DC Opto Sensor Assembly Replacement

This repair will require removal of the unit from it's mounting hardware and repairs made on a clean work surface. Refer to your Owners Manual and/or Installation Poster for proper assembly and carefully read and understand all warnings and cautions pertaining to your unit.

> ⚠ **WARNING**
> BE SURE ELECTRICAL POWER HAS BEEN DISCONNECTED FROM THE INPUT POWER LINES PRIOR TO REMOVING THE MOTOR COVER.

> ⚠ **WARNING**
> ANY AND ALL REPAIRS MADE TO THIS UNIT MUST BE PERFORMED WITH THE DOOR DISCONNECTED FROM THE OPENER AND IN THE CLOSED POSITION.

1. Before pulling emergency release cord, make certain people and objects are clear of door opening. Pull emergency release cord on carriage to disengage opener to close door if necessary. If unable to lower door using opener, use extreme caution manually closing door.
2. Unplug opener power cord from power receptacle.
3. Open lens cover by pressing middle tab inward to swing down and remove light bulbs. FIG. 1.
4. Mark wires to help facilitate replacement and remove wall control and Safe-T-Beam wires from terminal block located on side of opener FIG. 1. Use small common screwdriver to press in on orange tabs while gently pulling wires from block.
5. Remove network and battery backup harnesses from front of opener (if applicable).
6. Remove the cotter pin & clevis from door arm to separate door from opener. FIG. 2.
7. Remove motor head and rail assembly from mounting brackets/hardware and set on a clean work surface or floor.

Note: Be aware of the motion detector bulb on bottom of powerhead cover (if equipped). Do not set operator weight on this bulb.

8. Remove the 6-7/16" self tapping bolts from the rail/motor mounting straps and pull rail from motor head. FIG.3. Set rail assembly aside.
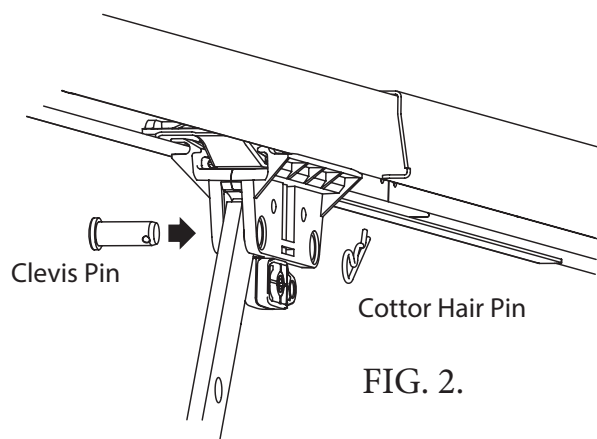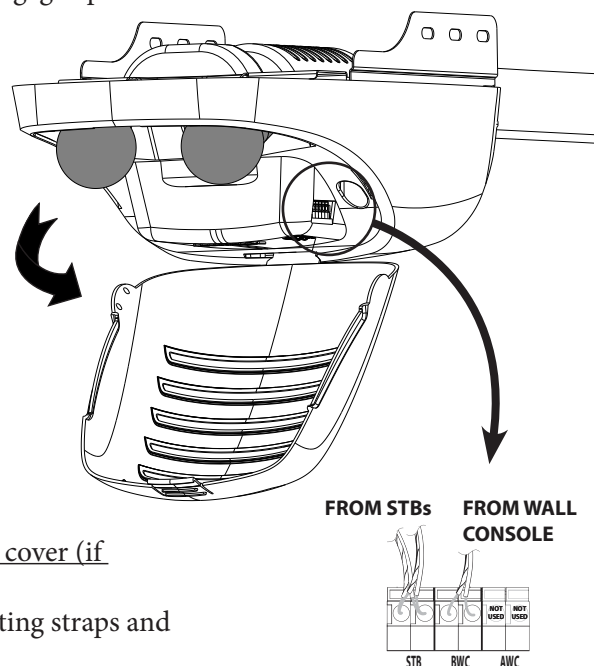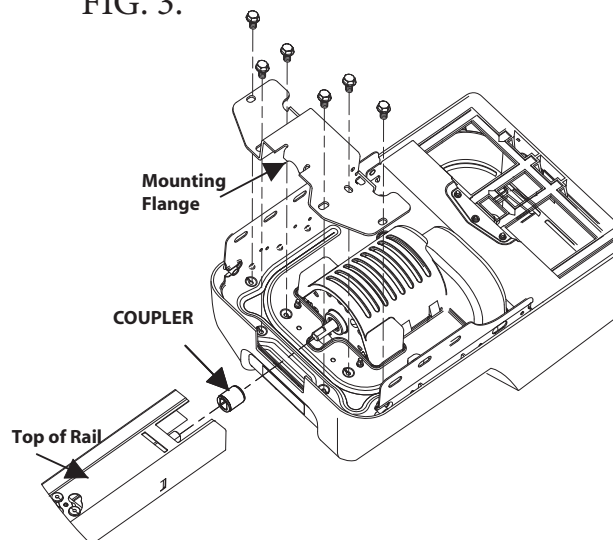
FIG. 1.

FROM STBs　**FROM WALL CONSOLE**

STB　BWC　AWC
NOT USED　NOT USED

Clevis Pin

Cottor Hair Pin

FIG. 2.

FIG. 3.

Mounting Flange

COUPLER

Top of Rail

Scan code to view a video of this repair.

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9. Remove two 5/16" screws securing powerhead cover to chassis and swing open to expose control board. Fig. 4.
NOTE: *Do not remove control board from cover, shown for clarity only.*
10. Unplug these harnesses from control board. FIG. 5.
   - Motor harness
   - Opto harness
   - AC in harness
   - Green ground wire to chassis from light harness (if equipped).
11. Powerhead cover can now be removed from opener chassis.
12. Remove three motor mounting bolts from motor frame FIG. 6. Remove motor assembly.
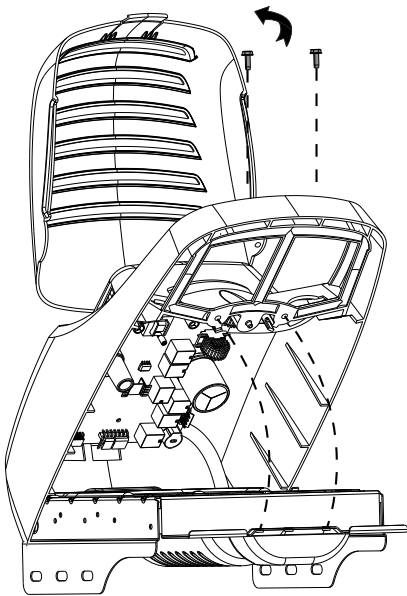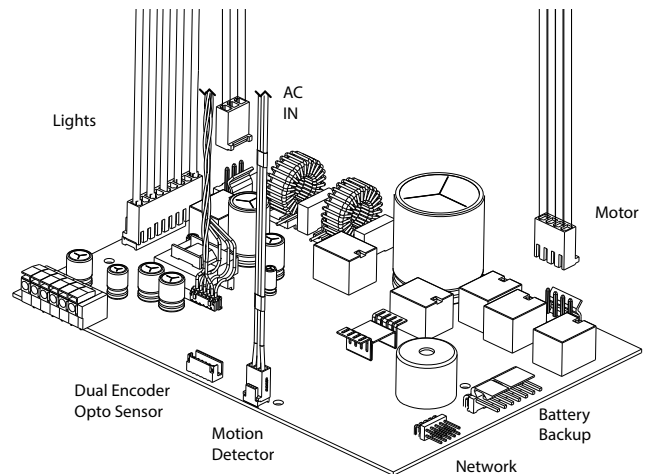
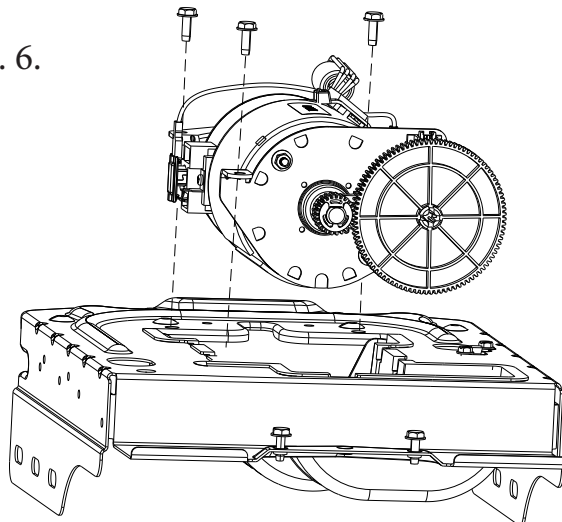FIG. 4.

FIG.5.

Lights

AC IN

Motor

Dual Encoder Opto Sensor

Motion Detector

Network

Battery Backup

NOTE: Your Motor Cover may differ in appearance than illustrated. Replacement instructions are identical.

FIG. 6.

Parts removed for clarity

13. Using an 11/32 socket or nut driver, press down on encoder wheel mounting clips while pulling wheel off of spline shaft. FIG. 7.
14. Remove and retain screw(s) holding encoder to motor frame FIG. 8.
15. Remove and retain e-ring holding motor gear to motor shaft. FIG. 8.
16. Remove and retain motor gear. FIG. 8.
17. Install replacement encoder assembly with screw(s).
18. Install motor gear and e-ring to motor shaft.
19. Snap encoder wheel into place. (Interrupter fins face encoder.)
20. Install motor assembly in reverse order.

Note: *Be certain to install all harnesses in the correct position being sure to install with locking tabs facing each other. (Detailed in FIG. 5 - Step 10)*

21. Hang powerhead cover to chassis to install harnesses. Including green ground wire to chassis (if equipped)

HARNESS NOTE: Check the type of circuit board installed in your opener (see FIG. 9). Use appropriate harness included with this kit.

22. Install powerhead cover onto chassis using 2- 5/16" screws.
23. Install rail to motor head assembly using coupler, mounting flange and 6-7/16" self tapping screws.
24. Reinstall opener assembly in reverse order as removed. Reference your owners manual and installation poster.
25. Install wall control and Safe-T-Beam® wires. Install battery backup and/or network harnesses if applicable.
26. Install light bulbs and close lens cover.
27. Plug opener into receptacle.
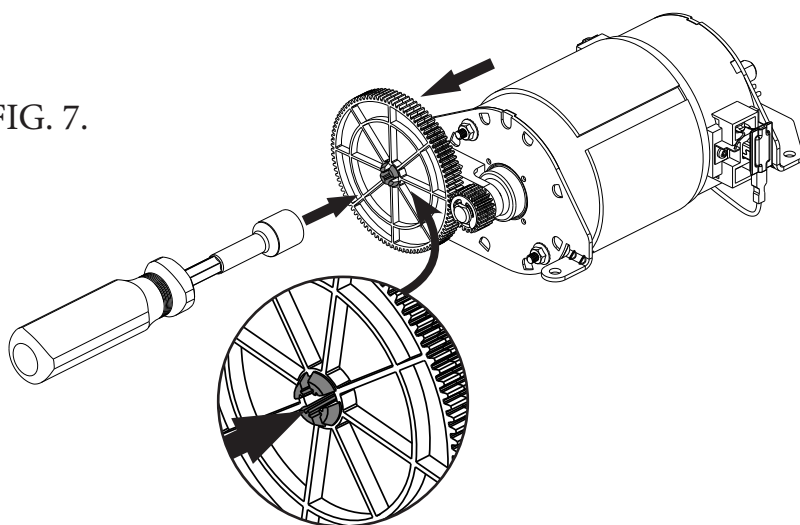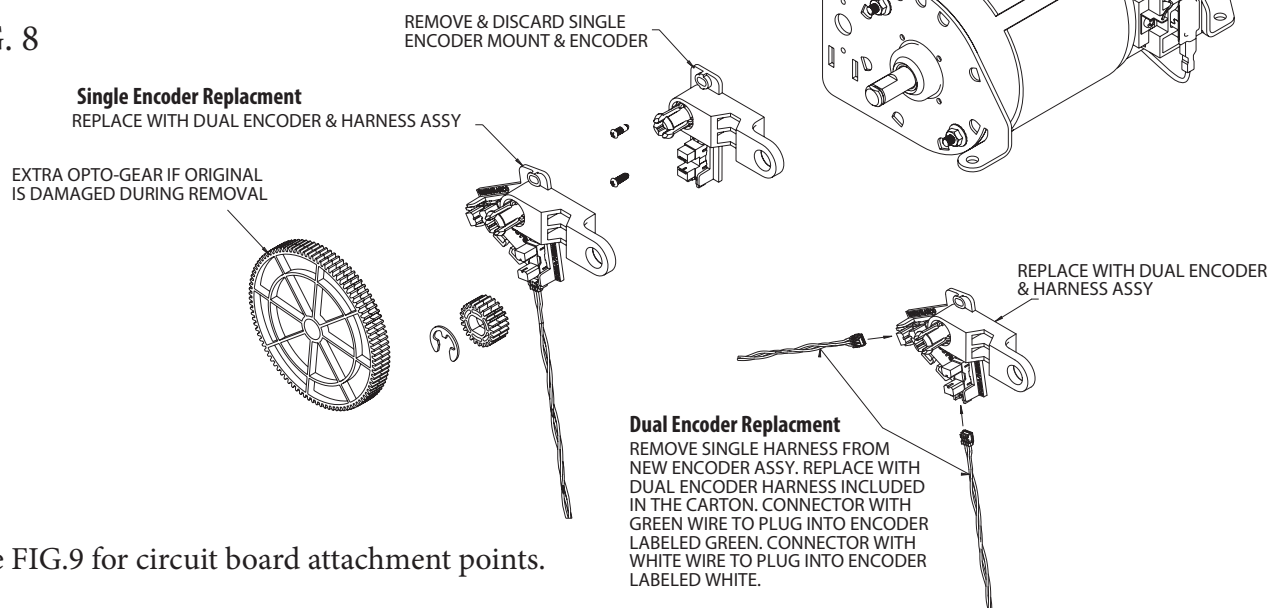28. Clear and reprogram limit controls per owners manual.

FIG. 7.

Interuptor Fins

FIG. 8

REMOVE & DISCARD SINGLE ENCODER MOUNT & ENCODER

Single Encoder Replacment
REPLACE WITH DUAL ENCODER & HARNESS ASSY

EXTRA OPTO-GEAR IF ORIGINAL IS DAMAGED DURING REMOVAL

REPLACE WITH DUAL ENCODER & HARNESS ASSY

Dual Encoder Replacment
REMOVE SINGLE HARNESS FROM NEW ENCODER ASSY. REPLACE WITH DUAL ENCODER HARNESS INCLUDED IN THE CARTON. CONNECTOR WITH GREEN WIRE TO PLUG INTO ENCODER LABELED GREEN. CONNECTOR WITH WHITE WIRE TO PLUG INTO ENCODER LABELED WHITE.

See FIG.9 for circuit board attachment points.

FIG.9.

4-pin, Single Encoder Type Control Board

AC IN

Lights

Motor

Use single encoder harness

Encoder Opto Sensor Connector

Motion Detector

Battery Backup

Network

6-pin, Dual Encoder Type Control Board

AC AC IN IN

Lights

Lights

Motor

Motor

Use dual encoder harness

Encoder Opto Sensor Connector

Motion Detector

Battery Backup

Network

Battery Backup

Network
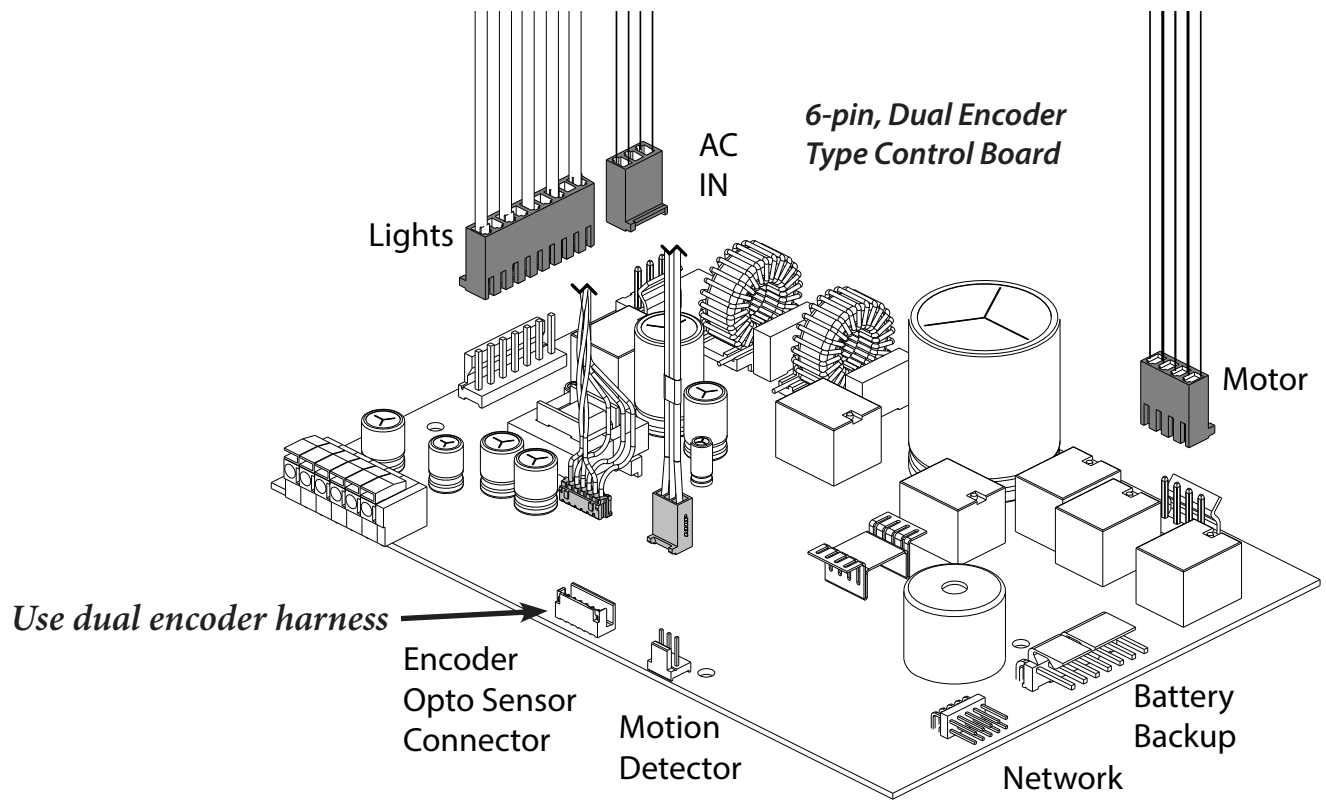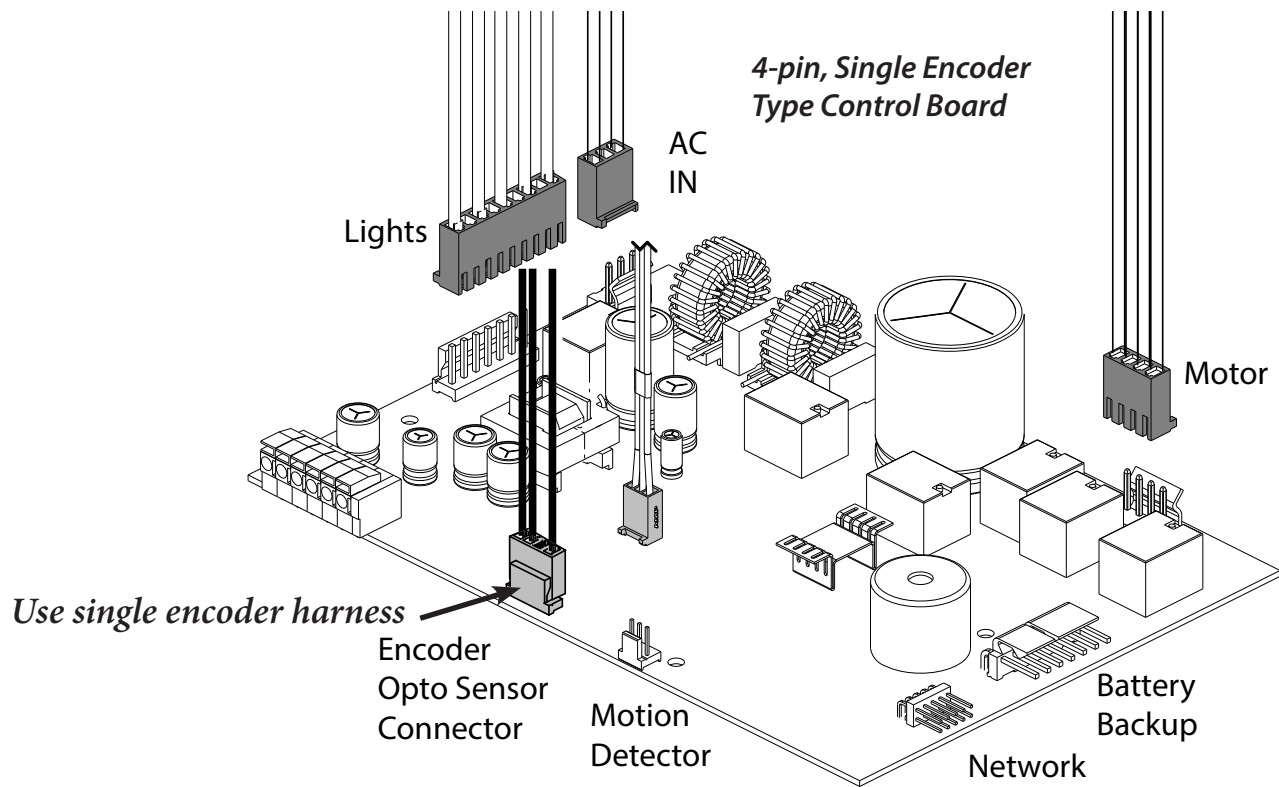
DO NOT force harness plugs. Insert in proper direction.

⭐ Parts removed for clarity