



Entrex

Door Controls Inc.

5151 EVEREST DR
MISSISSAUGA ON L4W 2Z3

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EM-2b

Lockout Relay

MADE IN
CANADA



General Description

The EM-2b is a lockout relay (L.O.R.) designed to be used with any swing door sensor and operators utilizing DC motors. Since the door would normally be detected by the sensor when it is closing, the EM-2b is used to bypass this sensor once the door starts its closing cycle.

The L.O.R. is also connected to the DB-11S surface mounted door beams which are installed at the end of the guard rails. If someone should walk back into the swing path of the door, the safety beam will send a signal to the L.O.R. (EM-2b) causing it to reset, allowing the safety signal to be sent to the door control. This type of installation provides for maximum safety.

The EM-2b will also work with Microwave Sensors' D14-2 Presence Sensor. The L.O.R. is responsible for turning the threshold sensor on and off.

Installation Instructions

The Red and Black wires connect directly to the input of the door motor. These wires are polarity sensitive so if the L.O.R. doesn't energize when the door is closing, then just reverse the Red and Black wires. **NOTE:** The Red LED is illuminated whenever the L.O.R. is activated.

The Gray and Violet wires are to be used with the DB11S door beams. These wires are to be connected to the normally open (N.O.) relay contacts of the door beam, and to 24 VAC, in series. (See diagram). The DB11S is typically mounted at the end of guard rails and issued to rest the L.O.R.. In the event anyone should walk into the swing path when the door is in its closing cycle. If the door beams are not used with the L.O.R. then do not connect the wires and tape the ends individually to prevent them from shorting.

The Yellow and Green wires are connected in series with the safety sensor relay contacts. When the door is operating in the closing cycle, the safety Sensor is switched out until the door is fully closed. The Blue and White wires are connected to terminals 7 and 8 of the D14-2. If any other sensor is used then just tape the blue and white wires to prevent them for shorting. See diagram for an example of how the L.O.R. is wired into the door control.

Operation

The EM-2b does not utilize a timer but rather uses the D.C. power generated by the closing door. Therefore, it does not require a 24 VAC power supply.

The L.E.D. should glow during the entire closing cycle of the door. If the L.E.D. glows on opening, not on closing, then reverse the Red and Black wires. Test the lock out function by recycling the door during closing cycle. The door should re-open.

Set Up Instructions

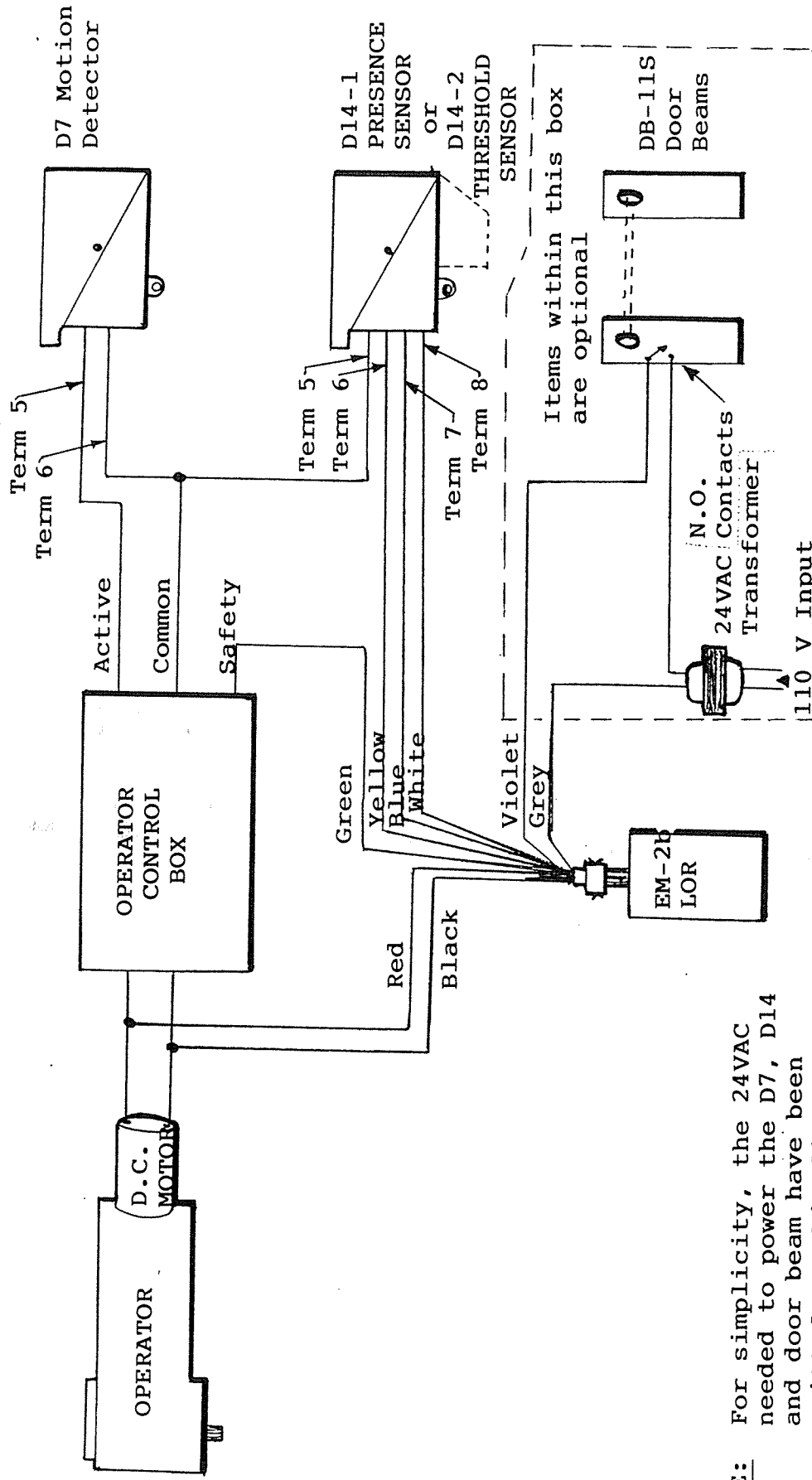
Activation of the safety during the closing cycle will extinguish the L.E.D., and re-connect the sensor, and thus the safety. Reactivation of the door from the approach side will also reset the L.O.R. provided there is no one activating the sensor on the swing side. The L.O.R. will recycle with the door, even if the door is reactivated before it reached its fully closed position.

Installation using the D14-2 Presence Sensor should have the threshold transducer verified by observing the Green LED on the front of the D14-2. The Green LED should be illuminated whenever the door is open. When the door is closed or in its closing cycle the Green LED will be off. If the Green LED does not come on when the door is open then double check the Red and Black wire connections. Also check the Blue and White wires to ensure they are not reversed. (they too are polarity sensitive.)


System Inspection and Instructions

1. Place warning label on the door to advise the person entering the swing side zone that the door will move.
2. Instruct the owner of the door system operation and how to test it, and what to do if the door or any of its components become damaged.
3. Strongly recommend to the owner that the complete entry be inspected twice a year as part of the service agreement.

40-DRG00100



NOTE: For simplicity, the 24VAC needed to power the D7, D14 and door beam have been omitted on this diagram.

 ENTREX DOOR CONTROLS INC 5151 EVEREST DR MISSISSAUGA ON L4W 2Z3		APPROVED BY:	
		DRAWN BY D G W	
SCALE: NONE		REVISED	
DATE: 01/10/89			
EM-2b LOCK-OUT RELAY		WIRING DIAGRAM	
DRAWING NUMBER		DRAWING NUMBER	
WD0189-001		WD0189-001	