1-1. GENERAL

1-2. This change contains information which should be added to the instruction manual (S79 3-73) for the Series 79 Recorder, part number 79000A000.

1-3. EFFECTIVITY

1-4. This change applies to manuals for all Series 79 Recorders.

1-5. SECTION VI

1-6. Change Section VI schematics as follows:

- **Figure 6-1**, page 6-3/6-4:
  - ADD JUMPER AS SHOWN

- **Figure 6-2**, page 6-5/6-6. C16 is 150, 15V, R26 is 120K.

- **Figure 6-4**, page 6-9/6-10. Connect two IN4004 as follows:
  1. Cathode to (U, V), anode to (D, E).
  2. Cathode to (X, W), anode to (N, M).

- **Figure 6-5**, page 6-11/6-12. Connect two IN4004 as follows:
  1. Cathode to R2 (+28), anode to emitter of Q7.
  2. Cathode to R1 (+28), anode to emitter of Q3.

- **Figure 6-10**, page 6-21/6-22. Change R64 to 120 and C43 to 47, 20V. Delete CR17. CR16 is STB 567.

S79 5-73
MODIFYING M-79 FOR IMPROVED HIGH FREQUENCY RESPONSE AT 7½ IPS

PURPOSE: To preclude the necessity of readjusting bias when switching between 7½ ips and 15 ips.

NOTE: If machine is used at 30 ips or CCIR with these modifications, C-23 should be shorted with a jumper wire.

PARTS NEEDED PER TRACK:

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-A</td>
<td>Reed Relay - SPDT - 24-28V</td>
<td>1 ea.</td>
<td>$38.00 Ea.</td>
</tr>
<tr>
<td></td>
<td>83-1550-3620-1 or equivalent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-13</td>
<td>33K ¼ watt resistor 83-9520-2109-1</td>
<td>1 ea.</td>
<td>.45 Ea.</td>
</tr>
<tr>
<td>R-A</td>
<td>750 ohm ½ watt resistor 83-1520-7357-9</td>
<td>1 ea.</td>
<td>.35 Ea.</td>
</tr>
<tr>
<td>R-41A</td>
<td>200 ohm variable resistor 83-1520-1572</td>
<td>1 ea.</td>
<td>5.30 Ea.</td>
</tr>
</tbody>
</table>

PROCEDURE:

1. Remove Q-20, R-13, R-19, CR-9 and discard.
2. Remove any jumper connected to points E-10 through E-13.
3. Remove TP-2 (white) from board. Use care in not lifting pads from pc board (see figure 1).
4. R-41-A will be mounted in place of TP-2. Clip off rear lead of R-41-A. Drill a hole midway between and slightly above TP-2 mounting holes. This hole and forward most hole will be used to mount R-41-A (see figure 1).
5. Locate trace running from R-42 to wiper of R-41. Cut this trace about an inch from R-42.
6. Drill a hole behind bottom lead of C-14 (erase trimmer). Do not drill through any traces.
7. Locate same trace as in Step 5 and drill a hole into this trace between C-14 and Q-16 (see figure 1).

8. Mount relay K-A on a piece of perf board and mount the perf board to the mounting screws of Q-16 and Q-17 using two 6-32 nuts (see figures 1 and 2).

9. Install new R-13 (33K ohm).

10. Install CR·A into holes from which R-19 was removed.

11. Install R-A (750 ohm) between E-11 and E-12.

12. Connect a pair of wires to coil of relay K-A and route across top of board to terminals E-11 and E-12. Connect one wire to E-11 and the other to E-12.

13. Connect a wire from the wiper of K-A to R-42. Connect to the end of R-42 closest to the relay.

14. Connect a wire from the normally closed contact of K-A to trace going to wiper of R-41 through hole drilled in Step 7 above.

15. Install R-41-A in location vacated by TP-2 (a drop of selastic will hold it in place).

16. Connect a wire from the normally open contact of R-A (through hole drilled in Step 6 above) to the wiper of R-41-A.

17. Connect a wire from front term of R-41-A to front term of R-41.

18. Fill in (with solder) the rear mounting hole of TP-2. This trace must not be broken.

19. Place signal brd on extender card and install in machine.

20. Place machine in record at low speed and monitor the wiper of R-41 with scope. A bias waveform should be visible.

21. Switch recorder to high speed (maintaining record mode); bias waveform should disappear. Switch scope to wiper of R-41-A; bias should be present.

NOTE: If bias is the reverse of Steps 20 and 21, the wires going to the normally open and normally closed contacts of K-A should be reversed.
22. Monitor TP-1 with VTVM (record mode) and adjust R-121 for 1.2V RMS (1 volt on 24 track).

NOTE: Before continuing with record alignment, reproduce alignment should be checked and adjusted if necessary.

23. To align bias the upper bias adjust R-41 is used for low speed and the lower R-41-A for high speed.

24. The bias must be adjusted (using appropriate pot) for 5dB overbias at 15kHz for any speed (including 7½ ips).

Typical record response with above bias settings are:

- 7½ ips (-10VU input) flat to 15kHz -3VU 19kHz
- 15 ips (0VU input) flat to 20kHz -3VU 24kHz
- 30 ips (0VU input) flat to 20kHz -3VU 24kHz
Drill 4 each holes at X marks to clear connecting wires.

Relay mounting holes - relay pin clearance (For relay in parts list)

.144" holes 2 places

To New Circuit Configuration

To +30V

To Emitters Q14 & Q15

Relay mounting board actual size - top shown
SUBJECT: Modification to Eliminate Possible Sync Oscillation

APPLICABLE TO: All M-79 Professional Audio Recorders

Procedure:

1. Remove power from machine.
2. Remove Track 1 Signal Electronics board from housing.
3. Remove L-10, 100uh coil and replace with 110 ohm, 1/4W, 5% resistor (Mincom Catalog No. 83-9520-2131).
4. Remove C-54, .0047uf capacitor and replace with 75 k ohm, 1/4W, 5% resistor (Mincom Catalog No. 83-9520-2171).
5. Repeat steps 3 and 4 for each Signal Electronics board in the particular M-79 that is to be modified.
6. Change Signal Electronics board schematic to reflect these changes.

Code GM21519

October 1973
Subject: M-64 Quick Start Mode Modification
Applicable to: Only M-64 Professional Audio Recorders set for 7 1/2 & 15 ips Operation.

Procedure:
I. Un solder wire from TB1-3. Splice a wire on the wire just removed of sufficient length to reach TB2-1. This will now place the ingoing & outgoing pressure idler solenoids in parallel.
II. Remove tape transport shrouding to gain access to ingoing idler dashpot. Remove Truarc that secures dashpot linkage to transport casting.
III. Remove Idler dampening arm and dashpot piston. Replace transport shrouding.
IV. Install .050 inch shims and glue to trim casting using contact cement. Position shims per diagram in Figure 1.

Note: Mincom Catalog number for shim is: 83-3230-0650

July 1972
Subject: DOLBY interface with M-79 Professional Audio Recorder

Applicable to: M-79 Record which interface with DOLBY M series or DOLBY A-type units.

Purpose: Provide remote connection of DOLBY units to M-79 recorder

Remote connection of M series DOLBY units to M-79 (see figure 1).

1. Connect pin A-2 of each channel signal electronics pc board to pin 3 of the DOLBY unit through a suitable connector on the recorder chassis.

2. Connect pin B-22 bus on signal electronic pc board pin 2 of all DOLBY units.

3. Insure R102 and R108 in CAT 44 Interface Module are 6.8 K ohms (earlier models had 2.7 K ohm or 3.3 K ohm resistors); if the resistors are not the correct values, replace them with resistors of the correct value.

NOTE: Increasing the resistor values to 6.8 K ohms increases remote sensitivity to 6 volts "ON" and 4 volts "OFF".

4. Correct operation is when the voltage between pin 2 and pin 3 of the DOLBY unit is 10.5 volts "ON" and 0 volts "OFF".

Signal Electronics PC B Connector

CH 1 A2 Lamp test

CH-2 A2 Lamp test

BUSS B22 Lamp test

July 1973

FIGURE 1
Remote connection of A-type DOLBY units to M-79 (see figure 2).

1. Connect a jumper between pin 6 of IC-2 (B) to pad E-26 (connects to pin B-16) on signal electronics pc board.

2. Connect pin B-16 of each channel signal electronics pc board to pin 3 of the DOLBY unit through a suitable connector on the recorder chassis.

3. Connect pin B-22 bus on signal electronics pc boards to pin 2 of ALL DOLBY units.

4. Correct operation is when the voltage between pin 2 and pin 3 of the DOLBY unit is 15 volts "ON" and 0 volts "OFF".

NOTE: This configuration will also work with M series DOLBY units.

---

**Figure 2**

![Diagram showing the connection of DOLBY units to the M-79 recorder.](image-url)
# PROFESSIONAL AUDIO PRICE LIST

## SERIES 79 RECORDER/REPRODUCER

<table>
<thead>
<tr>
<th>Model</th>
<th>Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>M79/24 Track</td>
<td>83-0003-0301</td>
<td>*15 - 30</td>
<td>$28,750.00</td>
</tr>
<tr>
<td>M79/16 Track Convertible</td>
<td>83-0003-0300</td>
<td>*15 - 30</td>
<td>19,750.00</td>
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<tr>
<td>M79/8 Track Convertible</td>
<td>83-0003-0299</td>
<td>*15 - 30</td>
<td>14,750.00</td>
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<td>M79/4 Track</td>
<td>83-0003-0298</td>
<td>7.5 - 15 - 30</td>
<td>$5,725.00</td>
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<tr>
<td>M79/2 Track Convertible</td>
<td>83-0003-0297</td>
<td>7.5 - 15 - 30</td>
<td>3,725.00</td>
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<tr>
<td>M79/1 Track Convertible</td>
<td>83-0003-0296</td>
<td>7.5 - 15 - 30</td>
<td>3,325.00</td>
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<tr>
<td>M79/24 Tk, w/Input Transformer</td>
<td>83-0003-0313</td>
<td>*15 - 30</td>
<td>$29,662.00</td>
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<tr>
<td>M79/16 Tk, w/Input Transformer</td>
<td>83-0003-0312</td>
<td>*15 - 30</td>
<td>20,350.00</td>
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<tr>
<td>M79/8 Tk, w/Input Transformer</td>
<td>83-0003-0311</td>
<td>*15 - 30</td>
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<tr>
<td>M79/4 Tk, w/Input Transformer</td>
<td>83-0003-0325</td>
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<tr>
<td>M79/2 Tk, w/Input Transformer</td>
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<td>M79/1 Tk, w/Input Transformer</td>
<td>83-0003-0323</td>
<td>7.5 - 15 - 30</td>
<td>3,363.00</td>
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*Machine also capable of 7.5 - 15 ips and 5 to 45 ips variable speed

## SERIES 79 CONVERSION KITS

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<th>Model</th>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>816 Expands 8 Tk. to 16 Tk.</td>
<td>83-5990-1384</td>
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<td>$7,500.00</td>
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<tr>
<td>624 Expands 8 Tk. to 24 Tk.</td>
<td>83-5990-1382</td>
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<td>17,500.00</td>
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<tr>
<td>1624 Expands 16 Tk. to 24 Tk.</td>
<td>83-5990-1383</td>
<td></td>
<td>13,500.00</td>
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## ACCESSORIES

<table>
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<tr>
<th>Model</th>
<th>Code</th>
<th>Description</th>
<th>Price</th>
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<tbody>
<tr>
<td>Selectake</td>
<td>83-5920-1858</td>
<td>A counter/locator for all recorder/reproducer models (does not include pick up)</td>
<td>$1,050.00</td>
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<tr>
<td>Pick Up - M79</td>
<td>83-5990-1353</td>
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<td>200.00</td>
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<tr>
<td>M56</td>
<td>83-5990-1316</td>
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<tr>
<td>M64</td>
<td>83-5990-1317</td>
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<tr>
<td>Series 79 Synchronizer/Reader</td>
<td>83-5920-1935</td>
<td>A synchronizer/reader for the Series 79 Recorders</td>
<td>8,390.00</td>
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<tr>
<td>Synchronizer only</td>
<td>83-1920-1948</td>
<td></td>
<td>5,500.00</td>
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<tr>
<td>Reader only</td>
<td>83-1920-1947</td>
<td></td>
<td>2,890.00</td>
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<td>SMPTE Code Generator BE520</td>
<td>83-5920-1938</td>
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<td>2,990.00</td>
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<td>Edit Code Preamplifier</td>
<td>83-1930-3478</td>
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<td>250.00</td>
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<td>Resolver 60 Hz</td>
<td>83-5990-1413</td>
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<td>450.00</td>
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<tr>
<td>19&quot; Rack Mount Adapter</td>
<td>83-1210-0011</td>
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<td>100.00</td>
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<tr>
<td>M79 Input Transformers</td>
<td>83-3540-1373</td>
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<td>33.00</td>
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<tr>
<td>M79 1&quot; Guide Conversion Kit (does not include base)</td>
<td>83-5990-1495</td>
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<td>145.00</td>
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<td>Transport Remote Control M79</td>
<td>83-5920-1939</td>
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<tr>
<td>1/4&quot; Guide Assembly</td>
<td>83-5990-1507</td>
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<td>99.00</td>
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<tr>
<td>Vega Cordless Microphone</td>
<td>AV 71/72 (154.6 MHz)</td>
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<td>595.00</td>
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<tr>
<td></td>
<td>AV 71/72A (151.953 MHz)</td>
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<td>595.00</td>
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<tr>
<td></td>
<td>AV 71/72B (151.625 MHz)</td>
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<td>595.00</td>
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<tr>
<td>Vega Microphone Carrying Case</td>
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<td>8156A Flutter Meter (with DIN Weighting)</td>
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<td>8100A.W Flutter Meter</td>
<td>83-5990-1298</td>
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<td>$2,295.00</td>
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</table>
SERIES 79 AUDIO HEADS

- 2" 24 Tk. Full Set Mounted: 83-5950-1810 ($4,622.00)
- 2" 24 Tk. Erase Head: 83-0001-0351 ($1,107.00)
- 2" 24 Tk. Record Head: 83-0001-0350 ($1,547.00)
- 2" 24 Tk. Playback Head: 83-0001-0349 ($1,768.00)

- 2" 16 Tk. Full Set Mounted: 83-5950-1798 ($3,351.00)
- 2" 16 Tk. Erase Head: 83-0001-0417 ($789.00)
- 2" 16 Tk. Record Head: 83-0001-0416 ($1,102.00)
- 2" 16 Tk. Playback Head: 83-0001-0415 ($1,260.00)

- 1" 8 Tk. Full Set Mounted: 83-5950-1799 ($1,863.00)
- 1" 8 Tk. Erase Head: 83-0001-0423 ($415.00)
- 1" 8 Tk. Record Head: 83-0001-0422 ($582.00)
- 1" 8 Tk. Playback Head: 83-0001-0421 ($666.00)

Mount Plate for Series 79 Eight, Sixteen, and Twenty-Four: $200.00

- 1/2" 4 Tk. Full Set Mounted: 83-5950-1800 ($878.00)
- 1/4" 2 Tk. Full Set Mounted: 83-5950-1801 ($564.00)
- 1/4" Mono Full Set Mounted: 83-5950-1802 ($370.00)

Mount Plate for Series 79 Four, Two, and Mono: $162.00

MODEL 500 SERIES AUDIO HEADS

- 2" 16 Tk. Full Set Mounted: 83-5950-1366 ($3,341.00)
- 2" 16 Tk. Erase Head: 83-5950-1369 ($789.00)
- 2" 16 Tk. Record Head: 83-5950-1367 ($1,102.00)
- 2" 16 Tk. Playback Head: 83-5950-1368 ($1,260.00)

- 1" 8 Tk. Full Set Mounted: 83-5950-1422 ($1,853.00)
- 1" 8 Tk. Erase Head: 83-5950-1592 ($415.00)
- 1" 8 Tk. Record Head: 83-5950-1601 ($582.00)
- 1" 8 Tk. Playback Head: 83-5950-1610 ($666.00)

Mount Plate for Model 500 Eight and Sixteen Tracks: $190.00

MODEL 400 SERIES AUDIO HEADS

- 1" 8 Tk. Full Set Mounted: 83-5950-1235 ($1,798.00)
- 1" 8 Tk. Erase Head: 83-5950-1592 ($415.00)
- 1" 8 Tk. Record Head: 83-5950-1601 ($582.00)
- 1" 8 Tk. Playback Head: 83-5950-1610 ($666.00)

- 1/2" 4 Tk. Full Set Mounted: 83-5650-1230 ($828.00)
- 1/2" 4 Tk. Erase Head: 83-5950-1787 ($179.00)
- 1/2" 4 Tk. Record Head: 83-5950-1596 ($250.00)
- 1/4" 4 Tk. Playback Head: 83-5950-1606 ($287.00)

- 1/4" 2 Tk. Full Set Mounted: 83-5950-1228 ($514.00)
- 1/4" 2 Tk. Erase Head: 83-5950-1585 ($100.00)
- 1/4" 2 Tk. Record Head: 83-5950-1594 ($140.00)
- 1/4" 2 Tk. Playback Head: 83-5950-1603 ($162.00)

- 1/4" 1 Tk. Full Set Mounted: 83-5950-1227 ($320.00)
- 1/4" 1 Tk. Erase Head: 83-5950-1584 ($49.00)
- 1/4" 1 Tk. Record Head: 83-5950-1593 ($74.00)
- 1/4" 1 Tk. Playback Head: 83-5950-1602 ($85.00)

Mount Plate for Model 400 Full, Two, and Four Tracks: $112.00

Mount Plate for Model 400 Eight Track: $135.00

NOTICE: Prices subject to change without notice.