



Entrex Door Controls Inc.

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EMT-30

Man-Trap Relay

Installation Instructions

MADE IN CANADA

PAGE 1 OF 4

Section 1

General Description

The EMT-30 is designed to control up to 3 sets of sliding, or swinging doors. The relay will allow only one door to be open at a time.

It accomplishes this by a **Door Sense** input, such as a magnetic contact switch, located at each door. If the *Door Sense* determines that a door is open, then it will not allow a second door to open, but **remembers** the request to open and **allows** it once the first door has closed.

For 3 door installations, the EMT-30 will remember an infinite number of open requests and prioritize them.

As well as a Power-On LED, and 3 Relay status LED's, the EMT-30 incorporates a Trouble Monitor. The power LED will flash to indicate which door has caused a system malfunction. For remote status monitoring, terminals are provided on the board.

Section 2

Installation

Mounting

Open the case to make wiring connections, adjust the time delays & observe LED's. We do not recommend removing the circuit board from the enclosure. Once adjustments are made and the lid re-secured, the EMT-30 may be tucked up in the header or affixed using the double-sided tape.

Wiring

CAUTION: Do not apply 120V AC primary power to the transformer until all secondary wiring is complete.

Connect a dry contact, such as a wall switch, or motion detector from Door A to Terminals #1 & #2 on J1. Similarly, connect the Inputs from Door B to Terminals #3 & #4 on J1. If a 3rd door is used,

connect the Inputs from that door to Terminals #5 & #6 of J1.

The magnet switches (*Door Sense*) are wired to Terminals #7 & #8 of J1. If Normally Open magnet switches are used, they are **connected in parallel**. Do not use a jumper on Terminals #9 & #10. If Normally Closed magnet switches are used, they are all **wired in series**. This also requires a jumper on Terminals #9 & #10.

If using a remote trouble monitor, connect to Terminals #11 & #12 of J1.

Wire Terminals #3 & #4 J2 to Door A Operator. Wire Terminals #7 & #8 J2 to Door B Operator. If a 3rd door is used wire Terminals #13 & #14 J2 to Door C Operator.

Finally, connect 24 VAC to Terminals #1 & #2 on J2. Refer to the Wiring Diagram on Pages 3 & 4 for more detailed wiring instructions.

Section 3

Set up Instructions

Turn on power, and activate an input device. Observe the respective output LED, which should light immediately. The door should open.

If within 3 seconds the magnet switch indicates that the door has not opened, the Trouble LED will blink indicating a problem, and disable the other door(s).

One Blink means trouble on Door A, 2 blinks means trouble on Door B, and 3 blinks means trouble on Door C. If this happens, the system must be reset by re-activating the same door. If it opens properly the system will be reset. Another way to reset is to remove, then reapply power to the EMT-30.

If a request to open comes in from another door while the first is still open, it will retain the call in memory until the *Door Sense* switch indicates the first has closed. If there is a succeeding request on the first door (or the door that is already opened) it will keep that door opened.

If Failsafe operation is desired you must first install the jumper on both pins of JB1. Then wire the door operators to the N.C. and Common outputs on J2. You will observe all three output LED's light immediately on power-up, and extinguish when a door is activated. If power fails, the relays relax, and contact is made to each operator.

There are no adjustments to be made on the EMT-30, and the relay sends only a momentary pulse to the operator. All timing functions must be made on the door operators.

Section 4

System Inspection Instructions

After the Installation and operational check of the system:

1. Place warning label on the door (as per ANSI A156.10 or A156.19 guidelines). This will advise the person entering the swing side zone that the door will move.
2. Instruct the owner on door system operation and how to test it. This should be checked on a daily basis.
3. Instruct the owner on what to do if the door or any of its components become damaged.
4. Strongly recommend to the owner that the complete entry be inspected twice a year as part of the service agreement.

Section 5

Technical Data

Model	EMT-30
Size	6" L x 3" W x 2" H
Mounting	Double Sided Foam Tape
Enclosure	Black ABS Plastic
Operating Voltage	24 Volts AC
Current Draw	20 mA standby 90 mA max.
Response Time	0.3 seconds
Inputs	N.O. dry contact only
Door Sense Input	N.O. or N.C. magnet switch
Relay Output	3 x Form C (SPDT)
Contact Rating	10 amps @ 277VAC/ 30VDC
Trouble Output	High (+5V) = Trouble Low (0V) = Normal 10K source impedance.

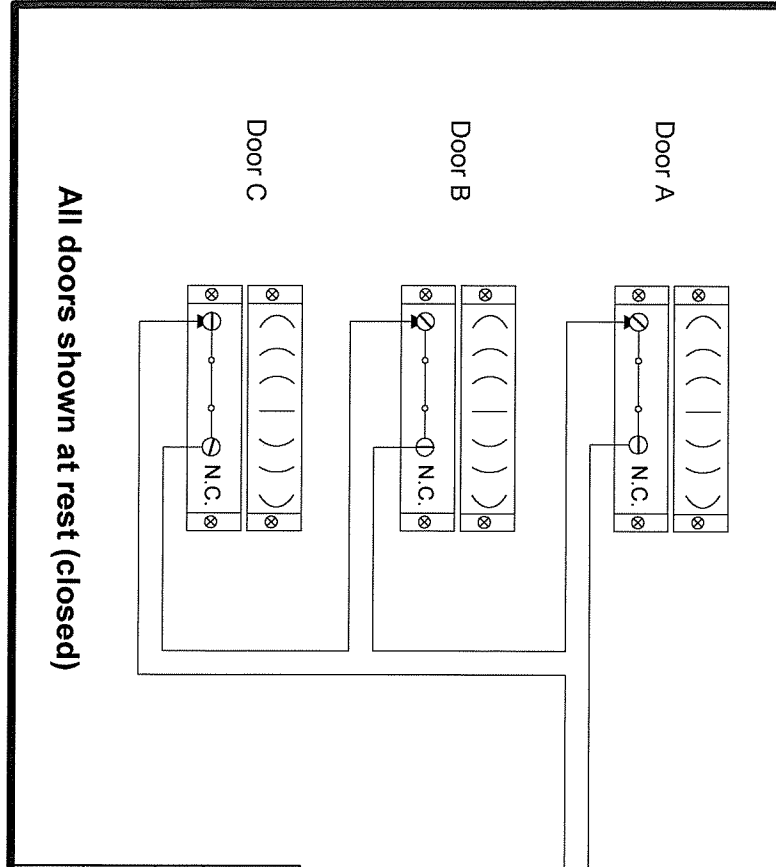
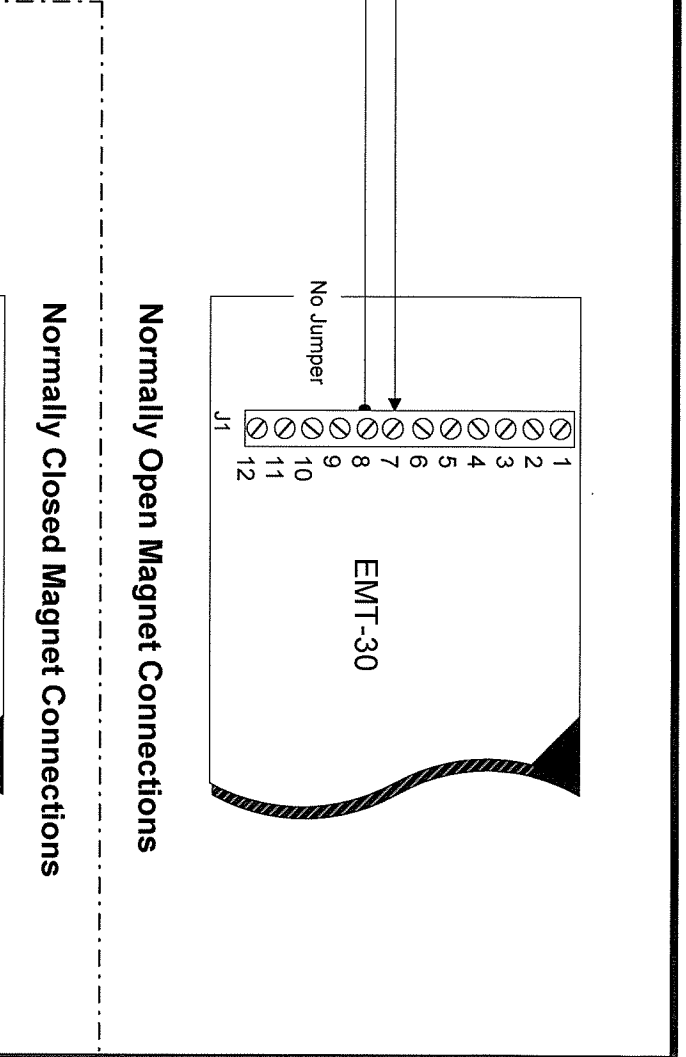
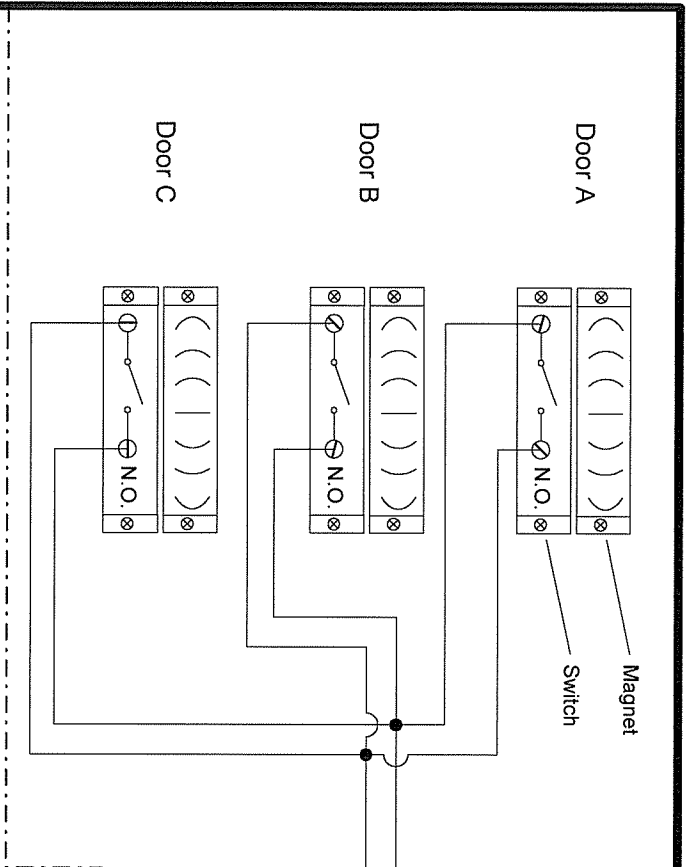
Section 6

Warranty

Entrex Door Controls Inc. guarantees the EMT-30 to be free from manufacturing defects for 3 years from date of sale. If during the first 3 years the EMT-30 fails to perform correctly, it may be returned prepaid to our factory where it will be repaired or replaced (at our discretion) without charge. Except as stated herein, Entrex extends no warranties expressed or implied regarding function, performance or service.

Questions?

Call us toll-free at 1-800-668-4667

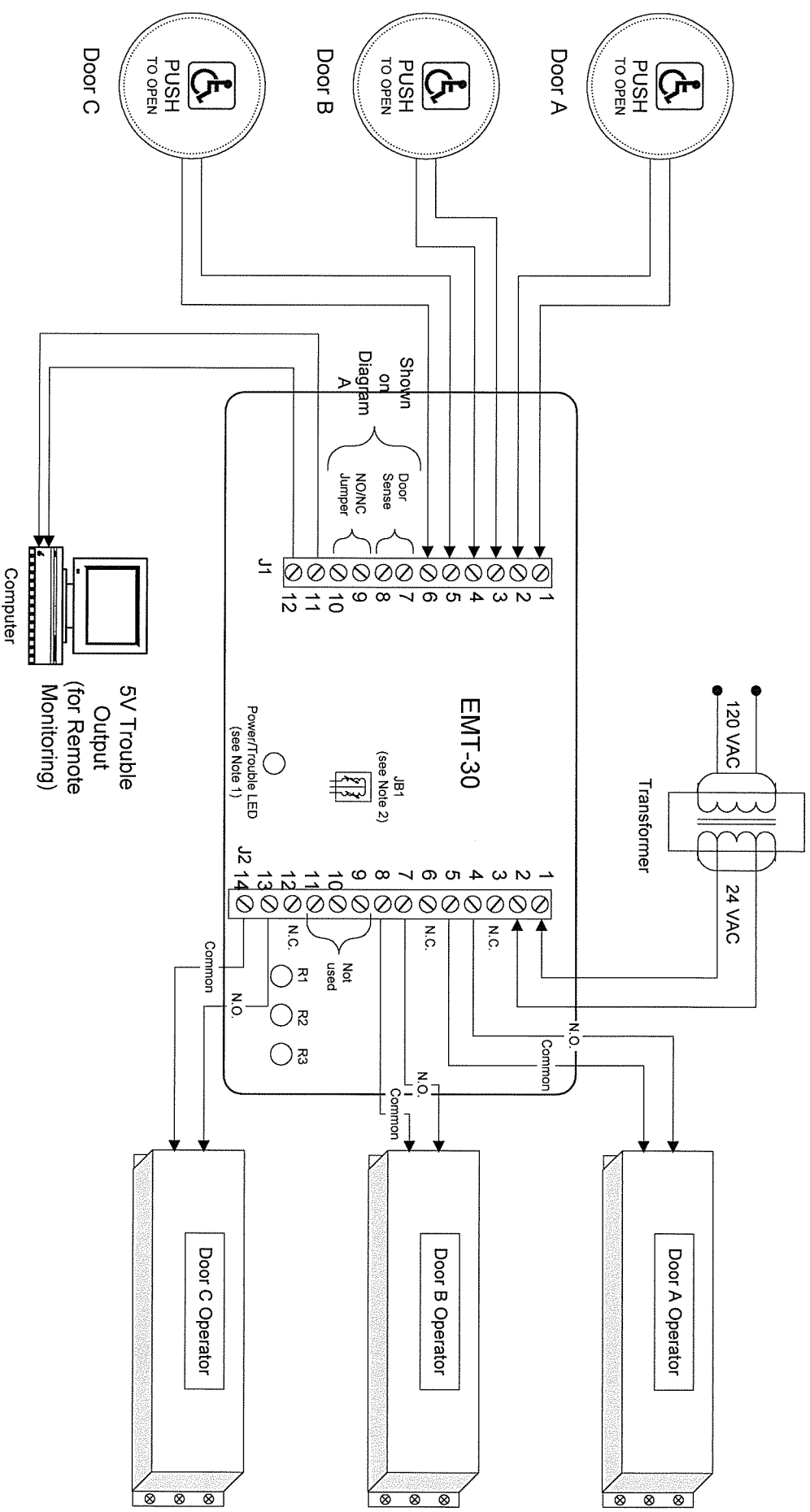


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SCALE: NONE DRAWN BY: DGW DATE: 07/09/00 REVISED: 07/10/00

EMT-30 Man-Trap Relay Door Sense Connections (page 1 of 2)

DRAWING No: EDRG-EMT30a-070900 FILENAME: EMT30a_DRG_E.vsd



- NOTES:**
- Power-On & Trouble Indicator LED.
Steady light = System OK
1 Blink = Trouble on Door A
2 Blinks = Trouble on Door B
3 Blinks = Trouble on Door C
 - Failsafe Jumper JB1
OFF = Normal (Use NO & Common outputs)
ON = Failsafe (Use NC & Common outputs)

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SCALE: NONE	DRAWN BY: DGW	DATE: 07/09/00	REVISED: 07/10/00
EMT-30 Man-Trap Relay Wiring Diagram (page 2 of 2)			
DRAWING No: EDRG-EMT30b-070900		FILENAME: EMT30b_DRG_E.vsd	