To modify an Ampex 440C transport so it can be used with 440B or 440 electronics:

1. This modification is done in the TRANSPORT CONTROL BOX. The transport should be vertical, resting on the reel motor bells and the power box ("bottom-up").

2. Remove the cage around the reel-tension resistors. Remove the bottom plate to the transport control box.

3. Carefully remove the screws that secure the motion-sensing/lifter-delay board. Remove the PC board and fiber / cardboard insulator. Set them safely aside being sure to protect the PWA from static.

4. The three areas where the modifications take place are: a) the POWER SUPPLY CONNECTOR (J606); b) the REMOTE/DUMMY JACK CONNECTOR (J605); and c) the area around the RECORD BUTTON, specifically the record button itself and the wiring harness containing a 35V electrolytic capacitor.



5. First, disconnect the diode from PIN 7 on J606. It's recommended to do NON-DESTRUCTIVE MODIFICATIONS, so therefore it's not recommended to remove the diode's other end. Use heat-shrink tubing to insulate the cut end and fold the diode out of the way.

6. Disconnect the wire from PIN 8 on J606. Insulate the end of the wire and fold it out of the way.

7. At the record button, cut the red / white wire AND jumper from the button to the wiring harness with the 35V electrolytic on it. Either insulate the end of the jumper and fold it out of the way, OR connect the red/white wire to that end, being sure to insulate the newly soldered joint. An alternative to soldering the red / white wire to the end of the jumper is to solder the wire to the opposite end of the jumper, at the terminal strip near its associated electrolytic capacitor. At ths point, there's only one original wire connected to one of the two lugs of the record switch. The other

lug does not yet have anything connected to it.



8. Wire a jumper from the now-empty end of the record button to PIN 8 on J606. DO NOT YET SOLDER PIN 8!

9. Wire an insulated jumper from PIN 6 of J605 to PIN 8 of J606. NOW, SOLDER THE CONNECTIONS TO PIN 8 of J606.

10. Wire an insulated jumper from PIN 7 of J605 to PIN 7 of J606.

11. Reassemble, being sure to correctly position the insulator prior to inserting the motion sensing PWA into its edge connector. Reinstall the two mounting screws through the PWA.

Explanation of the circuit change:

In an unmodified "C", the low side of record relay's coil in each signal chassis is 'grounded' when energized by the RECORD button in the transport control box. In unmodified 440s & 440B's, the HOT side of the relay is provided +DC from the transport's RECORD button. By making this change, the "C's" RECORD button gets its DC + from the + side of the PLAY RELAY coil: the logic being that the RECORD RELAY should only be operational when the PLAY RELAY is active. This occurs via PIN 4 of J606. Once activated, the RECORD

RELAY latches to the DC+ source via one of its poles and PIN 8 of J606. PIN 7 of J606 connects the DC- to the record relay. This modification does not interfere with the motion sensing circuits.

Worked out on Tuesday, July 29, 2003 by Art Shifrin, with Tom Fine assisting in Shiffy's backyard, with Satchmo & Hudson romping in the nearby wading pool.

Woof Woof

