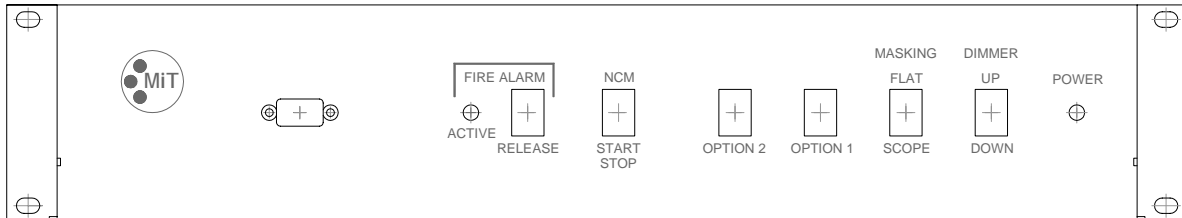


R000100

Instruction Sheet: IMC-3j Cinema Automation



Automation Front Panel

This document describes the basic functions of the Automation unit.

1. I/O

1.1 TB1 Terminal Block

TB1 is the primary interface point for inputs and outputs from the auditorium. TB1 appears at the rear of the automation tray, with a remote module connected by an umbilical cable that may be mounted in a more convenient location. The connections are the same for both, except for DC power which is connected at the internal TB only.

1. Dimmer Mid (output)
2. Dimmer Down (output)
3. Dimmer Up (output)
4. Dimmer Common
5. Audio Non-Sync (output)
6. Audio Digital (output)
7. Audio Common
8. Masking/Format Flat (output)
9. Masking/Format Scope (output)
10. Masking/Format Common
11. Fire Alarm input 1
12. Fire Alarm input 2

1.2 Serial port

The D-9 connector on the front panel is the serial port, used to communicate with the NCM preshow system.

1.3 Network (LAN) port

This port is accessed from the rear of the unit. It's the RJ-45 port labeled ETHERNET directly on the JNIOR module. The network port is used to communicate with a D-cinema server.

2. Function Tables

The following tables show the 'normal' macro names used in programming the server, and the functions that are performed, followed by the preshow and Fire Alarm function:

| Macro Name ^ | Timing | Action Description |
|----------------------------|--------|-----------------------------|
| + Preshow Start | | |
| + Preshow End | | |
| + Fathom Start | | |
| + Fathom End | | |
| + Fire Alarm | | |
| + Fire Alarm Movie Clear | | |
| + Fire Alarm Preshow Cl... | | |
| - Flat Start | | |
| PreShow Lock On | 00:00 | ROUT 5 Close |
| Half Lights | 00:01 | ROUT 1 Close Pulse 1 sec(s) |
| Masking Flat | 00:02 | ROUT 7 Close Pulse 1 sec(s) |
| Digital Audio | 00:03 | ROUT 4 Close Pulse 1 sec(s) |
| - Scope Start | | |
| PreShow Lock On | 00:00 | ROUT 5 Close |
| Half Lights | 00:01 | ROUT 1 Close Pulse 1 sec(s) |
| Masking Scope | 00:02 | ROUT 8 Close Pulse 1 sec(s) |
| Digital Audio | 00:03 | ROUT 4 Close Pulse 1 sec(s) |
| - Feature Start | | |
| Full Dim | 00:01 | ROUT 2 Close Pulse 1 sec(s) |
| - Feature Credits | | |
| Half Lights | 00:01 | ROUT 1 Close Pulse 1 sec(s) |
| - Feature End | | |
| Full Bright | 00:01 | ROUT 3 Close Pulse 1 sec(s) |
| Masking Flat | 00:02 | ROUT 7 Close Pulse 1 sec(s) |
| Non Sync Sound | 00:03 | ROUT 6 Close Pulse 1 sec(s) |
| PreShow Lock Off | 05:00 | ROUT 5 Open |

| Macro Name ^ | Timing | Action Description |
|----------------------------|--------|-----------------------------------|
| - Preshow Start | | |
| Full Bright | 00:00 | ROUT 3 Close Pulse 1 sec(s) |
| Masking Flat | 00:01 | ROUT 7 Close Pulse 1 sec(s) |
| Preshow Flat | 00:02 | Projector Send Macro preshow_flat |
| Projector Lamp On | 00:03 | Projector Lamp On |
| Projector Open Dowser | 00:04 | Projector Open Dowser |
| Non Sync Sound | 00:10 | ROUT 6 Close Pulse 1 sec(s) |
| - Preshow End | | |
| Feature Start | 00:01 | DIN 8 Soft Pulse 1 sec(s) |
| + Fathom Start | | |
| + Fathom End | | |
| - Fire Alarm | | |
| Full Bright | 00:00 | ROUT 3 Close Pulse 1 sec(s) |
| Digital Audio | 00:01 | ROUT 4 Close Pulse 1 sec(s) |
| Projector Close Dowser | 00:02 | Projector Close Dowser |
| - Fire Alarm Movie Clear | | |
| Full Dim | 00:00 | ROUT 2 Close Pulse 1 sec(s) |
| Digital Audio | 00:01 | ROUT 4 Close Pulse 1 sec(s) |
| Projector Open Dowser | 00:02 | Projector Open Dowser |
| - Fire Alarm Preshow Clear | | |
| Full Bright | 00:00 | ROUT 3 Close Pulse 1 sec(s) |
| Non Sync Sound | 00:01 | ROUT 6 Close Pulse 1 sec(s) |
| Projector Open Dowser | 00:02 | Projector Open Dowser |

3. Fire Alarm Input Compatibility and Configuration

This section relates to the Fire Alarm Relay PCB located near the rear of the Automation tray. (See Fig 3-1). The module allows compatibility with a variety of common fire alarm systems in use: contact closure, +12V, or +24V, and 'active-on' and 'active-off' logic.

CAUTION: If you're not confident about the type of fire alarm system in use at the theater, be sure to remove the jumper shunts at JP1 and JP2 prior to installing or connecting the automation to the fire system in the theater, and don't re-install them until you've determined the correct voltage in step 2 below. Otherwise you may damage components on the PCB. If you know the configuration and operating voltage of your fire alarm system, you may skip to step 3.

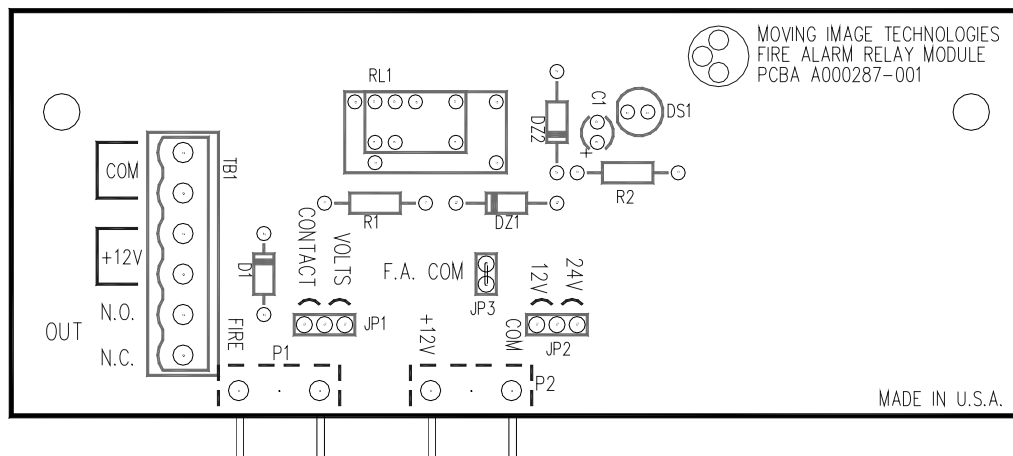
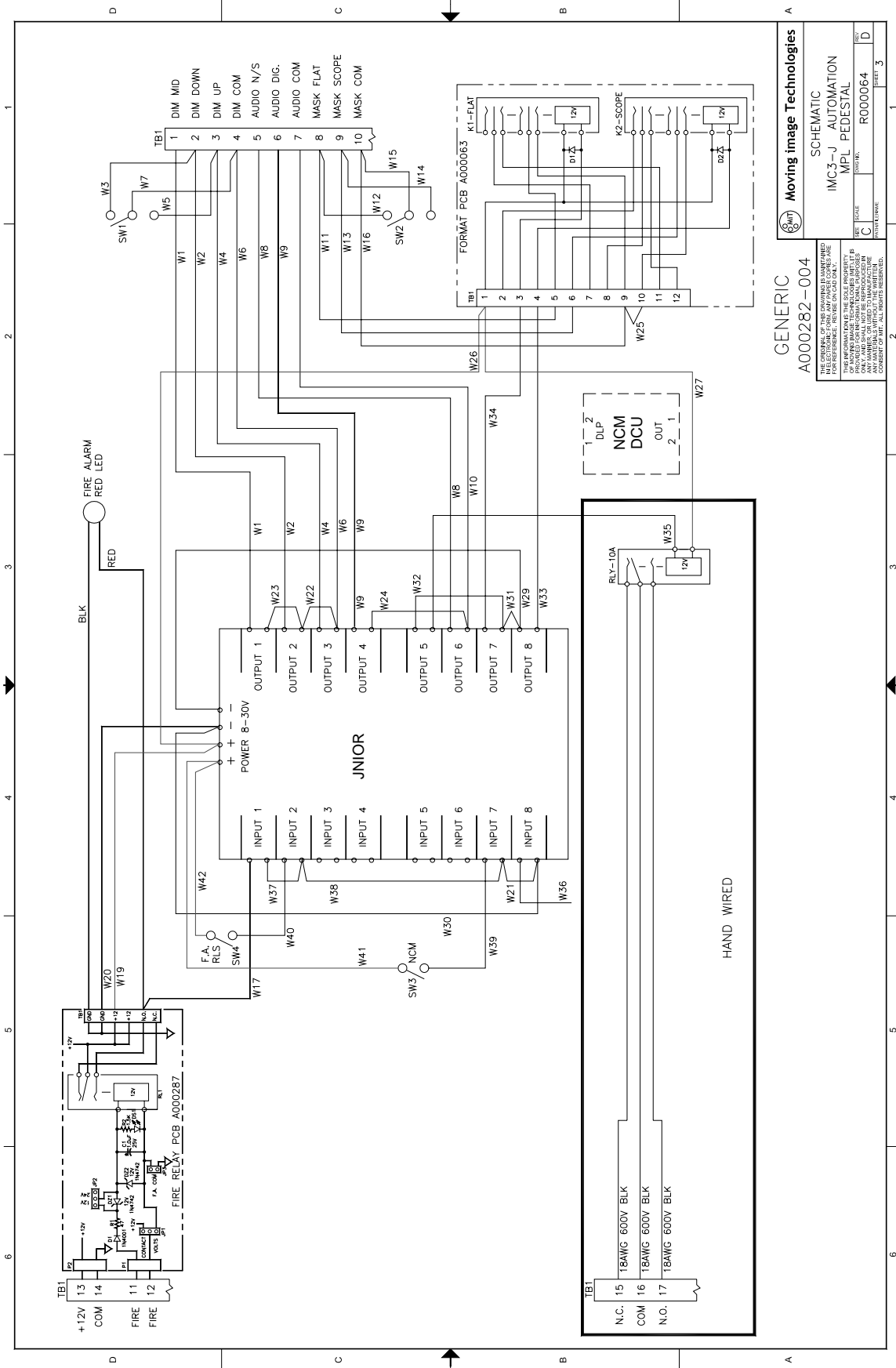


Figure 3-1

1. Remove the jumper shunts at JP1 and JP2 on the PCB.
2. Determine the signal format of the theater Fire Alarm system.
 - a. Turn on the fire system (or connect the wires to the input connector). Measure the voltage across connector P1 (or TB pins 11 and 12) with a voltmeter. If no voltage is measured, activate a fire alarm condition and measure. If the voltage measured is 18.0-24VDC (or more), install the shunt at JP1 in the position marked VOLTS and the shunt at JP2 in the position marked 24V.
 - b. If the voltage measured at P1 is under 18.0VDC, install the shunt at JP1 in the position marked VOLTS and the shunt at JP2 in the position marked 12V.
 - c. If no voltage is measured with either the alarm active or inactive, switch your meter to 'continuity' mode and check at P1 for a switch closure. If a switch closure is verified, install the shunt at JP1 in the position marked CONTACT and the shunt at JP2 in the position marked 12V.
3.
 - a. With shunts JP1 and JP2 installed, LED DS1 will now indicate when the relay RL1 is activated. Observe that when there is no fire alarm condition that DS1 does not illuminate, and when there is a fire alarm condition the LED is illuminated. If this function is observed, then white wire #17 should remain connected to TB1 at the N.O. position.
 - b. If the state of the LED is **reversed** from the description in 3a above, then wire #17 should be moved to the 'N.C.' position on TB1.

Note: DS1 always indicates when voltage is applied to the input, whether that represents a fire alarm condition or not.
4. One side of the fire alarm is tied to the common on the PCB. On some fire alarm panels this may result in a "ground fault" error being reported. If this is a problem, cut the jumper at JP3.

This completes the configuration of the Fire Relay PCB.



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A000282-004

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REV: 1
DATE: 10/11/03
REV: 2
DATE: 10/11/03
REV: 3
DATE: 10/11/03

FILE LOCATION: R000064
DRAWN: C
CHECKED: D
APPROVED: D

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Wiring Diagram