

MODEL RLY-DIM-D INSTALLATION INSTRUCTIONS

IMPORTANT SAFEGUARDS

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED. THESE INCLUDE:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. This product can be used with LED, ballast, tungsten, and general use loads.
2. Make sure all connections are in accordance with the National Electrical Code and local regulations.
3. To reduce the risk of electric shock, disconnect both normal and emergency power supplies before servicing.
4. This product is intended to be used to control indoor and outdoor located loads.
5. An unswitched AC power source is required (120VAC/ 277VAC).
6. Do not install near gas or electric heaters.
7. Do not attempt to service a sealed RLY-DIM-2D unit. If it is malfunctioning, return to the manufacturer Myers Emergency Power Systems, LLC, 44 S. Commerce Way, Bethlehem, PA 18017.
8. The use of accessory equipment is not recommended by the manufacturer and may cause an unsafe condition.
9. Do not use this product for other than intended use.
10. Servicing should be performed by qualified service personnel.
11. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

SAVE THESE INSTRUCTIONS

5-Year Limited Warranty

Myers Emergency Power Systems, LLC warrants to the original purchaser/users for the published warranty period from the date of shipment that should Myers EPS equipment prove defective by reason of improper workmanship or material, Myers EPS will repair or replace the same equipment without charge. This warranty does not cover defects or malfunctions arising from improper installation, operation, repair or neglect, accident, or abuse. Myers EPS will honor its warranty provided the equipment has not been physically damaged or improperly installed or connected. To obtain warranty/repair within the warranty period, the defective product should be shipped freight prepaid to the address at the bottom of this document. To the extent permitted by applicable law, all warranties extending beyond repair or replacement as described above are disclaimed. This includes implied warranties of merchantability and fitness for a particular purpose. Where applicable law prohibits disclaimers or the implied warranties of merchantability and fitness, those warranties are limited to 12 months from date of shipment. Myers provides a 90-day money back guarantee if equipment does not perform in accordance with the Myers EPS published specifications. The liability of Myers EPS and its agents under all warranties is limited to repair and replacement as described herein and under no circumstances shall there be liability for any other kind of loss, damage, or labor—either consequential or for injury to a person or property or otherwise.

Electrical Specifications

120V/277V Sensing Input
16 Amp Ballast Load Rating (120-277V)
16 Amp General Use Rating (120-277V)
1920W Incandescent Load Rating (120V)
4432W Incandescent Load Rating (277V)
UL1008 Listed (US UL/ cUL)



Mechanical Specifications

Mounts in 4-11/16" Junction Box with Extension Box
UL94-5VA Plastic Flame Rating
Shipping Weight: 22 oz; Color: White
Temperature: -10°C-60°C (32°F - 140°F)
Flush Mounted Size: 6" x 6" x 1/2" Body
Size: 4-1/4" x 4-1/4" x 2-1/4"

Application

In the past, all emergency lights were left on 24 hours a day to meet safety codes. Now you can specify and install a **UL1008 Listed Emergency Lighting Transfer Switch, RLY-DIM-D**, which converts up to 16A of normal light fixtures to approved emergency lights. During normal operation, the RLY-DIM-D feeds designated emergency lights from the normal power circuit and allows them to switch or dim with the same control as your normal (non-emergency) lights. During a utility power interruption, the RLY-DIM-D feeds designated emergency lights from the emergency power circuit, at full brightness, regardless of the switch or dimmer position.

The RLY-DIM-D is intended for use with 2 wire, 3 wire, and 4 wire dimmable loads. This includes line voltage and 0-10V dimming, as well as ON/OFF loads.

Testing Methods

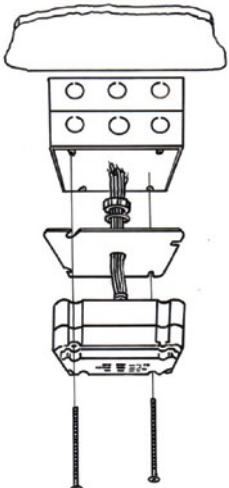

- **Integral Test Switch:** Allows the user to manually test the RLY-DIM-D as desired.
- **Automatic Test Option:** Provides automatic and monthly self-testing.
- **Fire Alarm/Dry Contact Option:** Allows emergency lighting activation from fire, security alarm, or remote test switch.
- **Inverter or Fire Alarm Remote Test Option:** Applications include fire alarm override and inverter monthly testing. Please contact Myers Emergency Power Systems, LLC for application and wiring details.

This device can be remotely tested by applying 24VDC to the red jumper wire. Applications include fire alarm override and inverter monthly testing. Please contact Myers Emergency Power Systems, LLC for application and wiring details.

Safety and Reliability Interlocks

- **Voltage Sensing Interlock:** Senses back-feed or erroneous voltage on load terminals during transfer through optically-isolated sensors.
- **Time Delay Interlock:** Ensures break-before-make transfer operation. Reduces or eliminates phasephase arcing risk.
- **Relay Position Detection:** Detects relay malfunction (such as welding) and alerts microprocessor to stop transfer to prevent phase-phase shorting across relays.
- **Mechanical Interlock:** A unique contact arrangement of relays prevents normal and emergency sources from being connected, even if all other interlocks fail.

Mounting

<ul style="list-style-type: none"> • Surface Mount Installation 	<ul style="list-style-type: none"> • Flush Mount Installation 
<ul style="list-style-type: none"> • Mounting Accessories (Included) <ul style="list-style-type: none"> • Flush adaptor ring • Plastic 1/2" lock nut • Recommended Box (Not Included) <ul style="list-style-type: none"> • 4-11/16" (2-1/8" deep) • 2-1/8" Extension Box • For Plenum Applications • Recommended Box (Not Included) <ul style="list-style-type: none"> • 6x6 or 8x8 box with blank cover <p>Plenum- rated test switch available upon request.</p>	

Method of Operation

The model RLY-DIM-D is a single-zone silent transfer switch for emergency lighting applications. Versatile, small, cost effective, and designed to work with all modern dimming types, including 2-wire and 3-wire line voltage, 0-10V and DALI low voltage, the RLY-DIM-D is compatible with all lighting types including LED, fluorescent, and incandescent. The RLY-DIM-D allows emergency and normal lighting to be dimmed from the same dimmer during normal operation. During emergency operation (power interruption), the RLY-DIM-D will transfer the emergency lighting to the emergency power source and bypass all dimming controls, bringing the emergency lighting to 100% (full) brightness, regardless of dimmer level. A momentary test switch on the front cover allows the user to simulate a power interruption when pressed.

Installation

In order to install the RLY-DIM-D in accordance with national/local code requirements, a qualified electrician should review and understand the installation instructions: Check voltage and current requirements. Verify and lock out circuit breakers on both regular (utility) power and 24 hours emergency inverter circuit. Install a self-adhesive 2" x 3" caution label in each fixture or load controlled by the RLYDIM-D indicating that the load is supplied from two different power sources: normal and emergency. Review wiring diagram and connect wires, one at a time, in accordance with the numeric identification.

Initial Testing

1. Turn on the normal (utility) power circuit breaker. The green LED should be lit.
2. Turn on the 24/7 emergency power circuit breaker. The red emergency power LED should be lit.
3. Do not turn the dimmer system on yet. Press the test switch on the RLY-DIM-D. The emergency lights should turn on at full brightness. Alternatively, you may turn off the normal power circuit breaker to test the RLYDIM-D.
4. With the normal power circuit breaker on, operate the dimmer control and verify that both the normal (non-emergency) and emergency fixtures turn on. The blue LED should be lit.

CAUTION

This light fixture is powered by two circuits: the 24-hour nightlight / emergency circuit must be turned off in addition to the regular power branch circuit breaker before servicing this light fixture.

Notes For Use

Use CU Wire Only / Utiliser des fils en cuivre uniquement

- Suitable for total system transfer.
- Input: 120-277VAC 50-60Hz
- Unit Power Consumption: 7W Max
- Continuous Load Current not to exceed 100% of switch rating
- 120-277 volt 16 Amp Ballast
- 120-277 volt 16 Amp Tungsten
- 120-277 volt 16 Amp General Use

When protected by a fuse of the specific manufacturer, type, and ampere rating as marked below, this transfer switch is suitable for use in circuits capable of delivery 5000A at 277V.

Littelfuse	KLK-30	30 Amps
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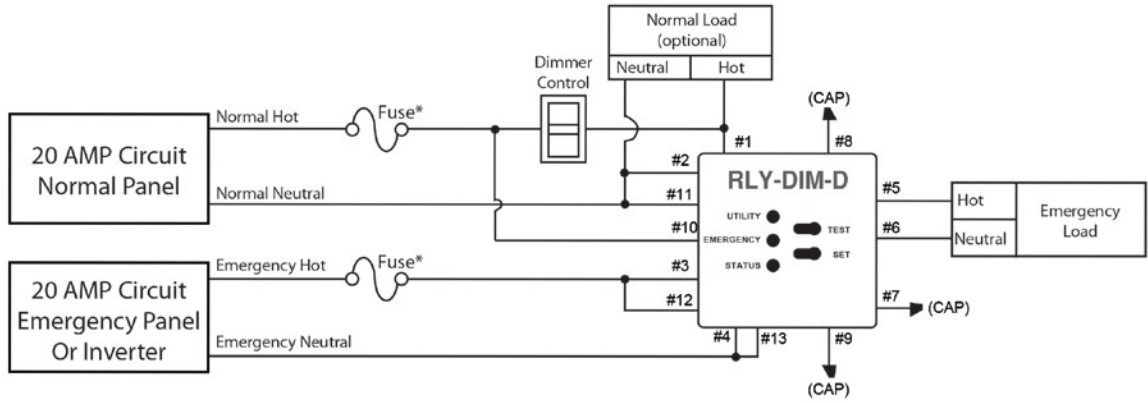
Littelfuse	KLKR-30	30 Amps
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Final Testing

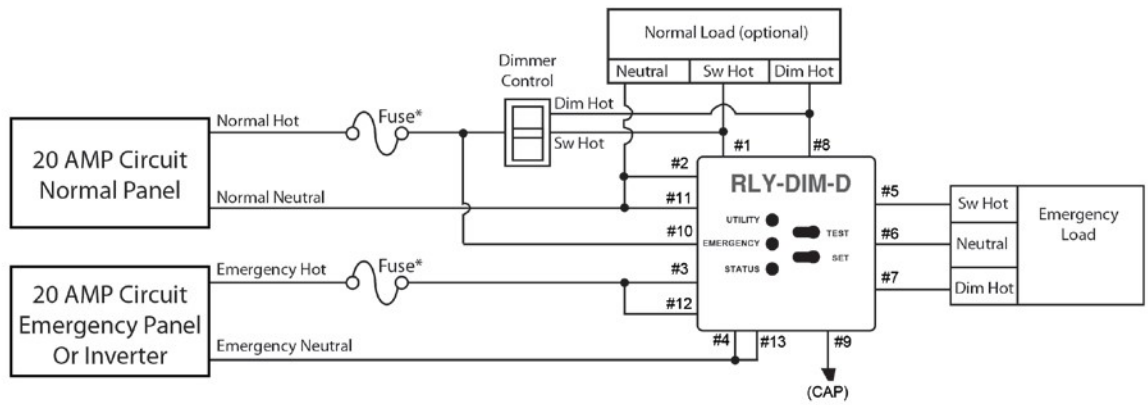
1. Coordinate with building occupants to establish a convenient time to turn off the main circuit breaker.
2. With the main circuit breaker off, the emergency circuits will be power by the generator, UPS, or inverter.
3. Emergency luminaries connected to the RLY-DIM-D should illuminate at full brightness, regardless of the dimmer system setting. This is the intended function of the Myers Emergency Power Systems Model RLY-DIM-D and in conformance with UL1008, NEC, and NFPA101 requirements.

Model RLY-DIM-D Wiring Diagrams

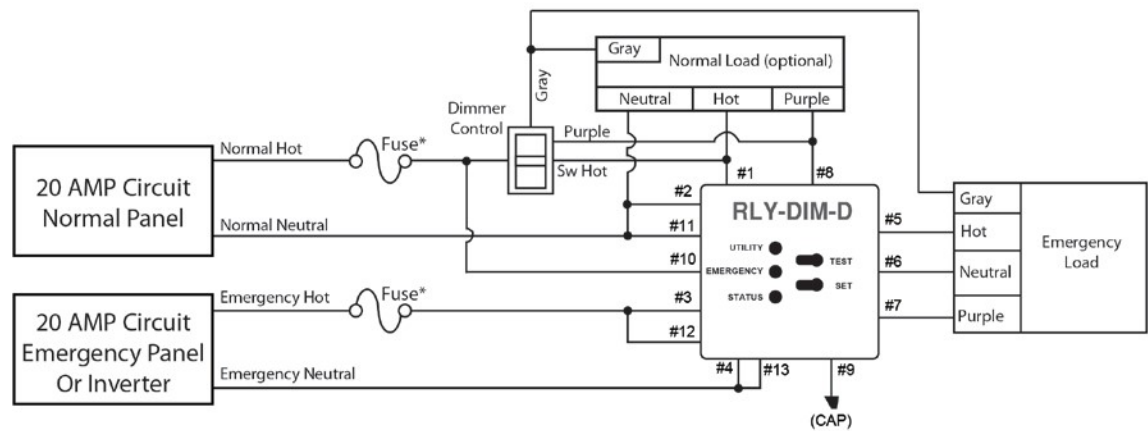
2 Wire Dimmable Loads



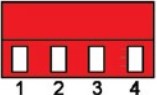
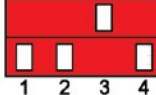

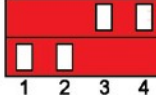
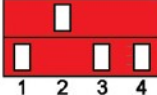
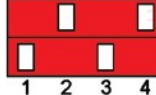
3 Wire Dimmable Loads



4 Wire Dimmable Loads

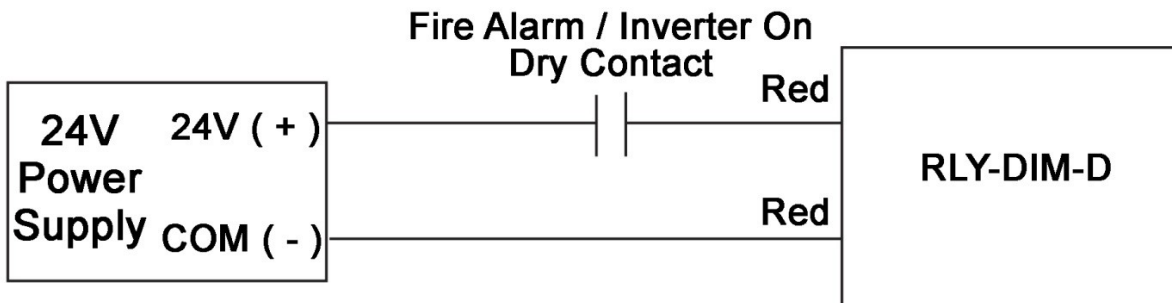


RLY-DIM-D DIP SWITCH SETTINGS

 <p>ON No Monthly Automatic Test OFF No Fire Alarm / Remote Test Switch DEFAULT</p>	 <p>ON No Monthly Automatic Test OFF Yes Fire Alarm / Remote Test Switch (N/C)</p>
 <p>ON Yes Monthly Automatic Test OFF No Fire Alarm / Remote Test Switch</p>	 <p>ON Yes Monthly Automatic Test OFF Yes Fire Alarm / Remote Test Switch (N/O)</p>
 <p>ON No Monthly Automatic Test OFF Yes Fire Alarm / Remote Test Switch (N/O)</p>	 <p>ON Yes Monthly Automatic Test OFF Yes Fire Alarm / Remote Test Switch (N/O)</p>

The Monthly Automatic Test feature will test the RLY-DIM-D for 40 seconds every 25 days and record the results on the microprocessor. Test results may be played back by holding the test button for three seconds. Release the test button when the green LED flashes once. Every green flash thereafter signals a passed test. Every red flash signals a failed test. Annual testing for 90 minutes is still required and recommended.

The Fire Alarm/Remote Test switch input is optional. Cut the red jumper wire and connect 24V DC power to it through a dry contact. For N/C type, when the contact is closed, the RLY-DIM-D will transfer to the emergency source. For N/O type, when the contact is open the RLY-DIM-D will transfer to the emergency source.



Note: RLY-DIM-D red wires are polarity independent.