



201 Grandin Road  
Maineville, Ohio 45039  
(513) 677-0500

# **BavisAIR Pneumatic System**

## **Door Motor Replacement**



# **BavisAIR Pneumatic System, Door Motor Replacement**

## **Table of Contents**

APS Customer Door Motor - Rear Access Skin.....	1
APS Customer Door Motor - Side Access Skin .....	2
Fig. 1 & Fig. 2 .....	4
APS Inside Vertical Door/Lift Motor.....	5
BPS Customer Door Motor.....	7



## APS Customer Door – Rear Access Skin

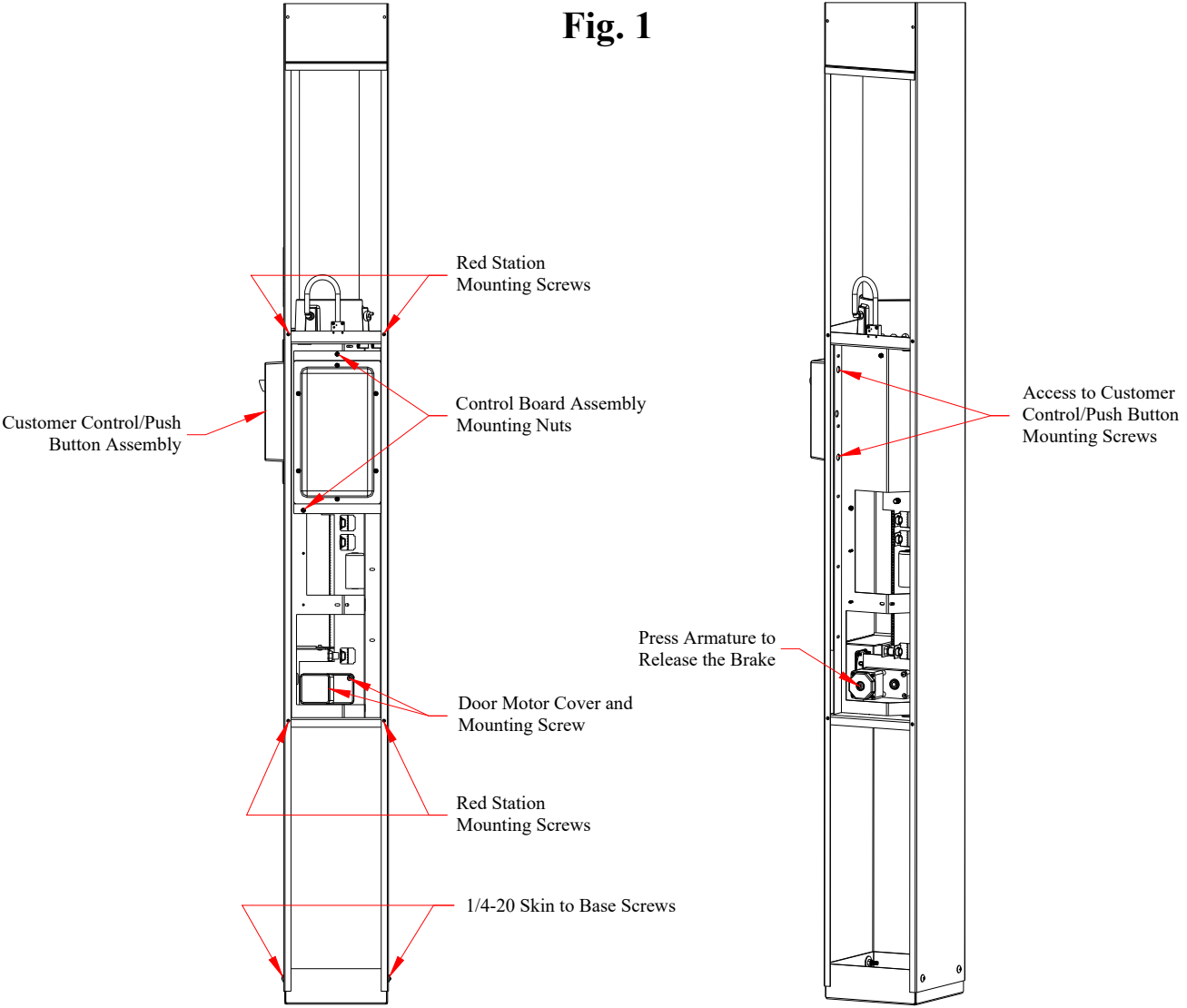
1. Remove the lower portion of the skin lid.
2. Disconnect the white 4 position connector that will be near the top of the red customer station assembly, to remove power from the control board.
3. Disconnect the wiring to the door motor.
4. If so equipped, remove the black plastic motor cover.
5. Press the end of the armature into the housing to release the brake, and pull up or down on the door belt to rotate the motor sprocket until you can access the motor pulley setscrew, (See Fig. 2), (you may want to secure the door in place so that it won't drop when the pulley is removed from the motor).
6. Loosen the setscrew and slide the pulley and belt off of the motor shaft, (you may need to loosen the motor mounting screws to gain enough slack in the belt for the pulley to come off). (See Fig. 2)
7. Remove the (5) screws that fasten the motor to the red station, and remove the old motor, (See Fig. 2).
8. Install the new motor.
9. Rotate the belt pulley until the flat inside of the pulley aligns with the flat of the motor shaft, then slide the pulley and belt onto the motor shaft.
10. Press the end of the armature into the housing to release the brake, and then rotate the pulley until you have access to the setscrew and tighten the setscrew, (DO NOT overtighten as you may strip out the threads).
11. Adjust the motor position until the belt is snug. DO NOT put tension on the belt.
12. Re-connect the motor wires, and secure all wire and cables.
13. Install the black plastic motor cover and secure with the 8-32x1/4 Truss head screw.
14. Re-connect the white 4 position connector near the top of the red station to restore power to the control board.
15. Test door motor and machine operation.
16. Re-install all covers, trim and lids that were removed.

## **APS Customer Door Motor – Side Access Skin**

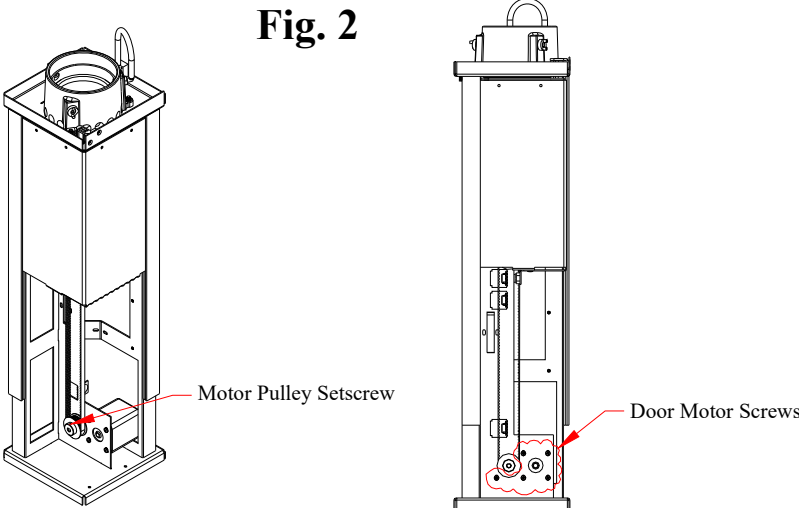
1. Remove the lower portion of the skin lid, (you may have to remove some of the lower screws in the top lid to remove the red station).
2. Disconnect the white 4 position connector that will be near the top of the red customer station assembly, to remove power from the control board.
3. Disconnect all other cable connections that lead to the red station assembly, (communication, audio, etc.).
4. Remove the (2) nuts that secure the control board assembly to the red station, and then move the control board assembly so you have access to the customer control/push button assembly's mounting screws. (See Fig. 1)
5. Disconnect all wires going to the customer control/push button assembly and then remove the customer control assembly.
6. At the PVC tube to aluminum receiver connection, break/cut any sealing compound at that joint, to loosen the pipe.
7. Remove both of the 1/4-20 Truss Head bolts that are closest to the access opening of the skin, that fasten the skin to the black base. (See Fig. 1)
8. Remove the (4) #6 Flat Head screws and nuts that fasten the red station to the skin. (See Fig. 1)
9. Lower the red station until it is clear of the PVC tube, and then bow the skin sides out enough that the red station can be removed from the skin, (if the skin will not bow out enough to remove the red station, remove some of the upper skin lid screws).
10. Disconnect the wiring to the door motor.
11. If so equipped, remove the black plastic motor cover. (See Fig. 1)
12. Press the end of the armature into the housing to release the brake, and then pull up or down on the door belt to rotate the motor sprocket until you can access the motor pulley setscrew. (See Fig. 2)
13. Loosen the setscrew and slide the pulley and belt off of the motor shaft, (you may need to loosen the motor mounting screws to gain enough slack in the belt for the pulley to come off). (See Fig. 2)
14. Remove the (5) screws that fasten the motor to the red station, and remove the old motor. (See Fig. 2)
15. Install the new motor.

16. Rotate the belt pulley until the flat inside of the pulley aligns with the flat of the motor shaft, then slide the pulley and belt onto the motor shaft.
17. Press the end of the armature into the housing to release the brake, and then rotate the pulley until you have access to the setscrew and tighten the setscrew, (DO NOT overtighten as you may strip out the threads).
18. Adjust the motor position until the belt is snug. DO NOT put tension on the belt.
19. Re-connect the motor wires, and secure all wire and cables.
20. Install black plastic motor cover and secure with the 8-32x1/4 Truss head screw.
21. Clean off the old sealing compound from the aluminum receiver and the PVC tubing.
22. Apply new sealant, and re-install the red station into the skin with the (4) #6 screws and nuts previously removed.
23. Re-install the two 1/4-20 bolts that secure the skin to base.
24. Re-install and connect all wires for the customer send button housing assembly.
25. Re-connect all the cables and wires, connecting the 4 position white connector last.
26. Secure all wires and cables.
27. Test door motor, audio and machine operation.
28. Re-install all covers, trim and lids that were removed.

**Fig. 1**



**Fig. 2**

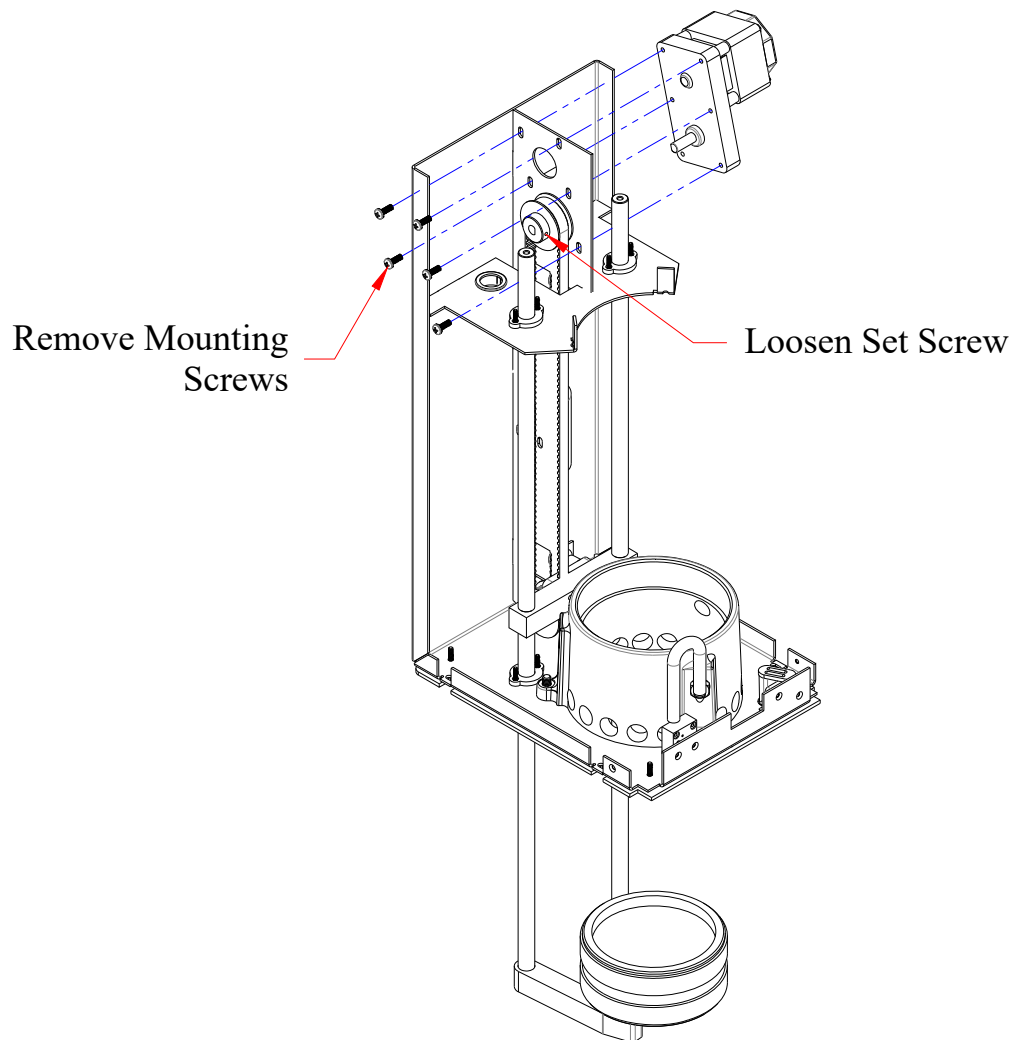




## **APS Inside Vertical Door/Lift Motor**

1. Remove the lower section of the skin lid.
2. Disconnect the push button switch wires so the lid can be moved out of your way.
3. Disconnect the white 4 position cable connection, and then the communication cable.
4. Loosen and move the pipe clamp that secures the top of the control board mount to the PVC tube.
5. Tilt the board mount assembly towards you to gain access to the PVC tube to aluminum receiver joint. To loosen the pipe break or cut any sealer that was used.
6. Remove the (4) #8 screws that fasten the inside station assembly to the skin. On early versions, the screws ran through the side of the skin into the station's lower pan. In the current version, the screws up through the lower pan into right angle fasteners.
7. Lower the inside station assembly to remove it from the skin for access to the motor, and lay on a suitable surface.
8. Disconnect the motor wires.
9. Press the end of the armature into the housing to release the brake, and then move the lift belt to rotate the motor pulley until you have access to the pulley setscrew.
10. Loosen the setscrew and then slide the pulley and belt off of the motor shaft, (you may need to loosen the motor mounting screws to gain enough slack in the belt for the pulley to come off).
11. Remove the (5) screws that fasten the motor to the station, and remove the motor.
12. Install the new motor with the old screws.
13. Rotate the belt pulley until the flat inside of the pulley aligns with the flat of the motor shaft, then slide the pulley and belt onto the motor shaft.
14. Press the end of the armature into the housing to release the brake, and then rotate the pulley until you have access to the setscrew and tighten the setscrew, (DO NOT overtighten as you may strip out the threads).
15. Adjust the motor position until the belt is snug. DO NOT put tension on the belt.
16. Re-connect the motor wires, and secure all wire and cables.
17. Clean off any of the old sealing compound from the aluminum receiver and PVC tube, if it had been used, and apply new sealant.
18. Re-install the station into the skin and install the (4) #8 screws to secure.

19. Re-position the control board mount and secure with the previously repositioned pipe clamp.
20. Re-connect the communication cable, and then the white (4) position cable connection.
21. Re-connect the push button wiring.
22. Secure all wires and cables.
23. Test door/lift assembly, and machine.
24. Re-install and secure the lower skin lid.



## **BPS Customer Door Motor**

1. Disconnect power to the lane that is to be serviced.
2. Remove the stainless steel skin from the customer unit.
3. Disconnect the motor wires.
4. Remove the black plastic motor cover, if it is present.
5. Press the end of the armature into the housing to release the brake, and pull up or down on the door belt to rotate the motor sprocket until you can access the motor pulley setscrew, (you may want to secure the door in place so that it won't drop when the pulley is removed from the motor).
6. Loosen the setscrew and slide the pulley and belt off of the motor shaft, (you may need to loosen the motor mounting screws to gain enough slack in the belt for the pulley to come off).
7. Remove the (4) screws that fasten the motor to the door motor plate, and then remove the old motor.
8. Install the new motor, and secure with the (4) screws removed from the old motor.
9. Rotate the belt pulley until the flat inside of the pulley aligns with the flat of the motor shaft, then slide the pulley and belt onto the motor shaft.
10. Press the end of the armature into the housing to release the brake, and then rotate the pulley until you have access to the setscrew and tighten the setscrew, (DO NOT overtighten as you may strip out the threads).
11. Adjust the motor position until the belt is snug. DO NOT put tension on the belt.
12. Re-connect the motor wires.
13. Secure all wires and cables
14. Install the black plastic motor cover and secure with the 8-32x1/4 Truss head screw.
15. Restore power to the lane.
16. Test door and machine operation.
17. Re-install all skins and trims that were removed.

