

Installation Instructions

EMERGENCY LIGHTING CONTROL DEVICES



! IMPORTANT SAFEGUARDS !

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

ALL SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL

- This product is intended for use with lighting fixtures controlled by an emergency panel. Any switching between backup power and utility power must be done upstream of this device.
- All wiring connections and mounting styles must be in accordance with the National Electrical Code (NEC), National Fire Protection Association (NFPA), National Electrical Safety Code, state and local codes, and any other regulations set forth by the local Authority Having Jurisdiction (AHJ).
- Per NFPA 70E, the use of Personal Protective Equipment (PPE) may be required. Check state and local codes.
- The load's operating voltage must be the same as the emergency power input voltage.
- To reduce the risk of electrical shock, fire, and injury to persons:
 1. Disconnect all sources of power before servicing,
 2. Mount this device in locations and at heights where it will not be readily accessible to tampering by unauthorized personnel,
 3. Do not mount near gas or electric heaters,
 4. Do not let any wires touch hot surfaces, and
 5. Do not use outdoors (NEMA 1 rating only).
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this device for other than intended use. Generator or inverter supplied emergency panel is required (120 - 277 VAC, 50/60 Hz).

SAVE THESE INSTRUCTIONS



CAUTION: THIS UNIT HAS MORE THAN ONE POWER SUPPLY CONNECTION POINT. TO REDUCE THE RISK OF ELECTRIC SHOCK, DISCONNECT ALL POWER SOURCES BEFORE INSTALLING OR SERVICING THIS UNIT.

SERVICE BY QUALIFIED PERSONNEL ONLY

NOTE: BEFORE INSTALLING THIS DEVICE, MAKE SURE THAT THE NECESSARY BRANCH CIRCUIT WIRING IS AVAILABLE. AN UNSWITCHED SOURCE OF NORMAL POWER IS REQUIRED. A SEPARATE CONNECTION TO A GENERATOR-SUPPLIED (OR CENTRAL INVERTER SYSTEM-SUPPLIED) CIRCUIT MUST ALSO BE PROVIDED.

09/28/23

SPECIFICATIONS

ELECTRICAL SPECIFICATIONS (GTD10DIM, BLCD16DIM)

NORMAL POWER SUPPLY VOLTAGE NORMAL POWER CURRENT DRAW NORMAL POWER OPERATING FREQUENCY	120-277VAC 24MA MAX 50/60HZ
EMERGENCY POWER SUPPLY VOLTAGE EMERGENCY POWER CURRENT DRAW EMERGENCY POWER OPERATING FREQUENCY	120-277VAC 118MA MAX 50/60HZ
FEEDBACK/DIMMER CONTACT SWITCHING CAPABILITY (DRY CONTACT OUTPUT)	130MA @ 250V MAX
RELAY CONTACT (BLCD16DIM) SPST	20A MAGNETIC BALLAST @ 277V 16A ELECTRONIC BALLAST @ 277V 10A TUNGSTEN @ 120V
RELAY CONTACT (GTD10DIM) SPST	10A MAGNETIC BALLAST @ 277V 10A ELECTRONIC BALLAST @ 277V 10A TUNGSTEN @ 120V

MECHANICAL SPECIFICATIONS

HOUSING: UL ACCEPTED FOR USE IN PLENUM, NEMA 1

WIRE: 16", 600V RATED

WEIGHT: 0.675 LBS. (BLCD16DIM)
0.40 LBS (GTD10DIM)

OPERATING TEMPERATURE: -35° TO 60°C (-30° TO 140° F)

HUMIDITY RANGE: 5 TO 95% (NONCONDENSING)
RATED FOR DRY AND DAMP LOCATIONS ONLY

APPROVALS: UL 924 LISTED FOR THE US AND CANADA

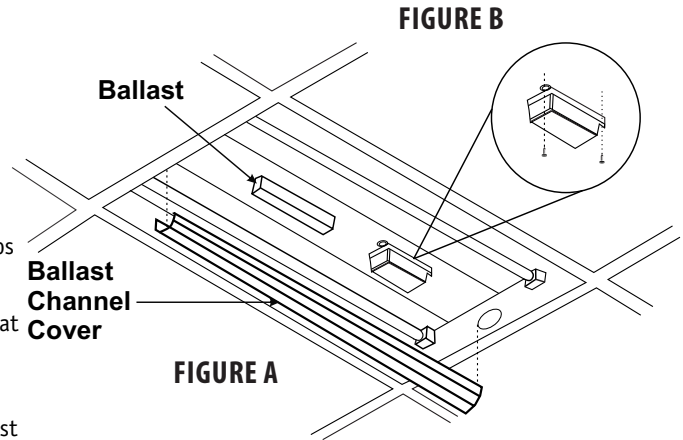
INSTALLATION

ALL SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL

GTD10DIM

Steps

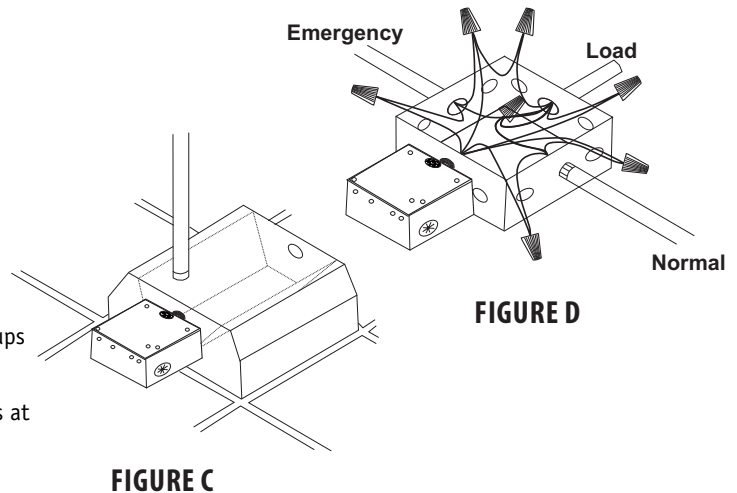
1. Remove all sources of power.
2. Remove ballast channel cover.
3. Mount GTD10DIM as shown in Figures A and B.
4. Wire the GTD10DIM using an illustration from the "Typical Applications" section on page 4 or similar setups for different application.
5. Before applying power, review the Important Safeguards at the beginning of this document.
6. Finish installation as required by the NEC, NFPA, state, local, and other codes. Test the GTD10DIM using the "Test Procedure" on page 6.



BLCD16DIM

Steps

1. Remove all sources of power.
2. Remove ballast channel cover.
3. Mount BLCD16DIM (a couple of mounting options are shown in Figures C and D).
4. Wire the BLCD16DIM using an illustration from the "Typical Applications" section on page 4 or similar setups for different application.
5. Before applying power, review the Important Safeguards at the beginning of this document.
6. Finish installation as required by the NEC, NFPA, state, local, and other codes. Test the BLCD16DIM using the "Test Procedure" on page 6.



OPERATION

The GTD10DIM and the BLCD16DIM will activate an emergency lighting load automatically upon the loss of normal power. If normal power is absent, the status of the load cannot be overridden. However, if the normal power is present, the emergency lighting load can be controlled by other means in order to use it as a normal lighting load, depending on the wiring setup. When used as normal lighting, a two second delay will keep the load on, even after wall switch is turned off, to perform a self-test on the unit. When normal power is present, a status contact will automatically close. Therefore, when normal power is absent, the status contact will open (**perfect for 0-10V dimming controls**). A red LED indicates the emergency power is available. A green LED indicates that normal power is present. A yellow LED copies the status of the load; if the LED is on, the load is on.

MAINTENANCE

No routine maintenance is required for the GTD10DIM or BLCD16DIM. However, either should be checked periodically to ensure that it is working properly. Note: Make sure to disconnect both the normal and emergency panel circuit breakers before servicing.

EMERGENCY DRIVER AND AC DRIVER MUST BE FED FROM THE SAME BRANCH CIRCUIT

TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER DRIVERS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

WIRING DIAGRAMS

FIG 1 Using Emergency Lighting as Normal Lighting

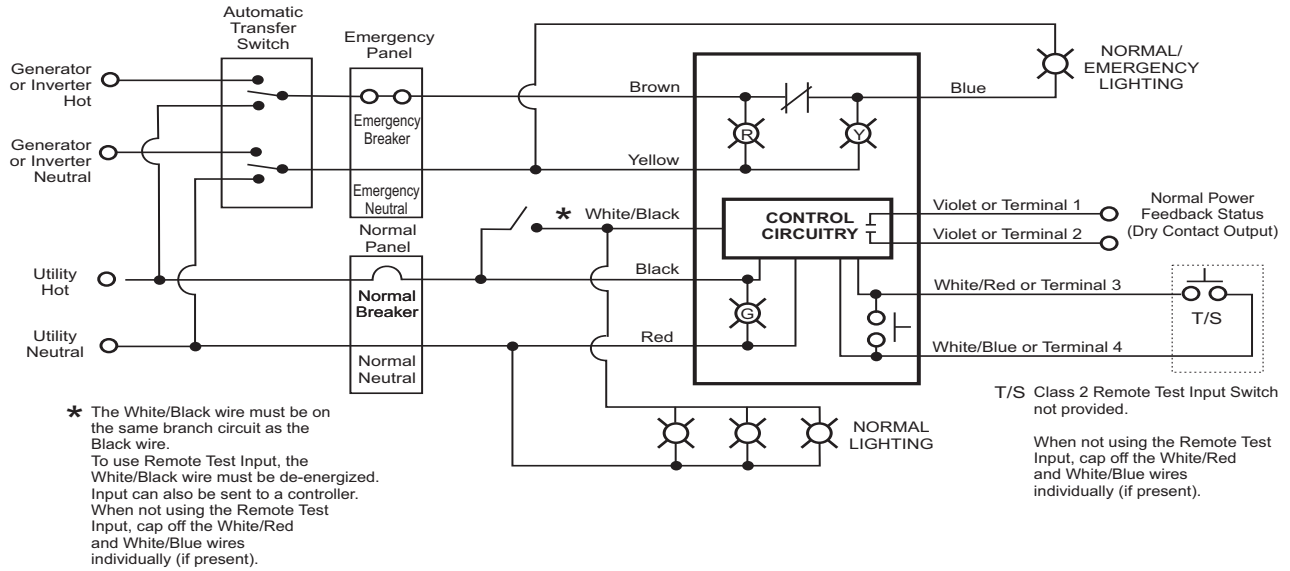
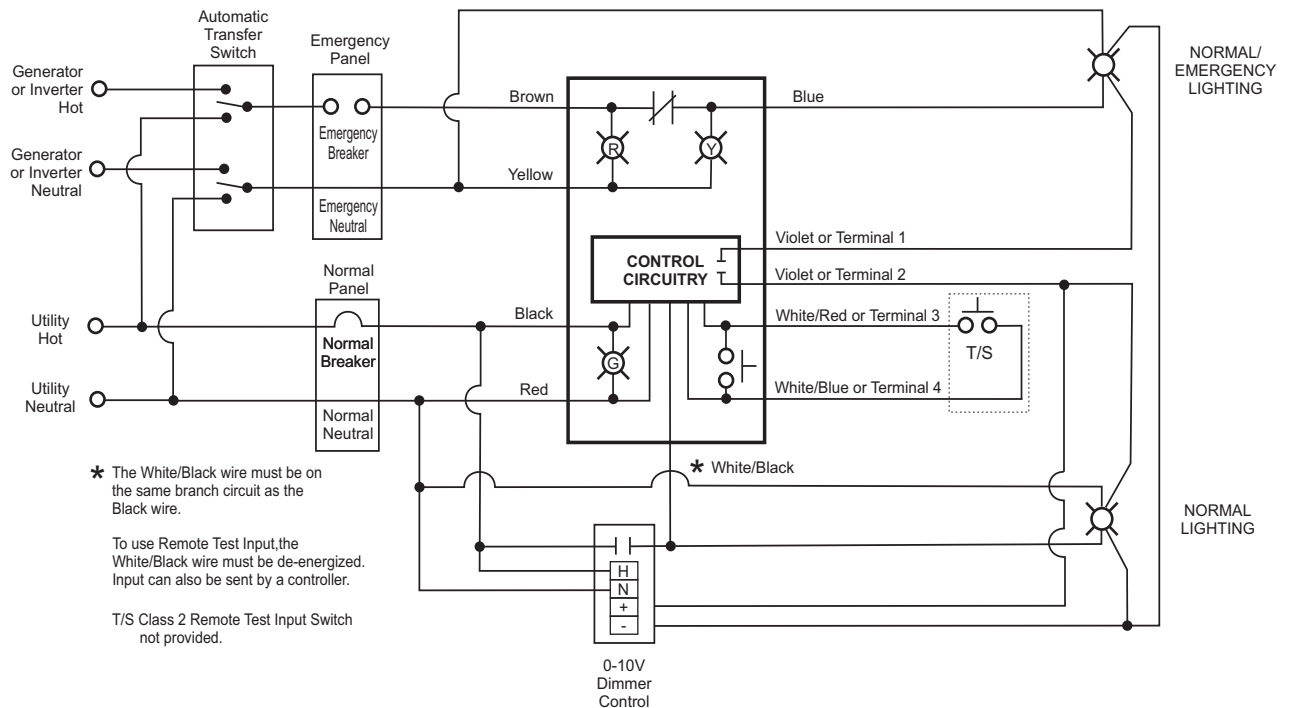
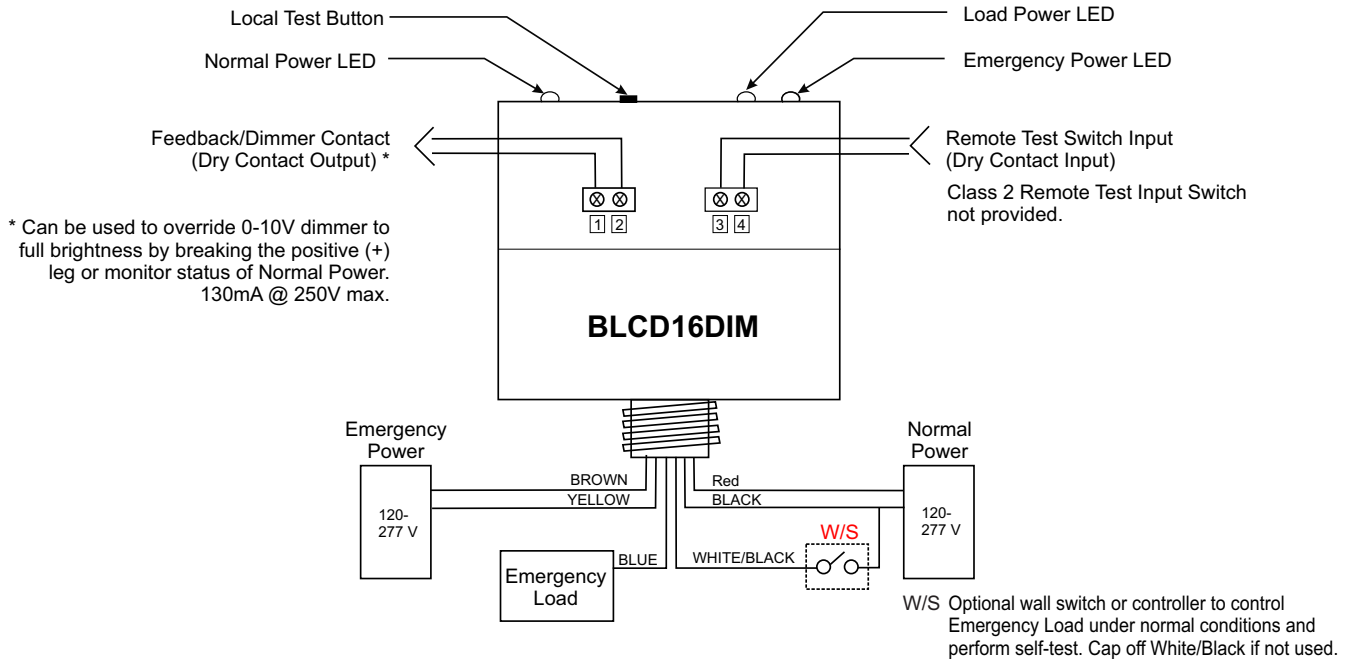


FIG 2 Overriding a 0-10Vdc Dimmer



INSTALLATION

WIRING DIAGRAM



WIRING DESCRIPTIONS

WIRE COLOR	DESCRIPTION	NOTES
BLACK	NORMAL HOT	N/A
WHITE/BLACK	WALL SWITCH INPUT (SELF-TEST INPUT)	MUST BE FROM SAME BRANCH CIRCUIT AS BLACK AND RED. WHEN SWITCHED OFF, A TWO SECOND DELAY KEEPS THE LOAD ON TO TEST EMERGENCY POWER. DOES NOT TEST FEEDBACK/DIMMER OUTPUT.
RED	NORMAL NEUTRAL OR OTHER PHASE	N/A
BROWN	EMERGENCY HOT	N/A
BLUE	EMERGENCY HOT SWITCHED TO LOAD	SWITCHES OUT THE VOLTAGE PUT IN ON BROWN
YELLOW	EMERGENCY NEUTRAL OR OTHER PHASE	N/A
WHITE/BLUE (GTD10DIM) TERMINAL SCREW 4 (BLCD16DIM)	REMOTE TEST INPUT (CLASS 2, DRY CONTACT INPUT)	WHEN WIRING MULTIPLE UNITS TOGETHER, WHITE/BLUE OR TERMINAL SCREW 4 MUST BE A SHARED COMMON. TEST IS PERFORMED WHEN INPUT IS CLOSED.
WHITE/RED (GTD10DIM) TERMINAL SCREW 3 (BLCD16DIM)		
VIOLETS (GTD10DIM) TERMINAL SCREWS 1,2 (BLCD16DIM)	FEEDBACK/DIMMER CONTACT (DRY CONTACT OUTPUT)	OPEN WHEN NORMAL POWER IS ABSENT OR REMOTE TEST INPUT IS CLOSED. CLOSED WHEN NORMAL POWER IS PRESENT OR REMOTE TEST INPUT IS OPEN. WALL SWITCH INPUT DOES NOT TEST THIS OUTPUT.

TROUBLESHOOTING GUIDE

TESTING AND TROUBLESHOOTING

TEST PROCEDURE: FOUR OPTIONS TO TEST THE GTD10DIM AND BLCD16DIM AFTER INSTALLATION:

INITIAL TEST FOR CORRECT WIRING

APPLY EMERGENCY POWER TO THE EMERGENCY POWER INPUT AND NORMAL POWER TO THE NORMAL POWER INPUT. (IF USING THE WALL SWITCH INPUT, APPLY NORMAL POWER TO THE SWITCH ALSO, BUT KEEP THE SWITCH OFF/OPEN.)

- A. THE RED LED (EMERGENCY POWER AVAILABLE) SHOULD BE ON.
- B. THE GREEN LED (NORMAL POWER AVAILABLE) SHOULD BE ON.
- C. THE YELLOW LED (LOAD STATUS) SHOULD BE OFF.
- D. THE LOAD SHOULD BE OFF.
- E. THE FEEDBACK/DIMMER CONTACT SHOULD BE CLOSED.

LOCAL TEST BUTTON

APPLY EMERGENCY POWER TO THE EMERGENCY POWER INPUT AND NORMAL POWER TO THE NORMAL POWER INPUT. (IF USING THE WALL SWITCH INPUT, APPLY NORMAL POWER TO THE SWITCH ALSO, BUT KEEP THE SWITCH OFF/OPEN.)

- A. THE RED LED (EMERGENCY POWER AVAILABLE) SHOULD BE ON.
- B. THE GREEN LED (NORMAL POWER AVAILABLE) SHOULD BE ON.
- C. THE YELLOW LED (LOAD STATUS) SHOULD BE OFF.
- D. THE LOAD SHOULD BE OFF.
- E. THE FEEDBACK/DIMMER CONTACT SHOULD BE CLOSED.

TROUBLESHOOTING GUIDE

ELECTRICAL SPECIFICATIONS (GTD10DIM, BLCD16DIM)

CONDITION	ACTION
RED LED IS OFF	<ul style="list-style-type: none">• CHECK EMERGENCY POWER INPUT WIRING (BROWN AND YELLOW WIRES) AND VOLTAGE.
GREEN LED IS OFF	<ul style="list-style-type: none">• CHECK NORMAL POWER INPUT WIRING (BLACK AND RED WIRES) AND VOLTAGE.
YELLOW LED IS ON BUT LOAD IS OFF	<ul style="list-style-type: none">• CHECK BULBS AND BALLAST.• CHECK LOAD WIRING (BLUE WIRE AND LOAD'S NEUTRAL).• VERIFY LOAD'S OPERATING VOLTAGE IS THE SAME AS THE EMERGENCY POWER INPUT VOLTAGE.• REPLACE UNIT.
LOAD IS ON BUT YELLOW LED IS OFF	<ul style="list-style-type: none">• REPLACE UNIT.
YELLOW LED AND LOAD DO NOT TURN ON WHEN BEING TESTED.	<ul style="list-style-type: none">• CHECK BULBS AND BALLAST.• CHECK WIRING CONNECTIONS IF USING A REMOTE TEST OPTION.• PRESS LOCAL TEST BUTTON ON THE UNIT.• REPLACE UNIT.
YELLOW LED AND LOAD.	<ul style="list-style-type: none">• VERIFY STATUS OF NORMAL POWER INPUT.• OPEN WALL SWITCH INPUT.• VERIFY THAT NO TEST INPUTS ARE STUCK CLOSED. (I.E. REMOTE TEST INPUT IS NOT CLOSED).