

## TIMING CHARTS

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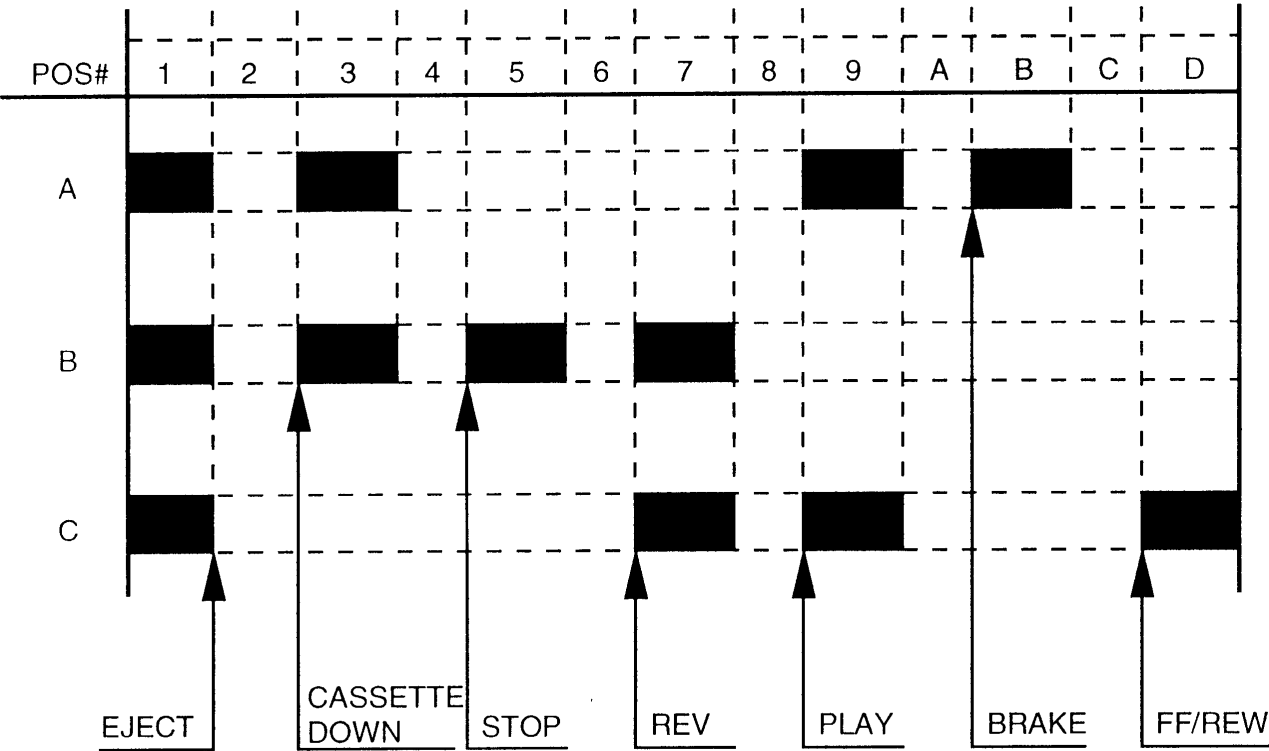
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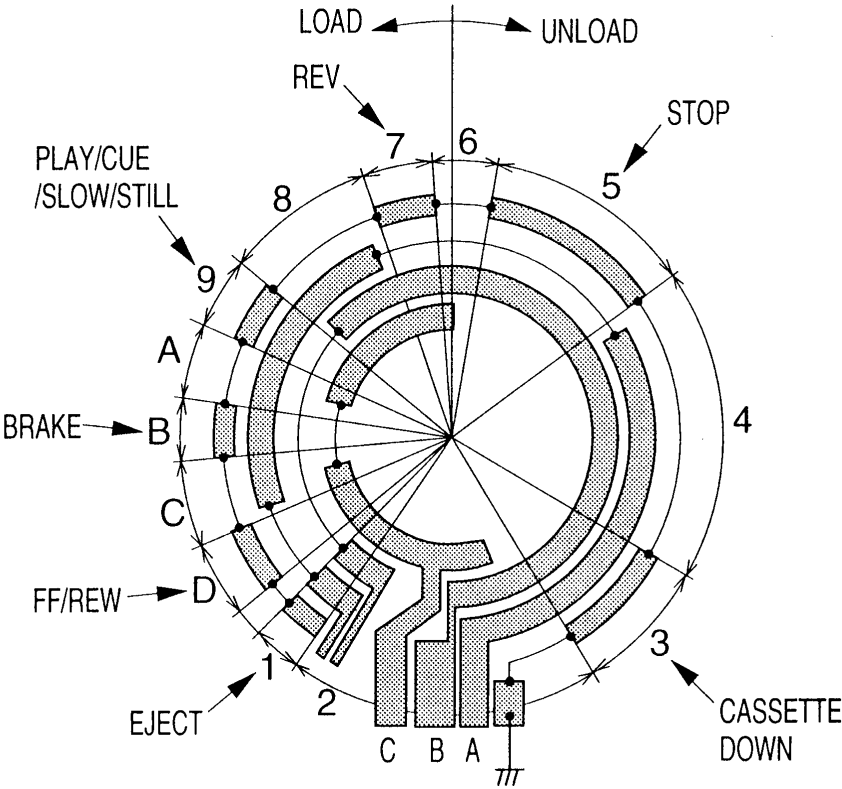
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TIMING CHARTS

Basic Operation/Mode Select Switch



MODE SELECT SWITCH



## TIMING CHARTS (Continued)

Cassette-In/Play (With S-Tab Off)

## TIMING CHART 1

| ACTION                                | CASSETTE IN/PLAY (S-TAB OFF) |     |    |     |         |     |    |    |    |  |
|---------------------------------------|------------------------------|-----|----|-----|---------|-----|----|----|----|--|
| POSITION                              | 1/2                          | 3/4 |    |     | 5/6/7/8 | 9   |    |    |    |  |
| TIME ms                               | 2S*                          | 20  | 80 | 300 | 5S*     | 5S* | 20 | 80 | 2S |  |
| LOADING<br>FWD(H)<br>(PIN 8)          |                              |     |    |     |         |     |    |    |    |  |
| LOADING<br>REV(H)<br>(PIN 7)          |                              |     |    |     |         |     |    |    |    |  |
| CAPSTAN<br>ON(H)                      |                              |     |    |     |         |     |    |    |    |  |
| CAPSTAN<br>R(H)/S(M)/F(L)<br>(PIN 21) |                              |     |    |     |         |     |    |    |    |  |
| CYLINDER<br>ON(L)                     |                              |     |    |     |         |     |    |    |    |  |
| VIDEO EE(H)                           |                              |     |    |     |         |     |    |    |    |  |
| AUDIO<br>MUTE(H)<br>(PIN 6)           |                              |     |    |     |         |     |    |    |    |  |
| PB(L)<br>(PIN 9)                      |                              |     |    |     |         |     |    |    |    |  |

## MODE BY MODE OPERATION

## 1. CASSETTE IN /PLAY(WITHOUT SAFETY TAB)

- 1-1. Changes the mechanism position to 3(CASSETTE DOWN).
- 1-2. The Capstan Motor rotates in a forward direction.
- 1-3. The Cylinder Motor starts rotation for quick play.
- 1-4. Apply a brake to the Loading Motor.

( If the mechanism does not reach position 3 from position 1 within 2 seconds or position 5 from position 3 within 5 seconds or position 9 from position 5 within 5 seconds, the mechanism moves to position 1 to eject the tape. )

- 1-5. Changes the mechanism position to 9(PLAY).

**NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME**

## TIMING CHARTS (Continued)

## Cassette-In/Stop (With S-Tab On)

## TIMING CHART 2

| ACTION                                | CASSETTE IN/STOP (S-TAB ON) |    |    |     |         |     |    |    |     |     |    |    |
|---------------------------------------|-----------------------------|----|----|-----|---------|-----|----|----|-----|-----|----|----|
| POSITION                              | 1/2                         | 3  |    |     | 5/6/7/8 |     |    | 9  |     |     | 6  | 5  |
| TIME ms                               | 2S*                         | 20 | 80 | 200 | 5S*     | 5S* | 20 | 80 | 200 | 5S* | 20 | 80 |
| LOADING<br>FWD(H)<br>(PIN 8)          |                             |    |    |     |         |     |    |    |     |     |    |    |
| LOADING<br>REV(H)<br>(PIN 7)          |                             |    |    |     |         |     |    |    |     |     |    |    |
| CAPSTAN<br>ON(H)                      |                             |    |    |     |         |     |    |    |     |     |    |    |
| CAPSTAN<br>R(H)/S(M)/F(L)<br>(PIN 21) |                             |    |    |     |         |     |    |    |     |     |    |    |
| CYLINDER<br>ON(L)                     |                             |    |    |     |         |     |    |    |     |     |    |    |
| PB(L)<br>(PIN 9)                      |                             |    |    |     |         |     |    |    |     |     |    |    |

## MODE BY MODE OPERATION

## 2. CASSETTE IN /STOP(WITH SAFETY TAB)

- 2-1. Changes the mechanism position to 9(PLAY).
- 2-2. The Capstan Motor rotates in a forward direction.
- 2-3. The Cylinder Motor starts rotation for quick play.
- 2-4. Apply a brake to the Loading Motor.
- 2-5. Changes the mechanism position to 5(STOP).

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

## TIMING CHARTS (Continued)

Play/Record

## TIMING CHART 3

| ACTION                                | PLAY/REC          |
|---------------------------------------|-------------------|
| POSITION                              | 5 6/7/8 9         |
| TIME ms                               | 2S* 5S* 20 80 2S* |
| LOADING<br>FWD(H)<br>(PIN 8)          | 3-2 3-4           |
| LOADING<br>REV(H)<br>(PIN 7)          |                   |
| CAPSTAN<br>ON(H)                      | 3-3 3-5           |
| CAPSTAN<br>R(H)/S(M)/F(L)<br>(PIN 21) | M L M L           |
| CYLINDER<br>ON(L)                     | 3-1               |
| VIDEO DELAY<br>REC(H)<br>(PIN 30)     | REC               |
| VIDEO EE(H)                           | PLAY<br>REC       |
| AUDIO<br>MUTE(H)<br>(PIN 6)           | PLAY<br>PLAY      |
| PB(L)<br>(PIN 9)                      | REC<br>PLAY       |

## MODE BY MODE OPERATION

## 3.PLAY/REC

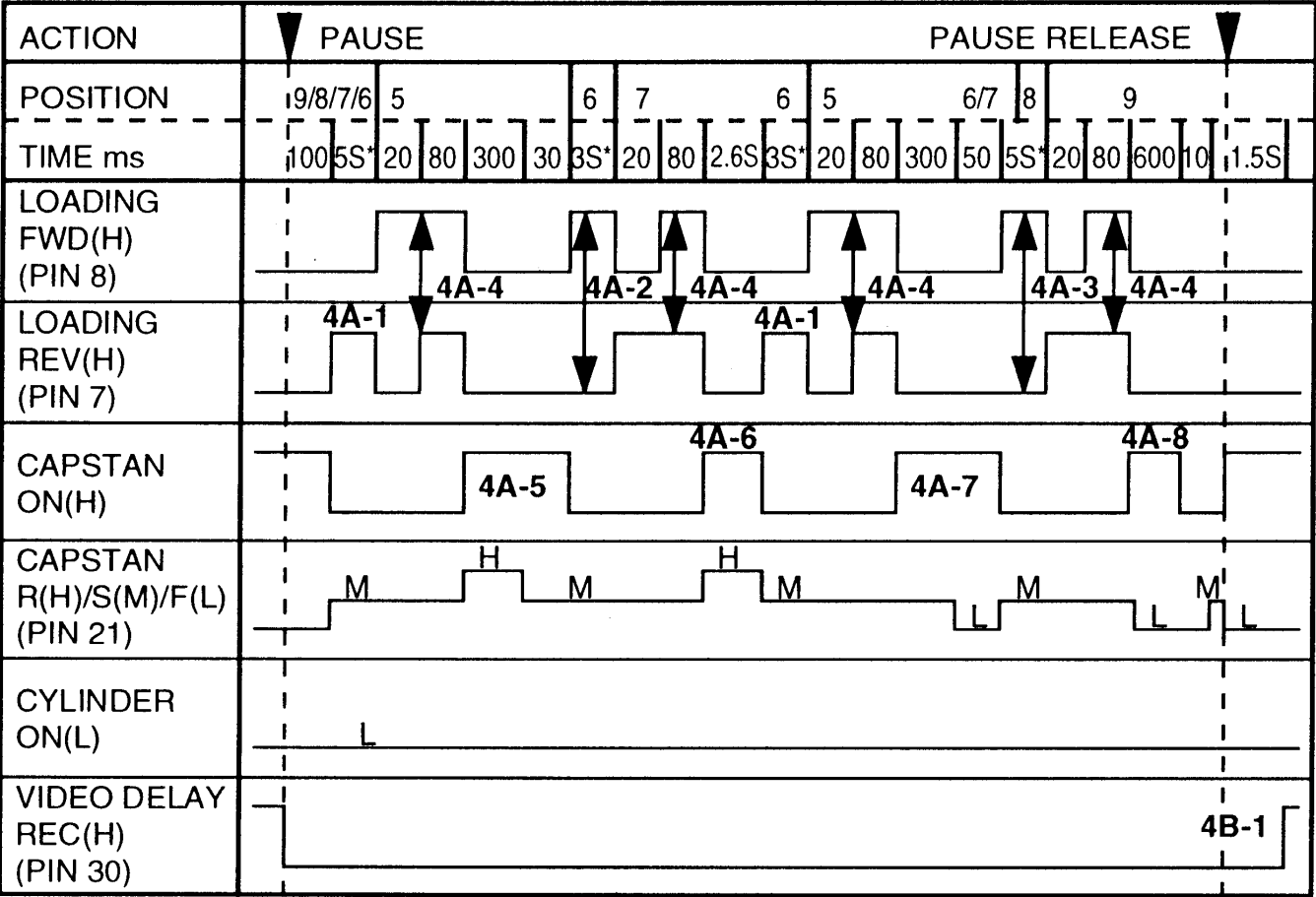
- 3-1. The Cylinder Motor starts rotation for quick play.
- 3-2. Changes the mechanism position to 9(PLAY).
- 3-3. The Idler Arm Unit swings over to Takeup Reel.
- 3-4. Apply a brake to the Loading Motor.
- 3-5. The Capstan Motor rotates in a forward direction.

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

TIMING CHARTS (Continued)

Record to Record Pause/Record Pause to Record

TIMING CHART 4



MODE BY MODE OPERATION

4.REC TO REC PAUSE/REC PAUSE TO REC

4A. REC TO REC PAUSE

- 4A-1.Changes the mechanism position to 5(STOP).
- 4A-2.Changes the mechanism position to 7(REV).
- 4A-3.Changes the mechanism position to 9(PLAY).
- 4A-4.Apply a brake to the Loading Motor.
- 4A-5.The Idler Arm Unit swings over to Supply Reel.
- 4A-6.Rewind the tape for 2.6 sec(SP)/1.26 sec(LP)/0.82 sec(SLP).
- 4A-7.The Idler Gear swings over to Takeup Reel.
- 4A-8.Playback the tape for 0.6 second to adjust add-on recording portion.

4B. REC PAUSE TO REC

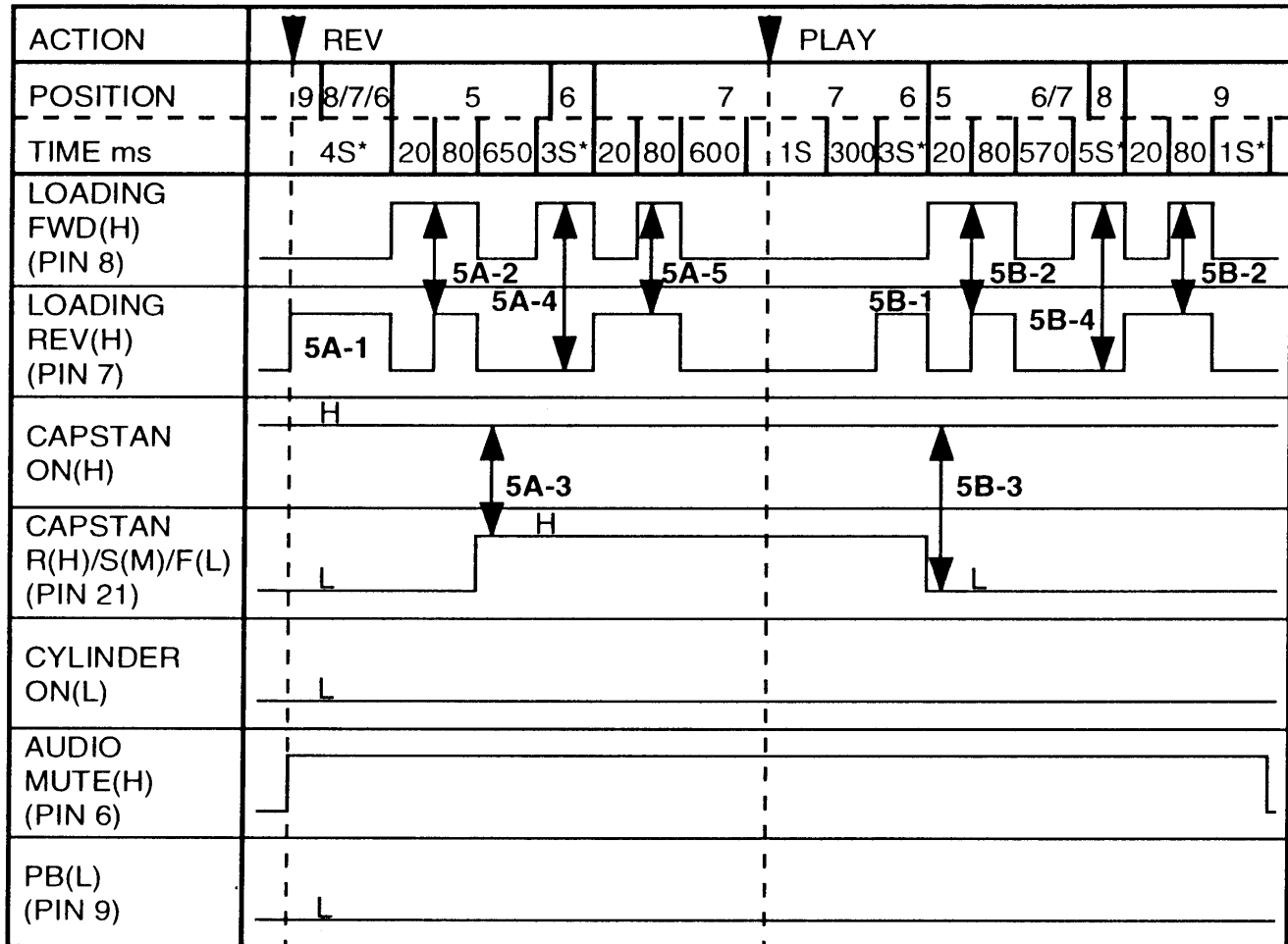
- 4B-1.Forward the tape for 1.5 second before recording.

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

## TIMING CHARTS (Continued)

[Play to Review/Review to Play](#)

## TIMING CHART 5



## MODE BY MODE OPERATION

## 5. PLAY TO REVIEW/REVIEW TO PLAY

## 5A. PLAY TO REVIEW

5A-1.Changes the mechanism position to 5(STOP).

5A-2.Apply a brake to the Loading Motor.

At this position, the Pressure Roller is released.

5A-3.The Capstan Motor rotates in a reverse direction.

5A-4.Changes the mechanism position to 7(REV).

5A-5.Apply a brake to the Loading Motor.

At this position, the Pressure Roller is applied to the Capstan Shaft.

## 5B. REVIEW TO PLAY

5B-1.Changes the mechanism position to 5(STOP).

5B-2.Apply a brake to the Loading Motor.

5B-3.The Capstan Motor changes the direction to forward.

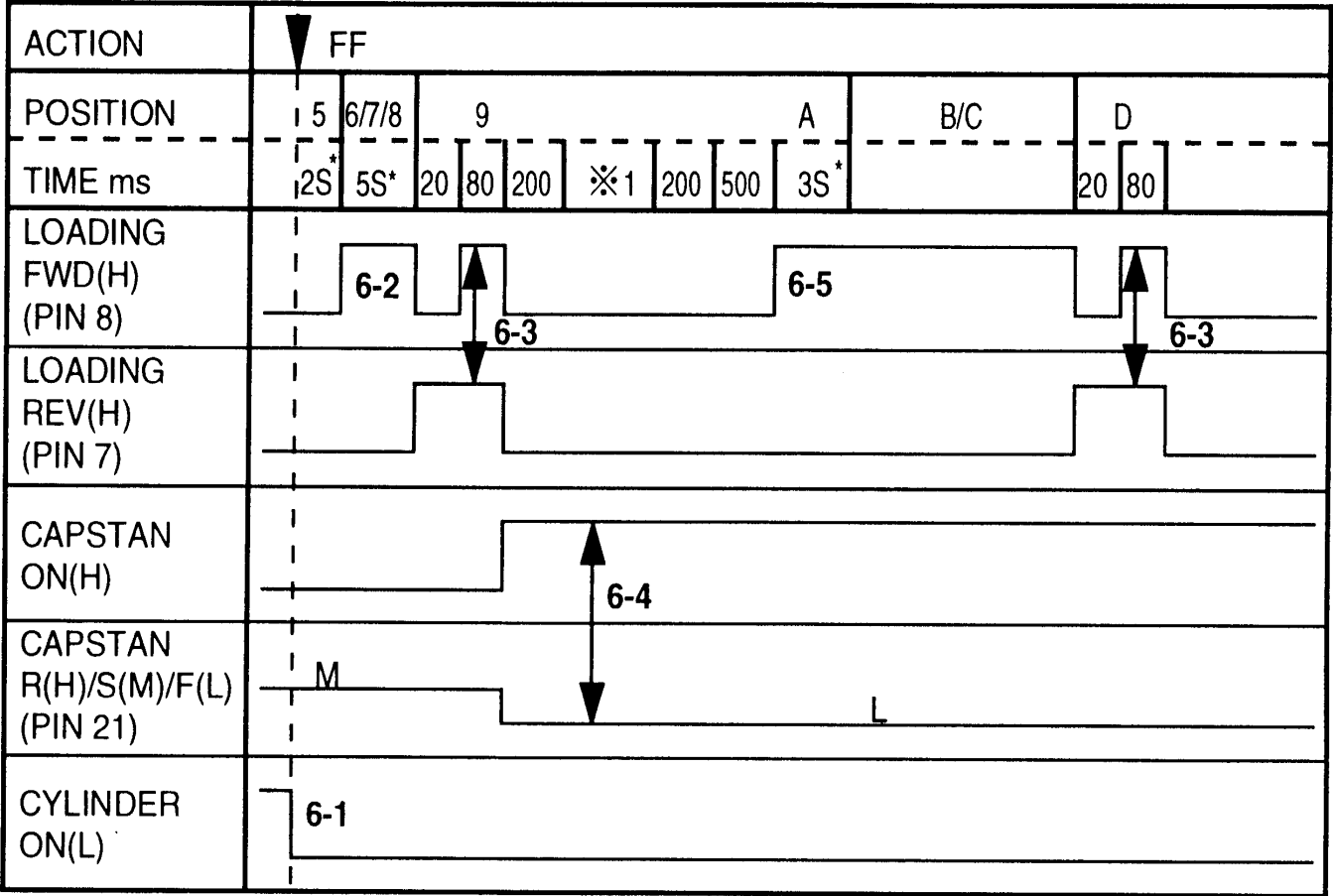
5B-4.Changes the mechanism position to 9(PLAY).

**NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001**  
**THE STAR (★) SYMBOL INDICATES MAXIMUM TIME**

TIMING CHARTS (Continued)

Stop To Fast Forward

TIMING CHART 6



MODE BY MODE OPERATION

This one time operation is performed at FF or REW to fix the FF/REW speed.

6. STOP TO FF

- 6-1. The Cylinder Motor starts rotation.
- 6-2. Changes the mechanism position to 9(PLAY).
- 6-3. Apply a brake to the Loading Motor.
- 6-4. The Capstan Motor rotates in a forward direction.

Check the reel size of cassette tape at ※1 while the speed gradually increases . FF/REW speed is adjusted according to reel size.

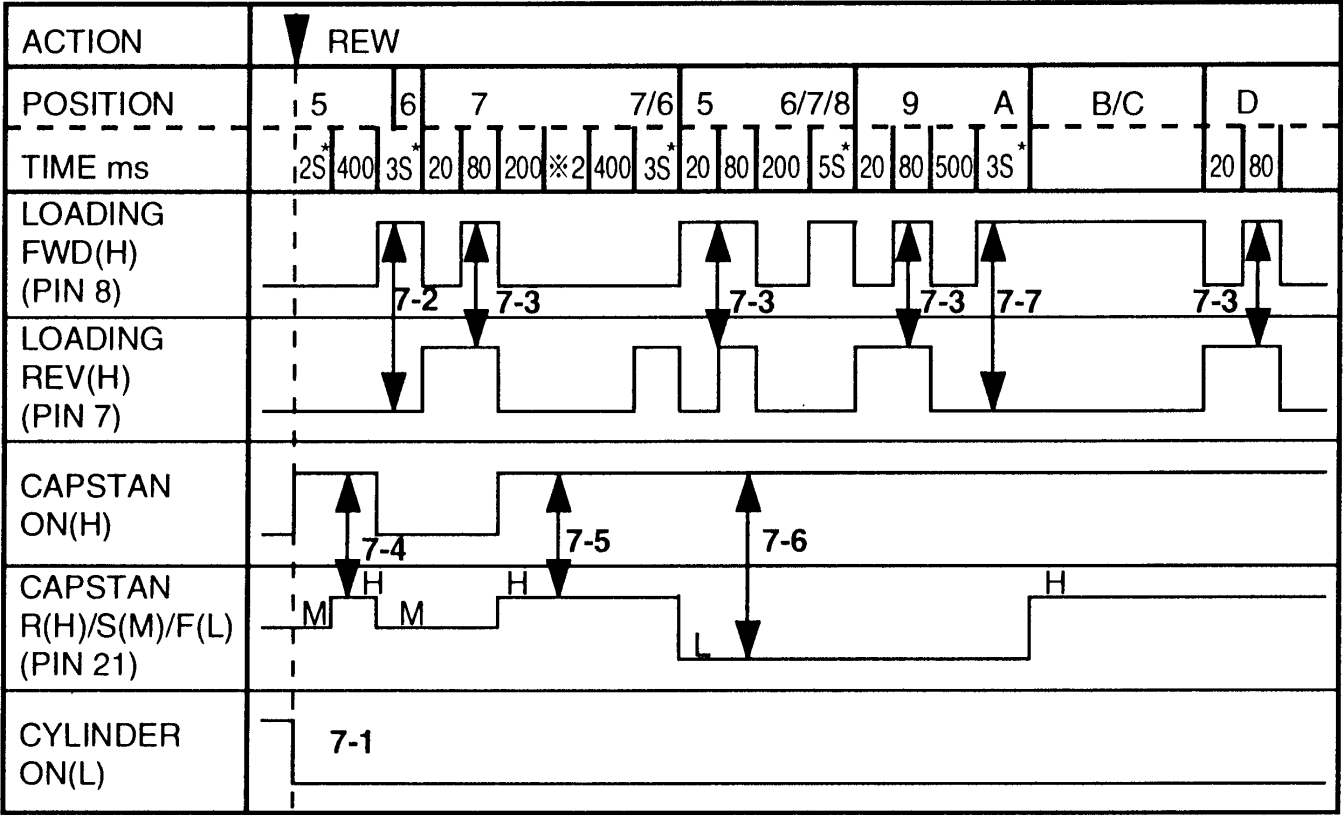
- 6-5. Changes the mechanism position to D(FF/REW).

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

TIMING CHARTS (Continued)

Stop To Rewind

TIMING CHART 7



MODE BY MODE OPERATION

7. STOP TO REW

This one time operation is performed at REW or FF to fix the FF/REW speed.

- 7-1. The Cylinder Motor starts rotation.
- 7-2. Changes the mechanism position to 7(REV).
- 7-3. Apply a brake to the Loading Motor.
- 7-4. The Idler Arm Unit swings over to Supply Reel.
- 7-5. The Capstan Motor starts rotation in a reverse direction.  
Check the reel size of cassette tape at ※2 while the speed gradually increases . FF/REW speed is adjusted according to reel size.
- 7-6. The Idler Arm Unit swings over to Takeup Reel, and takeup tape slack.
- 7-7. Changes the mechanism position to D(FF/REW).

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

## TIMING CHARTS (Continued)

Stop To Fast Forward/Rewind

## TIMING CHART 8

| ACTION                                | FF/REW |       |  |    |    |     |  |     |  |    |   |  |    |    |     |
|---------------------------------------|--------|-------|--|----|----|-----|--|-----|--|----|---|--|----|----|-----|
| POSITION                              | 5      | 6/7/8 |  | 9  |    | A   |  | B/C |  |    | D |  |    |    |     |
| TIME ms                               | 2S*    | 5S*   |  | 20 | 80 | 500 |  | 3S* |  | 20 |   |  | 80 | 60 | 200 |
| LOADING<br>FWD(H)<br>(PIN 8)          |        |       |  |    |    |     |  |     |  |    |   |  |    |    |     |
| LOADING<br>REV(H)<br>(PIN 7)          |        |       |  |    |    |     |  |     |  |    |   |  |    |    |     |
| CAPSTAN<br>ON(H)                      |        |       |  |    |    |     |  |     |  |    |   |  |    |    |     |
| CAPSTAN<br>R(H)/S(M)/F(L)<br>(PIN 21) |        |       |  |    |    |     |  |     |  |    |   |  |    |    |     |
| CYLINDER<br>ON(L)                     |        |       |  |    |    |     |  |     |  |    |   |  |    |    |     |

## MODE BY MODE OPERATION

## 8. STOP TO FF/REW

- 8-1. The Cylinder Motor starts rotation.
- 8-2. Changes the mechanism position to 9(PLAY).
- 8-3. Apply a brake to the Loading Motor.
- 8-4. Takeup tape slack.
- 8-5. Changes the mechanism position to D(FF/REW).

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

## TIMING CHARTS (Continued)

Fast Forward/Rewind To Stop

## TIMING CHART 9

|                                 |      |       |    |    |      |       |    |    |     |       |     |     |    |    |  |
|---------------------------------|------|-------|----|----|------|-------|----|----|-----|-------|-----|-----|----|----|--|
| ACTION                          | STOP |       |    |    |      |       |    |    |     |       |     |     |    |    |  |
| POSITION                        | D    | C     | B  |    |      |       | A  | 9  |     | 8/7/6 |     | 5   |    |    |  |
| TIME ms                         | 220* | 1.5S* | 20 | 80 | 1500 | 1.5S* | 20 | 80 | 650 | 5S*   | 200 | 5S* | 20 | 80 |  |
| LOADING FWD(H) (PIN 8)          |      |       |    |    |      |       |    |    |     |       |     |     |    |    |  |
| LOADING REV(H) (PIN 7)          |      |       |    |    |      |       |    |    |     |       |     |     |    |    |  |
| CAPSTAN ON(H)                   |      |       |    |    |      |       |    |    |     |       |     |     |    |    |  |
| CAPSTAN R(H)/S(M)/F(L) (PIN 21) |      |       |    |    |      |       |    |    |     |       |     |     |    |    |  |
| CYLINDER ON(L)                  |      |       |    |    |      |       |    |    |     |       |     |     |    |    |  |

## MODE BY MODE OPERATION

## 9. FF/REW TO STOP

- 9-1. Changes the mechanism position to B(BRAKE).
- 9-2. The Capstan Motor stops.
- 9-3. Apply a brake to the Loading Motor.
- 9-4. (FF TO STOP operation:) The Idler Arm Unit swings over to Supply Reel.  
(REW TO STOP operation:) The Idler Arm Unit swings over to Takeup Reel.
- 9-5. (Without 0 search function:) Takeup tape slack.  
(With 0 search function:) Forward to precise 0 count position within 5 seconds and stops.
- 9-6. Changes the mechanism position to 9(PLAY).
- 9-7. Changes the mechanism position to 5(STOP).

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

## TIMING CHARTS (Continued)

Play/Record To Stop (After Five (5) Minutes)

## TIMING CHART 10

| ACTION                          | STOP          | 5 MINUTES |
|---------------------------------|---------------|-----------|
| POSITION                        | 9 8/7/6 5     |           |
| TIME ms                         | 200 5S* 20 80 |           |
| LOADING FWD(H) (PIN 8)          |               | 10-2      |
| LOADING REV(H) (PIN 7)          | 10-1          |           |
| CAPSTAN ON(H)                   |               |           |
| CAPSTAN R(H)/S(M)/F(L) (PIN 21) | L M           |           |
| CYLINDER ON(L)                  |               | 10-3      |
| AUDIO MUTE(H) (PIN 6)           | PLAY          |           |
|                                 | REC           |           |
| PB(L) (PIN 9)                   |               |           |

## MODE BY MODE OPERATION

## 10. PLAY/REC TO STOP/AFTER 5 MINUTES

10-1. Changes the mechanism position 5(STOP).

10-2. Apply a brake to the Loading Motor.

At this position, the Pressure Roller and the Tension Arm are released to reduce the tape tension.

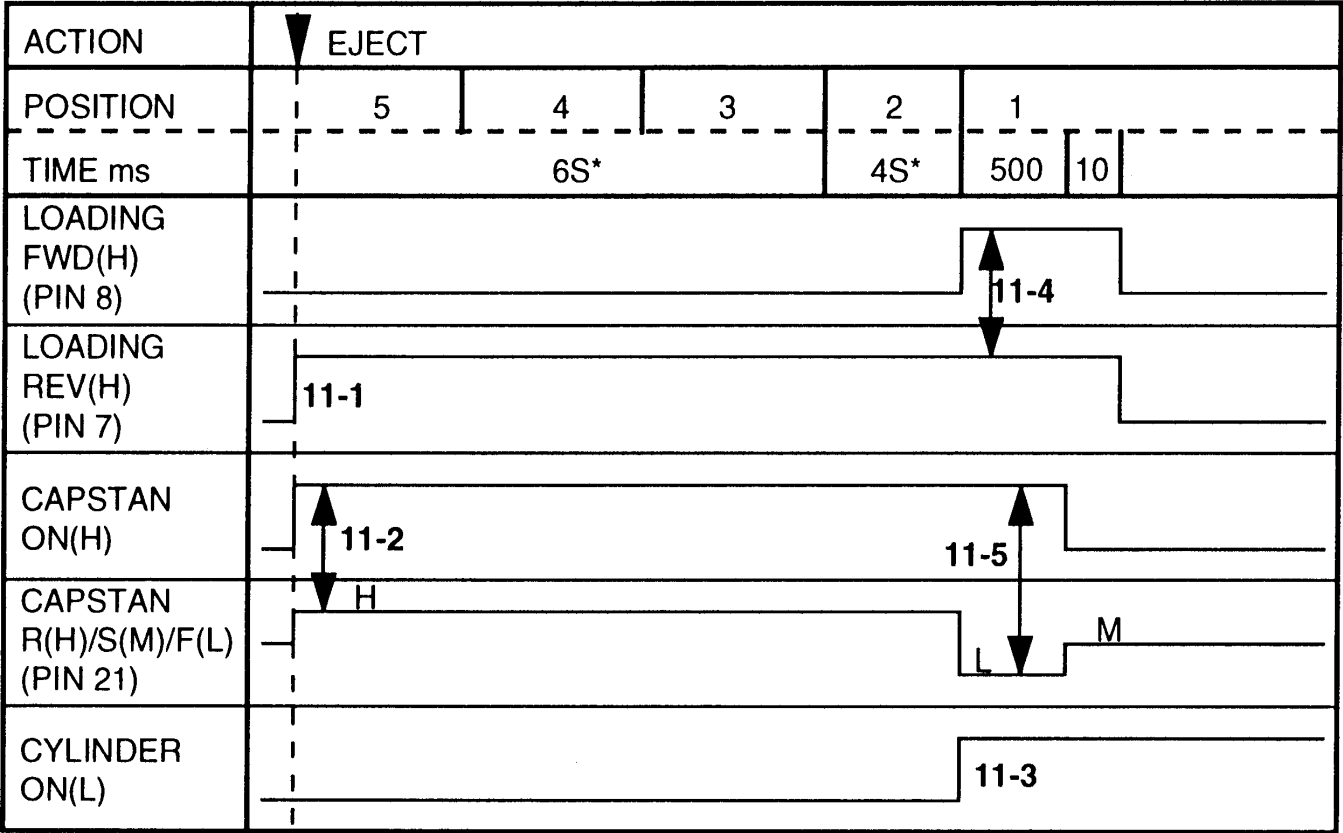
10-3. After 5 minutes, the Cylinder stops.

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME

TIMING CHARTS (Continued)

Stop To Eject

TIMING CHART 11



MODE BY MODE OPERATION

11. STOP TO EJECT

- 11-1. Unloads the mechanism position to 1(EJECT).
- 11-2. The Capstan Motor rotates in reverse direction to takeup tape slack.
- 11-3. When the Mode Switch reaches position 1, the Cylinder stops.
- 11-4. The Loading Motor stops.
- 11-5. The Idler Arm Unit is released from Supply Reel.

( If the mechanism does not reach position 2 from position 5 within 6 seconds, the unit shuts off. If the mechanism does not reach position 1 from position 2 within 4 seconds, the mechanism moves to position 5(STOP).

NOTE: PIN NUMBERS IN PARENTHESES ( ) REFER TO PIN NUMBERS OF IC6001  
THE STAR (★) SYMBOL INDICATES MAXIMUM TIME