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SCIv2

SDDS Changeover Interface Instruction Manual

By Cinema Devices

4/97

Background

Cardinal's SDDS Changeover Interface (SCI) provides an easy method of installing the Sony SDDS DFP-D2000 into a 2-projector/changeover installation. The DFP-D2000 performs a sound changeover to projector 2 when a held closure is provided by a relay (or switch) on the "Automation" connector pins 2 and 14,15. Likewise, a changeover back to projector 1 is performed when the relay is released.

The Cardinal SCI is a 5-position state-machine which monitors the projector motors (via a dry contact motor sensing relay at each motor) to determine which projector is currently showing the movie and when a changeover should occur. The SCI also provides for the common practice of "jockeying" the film into position on the leader without causing a false sound changeover by the SDDS unit.

Installation

Installations that have existing Dolby® Digital systems

- If your installation already has a Dolby® Digital system, there should already be motor sensing relays installed. The SCI is designed to work in conjunction with a Dolby® Digital processor.
- You will need to obtain a 9-pin "D" *extension* (Male-Female) cable (most computer supply stores stock them).
- The SCIv2 is designed to mount onto the back of the Sony DFP-D2000 processor at the "Automation" and "Remote" connectors.
- After mounting the SCI, plug the existing motor sensing cables (J9 on the DA-10/20) into J1 on the SCI. Plug a 9-pin "D" extension cable from J2 on the SCI to J9 on the DA-10/20 (or the "Motor Start" connector on the CP-500).
- Proceed to "Final Installation"

All Other Installations

- First, you will need to mount motor sensing relays. You may use any type of low current relay with a 120VAC coil (e.g. Potter & Brumfield's KHAU17A11-120)
- At each projector, find a suitable relay mounting location and connect the relays. The coil of each relay should be connected to the AC input to the projector motor.

- Now run 2-conductor sense lines between the motor sense relays you just mounted and the soundrack. The current going through these sense lines is *very* small so 22awg gauge wire is sufficient.

- At each motor sense relay, connect the sense line by connecting one lead to the "swinger" of the relay. Connect the other lead to the "N.O." (Normally Open) contact. Only one set of contacts in a multiple contact relay has to be used.

- At the soundrack end, connect one lead from *each* sense line to the "**CMN**" terminal on TB-1 (lower right hand connector on the SCIv2).

- On the motor sense line coming from **projector 1**, connect the remaining lead to "**M1**" on TB-1.

- On the motor sense line coming from **projector 2**, connect the remaining lead to "**M2**" on TB-1.

- The SCIv2 is designed to mount onto the back of the Sony DFP-D2000 processor at the "Automation" and "Remote" connectors. Simply line up the two connectors and push the SCIv2 onto the mating connectors.

- Proceed to "Final Installation"

Final Installation

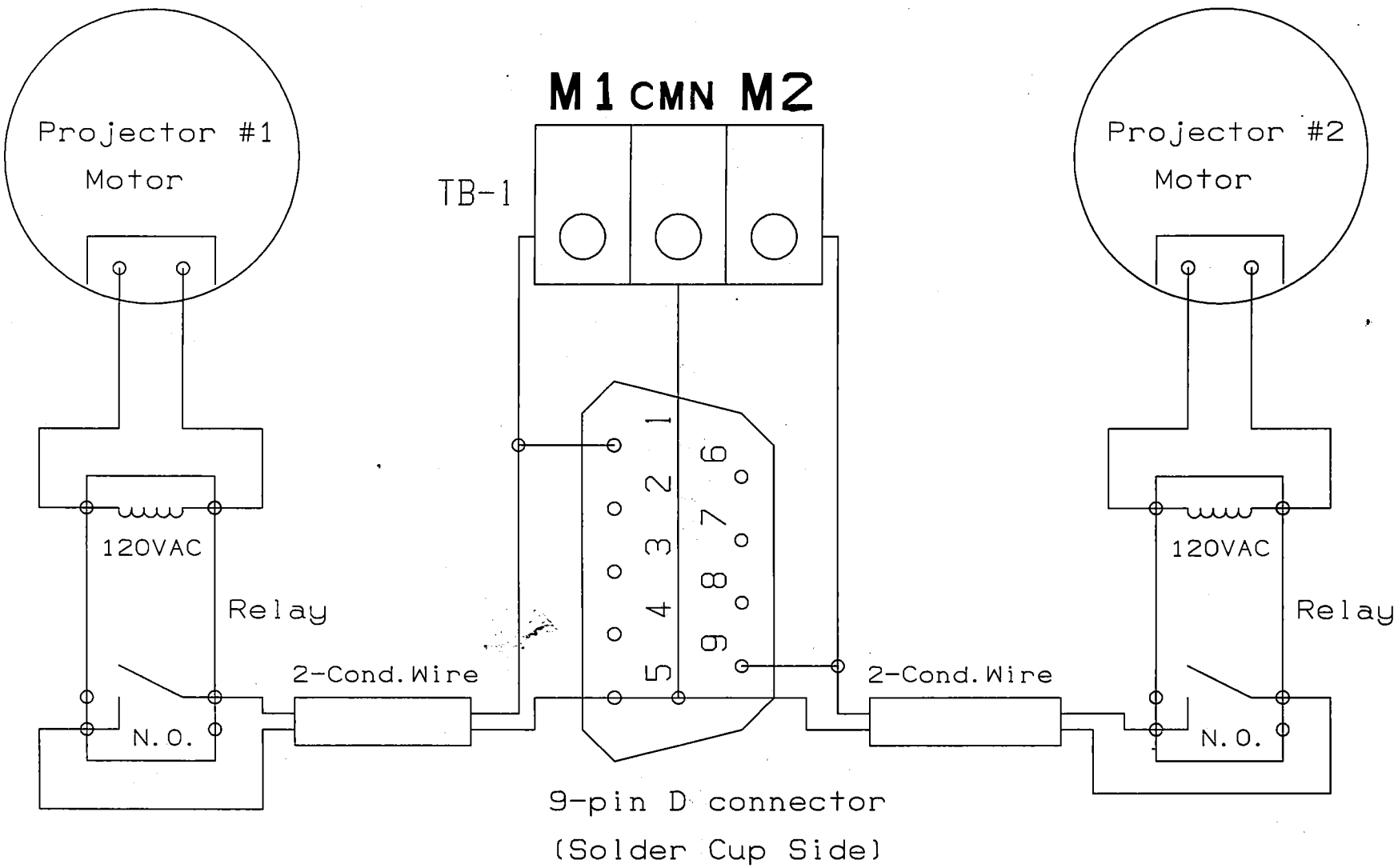
- The SCIv2 needs 15-24 volts DC supplied to it in order to operate. For most installations, the power for the SCIv2 will come from the DFP-D2000's "Remote" connector. Be sure that "J7" is set to the "Int." (internal) position. Some installers may desire to isolate the "digital ground" from the DFP-D2000 and other equipment. For this reason, there is a power jack provided on the lower-left corner of the SCIv2. To use an external power source (e.g. a 12VDC wall mount power cube) move the link at "J7" to "Ext."

This completes the installation.

Operation

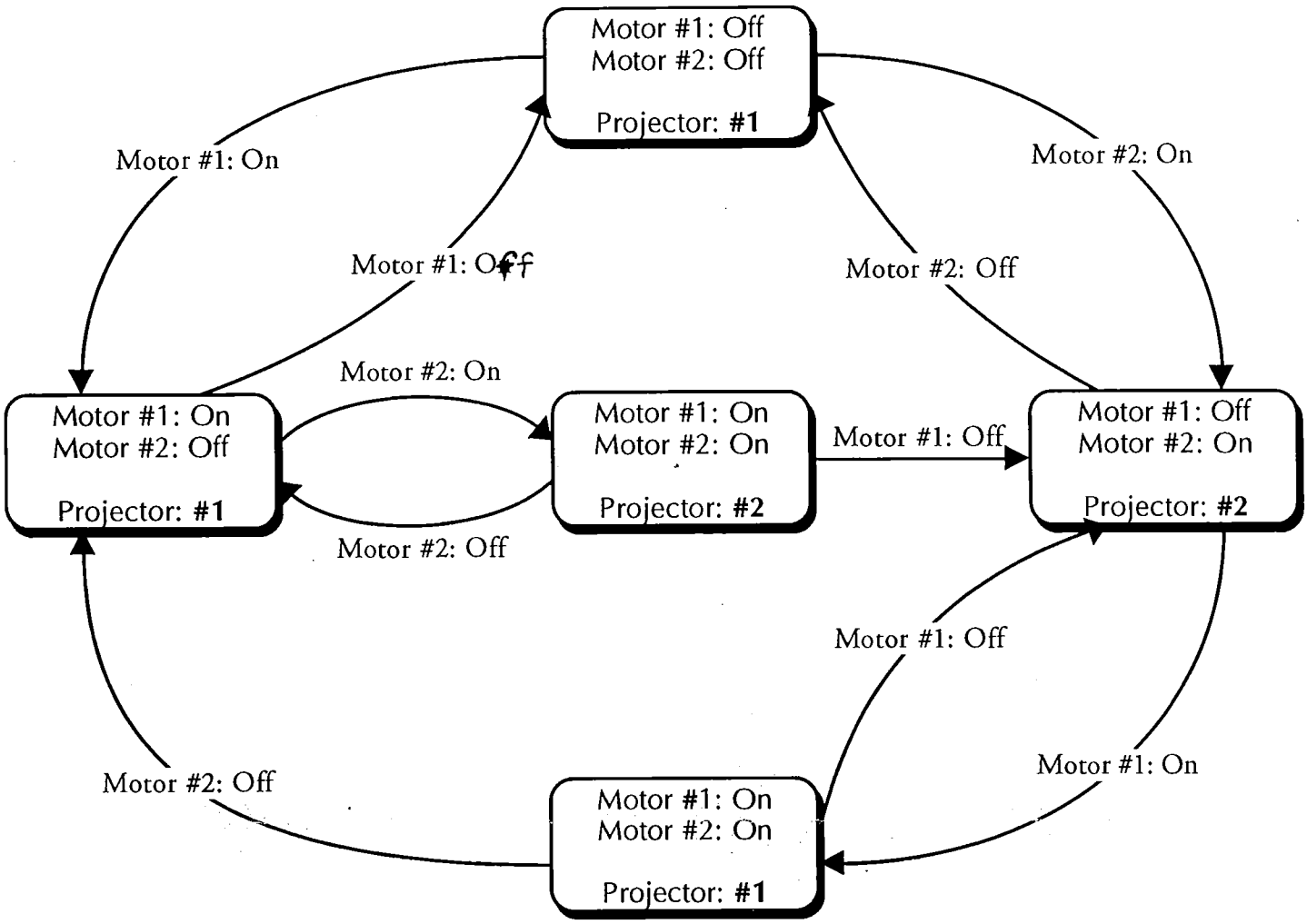
There are no controls or switches to operate on the SCI. The SCI operates automatically.

There are four LEDs on the SCI which indicate it's current status. The red LED indicates that there is power to the SCIv2. There are two green LEDs near TB-1 which indicate which projector motors are running. The amber LED towards the top of the board indicates that the SCI is telling the DFP-D2000 to go to projector 2. The remaining green LED located near the middle of the board indicates the mode of the SCI (when lit, the SCI is set up to go from projector 2 to projector 1).



Use either TB-1 or the 9-pin "D" connector

SDDS Changeover Interface State Machine



"Projector: #1" means relay "K1" **is not** energized so the SDDS unit will go to Projector #1.

"Projector: #2" means that relay "K1" **is** energized so the SDDS unit will go to Projector 2.