

***ICI* Indelac Controls, Inc.**

**Installation, Operation &
Maintenance Manual For
Electric Failsafe Device**



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INTRODUCTION:

Thank you for selecting Indelac Controls, Inc. (ICI) for your back-up power requirement. We at ICI are proud of our products and feel confident they will meet or exceed your expectations of quality and reliability.

Every precaution has been taken to insure that your equipment will arrive undamaged; however, accidents do occur. Therefore, the first thing you must do upon receipt of your package is to inspect it for damage. If the box is damaged there is a possibility that the equipment inside the box may be damaged as well. If this is the case **YOU MUST FILE A CLAIM** with the delivering **CARRIER**. All shipments are F.O.B. our factory and it is **YOUR RESPONSIBILITY** to file a claim for damages.

STORAGE:

If the actuators are scheduled for installation at a latter date:

1. Store off the floor, protect with unsealed cover allowing for side and bottom ventilation. In the event that the unit is going to be stored where there is insufficient temperature control internal heaters must be installed and energized to protect the unit from condensation and extreme temperature variations.
2. Store in a climate controlled building.
3. Store in a clean and dry area.

CAUTION: BATTERY MAY DISCHARGE PERMANENTLY IF NOT CHARGED WITHIN SIX MONTHS.

FOR FUTURE REFERENCE RECORD:

1. Failsafe model number _____
2. Failsafe enclosure type NEMA 4____, NEMA 4X____, NEMA 7____, NEMA 4 & 7_____
3. Failsafe output voltage_____
4. Motor characteristics of Actuator, Voltage_____Hertz_____Phase_____
5. Failsafe serial number_____
6. Date of installation_____ Put into operation_____

NOTE: Read these instructions completely before installing failsafe device.

INSTALLATION:

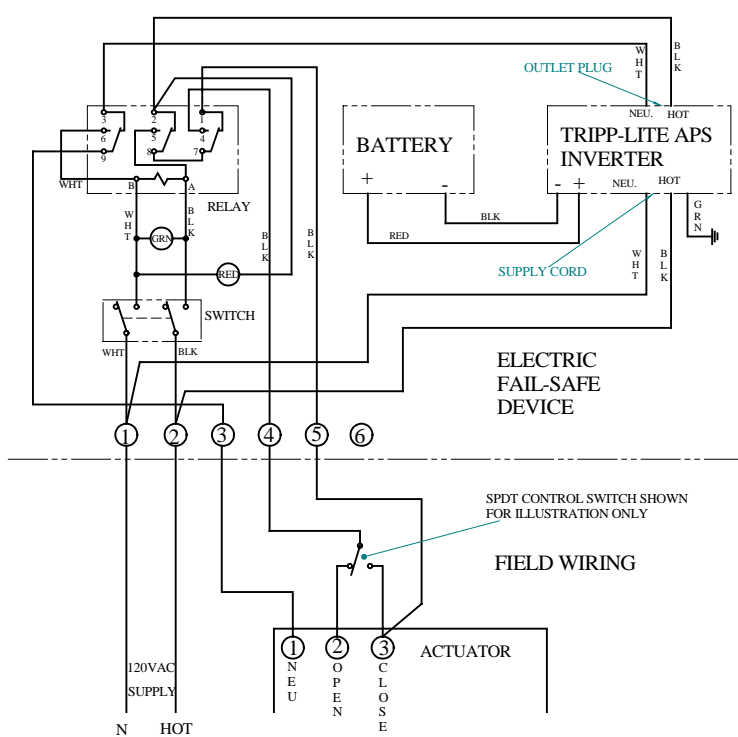
1. Check label for voltage, current and correct model number.
2. Check supply voltage to be sure model being used is correct for application.
3. Mount failsafe remote or local of the actuator (for best results mount as close to actuator as possible).

CAUTION: MUST BE INSTALLED BY A LICENSED ELECTRICIAN.

4. Turn off supply power.
5. Loosen cover screws and open enclosure, cover is hinged for your convenience.

NOTE: It will be necessary to have two conduit openings, one for supply power and one for power to actuator.

6. See typical wiring below.



NOTES:
ACTUATOR SHOWN TO FAIL TO
CLOSE POSITION.

T1 = NEUTRAL
T2 = 120V-1PH SUPPLY
T3 = NEUTRAL, OUTPUT
T4 = 120V-1PH OUTPUT POWER
T5 = 120V-1PH BACKUP POWER
T6 = NOT USED

BACKUP POWER IS SQUARE SINE
WAVE.

The above illustration shows the actuator wired to fail close upon loss of supply power. To wire the valve to fail open connect terminal #5 of the failsafe device to terminal #2 of the electric actuator. **NOTE:** *ICI's* electric failsafe device can be used with other brands of electric actuators, actuator terminal connections will not be the same.

CAUTION All wiring must conform to all state and local specifications.

7. Be sure relay is secure in socket.
8. Close cover and secure cover screws.
9. Turn on supply power.

TEST OPERATION:

For your convenience a test switch has been provided to test the operation of the failsafe device. With the supply power ON the green light will be illuminated and the actuator can be position as required to control system needs. To check the failsafe device flip the test switch to the OFF position, the red light will illuminate and the actuator will begin to travel to the designated fail position. By setting the test switch to the ON position the actuator will automatically return to the position designated by the control switch. If the actuator fails to travel to the designated position check wiring to be sure actuator is wired correctly. If actuator is wired correctly the battery may have low voltage, allow battery to charge over night and try again. In the future the operation can be tested as often as desired.

MAINTENANCE:

After proper installation, *ICI's* electric failsafe device requires no actual maintenance. However, we do recommend a periodic battery check to assure that the battery is retaining a charge. This can be accomplished easily by using the test switch. Normal battery life is four to five years or between 299 to 1000 charge/discharge cycles depending upon the depth of discharge.

The following chart has been provided for your record keeping:

DATE	TIME	BY	DATE	TIME	BY

TROUBLE SHOOTING:

SYMPTOM	PROBLEM	SOLUTION
Green light does not illuminate.	Power not on. Relay not in socket.	Turn on power. Install relay.
Valve does not respond to control signal.	Power not on. Wrong voltage. Wired incorrectly. Valve torque exceeds actuator torque.	Turn on power. Connect correct voltage. Check wiring, see pg.#3. Check sizing.
Valve does not travel full stroke.	Cam/switch adjustment set incorrect. Low battery voltage.	Adjust cam. Replace battery.
Red light dim.	Battery low voltage a. Due to long storage. b. Due to excessive discharge/charge cycles. c. Battery life nearing expectancy	Recharge battery. Recharge battery. Replace battery.