

Summary	Retro from GFA to Sterling Motor on MT Car Wash Doors			
Products Affected	MT WyndStar			
Key Word Tags	Sterling, retro, GFA			
Tools/Equipment (If Required)	Gear puller, socket set, wire stripper, spade crimp tool			
Parts/Materials (If Required)	As listed in bulletin			
Related Media				
Author	Scott Haipek	Issue Date	8/26/2014	Status active

Please Read The Entire Bulletin Before Proceeding

⚠ CAUTION

Lockout/tagout the electrical supply before performing the following procedure.
 The procedure outlined in this bulletin should be performed by a qualified technician.
 Read the entire bulletin before beginning any work.

Once you have read entire bulletin, verify you have all the parts shown in the Fig. 1 & Fig. 2*

*note: motor shown in Fig. 2 is a left mount, if you are replacing a right hand mount operator, the limit box sprocket and mounting bracket will be opposite of what is shown.

If any parts are missing, stop and call Rytec Technical Support at 1-800-628-1909 before proceeding to step 1.



Fig. 1

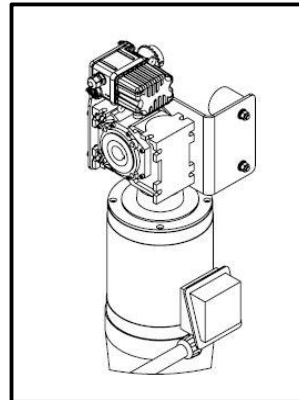


Fig. 2

- Step 1. Remove hood assembly (if equipped) and save for reinstall after motor retro is complete
- Step 2. Open door and secure the panel so that it can't unroll when the motor is removed
 Recommended method of securing the panel is to tie a rope around the drum and bottom bar in two places
 Optional method is to clamp panel to the side column on both sides
- Step 3. Remove motor and control wiring from the control panel. T1, T2, T3, B1, B2 and the 8 conductor multi colored cable.
- Step 4. Remove black limit switch cover and disconnect all wires from green terminal block. Loosen cord grip and remove multi-conductor cable from box.
- Step 5. Remove bolt and washer in drum shaft that secures motor to the shaft
- Step 6. Remove motor from drum shaft. Due to the environment, it may be necessary to use a gear puller or similar device to get the motor off the shaft

Step 7. Verify the dimension of the shaft protruding from the bearing mounted on the side column.

6 1/16" is the required distance from the outer most part of the bearing to the shaft end. If you need to adjust the distance, loosen the set screws on both bearings, make the necessary adjustment and retighten the bearing set screws on both sides of the drum. This dimension is critical to ensure proper alignment of the chain from the drum sprocket to the limit sprocket. Incorrect alignment can lead to premature wear of the chain causing the door to malfunction.

Step 8. Install the following components onto the drum shaft in the following order:

See Fig. 3 below for reference. Parts go on in same order regardless of left/right hand assembly.

1. Inner drum spacer, large, no keyway slot (#1650223-0)
2. Key, 1/4x1/4x4 1/2 SS (#1650226-0)
3. Drum sprocket, teeth first toward bearing (#1650221-0) & Limit chain (#1650225-0 or #1650227-0)
4. Outer drum spacer, small with keyway slot (#1650224-0)
5. Motor assembly, outer gearbox sleeve should be flush with drum shaft end after install
If not, disassemble and go back to step 7 and re-verify dimension
6. End shaft washer (#920047)
7. End shaft bolt (#5550215-0Z04)

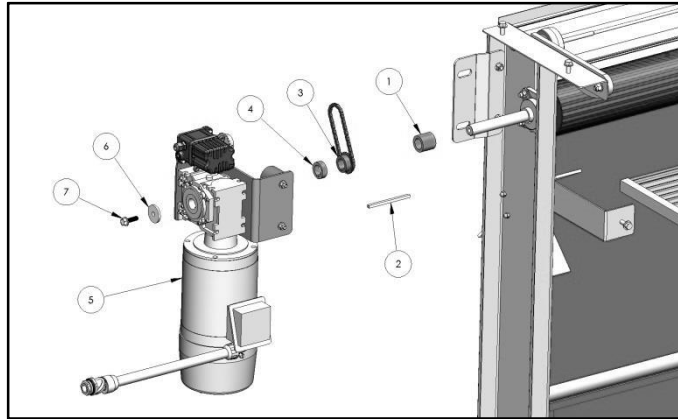


Fig. 3

Step 9. Tighten end shaft bolt

Step 10. Install chain provided around limit switch & drum sprockets and secure with master link provided.

Left hand drive, use 56 link chain (shorter)
Right hand drive, use 64 link chain (longer)

Step 11. Adjust limit switch bracket, if necessary. Bracket is slotted and held on by two bolts and nuts (5/16-18) located on the backside of the gearbox.

Step 12. Install flex conduit into control panel and rewire according to schematic in Fig. 4.

Install a jumper wire from terminal 11 to terminal 12. There will be no B1 or B2 connected in the control panel when installing a Sterling motor. The brake is connected internally to the motor.

Step 13. Remove brake cover and verify brake is wired for the proper line voltage per the schematic in Fig. 5

Reinstall brake cover and tightly secure cover to prevent water ingress.

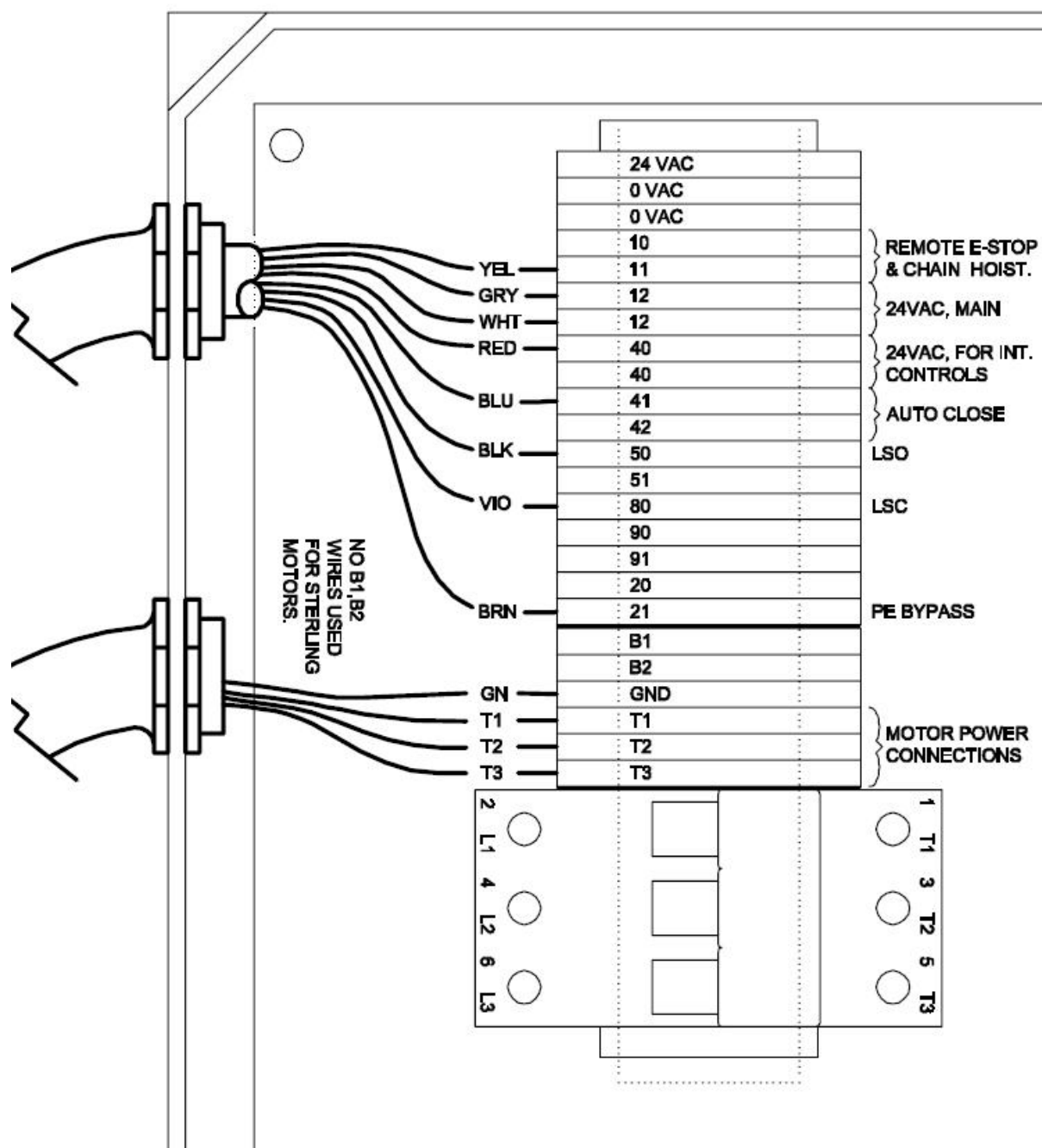


Fig. 4

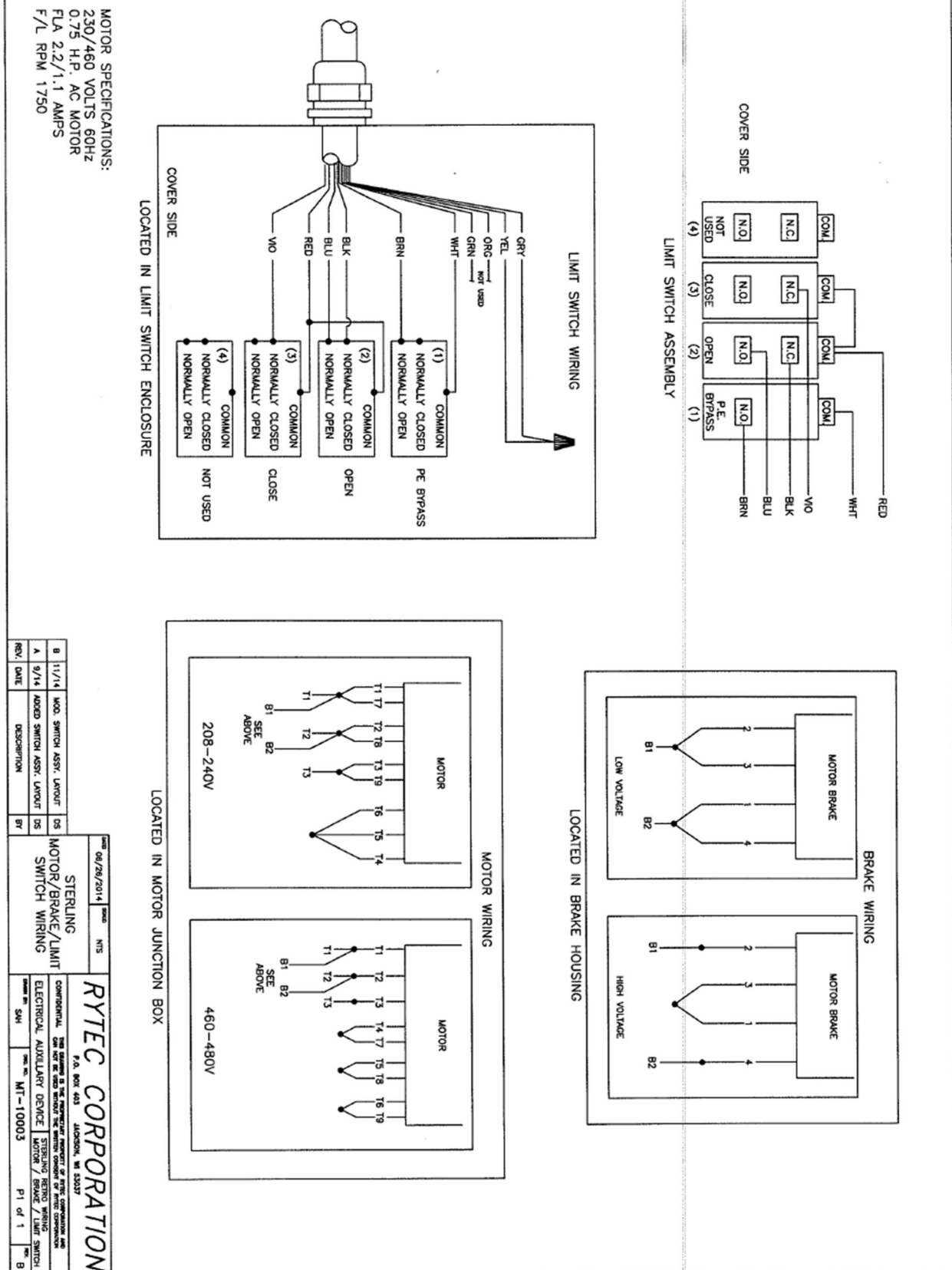


Fig. 5

Step 14. Loosen the larger center screw (Fig.6) located on the end of the cam assembly. Locate the smaller screw labeled #2 (open limit) and rotate it until the cam comes in contact with the micro switch and clicks. Tighten the large screw. This is a preliminary open limit setting and will probably have to be adjusted again once power is applied.



Fig.6

Step 15. Untie/unclamp the panel and use the brake release mechanism, located on left side of motor just above the brake cover to allow the panel to slowly unroll toward the floor. As it unrolls, pay close attention to the direction the cams on the limit switch shaft are turning. Allow the panel to unroll until the bottom bar is located in the full closed position.

Step 16. Again loosen the larger center screw located on the end of the cam assembly. Locate the smaller screw labeled #3 (close limit) and turn it in the same direction it was turning as you observed in previous step. Continue to turn the cam until the micro switch clicks. Tighten larger center screw

Step 17. Open door to photo eye height and press E-stop button. Loosen large screw on limit switch cams. Locate cam screw #1 and rotate it until the micro switch clicks. The cam should remain engaged from this point until the door is completely closed. Tighten the large center screw.

Step 18. Remove lockout/tagout and re-energize the control panel. There will be no modifications required internal to the control panel.

Step 19. Run the door open with the up button on the controller and adjust the open limit if necessary. Run the door closed with the down button on the controller and adjust if necessary.

Step 20. Install limit switch cover ensuring the gasket is properly seated around the entire perimeter of the housing and secure.

Step 21. Reinstall hood assembly.

The installation is now complete. If you have any problems or questions related to the content contained in this bulletin, please call Rytec Technical Support at 1-800-628-1909

STERLING MOTOR RETRO KIT

KIT# 920192

<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1650223-0	drum spacer-inner	1
1650221-0	drum sprocket	1
1650224-0	drum spacer-outer	1
1650225-0	chain, 56 link (LH mount) with master link	1
1650227-0	chain, 64 link (RH mount) with master link	1
1650226-0	keyway 1/4x1/4x41/2 SS	1
920047	washer, end shaft	1
5550215-0z04	bolt, end shaft	1
SB.233	Retro service bulletin	1
5550238-0	Socket, 15mm hex, 3/8 drive, 12 point	1

MOTOR ASSEMBLIES

1650209-1X	LH - 240/480/575V
1650209-2X	RH - 240/480/575V