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# D Dolby

**Installation Manual** 

Remote Units for the CP650 Digital Cinema Processor:

Cat. No. 779 Remote Control

#### Cat. No. 771 Remote Fader

Issue 1 Part Number 91733

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### Chapter 1 Introduction

This manual covers installation of both the Cat. No. 779 Remote Control and the Cat. No. 771 Remote Fader.

- No more than three remote units (in any combination) may be used with a CP650. A customer-supplied auditorium fader can be connected in addition to the remotes, but it cannot be operated at the same time as any remote.
- The combined length of connecting cable to all the remote units should not exceed 100 m (300 ft).
- When you connect one or more of the remote units to the CP650, all the units are live and communicate with each other. Any fader level adjustment changes the display on all of the connected units.

Before installing any remote units, check the software version running in your CP650.

#### 1.1 Check Software Version

On the front panel of the CP650, hold the left-hand menu button down and rotate the fader level knob clockwise until the display reads:

About this CP650: System v.X.X.X.X

The version number must be 1.1.5.0 or later. If it is not, contact Dolby Laboratories for a free software upgrade before proceeding with installation. Press the lit **format** button to return the CP650 to normal operation.

#### **1.2 The Remote Control**

The Cat. No. 779 Remote Control is used in a system incorporating the CP650. You can use the remote control for ready access to features of the rack-mounted CP650.

You can mount the remote control in a console or on a wall, or it can stand alone.





The remote control features include:

- Fader level display
- Fader knob for overall level control
- A mute button that operates without affecting fader settings
- Format buttons to select the sound format
- Projector signal indicators that display which projector is currently providing the signal to the CP650
- A simple three-wire interface to the CP650

#### 1.3 The Remote Fader

The Cat. No. 771 Remote Fader includes the fader knob and level display.



Figure 1-2 The Remote Fader

### Chapter 2 Installing Cat. No. 779 Remote Control

Installing the remote control is a six-part process:

- 1. Removing the housing
- 2. Making a hole for the interface wire
- 3. Connecting to the circuit board
- 4. Setting the address switch
- 5. Reattaching the housing
- 6. Connecting to the CP650

### 2.1 Removing the Housing

To remove the housing:

1. Hold the plastic front panel firmly with both hands on either side of the unit, and pull one side.

The front panel snaps away from the circuit board and housing.

- 2. Remove the four screws that fasten the circuit board to the housing and store them nearby.
- 3. Remove the housing from the circuit board.

*Caution:* Do not touch circuit board components. Static electricity can damage components.

#### 2.2 Making a Hole for the Interface Wire

Use a two-conductor shielded cable (Belden 8451 or equivalent) to connect the remote to the CP650. To prevent wear on the cable from the metal edge of the hole you create, use a rubber or neoprene grommet on the cable. The diameter of the hole you make should be the same as the diameter of the cable grommet or conduit bushing.

The wire to the CP650 must run from the connection point on the circuit board without touching any circuit board components.

- If the remote control will be mounted in a console or on a wall, we recommend placing the hole in the bottom of the housing.
- If the remote control will stand alone, we recommend placing the hole in the side of the housing.
- If you must put the hole in the top of the housing, place the hole in either of the locations shown in Figure 2-1 below to ensure that the wire has sufficient clearance.



Figure 2-1 Location to Drill Wiring Hole

*Caution:* Do not drill in the front one-third of the housing (the shaded area in Figure 2-1) on any side, or the circuit board will obstruct the opening.

#### 2.3 Connecting to the Circuit Board

Thread the interface wire through the hole you made. The J1 interface connector is in the upper left-hand corner of the circuit board (as shown on the following page in Figure 2-3). Connect the wire to the J1 interface connector as shown in Figure 2-2 below.



Figure 2-2 Connecting Interface Wire to the Remote Control Circuit Board

#### 2.4 Setting the Address Switch

For the CP650 to communicate with all the remote units, each unit must be set to a unique address number on switch SW1.

Figure 2-3 below shows the location of both the J1 connector and switch SW1.



Interface connector

Figure 2-3 The Remote Control Circuit Board

Use a small flatblade screwdriver to set switch SW1. Do not set the arrow to the "0" position, because that setting generates an error message and disables the unit. It is not important what position any single unit is set to, but no two remote units can be set to the same position, so record what position you set for each unit. If your system includes only one remote unit right now, it is still a good idea to record the setting in case you add another remote later.

#### 2.5 Reattaching the Housing

If the remote control is to be mounted on a wall or in a console, mount it before reattaching the circuit board to the housing. The housing has pre-cut holes in the back panel for easy mounting.

To reattach the circuit board to the housing:

1. Carefully pull the interface cable through the hole you drilled in the housing as you bring the circuit board into position to reattach the screws that fasten it to the housing.

*Caution*: Keep the cable clear of all circuit board parts as you pull.

2. Secure the four screws you removed earlier.

You can now snap the front panel back into place. Your remote control will be ready to use as soon as you connect the interface cable to the CP650, as described in the following section.

#### 2.6 Connecting to the CP650

To connect the remote to the CP650:

1. Connect the interface cable to the green six-way bare-wire female connector (shown in Figure 2-4) that came with the CP650.

**Note:** If you cannot locate the connector, you can order one from Dolby Laboratories. Refer to part number 70206.

- Connect the +voltage wire to terminal 1.
- Connect the data signal wire to terminal 2.
- Connect the ground wire to terminal 3.

*Caution:* All remote units attach to the same positions on the connector. Do not connect wire from any Dolby remote unit to terminal 4, 5, or 6.

2. Plug the connector into the **Remotes and Aud Fader** connection port on the CP650 as shown in Figure 2-4 on the following page.



Figure 2-4 Connections of Remotes to the CP650

### Chapter 3 Installing Cat. No. 771 Remote Fader

Before installing any remote units, check the software version running in your CP650.

#### 3.1 Check Software Version

On the front panel of the CP650, hold the left-hand menu button down and rotate the fader level knob clockwise until the display reads:

> About this CP650: System v.X.X.X.X

The version number must be 1.1.5.0 or later. If it is not, contact Dolby Laboratories for a free software upgrade before proceeding with installation. Press the lit **format** button to return the CP650 to normal operation.

#### 3.2 Installing

The Cat. No. 771 Remote Fader can be mounted on a wall or in a console, or can stand alone.

To install the remote fader:

1. Remove the four screws from the corners of the front panel. Store the screws nearby and remove the rear housing.

*Caution:* Do not touch circuit board components. Static electricity can damage components.

2. Make a hole in the housing for the interface wire. We recommend you place the hole on the bottom if the remote fader will be mounted, or on a side if the fader will stand alone.

Use a two-conductor shielded cable (Belden 8451 or equivalent) to connect the remote to the CP650. To prevent wear on the cable from the metal edge of the hole you create, use a rubber or neoprene grommet on the cable. The diameter of the hole you make should be the same as the diameter of the cable grommet or conduit bushing.

- 3. Thread the interface wire and attach the +voltage, data, and ground wires to the interface connector as shown in Figure 2-4.
- 4. Use a small flatblade screwdriver to set switch SW2. Do not set the arrow to the "0" position, because that setting generates an error message and disables the unit. It is not important what position any single unit is set to, but no two remote units can be set to the same position, so record what position you set for each unit. If your system includes only one remote unit right now, it is still a good idea to record the setting in case you add another remote later.
- 5. Replace the housing, pulling the interface cable taut enough to keep it from touching any components on the circuit board.
- 6. Secure the front panel to the housing with the screws you removed in Step 1.
- 7. Connect the interface cable to the CP650 using the procedure in Section 2.6, Connecting to the CP650.

Your remote fader is ready to use.



Figure 3-1 The Cat. No. 771 Remote Fader

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