User Manual

EDI-60
Control Retrofit for
Electronics Diversified Inc. (EDI) and Cooper
Mark VII Dimmer Racks

JOHNSON SYSTEMS INC.

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Contents

Warranty

The EDI-60 retrofit control system comes with a standard two (2) year limited warranty against defects in parts and workmanship.

For details visit http://www.johnsonsystems.com/warranties.htm.

For Technical Assistance

1. Refer to your product user manual. The most current revision is available online: www.johnsonsystems.com/literature.htm.

2. Contact the "point-of-sale" dealer or distributor from which this product originally was purchased and ask for technical assistance.

3. If neither of the above can provide you with the necessary information, please contact our factory via email (info@johnsonsystems.com or phone (403-287-8003) during business hours (Monday to Friday, 8:00AM to 5:00PM MST.

JOHNSON SYSTEMS INC.

"PROFESSIONAL LIGHT CONTROL PRODUCTS"

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Introduction

The EDI-60 is a next generation retrofit electronics package designed specifically for upgrading the EDI Mark VII performance dimmer racks making system replacement completely unnecessary. This full-featured, ETL approved, state-of-the-art unit provides a direct digital interface to most of today's modern lighting communication protocols. Each EDI-60 can control up to 60 channels of dimming in an existing MARK VII rack. Multiple EDI-60's can be daisy chained together in racks with higher channel capacity. ***Typically, you will need two (2) EDI-60's to control an EDI MKVII Rack with 120-Channels.***

Designed to install in minutes with only simple hand tools, this compact and elegant package has been designed for longevity and reliability with the end-user in mind. Intuitive LCD user interface combined with a modular design makes the EDI-60 extremely user-friendly and easily serviceable.

Full featured, hi-resolution dimming with ultra-fast response. An environmentally and financially responsible solution that offers **GO GREEN** unsurpassed high performance in a matter of minutes!

Packaging & Contents

Each EDI-60 retrofit control system is shipped in a custom designed box and packaging for protection of the unit. It's recommended to keep the box and packaging stored in a safe place. In the unlikely event that the system needs to be returned to the JSI Factory, the packaging will help prevent shipping damage and maintain warranty.

Each EDI-60 retrofit control system includes all the parts required to complete the retrofit.

System Status LED Indicators

LCD Display

Programming Switches

Rackmount Locations (x4)

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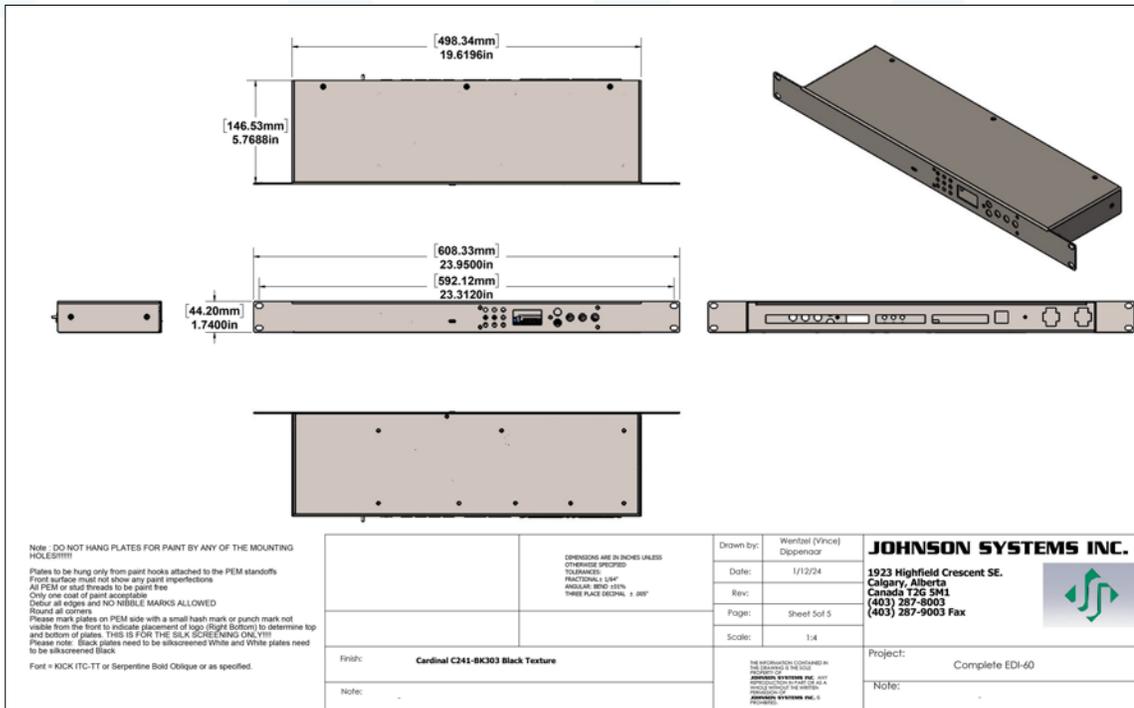"PROFESSIONAL LIGHT CONTROL PRODUCTS"

Parts included with the EDI-60 retrofit control system:

- 10' (3m) Belden 9829 (or equivalent) length of cable used to extend existing DMX cable(s).
- Two (2) 3-position breakaway connectors are used to splice the existing DMX cable(s) to the supplied DMX cable.
- Four (4) 1' (30.5cm) extension ribbon cables used to extend the OEM P3, P4, P5 and P6 ribbon cables.
- 8' (2.4m) #18 AWG green wire used to connect the EDI-60 retrofit control system chassis to earth ground.
- 5' (1.5m) #18AWG yellow and brown wires used to connect the fan control wiring from the OEM P1 connector to the fan SSR. Typical installations already contain the control wiring within the OEM P1 connector wiring, and these wires are not required.
- 10' (3m) yellow CAT 5e patch cable used to daisy-chain the DMX-A and DMX-B between two (2) EDI-60 retrofit control systems. Only supplied when multiple EDI-60 retrofit control systems are purchased. If there are two (2) racks of EDI-120 you will need four (4) EDI-60 units to run both racks. **In this case you will need to run DMX-A Thru and DMX-B Thru from the second EDI-60 from Rack one (1) to the first EDI-60 from Rack two (2) DMX-A In and DMX-B In.**
- Four (4) #10-32 x 3/8" mounting screws used to secure the EDI-60 retrofit control system in the EDI Mark VII dimmer rack.
- Power Linker Cable to power secondary EDI-60 from Main EDI-60 P2 to P2.

Dimensional Drawings

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Installation

- Disconnect (turn off) the power supply to the EDI Mark VII dimmer rack(s).

WARNING! Verify all power is disconnected (turned off) before proceeding.

Removal of the old EDI Control Module

- Remove the four (4) mounting screws securing the EDI Mark VII control module.
- Carefully pull the control module forward until all the rear wiring connections are visible. Do not disconnect any wiring at this point.
- If you are not familiar with the EDI Mark VII control module electronics and wiring, it is strongly advised that you take a few minutes to inspect the OEM (Original Equipment Manufacturer) wiring (P1 through P6). If the cables aren't already labeled, label them using a permanent marker (Sharpie).
- P1 (OEM Rack P1) contains the AC power supply conductors (Neutral, Phase A, Phase B and Phase C) used to power the control module, as well as the low voltage fan control wiring (positive DC voltage control and common). Observe the location of the P1(OEM Rack P1) connector and compare it to the location of the P1(OEM Rack P1) connector on the EDI-60 retrofit.
- On some earlier versions of EDI Mark VII dimmer racks, the fan control was sensed from the house control inputs, and the fan control wiring does not come through the P1(OEM Rack P1) connector. If this is the case, the fan control will need to be rewired from the P1 (OEM Rack P1) connector to the fan SSR. More information regarding this modification is provided in the "Installation of the new EDI-60 retrofit system" section of this manual. P2 (OEM Rack P2) contains the field wiring connections for DMX-And analog control.

NOTE: The P2 (OEM Rack P2) connection is obsolete when the EDI-60 retrofit control module is installed, and all the field wiring must be terminated on the back of the EDI-60 retrofit control module. Refer to the installation of the new EDI-60 retrofit system for more details.

P3 (OEM Rack P3) contains the PWM output control signals for dimmers 1 through 36.

P4 (OEM Rack P4) contains the PWM output control signals for dimmers 25 through 60.

P5 (OEM Rack P5) contains the PWM output control signals for dimmers 61 through 96.

P6 (OEM Rack P6) contains the PWM output control signals for dimmers 85 through 120.

- All the internal OEM wiring must remain intact to complete the retrofit. Compare these connections to the ones on the back of the EDI-60 retrofit control module. Do not disconnect any wiring until you are completely satisfied with how easy this is going to be.

NOTE: Never pull directly on the wires to remove connectors.

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- Disconnect the P1 (OEM Rack P1) power connector/cable. Carefully squeeze the latches on each side of the connector together to release the connector and then pull the connector out. Inspect the connector and the termination of the wires in the connector. Be sure everything looks okay.

- Disconnect the P2 (OEM Rack P2) connector/cable. This cable will not be re-used on the EDI-60 retrofit, so once the old control module is removed, it should be coiled up, wire-tied and carefully set aside inside the dimmer rack, making sure it is isolated from any AC line voltage.

- Disconnect the P3, P4, P5 and P6 (OEM Rack P3, P4, P5) connectors/cables. Again, be sure not to pull directly on the ribbon cable to remove the connector as this may cause damage. Carefully pull the connectors straight out.

- The old control module should now be free and clear of all connections and can now be completely pulled out of the dimmer rack and set aside.

- With the old control module removed, it is a terrific opportunity to do some preventative maintenance. The dimmer rack should be thoroughly cleaned, vacuumed, and sprayed out using compressed air. All the AC line and load connections should be inspected and tightened if necessary.

- Inspect the fan blower and be sure it spins freely. If required, replacement fans are available.

Installation of the new EDI-120 Retrofit Control System

Power Linker Cable supplied

- Remove your new EDI-60 retrofit control system from the box.

- Look at the field wiring connections on the back of the EDI-60 retrofit. There is a connector for DMX-A input, a connector for DMX-A thru, a connector for DMX-B input, a connector for DMX-B thru, a connector for four (4) 0-10VDC analog inputs, a connector for dry contact inputs and a connector for +12VDC to power peripheral devices. All the field wiring terminates on these connectors.

- Refer to the "Control Input/Output Connections" section on page 9 and 10 for details.

- On the old EDI control module (Multi-Link), the DMX input came through the P2 (OEM Rack P2) connector. Since this connection/cable is now obsolete, locate the DMX input and thru (if applicable) cable(s) coming into the dimmer rack from the field. Once the cable(s) has been located, disconnect it. Inspect the cable(s) and ensure it will be long enough to reach the connectors on the EDI-60 retrofit once it is installed. Two (2) 3-position breakaway connectors and a 10' (3m) Belden 9829 (or equivalent) length of cable is supplied for extending the cable(s) if it isn't long enough. The cable(s) can now be dressed out and terminated on the DMX-A input and DMX-A thru (if applicable) breakaway connectors provided. Be sure to isolate and protect all shield wires and comply with standard RS-485 termination practices.

- On the old EDI control module, the 0-10VDC analog inputs came through the P2 (OEM Rack P2) connector. Since this connection/cable is now obsolete, locate the analog input cable(s) coming into the dimmer rack from the field. Note the EDI-60 retrofit only has four (4) 0-10VDC analog inputs, versus ten (10) on the old control module. Once the analog input cable(s) have been located, disconnect them. If required, extend the cables. The cable(s) can now be dressed out and terminated on the analog input breakaway connector provided.

- If more than four (4) analog inputs are required, additional equipment may be necessary to facilitate them. Consult the factory for options and further information.

- Dress out and terminate any applicable connections for the input/output contacts on the breakaway connector provided.

- Dress out and terminate any applicable +12VDC power supply connections on the breakaway connector provided.

- The intention is for the DMX input receptacle (5-pin male XLR) on the front of the EDI dimmer rack to be connected to the DMX-B input on the EDI-60 retrofit. To do this, the existing wires connected to the XLR must be disconnected, and an applicable length of the supplied 10' (3m) Belden 9829 (or equivalent) cable must be reconnected to the XLR on one end and terminated on the DMX-B input breakaway connector provided on the other end. Be sure to isolate and protect all shield wires and comply with standard RS-485 termination practices.

- Alternatively, the DMX-B input and thru connectors can be used for other purposes.

- Confirm all applicable field wiring is terminated on the breakaway connectors provided. For future reference, be sure all cables are labeled using a permanent marker (Sharpie).

- Inspect the OEM P3, P4, P5 and P6 ribbon cables and determine if they are long enough to easily connect to the EDI-60 retrofit. Four (4) 1' (30.5cm) extension ribbon cables have been provided to extend the OEM ribbon cables for ease of installation. When connecting, be sure the OEM ribbon cable connector is fully seated in the provided extension ribbon cable connector.

- An 8' (2.4m) #18 AWG green wire has been provided for connection of earth ground to the EDI-60 chassis. One end of the ground wire has a 0.250" female disconnect and connects to the male on the back of the EDI-60 retrofit. Locate a place inside the dimmer rack chassis to connect the other end of the ground wire. Cut the wire to length, dress it out and connect (fasten) it to the dimmer rack chassis.

WARNING: Ensure chassis is connected to earth ground.

- On some earlier versions of EDI Mark VII dimmer racks, the fan control was sensed from the house control inputs, and the fan control wiring does not come through the P1 connector. If this is the case, the fan control will need to be rewired from the P1 connector to the fan SSR. 5' (1.5m) #18AWG yellow and brown wires have been provided to implement fan control from the EDI-60 retrofit via the P1 connector to the fan SSR. For the yellow (fan control V+) wire, the female pin on the one end inserts into pin 5 of the P1 connector and the other end terminates to V+ on the fan SSR. For the brown (fan control V- (common)) wire, the female pin on the one end inserts into pin 6 of the P1 connector and the other end terminates to V- (common) on the fan SSR. Refer to page 9 for the P1 power connector pinout information.

- There is one (1) location on the back of the EDI-60 retrofit where the P1 power connector/ cable can be installed P1. The other power connector P2 is meant to link the second EDI-60 power to the first one. (P2 to P2)

- A 10' (3m) yellow CAT 5e patch cable is supplied to daisy-chain the DMX-A and DMX-B between multiple EDI-60 retrofit systems.

- Everything should now be prepared and ready for final installation of the EDI-60 retrofit.

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ENSURE CHASSIS
IS CONNECTED TO
EARTH GROUND

POWER SUPPLY INPUT
120/208VAC, 3P4W, 1.3A, 60Hz
120/240VAC, 1P3W, 1.3A, 60Hz
EXTERNAL DISCONNECT REQUIRED
P1
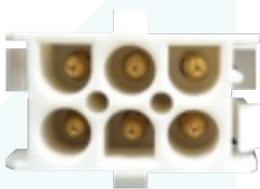
- Put the EDI-60 retrofit into a position where all the field wiring and OEM wiring can be plugged in.
- Connect (plug in) in the green ground wire onto the EDI-60 chassis connector.
- If applicable, connect (plug in) in the yellow CAT 5e patch cable.
- Connect (plug in) the prepared DMX input and thru connectors.
- Connect (plug in) the prepared input/output contacts connector.
- Connect (plug in) the prepared analog input connector.
- Connect (plug in) the prepared +12VDC power supply connector.
- Connect (plug in) the OEM P1 power connector to P1 on EDI-60.
- Connect (plug in) the OEM P3, P4, P5 and P6 ribbon cable connectors to EDI-60 P3, P4, P5 and P6.
- All the field wiring and OEM cables should now be connected (plugged in).
- Be sure all connections are secure and fully seated.
- Slide the EDI-60 retrofit along the guide rails and into place. Be sure not to pinch any of the cables.
- On some earlier versions of EDI Mark VII dimmer racks, the guide rail opening for the EDI-60 retrofit may be much narrower. If this is the case, the guide rails will need to be removed. Once the guide rails are removed, the EDI-60 retrofit will need to be held in place and secured using the mounting screws provided.
- Secure the EDI-60 retrofit using the four (4) #10-32 x 3/8" mounting screws provided.

Turn on and test the new EDI-120 Retrofit System

- Connect (turn on) the power supply to the EDI Mark VII dimmer rack.
- Verify the operation of the system status LED indicators, LCD display and programming switches.
- Refer to the programming section of this manual for system configuration. **The unit has been set up in the factory with standard settings and in most cases, nothing needs to be changed except maybe the DMX-Address.**
- Test the system thoroughly to ensure all wiring terminations are functioning.
- Verify all the dimmer control outputs have the correct phase referencing. If a dimmer control output is patched to the incorrect phase reference, the dimmer will not dim correctly and will go to full output at around 1% DMX input. **The factory configuration for EDI-60 retrofit systems is for 3-phase applications, with the dimmer phase reference patch set at AABBCCAABBCC...** For true single-phase applications with the phases 180° out of phase from each other, set the default (DEFAULTS) menu phase patch to phase patch 2 (1-Phase?). The phase patch (Ø-PATCH) menu must be used to configure non-standard applications or for single-phase applications with the phases 120° out of phase from each other.
- Verify the fan blower is operating properly. The fan blower should turn on with between 6-7% DMX or analog control - when DMX or analog control drops below 6-7%, there is a 5-minute timeout on the fan blower to ensure the dimmers have been cooled sufficiently.

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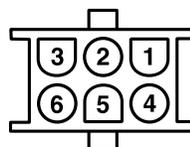*"PROFESSIONAL LIGHT CONTROL PRODUCTS"*

OEM Connector Pinouts

OEM P3, P4, P5 and P6 Dimmer (PWM) Control Cable Pinout

|	P3 Connector		P4 Connector		P5 Connector		P6 Connector
PIN	**FUNCTION**	**PIN**	**FUNCTION**	**PIN**	**FUNCTION**	**PIN**	**FUNCTION**
1	Dimmer (PWM) 1	1	Dimmer (PWM) 25	1	Dimmer (PWM) 61	1	Dimmer (PWM) 85
2	Dimmer (PWM) 2	2	Dimmer (PWM) 26	2	Dimmer (PWM) 62	2	Dimmer (PWM) 86
3	Dimmer (PWM) 3	3	Dimmer (PWM) 27	3	Dimmer (PWM) 63	3	Dimmer (PWM) 87
4	Dimmer (PWM) 4	4	Dimmer (PWM) 28	4	Dimmer (PWM) 64	4	Dimmer (PWM) 88
5	Dimmer (PWM) 5	5	Dimmer (PWM) 29	5	Dimmer (PWM) 65	5	Dimmer (PWM) 89
6	Dimmer (PWM) 6	6	Dimmer (PWM) 30	6	Dimmer (PWM) 66	6	Dimmer (PWM) 90
7	Dimmer (PWM) 7	7	Dimmer (PWM) 31	7	Dimmer (PWM) 67	7	Dimmer (PWM) 91
8	Dimmer (PWM) 8	8	Dimmer (PWM) 32	8	Dimmer (PWM) 68	8	Dimmer (PWM) 92
9	Dimmer (PWM) 9	9	Dimmer (PWM) 33	9	Dimmer (PWM) 69	9	Dimmer (PWM) 93
10	Dimmer (PWM) 10	10	Dimmer (PWM) 34	10	Dimmer (PWM) 70	10	Dimmer (PWM) 94
11	Dimmer (PWM) 11	11	Dimmer (PWM) 35	11	Dimmer (PWM) 71	11	Dimmer (PWM) 95
12	Dimmer (PWM) 12	12	Dimmer (PWM) 36	12	Dimmer (PWM) 72	12	Dimmer (PWM) 96
13	Dimmer SSR +12VDC	13	Dimmer SSR +12VDC	13	Dimmer SSR +12VDC	13	Dimmer SSR +12VDC
14	Dimmer Overtemp	14	Dimmer Overtemp	14	Dimmer Overtemp	14	Dimmer Overtemp
15	DC Common	15	DC Common	15	DC Common	15	DC Common
16	DC Common	16	DC Common	16	DC Common	16	DC Common
17	Dimmer (PWM) 13	17	Dimmer (PWM) 37	17	Dimmer (PWM) 73	17	Dimmer (PWM) 97
18	Dimmer (PWM) 14	18	Dimmer (PWM) 38	18	Dimmer (PWM) 74	18	Dimmer (PWM) 98
19	Dimmer (PWM) 15	19	Dimmer (PWM) 39	19	Dimmer (PWM) 75	19	Dimmer (PWM) 99
20	Dimmer (PWM) 16	20	Dimmer (PWM) 40	20	Dimmer (PWM) 76	20	Dimmer (PWM) 100
21	Dimmer (PWM) 17	21	Dimmer (PWM) 41	21	Dimmer (PWM) 77	21	Dimmer (PWM) 101
22	Dimmer (PWM) 18	22	Dimmer (PWM) 42	22	Dimmer (PWM) 78	22	Dimmer (PWM) 102
23	Dimmer (PWM) 19	23	Dimmer (PWM) 43	23	Dimmer (PWM) 79	23	Dimmer (PWM) 103
24	Dimmer (PWM) 20	24	Dimmer (PWM) 44	24	Dimmer (PWM) 80	24	Dimmer (PWM) 104
25	Dimmer (PWM) 21	25	Dimmer (PWM) 45	25	Dimmer (PWM) 81	25	Dimmer (PWM) 105
26	Dimmer (PWM) 22	26	Dimmer (PWM) 46	26	Dimmer (PWM) 82	26	Dimmer (PWM) 106
27	Dimmer (PWM) 23	27	Dimmer (PWM) 47	27	Dimmer (PWM) 83	27	Dimmer (PWM) 107
28	Dimmer (PWM) 24	28	Dimmer (PWM) 48	28	Dimmer (PWM) 84	28	Dimmer (PWM) 108
29	Dimmer SSR +12VDC	29	Dimmer SSR +12VDC	29	Dimmer SSR +12VDC	29	Dimmer SSR +12VDC
30	Dimmer Overtemp	30	Dimmer Overtemp	30	Dimmer Overtemp	30	Dimmer Overtemp
31	DC Common	31	DC Common	31	DC Common	31	DC Common
32	DC Common	32	DC Common	32	DC Common	32	DC Common
33	Dimmer (PWM) 25	33	Dimmer (PWM) 49	33	Dimmer (PWM) 85	33	Dimmer (PWM) 109
34	Dimmer (PWM) 26	34	Dimmer (PWM) 50	34	Dimmer (PWM) 86	34	Dimmer (PWM) 110
35	Dimmer (PWM) 27	35	Dimmer (PWM) 51	35	Dimmer (PWM) 87	35	Dimmer (PWM) 111
36	Dimmer (PWM) 28	36	Dimmer (PWM) 52	36	Dimmer (PWM) 88	36	Dimmer (PWM) 112
37	Dimmer (PWM) 29	37	Dimmer (PWM) 53	37	Dimmer (PWM) 89	37	Dimmer (PWM) 113
38	Dimmer (PWM) 30	38	Dimmer (PWM) 54	38	Dimmer (PWM) 90	38	Dimmer (PWM) 114
39	Dimmer (PWM) 31	39	Dimmer (PWM) 55	39	Dimmer (PWM) 91	39	Dimmer (PWM) 115
40	Dimmer (PWM) 32	40	Dimmer (PWM) 56	40	Dimmer (PWM) 92	40	Dimmer (PWM) 116
41	Dimmer (PWM) 33	41	Dimmer (PWM) 57	41	Dimmer (PWM) 93	41	Dimmer (PWM) 117
42	Dimmer (PWM) 34	42	Dimmer (PWM) 58	42	Dimmer (PWM) 94	42	Dimmer (PWM) 118
43	Dimmer (PWM) 35	43	Dimmer (PWM) 59	43	Dimmer (PWM) 95	43	Dimmer (PWM) 119
44	Dimmer (PWM) 36	44	Dimmer (PWM) 60	44	Dimmer (PWM) 96	44	Dimmer (PWM) 120
45	Dimmer SSR +12VDC	45	Dimmer SSR +12VDC	45	Dimmer SSR +12VDC	45	Dimmer SSR +12VDC
46	Dimmer Overtemp	46	Dimmer Overtemp	46	Dimmer Overtemp	46	Dimmer Overtemp
47	DC Common	47	DC Common	47	DC Common	47	DC Common
48	DC Common	48	DC Common	48	DC Common	48	DC Common
49	No Connection	49	No Connection	49	No Connection	49	No Connection
50	No Connection	50	No Connection	50	No Connection	50	No Connection

OEM P1 Power Connector Pinout

PIN	FUNCTION
1	Phase A
2	Phase B
3	Phase C
4	Neutral
5	Fan Control V+
6	Fan Control V- (Common)

P1 Chassis Connector
with male pins

```
3  2  1
6  5  4
```

P1 Cable Connector
with female pins

```
1  2  3
4  5  6
```

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Control Input/Output Connections

DMX-A AND DMX-B INPUT AND THRU DAISY-CHAIN TO NEXT EDI-60
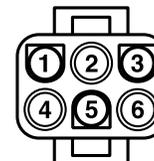
All EDI-60 retrofit control systems come with a variety of control input and output (I/O) capabilities. All I/O connections are terminated on the connectors located at the rear of the EDI-60 chassis.

Breakaway type connectors are provided for all I/O connections.

- Use wire size #28 to #12 AWG.
- Strip wire insulation length to 0.28" (7mm).
- Use a 1/8" (3.2mm) flat head screwdriver to tighten connections.
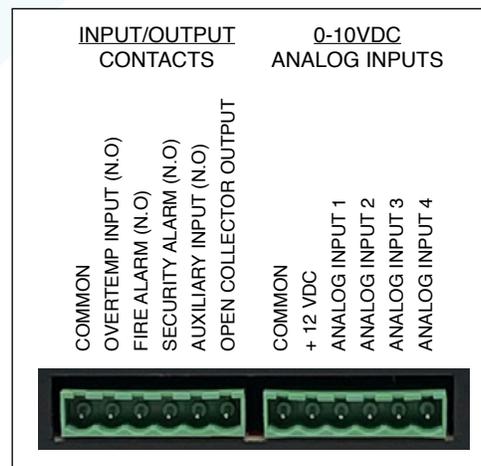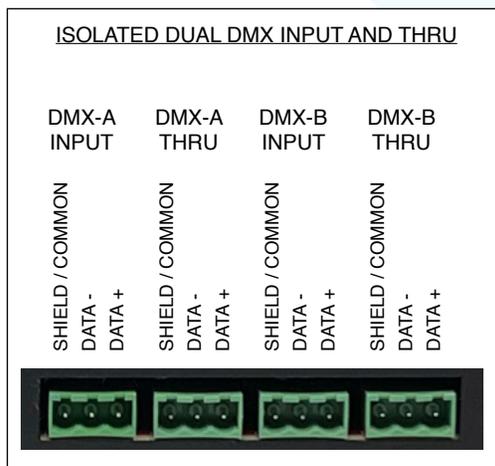- Torque connections to 3.5 IN-LBS (0.4 NM).

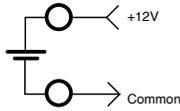**NOTE:** For connection use copper wire only, rated for 167°F (75°C) minimum.

Isolated Dual DMX Input and Thru

- DMX-A (SHIELD/COMMON, DATA-, DATA+) input and thru is terminated on the two 3-position breakaway connectors provided.
- DMX-B (SHIELD/COMMON, DATA-, DATA+) input and thru is terminated on the two 3-position breakaway connectors provided.
- For 120CH EDI-120 rack with two(2) EDI-60 installations, a 10' (3m) CAT 5e patch cable is supplied. This cable is used to daisy-chain the DMX-A and DMX-B between systems. The CAT 5e patch cable plugs into the RJ45 connectors located at the rear of the EDI-60 chassis. If there are two (2) racks of EDI-120 you will need four (4) EDI-60 units to run both racks. **In this case you will need to run DMX-A Thru and DMX-B Thru from the second EDI-60 from Rack one (1) to the first EDI-60 from Rack two (2) DMX-A In and DMX-B In.**
- Complies with USITT DMX512-A (ANSI E1.11 - 2008), standard protocol for digital data control.
- Recommended cable is Belden 9829, 9842, Cat 5 or equivalent (low capacitance, twisted pair).
- Wiring must follow a daisy-chain topology.
- Maximum of 32 receiving devices on a single DMX line.
- Maximum cable length is 1,500 feet (455 meters).
- For more information, Google DMX, or visit: http://old.usitt.org/DMX512FAQ.aspx.

NOTE: Ensure only the last (end-of-line) DMX receiving device is terminated! Refer to menu items "DMXA-TRM" and "DMXB-TRM" on page 20 for further details. **Please note that both DMX-A and DMX-B are terminated in the settings from the Factory!**

ISOLATED DUAL DMX INPUT AND THRU

DMX-A INPUT	DMX-A THRU	DMX-B INPUT	DMX-B THRU
SHIELD / COMMON DATA - DATA +	SHIELD / COMMON DATA - DATA +	SHIELD / COMMON DATA - DATA +	SHIELD / COMMON DATA - DATA +

INPUT/OUTPUT CONTACTS   0-10VDC ANALOG INPUTS

COMMON
OVERTEMP INPUT (N.O)
FIRE ALARM (N.O)
SECURITY ALARM (N.O)
AUXILIARY INPUT (N.O)
OPEN COLLECTOR OUTPUT
COMMON
+ 12 VDC
ANALOG INPUT 1
ANALOG INPUT 2
ANALOG INPUT 3
ANALOG INPUT 4

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+12VDC Power Supply Output

- A regulated +12VDC power supply is available for powering external devices.
- Terminate on +12VDC and COMMON on the 6-position breakaway connector provided.
- ***External devices should not exceed the maximum combined current draw of 200 mA***.
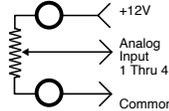
0-10VDC Analog Inputs or Load Shed Contact Inputs

- Four (4) analog inputs terminate on the 6-position breakaway connector provided.
- Inputs can be configured for normal, or load shed mode of operation.
- Inputs can be patched to any combination of dimmer control outputs.
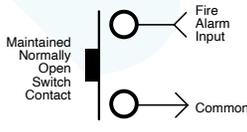- Programmed in the "ANA MODE" and "ANA PAT" menus. See page 24 for detail.
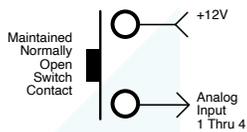
Over-Temperature Input (Normally Open)

- OVERTEMP INPUT (N.O.) is terminated on the 6-position breakaway connector provided.
- Disables all dimmer outputs when the thermostat contact/switch is closed.
- Controlled via a maintained contact/switch to low-voltage common (COMMON).
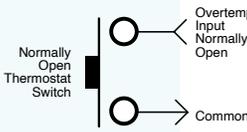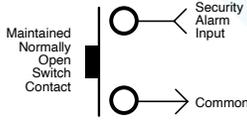
Fire Alarm Input (Normally Open)

- FIRE ALARM (N.O.) is terminated on the 6-position breakaway connector provided.
- Triggers selected channels to turn on when contact/switch is closed.
- Controlled via a maintained contact/switch to low-voltage common (COM).
- Programmed in the "F-ALARM" menu. See page 26 for details.

Security Alarm Input (Normally Open)

- SECURITY ALARM (N.O.) terminates on the 6-position breakaway connector provided.
- Triggers selected channels to cycle on and off at a 1 Hertz rate when contact/switch is closed.
- Controlled via a maintained contact/switch to low-voltage common (COM).
- Programmed in the "S-ALARM" menu. See page 26 for details.

Auxiliary Input (Normally Open)

- AUXIALIARY INPUT (N.O.) is terminated on the 6-position breakaway connector provided.
- Triggers 1 of 12 presets when contact/switch is closed.
- Controlled via a maintained contact/switch to low-voltage common (COM).
- Programmed in the "AUX IN" menu. See page 25 for details.
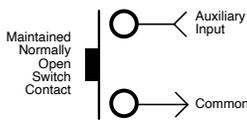
Open Collector Output

- OPEN COLLECTOR OUTPUT is terminated on the 6-position breakaway connector provided.
- ***Sink up to 100mA.***
- Trigger Solid State Relays (SSR) or other external devices.
- Controlled via DMX-And/or Analog Input 4.
- Programmed in the "OC MODE" menu. See page 25 for details.

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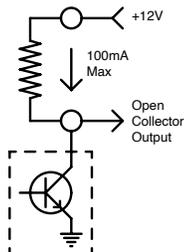
EEPROM Memory Module

All EDI-60 retrofit control systems come equipped with a "removable" EEPROM memory module located inside of the EDI-60 chassis.
The EEPROM memory module inserts into the on-board connector.
The EEPROM memory module is primarily used to backup important configuration settings.

If a firmware update is required, please contact Johnson Systems Inc. The firmware update is made via the USB-C connector on the front of the EDI-60. The factory will supply a document of how to do this update and where to find the Firmware software to do this.

*EEPROM
Memory Module*

NOTE: Be sure to "BACKUP" the EDI-60 when installation configuration is complete.

Firmware update is made via the USB-C connector.
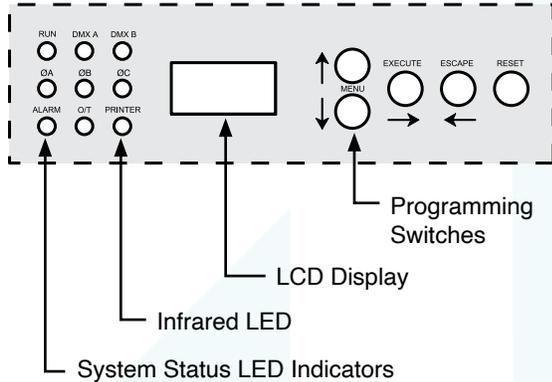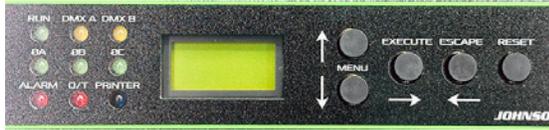
User Interface

EDI-60 retrofit control systems are equipped with a user interface. The user interface provides access to all programming and configuration settings. System status is easily visible on the LCD display and LED indicators. An infrared LED allows for printout of all system configuration settings when used with a handheld infrared printer (Johnson System Inc., Part Number: JS-IP).

All the programming is accomplished using four (4) switches. Within a few minutes most users will find the menu structure very intuitive and easy to navigate. All configuration settings are automatically stored in the on-board EEPROM.

LCD Display

The LCD display can display 2 lines of 8 Characters. A backlight automatically comes on when activity is sensed on the switches. The LCD contrast can be easily adjusted for optimum viewing. Refer to menu item "LCD VIEW" on page 29 for further details.

Programming Switches

The MENU UP/DOWN (↕) switches are used for navigating through the various system configuration menu items. They also allow for programming of other specific parameters within a selected menu. Pressing and holding either switch will speed up the scroll rate, which can be helpful to speed up the configuration time.

The EXECUTE (→) switch is normally used to select/enter a menu item, advance forward within a selected menu item, or toggle between parameters within a selected menu item.

The ESCAPE (←) switch is normally used to back up within a selected menu item one step at a time or exit the menu completely.

NOTE: *The programming switches can be locked out to prevent inadvertent configuration changes. To toggle between "LOCKED!!" and "UNLOCKED" press and hold down the EXECUTE and then ESCAPE switches at the same time for 4-5 seconds*.

The RESET switch has two purposes. First, it allows for quick exit from a menu item after a programming change and automatically puts the system into normal run mode. Second, it provides a soft reboot for the systems microcontroller.

NOTE: A detailed procedure for programming all system configuration menu items can be found on page 17 to 29.

Programming Switches

LCD Display

Infrared LED

System Status LED Indicators

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System Status • LED Indicators

RUN (Green)

Illuminates when the power is on, and the microcontroller status is in normal run mode.
The LED flashes once every 2 seconds when the system is in STANDBY mode.

ØA, ØB and ØC (Green)

Illuminates when the line voltage power for 120VAC 60Hz systems is within the acceptable range of 100-140 VAC for each phase and the zero-cross reference circuitry is functioning properly.
If a Phase error is detected it will read **Ø-ERROR!** and for voltage **VOLTAGE!**

Illuminates when the line voltage power for 220VAC 60Hz is within the acceptable range of 200-240 VAC for each phase and the zero-cross reference circuitry is functioning properly.
If a Phase error is detected it will read **Ø-ERROR!** and for voltage **VOLTAGE!**

DMX A and DMX B (Yellow)

Illuminates when valid DMX is received on each of the inputs.

ALARM

Illuminates and flashes twice per second when either a fire or security alarm is sensed on each of the inputs.

O/T

Illuminates and flashes twice per second when the microcontroller sense an internal over-temperature condition, or when an external over-temperature is sensed via the over-temperature input, or when an external dimmer over-temperature is sensed.

System Status • LCD Display

When DMX is being received, the top line of the LCD display shows STANDBY! And the second line is the active DMX ("A512B000"). When DMX is not being received, the top line of the LCD display shows "STANDBY! "And the second line shows ("NO DMX!") If the system shows "$_M^T$512B000" then only DMX-A is connected and terminated.

NO DMX!

Displayed when DMX is not being received on either input or the system is not in scene mode.

AXXXBXXX

Displayed when valid DMX is being received on one or both inputs and both inputs are not terminated. "A and B" represent the DMX-A and DMX-B inputs while "XXX" represents the number of channels being received in each packet of data. For example, if the system is receiving 512 channels on DMX-B and DMX-A is disconnected, the display will show "A000B512".
If the system shows "$_M^T$512B000" then only DMX-A is connected and terminated.

$_M^T$XXX $_M^T$XXX

Same as above except the "A" and "B" is replaced with "$_M^T$" to indicate if one or both DMX inputs are terminated. For example, if the system is receiving 48 channels on DMX-A and 512 channels on DMX-B, with only DMX-A terminated, the display will show "$_M^T$048B512". Refer to menu items "DMXA TRM" and "DMXB TRM" on page 20 for further details.

SH XX:YY

Displayed when DMX is disconnected, and the systems predetermined DMX status hold (SH) time is counting down. "XX" represents minutes while "YY" represents seconds. Refer to menu item "SH TIME" on page 22 for further details.

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INF HOLD

Displayed when DMX is disconnected, and the systems predetermined DMX status hold (SH) time is set for infinite (INF) hold. Refer to menu item "SH TIME" on page 22 for further details.

SCENE:XX

Displays the scene (1 to 20) that is currently activated. The colon in front of the scene number flashed twice per second during fading. Refer to menu item "SCENEMOD" on page 25 for further details.

A-SCENE!

Displayed when the auxiliary input is triggered.

Refer to menu item "AUX IN" on page 25 for further details.

FIRE!!!

Displayed when the fire alarm input is triggered.

Refer to menu item "F-ALARM" on page 26 for further details.

SECURITY

Displayed when the security alarm input is triggered.

Refer to menu item "S-ALARM" on page 26 for further details.

DIM-TEMP

Displayed when an external dimmer over-temperature is sensed via a dimmer module. All dimmer outputs are disabled until the dimmer module temperature drops to within specification.

EXT-TEMP

Displayed when an external over-temperature is sensed via the over-temperature input.

All dimmer outputs are disabled, and the fans are turned on to full until the external devices temperature drops to within specification. See "Over-Temperature Input" information on page 11 for further details.

CTL-TEMP

Displayed when the microcontroller senses an internal over-temperature condition of 185°F (85°C) or more. All dimmer outputs are disabled, and the fans are turned on to full until the temperature cools down to 178°F (81°C) or less. See menu item "CTL TEMP" to view the current microcontroller temperature.

Ø ERROR!

Displayed when an error is sensed on any of the input power phases. A phase error can be caused from an under-voltage of less than 100VAC, an over-voltage of greater than 140VAC, or if a zero-cross phase reference is not detected.

Displayed when an error is sensed on any of the input power phases. A phase error can be caused from an under-voltage of less than 200VAC, an over-voltage of greater than 240VAC, or if a zero-cross phase reference is not detected.

RTC ERR!

Displayed when the system detects a runtime counter (RTC) error. This occurs when there is an invalid hard-key code, and the runtime counter is greater than 2160 hours (90 days). Refer to menu item "HARD-KEY" on page 30 for further details.

LOCKED!!

Displayed when an attempt is made to access the system configuration menu items and the programming switches are locked out. To toggle between "LOCKED!!" and "UNLOCKED" press and hold down the "EXECUTE" and then "ESCAPE" switches at the same time for 4-5 seconds.

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Quick Programming Reference to System Configuration Menu Items

1.	**SCENES**	Enable and set up 20 different backup scenes.
2.	**FADETIME**	Set the fade time for each of the 20 scenes from 0 to 99 seconds.
3.	**SNAPSHOT**	Record DMX levels into the backup scenes.
4.	**DIM TEST**	Test the dimmer outputs one at a time, or all at once.
5.	**MONITOR**	View the control level to each dimmer output.
6.	**ADDRESS**	Set the DMX start address.
7.	**DMX MODE**	Configure the mode of the on-board DMX protocol manager.
8.	**2 RM SET**	Set the two-room assignment for each of the dimmer outputs.
9.	**DMXA-TRM**	Enable or disable termination on the DMX-A input.
10.	**DMXB-TRM**	Enable or disable termination on the DMX-B input.
11.	**DMX O/P**	Configure the on-board DMX protocol manager for offset or patch mode.
12.	**DMXA PAT**	Patch the 120 dimmer (PWM) outputs to any DMX-A input channel.
13.	**DMXB PAT**	Patch the 120 dimmer (PWM) outputs to any DMX-B input channel.
14.	**SH-TIME**	Set the DMX status hold time from 0 to 99 minutes or infinite.
15.	**DC PATCH**	Configure the dimmer to channel patch for the dimmer rack.
16.	**DIM CURV**	Configure the dimmer curve for each output.
17.	**ND-LEVEL**	Set the non-dim trigger level threshold for each output.
18.	**VOUT LIM**	Set the maximum RMS output voltage for each dimmer.
19.	**ANA MODE**	Configure the analog inputs for normal or load shed mode.
20.	**ANA PAT**	Patch the analog inputs to any combination of control channels.
21.	**ANA TEST**	View the control level for each of the analog inputs.
22.	**ANA BLOC**	Enable or disable the analog inputs when DMX is being received.
23.	**STANDBY**	Enable or disable the power savings standby mode.
24.	**OC MODE**	Configure the input trigger parameters for the open collector output.
25.	**AUX IN**	Select which scene the auxiliary input will trigger/enable.
26.	**SCENEMOD**	Enable or disable scene mode and the auxiliary input.
27.	**S-ALARM**	Select the level and control channels triggered by the security alarm input.
28.	**F-ALARM**	Select the level and control channels triggered by the fire alarm input.
29.	**Ø-PATCH**	Set the zero-cross phase reference for each dimmer control output circuit.
30.	**POLARITY**	This indicates when the unit is set to +COM or -COM PWM.
31.	**LINE V**	View the RMS line voltage for each power phase.
32.	**LINE F**	View the line frequency of phase A.
33.	**CTL TEM**P	View the temperature of the microcontroller.
34.	**R TIME**	View the total run time of the microcontroller.
35.	**HARD-KEY**	View the microcontroller's unique six-character hard-key code.
36.	**SERIAL#**	View the microcontroller's unique six-character silicone serial number.
37.	**VERSION**	View the microcontroller's firmware version.
38.	**RESTORE**	Restore parameters saved in the EEPROM memory module.
39.	**BACKUP**	Backup parameters and save them in the EEPROM memory module.
40.	**PRINTOUT**	Print various system configuration settings using a handheld infrared printer.
41.	**DEFAULTS**	Set various system configuration settings to the factory default.
42.	**LCD VIEW**	Adjust the contrast of the LCD Display for optimum viewing.

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Detailed Programming of System Configuration Menu Items

> **NOTE:** **The programming switches can be locked out to prevent inadvertent configuration changes. To toggle between "LOCKED!!" and "UNLOCKED" press and hold down the EXECUTE and then ESCAPE switches at the same time for 4-5 seconds.**

The sequence of the following system configuration menu items appears as the MENU DOWN (↓) switch is pressed. Pressing the MENU UP (↑) switch will sequence the system configuration menu items in the opposite order. Pressing and holding either of the MENU UP/ DOWN (↕) switches will speed up the scroll rate, which can be helpful to speed up the configuration time.

1. SCENESET   *Enable and setup 20 different backup scenes.*

When scene mode is activated, the selected scene will be held with no timeout until the menu is exited. The 60 control channel levels are configured within the menu and can be modified on the fly. Scene mode is useful when an external controller is not available and independent internal control is required.

Press EXECUTE to enter the menu and activate scene mode.

SCENE>01	Displays the scene (01) to be activated.
SCENE>20	Press MENU (↑) to select a different scene from 01 to 20.
SCENE>12	Press EXECUTE to activate the selected scene.
SCENE:12	The colon (:) flashes twice per second while fading to the selected scene.
SCENE:12	The colon (:) stops flashing when fading is complete, and the selected scene is active.
SCENE>12	Press MENU (↕) to select a different scene from 01 to 20.

.

2. FADETIME   *Set the SCENES Fadetimes.*

The factory default is 5 seconds for all 20 presets.

Press EXECUTE to enter the menu.

TIME >05	Display the assigned fade time (T= 05 seconds).
TIME >99	Press MENU (↕) to change the Fade Time.
	Press ESCAPE to exit the menu and save the selected fade time.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

3. SNAPSHOT   *Record DMX levels into the backup scenes.*

This is important if something happens to your console or front-end controls!

Provides a quick and uncomplicated way to save control channel levels into each of the 01 to 20 backup scenes using a DMX source.

Press EXECUTE to enter the menu and activate snapshot mode.

SCENE 01	Displays the scene to save from 01 to 20.
SCENE 12	Press MENU (↑) to select a scene from 01 to 20.
RECORD 12	Press EXECUTE (➥) to save the DMX levels in the selected scene.
SAVED 12	DMX levels have now been saved in the selected scene.
NO RX!	DMX is not being received on either input, so a snapshot is not possible.
	Press ESCAPE to back-up within the menu, or exit/deactivate snapshot mode.
	Press RESET to exit/deactivate snapshot mode.

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4. **DIM TEST**   *Test the dimmer outputs one at a time, or all at once.*

   A technician's best friend! Used for troubleshooting the dimmer outputs and field wiring to the load.

	Press EXECUTE to enter the menu and activate dimmer test mode.
D 01>00	Displays the active dimmer (D) and the test level (L).
D 01>00	Press EXECUTE to toggle between dimmer (D) and level (L) selection.
D 60>00	Press MENU (↑) to select the dimmer (D) to test from 01 to 60.
D ALL>00	Press MENU (↓) to select and test all (ALL) the dimmers at once.
D 01>00	The cursor (>) position indicates dimmer (D) or level (L) selection.
D 01>FL	Press MENU (↑) to select the desired test level from 00% to 100% (FL).
D 01>FL	Press ESCAPE to toggle the test level between full-on (FL) and off (00).
D 01>FL	Press EXECUTE to toggle the cursor (>) and select another dimmer to test.
	Press ESCAPE or RESET to exit the menu.
	The menu will automatically time out after 5 minutes of inactivity.

5. **MONITOR**   *View the control level to each dimmer output.*

   The dimmer control level is displayed as a % value from 00 to FL. ***This menu does not timeout automatically and will continue to monitor indefinitely.***

	Press EXECUTE to enter the menu and activate monitor mode.
D>01L>00	Press MENU (↕) to select the dimmer (D) output to monitor from 01 to 60.
D>60L>FL	Display shows dimmer 60 has full-on (100%) control.
	Press ESCAPE or RESET to exit the menu.

> **NOTE:** The control level value will not reach FL or 100% when voltage output limiting is activated, or when regulation is enabled, and the line voltage is greater than 118 VAC.

6. **ADDRESS**   *Set the DMX start address.*

   The DMX start address can be assigned from 001 to 512 and is common to both DMX inputs. When DMX MODE is set for DMX-A+B operation, each of the DMX inputs can be assigned to a separate DMX start address. The DMX inputs are merged, and DMX-B is offset by the number of DMX-A channels.

	Press EXECUTE to enter the menu.
DMXA>001	Displays the current DMX start address for the DMX-A input.
DMXA>512	Press MENU (↕) to modify and select the desired DMX start address.
DMXB>001	*Press EXECUTE to advance to select the DMX-B start address.
DMXB>512	*Press MENU (↕) to modify and select the desired DMX start address.
#CHA>001	*Press EXECUTE to advance to select the number of DMX-A channels.
#CHA>60	*Press MENU (↕) to modify the number of DMX-A channels from 01 to 60.
	Press ESCAPE to exit the menu and save the selected DMX start address.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

> **NOTE:** * DMX MODE must be set for DMX A+B operation to access this feature.
> **NOTE:** DMX O/P must be set to OFFSET mode for this menu to function.

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7. DMX MODE   *Configure the mode of the on-board DMX protocol manager.*

There are five different mode settings for the DMX protocol manager.

Priority A (PTY A) and Priority B (PTY B) modes are intended for the implementation of a backup DMX source. Priority A (PTY A) sets the DMX-A input as the priority and ignores the DMX-B input when the DMX-A input is active. Priority B (PTY B) sets the DMX-B input as the priority and ignores the DMX-A input when the DMX-B input is active.

Merge (MERGE) mode combines both DMX inputs with highest-takes-precedence (HTP) operation. Merge mode allows for simultaneous DMX control of the dimmers from both inputs and is the default for the system.

Dual Universe DMX (DMX-A+B) mode provides a method to combine two universes of DMX within one system. It permits two independent DMX sources to be active on the DMX inputs, with each having a separate DMX start address. The DMX inputs are merged, and DMX-B is offset by the number of DMX-A channels programmed via the ADDRESS menu (see ADDRESS - above for further details). This feature is typically used when a system is at the end of one DMX universe (DMX-A) and the beginning of another (DMX-B).

Two Room (2 ROOM) mode enables the room (A or B) assignment for each of the dimmer outputs via the 2 RM SET menu.

PTY A   Press EXECUTE to toggle into Priority A (PTY A) mode.
PTY B   Press EXECUTE to toggle into Priority B (PTY B) mode.
MERGE   Press EXECUTE to toggle into Merge (MERGE) mode.
DMX-A+B   Press EXECUTE to toggle into Dual Universe DMX (DMX-A+B) mode.
2 ROOM   Press EXECUTE to toggle into Two Room (2 ROOM) mode.

Press ESCAPE or RESET to exit the menu.

Any change in the configuration is automatically saved.

NOTE: DMX O/P must be set to OFFSET mode for this menu to function.

8. 2 RM SET   *Set the 2-room assignment for each of the dimmer outputs.*

This menu is used to assign each of the 60 dimmer outputs to room "A" or room "B". Dimmer outputs assigned to room "A" are controlled via the DMX-A input. Dimmer outputs assigned to room "B" are controlled via the DMX-B input. This creates separation within the dimmer rack and makes a single dimmer rack function as though it is two independent dimmer racks. When used in conjunction with the DC PATCH menu, the dimmer rack can be configured for sequential DMX control of two rooms, even if the dimmer room assignments are not sequential.

DMX MODE must be set for 2 ROOM operation for this menu to function.

Press EXECUTE to enter the menu and activate 2 RM SET mode.
DIM 01 A   Displays the dimmer (DIM) output (01) and the room assignment (A).
DIM 60 A   Press MENU (⬍) to select a different dimmer output from 01 to 60.
DIM 60 B   Press EXECUTE to toggle the room assignment from A to B.

Press ESCAPE or RESET to exit the menu.
Any change in the configuration is automatically saved.

NOTE: Scene mode (SCENESET) will only activate/control dimmers assigned to room "A".

NOTE: DMX O/P must be set to OFFSET mode for this menu to function.

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9. **DMXA TRM**   *Enable or disable termination on the DMX-A input.*

Activates and deactivates a 120Ω termination resistor. DMX termination is indicated on the LCD display when DMX is being received. When the DMX-A input is not terminated (DISABLED) the LCD display will read AXXXBXXX. When the DMX-A input is terminated (ENABLED) the LCD display will read ᴛₘXXXBXXX.

ENABLED   Press EXECUTE to toggle termination from ENABLED to DISABLED.
DISABLED   Press EXECUTE to toggle termination from DISABLED to ENABLED.

Any change in the configuration is automatically save.

NOTE: *Ensure only the last (end-of-line) DMX receiving device is terminated!*

10. **DMXB TRM**   *Enable or disable termination on the DMX-B input.*

Activates and deactivates a 120Ω termination resistor. DMX termination is indicated Activates and deactivates a 120Ω termination resistor. DMX termination is indicated on the LCD display when DMX is being received. When the DMX-B input is not terminated (DISABLED) the LCD display will read AXXXBXXX. When the DMX-B input is terminated (ENABLED) the LCD display will read AXXXᴛₘXXX.

ENABLED   Press EXECUTE to toggle termination from ENABLED to DISABLED.
DISABLED   Press EXECUTE to toggle termination from DISABLED to ENABLED.

Any change in the configuration is automatically saved.

NOTE: *Ensure only the last (end-of-line) DMX receiving device is terminated!*

11. **DMX O/P**   *Configure the on-board DMX protocol manager for offset or patch mode.*

OFFSET mode is typically used for most systems and is the factory default. OFFSET mode refers to the DMX start address, with each of the 60 dimmer (PWM) outputs addressed sequentially from the DMX start address.

PATCH mode provides full flexibility for addressing each of the 60 dimmer (PWM) outputs. Each of the 60 dimmer (PWM) outputs can be patched to (control from) any DMX input channel from 001 to 512, from either or both DMX-A and DMX-B inputs simultaneously.

With DMX patch mode activated, any configuration within the ADDRESS, DMX MODE, 2 RM SET and DC PATCH menus is ignored, and the DMX patch configured within the DMXA PAT and DMXB PAT menus takes precedence.

When using the system in DMX patch mode, it is strongly recommended to print out the patch using a handheld infrared printer (Johnson System Inc., Part Number: JS-IP).

Press EXECUTE to enter the menu and configure the DMX O/P mode.

DISABLED   This menu is disabled to help prevent inadvertent changes. Proceed to enable.
ENABLED   Press and hold MENU (▲) and MENU (▼) at the same time for 4-5 seconds.
OFFSET   Press EXECUTE to toggle the DMX mode from OFFSET to PATCH.
PATCH   Press EXECUTE to toggle the DMX mode from PATCH to OFFSET.

Press ESCAPE or RESET to exit the menu.

Any change in the configuration is automatically saved.

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12. DMXA PAT   *Patch the 60 dimmer (PWM) outputs to any DMX-A input channel.*

There are two ways to configure the DMX patch. Each of the 60 dimmer (PWM) outputs can be manually (MANUAL) patched to a DMX input channel or patched in blocks (BLOCK) of sequential dimmers and DMX channels.

For MANUAL patching, each of the dimmers is patched individually. First, the dimmer (DIM) output is selected, and then any DMX input channel from 001 to 512 is patched to the selected dimmer.

For BLOCK patching, a sequential range of dimmers are patched to a sequential range of DMX channels. First, the first dimmer number (DIM#) in the block is selected, then the DMX-A start address (DMX-A) for the block is selected, and then finally the number of dimmers (#DIM) in the block is selected. For example, if DIM# is 001, DMX is 001, and #DIM is 60, then all the dimmer outputs, 01 thru 60 are addressed sequentially to DMX channels 01 thru 60. For a more complex example, if DIM# is 30, DMX is 321, and #DIM is 30, then dimmer outputs 31 thru 60 are addressed sequentially to DMX channels 321 thru 351.

Using a combination of MANUAL and BLOCK patching methods can speed up configuration. Typically, a BLOCK of dimmers is first patched and then edited using the MANUAL patch.

The DMX patch should be cleared (CLEAR) before configuring the patch. Clearing the patch ensures all previously configured patch data is cleared (erased).

When DMXA PAT is utilized in conjunction with DMXB PAT, each of the 60 dimmer (PWM) outputs can be patched to (controlled from) any DMX input channel from 001 to 512, from either or both DMX-A and DMX-B inputs simultaneously.

If a dimmer is patched to both DMX-A and DMX-B input channels, the DMX levels are merged and highest-takes-precedence (HTP).

	Press EXECUTE to enter the menu and configure the DMX-A patch.
	Press MENU (⬍) to scroll through and select the patching method.
MANUAL?	Press EXECUTE to patch each of the dimmers manually (MANUAL).
DIM DMXA	The top line shows the dimmer (DIM) and (DMXA) address headings.
001<999?	The second line shows the dimmer (DIM) and (DMXA) address values.
060<999?	Press MENU (⬍) to select the dimmer (DIM) from 001 to 60 to patch.
001 999?	Press EXECUTE to advance and select the DMXA address for the dimmer.
001 999?	DMXA is initialized at 999 to indicate the dimmer is not patched.
001 999?	? indicates the DMXA address (513 to 999) is invalid and is not patched.
001 999?	The cursor (_) position indicates the DMXA digit to be edited.
001 999?	Press EXECUTE to move the cursor to the right, under the digit to be edited.
001 999?	Press ESCAPE to move the cursor to the left or to exit the menu.
001 512	Press MENU (⬍) to select the DMXA address from 001 to 512.
	Repeat until all required dimmers are manually patched.
BLOCK?	Press EXECUTE to patch the dimmers in a sequential block (BLOCK).
DIM#:001	Press EXECUTE to select the first dimmer number (DIM#) in the block.
DIM#:060	Press MENU (⬍) to edit the dimmer number (DIM#) from 001 to 60.
DMXA:001	Press EXECUTE to select the DMX-A (DMXA) start address for the block.
DMXA:512	Press MENU (⬍) to edit the DMX-A (DMXA) start address from 001 to 512.
#DIM:001	Press EXECUTE to select the number of dimmers (#DIM) in the block.
#DIM:060	Press MENU (⬍) to edit the number of dimmers (#DIM) from 01 to 60.
PROCEED?	Press EXECUTE to proceed.
SURE?	Press EXECUTE if, you are sure.
DONE!!!	Indicates the sequential block patch has been completed.
	Repeat until all required blocks of sequential dimmers have been patched.
CLEAR?	Press EXECUTE to clear the entire patch.

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SURE?	Press EXECUTE to proceed if, you are sure.
DONE!!!	Indicates the entire patch has been cleared.
	Press ESCAPE to exit the menu and save the selected patch.

> **NOTE:** *Be sure to BACKUP any configuration changes!*
>
> **NOTE:** With DMX patch mode activated, any configuration within the ADDRESS, DMX MODE, 2 RM SET and DC PATCH menus is ignored, and the DMX patch configured within this menu takes precedence.

13. DMXB PAT

Patch the 60 dimmer (PWM) outputs to any DMX-B input channel.

Refer to the DMXA PAT menu for further information.

The DMXA PAT menu is used to patch dimmers to DMX-A input channels, while the DMXB PAT menu is used to patch dimmers to DMX-B input channels.

14. SH TIME

Set the DMX status hold time from 0 to 99 minutes or infinite.

When DMX is disconnected the system will hold the status of the last received DMX levels for the selected amount of time. When activated, the LCD display shows a countdown of the status hold time or infinite hold.

	Press EXECUTE to enter the menu.
HTIME 00	Displays the current DMX status hold time (HTIME) setting.
HTIME 99	Press MENU (↕) to set the desired hold time from 00 to 99 minutes.
HTIME XX	Press MENU (↓) to set the desired hold time to infinite (XX).
	Press ESCAPE to exit the menu and save the desired DMX status hold time.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

15. DC PATCH

Configure the dimmer to channel patch for the dimmer rack.

~~Each of the 120 dimmer (PWM) outputs can be assigned and patched to any of the~~ Each of the 60 dimmer (PWM) outputs can be assigned and patched to any of the 60 control channels. Multiple dimmer outputs may be patched to a single control channel. The dimmer to channel patch is used by other menu features to provide transparent control of the dimmer output circuits. EDI-60 systems are typically patched for 1 to 1 operation but may be altered for custom applications.

D01<C01	Displays the dimmer (D) output (01) and its current control channel (C) patch (01).
D60<C01	Press MENU (↕) to select the desired dimmer output from 001 to 60.
D60<C01	Press EXECUTE to toggle between dimmer (D) and channel (C) selection.
D60<C01	The cursor (<) position indicates dimmer (D) or channel (C) selection.
D60<C01	Press MENU (↕) to select the desired control channel from 001 to 60.
D60<C011	Press EXECUTE to toggle the cursor (<) and select another dimmer output to patch.
	Press ESCAPE to exit the menu and save the desired dimmer channel patch.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

> **NOTE:** *DMX O/P must be set to OFFSET mode for this menu to function.*

16. DIM CURV

Configure the dimmer curve for each output.

There are five different dimmer curve profiles that can be assigned to each individual dimmer output circuit. Square Law (SQ) curve is the industry standard and the default for all dimmers. The (LD) curve is reserved for future application. The linear (LN) curve modifies the dimmer output for a linear relationship to the control input level. Direct Drive (DD) curve is not modified - meaning the control input level is directly

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proportional to the control output level. Non-Dim (ND) curve assigns the dimmer circuit to operate in a full-on or off state only, with no dimming. Dimmers set for non-dim (ND) will be triggered full-on at the ND-LEVEL setting.

	Press EXECUTE to enter the menu.
CH 01 SQ	Displays the dimmer channel (CH) output (01) and its current dimmer curve (SQ).
CH 60 SQ	Press MENU (⬍) to select the desired dimmer number from 01 to 60.
CH 60 LN	Press EXECUTE to toggle to curve mode.
CH 60 DD	Press MENU (⬍) to toggle to direct drive (DD) mode.
CH 60 ND	Press MENU (⬍) to toggle to non-dim (ND) mode.
	Press ESCAPE to exit the menu and save the desired dimmer curves.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

17. ND-LEVEL   *Set the non-dim trigger level threshold for each output.*

The non-dim trigger level threshold can be set for each of the 60 dimmer (PWM) outputs. The trigger level setting is only relevant when the dimmer curve profile is set to non-dim (ND). The trigger level can be set from 10% to 100% DMX control input, with 10% increments. There is 5% hysteresis to ensure there is no false triggering. When the trigger level is set to 10%, the output is turned full-on at 10% and off at 5%. When the trigger level is set to 100%, the output is turned full-on at 100% and off at 95%. The default trigger level is 10%.

	Press EXECUTE to enter the menu.
D01<10%	Displays the active dimmer (D) and the trigger level (%) setting.
D60<10%	Press MENU (⬍) to select the desired dimmer output from 01 to 60.
D01<10%	Press EXECUTE to toggle between dimmer (D) and level (%) selection.
D60>10%	The cursor (>) position indicates level (%) selection.
D60>100%	Press MENU (▲) to set the trigger level from 10% to 100% DMX control.
D60>100%	Press EXECUTE to toggle the cursor (<) and select another dimmer output.
	Press ESCAPE to exit the menu and save the desired trigger level settings.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

NOTE: *DIM CURV must be set to ND for this menu to function.*

18. VOUT LIM   *Set the maximum RMS output voltage for each dimmer.*

Limiting the maximum RMS voltage can greatly improve lamp life.

	Press EXECUTE to enter the menu.
D>01L 00	Displays the dimmer (01) and its current maximum output voltage level (95) in Percent (%).
D>60L 05	Press MENU (▲) to select the desired dimmer number from 00 to 60.
D 60L>05	Press EXECUTE to toggle the pointer (>) to select the output voltage Low level limit. This is the threshold % DMX level that will turn the load on.
D 60H>95	Press EXECUTE to toggle the pointer (>) to select the output voltage High level limit. This is the maximum % DMX (95 is MAX) of the maximum RMS output voltage to the load.
	Press ESCAPE to exit the menu and save the desired dimmer curves.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

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19. ANA MODE   *Configure the analog inputs for normal or load shed mode.*

Each of the four (4) analog inputs can be independently configured for normal (NORM) or load shed (SHED) mode of operation.

Normal (NORM) mode sets the analog input for 0-10VDC operation.
The analog voltage level sensed sets the level for the selected dimmer outputs.

Load shed (SHED) mode is used as a power management interface to building management systems (BMS). Contact closure devices such as a photocell or maintained switch contact may be used to trigger the analog input. When a voltage of 5.5VDC to 12VDC is sensed on the analog input the selected dimmer outputs are disabled (set to zero output level). The selected dimmer outputs are enabled when the voltage sensed on the analog input drops to below 4.5VDC.

	Press EXECUTE to enter the menu and set the mode for each analog input.
A01<NORM	Displays the active analog input (A01) and current mode setting (NORM).
A04<NORM	Press MENU (⬍) to select the desired analog input to configure.
A04<SHED	Press EXECUTE to toggle from normal (NORM) to load shed (SHED) mode.
	Press ESCAPE to exit the menu and save the desired analog input modes.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

20. ANA PAT   *Patch the analog inputs to any combination of control channels.*

	Press EXECUTE to enter the menu and activate analog patch mode.
A01 C01	Displays the active analog (A) input and control channel (C).
A04 C01	Press MENU (⬍) to select the desired analog input to patch from 01 to 04.
A04 C01	Press EXECUTE to toggle from analog (A) to channel (C) selection.
A04 C01	The cursor (< >) position indicates analog (A) or channel (C) selection.
A04 C60	Press MENU (⬍) to select the desired control channel from 01 to 60.
A04 C60*	Press EXECUTE to patch and flag (*) the control channel to the analog input.
A04 C60*	Press ESCAPE to toggle the cursor (< >) and select another analog input.
	Press ESCAPE to exit the menu and save the desired analog patches.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

21. ANA TEST   *View the control level for each of the analog inputs.*

The analog voltage level for the 4 analog inputs can be tested and viewed as a percentage or hexadecimal value. The level displayed is proportional to the 0-10VDC analog input where 5VDC is 50%.

	Press EXECUTE to enter the menu and activate analog test mode.
AI>01=00	Displays the active analog input (AI > 01) and the level (00).
AI>04=00	Press MENU (⬍) to select the desired analog input to test from 01 to 04.
AI>04=FL	Displays the analog input level from 00% to 100% (FL).
	Press ESCAPE or RESET to exit the menu.

22. ANA BLOC   *Enable or disable the analog inputs when DMX is being received.*

When analog blocking (ANA BLOC) is enabled, the analog inputs will be ignored when DMX is online. When analog blocking is disabled, the analog inputs will be merged/combined with the DMX inputs and functions in a highest-takes-precedence (HTP) mode of operation.

ENABLED	Press EXECUTE to toggle analog blocking from ENABLED to DISABLED.
DISABLED	Press EXECUTE to toggle analog blocking from DISABLED to ENABLED.
	Any change in the configuration is automatically saved.

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23. STANDBY   *Enable or disable the power savings standby mode.*

When standby mode is enabled, the microcontroller goes to sleep within 5 seconds of inactivity on the control inputs. The microcontroller wakes up again when a programming switch is pressed or when control is sensed on the control inputs. Note that there is a delay of 150 milliseconds for the microcontroller to wake up and restart normal run mode.

ENABLED   Press EXECUTE to toggle standby mode from ENABLED to DISABLED.
DISABLED   Press EXECUTE to toggle standby mode from DISABLED to ENABLED.
Any change in the configuration is automatically saved.

24. OC MODE   *Configure the input trigger parameters for the open collector output.*

The on-board open collector output is used to sink up to 100mA of current. It can be configured to be triggered via a selected DMX channel, analog input 4, or both. The open collector is triggered on at 55% control input and triggered off again at 45% control input. When analog and DMX (A+D) are selected to trigger the open collector, the inputs are combined for highest takes precedence (HTP).

Press EXECUTE to enter the menu and configure the open collector output.
A+D< 001   Displays the active trigger mode as analog and DMX (A+D<) channel (001).
A+D> 001   Press EXECUTE to toggle the pointer (>) and select the DMX channel.
A+D> 512   Press MENU (⬍) to change and select the DMX channel from 001 to 512.
A+D< 512   Press EXECUTE to toggle the pointer (<) and select a different trigger mode.
DMX< 512   Press MENU (⬇) to select DMX input trigger mode.
ANA<   Press MENU (⬇) to select analog (ANA) input trigger mode.
OFF<   Press MENU (⬇) to deactivate (OFF) the open collector output.
Press ESCAPE to exit the menu and save the desired settings.
Press RESET to exit the menu without saving.
The menu will automatically time out after 5 minutes of inactivity and save.

25. AUX IN   *Select which scene the auxiliary input will trigger/enable.*

When a contact is sensed on the auxiliary input the selected scene will be triggered and held until the contact is removed. The auxiliary input only functions when scene mode (SCENES) is activated or when the systems scene mode (SCENEMOD) is enabled and active.

SCENE:01   Displays the scene (01) that will be triggered by the auxiliary input.
SCENE>01   Press EXECUTE to enter the menu and select a different scene.
SCENE>20   Press MENU (⬍) to change the selected scene from 01 to 20.
Press ESCAPE to exit the menu and save the desired scene to be triggered.
Press RESET to exit the menu without saving.
The menu will automatically time out after 5 minutes of inactivity and save..

26. SCENEMOD   *Enable or disable scene mode and the auxiliary input.*

Enabling scene mode puts the system in scene mode. With scene mode enabled the selected scene will always be activated when DMX is not being received. The selected scene can be changed in the SCENES menu. Scene mode enables the use of the auxiliary input. A contact closure sensed on the over-temperature, fire alarm or security alarm inputs automatically takes precedence over scene mode.

ENABLED   Press EXECUTE to toggle scene mode from ENABLED to DISABLED.
DISABLED   Press EXECUTE to toggle scene mode from DISABLED to ENABLED.
Any change in the configuration is automatically saved.

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27. S-ALARM   *Select the level and control channels triggered by the security alarm input.*

When a contact is sensed on the security alarm input, the selected control channels will cycle on and off at a 1 hertz rate (one cycle per second). The level of the on cycle can be set from 0% to 100%. The security alarm input takes precedence over the DMX-And analog inputs. The system will stay in security alarm mode until the contact is removed. The factory default is the first 24 control channels at full-on.

Press EXECUTE to enter the menu and configure the security alarm input.

L>FL:01*	Displays the output level (L) of 100% (FL) and control channel (01*).
L>00:01*	Press MENU ( ) to change the output level from 00% to 100% (FL).
L:FL>01*	Press EXECUTE to toggle from level (L) to channel (C) selection.
L:FL>01*	The cursor (>) position indicates level (L) or channel (C) selection.
L:FL>60*	Press MENU ( ) to select the desired control channel from 01 to 60.
L:FL>60	Press EXECUTE to toggle the patch flag (*) for each desired control channel.
L:FL>60*	The patch flag (*) indicates the channel will be triggered by the security alarm.
L:FL>60*	Press ESCAPE to toggle the cursor (>) back to level (L) selection.
	Press ESCAPE to exit the menu and save the desired settings.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

28. F-ALARM   *Select the level and control channels triggered by the fire alarm input.*

When a contact is sensed on the fire alarm input, the selected control channels are triggered on to the selected output level from 0% to 100%. The fire alarm input is merged with the DMX-A and analog inputs with highest takes precedence (HTP). The system will stay in fire alarm mode until the contact is removed. The factory default is the first 24 control channels at full-on.

Press EXECUTE to enter the menu and configure the fire alarm input.

L>FL:01*	Displays the output level (L) of 100% (FL) and control channel (01*).
L>00:01*	Press MENU ( ) to change the output level from 00% to 100% (FL).
L:FL>01*	Press EXECUTE to toggle from level (L) to channel (C) selection.
L:FL>01*	The cursor (>) position indicates level (L) or channel (C) selection.
L:FL>01*	Press MENU ( ) to select the desired control channel from 001 to 60.
L:FL>01*	Press EXECUTE to toggle the patch flag (*) for each desired control channel.
L:FL>60*	The patch flag (*) indicates the channel will be triggered by the fire alarm.
L:FL>60*	Press ESCAPE to toggle the cursor (>) back to level (L) selection.
	Press ESCAPE to exit the menu and save the desired settings.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

29. Ø-PATCH   *Set the zero-cross phase reference for each dimmer control output circuit.*

EDI Mark VII dimmer racks are typically powered by 3-phase, with the dimmer phase reference configured for AABBCC (dimmers 1 and 2 are powered by phase A, dimmers 3 and 4 are powered by phase B, dimmers 5 and 6 are powered by phase C, etc.). The defaults (DEFAULTS) menu is normally used to configure the phase patch for standard applications. This menu provides custom phase patching for non-standard applications.

If a dimmer control output is patched to the incorrect phase reference, the dimmer will not dim correctly and will go to full output at around 1% DMX input.

Press EXECUTE to enter the menu and configure the dimmer phase patch.

CH 01>ØA	Displays the dimmer channel (C) output (01) and the patched phase (ØA).
CH 60>ØC	Press MENU ( ) to change the dimmer channel to patch from 01 to 60.
CH 60>ØA	Press EXECUTE to toggle the patch to Phase A (ØA).
CH 60>ØB	Press EXECUTE to toggle the patch to Phase B (ØB).
CH 60>ØC	Press EXECUTE to toggle the patch to Phase C (ØC).
	Press ESCAPE to exit the menu and save the desired settings.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

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30. POLARITY   *View the PWM Polarity.*

          SV= +COM is Positive Common PWM.

          AE= -COM is Negative Common PWM.

31. LINE V   *View the RMS line voltage for each power phase.*

	Press EXECUTE to enter the menu and view the line voltage of each phase.
ØA=122V	Shows the line voltage of Phase A.
ØB=122V	Press MENU (▲) to view the line voltage of Phase B.
ØC=122V	Press MENU (▲) to view the line voltage of Phase C.
	Press ESCAPE or RESET to exit the menu.

32. LINE F   *View the line frequency of phase A.*

60.0 Hz	Shows the frequency.

33. CTL TEMP   *View the temperature of the microcontroller.*

+91°F	Shows the temperature in degrees Fahrenheit.
+33°C	Press EXECUTE to toggle units to degrees Celsius.

34. RTIME   *View the total run time of the microcontroller.*

The run time counter keeps track of the total time the microcontroller is powered up. The maximum time is 99999 hours, 59 minutes, 59 seconds, or about 11.4 years. System operation is not affected when the maximum run time is reached and can be reset to zero at the factory.

RTIME SS	Shows the number of seconds (SS) of run time.
HHHHH:MM	Shows the number of hours (HHHHH) and minutes (MM) of run time.

38. HARD-KEY   *View the microcontroller's unique six-character hard-key code.*

EDI-120 retrofit control systems may be shipped with an invalid hard-key code of EDI-60 retrofit control systems may be shipped with an invalid hard-key code of 000000. A valid hard key must be entered before the run time (RTIME) counter reaches 2160 hours / 90 days. If the run time expires without a valid hard key the LCD display will show a runtime counter error (RTC ERR!) and all dimmer control outputs will be disabled.

HARD-KEY VALID	On the LCD display represents a valid HARD-KEY.
HARD-KEY —————	On the LCD display represents an invalid HARD-KEY.
[X]XXXXX	Shows the unique six-character hard-key code (XXXXXX).
[X]XXXXX	Follow the procedure below to enter the menu and modify the hard key.
[X]XXXXX	A bracket indicates the character that is being modified.
[X]XXXXX	Press MENU (⬍) to modify the first hard-key character.
X[X]XXXX	Press EXECUTE to advance to the second hard-key character.
[X]XXXXX	Press MENU (⬍) to modify the second hard-key character.
XX[X]XXX	Press EXECUTE to advance to the third hard-key character.
[X]XXXXX	Press MENU (⬍) to modify the third hard-key character.
XXX[X]XX	Press EXECUTE to advance to the fourth hard-key character.
[X]XXXXX	Press MENU (⬍) to modify the fourth hard-key character.
XXXX[X]X	Press EXECUTE to advance to the fifth hard-key character.
[X]XXXXX	Press MENU (⬍) to modify the fifth hard-key character.
[X]XXXXX	Press EXECUTE to advance to the sixth hard-key character.
XXXXX[X]	Press MENU (⬍) to modify the sixth hard-key character.

XXXXXX   Press EXECUTE to apply the HARDKEY code. DISABLED Upon the entry of valid HARDKEY code, this menu option will be indefinitely disabled.

[X]XXXXX   Upon the entry of invalid HARDKEY code, user needs to repeat the attempt.

Press ESCAPE to exit the menu and save the desired hard-key code.

Press RESET to exit the menu without saving.

36. SERIAL#   *View the microcontroller's unique six-character silicone serial number.*

XXXXXX   Shows the unique six-character serial number.

37. VERSION   *View the microcontroller's software version.*

SV vXXX   Shows the microcontroller's software version.

38. RESTORE   *Restore parameters saved in the EEPROM memory module.*

All the configuration setting parameters can be restored from EEPROM memory module if they have been inadvertently changed or corrupted. This feature can also be used to load configuration setting parameters into a different or new control system. This reduces the configuration time for multi-system applications that require similar settings or when a replacement control system is required.

Press EXECUTE to enter the menu.

SURE???   Press EXECUTE to restore from Memory module.

WAIT!!!   Automatically begins parameter restore from memory module.

DONE!!!   When parameter restore is complete, press ESCAPE and ESCAPE (X2).

39. BACKUP   *Backup parameters and save them in the EEPROM memory module.*

All the configuration setting parameters can be saved in the EEPROM memory module for backup. The backup parameters can then be restored if they have been inadvertently changed or corrupted. Once backup is complete the EEPROM memory module may be removed for safe storage. All EDI-60 retrofit control systems are shipped with the factory default settings saved in the EEPROM memory module.

Press EXECUTE to enter the menu.

SURE???   Press EXECUTE to proceed.

WAIT   Automatically begins parameter backup and generates CRC value.

DONE!!   Parameter backup is done and saved in the EEPROM memory module.

Press ESCAPE and ESCAPE (X2).

> **NOTE:**   **Be sure to BACKUP the EDI-60 when installation configuration is complete.**

40. PRINTOUT   *Print various system configuration settings using a handheld infrared printer.*

All EDI-60 retrofit control systems come equipped with an infrared (I/R) LED that provides the ability to print out all the system configuration settings, when used in conjunction with a handheld infrared printer (Johnson System Inc., Part Number: JS-IP). Point the handheld printer I/R LED directly at the EDI-60 retrofit control system PRINTER I/R LED within 6 Inches (150mm).

Press EXECUTE to enter the menu.

Press MENU (⬍) to scroll through and select which item(s) to printout.

SYSTEM?   Prints general system information and configuration settings.

ANALOGS?   Prints the channel patch for all 4 analog inputs.

PH-PATCH?   Prints the phase patch for all 60 dimmer outputs.

CURVES?   Prints the dimmer curves for all 60 dimmer outputs.

F-ALARM?   Prints the configuration settings for the fire alarm input.

S-ALARM?   Prints the configuration settings for the security alarm input.

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SCENE?	Prints the level settings for each of the 60 dimmers within the 20 scenes.
V-LIMIT?	Prints the output voltage limit settings for each of the 60 dimmer outputs.
DC-PATCH?	Prints the configuration settings for the dimmer to channel patch.
FD-TIME?	Prints the fade time settings for each of the 12 scenes.
2 ROOM?	Prints the two-room assignment for each of the 60 dimmer outputs.
DMXBPAT?	Prints the DMX-A patch for each of the 60 dimmer outputs.
DMXAPAT?	Prints the DMX-B patch for each of the 60 dimmer outputs.
ND-LEVEL	Prints the non-dim trigger level threshold setting for each of the 60 dimmer outputs.
PRINTING	Press EXECUTE on any item to begin printing.
	Press ESCAPE or RESET to exit the menu.

41. DEFAULTS *Set various system configuration settings to the factory default.*

	Press EXECUTE to enter the menu.
	Press MENU (⬍) to scroll through and select which item(s) to default.
3-PHASE?	Sets the dimmer phase patch to AABBCC. This is the default setting.
1-PHASE?	Sets the dimmer phase patch to AAAAAA.
CURVES?	Sets all 60 dimmer curve profiles to DD, LN, SQ, ND.
ALL DD?	Press MENU (⬍) to toggle between the different curves.
ANA-OFF?	Clears the control channel patch for all 4 analog inputs.
V-LIMIT?	Sets the output voltage limit to full on all 60 dimmer outputs.
DC-PATCH	Clears the dimmer to channel patch and configures it for 1:1 operation.
FD-TIME?	Sets the fade time at 5 seconds for all 20 scenes.
2 ROOM?	Sets the two-room assignment to room "A" on all 60 dimmer outputs.
ND-LEVEL	Sets the non-dim trigger level threshold to 10% on all 60 dimmer outputs.
SURE???	Press EXECUTE to select the item to default. Are you sure?
DONE!!!	Press EXECUTE to set the selected default.
	Press ESCAPE or RESET to exit the menu.

42. LCD VIEW *Adjust the contrast of the LCD Display for optimum viewing.*

	Press EXECUTE to enter the menu.
ADJUST ⇑⇓	Press EXECUTE once!
	Press MENU (⬍) to adjust the contrast.
	Press ESCAPE to exit the menu and save the desired LCD view.
	Press RESET to exit the menu without saving.
	The menu will automatically time out after 5 minutes of inactivity and save.

Important Hard-key Information

EDI-60 retrofit control systems may be shipped with an invalid hard-key code of 000000. A valid hard-key must be entered before the run time (RTIME) counter reaches 2,160 hours / 90 days. If the run time expires without a valid hard-key, the LCD display will show a runtime counter error (RTC ERR!) and all dimmer control outputs will be disabled.

Refer to menu item "HARD-KEY" on page 27 of the user manual for detailed instructions on how to enter a valid hard-key code.

This manual is accurate at time of printing and subject to revisions and technical updates as required without prior notice.

Please visit www.johnsonsystems.com for applicable updates.

Troubleshooting Reference

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EDI-60 Series
Control Retrofit for Electronics Diversified Inc. (EDI) and Cooper
Mark VII Dimmer Racks
Rev. 1

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