

#### RED/GREEN LIGHT MODIFICATION FOR MODEL 71-REDGRN-HCT

#### FUNCTION

When the gate is in motion, the timer circuit will activate the red lamp holder and remain illuminated until gate reaches open or closed position. When the gate reaches the full open position, the timer circuit will activate the green lamp holder and will remain illuminated based on timer setting. When the gate reaches the closed position, the timer circuit will activate the red lamp holder and will remain illuminated based on timer setting.

#### **MOUNT THE LIGHT BOX**

**NOTE:** If the operator requiring modification does not contain required holes for light box mounting, it will be necessary to add the holes. Use screws provided in kit for mounting (Figure 1).

- 1. Disconnect power to the operator.
- 2. Attach the mounting bracket to the electrical box with the self-tapping screws (2) provided.
- 3. Attach the light box assembly to the light box mounting bracket. Secure in place with the self-tapping screws (2) provided.
- 4. Connect conduit between light box assembly and electrical box. Use the knockout hole shown on Figure 3.

**NOTE:** To avoid damage to relays, DO NOT EXCEED the following:

- Red light 75w, 120v incandescent bulb or 3a, 250vac (resistive load).
- Green light output 75w, 120v incandescent bulb or 3a, 250vac (resistive load).
- Conduit, wiring, and connectors should be sized and installed per the national electric code.

# A WARNING

To prevent possible SERIOUS INJURY or DEATH from electrocution, disconnect electric power to operator BEFORE installing.

ALL electrical connections MUST be made by a qualified individual.

Figure 1



## INSTALLATION

#### **MOUNT COMPONENTS**

**NOTE:** For additional component mounting reference, see Figure 2.

If the operator requiring modification does not contain required pem studs for component mounting, it will be necessary to add holes. Use screws provided in kit for mounting (Figure 3).

- 1. Mount timer on the pem studs in the electric box using the locknuts (2) provided.
- 2. Mount the relay assembly on the per studs in the electric box using the locknuts (4) provided.
- Mount the auxiliary limit switches using existing switch hardware; note that the auxiliary limit switches are mounted on top of the existing limit switches.

**NOTE:** If actuator on existing switches has been bent for adjustment, it may be necessary to bend actuator arms on new switches.

#### Figure 2



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### WIRING

#### WIRE CONNECTIONS FROM RELAY ASSEMBLY

**NOTE:** The following wires are provided from the factory pre-wired to relay K1 & K2.

- 1. Connect red wire from relay (K1-7) to timer (T1).
- 2. Connect red wire from relay (K2-5) to timer (T2).
- 3. Connect grey wire from relay (K1-6) to auxiliary open switch (NO).
- 4. Connect yellow wire from relay (K2-3) to auxiliary open switch (NC).
- 5. Connect purple wire from relay (K2-8) to auxiliary close switch (NO).
- 6. Connect white wire from relay (K1-1) to white wire coming from red socket in light box with wire nut.
- 7. Connect white wire from relay (K1-2) to white wire coming from green socket in light box with wire nut.
- 8. Connect grey wire from relay (K1-5) to auxiliary close switch (NC).
- 9. Connect red wire from relay (K1-8) to 115 Vac input power with wire nut.
- 10. Connect grey wire from relay (K2-7) to 115 Vac input power with wire nut.

#### WIRE CONNECTIONS FOR LOOSE WIRES

WIRING DIAGRAM

**NOTE:** The following wires are provided from the factory in the hardware bag.

- 1. Connect yellow wire from auxiliary open switch (COM) NEUTRAL input with wire nut.
- 2. Connect yellow wire from auxiliary open switch (NC) to auxiliary close switch (COM).

**NOTE:** The following wires are located in the light box assembly.

- 1. Confirm the white wires from light box have been wired to the corresponding wires on the relay from above.
- 2. Connect red wire from light box to 115 Vac input power with wire nut.

**NOTE:** This is an electrical diagram. It does not reflect location of electrical components.

#### WIRING CHART

#### LOOSE WIRES

WIRE DESCRIPTION	CONNECTION TO BE MADE	
Wire, 3" Yellow	Aux. Open	Aux. Close
3/16" Faston x 3/16" Faston	Limit (NC)	Limit (COM)
Wire, 28" Yellow	Aux. Open	Incoming
3/16" Faston x 1/4" Strip	Limit (COM)	Neutral

#### WIRE CONNECTIONS FROM RELAY ASSEMBLY

WIRE DESCRIPTION	PREWIRED TO RELAY	CONNECTION
Wire, 6" Grey 2 x 3/16" Faston	K1-6	Aux. Open Limit (NO)
Wire, 6" Grey 2 x 3/16" Faston	K1-5	Aux. Close Limit (NC)
Wire, 26" Grey 3/16" Faston x 1/4" Strip	K2-7	Incoming 115 Vac
Wire, 26" White 3/16" Faston x 1/4" Strip	K1-1	White Wire (Connected to Red Socket)
Wire, 26" White 3/16" Faston x 1/4" Strip	K1-2	White Wire (Connected to Green Socket)
Wire, 6" Purple 3/16" Faston x 3/16" Faston	K2-8	Aux. Close Limit (NO)
Wire, 10" Red 3/16" Faston x 1/4" Faston	K2-5	T2 Timer
Wire, 10" Red 3/16" Faston x 1/4" Faston	K1-7	T1 Timer
Wire, 26" Red 3/16" Faston x 1/4" Strip	K1-8	Incoming 115 Vac
Wire, 6" Yellow 3/16" Faston with Spade x 3/16" Faston with	K2-3 Spade	Aux. Open Limit (NC)



#### 3

## TESTING

#### TEST THE OPERATOR

- 1. Install red and green lights (not provided). Use 75 watt maximum.
- 2. Set timer to desired delay for lights to remain on after reaching open and closed position. Refer to relay label for setting between 1-512 seconds.
- 3. Install cover and power up unit.
- 4. Test functionality based on the following:
  - a) When the gate is in motion the timer circuit will activate the red lamp holder and will remain illuminated until gate reaches open or closed position.
  - b) When the gate reaches the full open position, the timer circuit will activate the green lamp holder and will remain illuminated based on timer setting.
  - c) When the gate reaches the closed position, the timer circuit will activate the red lamp holder and will remain illuminated based on timer setting.

## HOW TO ORDER REPAIR PARTS

# **DEK CANADA INC**

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### WHEN ORDERING REPAIR PARTS PLEASE SUPPLY THE FOLLOWING INFORMATION: PART NUMBER DESCRIPTION MODEL NUMBER