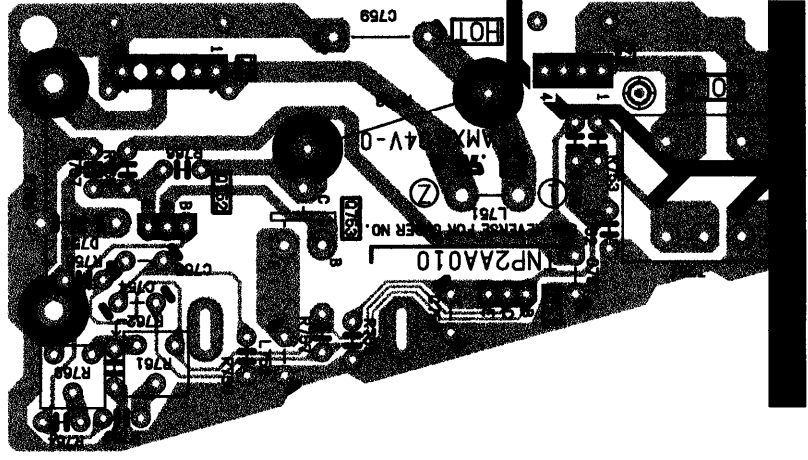
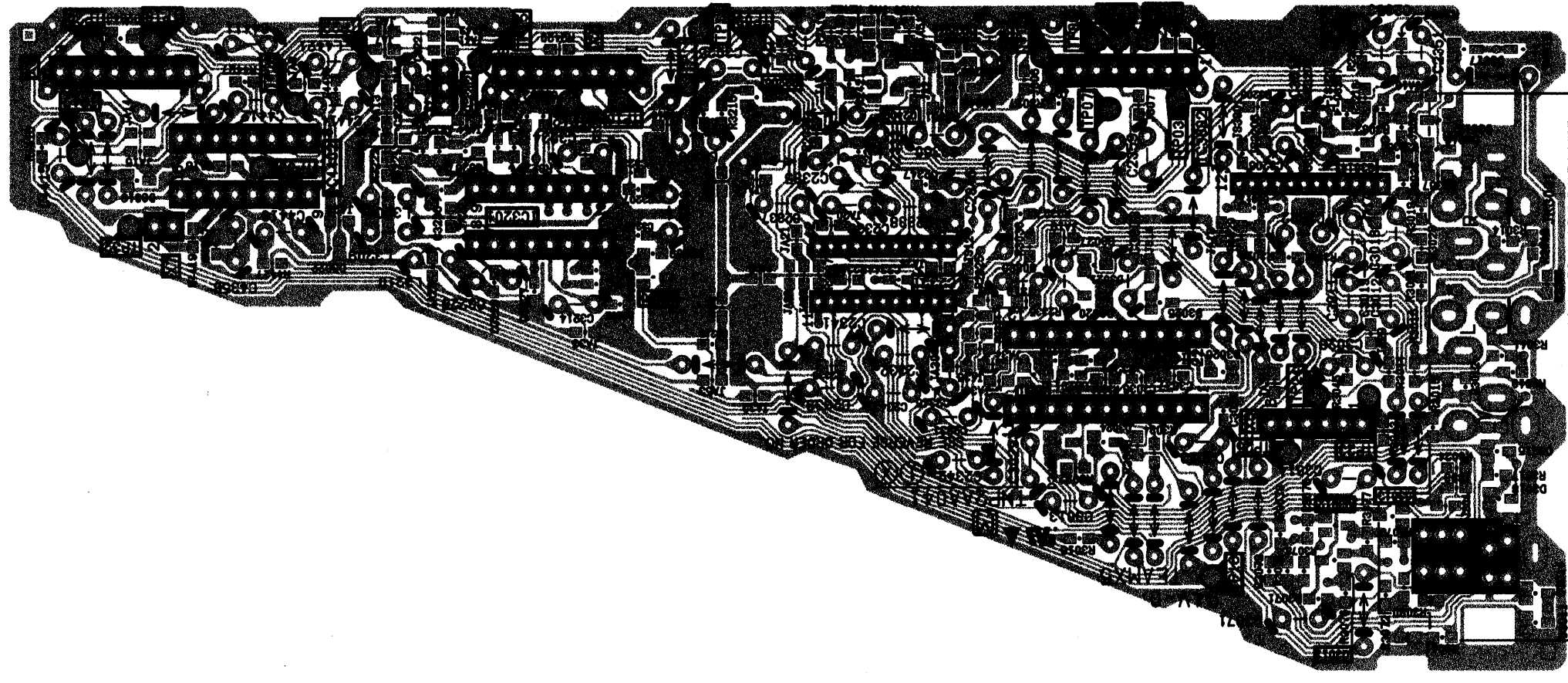


## A-Board Layout

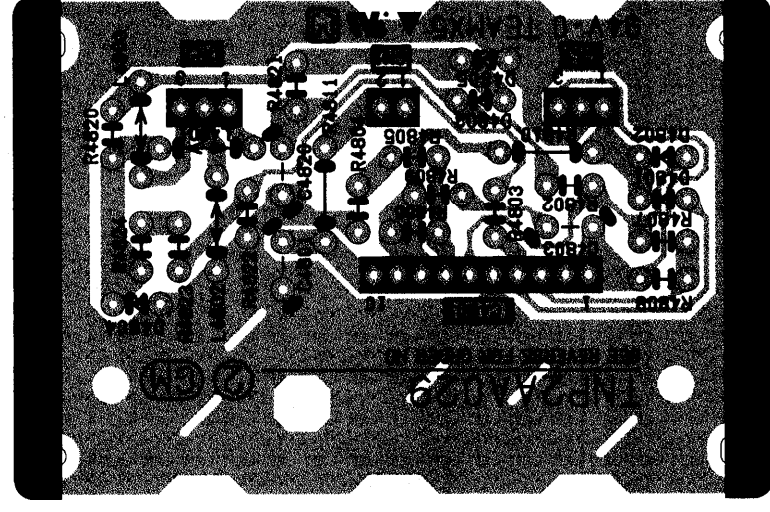
## C-Board Layout



## Z-Board Layout



## X-Board Layout



**GM-Board Layout**  
**(35/36" MODELS ONLY)**

<p><b>Note:</b> Stereo Models</p> <p>The Functions listed below are activated by a DC voltage button to DAC inputs, Pm 5 and 6) of MPU IC001. Press and hold a function button on the Receiver to measure voltages.</p>		<p><b>FUNCTION</b></p> <p>Pm 5      Pm 6</p>	
<p><b>VOL</b>      ▲</p> <p><b>VOL</b>      ▼</p> <p><b>CH</b>      ▲</p> <p><b>CH</b>      ▼</p> <p><b>TV/VIDEO</b></p> <p><b>ACTION</b></p> <p><b>SHUT DOWN</b></p>	<p>0V-0.443V</p> <p>0.297V-1.07V</p> <p>1.424V-1.696V</p> <p>2.05V-2.323V</p> <p>2.67V-2.95V</p> <p>3.904V-3.576V</p> <p>N/A</p>	<p>0V-0.443V</p> <p>0.297V-1.07V</p> <p>1.424V-1.696V</p> <p>2.05V-2.323V</p> <p>2.67V-2.95V</p> <p>3.904V-3.576V</p> <p>N/A</p>	<p>3.930V-5.000V</p> <p>0V-0.443V</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>
<p>The AUDIO MODES being broadcast are displayed on screen in red by the voltage change on DAC input (Pm 11) of MPU IC001.</p>		<p><b>AUDIO MODE BROADCAST</b></p> <p>PN 11</p> <p>MN18740857JM</p> <p>4 OV-5 OV</p> <p>2.2V-3.8V</p> <p>0.9V-1.9V</p> <p>0V-0.6V</p> <p><b>SAP</b></p> <p><b>MONO</b></p> <p><b>STEREO &amp; SAP</b></p>	

NOTE: CABLE channel numbers as recommended by the joint EIA/INTERTM Engineering Committee and published as TELEVISION CHANNEL IDENTIFICATION PLAN - CABLE MAY 1983

NOTE: CABLE channel numbers as recommended by the joint EIA/INTERTM Engineering Committee and published as TELEVISION CHANNEL IDENTIFICATION PLAN - CABLE MAY 1983

CABLE	5, 05-99 01-05, 14, 1
UHF	02-05 07-13
FIRST TUNING BAND	10-12 100-123
SECOND TUNING BAND	10-12 100-123
THIRD TUNING BAND	10-12 100-123

80MHz

130MHz

30MHz

TUNING/SWITCHING

MICROPROCESSOR FOR BAND

Ch. 99	17.5V	Ch. 125	24.0V
Ch. 95	9.8V	Ch. 100	15.1V
Ch. 96	9.8V	Ch. 94	14.9V
Ch. 1	6.7V	Ch. 47	3.7V
1st Band	2nd Band	3rd Band	

- CABLE -

Ch. 13	9.3V
Ch. 07	7.0V
Ch. 06	8.2V
Ch. 02	4.0V

- VHF -

Ch. 69	24V
Ch. 14	7.7V

- UHF -

Voltage Reading are Nominal And May Vary ± 15%

Enable, Data and Clock have no DC Readings. They are digital signals from the MCU

NOTE: Voltage at the 50V test pin varies with channel selection

Refer to chart for sample wiring with channel voltages of TV/CATV/CABLE channels as shown.

Tuner Voltage Chart

## Tuner Voltage Chart

**NOTE:** Voltage at the 30V test pin varies with channel selection. Enable, Data, and Clock have no DC readings. They are digital signals from the MPU.

Voltage Reading Are Nominal And May Vary  $\pm 15\%$

**E**

**F**

**G**

## H

## Schematic Notes

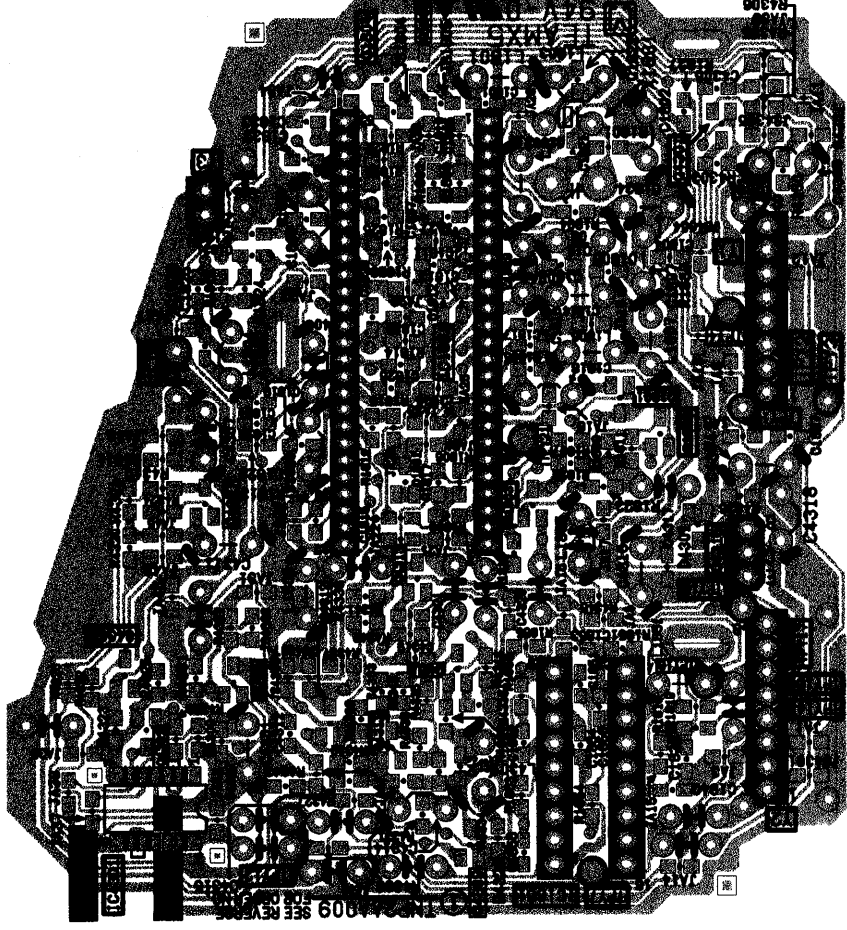
6. — (BOLD LINE) indicates the role of B-supply.
7. The schematic diagrams are current at the time of printing and are subject to change without notice.
8. **NOT** indicates **NOT** a grounding connection.
9. Indicates **GROUND** connection.
5. Components indicated with are made with manufacture specified replacement parts only.

## Waveform Measurements

1. ☐ Indicates waveform measurement can be taken in the best accessible location in common to the (measurement).
  2. ☐ Taken with NTSG signal generator connected to the antenna terminal.
  3. ☐ Customer Controls (Pictorial/Volume level), 100 RE white and 7.5 RE (black).
  4. ☐ Set to 'MIN'.
  5. ☐ All color and color waveforms are set to low bandwidth scopes and a shape with low capacitance (10 to 1 pF) and peak amplitudes may vary depending on the type of oscilloscope used and its settings.
5. Ground symbol ☐ shown on waveform number indicates (not) ground lead connection of the oscilloscope.
- CAUTION:** Incoherent ground connection of test equipment will result in erroneous readings.
- The waveforms are taken in the order of the following sections as follows:
- VIDEO - Waveforms 1-3
  - COLOR - Waveforms 4-8
  - VERTICAL - Waveforms 9-13
  - HORIZONTAL - Waveforms 14-17
  - CRT DRIVE - Waveforms 18-20
  - POWER SUPPLY - Waveforms 21-22
  - PIP - Waveforms 23-29

## Voltage Measurements

1. Voltage measurement:
  - AC input to the Receiver is 120V
  - The Receiver is connected to the pattern of 100RFE white and 7.5 RFE (black).
  - All Picture and Audio adjustments (Set-Up Menu) in TV/AV/DAZE Mode
  - Volume + SW - TV position



## Y-Board Layout

## Board Index

- A-Board** - Main Chassis  
**C-Board** - CRT Board  
**GM-Board** - GM Coil Drive  
(35/36" Models Only)  
**X-Board** - AV SW, Comb Filter  
**Y-Board** - PIP Processing  
**Z-Board** - Pincushion Board