INSTALLATION INSTRUCTIONS

Magnetic Remote Mounted Transformers

Single output optimized for non-resistive LED loads

MAGXFMR 1C 20W 277 12AC BL – 12 volt, 0.5W min - 20W max.
MAGXFMR 1C 40W 277 12AC BL – 12 volt, 0.5W min - 40W max.
MAGXFMR 1C 75W 277 12AC BL – 12 volt, 0.5W min - 75W max.
MAGXFMR 1C xxW 277 12AC BL – 12 volt, 0.5W min - xxW max.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFEGUARDS:

When using electrical equipment, always adhere to basic safety precautions including the following:

IMPORTANT SAFETY / OPERATING INSTRUCTIONS

1. Read all instructions.
2. Do not conceal or extend exposed conductors through a building wall.
3. To reduce the risk of fire and burns, do not install this lighting system where the exposed bare connectors can be shorted or contact any conductive materials.
4. To reduce the risk of fire and overheating, make sure all connections are tight.
5. Do not install any luminaire closer than 6 inches (15.25cm) from any curtain, or similar combustible material.
6. Turn off electrical power before modifying the lighting system in any way.
7. This transformer is intended for use with Juno Trac 12 Series or Trac 12/25 Series or Flex 12 Series low voltage lighting system only and is optimized for a non-resistive LED load.
8. Install transformer on a wall or other vertical surface.
9. Do not install in confined or unventilated areas that may entrap heat.
10. Do not allow transformer to come in contact with insulation.
11. Do not install in wet or damp locations or outdoors.
12. Do not install in a non-accessible location. Units are equipped with a manually resettable circuit breaker that will trip in the event of a short circuit or overload condition.
13. Use only 10 or 12 gauge wire to connect the transformer output to the Trac.
14. MAGXFMR series transformers should be dimmed only with dimmers specifically designed for use with magnetic transformers. When used in conjunction with a non-resistive LED load, these transformers should be dimmed using only dimmers qualified for this application by Juno Lighting Group as listed on Juno specification sheet, which can be accessed at www.junolightinggroup.com. Use of dimmers not qualified by Juno Lighting Group for this application can result in flicker, reduced dimming range and erratic performance. The dimmer must only be connected to the 277-volt input wires providing power to the transformer.
15. The unit is equipped with a three input leads: white (COM), black (277V), and yellow (BOOST).
16. Do not exceed 12.0V at the first lamp or exceed the maximum rated wattage of the transformer.
17. Connect ground wire to the GND terminal.
18. Applying 277 volts across the COM PRI and 277VAC PRI input terminals will provide nominal 12 volts across the output terminals. Applying 277 volts across the COM PRI and BOOST PRI input terminals will provide nominal 13 volts across the output terminals.
19. Do not apply 277 volts across the 277VAC PRI and BOOST PRI input terminals.

INSTALLATION

1. Select a mounting location for the transformer, taking care to observe the above listed safety / operating instructions.
2. Choose the appropriate wire gauge, and determine the proper wire length and transformer input, based on the desired lamp load and the table on the back of this sheet.
3. Mount the transformer and Trac to the desired surface. Run AC power lines to the transformer and output wires from the transformer to the Trac.
4. In order to avoid nuisance tripping of the panel circuit breaker, it is recommended that the use of a high magnetic type circuit breaker be selected for this and all high power, magnetic type transformer loads.
5. Connect the input and output wires to the transformer per the diagram on the case, information provided on this sheet and local electrical codes.
6. Connect the other end of the output wires to the Trac Feed.
7. Ensure that all electrical connections are tight. This step is essential for a reliable installation.
8. Install the lamp fixtures onto the Trac.
9. Apply AC power. Confirm that all fixtures function acceptably. Measure the voltage at the first lamp. Confirm that the voltage is between 11.4 and 12 volts.

WARRANTY

Limited warranty located at:
www.acuitybrands.com/customerresources/terms_and_conditions.aspx

Technical Services Phone (888) 387-2212

INSTALLATION INSTRUCTIONS

GUIDELINES FOR A TROUBLE-FREE LOW VOLTAGE INSTALLATION

1. IMPROPER WIRE GAUGE OR POOR WIRE CONNECTIONS CAN RESULT IN PRODUCT FAILURE.
These transformers reduce the line voltage by a factor of ten. To achieve the same power levels at the lamp, the output current is increased by the same factor of ten. To accommodate these high current levels, heavy gauge wire and secure wire connections are essential, or product failure can result.

75W = 277V x 0.27A	40W = 277V x 0.14A	20W = 277V x 0.07A
75W = 12V x 6.25A	40W = 12V x 3.33A	20W = 12V x 1.67A

2. LAMP VOLTAGE CAN BE AFFECTED BY NUMEROUS FACTORS.
Many factors will affect the voltage delivered to the load. Below is a list of these factors and examples of their attributes.

a. Variations in transformer input voltage.	11.1V @ 277V input	11.7V @ 291V input (+5%)
b. Using the '277V' or 'BOOST' transformer input.	11.1V (277V input)	12.1V (BOOST input)
c. Use of a dimmer to control the transformer.	11.1V (no dimmer)	10.6V (with dimmer set at maximum)
d. Length of wire between transformer and trac.	11.5V @ 5 feet (# 12)	11.3V @ 20 feet (# 12)
e. Gauge of wire between transformer and trac.	11.4V (# 10 @ 20 feet)	11.3V (# 12 @ 20 feet)
f. Transformer operating temperature.	11.1V room temp.	10.8V max. temp.

3. EXCESSIVE LAMP VOLTAGE AND TEMPERATURE CAN DRASTICALLY REDUCE LAMP LIFE.
Lamp life is directly affected by the applied voltage. Excess voltage as little as 1/4 volt over 12 volts can reduce lamp life by as much as 40%. Some of the factors listed above can be chosen, while others cannot, and therefore must be compensated for.

4. CHOOSE THE CORRECT PARAMETERS FOR THE APPLICATION.
In general, for a fully loaded transformer, use the 277V input and 12 gauge wire for runs up to 15 feet. For runs from 15 to 45 feet, use the BOOST input and 12 gauge wire. For longer runs, use 10 gauge wire and/or decrease the load as described in the table below.

TABLE PREDICTING VOLTAGE AT FIRST LAMP FOR VARIOUS WIRE LENGTHS, GUAGES, INPUT AND LOADS

Distance from Transformer to 1st Lamp	277V INPUT						BOOST INPUT			
	12V, 6.3A, 75W		12V, 3.3A, 40W		12V, 1.7A, 20W		12V, 6.3A, 75W		12V, 3.3A, 40W	
	#12	#10	#12	#10	#12	#10	#12	#10	#12	#10
5	11.53	11.56	11.71	11.73	11.89	11.90	12.18	12.21	12.43	12.46
10	11.46	11.51	11.66	11.70	11.87	11.88	12.09	12.15	12.37	12.43
15	11.39	11.47	11.62	11.67	11.85	11.87	12.00	12.10	12.31	12.39
20	11.31	11.42	11.57	11.64	11.83	11.86	11.91	12.04	12.26	12.35
25	11.24	11.38	11.53	11.61	11.81	11.85	11.82	11.99	12.20	12.32
30	11.17	11.33	11.48	11.58	11.79	11.83	11.73	11.93	12.14	12.28
40	11.03	11.24	11.39	11.52	11.75	11.81	11.56	11.82	12.03	12.21
45	10.95	11.20	11.34	11.49	11.73	11.79	11.47	11.76	11.97	12.17
65	10.67	11.02	11.16	11.38	11.65	11.74	11.11	11.54	11.74	12.03
75	10.52	10.92	11.05	11.31	11.58	11.69	10.93	11.43	11.63	11.95
100	10.17	10.70	10.84	11.18	11.51	11.65	10.49	11.15	11.34	11.77

The shaded areas represent the suggested operating range of 11.0 to 12.0 volts at the first lamp on the trac. Juno suggests that the voltage measured at the first lamp be between 11.0 and 11.8 volts for 12V incandescent lamps and between 11.4 and 12.0 volts for 12V LED fixtures. Do not exceed 12 volts. A voltmeter should be used to confirm that the proper voltage is present.

FOR MAXIMUM LIGHT OUTPUT, SELECT A WIRE GAUGE AND INPUT TAP (STANDARD OR BOOST) THAT OPERATES THE FIRST LAMP AS CLOSE TO 12 VOLTS AS POSSIBLE. DO NOT EXCEED 12 VOLTS.

5. A VOLTMETER SHOULD BE USED TO CONFIRM THAT THE PROPER VOLTAGE IS PRESENT.
After the installation is complete, a voltmeter should be used to insure that suggested lamp voltages are not being exceeded. The voltage should be measured at the first lamp on the trac. Since some of the factors listed above are constantly changing, some allowance should be made for variations in voltage.

Juno suggests that the voltage measured at the first lamp be between 11.0 and 11.8 volts for 12V incandescent lamps (between 11.4 and 12.0 volts for 12V LED fixtures).

