, 50V, Ceramic	C112	4835 122 47008	270µF., 10%, 50V, Ceramic
C17	4835 122 87025	100µF., 5%, 50V, Ceramic	C120	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C19	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C121	4835 122 47045	100µF., 10%, 50V, Ceramic
C20	4835 121 47232	.01µF., 10%, 100V, Polyester	C122	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C21	4835 122 47487	2700µF., 10%, 100V, Polyester	C125	4835 124 47499	10µF., 50V, Electrolytic
C22	4835 122 87531	470µF., 10%, 50V, Ceramic	C126	4835 124 47499	10µF., 50V, Electrolytic
C23	4835 122 87531	470µF., 10%, 50V, Ceramic	C127	4835 122 47009	470µF., 10%, 50V, Ceramic
C24	4835 122 87016	39µF., 5%, 50V, Ceramic	C128	4835 122 47006	220µF., 10%, 50V, Ceramic
C25	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C159	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C26	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C160	4835 122 87375	.022µF., 2.5%, 250V, Polypropylene
C27	4835 122 87296	.01µF., 50V, 20%, Ceramic	C151	4835 121 47459	39µF., 5%, 50V, Ceramic
C28	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C152	4835 121 47232	.01µF., 10%, 100V, Polyester
C29	4835 122 87375	1µF., +80-20%, 50V, Ceramic	C153	4835 121 47232	.01µF., 10%, 100V, Polyester
C30	4835 122 87044	1µF., 50V, 20%, Ceramic	C155	4835 124 47502	2.2µF., 50V, Electrolytic
C31	4835 122 87376	220µF., 5%, 50V, Ceramic	C156	4835 124 47502	2.2µF., 50V, Electrolytic
C32	4835 122 87525	330µF., 10%, 50V, Ceramic	C157	4835 124 47502	2.2µF., 50V, Electrolytic
C33	4835 122 87376	220µF., 5%, 50V, Ceramic	C158	4835 124 47502	2.2µF., 50V, Electrolytic
C34	4835 122 87044	1µF., 50V, 20%, Ceramic	C159	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C35	4835 124 47537	220µF., 25V, Electrolytic	C162	4835 122 47008	270µF., 10%, 50V, Ceramic
C36	4835 124 47503	22µF., 50V, Electrolytic	C163	4835 122 47015	12µF., 5%, 50V, Ceramic
C37	4835 122 87044	1µF., 50V, 20%, Ceramic	C170	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C38	4835 124 47491	1000µF., 25V, Electrolytic	C171	4835 122 47045	100µF., 10%, 50V, Ceramic
C39	4835 122 87376	220µF., 5%, 50V, Ceramic	C172	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C40	4835 124 97043	6.8µF., 6.3V, Electrolytic	C175	4835 124 47499	10µF., 50V, Electrolytic
C41	4835 121 47053	1µF., 10%, 63V, Polyester	C176	4835 124 47499	10µF., 50V, Electrolytic
C50	4835 124 47555	100µF., 35V, Electrolytic	C177	4835 122 47009	470µF., 10%, 50V, Ceramic
C51	4835 122 87077	100µF., 10%, 50V, Ceramic	C178	4835 122 47006	220µF., 10%, 50V, Ceramic
C52	4835 122 87086	.01µF., +80-20%, 50V, Ceramic	C180	4835 121 47406	1µF., 50V, Electrolytic
C54	4835 122 87381	27µF., 5%, 50V, Ceramic	C200	4835 121 47459	.022µF., 2.5%, 250V, Polypropylene
C55	4835 122 87381	27µF., 5%, 50V, Ceramic	C201	4835 122 47021	39µF., 5%, 50V, Ceramic
C56	4835 122 87381	27µF., 5%, 50V, Ceramic	C202	4835 122 47015	12µF., 5%, 50V, Ceramic
C57	4835 122 87381	27µF., 5%, 50V, Ceramic	C206	4835 124 47502	2.2µF., 50V, Electrolytic
C58	4835 122 87381	27µF., 5%, 50V, Ceramic	C207	4835 124 47502	2.2µF., 50V, Electrolytic
C59	4835 122 87381	27µF., 5%, 50V, Ceramic	C208	4835 124 47502	2.2µF., 50V, Electrolytic
C60	4835 122 87381	27µF., 5%, 50V, Ceramic	C209	4835 124 47502	2.2µF., 50V, Electrolytic
C61	4835 122 87381	27µF., 5%, 50V, Ceramic	C210	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C62	4835 122 87029	27µF., 5%, 50V, Ceramic	C211	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C63	4835 122 87029	27µF., 5%, 50V, Ceramic	C212	4835 122 47008	270µF., 10%, 50V, Ceramic
C64	4835 122 87029	27µF., 5%, 50V, Ceramic	C220	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C65	4835 122 87029	27µF., 5%, 50V, Ceramic	C221	4835 122 47045	100µF., 10%, 50V, Ceramic
C66	4835 122 87381	27µF., 5%, 50V, Ceramic	C222	4835 122 87375	1µF., +80-20%, 50V, Ceramic
C67	4835 122 87528	100µF., 10%, 50V, Ceramic	C225	4835 124 47499	10µF., 50V, Electrolytic
C68	4835 122 87077	100µF., 10%, 50V, Ceramic	C226	4835 124 47499	10µF., 50V, Electrolytic
C69	4835 122 87528	100µF., 10%, 50V, Ceramic	C227	4835 122 47009	470µF., 10%, 50V, Ceramic
C71	4835 122 87077	100µF., 10%, 50V, Ceramic			

DIGITAL CONVERGENCE PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACTORS (Continued)			RESISTORS (Continued)		
C228	4835 122 47006	220pF., 10%, 50V, Ceramic	R6	4835 111 37216	10K, 5%, 1/10W, Metal Film
C250	4835 121 47459	.022uF., 2.5%, 250V, Polypropylene	R7	4835 111 37216	10K, 5%, 1/10W, Metal Film
C251	4835 122 47021	39pF., 5%, 50V, Ceramic	R8	4835 116 57411	2.2K, 5%, 1/4W, Metal Film
C252	4835 121 47232	.01uF., 10%, 100V, Polyester	R9	4835 111 37216	10K, 5%, 1/10W, Metal Film
C253	4835 121 47232	.01uF., 10%, 100V, Polyester	R10	4835 116 57416	27K, 5%, 1/4W, Metal Film
C255	4835 124 47502	2.2uF., 50V, Electrolytic	R11	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C256	4835 124 47502	2.2uF., 50V, Electrolytic	R12	4835 116 57402	2.2K, 5%, 1/4W, Metal Film
C257	4835 124 47502	2.2uF., 50V, Electrolytic	R13	4835 116 57422	3.3K, 5%, 1/4W, Metal Film
C258	4835 124 47502	2.2uF., 50V, Electrolytic	R14	4835 116 57422	3.3K, 5%, 1/10W, Metal Film
C259	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R16	4835 111 37247	3.3K, 5%, 1/10W, Metal Film
C260	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R17	4835 116 57422	3.3K, 5%, 1/4W, Metal Film
C262	4835 122 47008	270pF., 10%, 50V, Ceramic	R18	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C263	4835 122 47015	12pF., 5%, 50V, Ceramic	R19	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C265	4835 121 47428	.1uF., 5%, 100V, Polyester	R20	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
C270	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R21	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
C271	4835 122 47045	100pF., 10%, 50V, Ceramic	R22	4835 111 37247	3.3K, 5%, 1/10W, Metal Film
C272	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R24	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C275	4835 124 47499	10uF., 50V, Electrolytic	R25	4835 111 37248	33K, 5%, 1/10W, Metal Film
C276	4835 124 47499	10uF., 50V, Electrolytic	R26	4835 116 67089	100 ohm, 5%, 1/2W, Metal Film
C277	4835 122 47009	470pF., 10%, 50V, Ceramic	R27	4835 111 37015	4.7K, 5%, 1/10W, Metal Film
C278	4835 122 47006	220pF., 10%, 50V, Ceramic	R28	4835 111 37083	2.7K, 5%, 1/4W, Metal Film
C279	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R29	4835 111 37371	220 ohm, 5%, 1/10W, Metal Film
C280	4835 121 47406	.1uF., 50V, Electrolytic	R30	4835 111 37005	1.5K, 5%, 1/10W, Metal Film
C300	4835 121 47459	.022uF., 2.5%, 250V, Polypropylene	R31	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C301	4835 122 47021	39pF., 5%, 50V, Ceramic	R32	4835 111 37216	10K, 5%, 1/10W, Metal Film
C302	4835 122 47015	12pF., 5%, 50V, Ceramic	R37	4835 116 57321	10K, 5%, 1/4W, Metal Film
C306	4835 124 47502	2.2uF., 50V, Electrolytic	R38	4835 116 57321	10K, 5%, 1/4W, Metal Film
C307	4835 124 47502	2.2uF., 50V, Electrolytic	R39	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
C308	4835 124 47502	2.2uF., 50V, Electrolytic	R40	4835 111 37216	10K, 5%, 1/10W, Metal Film
C309	4835 124 47502	2.2uF., 50V, Electrolytic	R41	4835 116 57427	4.7K, 5%, 1/4W, Metal Film
C310	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R42	4835 111 37108	5.1K, 5%, 1/4W, Metal Film
C311	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R43	4835 111 37023	10K, 5%, 1/4W, Metal Film
C312	4835 122 47008	270pF., 10%, 50V, Ceramic	R44	4835 111 37005	15K, 5%, 1/10W, Metal Film
C320	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R45	4835 111 37027	15K, 5%, 1/4W, Metal Film
C321	4835 122 47045	100pF., 10%, 50V, Ceramic	R46	4835 111 37006	15K, 5%, 1/10W, Metal Film
C322	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R47	4835 116 57321	10K, 5%, 1/4W, Metal Film
C325	4835 124 47499	10uF., 50V, Electrolytic	R48	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
C326	4835 124 47499	10uF., 50V, Electrolytic	R49	4835 111 37016	47K, 5%, 1/10W, Metal Film
C327	4835 122 47009	470pF., 10%, 50V, Ceramic	R60	4835 111 37023	10K, 5%, 1/4W, Metal Film
C328	4835 122 47006	220pF., 10%, 50V, Ceramic	R61	4835 111 37482	1.5 Meg, 5%, 1/10W, Metal Film
C350	4835 121 47459	.022uF., 2.5%, 250V, Polypropylene	R62	4835 111 37005	1.5K, 5%, 1/10W, Metal Film
C351	4835 122 47021	39pF., 5%, 50V, Ceramic	R63	4835 111 37009	22K, 5%, 1/10W, Metal Film
C352	4835 121 47232	.01uF., 10%, 100V, Polyester	R64	4835 116 67155	150 ohm, 5%, 3W, Metal Film
C353	4835 121 47232	.01uF., 10%, 100V, Polyester	R65	4835 116 57496	430 ohm, 5%, 1/4W, Metal Film
C355	4835 124 47502	2.2uF., 50V, Electrolytic	R66	4835 116 67155	150 ohm, 5%, 3W, Metal Film
C356	4835 124 47502	2.2uF., 50V, Electrolytic	R67	4835 116 57496	430 ohm, 5%, 1/4W, Metal Film
C357	4835 124 47502	2.2uF., 50V, Electrolytic	R68	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C358	4835 124 47502	2.2uF., 50V, Electrolytic	R69	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C359	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R60	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film
C360	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R61	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C362	4835 122 47008	270pF., 10%, 50V, Ceramic	R62	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C363	4835 122 47015	12pF., 5%, 50V, Ceramic	R63	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C370	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R64	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C371	4835 122 47045	100pF., 10%, 50V, Ceramic	R65	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C372	4835 122 87375	.1uF., +80-20%, 50V, Ceramic	R66	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C375	4835 124 47499	10uF., 50V, Electrolytic	R67	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C376	4835 124 47499	10uF., 50V, Electrolytic	R68	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C377	4835 124 47499	10uF., 50V, Electrolytic	R69	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C378	4835 122 47006	220pF., 10%, 50V, Ceramic	R71	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C379	4835 122 87044	.1uF., 50V, 20%, Ceramic	R72	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
C380	4835 121 47406	1uF., 50V, Electrolytic	R73	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
CA13	4835 122 97083	27pF x7, Capacitor Network	R74	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
RESISTORS			R75	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R1	4835 116 57069	47 ohm, 5%, 1/3W, Metal Film	R76	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R2	4835 111 37022	1K, 5%, 1/4W, Metal Film	R77	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R3	4835 111 37216	10K, 5%, 1/10W, Metal Film	R78	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
R5	4835 111 37002	1K, 5%, 1/10W, Metal Film	R79	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film
			R80	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film

DIGITAL CONVERGENCE PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)			RESISTORS (Continued)		
R81	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film	R175	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R82	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film	R176	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R83	4835 111 37104	470 ohm, 5%, 1/4W, Metal Film	R177	4835 116 57425	3.9K, 5%, 1/4W, Metal Film
R84	4835 111 37015	4.7K, 5%, 1/10W, Metal Film	R178	4835 116 57412	22K, 5%, 1/4W, Metal Film
R85	4835 111 37216	10K, 5%, 1/10W, Metal Film	R179	4835 116 67152	33 ohm, 5%, 1/2W, Metal Film
R86	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R180	4835 116 67152	33 ohm, 5%, 1/2W, Metal Film
R87	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R182	4835 116 67152	33 ohm, 5%, 1/2W, Metal Film
R88	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R183	4835 116 67152	33 ohm, 5%, 1/2W, Metal Film
R89	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R199	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
R90	4835 111 37002	1K, 5%, 1/10W, Metal Film	R200	4835 116 57426	1.3K, 5%, 1/4W, Metal Film
R91	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film	R201	4835 116 57395	100K, 5%, 1/4W, Metal Film
R92	4835 111 37027	15K, 5%, 1/4W, Metal Film	R202	4835 116 57324	220 ohm, 5%, 1/4W, Metal Film
R93	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R203	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film
R94	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R204	4835 116 57327	6.8K, 5%, 1/4W, Metal Film
R95	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R205	4835 116 57396	1.2K, 5%, 1/4W, Metal Film
R96	4835 111 37001	100 ohm, 5%, 1/10W, Metal Film	R206	4835 116 57421	470 ohm, 5%, 1/4W, Metal Film
R97	4835 111 37023	10K, 5%, 1/4W, Metal Film	R207	4835 116 57421	330 ohm, 5%, 1/4W, Metal Film
R98	4835 111 37216	10K, 5%, 1/4W, Metal Film	R208	4835 116 57216	150 ohm, 5%, 1W, Metal Film
R99	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	R209	4835 116 67062	100 ohm, 5%, 1W, Metal Film
R100	4835 116 57545	1.3K, 5%, 1/4W, Metal Film	R210	4835 116 57323	18K, 5%, 1/4W, Metal Film
R101	4835 116 57395	100K, 5%, 1/4W, Metal Film	R211	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film
R102	4835 116 57324	220 ohm, 5%, 1/4W, Metal Film	R212	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film
R103	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film	R213	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
R104	4835 116 57327	6.8K, 5%, 1/4W, Metal Film	R214	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film
R105	4835 116 57396	1.2K, 5%, 1/4W, Metal Film	R215	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film
R106	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	R221	4835 116 57425	3.9K, 5%, 1/4W, Metal Film
R107	4835 116 57421	330 ohm, 5%, 1/4W, Metal Film	R222	4835 116 57415	2.7K, 5%, 1/4W, Metal Film
R108	4835 116 57412	150 ohm, 5%, 1W, Metal Film	R223	4835 116 57412	22K, 5%, 1/4W, Metal Film
R109	4835 116 67062	100 ohm, 5%, 1W, Metal Film	R225	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R110	4835 116 57323	18K, 5%, 1/4W, Metal Film	R226	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R111	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film	R227	4835 116 57425	3.9K, 5%, 1/4W, Metal Film
R112	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film	R228	4835 116 57412	22K, 5%, 1/4W, Metal Film
R113	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	R229	4835 116 57321	10K, 5%, 1/4W, Metal Film
R114	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film	R230	4835 116 57321	10K, 5%, 1/4W, Metal Film
R115	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film	R247	4835 116 57321	10K, 5%, 1/4W, Metal Film
R116	4835 111 37216	10K, 5%, 1/10W, Metal Film	R248	4835 116 57395	100K, 5%, 1/4W, Metal Film
R117	4835 111 37006	15K, 5%, 1/10W, Metal Film	R249	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
R121	4835 116 57425	3.9K, 5%, 1/4W, Metal Film	R250	4835 116 57545	1.3K, 5%, 1/4W, Metal Film
R122	4835 116 57415	2.7K, 5%, 1/4W, Metal Film	R252	4835 116 57324	220 ohm, 5%, 1/4W, Metal Film
R123	4835 116 57412	22K, 5%, 1/4W, Metal Film	R253	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film
R125	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R254	4835 116 57327	6.8K, 5%, 1/4W, Metal Film
R126	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	R255	4835 116 57396	1.2K, 5%, 1/4W, Metal Film
R127	4835 116 57425	3.9K, 5%, 1/4W, Metal Film	R256	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
R128	4835 116 57412	22K, 5%, 1/4W, Metal Film	R257	4835 116 57421	330 ohm, 5%, 1/4W, Metal Film
R129	4835 116 57321	10K, 5%, 1/4W, Metal Film	R258	4835 116 57421	150 ohm, 5%, 1W, Metal Film
R130	4835 116 57321	10K, 5%, 1/4W, Metal Film	R259	4835 116 67062	100 ohm, 5%, 1W, Metal Film
R148	4835 116 57395	100K, 5%, 1/4W, Metal Film	R260	4835 116 57323	18K, 5%, 1/4W, Metal Film
R149	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	R261	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film
R150	4835 116 57545	1.3K, 5%, 1/4W, Metal Film	R262	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film
R152	4835 116 57324	220 ohm, 5%, 1/4W, Metal Film	R263	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film
R153	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film	R264	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film
R154	4835 116 57327	6.8K, 5%, 1/4W, Metal Film	R265	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film
R155	4835 116 57396	1.2K, 5%, 1/4W, Metal Film	R266	4835 116 57321	10K, 5%, 1/4W, Metal

DIGITAL CONVERGENCE PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
RESISTORS (Continued)					
R302	4835 116 57324	220 ohm, 5%, 1/4W, Metal Film	SEMICONDUCTORS (Continued)		
R303	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film			
R304	4835 116 57327	6.8k, 5%, 1/4W, Metal Film			
R305	4835 116 57396	1.2k, 5%, 1/4W, Metal Film			
R306	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film			
R307	4835 116 57421	330 ohm, 5%, 1/4W, Metal Film			
R308	4835 116 57216	150 ohm, 5%, 1W, Metal Film			
R309	4835 116 67062	100 ohm, 5%, 1W, Metal Film			
R310	4835 116 57323	18k, 5%, 1/4W, Metal Film			
R311	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film			
R312	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film	IC100	4835 209 17036	OP Amp IC NE5534N
R313	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	IC110	4835 209 17038	Dual OP Amp IC, NE5532N
R314	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film	IC150	4835 209 17036	IC NE5534N
R315	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film	IC160	4835 209 17038	Dual OP Amp IC NE5532N
R321	4835 116 57425	3.9k, 5%, 1/4W, Metal Film	IC165	4835 209 88177	IC TDA1545
R322	4835 116 57415	2.7k, 5%, 1/4W, Metal Film	IC200	4835 209 17036	OP Amp IC NE5534N
R323	4835 116 57412	22k, 5%, 1/4W, Metal Film	IC210	4835 209 17038	Dual OP Amp IC NE5532N
R325	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	IC250	4835 209 17036	IC NE5534N
R326	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	IC260	4835 209 17038	Dual OP Amp IC NE5532N
R327	4835 116 57425	3.9k, 5%, 1/4W, Metal Film	IC265	4835 209 88177	IC TDA1545
R328	4835 116 57412	22k, 5%, 1/4W, Metal Film	IC300	4835 209 17036	OP Amp IC NE5534N
R329	4835 116 57321	10k, 5%, 1/4W, Metal Film	IC310	4835 209 17038	IC NE5532N
R330	4835 116 57321	10k, 5%, 1/4W, Metal Film	IC350	4835 209 17036	IC NE5534N
R347	4835 116 57321	10k, 5%, 1/4W, Metal Film	IC360	4835 209 17038	IC NE5532N
R348	4835 116 57395	100k, 5%, 1/4W, Metal Film	IC365	4835 209 88177	IC TDA1545
R349	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	Q1	4835 130 47126	Transistor, PNP
R350	4835 116 57545	1.3k, 5%, 1/4W, Metal Film	Q2	4835 130 47055	Transistor, PNP
R352	4835 116 57324	220 ohm, 5%, 1/4W, Metal Film	Q4	4835 130 47055	Transistor, NPN
R355	4835 116 57439	820 ohm, 5%, 1/4W, Metal Film	Q5	4835 130 47343	Transistor, BC639
R354	4835 116 57327	6.8k, 5%, 1/4W, Metal Film	Q6	4835 130 47086	Transistor, SMBT1159-L2
R355	4835 116 57396	1.2k, 5%, 1/4W, Metal Film	Q7	4835 130 47086	Transistor, SMBT1159-L2
R356	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	Q10	4835 130 47125	Transistor, BF450
R357	4835 116 57421	330 ohm, 5%, 1W, Metal Film	Q11	4835 130 47051	Transistor, NPN
R358	4835 116 57216	150 ohm, 5%, 1W, Metal Film	Q15	4835 130 47629	Transistor, BC640
R359	4835 116 57062	100 ohm, 5%, 1W, Metal Film	Q50	4835 130 47083	Transistor, KFM128X
R360	4835 116 57323	18k, 5%, 1/4W, Metal Film	Q100	4835 130 47192	Transistor, NPN BC547
R361	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film	Q101	4835 130 47192	Transistor, NPN BC547
R362	4835 116 57121	5.1 ohm, 5%, 1W, Metal Film	Q102	4835 130 47192	Transistor, NPN BC547
R363	4835 116 57426	470 ohm, 5%, 1/4W, Metal Film	Q103	4835 130 47192	Transistor, NPN BC547
R365	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film	Q104	4835 130 47641	Transistor, BD140
R366	4835 116 57321	10k, 5%, 1/4W, Metal Film	Q105	4835 130 47642	Transistor, BD139
R367	4835 116 57321	10k, 5%, 1/4W, Metal Film	Q106	4835 130 47107	Transistor, TIP41C
R369	4835 116 57164	12 ohm, 5%, 1/3W, Metal Film	Q107	4835 130 47084	Transistor, TIP42C
R371	4835 116 57425	3.9k, 5%, 1/4W, Metal Film	Q150	4835 130 47192	Transistor, NPN BC547
R372	4835 116 57415	2.7k, 5%, 1/4W, Metal Film	Q151	4835 130 47192	Transistor, NPN BC547
R373	4835 116 57423	33k, 5%, 1/4W, Metal Film	Q152	4835 130 47192	Transistor, NPN BC547
R375	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	Q153	4835 130 47192	Transistor, NPN BC547
R376	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film	Q154	4835 130 47641	Transistor, BD140
R377	4835 116 57425	3.9k, 5%, 1/4W, Metal Film	Q155	4835 130 47642	Transistor, BD139
R378	4835 116 57412	22k, 5%, 1/4W, Metal Film	Q156	4835 130 47107	Transistor, TIP41C
R379	4835 116 67152	.33 ohm, 5%, 1/2W, Metal Film	Q157	4835 130 47084	Transistor, TIP42C
R380	4835 116 67152	.33 ohm, 5%, 1/2W, Metal Film	Q200	4835 130 47192	Transistor, NPN BC547
R382	4835 116 67152	.33 ohm, 5%, 1/2W, Metal Film	Q201	4835 130 47192	Transistor, NPN BC547
R383	4835 116 67152	.33 ohm, 5%, 1/2W, Metal Film	Q202	4835 130 47192	Transistor, NPN BC547
SEMICONDUCTORS					
D10	4835 130 37048	Diode, Silicon	Q204	4835 130 47192	Transistor, NPN BC547
D11	4835 130 37048	Diode, Silicon	Q205	4835 130 47641	Transistor, BD139
D12	4835 130 37048	Diode, Silicon	Q206	4835 130 47107	Transistor, TIP41C
D13	4835 130 37048	Diode, Silicon	Q207	4835 130 47084	Transistor, TIP42C
D50	4835 130 37066	Diode, Silicon	Q250	4835 130 47192	Transistor, NPN BC547
D51	4835 130 37066	Diode, Silicon	Q251	4835 130 47192	Transistor, NPN BC547
D52	4835 130 37048	Diode, Silicon	Q252	4835 130 47192	Transistor, NPN BC547
D53	4835 130 37066	Diode, Silicon	Q253	4835 130 47192	Transistor, NPN BC547
D54	4835 130 37048	Diode, Silicon	Q254	4835 130 47641	Transistor, BD140
D100	4835 130 37099	Diode, Silicon	Q255	4835 130 47642	Transistor, BD139
D150	4835 130 37099	Diode, Silicon	Q256	4835 130 47107	Transistor, TIP41C
D200	4835 130 37099	Diode, Silicon	Q257	4835 130 47084	Transistor, TIP42C
			Q300	4835 130 47192	Transistor, NPN BC547
			Q301	4835 130 47192	Transistor, NPN BC547

DIGITAL CONVERGENCE PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
SEMICONDUCTORS (Continued)					
Q302	4835 130 47192	Transistor, NPN BC547	MISCELLANEOUS (Continued)		
Q303	4835 130 47192	Transistor, NPN BC547			
Q304	4835 130 47641	Transistor, PNP BD140			
Q305	4835 130 47642	Transistor, NPN BD139			
Q306	4835 130 47107	Transistor, NPN TIP41C			
Q307	4835 130 47084	Transistor, PNP TIP42C			
Q350	4835 130 47192	Transistor, NPN BC547			
Q351	4835 130 47192	Transistor, NPN BC547			
Q352	4835 130 47192	Transistor, NPN BC547			
Q353	4835 130 47192	Transistor, NPN BC547			
Q354	4835 130 47641	Transistor, PNP BD140	BR3	4835 111 37019	0 ohm, "Chip" Jumper
Q355	4835 130 47642	Transistor, NPN BD139	BR4	4835 111 37019	0 ohm, "Chip" Jumper
Q356	4835 130 47107	Transistor, NPN TIP41C	BR5	4835 111 37019	0 ohm, "Chip" Jumper
Q357	4835 130 47084	Transistor, PNP TIP42C	BR8	4835 111 37019	0 ohm, "Chip" Jumper
Z2	4835 130 37123	Zener Diode, 12V	BR9	4835 111 37019	0 ohm, "Chip" Jumper
Z5	4835 130 37169	Zener Diode, 1N5246C	F1	4835 253 37027	Fuse, 4A
Z10	4835 130 37068	Zener Diode, 5.6V, 2%	F2	4835 253 37026	Fuse, 4A
Z15	4835 130 37169	Zener Diode, 1N5246C	F3	4835 253 37026	Fuse, 1A
Z200	4835 130 37747	Diode, Silicon	HS6	0073 166 50008	Heatsink f/IC6
Z201	4835 130 37747	Diode, Silicon	HS100	0020 100 70001	Solder Lug
Z301	4835 130 37747	Diode, Silicon	HS100	0073 597 90001	Heatsink f/Q106 & Q107
			HS100	0073 597 90001	Heatsink f/Q106 & Q107
			HS100	0073 597 90001	Heatsink f/Q106 & Q107
			HS150	0020 100 70001	Solder Lug
			HS150	0073 597 90001	Heatsink f/Q156 & Q157
			HS150	0073 597 90001	Heatsink f/Q156 & Q157
			HS200	0020 100 70001	Solder Lug
			HS200	0073 597 90001	Heatsink f/Q206 & Q207
			HS200	0073 597 90001	Heatsink f/Q206 & Q207
			HS250	0020 100 70001	Solder Lug
			HS250	0020 100 70001	Solder Lug
			HS300	0073 597 90001	Heatsink f/Q306 & Q307
			HS300	0073 597 90001	Heatsink f/Q306 & Q307
			HS350	0020 100 70001	Solder Lug
			HS350	0073 597 90001	Heatsink f/Q356 & Q357
			HS350	0073 597 90001	Heatsink f/Q356 & Q357
			J307	0018 223 40007	7 Pin Connector, Red
			J468	0018 165 80007	7 Pin Connector, Red
			J484	0018 223 80008	8 Pin Connector, GRN
			J484	4835 290 47014	Square Wire Pins
			J485	4835 290 47014	Square Wire Pins
			SHDB	0073 603 60001	Cover, Digital Convergence
			SHDT	0073 603 60002	Shield, Digital Convergence
			TP4	0018 152 70002	2 Pin Water Connector
			TP5	0018 152 70002	2 Pin Water Connector
			VR1	4835 130 37087	Diode, Silicon
			Y1	4835 157 57129	Ceramic Resonator, 12M
MISCELLANEOUS					
BR1	4835 111 37215	0 ohm, "Chip" Jumper			
BR2	4835 111 37019	0 ohm, "Chip" Jumper			

WARNING

Critical components having special safety characteristics are identified within a **Δ** by the Ref. No. in the parts list and components are grouped in one area (along with the safety symbol **Δ** on the schematics or exploded views.

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00APT149 A001

RED CRT PANEL

REPLACEMENT PARTS LIST

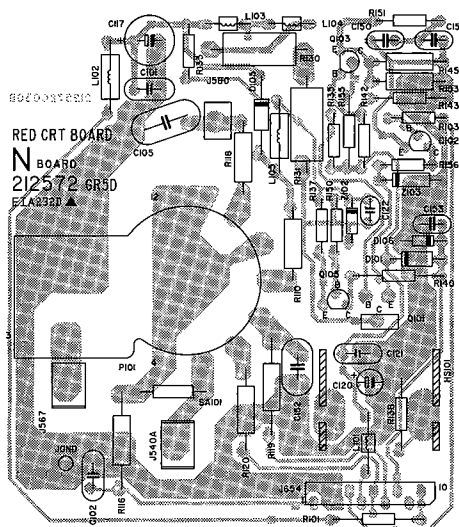
(Complete Panel: 4835 219 77578)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

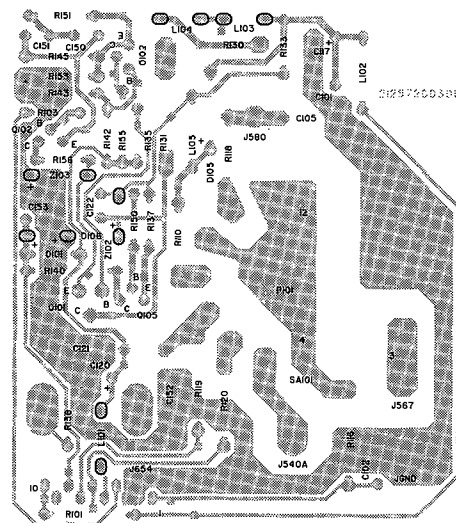
Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS			RESISTORS (Continued)		
C101	4835 121 47114	.01uF., 400V, Polyester	R150	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
C102	4835 121 47114	.01uF., 400V, Polyester	R151	4835 110 57137	22 ohm, 2%, 1/4W, Carbon Film
▲ C105	4835 122 57005	1000pF., 2kV, 20%, Ceramic	R153	4835 110 47195	43 ohm, 2%, 1/2W, Carbon Film
C117	4835 124 27011	10uF., 315V, Electrolytic	R155	4835 110 57019	47 ohm, 5%, 1/4W, Carbon Film
C120	4835 124 47553	1uF., 50V, Electrolytic	R156	4835 110 57248	68 ohm, 5%, 1/4W, Carbon Film
C121	4822 121 41608	.1uF., 100V, Polyester	SEMICONDUCTORS		
C122	4835 122 47212	560pF., 500V, 10%, Ceramic	D101	4835 130 37102	Diode, Silicon
C150	4835 122 47014	100pF., 50V, 5%, Ceramic	D105	4835 130 37102	Diode, Silicon
C151	4835 121 47375	1200pF., 100V, 5%, Polyester	D106	4835 130 37048	Diode, Silicon
C152	4835 122 57001	1000pF., 1kV, 20%, Ceramic	Q101	4835 130 47886	Transistor, NPN, Upper Cascode
C153	4835 122 47014	100pF., 50V, 5%, Ceramic	Q102	4835 130 47051	Transistor, NPN, Lower Cascode
RESISTORS			Q103	4835 130 47091	Transistor, NPN, Bias
▲ R101	4835 116 57112	.27 ohm, 5%, 1/2W, Metal Film	Q105	4835 130 47159	Transistor, PNP, AKB Sample
R103	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film	Z102	4835 130 37068	Zener Doide, 5.6V, 2%
▲ R110	4835 110 47001	1.5k, 10%, 1/2W, Carbon Comp.	MISCELLANEOUS		
▲ R116	4835 110 57115	1k, 5%, 1/2W, Carbon Comp.	HS101	0073 597 60002	Heatsink, CRT
▲ R118	4835 110 47167	22k, 20%, 1/2W, Carbon Comp.	L101	4835 157 58077	Peaking Coil, 100uH. 5%
▲ R119	4835 116 57595	5.6 ohm, 5%, 1/2W, Metal Film	L102	4835 157 57143	Peaking Coil, 15uH.
▲ R120	4835 116 57595	5.6 ohm, 5%, 1/2W, Metal Film	L103	4835 157 67013	Peaking Coil, 47uH. 5%
▲ R130	4835 116 57058	3k, 5%, 3W, Metal Film	L104	4835 157 67013	Peaking Coil, 47uH. 5%
▲ R131	4835 116 57058	3k, 5%, 3W, Metal Film	L105	0036 183 51005	Coil, 10uH., 5%
R133	4835 110 57348	10 Meg, 5%, 1/4W, Carbon Comp.	▲ P101	4835 265 97307	Socket f/CRT, B10-276
R135	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film	▲ SA101	4835 253 37024	Surge Suppressor, 500V
R137	4835 110 57349	2.7k, 5%, 1/4W, Carbon Comp.		4835 255 47003	Silicon Insulator f/Q101
R138	4835 110 57068	100k, 5%, 1/4W, Carbon Film	J540	4835 290 47016	Push-On Terminal
R140	4835 110 57018	1k, 5%, 1/4W, Carbon Film	J567	4835 290 67001	Solder Terminal
R142	4835 110 57352	750 ohm, 2%, 1/4W, Carbon Film	J654	0018 223 40010	19 Pin Board Connector
R143	4835 110 57351	220 ohm, 2%, 1/4W, Carbon Film			
R145	4835 110 47196	91 ohm, 2%, 1/2W, Carbon Film			

00APT149 A001 RED CRT PANEL PC BOARD OVERLAYS



(TOP VIEW)



(BOTTOM VIEW)

(Refer to the following page/frame for P.C. Board and Parts List Information)

Large Signal Panel Schematic - Pg. 39/ Frame 1-G12

WARNING

Critical components having special safety characteristics are identified with a Δ by the Ref. No. in the parts list and enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol Δ on the schematics or exploded views.

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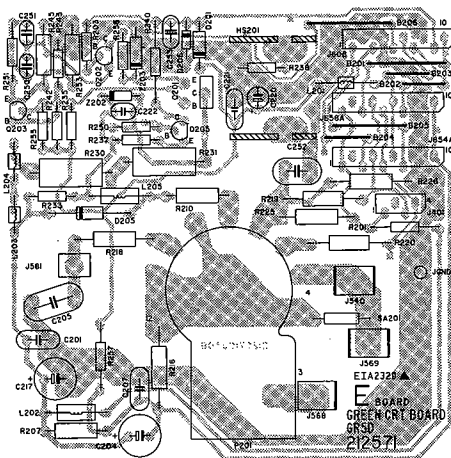
Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

**00APT150 A001
GREEN CRT PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77579)**

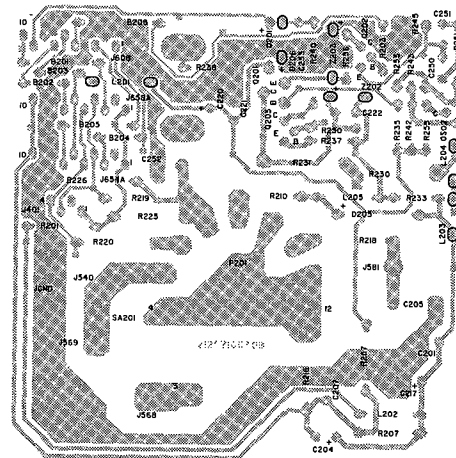
Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS			RESISTORS (Continued)		
C201	4835 121 47114	.01uF., 400V, Polyester	R251	4835 110 57137	22 ohm, 2%, 1/4W, Carbon Film
C204	4835 124 27011	10uF., 315V, Electrolytic	R253	4835 110 47195	43 ohm, 2%, 1/2W, Carbon Film
▲ C205	4835 122 57005	1000pF., 2kV, 20%, Ceramic	R255	4835 110 57019	47 ohm, 5%, 1/4W, Carbon Film
C207	4835 121 47114	.01uF., 400V, Polyester	R256	4835 110 57248	68 ohm, 5%, 1/4W, Carbon Film
C217	4835 124 27011	10uF., 315V, Electrolytic	SEMICONDUCTORS		
C220	4835 124 47553	1uF., 50V, Electrolytic	D200	4835 130 37179	Diode, Silicon
C221	4822 121 41608	.1uF., 100V, Polyester	D201	4835 130 37102	Diode, Silicon
C222	4835 122 47212	560pF., 500V, 10%, Ceramic	D205	4835 130 37102	Diode, Silicon
C250	4835 122 47014	100pF., 50V, 5%, Ceramic	D206	4835 130 37048	Diode, Silicon
C251	4835 121 47375	1200pF., 100V, 5%, Polyester	Q201	4835 130 47886	Transistor, NPN, Upper Cascode
C252	4835 122 57001	1000pF., 1kV, 20%, Ceramic	Q202	4835 130 47051	Transistor, NPN, Lower Cascode
C253	4835 122 47014	100pF., 50V, 5%, Ceramic	Q203	4835 130 47091	Transistor, NPN, Bias
RESISTORS			Q205	4835 130 47159	Transistor, PNP, AKB Sample
▲ R201	4835 116 57112	.27 ohm, 5%, 1/2W, Metal Film	Z202	4835 130 37068	Zener Diode, 5.6V, 2%
R203	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film	MISCELLANEOUS		
▲ R207	4835 110 47024	4.7 Meg, 5%, 1/2W, Carbon Comp.	HS201	0073 597 60002	Heatsink f/Q201
R210	4835 110 47194	1.5k, 5%, 1/2W, Carbon Comp.	L201	4835 157 58077	Peaking Coil, 100uH, 5%
▲ R216	4835 110 57115	1k, 5%, 1/2W, Carbon Comp.	L202	4835 157 57143	Peaking Coil, 15uH.
▲ R218	4835 110 47167	22k, 20%, 1/2W, Carbon Comp.	L203	4835 157 67013	Peaking Coil, 47uH, 5%
▲ R219	4835 116 57595	5.6 ohm, 5%, 1/2W, Metal Film	L204	4835 157 67013	Peaking Coil, 47uH, 5%
▲ R220	4835 116 57595	5.6 ohm, 5%, 1/2W, Metal Film	L205	0036 183 51005	Coil, 10uH, 5%
▲ R225	4835 110 47168	220k, 20%, 1/2W, Carbon Comp.	▲ P201	4835 265 97307	Socket f/CRT, B10-276
▲ R226	4835 110 47166	100k, 20%, 1/2W, Carbon Comp.	▲ SA201	4835 253 37024	Surge Suppressor, 500V
▲ R230	4835 116 57058	3k, 5%, 3W, Metal Film	J401	0018 223 60004	4 Pin Board Connector, YLW
▲ R231	4835 116 57058	3k, 5%, 3W, Metal Film	J540	4835 290 47016	Push-On Terminal
R233	4835 110 57348	10 Meg, 5%, 1/4W, Carbon Comp.	J569	4835 290 47016	Push-On Terminal
R235	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film	J608	0018 169 30010	10 Pin Board Connector
R237	4835 110 57349	2.7k, 5%, 1/4W, Carbon Comp.	J654	0018 169 30010	10 Pin Board Connector
R238	4835 110 57068	100k, 5%, 1/4W, Carbon Film	J658	0018 169 30010	10 Pin Board Connector
R240	4835 110 57018	1k, 5%, 1/4W, Carbon Film		4835 290 47019	Clips (2 used)
R242	4835 110 57352	750 ohm, 2%, 1/4W, Carbon Film		4835 256 97281	Transistor Mounting Clip
R243	4835 110 57351	220 ohm, 2%, 1/4W, Carbon Film		4835 255 47003	Silicon Insulator f/Q201
R245	4835 110 47196	91 ohm, 2%, 1/2W, Carbon Film			
R250	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film			

**00APT150 A001 GREEN CRT PANEL
PC BOARD OVERLAYS**



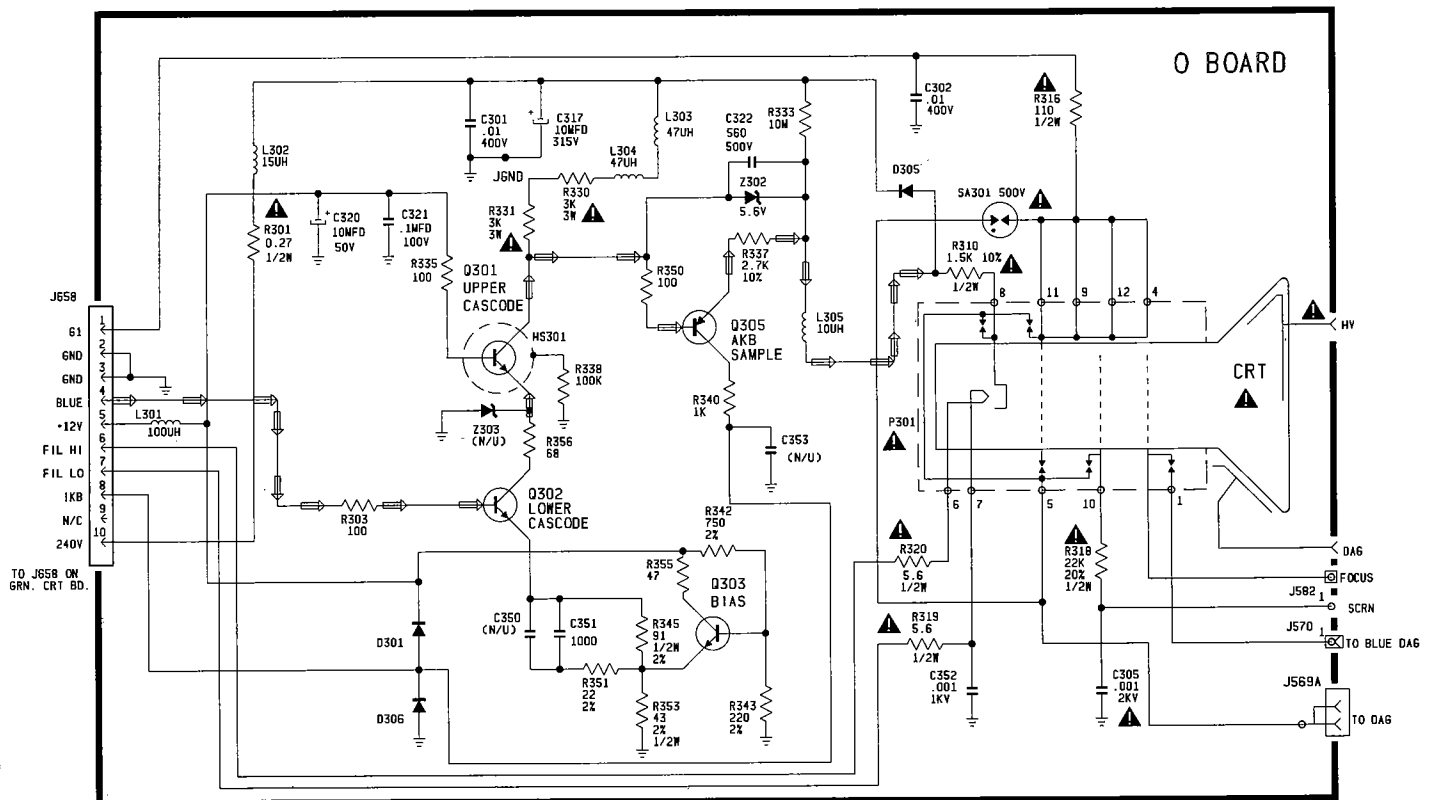
(TOP VIEW)



(BOTTOM VIEW)

00APT151 A001 BLUE CRT PANEL SCHEMATIC DIAGRAM

(Refer to the following page/frame for P.C. Board and Parts List Information)



WARNING

Critical components having special safety characteristics are identified with a Δ by the Ref. No. in the parts list and enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol Δ on the schematics or exploded views.

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00APT151 A001

BLUE CRT PANEL

REPLACEMENT PARTS LIST

(Complete Panel: 4835 219 77581)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

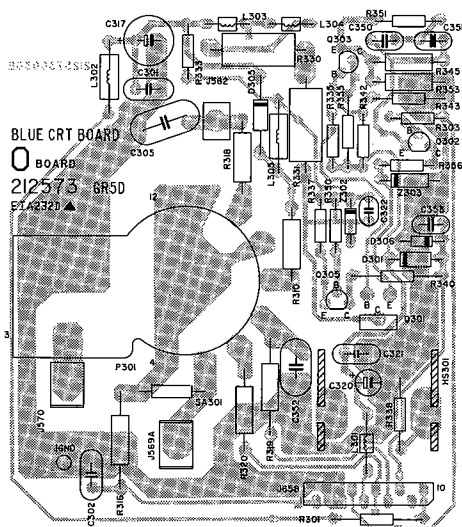
Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description
CAPACITORS		
C301	4835 121 47114	.01uF., 400V, Polyester
C302	4835 121 47114	.01uF., 400V, Polyester
▲ C305	4835 122 57005	1000pF., 2kV, 20%, Ceramic
C317	4835 124 27011	10uF., 315V, Electrolytic
C320	4835 124 47553	1uF., 50V, Electrolytic
C321	4822 121 41608	.1uF., 100V, Polyester
C322	4835 122 47212	560pF., 500V, 10%, Ceramic
C350	4835 122 47014	100pF., 50V, 5%, Ceramic
C351	4835 121 47375	1200pF., 100V, 5%, Polyester
C352	4835 122 57001	1000pF., 1kV, 20%, Ceramic
C353	4835 122 47014	100pF., 50V, 5%, Ceramic
RESISTORS		
▲ R301	4835 116 57112	.27 ohm, 5%, 1/2W, Metal Film
R303	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
▲ R310	4835 110 47001	1.5k, 10%, 1/2W, Carbon Comp.
▲ R316	4835 110 57115	1k, 5%, 1/2W, Carbon Comp.
▲ R318	4835 110 47167	22k, 20%, 1/2W, Carbon Comp.
▲ R319	4835 116 57595	5.6 ohm, 5%, 1/2W, Metal Film
▲ R320	4835 116 57595	5.6 ohm, 5%, 1/2W, Metal Film
▲ R330	4835 116 57058	3k, 5%, 3W, Metal Film
▲ R331	4835 116 57058	3k, 5%, 3W, Metal Film
R333	4835 110 57348	10 Megohm, 5%, 1/4W, Carbon Comp.
R335	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
R337	4835 110 57349	2.7k, 5%, 1/4W, Carbon Comp.
R338	4835 110 57068	100k, 5%, 1/4W, Carbon Film
R340	4835 110 57018	1k, 5%, 1/4W, Carbon Film
R342	4835 110 57352	750 ohm, 2%, 1/4W, Carbon Film
R343	4835 110 57351	220 ohm, 2%, 1/4W, Carbon Film
R345	4835 110 47196	91 ohm, 2%, 1/2W, Carbon Film
R350	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film

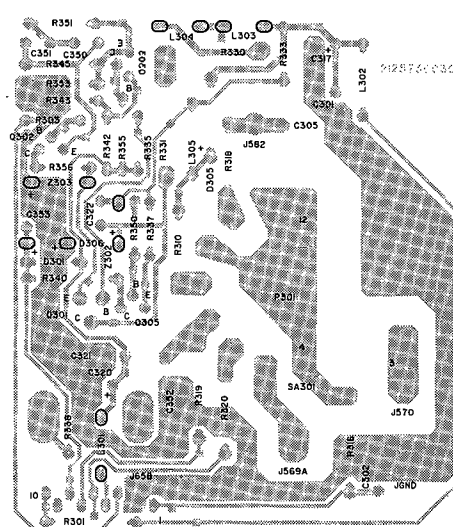
Ref.	Part No.	Description
RESISTORS (Continued)		
R351	4835 110 57137	22 ohm, 2%, 1/4W, Carbon Film
R353	4835 110 47195	43 ohm, 2%, 1/2W, Carbon Film
R355	4835 110 57019	47 ohm, 5%, 1/4W, Carbon Film
R356	4835 110 57248	68 ohm, 5%, 1/4W, Carbon Film
SEMICONDUCTORS		
D301	4835 130 37102	Diode, Silicon
D305	4835 130 37102	Diode, Silicon
D306	4835 130 37048	Diode, Silicon
Q301	4835 130 47886	Transistor, NPN, Upper Cascode
Q302	4835 130 47051	Transistor, NPN, Lower Cascode
Q303	4835 130 47091	Transistor, NPN, Bias
Q305	4835 130 47159	Transistor, PNP, AKB Sample
Z302	4835 130 37068	Zener Diode, 5.6V, 2%

MISCELLANEOUS		
HS301	0073 597 60002	Heatsink f/Q301
L301	4835 157 58077	Peaking Coil, 100uH. 5%
L302	4835 157 57143	Peaking Coil, 15uH.
L303	4835 157 67013	Peaking Coil, 47uH. 5%
L304	4835 157 67013	Peaking Coil, 47uH. 5%
L305	0036 183 51005	Coil, 10uH., 5%
▲ P301	4835 265 97307	CRT Socket, B10-276
▲ SA301	4835 253 37024	Surge Suppressor, 500V
	4835 255 47003	Silicon Insulator, f/Q301
J569	4835 290 47016	Push-On Terminal
J570	4835 290 67001	Solder Terminal
J658	0018 169 30010	10 Pin Board Connector
	4835 290 47019	Clip (2 used)
	4835 256 97281	Transistor Mounting Clip

00APT151 A001 BLUE CRT PANEL PC BOARD OVERLAYS



(TOP VIEW)



(BOTTOM VIEW)

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00ATC660 A001 & B002 CUSTOMER CONTROL ASSEMBLY REPLACEMENT PARTS LIST

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

Refer to the previous page/frame for Schematic information on this panel.

(Complete Assembly - ATC660 A001: 4835 219 37054)
(Complete Assembly - ATC660 B002: 4835 219 37055)

Ref.	Part No.	Description	Ref.	Part No.	Description
MISCELLANEOUS			MISCELLANEOUS		
D301	4835 130 37056	Green LED, LT3231A (A001)		4835 219 77545	IR Receiver Mod. (ARR014-A001)
D301	4835 130 37516	Green LED, LT3231 (B002)		4835 219 77546	Switch Asm. Panel (ASW111-A001)
D302	4835 130 37065	Red LED, LT3211A (A001)		4835 256 97047	Plastic Support f/LEDs (A001)
D302	4835 130 37541	Red LED, LT3211 (B002)		4835 432 17602	ATC Control Housing
J305	0018 165 90003	3 Pin Board Connector		4835 432 17606	Retainer f/P.C. Bd.
J302	0018 165 90005	5 Pin Board Connector		4835 432 17698	Plastic Support f/LEDs (B002)
J300	0018 169 30007	7 Pin Board Connector		4835 450 67182	Crystal Inlay Asm.
IR300	4835 219 47248	IR Receiver, GP1U770R		0021 242 20002	P.C. Board f/IR Rec. & Sw.
	4835 432 37082	Keyboard Pad			

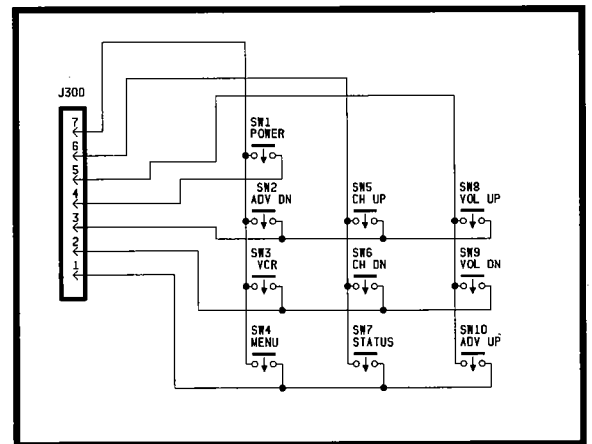
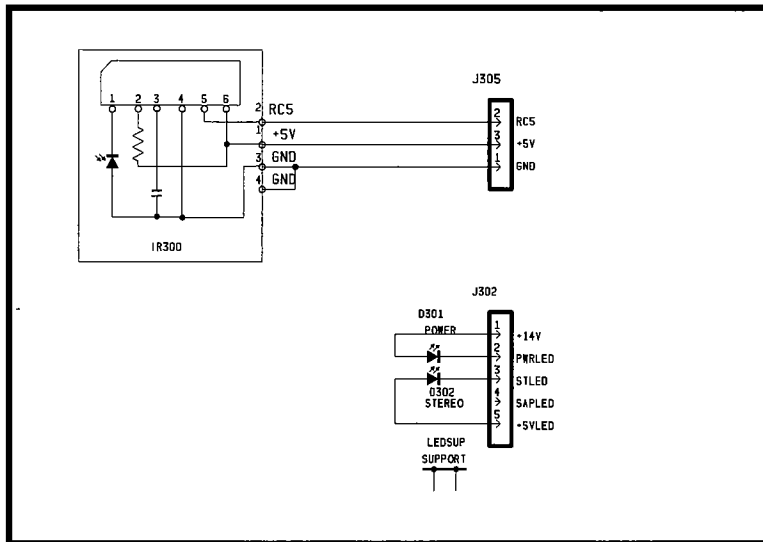
00ATC660 A001 CUSTOMER CONTROL ASSEMBLY SCHEMATIC DIAGRAMS

INTERCONNECT CHART

Small Signal Panel Schematic - Pg. 23/ Frame 1-G8

00ARR014 REMOTE RECEIVER PANEL SCHEMATIC DIAGRAM

00ASW111 A001 CUSTOMER SWITCH PANEL SCHEMATIC DIAGRAM



TO J300, J302, & J305
SMALL SIGNAL PANEL

To order parts call the TOLL FREE Philips Sales Center number: (In U.S.A.) 1-800-851-8885
(In Canada) 1-800-363-PART • 1-800-663-7178 (Fax)

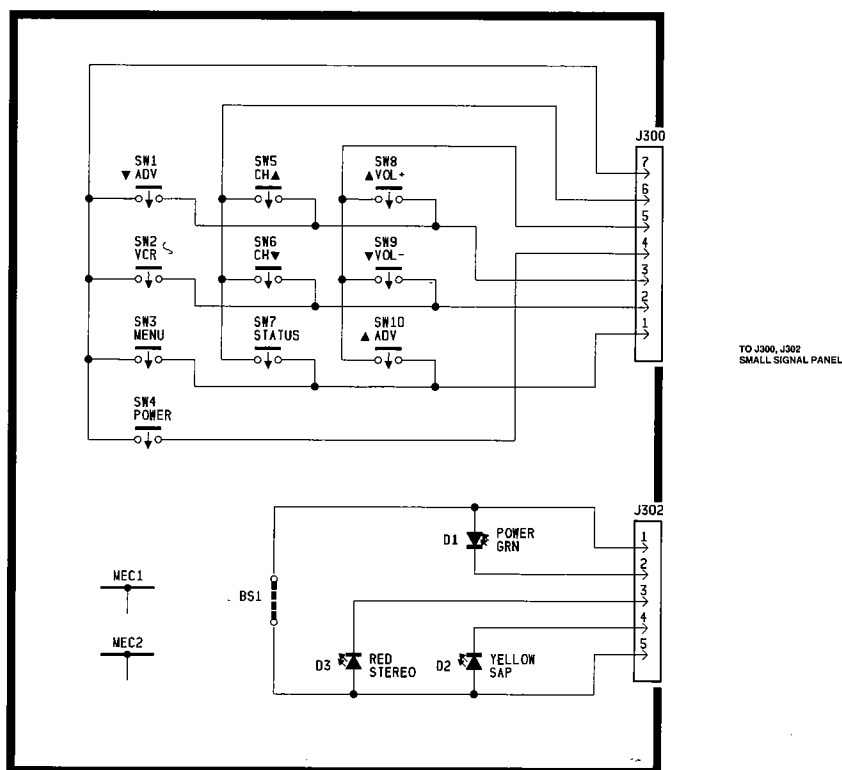
00ATC662 A001
CUSTOMER CONTROL ASSEMBLY
REPLACEMENT PARTS LIST
(Complete Assembly: 4835 219 37056)

Ref.	Part No.	Description
MISCELLANEOUS		
	4835 219 77589	Switch/LED Panel (ASW117-A001)
	4835 432 17442	Control Housing
	4835 381 17007	Lens f/IR Receiver
	4835 450 67164	Crystal Inlay Asm.
	4835 410 37193	Keypad Asm.

00ASW117 A001 CUSTOMER SWITCH PANEL
REPLACEMENT PARTS LIST
(Complete Assembly: 4835 219 77589)

Ref.	Part No.	Description
MISCELLANEOUS		
D1	4835 130 37056	Green LED, LT3231A
D2	4835 130 37069	Yellow LED, LT3251A
D3	4835 130 37065	Red LED, LT3211A
J302	0018 169 30005	5 Pin Board Connector
J300	0018 169 30007	7 Pin Board Connector
	4835 256 97058	Plastic Support f/LEDs
	0021 222 30002	P.C. Board f/Keyboard

00ASW117 A001 CUSTOMER SWITCH PANEL
SCHEMATIC DIAGRAM



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00ARR015 A001 REMOTE RECEIVER PANEL
REPLACEMENT PARTS LIST
(Complete Assembly: 4835 219 77582)

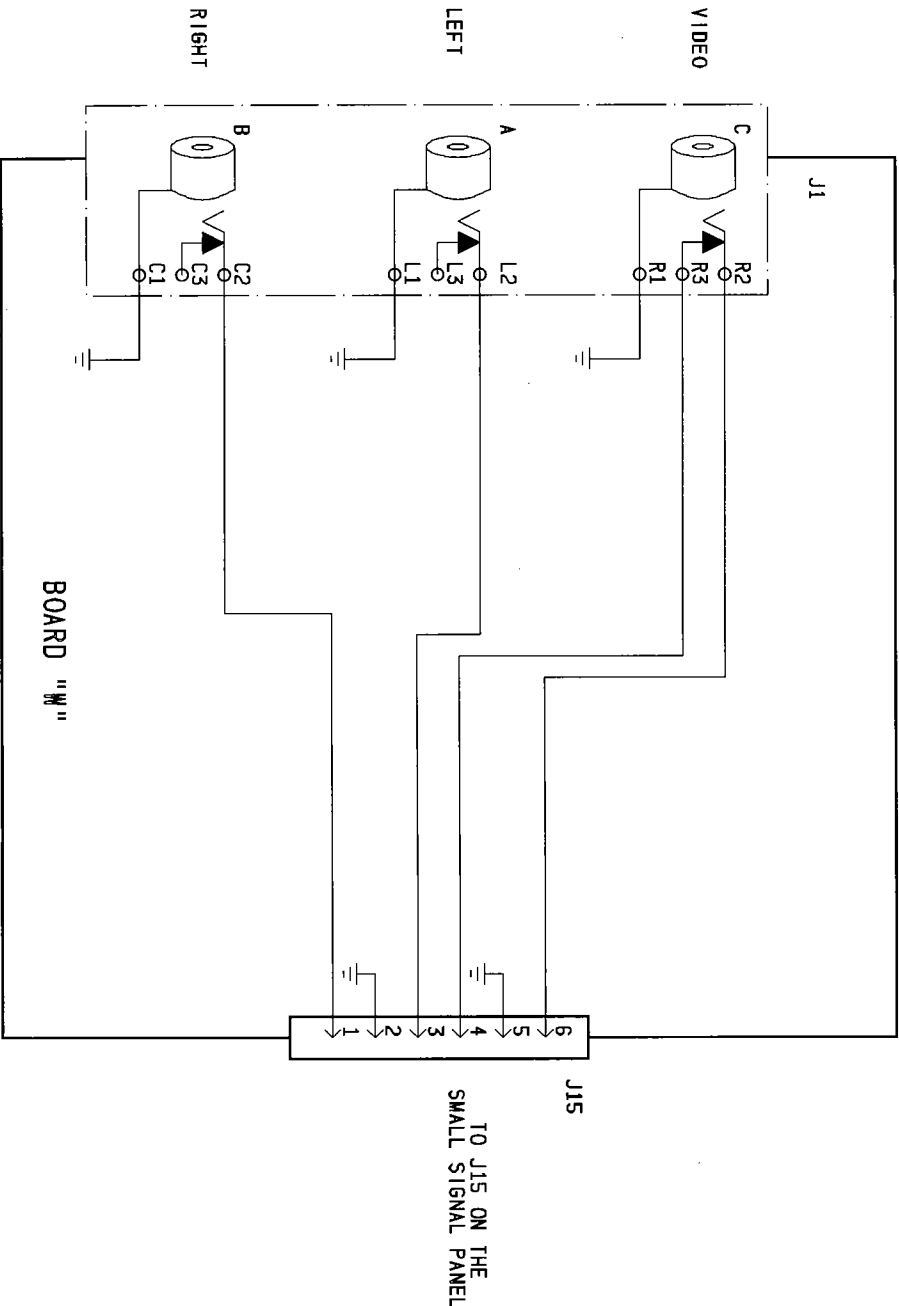
Ref.	Part No.	Description
MISCELLANEOUS		
IR300	4835 219 47248	IR Receiver Module, GP1U770R
J305	0018 165 90003	3 Pin Board Connector
	0021 242 20002	P. C. Bd. f/IR Rec.
	0073 605 50001	Bracket f/IR Rec.

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

00AVJ170 D004
FRONT JACK PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77592)

Ref.	Part No.	Description
MISCELLANEOUS		
J1	0018 226 90001	Phono Jack Asm.
J15	0018 165 90006	6 Pin Board Connector

00AVJ170 D004 FRONT JACK PANEL
SCHEMATIC DIAGRAM



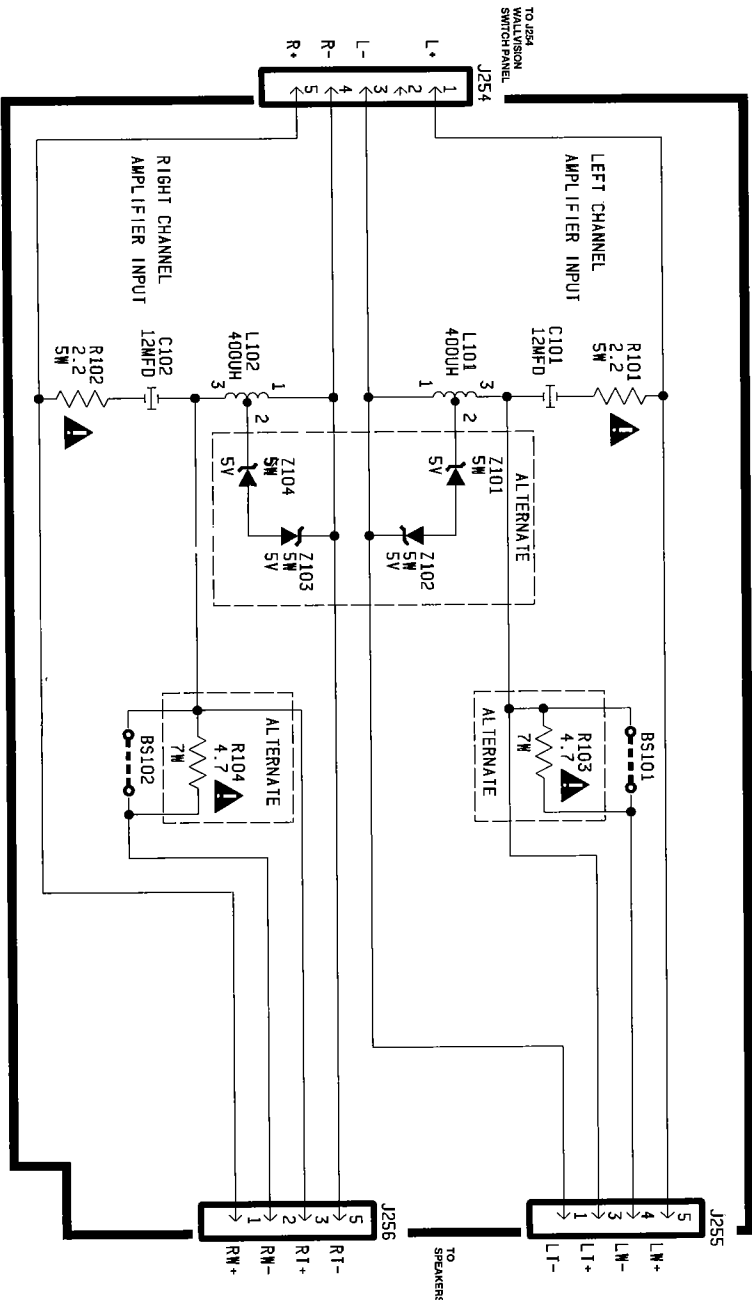
Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.
• Indicates an SMD "Chip" type of component.

00A10510 A001
CROSSOVER PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 57378)

Ref.	Part No.	Description	Ref.	Part No.	Description
MISCELLANEOUS					
	4835 432 17091	Plastic Frame	MISCELLANEOUS (Continued)		
C101	4835 124 47486	12uF., 50V, Electrolytic, N.P.	J256	0018 222 20405	5 Pin Board Connector
C102	4835 124 47499	12uF., 50V, Electrolytic, N.P.	L101	4835 150 57046	DC Choke Coil
J254	0018 222 20005	5 Pin Board Connector	L102	4835 150 57046	DC Choke Coil
J255	0018 222 20205	5 Pin Board Connector	J254	4835 112 27009	2.2 ohm, 10%, 5W, Wire Wound
			▲ R102	4835 111 27009	2.2 ohm, 10%, 5W, Wire Wound

Refer to the previous page/frame for Schematic Information on this panel.

00A10510 A001 CROSSOVER PANEL
SCHEMATIC DIAGRAM

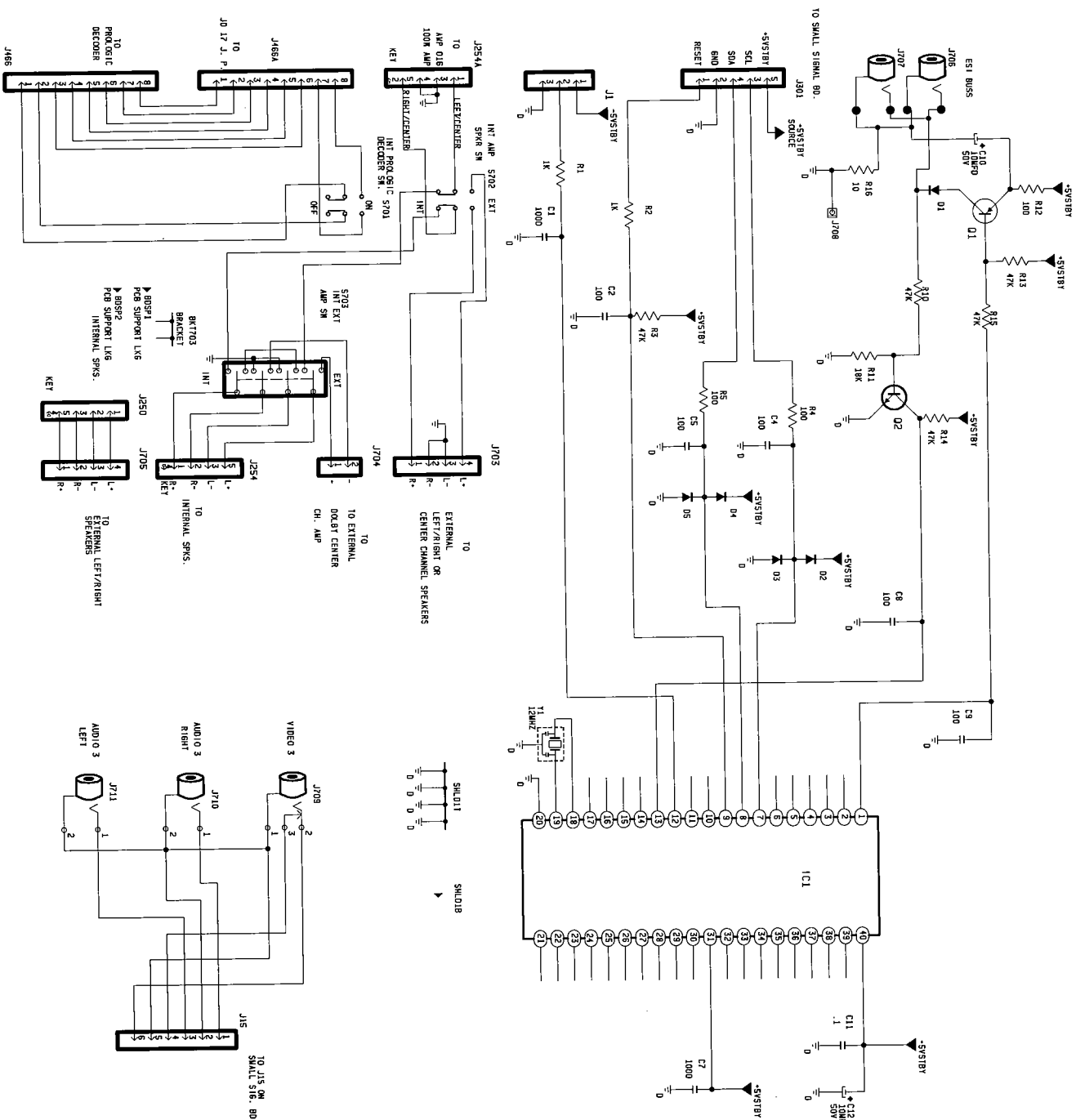


SCHEMATIC NOTES:

UNLESS OTHERWISE SPECIFIED:

- ALL VOLTAGES WERE TAKEN UNDER THE CONDITIONS AS FOLLOWS:
 - LINE VOLTAGE MAINTAINED AT 120VAC, 60HZ VIA AN ISOLATION TRANSFORMER.
 - VOLTAGES WERE TAKEN WITH NO RF OR VIDEO SIGNAL APPLIED.
- ALL VOLTAGES ARE POSITIVE DC WITH RESPECT TO GROUND AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES. VOLTAGE SOURCES ARE ALSO NOMINAL.
- FOR VOLTAGE, WATTAGE OR TOLERANCE RATINGS ON CAPACITORS OR RESISTORS, REFER TO THE ELECTRICAL REPLACEMENT PARTS LIST.

00A10553 C003 WALLVISION SWITCH PANEL
SCHEMATIC DIAGRAM



- SCHEMATIC NOTES:
UNLESS OTHERWISE SPECIFIED:
1. ALL VOLTAGES WERE TAKEN UNDER THE CONDITIONS AS FOLLOWS:
 - LINE VOLTAGE MAINTAINED AT 120VAC, 60HZ VIA AN ISOLATION TRANSFORMER.
 - VOLTAGES WERE TAKEN WITH NO RF OR VIDEO SIGNAL APPLIED.
 2. ALL VOLTAGES ARE POSITIVE DC WITH RESPECT TO GROUND AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES. VOLTAGE SOURCES ARE ALSO NOMINAL.
 3. FOR VOLTAGE, WATTAGE OR TOLERANCE RATINGS ON CAPACITORS OR RESISTORS, REFER TO THE ELECTRICAL REPLACEMENT PARTS LIST.

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

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00A10553 C003
WALLVISION SWITCH PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77594)

Ref.	Part No.	Description
CAPACITORS		
C1	4835 122 47103	1000pF., 50V, 10%, Ceramic
C2	4835 122 47081	.01uF., 50V, 10%, Ceramic
C4	4835 122 37001	100pF., 50V, 10%, Ceramic
C5	4835 122 37001	100pF., 50V, 10%, Ceramic
C7	4835 122 47103	1000pF., 50V, 10%, Ceramic
C8	4835 122 37001	100pF., 50V, 10%, Ceramic
C9	4835 122 37001	100pF., 50V, 10%, Ceramic
C10	4835 124 47545	10uF., 50V, Electrolytic
C11	4835 121 47297	.1uF., 100V, Polyester
C12	4835 124 47545	10uF., 50V, Electrolytic
RESISTORS		
R1	4835 116 57319	1k, 5%, 1/4W, Metal Film
R2	4835 116 57319	1k, 5%, 1/4W, Metal Film
R3	4835 116 57428	47k, 5%, 1/4W, Metal Film
R4	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R5	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R10	4835 116 57428	47k, 5%, 1/4W, Metal Film
R11	4835 116 57323	18k, 5%, 1/4W, Metal Film
R12	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film
R13	4835 116 57428	47k, 5%, 1/4W, Metal Film
R14	4835 116 57428	47k, 5%, 1/4W, Metal Film
R15	4835 116 57428	47k, 5%, 1/4W, Metal Film
R16	4835 116 57362	10 ohm, 5%, 1/4W, Metal Film
SEMICONDUCTORS		
D1	4835 130 37048	Diode, Silicon
D2	4835 130 37048	Diode, Silicon
D3	4835 130 37048	Diode, Silicon
D4	4835 130 37048	Diode, Silicon
D5	4835 130 37048	Diode, Silicon

Ref.	Part No.	Description
SEMICONDUCTORS (Continued)		
IC1	4835 209 88334	Microcontroller IC
Q1	4835 130 47126	Transistor, PNP
Q2	4835 130 47055	Transistor, NPN
MISCELLANEOUS		
BKT703	0073 568 70004	Bracket I/Sw.
J1	0018 165 90003	3 Pin Board Connector
J15	0018 165 90006	6 Pin Board Connector
J250	0018 222 30405	5 Pin Board Connector
J254	0018 222 30405	5 Pin Board Connector
J301	0018 165 90005	5 Pin Board Connector
J466	0018 165 90008	8 Pin Board Connector
J703	0020 053 90009	Push Board Terminal
J704	0020 053 90008	Push Board Terminal
J705	0020 053 90009	Push Board Terminal
J706	0018 221 10006	Jack Phono
J707	0018 221 10006	Jack Phono
J708	4835 290 67001	Solder Terminal
J709	0018 221 11004	Phono Jack Sw., YLW
J710	0018 221 10002	Jack Phono
J711	0018 221 10003	Jack Phono
J254A	0018 222 30205	5 Pin Board Connector
J466A	0018 165 90008	8 Pin Board Connector
S701	4835 277 27061	Switch Slide
S702	4835 277 27061	Switch Slide
S703	4835 277 27072	Switch, 4PDT
Y1	4835 157 57129	Ceramic Resonator, 12MHz.
	4835 506 97008	Nut, 6-32 (2 used)
	0010 646 40004	PCB Support Lugs (2 used)
	4835 459 17506	Overlay I/Switch Panel

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Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

00AMP016 A001
4 x 25W AUDIO AMPLIFIER PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77374)

Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description
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RESISTORS (Continued)

Ref. Part No. Description

C201	4835 124 47614	4.7uF., 50V, Electrolytic
C202	4835 121 47107	.01uF., 100V, Polyester
C203	4835 121 47419	.015uF., 5%, 100V, Polyester
C211	4835 124 47545	10uF., 50V, Electrolytic
C212	4835 124 47497	1000uF., 16V, Electrolytic
C213	4835 121 47297	.1uF., 100V, Polyester
C214	4835 121 47285	.033uF., 100V, Polyester
C215	4835 121 47419	.015uF., 5%, 100V, Polyester
C221	4835 124 47614	4.7uF., 50V, Electrolytic
C222	4835 121 47107	.01uF., 100V, Polyester
C223	4835 121 47285	.033uF., 100V, Polyester
C224	4835 121 47419	.015uF., 5%, 100V, Polyester
C225	4835 121 47419	.015uF., 5%, 100V, Polyester
C300	4835 124 47498	1000uF., 35V, Electrolytic
C301	4835 124 47615	470uF., 35V, Electrolytic
C302	4835 124 47498	1000uF., 35V, Electrolytic
C303	4835 124 47611	220uF., 16V, Electrolytic
C305	4835 122 37023	150pF., 10%, 50V, Ceramic
C306	4835 122 37023	150pF., 10%, 50V, Ceramic
C307	4835 124 47609	2.2uF., 50V, Electrolytic
C308	4835 124 47609	2.2uF., 50V, Electrolytic
C309	4835 124 47554	100uF., 25V, Electrolytic
C310	4835 124 47556	100uF., 50V, Electrolytic
C313	4835 124 47545	10uF., 50V, Electrolytic
C314	4835 124 47554	100uF., 25V, Electrolytic
C317	4835 124 47545	10uF., 50V, Electrolytic
C318	4835 124 47545	10uF., 50V, Electrolytic
C319	4835 124 47561	47uF., 25V, Electrolytic
C320	4835 124 47561	47uF., 25V, Electrolytic
C321	4835 121 47297	.1uF., 100V, Polyester
C322	4835 121 47297	.1uF., 100V, Polyester
C323	4835 121 47297	.1uF., 100V, Polyester
C330	4835 122 47464	4700pF., 50V, 10%, Ceramic
C331	4835 122 47464	4700pF., 50V, 10%, Ceramic
C332	4835 124 47609	2.2uF., 50V, Electrolytic
C333	4835 124 47609	2.2uF., 50V, Electrolytic
C334	4835 124 47554	100uF., 25V, Electrolytic
C335	4835 124 47556	100uF., 50V, Electrolytic
C336	4835 124 47545	10uF., 50V, Electrolytic
C337	4835 124 47554	100uF., 25V, Electrolytic
C339	4835 124 47545	10uF., 50V, Electrolytic
C341	4835 124 47545	10uF., 50V, Electrolytic
C342	4835 124 47561	47uF., 25V, Electrolytic
C343	4835 121 47297	.1uF., 100V, Polyester
C344	4835 124 47561	47uF., 25V, Electrolytic
C345	4835 121 47297	.1uF., 100V, Polyester
C346	4835 121 47297	.1uF., 100V, Polyester
R201	4835 116 57395	100k, 5%, 1/4W, Metal Film
R202	4835 116 57423	33k, 5%, 1/4W, Metal Film
R203	4835 116 57327	6.8k, 5%, 1/4W, Metal Film
R204	4835 116 57422	3.3k, 5%, 1/4W, Metal Film
R205	4835 116 57417	270k, 5%, 1/4W, Metal Film
R212	4835 116 57321	10k, 5%, 1/4W, Metal Film
R213	4835 116 57321	10k, 5%, 1/4W, Metal Film
R214	4835 116 57159	33 ohm, 5%, 1/3W, Metal Film
R216	4835 116 57425	3.9k, 5%, 1/4W, Metal Film
R217	4835 116 57417	270k, 5%, 1/4W, Metal Film
R221	4835 116 57395	100k, 5%, 1/4W, Metal Film
R222	4835 116 57423	33k, 5%, 1/4W, Metal Film
R223	4835 116 57327	6.8k, 5%, 1/4W, Metal Film
R224	4835 116 57422	3.3k, 5%, 1/4W, Metal Film
R225	4835 116 57425	3.9k, 5%, 1/4W, Metal Film
R226	4835 116 57417	270k, 5%, 1/4W, Metal Film
R227	4835 116 57417	270k, 5%, 1/4W, Metal Film
R300	4835 116 57321	10k, 5%, 1/4W, Metal Film
R301	4835 116 57423	33k, 5%, 1/4W, Metal Film
R302	4835 116 57427	4.7k, 5%, 1/4W, Metal Film
R303	4835 116 57423	33k, 5%, 1/4W, Metal Film
R304	4835 116 57321	10k, 5%, 1/4W, Metal Film
R305	4835 116 57423	33k, 5%, 1/4W, Metal Film
R306	4835 116 57321	10k, 5%, 1/4W, Metal Film
R307	4835 116 57428	47k, 5%, 1/4W, Metal Film
R310	4835 116 57428	47k, 5%, 1/4W, Metal Film
R311	4835 116 57321	10k, 5%, 1/4W, Metal Film
R314	4835 116 57416	27k, 5%, 1/4W, Metal Film
R315	4835 116 57416	27k, 5%, 1/4W, Metal Film
R316	4835 110 57101	560 ohm, 5%, 1/4W, Carbon Film
R317	4835 110 47082	1k, 5%, 1/2W, Carbon Film
R318	4835 110 47082	1k, 5%, 1/2W, Carbon Film
R319	4835 110 57101	560 ohm, 5%, 1/4W, Carbon Film
R321	4835 116 57416	27k, 5%, 1/4W, Metal Film
R322	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film
R323	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R324	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
R325	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R326	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R327	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R328	4835 110 47046	4.7 ohm, 5%, 1/2W, Carbon Film
R329	4835 110 47046	4.7 ohm, 5%, 1/2W, Carbon Film
R330	4835 116 57395	100k, 5%, 1/4W, Metal Film
R331	4835 116 57395	100k, 5%, 1/4W, Metal Film
R332	4835 116 57321	10k, 5%, 1/4W, Metal Film
R333	4835 116 57435	56k, 5%, 1/4W, Metal Film
R334	4835 116 57435	56k, 5%, 1/4W, Metal Film
R337	4835 116 57435	56k, 5%, 1/4W, Metal Film
R338	4835 116 57435	56k, 5%, 1/4W, Metal Film
R339	4835 110 57294	820 ohm, 5%, 1/4W, Carbon Film
R340	4835 110 47082	1k, 5%, 1/2W, Carbon Film
R341	4835 110 47082	1k, 5%, 1/2W, Carbon Film
R342	4835 110 57294	820 ohm, 5%, 1/4W, Carbon Film
R343	4835 116 57435	56k, 5%, 1/4W, Metal Film
R344	4835 116 57435	56k, 5%, 1/4W, Metal Film
R345	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film
R346	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R347	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
R348	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R349	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R350	4835 110 57081	2.2k, 5%, 1/4W, Carbon Film
R351	4835 110 47046	4.7 ohm, 5%, 1/2W, Carbon Film
R352	4835 110 47046	4.7 ohm, 5%, 1/2W, Carbon Film
R353	4835 116 57319	1k, 5%, 1/4W, Metal Film
R354	4835 116 57319	1k, 5%, 1/4W, Metal Film

Ref.	Part No.	Description	Ref.	Part No.	Description
D211	4835 130 37188	Diode, Silicon	J250	0018 222 20205	HDR 3.96 2P5
D301	4835 130 37188	Diode, Silicon	J254	0018 222 20405	HDR 3.96 4P5
IC201	4835 209 17032	Quad OP-Amp IC, 612480-1	J277	0018 169 30004	4 Pin Board Connector
IC220	4835 209 17032	Quad OP-Amp IC, 612480-1	J278	0018 169 30005	HDR 2.5-STER 5 Pin
IC300	4835 209 88013	Audio Power Amp IC, 612851-1	J463	0018 222 20710	HDR .156
IC301	4835 209 88013	Audio Power Amp IC, 612851-1		4835 325 27017	Insulator Pads Silicon (2 used)
Q303	4835 130 47055	Transistor, NPN		4835 290 47023	Clip I.C.(2)
Q304	4835 130 47055	Transistor, NPN		0073 582 30001	Heatsink, t/I/C
Z211	4835 130 37157	Zener Diode, 11V			
Z301	4835 130 37397	Zener Diode, 2.4V			

4 x 25W AUDIO AMPLIFIER PANEL REPLACEMENT PARTS LIST (Continued)

WARNING

Critical components having special safety characteristics are identified with a **Δ** by the Ref. No. in the parts list and enclosed within a broken line • (where several critical components are grouped in one area) along with the safety symbol **Δ** on the schematics or exploded views.

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Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

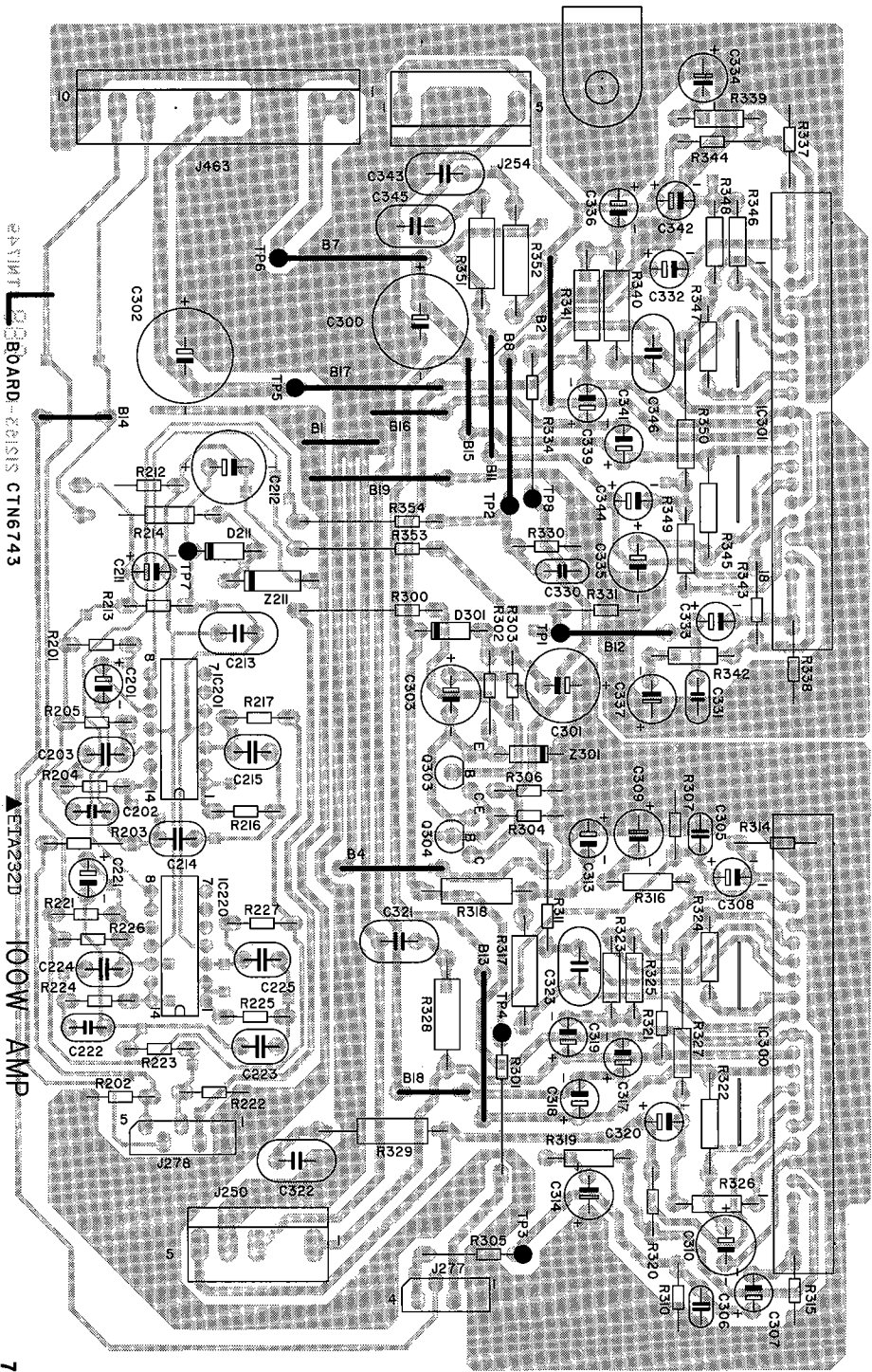
• Broken Line: ————

00AMP016 A001

4 x 25W AUDIO AMPLIFIER PANEL

PC BOARD OVERLAY

TOP VIEW



SCHEMATIC DIAGRAM

(Refer to the following page/frame for P.C. Board and Parts List Information)

SCHEMATIC NOTES:

UNLESS OTHERWISE SPECIFIED:

1. ALL VOLTAGES WERE TAKEN UNDER THE CONDITIONS AS FOLLOWS:

- LINE VOLTAGE MAINTAINED AT 120VAC, 60HZ VIA AN ISOLATION TRANSFORMER.
- VOLTAGES WERE TAKEN WITH NO RF OR

VIDEO SIGNAL APPLIED.

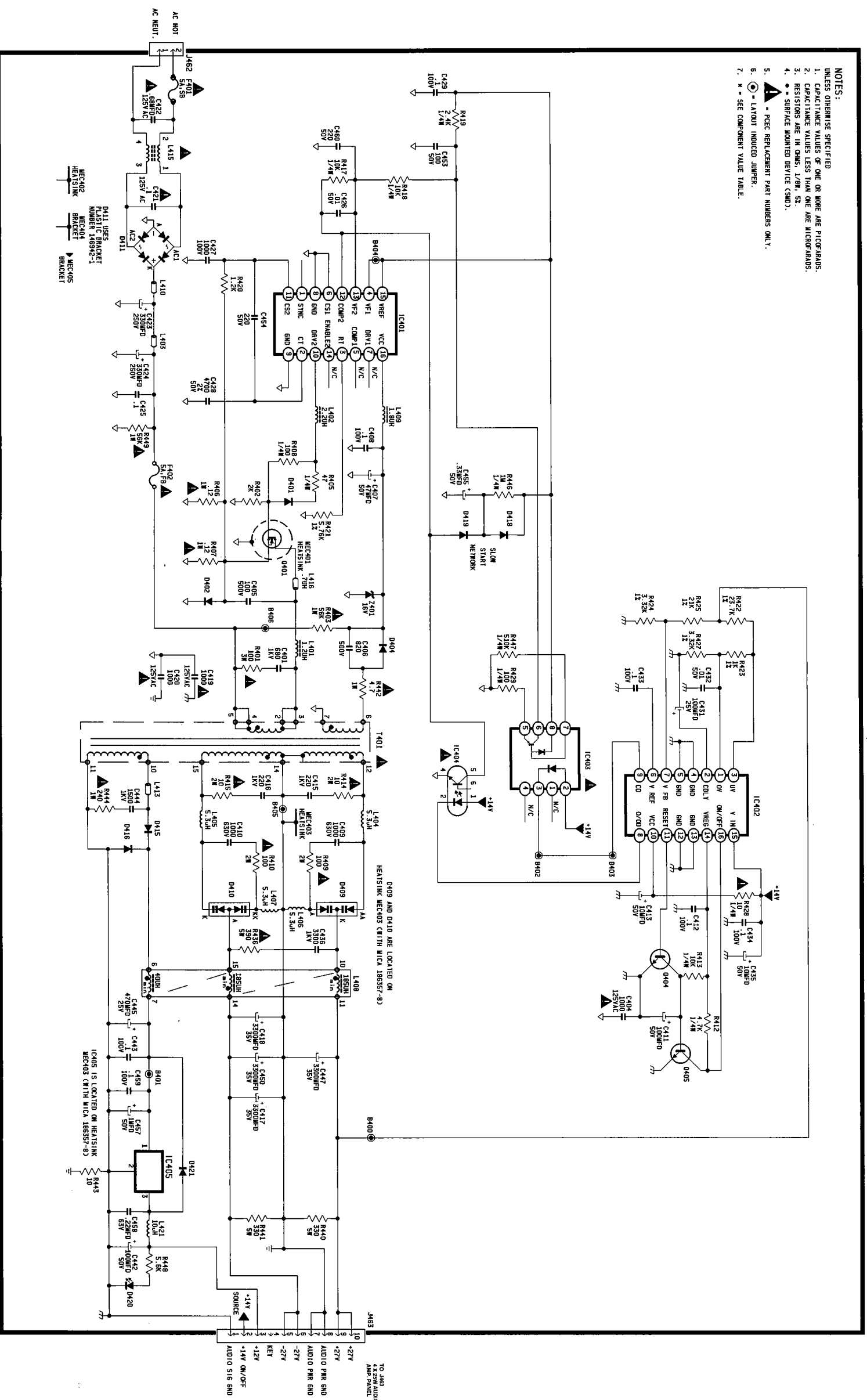
2. ALL VOLTAGES ARE POSITIVE DC WITH

RESPECT TO GROUND AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES.

VOLTAGE SOURCES ARE ALSO NOMINAL.

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**RATINGS ON CAPACITORS OR RESISTORS,
REFER TO THE ELECTRICAL REPLACEMENT
PARTS LIST.**



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00APW052 A001 AUDIO POWER SUPPLY PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77554)

Refer to the previous page/frame for Schematic Information on this panel.

Ref.	Part No.	Description	Ref.	Part No.	Description	
CAPACITORS						
C401	4835 122 47461	680pF., 10%, 1kV, Ceramic	RESISTORS (Continued)	R419	4835 116 57413	2.4k, 5%, 1/4W, Metal Film
C406	4835 122 47213	820pF., 10%, 500V, Ceramic		R420	4835 116 57396	1.2k, 5%, 1/4W, Metal Film
C407	4835 124 47561	47uF., 25V, Electrolytic		R421	4835 116 57033	5760 ohm, 1%, 1/8W, Metal Film
C408	4822 121 41608	.1uF., 10%, 100V, Polyester		R422	4835 116 57392	23.7k, 1%, 1/8W, Metal Film
C409	4835 121 47383	1000pF., 10%, 630V, Polypropylene		R423	4835 116 57388	1k, 1%, 1/8W, Metal Film
C410	4835 121 47383	1000pF., 10%, 630V, Polypropylene		R424	4835 116 57394	3320 ohm, 1%, 1/8W, Metal Film
C411	4835 124 47556	100uF., 50V, Electrolytic		R425	4835 116 57391	3320 ohm, 1%, 1/8W, Metal Film
C412	4822 121 41608	.1uF., 100V, Polyester		R427	4835 116 57394	3320 ohm, 1%, 1/8W, Metal Film
C413	4835 124 47545	10uF., 50V, Electrolytic		R428	4835 116 57362	10 ohm, 5%, 1/4W, Metal Film
C415	4835 122 47458	220pF., 10%, 1kV, Ceramic		R429	4835 110 57247	100 ohm, 5%, 1/4W, Carbon Film
C416	4835 122 47458	220pF., 10%, 1kV, Ceramic	SEMICONDUCTORS	R436	4835 116 57222	390 ohm, 5%, 5W, Metal Film
C417	4835 124 47559	3300uF., 35V, Electrolytic		R440	4835 116 67128	330 ohm, 5%, 5W, Metal Film
C418	4835 124 47559	3300uF., 35V, Electrolytic		R441	4835 116 67128	330 ohm, 5%, 5W, Metal Film
C420	4835 121 47474	2200pF., 10%, 250Vac, Polyester		R442	4835 116 67123	4.7 ohm, 5%, 1W, Metal Film
C422	4835 122 97068	68uF., 10%, 250Vac, Polyester		R443	4835 116 57362	10 ohm, 5%, 1/4W, Metal Film
C423	4835 124 47041	330uF., 250V, Electrolytic		R444	4835 116 57365	240 ohm, 5%, 1W, Metal Film
C424	4835 124 47041	330uF., 250V, Electrolytic		R446	4835 116 57322	1 Meg, 5%, 1/4W, Metal Film
C425	4835 121 47278	.1uF., 10%, 250V, Polyester		R447	4835 116 57433	5.10k, 5%, 1/4W, Metal Film
C426	4835 122 47081	.01uF., 10%, 50V, Ceramic		R448	4835 116 57434	5.6k, 5%, 1/4W, Metal Film
C427	4835 121 47088	1000pF., 10%, 100V, Polyester		COILS & TRANSFORMERS	R449	4835 116 57039
C428	4835 121 47412	4700pF., 2%, 50V, Polypropylene	L401		4835 152 27033	Coil, Ferro Choke
C429	4822 121 41608	.1uF., 10%, 100V, Polyester	L402		4835 157 57051	Peeking Coil, 2.2uH, 10%
C431	4835 124 47554	100uF., 25V, Electrolytic	L404		4835 154 97002	Suppression Coil
C432	4835 122 47081	.01uF., 10%, 50V, Ceramic	L405		4835 154 97002	Suppression Coil
C433	4822 121 41608	.1uF., 10%, 100V, Polyester	L406		4835 154 97002	Suppression Coil
C434	4822 121 41608	.1uF., 10%, 100V, Polyester	L407		4835 154 97002	Suppression Coil
C436	4835 122 47489	2200pF., 10%, 1kV, Ceramic	L408		4835 148 27038	Transformer, SWM
C442	4835 124 47489	100uF., 16V, Electrolytic	L409		4835 156 57043	Peeking Coil, 1.8uH, 10%
C444	4822 121 41608	.1uF., 10%, 100V, Polyester	L413		4835 526 17001	Ferrite Bead
RESISTORS						
R401	4835 116 57221	100 ohm, 5%, 3W, Metal Film	SEMICONDUCTORS	L415	4835 152 27042	Line Input Choke
R402	4835 116 57409	2k, 5%, 1/4W, Metal Film		L416	4835 152 27036	Suppression Coil 0.70 uH, 10%
R403	4835 116 57039	56k, 5%, 1W, Metal Film		L421	4835 152 27002	Suppression Coil 10uH.
R405	4835 116 57429	47 ohm, 5%, 1/4W, Metal Film				
R406	4835 116 67121	.12 ohm, 5%, 1W, Metal Film				
R407	4835 116 67121	.12 ohm, 5%, 1W, Metal Film				
R408	4835 116 57318	100 ohm, 5%, 1/4W, Metal Film				
R409	4835 116 57132	100 ohm, 5%, 2W, Metal Film				
R410	4835 116 57132	100 ohm, 5%, 2W, Metal Film				
R412	4835 116 57427	4.7k, 5%, 1/4W, Metal Film				
R413	4835 110 57015	10k, 5%, 1/4W, Carbon Film				
R414	4835 116 67126	10 ohm, 5%, 2W, Metal Film				
R415	4835 116 67126	10 ohm, 5%, 2W, Metal Film				
R417	4835 116 57321	10k, 5%, 1/4W, Metal Film				
R418	4835 110 57015	10k, 5%, 1/4W, Carbon Film				

AUDIO POWER SUPPLY PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description
COILS & TRANSFORMERS (Continued)		
Δ T401	4835 148 27039	Transformer, SWM
MISCELLANEOUS		
Δ F401	4835 253 37022	Fuse, 5A
Δ F402	4835 253 37021	Fuse, Pico, 5A
FB403	4835 526 17001	Ferrite Bead
FB403	4835 526 17001	Ferrite Bead
FB410	4835 526 17001	Ferrite Bead

Ref.	Part No.	Description
MISCELLANEOUS (Continued)		
FB410	4835 526 17001	Ferrite Bead
J463	0018 222 20410	10 Pin Board Connector
	0014 694 20001	Spacer f/Rectifier
	4835 325 27002	Mica Insulator
	4835 255 47003	Silicon Insulator Pads (3 used)
	0020 100 70002	Solder Lugs (6 used)
	4835 290 47003	Spring Clip f/Q401
	0073 578 20002	Heatsink f/Audio (2 used)

WARNING

Critical components having special safety characteristics are identified with a Δ by the Ref. No. in the parts list and enclosed within a broken line • (Where several critical components are grouped in one area) along with the safety symbol Δ on the schematics or exploded views.

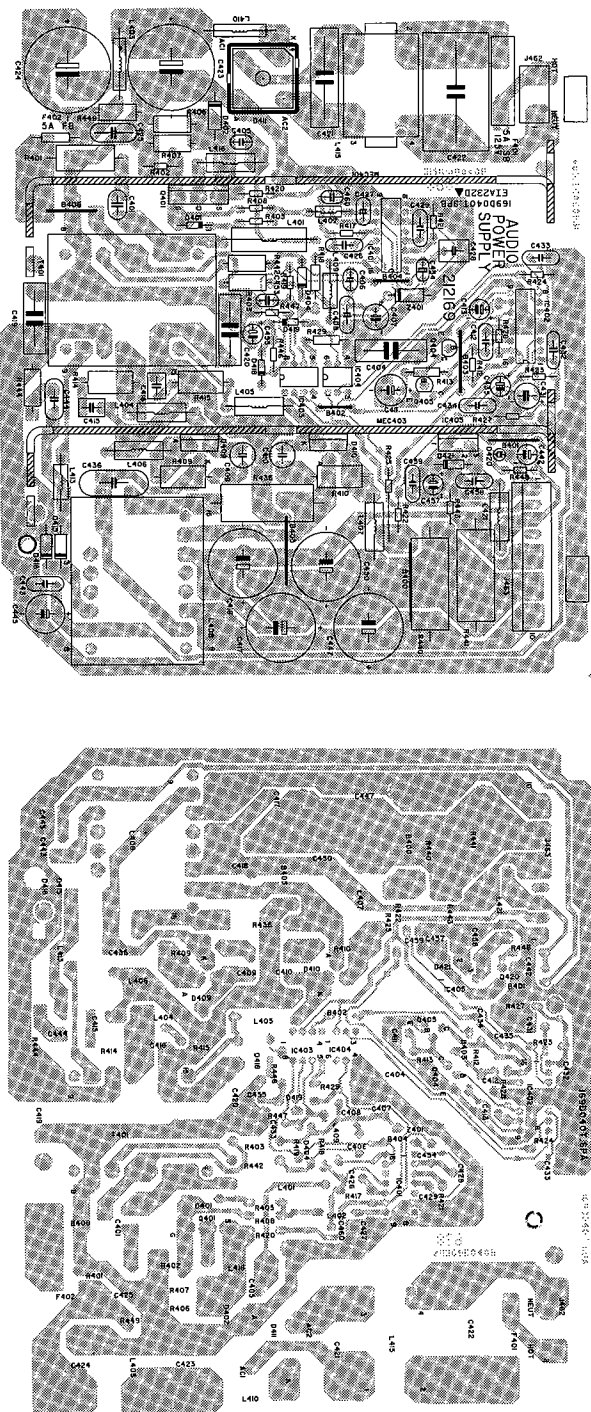
Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

• Broken Line: —————

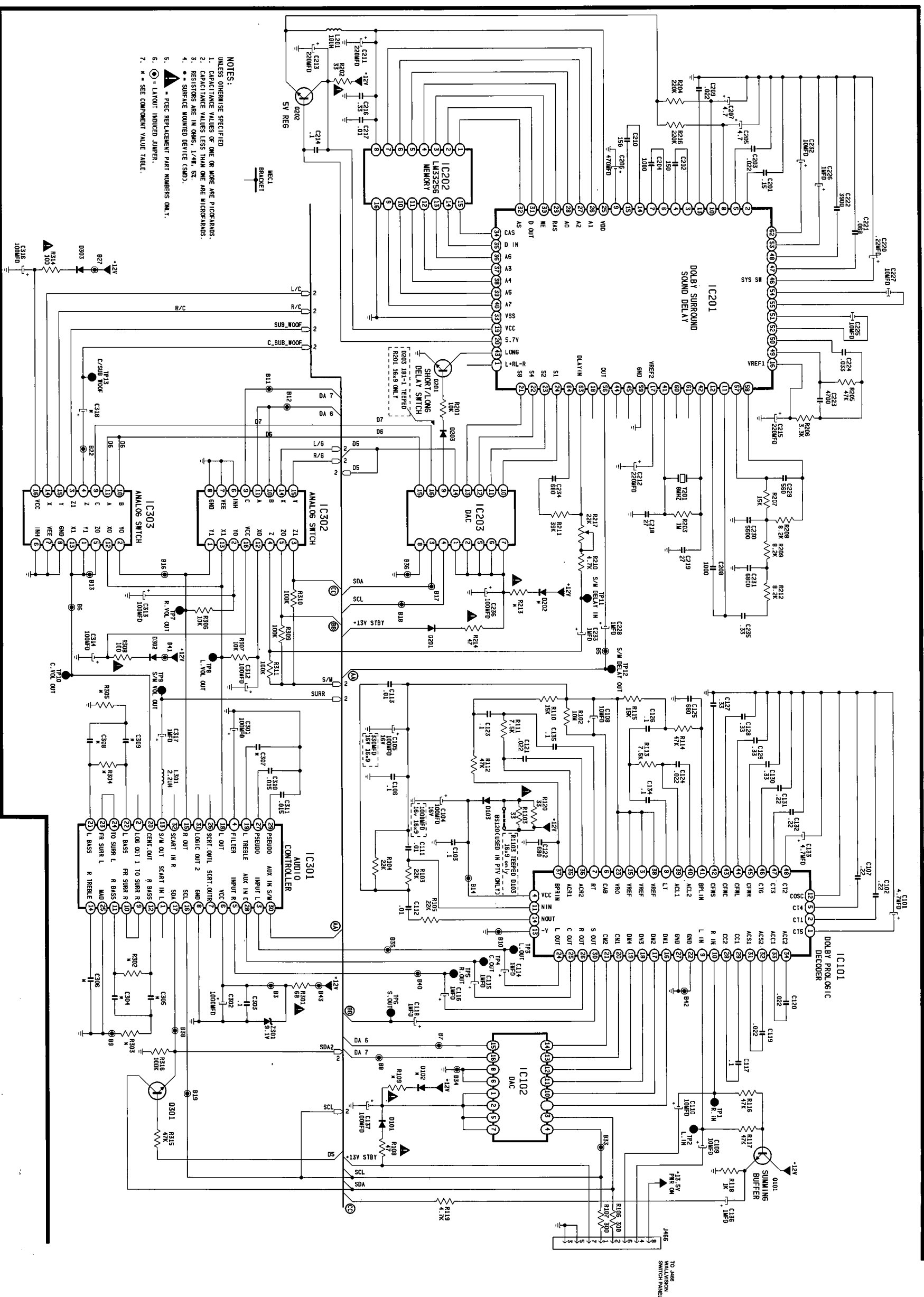
00APW052 A001 AUDIO POWER SUPPLY PANEL
P.C. BOARD OVERLAYS

TOP VIEW

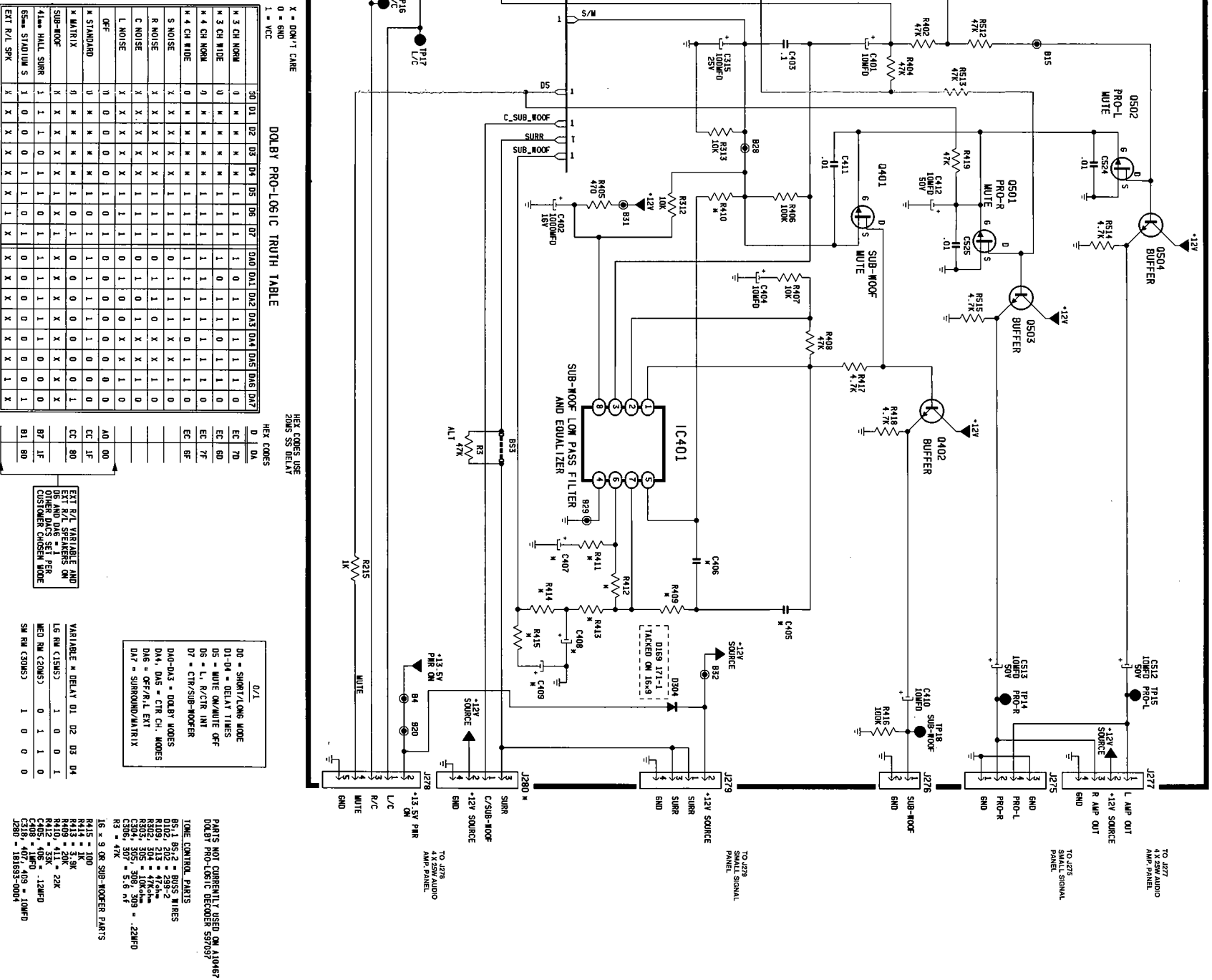
BOTTOM VIEW



PRO-LOGIC PANEL (00A10467 B002) SCHEMATIC DIAGRAM (SECTION - 1 (1 OF 2))



(SECTION - 2 (2 OF 2))



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00A10467 B002

DOLBY PRO-LOGIC PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77553)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.

Refer to the previous page/frame for Schematic Information on this panel.

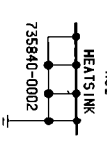
Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS					
C101	4835 124 47614	4.7uF., 50V, Electrolytic 20%	C224	4835 121 47285	.033uF., 100V, Polyester
C102	4835 121 47002	.22uF., 63V, Polyester	C225	4835 124 47484	10uF., .16V, Electrolytic, N.P.
C103	4835 121 47282	.1uF., 100V, Polyester	C226	4835 124 47553	10uF., 50V, Electrolytic
C104	4835 124 47554	100uF., 25V, Electrolytic	C227	4835 124 47484	10uF., .16V, Electrolytic, N.P.
C105	4835 124 47554	100uF., 25V, Electrolytic	C228	4835 124 47553	1uF., 50V, Electrolytic
C106	4835 121 47282	.1uF., 100V, Polyester	C229	4835 122 37014	5600pF., 50V, 10%, Ceramic
C107	4835 121 47002	.22uF., 63V, Polyester	C230	4835 122 37007	5600pF., 50V, 10%, Ceramic
C108	4835 124 47545	10uF., 50V, Electrolytic	C231	4835 122 37008	6800pF., 10%, 50V, Ceramic
C109	4835 124 47545	10uF., 50V, Electrolytic	C232	4835 124 47545	10uF., 50V, Electrolytic
C110	4835 124 47545	10uF., 50V, Electrolytic	C233	4835 124 47553	1uF., 50V, Electrolytic
C111	4835 122 47081	.01uF., 50V, 10%, Ceramic	C234	4835 122 47478	680pF., 10%, 50V, Ceramic
C112	4835 122 47081	.01uF., 50V, 10%, Ceramic	C235	4835 121 47294	.33uF., 63V, Polyester
C113	4835 122 47081	.01uF., 50V, 10%, Ceramic	C236	4835 124 47554	100uF., 25V, Electrolytic
C114	4835 124 47553	1uF., 50V, Electrolytic	C301	4835 124 47554	100uF., 25V, Electrolytic
C115	4835 124 47553	1uF., 50V, Electrolytic	C302	4835 124 47497	1000uF., 16V, Electrolytic
C116	4835 124 47553	1uF., 50V, Electrolytic	C303	4835 121 47282	.1uF., 100V, Polyester
C117	4835 121 47282	.1uF., 100V, Polyester	C310	4835 121 47065	.015uF., 100V, 10%, Polyester
C118	4835 124 47553	1uF., 50V, Electrolytic	C311	4835 121 47065	.015uF., 100V, 10%, Polyester
C119	4835 121 47298	.022uF., 5%, 100V, Polyester	C312	4835 124 47554	100uF., 25V, Electrolytic
C120	4835 121 47298	.022uF., 5%, 100V, Polyester	C313	4835 124 47554	100uF., 25V, Electrolytic
C121	4835 121 47298	.022uF., 5%, 100V, Polyester	C314	4835 124 47554	100uF., 25V, Electrolytic
C122	4835 122 47478	680pF., 10%, 50V, Ceramic	C315	4835 124 47554	100uF., 25V, Electrolytic
C123	4835 121 47282	.1uF., 100V, Polyester	C316	4835 124 47554	100uF., 25V, Electrolytic
C124	4835 121 47298	.022uF., 5%, 100V, Polyester	C317	4835 124 47553	1uF., 50V, Electrolytic
C125	4835 122 47478	680pF., 10%, 50V, Ceramic	C401	4835 124 47545	100uF., 50V, Electrolytic
C126	4835 121 47282	.1uF., 100V, Polyester	C402	4835 124 47497	1000uF., 16V, Electrolytic
C127	4835 121 47294	.33uF., 63V, Polyester	C403	4835 121 47282	.1uF., 100V, Polyester
C128	4835 121 47294	.33uF., 63V, Polyester	C404	4835 124 47545	10uF., 50V, Electrolytic
C129	4835 121 47294	.33uF., 63V, Polyester	C410	4835 124 47545	10uF., 50V, Electrolytic
C130	4835 121 47294	.33uF., 63V, Polyester	C411	4835 122 47081	.01uF., 50V, 10%, Ceramic
C131	4835 121 47002	.22uF., 63V, Polyester	C412	4835 124 47545	10uF., 50V, Electrolytic
C132	4835 121 47002	.22uF., 63V, Polyester	C501	4835 122 37024	2700pF., 10%, 50V, Ceramic
C133	4835 124 47614	4.7uF., 50V, Electrolytic	C502	4835 122 37024	2700pF., 10%, 50V, Ceramic
C134	4835 121 47282	.1uF., 100V, Polyester	C503	4835 122 37006	820pF., 10%, 50V, Ceramic
C135	4835 121 47282	.1uF., 100V, Polyester	C504	4835 122 37006	820pF., 10%, 50V, Ceramic
C136	4835 124 47553	1uF., 50V, Electrolytic	C505	4835 122 47081	.01uF., 50V, 10%, Ceramic
C137	4835 124 47554	100uF., 25V, Electrolytic	C506	4835 122 47081	.01uF., 50V, 10%, Ceramic
C201	4835 121 47293	.15uF., 5%, 100V, Polyester	C507	4835 121 47287	.047uF., 5%, 100V, Polyester
C202	4835 121 47409	150pF., 2%, 63V, Polyester	C508	4835 121 47287	.047uF., 5%, 100V, Polyester
C203	4835 121 47298	.022uF., 5%, 100V, Polyester	C509	4835 121 47002	.22uF., 63V, Polyester
C204	4835 122 47103	1000pF., 50V, 10%, Ceramic	C510	4835 121 47002	22uF., 63V, Polyester
C205	4835 124 47614	4.7uF., 50V, Electrolytic 20%	C511	4835 124 47497	1000uF., 16V, Electrolytic
C206	4835 121 47405	470uF., 25V, Electrolytic	C512	4835 124 47545	10uF., 50V, Electrolytic
C207	4835 124 47614	4.7uF., 50V, Electrolytic 20%	C513	4835 124 47545	10uF., 50V, Electrolytic
C208	4835 122 47103	1000pF., 50V, 10%, Ceramic	C514	4835 121 47002	.22uF., 63V, Polyester
C209	4835 121 47298	.022uF., 5%, 100V, Polyester	C515	4835 121 47002	.22uF., 63V, Polyester
C210	4835 121 47409	150pF., 2%, 63V, Polyester	C516	4835 121 47287	.047uF., 5%, 100V, Polyester
C211	4835 124 47611	220uF., 16V, Electrolytic	C517	4835 121 47287	.047uF., 5%, 100V, Polyester
C212	4835 124 47611	220uF., 16V, Electrolytic	C518	4835 122 47081	.01uF., 50V, 10%, Ceramic
C213	4835 124 47611	220uF., 16V, Electrolytic	C519	4835 122 47081	.01uF., 50V, 10%, Ceramic
C214	4835 121 47282	.1uF., 100V, Polyester	C520	4835 122 37006	820pF., 10%, 50V, Ceramic
C215	4835 124 47611	220uF., 16V, Electrolytic	C521	4835 122 37006	820pF., 10%, 50V, Ceramic
C216	4835 121 47294	.33uF., 63V, Polyester	C522	4835 122 37024	2700pF., 10%, 50V, Ceramic
C217	4835 122 47081	.01uF., 50V, 10%, Ceramic	C523	4835 122 37024	2700pF., 10%, 50V, Ceramic
C218	4835 122 47454	27pF., 50V, 10%, Ceramic	C524	4835 122 47081	.01uF., 50V, 10%, Ceramic
C219	4835 122 47454	27pF., 50V, 10%, Ceramic	C525	4835 122 47081	.01uF., 50V, 10%, Ceramic
C220	4835 124 47612	.22uF., 50V, Electrolytic	C601	4835 122 37024	2700pF., 10%, 50V, Ceramic
C221	4835 121 47042	.068uF., 10%, 50V, Polyester	C602	4835 122 37024	2700pF., 10%, 50V, Ceramic
C222	4835 122 47463	3900pF., 10%, 50V, Ceramic	C603	4835 122 37006	820pF., 10%, 50V, Ceramic
C223	4835 122 47464	4700pF., 50V, 10%, Ceramic	C604	4835 122 37006	820pF., 10%, 50V, Ceramic

DOLBY PRO-LOGIC PANEL REPLACEMENT PARTS LIST (Continued)

Ref.	Part No.	Description	Ref.	Part No.	Description
CAPACITORS					
C605	4835 122 47081	.01uF., 50V, 10%, Ceramic	R404	4835 110 67051	47K, 5%, 1/8W, Carbon Film
C606	4835 122 47081	.01uF., 50V, 10%, Ceramic	R405	4835 116 57068	470 ohm, 5%, 1/3W, Metal Film
C607	4835 121 47287	.047uF., 5%, 100V, Polyester	R406	4835 110 67056	100K, 5%, 1/8W, Carbon Film
C608	4835 121 47287	.047uF., 5%, 100V, Polyester	R407	4835 110 67036	10K, 5%, 1/8W, Carbon Film
C609	4835 121 47002	.22uF., 63V, Polyester	R408	4835 110 67051	47K, 5%, 1/8W, Carbon Film
C610	4835 121 47002	.22uF., 63V, Polyester	R416	4835 110 67056	100K, 5%, 1/8W, Carbon Film
C611	4835 124 47497	1000uF., 16V, Electrolytic	R417	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film
C612	4835 124 47545	10uF., 50V, Electrolytic	R418	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film
C613	4835 124 47545	10uF., 50V, Electrolytic	R419	4835 110 67051	47K, 5%, 1/8W, Carbon Film
C614	4835 121 47002	.22uF., 63V, Polyester	R501	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C615	4835 121 47002	.22uF., 63V, Polyester	R502	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C616	4835 121 47287	.047uF., 5%, 100V, Polyester	R503	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C617	4835 121 47287	.047uF., 5%, 100V, Polyester	R504	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C618	4835 122 47081	.01uF., 50V, 10%, Ceramic	R505	4835 110 67031	3.9K, 5%, 1/8W, Carbon Film
C619	4835 122 47081	.01uF., 50V, 10%, Ceramic	R506	4835 110 67031	3.9K, 5%, 1/8W, Carbon Film
C620	4835 122 37006	820pF., 10%, 50V, Ceramic	R507	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C621	4835 122 37006	820pF., 10%, 50V, Ceramic	R508	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C622	4835 122 37024	2700pF., 10%, 50V, Ceramic	R509	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
C623	4835 122 37024	2700pF., 10%, 50V, Ceramic	R510	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
RESISTORS					
R102	4835 110 57288	10 Meg, 5%, 1/4W, Carbon Film	R511	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film
R103	4835 110 67043	22K, 5%, 1/8W, Carbon Film	R512	4835 110 67051	47K, 5%, 1/8W, Carbon Film
R104	4835 110 67043	22K, 5%, 1/8W, Carbon Film	R513	4835 110 67051	47K, 5%, 1/8W, Carbon Film
R105	4835 110 67043	22K, 5%, 1/8W, Carbon Film	R514	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film
R106	4835 110 67008	300 ohm, 5%, 1/8W, Carbon Film	R515	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film
R107	4835 110 67008	300 ohm, 5%, 1/8W, Carbon Film	R601	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R108	4835 116 57069	47 ohm, 5%, 1/3W, Metal Film	R602	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R110	4835 110 67038	15K, 5%, 1/8W, Carbon Film	R603	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R111	4835 110 67063	7.5K, 5%, 1/8W, Carbon Film	R604	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R112	4835 110 67051	47K, 5%, 1/8W, Carbon Film	R605	4835 110 67031	3.9K, 5%, 1/8W, Carbon Film
R113	4835 110 67063	7.5K, 5%, 1/8W, Carbon Film	R606	4835 110 67031	3.9K, 5%, 1/8W, Carbon Film
R114	4835 110 67051	47K, 5%, 1/8W, Carbon Film	R607	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R115	4835 110 67038	15K, 5%, 1/8W, Carbon Film	R608	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R116	4835 110 67051	47K, 5%, 1/8W, Carbon Film	R609	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R117	4835 110 67051	47K, 5%, 1/8W, Carbon Film	R610	4835 110 67012	6.2K, 5%, 1/8W, Carbon Film
R118	4835 110 67018	1K, 5%, 1/8W, Carbon Film	R611	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film
R119	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film			
R201	4835 110 67036	10K, 5%, 1/8W, Carbon Film			
R202	4835 116 57159	33 ohm, 5%, 1/3W, Metal Film			
R203	4835 110 67072	1 Megohm, 5%, 1/8W, Carbon Film			
R204	4835 110 67058	220K, 5%, 1/8W, Carbon Film			
R205	4835 110 67051	47K, 5%, 1/8W, Carbon Film			
R206	4835 110 67029	3.3K, 5%, 1/8W, Carbon Film			
R207	4835 110 67038	15K, 5%, 1/8W, Carbon Film			
R208	4835 110 67144	8.2K, 5%, 1/8W, Carbon Film			
R209	4835 110 67144	8.2K, 5%, 1/8W, Carbon Film			
R210	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film			
R211	4835 110 67033	4.7K, 5%, 1/8W, Carbon Film			
R212	4835 110 67044	8.2K, 5%, 1/8W, Carbon Film			
R213	4835 116 57069	47 ohm, 5%, 1/3W, Metal Film			
R214	4835 110 67144	8.2K, 5%, 1/8W, Carbon Film			
R215	4835 110 67018	1K, 5%, 1/8W, Carbon Film			
R216	4835 110 67058	220K, 5%, 1/8W, Carbon Film			
R217	4835 100 97041	22K, Control Adj.			
R301	4835 116 57292	68 ohm, 5%, 1/3W, Metal Film			
R306	4835 110 67036	10K, 5%, 1/8W, Carbon Film			
R307	4835 110 67036	10K, 5%, 1/8W, Carbon Film			
R308	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film			
R309	4835 110 67056	100K, 5%, 1/8W, Carbon Film			
R310	4835 110 67056	100K, 5%, 1/8W, Carbon Film			
R311	4835 110 67056	100K, 5%, 1/8W, Carbon Film			
R312	4835 110 67036	10K, 5%, 1/8W, Carbon Film			
R313	4835 110 67036	10K, 5%, 1/8W, Carbon Film			
R314	4835 116 87002	100 ohm, 5%, 1/3W, Metal Film			
R315	4835 110 67051	47K, 5%, 1/8W, Carbon Film			
R316	4835 110 67056	100K, 5%, 1/8W, Carbon Film			
R401	4835 110 67037	12K, 5%, 1/8W, Carbon Film			
R402	4835 110 67051	47K, 5%, 1/8W, Carbon Film			
R403	4835 110 67037	12K, 5%, 1/8W, Carbon Film			
SEMICONDUCTORS					
D101	4835 130 37058	Diode, Silicon	D103	4835 130 37058	Diode, Silicon
D103	4835 130 37058	Diode, Silicon	D201	4835 130 37058	Diode, Silicon
D203	4835 130 37058	Diode, Silicon	D302	4835 130 37058	Diode, Silicon
D303	4835 130 37058	Diode, Silicon	D303	4835 130 37058	Diode, Silicon
IC101	4835 209 88018	Dolby Pro-Logic Decoder IC	IC101	4835 209 88018	Dolby Pro-Logic Decoder IC
IC102	4835 209 87084	DAC IC	IC201	4835 209 17439	Dolby Surround Sound Delay IC
IC201	4835 209 17439	Dolby Surround Sound Delay IC	IC202	4835 209 17441	Memory IC
IC202	4835 209 17441	Memory IC	IC203	4835 209 87084	DAC IC
IC301	4835 209 88016	Audio Controller IC	IC302	4835 209 17033	Analog Switch IC
IC302	4835 209 17033	Analog Switch IC	IC303	4835 209 17033	Analog Switch IC
IC401	4835 209 87675	Low Pass Filter IC	IC501	4835 209 88017	Graphic Equalizer IC
IC501	4835 209 88017	Graphic Equalizer IC	IC601	4835 209 88017	Graphic Equalizer IC
Q101	4835 130 47055	Transistor, NPN	Q201	4835 130 47055	Transistor, NPN
Q201	4835 130 47055	Transistor, NPN	Q202	4835 130 47107	Transistor, NPN
Q301	4835 130 47055	Transistor, NPN	Q401	4835 130 47055	Transistor, NPN
Q401	4835 130 47884	Transistor, J-FET	Q402	4835 130 47884	Transistor, NPN
Q501	4835 130 47884	Transistor, J-FET	Q502	4835 130 47884	Transistor, J-FET
Q503	4835 130 47055	Transistor, NPN	Q504	4835 130 47055	Transistor, NPN
Q504	4835 130 47055	Transistor, NPN	Z301	4835 130 37096	Zener Diode, 9.1V, 2%
MISCELLANEOUS					
J275	0018 223 60004	4 Pin Board Connector, YLW	J276	0018 170 90002	2 Pin Board Connector

INTERCONNECT CHART

Small Signal Panel Schematic - Pg. 23/ Frame 1-G8



To order parts call the TOLL FREE Philips Sales Center number:
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Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.
• Indicates an SMD "Chip" type of component.

00APP012 F006
MD-PIP PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 77569)

Refer to the previous page/frame for Schematic Information on this panel.

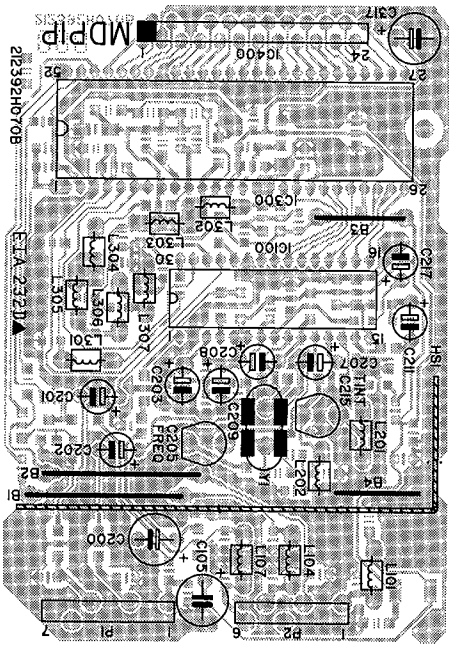
Ref.	Part No.	Description	Ref.	Part No.	Description	
CAPACITORS						
C1	4835 122 87087	.22uF., +80/-20%, 50V, Ceramic	R100	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film	
C2	4835 122 87087	.22uF., +80/-20%, 50V, Ceramic	R101	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film	
C5	4835 122 87286	.22pF., 50V, 5%, Ceramic	R200	4835 111 37408	68 ohm, 5%, 1/10W, Metal Film	
C101	4835 122 87019	680pF., 50V, 5%, Ceramic	R201	4835 111 37104	470 ohm, 5%, 1/4W, Metal Film	
C102	4835 122 87012	100pF., 50V, 5%, Ceramic	R202	4835 111 37055	120k, 5%, 1/4W, Metal Film	
C103	4835 122 87012	100pF., 50V, 5%, Ceramic	R203	4835 111 37223	120k, 5%, 1/10W, Metal Film	
C105	4835 124 47119	470uF., 16V, Electrolytic	R204	0023 100 35195	51 ohm, 5%, 1/10W, Metal Film	
C108	4835 122 87451	470pF., 50V, 5%, Ceramic	R205	4835 111 37443	330 ohm, 5%, 1/10W, Metal Film	
C109	4835 122 87012	100pF., 50V, 5%, Ceramic	R206	4835 111 37105	470k, 5%, 1/4W, Metal Film	
C110	4835 122 87012	100pF., 50V, 5%, Ceramic	R207	4835 111 37437	1.5k, 5%, 1/10W, Metal Film	
C113	4835 122 87376	220pF., 50V, 5%, Ceramic	R208	4835 111 37007	150k, 5%, 1/10W, Metal Film	
C117	4835 122 87376	220pF., 50V, 5%, Ceramic	R209	4835 111 37259	470 ohm, 5%, 1/10W, Metal Film	
C121	4835 122 87376	220pF., 50V, 5%, Ceramic	R210	4835 111 37268	620 ohm, 5%, 1/10W, Metal Film	
C126	4835 122 87012	100pF., 50V, 5%, Ceramic	R211	4835 111 37088	300k, 5%, 1/4W, Metal Film	
C132	4835 122 87451	470pF., 50V, 5%, Ceramic	R212	4835 111 37268	620 ohm, 5%, 1/10W, Metal Film	
C200	4835 124 47417	220uF., 4V, Electrolytic	R213	4835 111 37433	1k, 5%, 1/10W, Metal Film	
C201	4835 124 47115	1uF., 50V, Electrolytic	R214	4835 111 37034	330 ohm, 5%, 1/4W, Metal Film	
C202	4835 124 47115	1uF., 50V, Electrolytic	R215	4835 111 37216	10k, 5%, 1/10W, Metal Film	
C203	4835 124 47523	.47uF., 50V, Electrolytic	R216	4835 111 37234	2.2k, 5%, 1/10W, Metal Film	
C205	4835 125 17039	Trimmer Capacitor, 7.7pF., 40pF.	R300	4835 111 37023	10k, 5%, 1/4W, Metal Film	
C206	4835 122 87024	.01uF., 50V, 10%, Ceramic	R301	4835 111 37216	10k, 5%, 1/10W, Metal Film	
C207	4835 124 47115	1uF., 50V, Electrolytic	R302	4835 111 37441	22k, 5%, 1/10W, Metal Film	
C208	4835 124 47115	1uF., 50V, Electrolytic	R303	4835 111 37021	100 ohm, 5%, 1/4W, Metal Film	
C209	4835 124 47115	1uF., 50V, Electrolytic	R304	4835 111 37441	22k, 5%, 1/10W, Metal Film	
C210	4835 122 87042	.01uF., 50V, 10%, Ceramic	R305	4835 111 37444	4.7k, 5%, 1/10W, Metal Film	
C211	4835 124 47115	1uF., 50V, Electrolytic	R308	4835 111 37217	1 Megohm, 5%, 1/10W, Metal Film	
C212	4835 122 87037	680pF., 50V, 5%, Ceramic	R309	4835 111 37058	150 ohm, 5%, 1/4W, Metal Film	
C213	4835 122 87042	.01uF., 50V, 10%, Ceramic	R310	4835 111 37424	270 ohm, 5%, 1/10W, Metal Film	
C214	4835 122 87094	390pF., 50V, 5%, Ceramic	R311	4835 111 37437	1.5k, 5%, 1/10W, Metal Film	
C215	4835 125 17039	Trimmer Capacitor, 7.7pF., 40pF.	R313	4835 111 37263	510 ohm, 5%, 1/10W, Metal Film	
C216	4835 122 87501	1200pF., 50V, 10%, Ceramic	R314	4835 111 37248	33k, 5%, 1/10W, Metal Film	
C217	4835 124 47117	2.2uF., 50V, Electrolytic	R315	4835 111 37433	1k, 5%, 1/10W, Metal Film	
C218	4835 122 87412	10pF., +/-5pF., 50V, Ceramic	R318	4835 111 37424	270 ohm, 5%, 1/10W, Metal Film	
C219	4835 122 87285	18pF., 50V, 5%, Ceramic	R319	4835 111 37434	100k, 5%, 1/10W, Metal Film	
C301	4835 124 97026	1uF., 16V, Electrolytic	R320	4835 111 37221	120 ohm, 5%, 1/10W, Metal Film	
C302	4835 122 87044	1uF., 50V, 20%, Ceramic	SEMICONDUCTORS	D301	4835 130 37066	Diode, Silicon
C303	4835 122 87044	1uF., 50V, 20%, Ceramic		IC-1	4835 209 87807	5V Regulator IC, MC78M05CDT
C304	4835 122 87044	1uF., 50V, 20%, Ceramic		IC100	4835 209 88097	Memory IC, M52693SP
C305	4835 122 87414	33pF., 50V, 5%, Ceramic		IC300	4835 209 88098	Digital IC, M65607SP
C306	4835 122 87089	620pF., 50V, 5%, Ceramic		IC400	4835 209 17475	Memory IC, M5M4C264L-10
C307	4835 122 87023	1000pF., 50V, 10%, Ceramic		Q200	4835 130 47065	Transistor, PNP
C308	4835 122 87044	1uF., 50V, 20%, Ceramic		Q201	4835 130 47065	Transistor, PNP
C310	4835 122 87087	.22uF., +80/-20%, 50V, Ceramic		Q202	4835 130 47065	Transistor, PNP
C311	4835 122 87044	1uF., 50V, 20%, Ceramic		Q300	4835 130 47066	Transistor, NPN
C312	4835 122 87375	1uF., +80/-20%, 50V, Ceramic		Q301	4835 130 47094	Transistor, NPN
C314	4835 122 87049	22pF., 50V, 5%, Ceramic	MISCELLANEOUS	BR1	4835 111 37019	0 ohm, "Chip" Jumper
C315	4835 122 87413	24pF., 50V, 5%, Ceramic		BR2	4835 111 37215	0 ohm, "Chip" Jumper
C316	4835 122 87031	33pF., 50V, 5%, Ceramic		BR3	4835 111 37019	0 ohm, "Chip" Jumper
C317	4835 124 47119	47uF., 16V, Electrolytic		BR4	4835 111 37019	0 ohm, "Chip" Jumper
C318	4835 122 87414	33pF., 50V, 5%, Ceramic		L101	4835 157 67028	Coil, 1.2uH., 5%
C320	4835 122 87371	120pF., 50V, 5%, Ceramic		L104	4835 157 57061	Peaking Coil, 6.8uH., 5%
C321	4835 122 87451	470pF., 50V, 5%, Ceramic		L107	4835 157 57061	Peaking Coil, 6.8uH., 5%
C322	4835 122 87371	120pF., 50V, 5%, Ceramic		L201	4835 157 57818	Peaking Coil, 100uH., 5%
C323	4835 122 87414	33pF., 50V, 5%, Ceramic		L202	4835 157 57061	Peaking Coil, 6.8uH., 5%
C324	4835 124 97043	6.8uF., 6.3V, Electrolytic		L301	4835 150 57045	Peaking Coil, 47uH., 5%
RESISTORS						
R5	4835 111 37031	22k, 5%, 1/4W, Metal Film				

MD-PIP PANEL REPLACEMENT PARTS LIST (Continued)

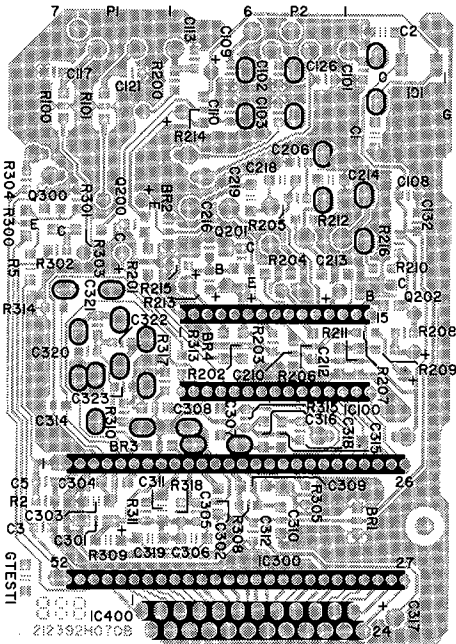
Ref.	Part No.	Description	Ref.	Part No.	Description
MISCELLANEOUS (Continued)			CAPACITORS (Continued)		
L302	4835 157 67021	Peaking Coil, 39uH., 5%	M1	0073 584 00002	Heatsink I/MD-PIP
L303	4835 157 57832	Coil, 3.3uH.	P1	0018 179 40007	7 Pin Board Connector
L304	4835 157 57061	Peaking Coil, 6.8uH., 5%	P2	0018 179 40006	6 Pin Board Connector
L305	4835 150 57008	Peaking Coil, 10uH., 5%	Y1	4835 242 77201	Crystal, 14.318 MHz.
L306	4835 157 57831	Peaking Coil, 12uH., 5%		0073 563 70005	Shield I/PIP
L307	4835 157 57833	Peaking Coil, 5.6uH., 5%			

00APP012 F006 MD-PIP PANEL
P.C. BOARD OVERLAYS

TOP VIEW



BOTTOM VIEW



00A10538 E005 REMOTE LOCATOR PANEL SCHEMATIC DIAGRAM

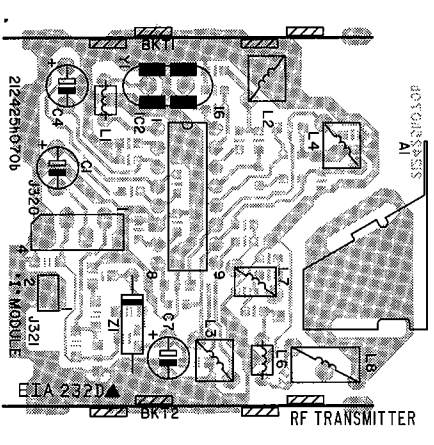
(Refer to the following page/frame for P.C. Board and Parts List Information)

00A10538 E005 REMOTE LOCATOR PANEL

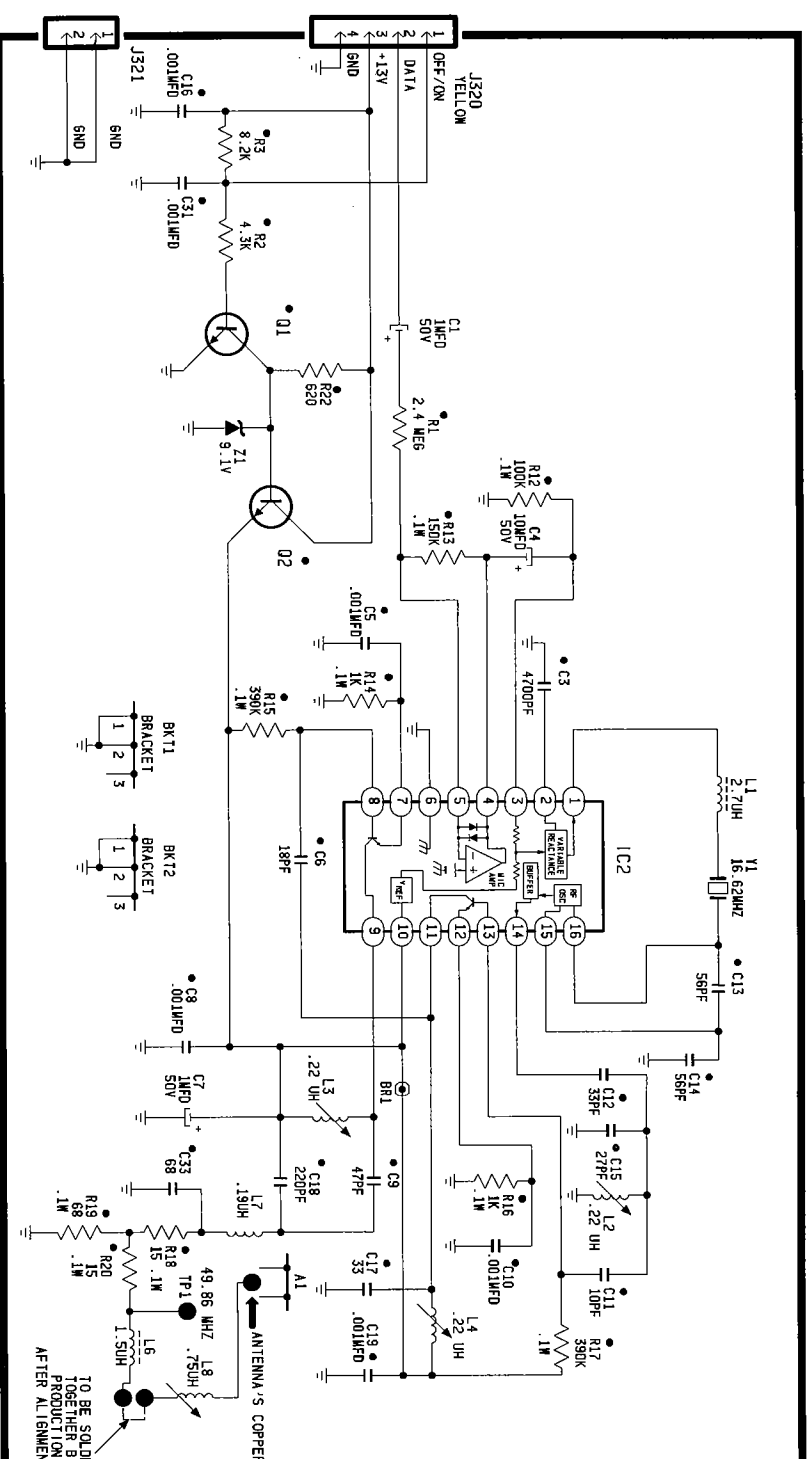
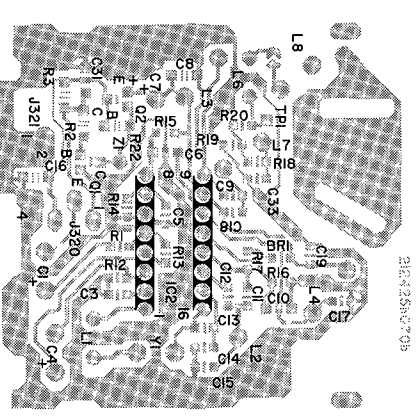
P.C. BOARD OVERLAYS

P.C. BOARD OVERLAYS

TOP VIEW



BOTTOM VIEW



INTERCONNECT CHART

Small Signal Panel Schematic - Pg. 23/ Frame 1-G8

SCHEMATIC NOTES:

UNLESS OTHERWISE SPECIFIED:
SCHEMATIC NOTES.

1. ALL VOLTAGES WERE TAKEN UNDER THE CONDITIONS AS FOLLOWS:
 - LINE VOLTAGE MAINTAINED AT 120VAC,
 - 60HZ VIA AN ISOLATION TRANSFORMER,
 - VOLTAGES WERE TAKEN WITH NO RF OR VIDEO SIGNAL APPLIED.
2. ALL VOLTAGES ARE POSITIVE DC WITH RESPECT TO GROUND AND MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES.
3. VOLTAGE SOURCES ARE ALSO NOMINAL. FOR VOLTAGE, WATTAGE OR TOLERANCE RATINGS ON CAPACITORS OR RESISTORS, REFER TO THE ELECTRICAL REPLACEMENT PARTS LIST.

To order parts call the TOLL FREE Philips Sales Center number: (In U.S.A.) 1-800-851-8885
(In Canada) 1-800-363-PART • 1-800-663-7178 (Fax)

Note: Part Numbers beginning with "00" are not stocked items. They are shown for reference only.
• Indicates an SMD "Chip" type of component.

00A10538 E005
REMOTE LOCATOR PANEL
REPLACEMENT PARTS LIST
(Complete Panel: 4835 219 57534)

Refer to the previous page/frame for Schematic information on this panel.

Ref. Part No.	Description	Ref. Part No.	Description
CAPACITORS		RESISTORS (Continued)	
C1	4835 121 47406 1uF., 50V, Electrolytic	R14	4835 111 37002 1k, 5%, 1/10W, Metal Film
C3	4835 122 87415 4700pF., 10%, 50V, Ceramic	R15	4835 111 37256 390k, 5%, 1/10W, Metal Film
C4	4835 124 47499 10uF., 50V, Electrolytic	R16	4835 111 37002 1k, 5%, 1/10W, Metal Film
C5	4835 122 87023 1000pF., 10%, 50V, Ceramic	R17	4835 111 37256 390k, 5%, 1/10W, Metal Film
C6	4835 122 87048 18pF., 5%, 50V, Ceramic	R18	4835 111 37366 15 ohm, 5%, 1/10W, Metal Film
C7	4835 121 47406 1uF., 50V, Electrolytic	R19	4835 111 37408 68 ohm, 5%, 1/10W, Metal Film
C8	4835 122 87041 1000pF., 10%, 50V, Ceramic	R20	4835 111 37366 15 ohm, 5%, 1/10W, Metal Film
C9	4835 122 87017 47pF., 5%, 50V, Ceramic	R22	4835 111 37114 620 ohm, 5%, 1/4W, Metal Film
C10	4835 122 87041 1000pF., 10%, 50V, Ceramic	MISCELLANEOUS	
C11	4835 122 87412 10pF., +/-5pF., 50V, Ceramic	A1	0073 592 50002 Antenna
C12	4835 122 87414 33pF., 5%, 50V, Ceramic	BR1	4835 111 37215 0 ohm, "Chip" Jumper
C13	4835 122 87373 56pF., 5%, 50V, Ceramic	IC2	4835 209 87963 IC MC2833
C14	4835 122 87373 56pF., 5%, 50V, Ceramic	J320	0018 223 60004 4 Pin Connector, YLW
C15	4835 122 87381 27pF., 5%, 50V, Ceramic	J321	0018 169 30002 2 Pin Connector, WHT
C16	4835 122 87041 1000pF., 10%, 50V, Ceramic	L1	4835 157 67008 Peaking Coil, 2.7uH., 5%
C17	4835 122 87414 33pF., 5%, 50V, Ceramic	L2	4835 150 57061 Coil, 11.5T CW
C18	4835 122 87376 220pF., 5%, 50V, Ceramic	L3	4835 150 57062 Coil, RF, 24AWG
C19	4835 122 87023 1000pF., 10%, 50V, Ceramic	L4	4835 150 57063 Coil, 11.5T CCW
C33	4835 122 87374 68pF., 5%, 50V, Ceramic	L6	4835 157 67029 Peaking Coil, 1.5 uH.
RESISTORS		L7	4835 150 57059 Coil, Air/Fixed, 160uH.
R1	4835 111 37341 2.4 Meg, 5%, 1/10W, Metal Film	L8	4835 150 57064 Coil, Air/Fixed, 1.8mH.
R2	4835 111 37102 4.3k, 5%, 1/4W, Metal Film	Q1	4835 130 47086 Transistor, NPN
R3	4835 111 37043 8.2k, 5%, 1/4W, Metal Film	Q2	4835 130 47086 Transistor, NPN
R12	4835 111 37003 100k, 5%, 1/10W, Metal Film	Y1	4835 242 77158 Crystal, 16.62MHz.
R13	4835 111 37007 150k, 5%, 1/10W, Metal Film	Z1	4835 130 37086 Zener Diode, 9.1V, 5%

TELEVISION/MONITOR SAFETY GUIDELINES FOR THE PROFESSIONAL SERVICE TECHNICIAN

Safety Checks

After the original service problem has been corrected, a complete safety check should be made. Be sure to check over the entire set, not just the areas where you have worked. Some previous service may have left an unsafe condition, which could be unknowingly passed on to your customer. Be sure to check all of the following:

Fire and Shock Hazard

1. Be sure all components are positioned in such a way as to avoid the possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the service shop.
2. Never release a repaired unit unless all protective devices such as insulators, barriers, covers, strain reliefs, and other hardware have been installed in accordance with the original design.
3. Soldering and wiring must be inspected to locate possible cold solder joints, solder splashes, sharp solder points, frayed leads, pinched leads, or damaged insulation (including the ac cord). Be certain to remove loose solder balls and all other loose foreign particles.
4. Check across-the-line components and other components for physical evidence of damage or deterioration and replace if necessary. Follow original layout, lead length, and dress.
5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces or edges must be avoided.
6. Critical components having special safety characteristics are identified with an s by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol s on the schematic diagrams and/or exploded views.
7. When servicing any unit, always use a separate isolation transformer for the chassis. Failure to use a separate isolation transformer may expose you to possible shock hazard, and may cause damage to servicing instruments.
8. Many electronic products use a polarized ac line cord (one wide pin on the plug). Defeating this safety feature may create a potential hazard to the service and the user. Extension cords which do not incorporate the polarizing feature should never be used.
9. After reassembly of the unit, always perform an ac leakage test or resistance test from the line cord to all exposed metal parts of the cabinet. Also, check all metal control shafts (with knobs removed), antenna terminals, handles, screws, etc. to be sure the unit may be safely operated without danger of electrical shock.

* Broken line — — — — —

Implosion

1. All picture tubes used in current model receivers are equipped with an integral implosion system. Care should always be used, and safety glasses worn, whenever handling any picture tube. Avoid scratching or otherwise damaging the picture tube during installation.
2. Use only replacement tubes specified by the manufacturer.

X-radiation

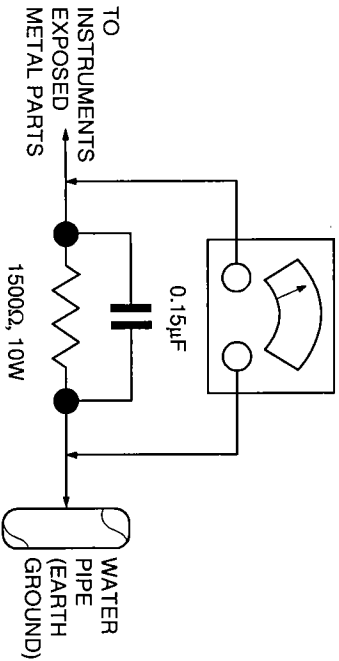
1. Be sure procedures and instructions to all your service personnel cover the subject of X-radiation. Potential sources of X-rays in TV receivers are the picture tube and the high voltage circuits. The basic precaution which must be exercised is to keep the high voltage at the factory recommended level.
2. To avoid possible exposure to X-radiation and electrical shock, only the manufacturer's specified anode connectors must be used.
3. It is essential that the service technician has an accurate HV meter available at all times. The calibration of this meter should be checked periodically against a reference standard.
4. When the HV circuitry is operating properly there is no possibility of an X-radiation problem. High voltage should always be kept at the manufacturer's rated value - no higher - for optimum performance. Every time a color set is serviced, the brightness should be run up and down while monitoring the HV with a meter to be certain that the HV is regulated correctly and does not exceed the specified value. We suggest that you and your technicians review test procedures so that HV and HV regulation are always checked as a standard servicing procedure, and the reason for this prudent routine is clearly understood by everyone. It is important to use an accurate and reliable HV meter. It is recommended that the HV reading be recorded on each customer's invoice, which will demonstrate a proper concern for the customer's safety.
5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, reduce the line voltage by means of a Variac to bring the HV into acceptable limits while troubleshooting. Do not operate the chassis longer than necessary to locate the cause of the excessive HV.

WARNING: Before removing the CRT anode cap, turn the unit **OFF** and short the HIGH VOLTAGE to the CRT DAG ground.
SERVICE NOTE: The CRT DAG is not at chassis ground.

6. New picture tubes are specifically designed to withstand higher operating voltages without creating undesirable X-radiation. It is strongly recommended that any shop test fixture which is to be used with the new higher voltage chassis be equipped with one of the new type tubes designed for this service. Addition of a permanently connected HV meter to the shop test fixture is advisable. The CRT types used in these new sets should never be replaced with any other types, as this may result in excessive X-radiation.
7. It is essential to use the specified picture tube to avoid a possible X-radiation problem.
8. Most TV receivers contain some type of emergency "Hold Down" circuit to prevent HV from rising to excessive levels in the presence of a failure mode. These various circuits should be understood by all technicians servicing them, especially since many hold down circuits are inoperative as long as the receiver performs normally.

Leakage Current Cold Check

1. Unplug the ac line cord and connect a jumper between the two prongs of the plug.
2. Turn on the power switch.
3. Measure the resistance value between the jumpered ac plug and all exposed cabinet parts of the receiver, such as screw heads, antennas, and control shafts. When the exposed metallic part has a return path to the chassis, the reading should be between 1 megohm and 5.2 megohms. When the exposed metal does not have a return path to the chassis, the reading must be infinity. Remove the jumper from the ac line cord.



Leakage Current Hot Check

1. Do not use an isolation transformer for this test. Plug the completely reassembled receiver directly into the ac outlet.
2. Connect a 1.5k, 10W resistor paralleled by a 0.15uF capacitor between each exposed metallic cabinet part and a good earth ground such as a water pipe, as shown above.
3. Use an ac voltmeter with at least 5000 ohms/ volt sensitivity to measure the potential across the resistor.
4. The potential at any point should not exceed 0.75 volts. A leakage current tester may be used to make this test; leakage current must not exceed 0.5milliamps. If a measurement is outside of the specified limits, there is a possibility of shock hazard. The receiver should be repaired and rechecked before returning it to the customer.
5. Repeat the above procedure with the ac plug reversed. (Note: An ac adapter is necessary when a polarized plug is used. Do not defeat the polarizing feature of the plug.)

Picture Tube Replacement

The primary source of X-radiation in this television receiver is the picture tube. The picture tube utilized in this chassis is specially constructed to limit X-radiation emissions. For continued X-radiation protection, the replacement tube must be the same type as the original, including suffix letter, or a Philips approved type.

Parts Replacement

Many electrical and mechanical parts in Philips television sets have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. The use of a substitute part which does not have the same safety characteristics as the Philips recommended replacement part shown in this service manual may create shock, fire, or other hazards.