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Model CP500
Random Projector Changeover in Optical Formats
Cat. No. 661 Optical Preamp Modification

Conditions
This bulletin applies if:
• Your installation uses the sustained contact command on pin 3 of the 9 pin D-connector labelled “Motor Start” on the rear of the CP500. In other words, a latching relay is used for sound changeover. Or:
• Your installation uses a platter, and a sustained contact from a relay is used to mute sound by changing over to the non-existent projector.

Symptom
The CP500 changes over to the other projector randomly while in an optical format.

Note: This modification is effective only in two-projector installations. If your theatre is equipped with a single projector and platter, and you do not perform sound changeovers using the CP500 then there is no need to perform this modification.

Parts Needed
This modification involves removing IC 509 located on the Cat. No. 661 card and adding a resistor in its place. A 1kΩ ¼ Watt resistor is required.

Results of this Modification
After this modification is performed, CP500 software control of optical changeover is disabled. While this modification improves the reliability of the existing changeover system during normal operation, it disables the projector select function used for A-chain alignment. During alignment you must manually changeover to the desired projector. For example, when adjusting Dolby level or preamp EQ, it does not matter which projector you select via the software projector select screen. The projector selected by the sound changeover button is the one being adjusted. The CP500 screen will always indicate correctly which settings are being changed during the alignment procedure.

Note the CP500 "Formats” screen will always correctly display the projector selected during normal operation.
Procedure

1. Switch off the CP500 then remove the Cat. No. 661 board. **Components on this board are sensitive to static electricity. To avoid static damage, touch the chassis of the unit before handling this board.** Preferably wear an earthed wrist strap and place the board on an anti-static mat or unused platter disk.

2. With the connector oriented to the right hand side, the location of IC509 is shown in this photograph. The IC has a printed label.

3. Remove the IC. IC509 is mounted in a socket in most boards. **If IC509 is soldered into your board then carefully cut each lead to remove the IC.**

4. Cut the leads of a 1kΩ ¼ Watt resistor and bend them so that the resistor plugs neatly into pins 17 and 20 of the empty IC socket. Cutting the leads short avoids the possibility of them shorting to other pins when inserting the board. It is not necessary to solder the resistor into the socket if the leads are short.

5. Re-install the board into the CP500.

6. Remove the 9-pin D-connector from the “Motor Start” location on the rear of the CP500. If present, remove the hood cover from the connector. Remove the wire from pin 3 (changeover relay) and from pin 5 (ground). Be sure not to disconnect any other wiring as you do this, particularly other wires that might be connected to pin 5. Re-plug the D-connector into the “Motor Start” location.

7. Remove the 25-pin D-connector from the “Automation” location on the rear of the CP500. If present, remove the hood from the connector. Solder the two wires removed in the previous step to pin 25 (proj. status) and 12 (ground). Re-plug the D-connector into the “Automation” location.

8. Re-apply power to the CP500 and confirm that the unit functions properly with sound changeover control.