



INSTALLATION & OPERATION  
MANUAL

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# INSTALLATION & OPERATION MANUAL

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**Section 1: INTRODUCTION**

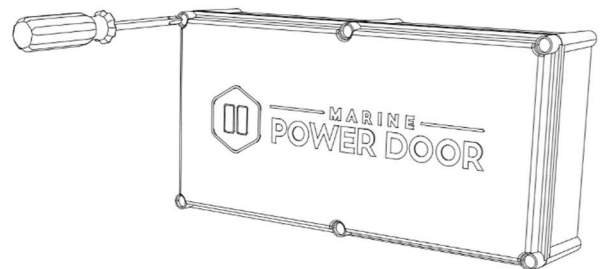
## 1.0 Introduction

Marine Power Door is the only door operator system on the market today specifically designed for the marine industry. Many of today's top boat builders and owners have chosen Marine Power Door for its reliability and proven operation. This document is intended to provide details and guidance to both the installer and end user of the Marine Power Door system.

## 1.1 Contents

The Marine Power Door kit includes the following:

- ❑ (1) Electrical Control Box
- ❑ (1) Motor/Gearbox w/ Mounting Hardware
- ❑ (1) Motor/Gearbox Aluminum Mounting Bracket (6" Width)
- ❑ (1) Idler Pulley w/ Mounting Hardware
- ❑ (1) Idler Pulley Aluminum Mounting Bracket (4" Width)
- ❑ (1) Drive Belt
- ❑ (1) Drive Belt Coupling w/ Mounting Hardware
- ❑ (1) Aluminum Door Stop
- ❑ (1) Aluminum Push Bar
- ❑ (1) Battery Backup UPS
- ❑ (1) Electronic Keypad
- ❑ (2) SPST Pushbutton Switches (Stainless Steel)
- ❑ (3) PVC Electrical Boxes
- ❑ (2) 2-Position SPST Rocker Switches
- ❑ (1) 2-Position SPST Key Switch
- ❑ (1) Interior Switch Panel
- ❑ (1) Engine Room Key Switch Panel
- ❑ (3) Watertight Cable Glands
- ❑ (1) Duplex Receptacle, 120V, 15A w/ Cover
- ❑ (5) Heat-shrink Fork Terminals (Blue, 16-14 AWG)
- ❑ (4) Heat-shrink Disconnect Terminals (Blue, 16-14 AWG)
- ❑ (4) Heat-shrink Butt Connectors (Red, 22-18 AWG)



**IMPORTANT:** DO NOT USE A POWER DRIVER TO REMOVE PLASTIC COVER SCREWS. USE ONLY A MANUAL SCREWDRIVER.

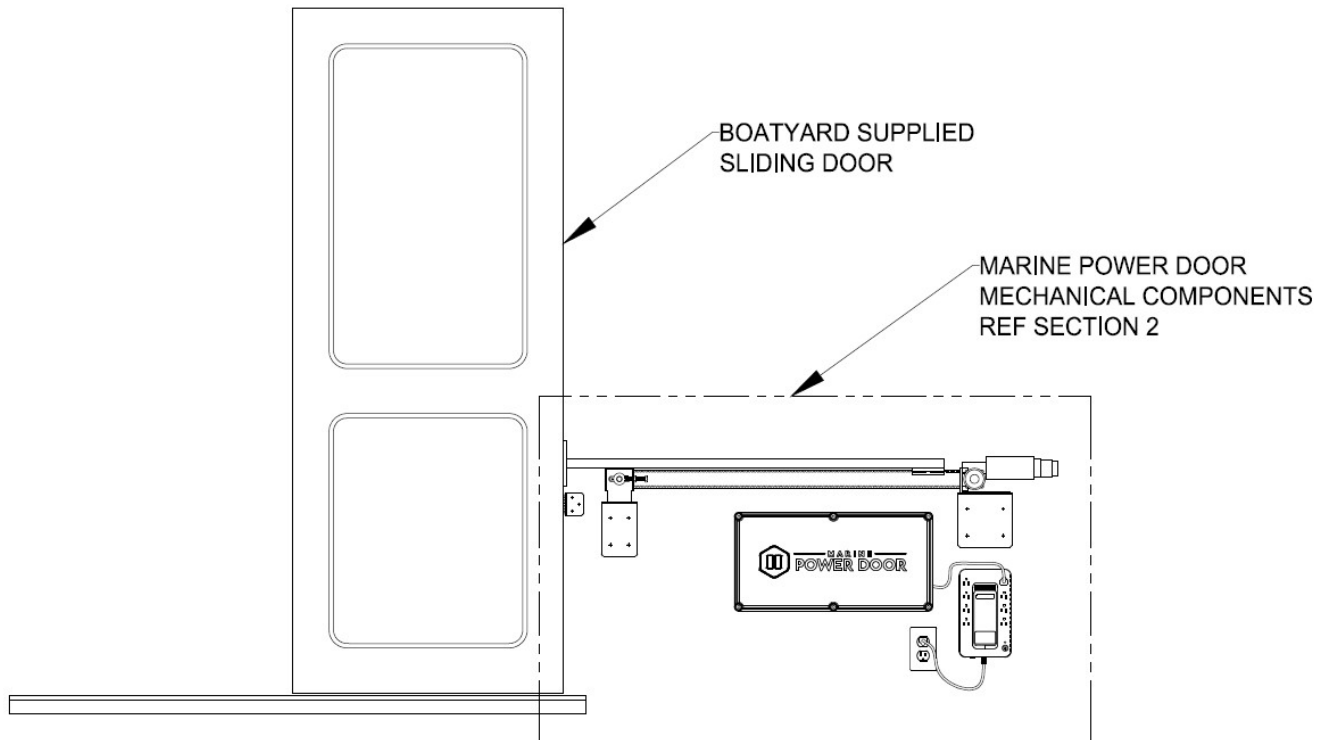
**NOTICE**

*Marine cable, sealant, and other consumables not included.*

**Section 1: INTRODUCTION**

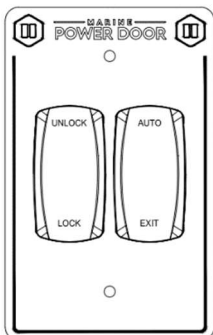
## 1.2 System Overview

### 1.2.1 Bulkhead Mounted Components



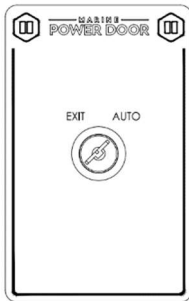
**FIGURE 1 – TYPICAL COMPONENT LAYOUT**

### 1.2.2 Remote Mounted Components

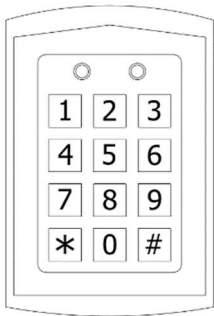


**Interior Lock Switch** – Located near the main distribution panel (or any other convenient interior location), this rocker switch is a safety feature used to disable the exterior pushbutton, creating complete security while sleeping aboard the vessel.

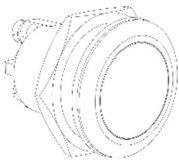
**Salon Exit Switch** – Located near the main distribution panel (or any other convenient interior location), this rocker switch is a safety feature used to disable the power to the entire system, allowing egress from the vessel in the event of a door malfunction.

**Section 1: INTRODUCTION**

**Engine Room Key Switch** – Located in the engine room or another exterior location, this key switch is a safety feature used to disable the door locking mechanism, allowing entry into the vessel in the event of a door malfunction or lockout. It is the responsibility of the owner/captain to hide the key in a safe, discrete location to prevent unauthorized persons from entering the boat. The key should not be left installed in the key switch.



**Keypad** – Located in the engine room (or any other convenient exterior location), this keypad is used to lock the door in the closed position when leaving the vessel.



**Interior Button** – Stainless steel pushbutton switch used for egress.

**Exterior Button** – Stainless steel pushbutton switch used for ingress.

### 1.3 Safety Considerations

**WARNING** Never install the door operator components in a location containing gasoline engines, tanks, LPG/CPG cylinders, regulators, valves, or fuel line fittings. Unless labeled otherwise, the door operator components do not meet federal requirements for ignition protection.

**WARNING** High voltage connections are present within the control box; turn off or unplug the unit before servicing or troubleshooting. Refer to the installation guidelines and drawings. Failure to follow this precaution could result in death or serious injury.

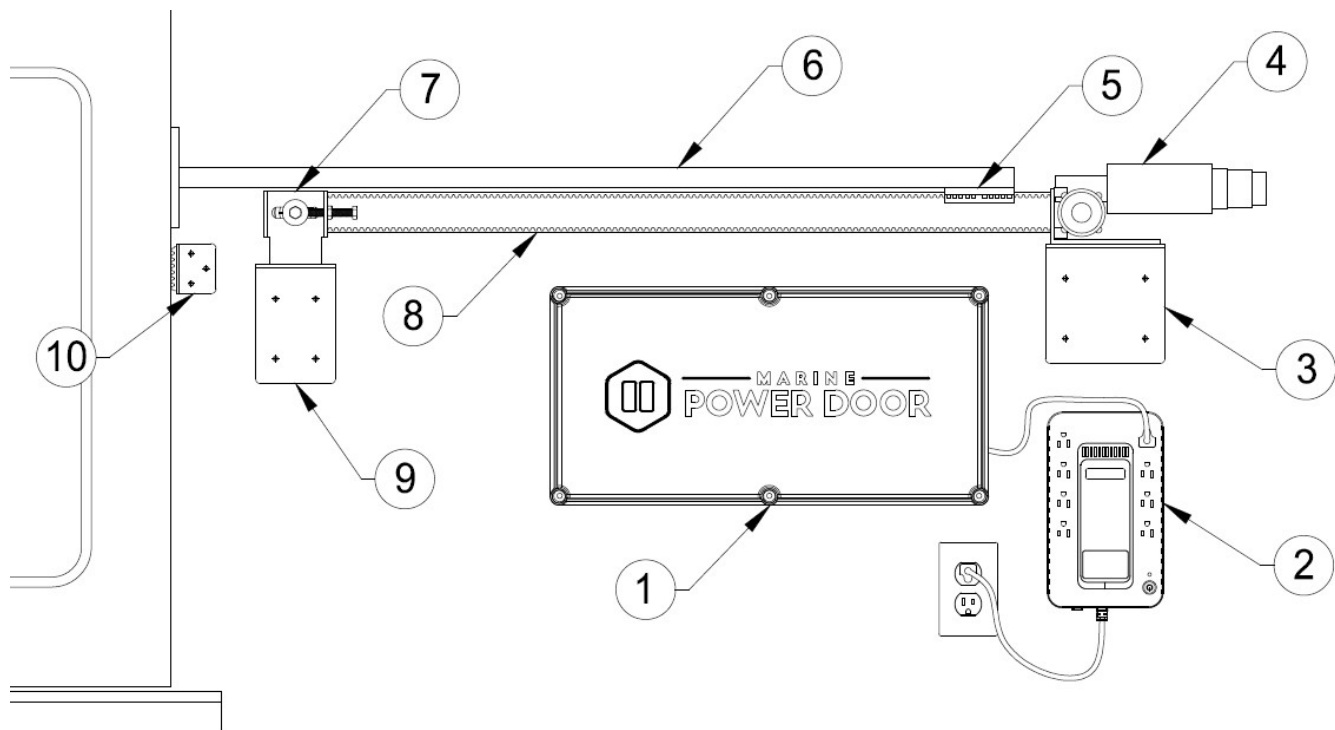
**NOTICE**

All workmanship shall meet or exceed ABYC standards.

**Section 2: MECHANICAL INSTALLATION**

## 2.0 Mechanical Installation

Due to the variations in construction and layout for different boats, the installation of the Marine Power Door system requires forethought and planning to ensure proper operation. The door operator can be adapted to all sliding door orientations, including both single doors (port, starboard, and centerline) and double doors. Figure 2 shows a typical starboard side door installation.


**FIGURE 2 – BULKHEAD-MOUNTED COMPONENTS**

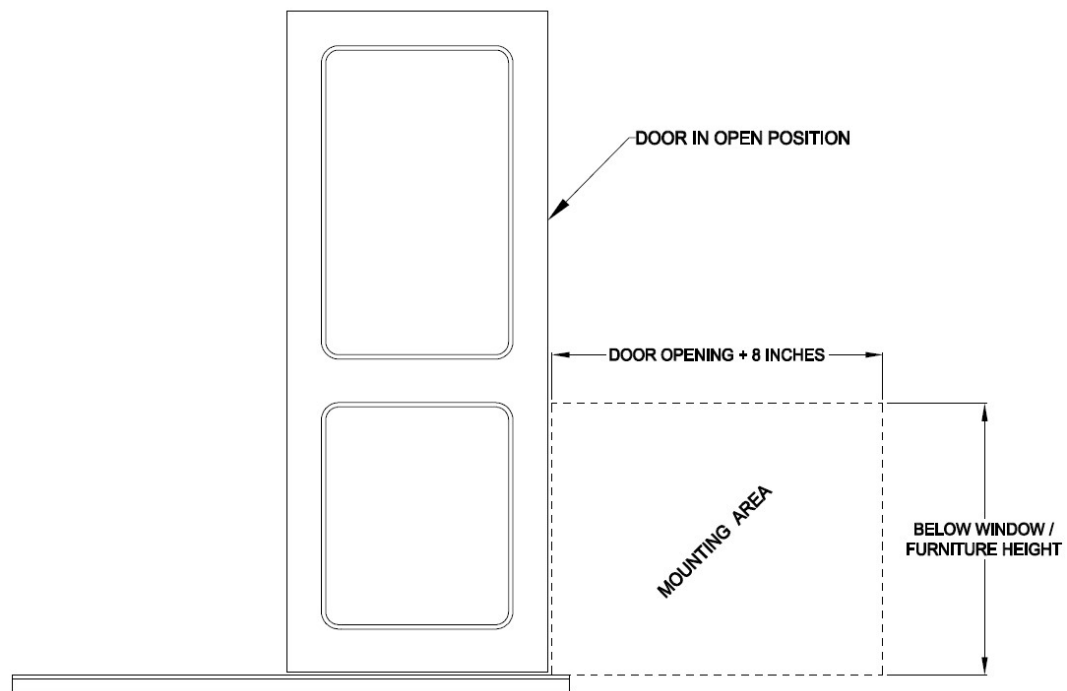
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>ITEM</b>	<b>DESCRIPTION</b>
1	ELECTRICAL CONTROL BOX	6	PUSH BAR
2	BATTERY BACKUP UPS	7	IDLER PULLEY
3	ALUMINUM BRACKET (6")	8	DRIVE BELT
4	MOTOR/GEARBOX	9	ALUMINUM BRACKET (4")
5	DRIVE BELT COUPLING	10	ALUMINUM DOOR STOP

**Section 2: MECHANICAL INSTALLATION**

## 2.1 Mounting the Components

The first step in the installation process is to mount the mechanical operator components to the aft salon bulkhead. The general process is as follows:

1. Ensure the door tracks are in good working order and the door freely slides without excessive drag.
2. Move the door to the open position and confirm sufficient space exists for all of the major components. Minimum area required for a standard installation is shown in Figure 3. Minimum depth is approximately 5 inches.

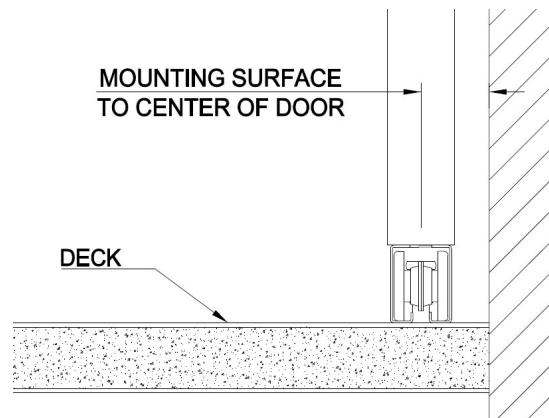


**FIGURE 3 – MINIMUM MOUNTING AREA**

**Note:** Electrical control box and UPS can be remote mounted if space is limited. The components within the control box can also be removed (see Figure 6.5) and remote mounted for very tight clearances. This is only recommended in dry areas with no risk of water exposure.

**Section 2: MECHANICAL INSTALLATION**

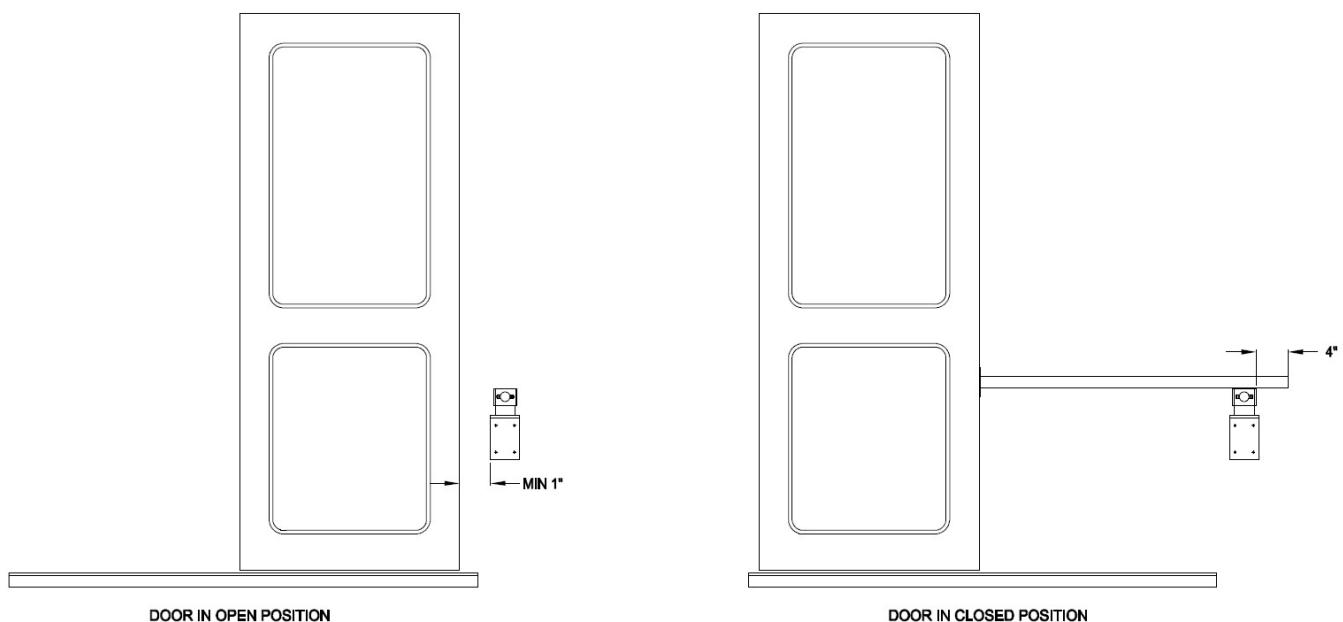
3. Measure the distance from the center of the door to the bulkhead mounting surface (Figure 4). This dimension is important for alignment of the other components.

**FIGURE 4 – DOOR OFFSET**

4. Fasten the idler pulley to the 4" wide aluminum bracket, ensuring the center of the pulley is located at the same dimension from the edge of the bracket as measured in Step 3. The pulley can face forward or aft depending on the arrangement. The bracket flange may be trimmed for clearance as necessary. Stainless steel fasteners (1/4-20 X 3/4) are provided in the hardware bag. (Reference Dwg# MPD01-D2)
5. Fasten the motor/gearbox to the 6" wide aluminum bracket, ensuring the center of the pulley is located at the same dimension from the edge of the bracket as measured in Step 3. The pulley can face forward or aft depending on the arrangement. The bracket flange may be trimmed for clearance as necessary. Stainless steel fasteners (1/4-20 X 3/4) are provided in the hardware bag. (Reference Dwg# MPD01-D1)

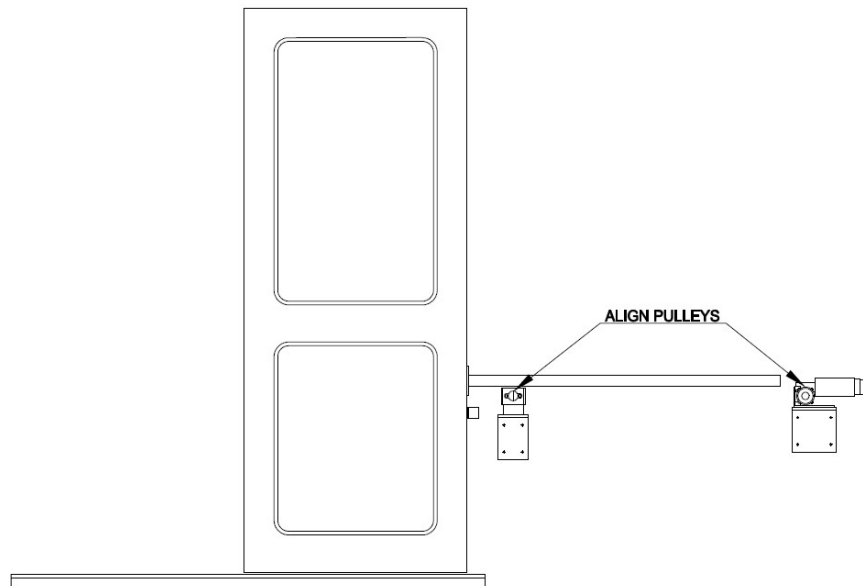
**Section 2: MECHANICAL INSTALLATION**

6. Attach the idler pulley/bracket to the bulkhead at the desired height. Keep minimum 1 inch clearance between the bracket and door (in the open position).
7. Move the door to the closed position, and hold the push bar in its approximate installed position. Mark the push bar at the outer edge of the idler pulley, and then add 4 inches for the final length (Figure 5). The factory push bar is 48 inches long and will likely need to be cut down. (Reference Dwg# MPD01-D3)

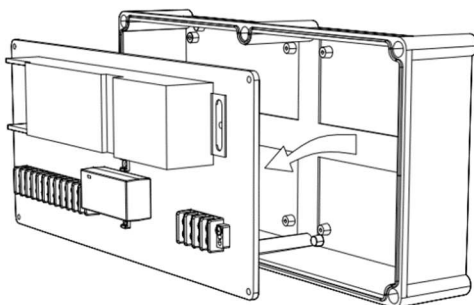
**FIGURE 5 – MEASURING THE PUSH BAR**

8. Using the belt coupling as a guide, drill holes in the end of the push bar for the fasteners. Stainless steel fasteners (1/4-20 X 2-1/2) are provided in the hardware bag. (Reference Dwg# MPD01-D3)
9. Mount the push bar to the door.
10. Move the door to the open position, and mount the motor/gearbox near the end of the push bar. Be sure the motor pulley and idler pulley are in alignment.



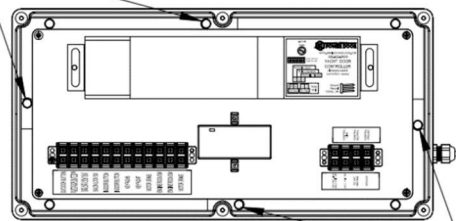
**Section 2: MECHANICAL INSTALLATION**

**FIGURE 6 – MOUNTING THE MOTOR/GEARBOX**

11. Cut the drive belt to length and fasten into the belt coupling. Be sure there are five teeth engaged on each side of the belt coupling. Adjust as necessary using the tensioner bolt on the idler pulley. (See Section 5 for instructions on tensioning the belt)
12. Mount the door stop, electrical control box, and battery backup UPS. Be sure to locate the control box within 20 ft of the motor brake. Harness extensions are available if needed.



**NOTE:** IF THERE IS NOT SUFFICIENT SPACE TO MOUNT THE GREY ENCLOSURE, THE BLACK SUBPANEL MAY BE REMOVED AND MOUNTED DIRECTLY TO THE BULKHEAD (ONLY IN A DRY LOCATION!)

MOUNTING POINTS,  
DRILL THRU & USE  
#12 SCREW TO SECURE  
TO BULKHEAD



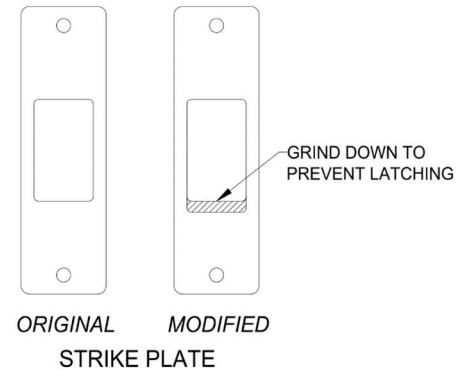
MOUNTING POINTS,  
DRILL THRU & USE  
#12 SCREW TO SECURE  
TO BULKHEAD

**FIGURE 6.5 – MOUNTING THE CONTROL BOX**

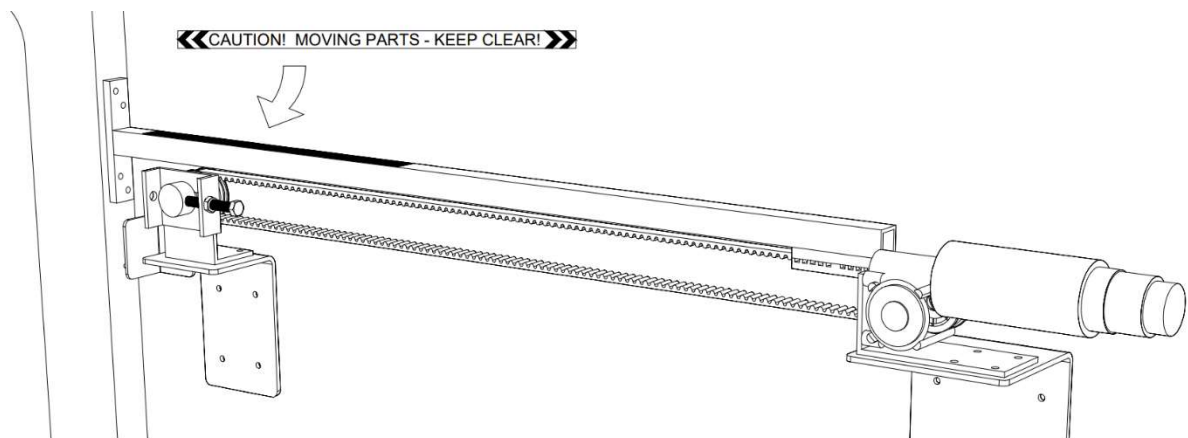
**Section 2: MECHANICAL INSTALLATION**

## 2.2 Additional Considerations & Safety Precaution

1. It may be necessary to modify the existing strike plate to ensure the door does not latch in the closed position. Often times, the strike plate can be cut or ground down to prevent the latch from engaging. The Marine Power Door motor has an electric brake that keeps the door open or closed at all times, so the physical latch is no longer required.



2. In some cases, the strike plate modification noted above will also prevent the door from locking with the manual deadbolt. However, if the deadbolt remains operational, it is recommended that it not be used after the Marine Power Door system is installed. If the system is operated with the deadbolt engaged, damage to the motor could occur or the control fuse may blow. For instructions on how to replace the fuse, see Section 5.
3. If retrofitting your vessel from an existing electric door system, please contact J.R. Beers Marine Service for additional instructions that will reduce installation time.
4. **IMPORTANT:** During door operation, it is imperative to stay clear of the mechanical drive system, as it has moving parts that can cause harm. The control system has several safety features to prevent injury, but it is important for the user to understand this risk. A caution decal is included in the kit that must be applied to the push bar to properly warn the user. Failure to apply this decal will result in a void of the system warranty.





**Section 3: ELECTRICAL INSTALLATION**

### 3.0 Electrical Installation

This section outlines the electrical requirements for a standard Marine Power Door installation. See Section 6 for detailed wiring schematics.

### 3.1 Cable Recommendations

After finding approximate locations for the remote mounted components as outlined in Section 1.2.2, route the cables to the electrical control box. Ensure all cabling meets the approvals of ABYC and the USCG. Use care during routing to prevent the possibility of chafing. Label all wires at the electrical control box to prevent errors during termination. The recommended wire sizes are outlined below:

<b>RECOMMENDED CABLE SIZES</b>		
<b>FROM</b>	<b>TO</b>	<b>AWG</b>
MAIN DISTRIBUTION PANEL	120V RECEPTACLE	14/3
SALON EXIT SWITCH	ELECTRICAL CONTROL BOX	14/2
INTERIOR LOCK SWITCH	ELECTRICAL CONTROL BOX	16/2
ENGINE ROOM KEY SWITCH	ELECTRICAL CONTROL BOX	16/2
KEYPAD	ELECTRICAL CONTROL BOX	18/4
EXTERIOR BUTTON	ELECTRICAL CONTROL BOX	16/2
INTERIOR BUTTON	ELECTRICAL CONTROL BOX	16/2

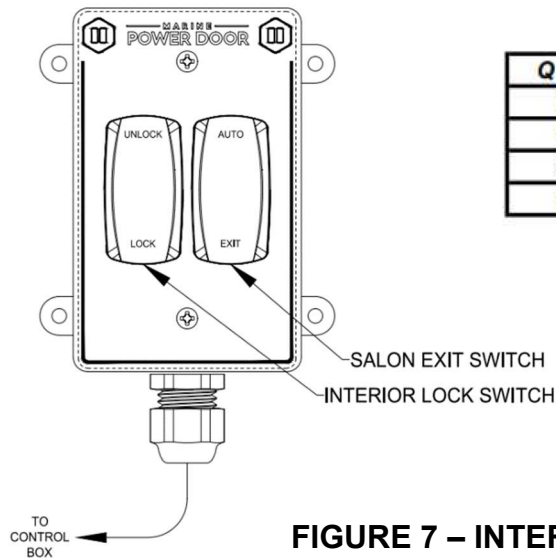
**TABLE 1 – CABLE SIZES**

**Section 3: ELECTRICAL INSTALLATION**

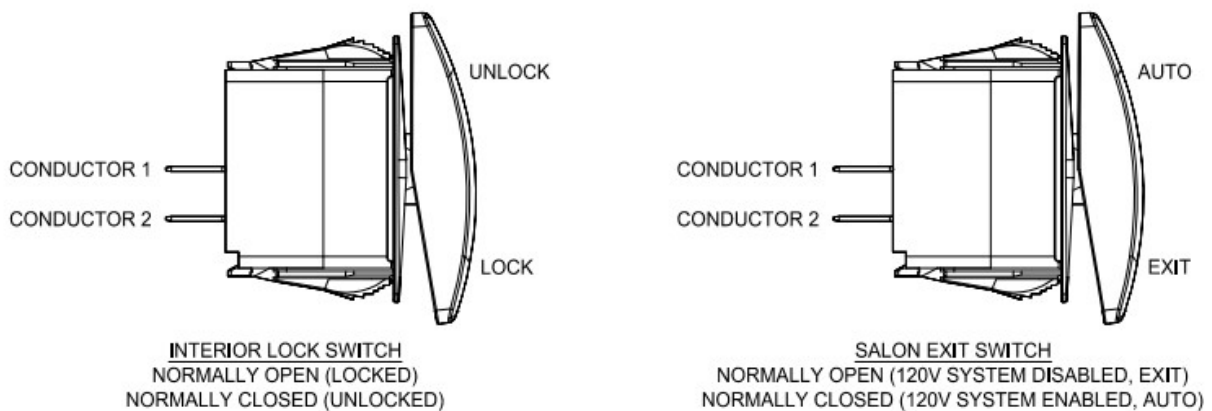
## 3.2 Mounting the Switch Assemblies

### *Interior Lock Switch & Salon Exit Switch*

Use the parts shown below to assemble and terminate the wires for the Interior Lock Switch and the Salon Exit Switch. Disconnect terminals are provided in the hardware bag for making the connections to the rocker switches. The Interior Switch Panel is also available in a horizontal orientation and can be furnished upon request. The Interior Switch Panel can also be flush-mounted on a cabinet face or within the vessel's main distribution panel (without the PVC box). Figure 7 shows an example layout.



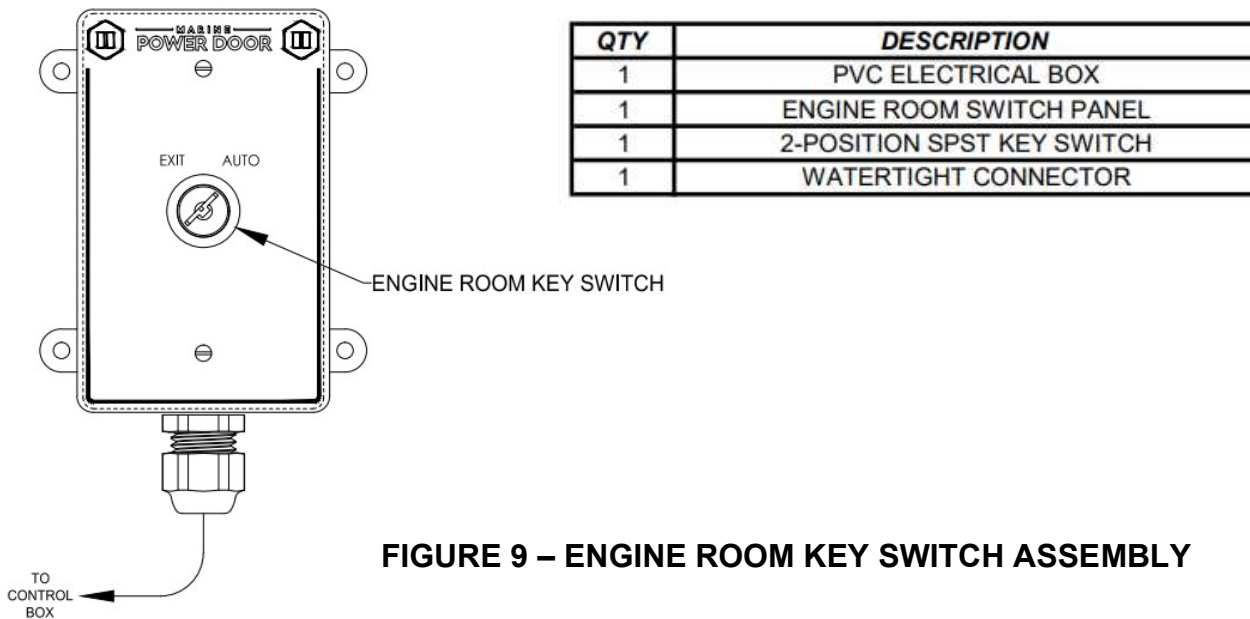
<b>QTY</b>	<b>DESCRIPTION</b>
1	PVC ELECTRICAL BOX
1	INTERIOR SWITCH PANEL (VERTICAL VERSION)
2	2-POSITION SPST ROCKER SWITCH (120V)
1	WATERTIGHT CONNECTOR

**FIGURE 7 – INTERIOR SWITCH ASSEMBLY**

**FIGURE 8 – INTERIOR SWITCH CONTACTS**

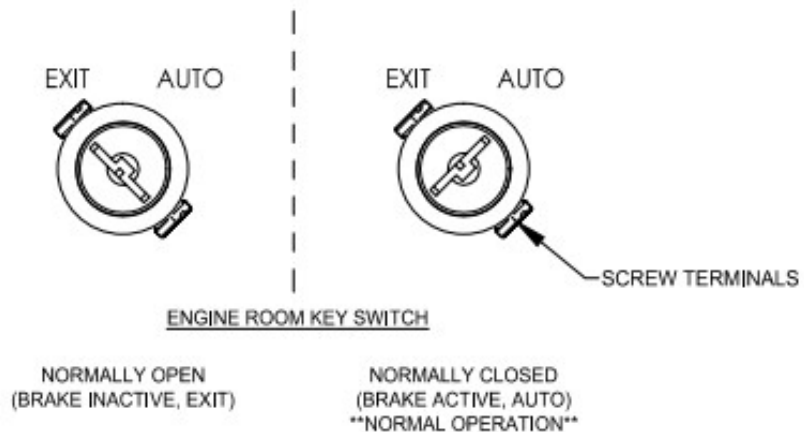
**Section 3: ELECTRICAL INSTALLATION**

### Engine Room Key Switch

Use the parts shown below to assemble and terminate the wires for the Engine Room Key Switch. Fork terminals are provided in the hardware bag for making the connections to the key switch. Figure 9 shows an example layout.



**FIGURE 9 – ENGINE ROOM KEY SWITCH ASSEMBLY**

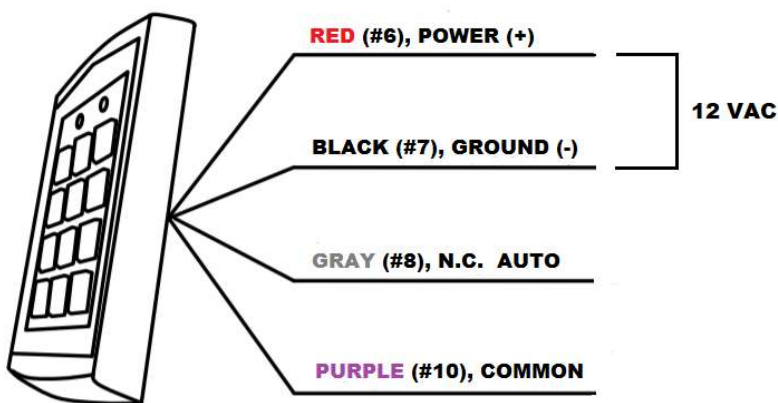
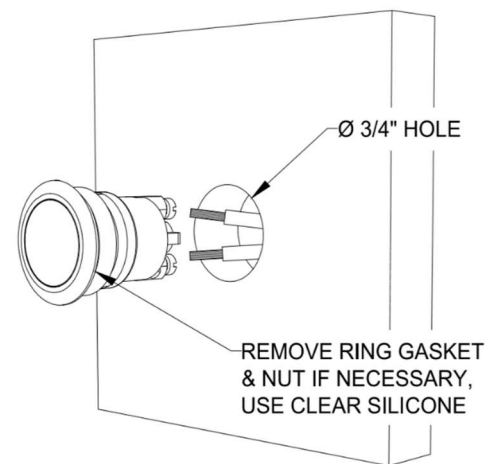


**FIGURE 10 – ENGINE ROOM KEY SWITCH CONTACTS**

**Section 3: ELECTRICAL INSTALLATION**

## Keypad, Interior Button, & Exterior Button

Mount the keypad in the desired exterior location and make connections to the colors shown below; butt connectors are provided in the keypad box. Drill 3/4" holes using a Forstner bit and mount the interior and exterior buttons in the desired locations; see Figure 12 below. Use clear silicone sealant to seat the pushbuttons.


**FIGURE 11 – KEYPAD CONTACTS**

**FIGURE 12 – BUTTON INSTALLATION**

## 3.3 Control Box Connections

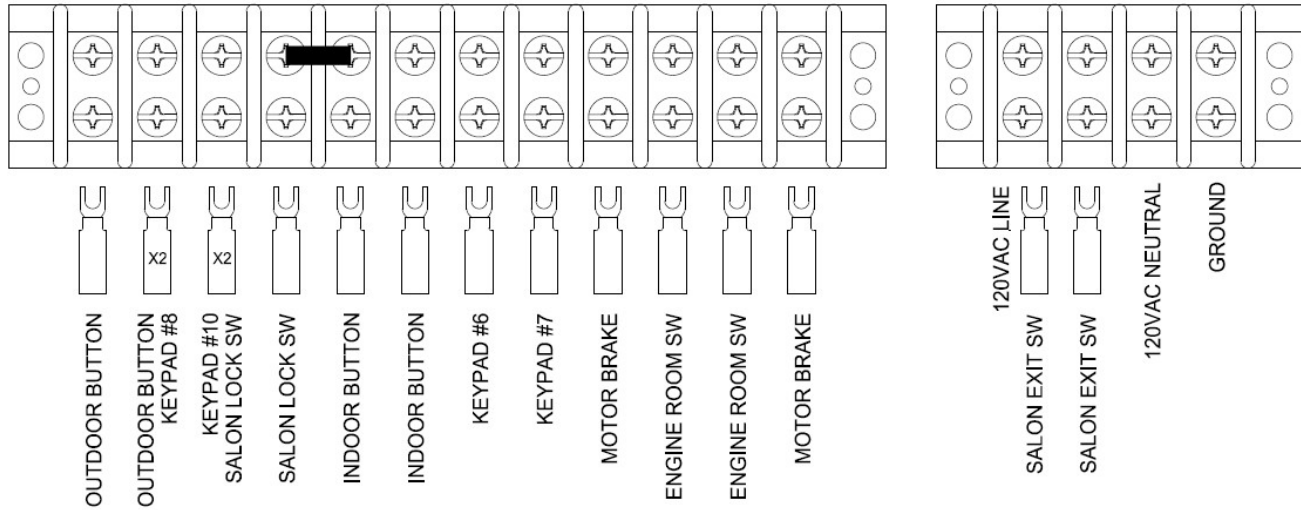
Drill an approximately 1-1/4" hole in the control box where you plan to have the switch wiring enter the box. Take care not to chafe or drill through any of the pre-installed components and wiring. A step drill bit works well for making this hole.

Feed the wires through and make the terminations using the blue heat-shrink connectors provided on the terminal blocks. There are a total of 16 connections to be made, including the small red(or brown)/black leads from the motor brake. Feed the multi-pin connector from the motor brake into the box and plug into the controller. If the multi-pin connector harness is too short, extensions are available in 5, 10, 15, and 20 ft lengths.



**IMPORTANT:** Never modify, cut, or de-pin factory harnesses. Unsafe operation may result. Always use harness extensions. Failure to do so voids warranty. All connections are safety critical. Ensure wires are fastened securely to terminal blocks.

**Section 3: ELECTRICAL INSTALLATION**



**FIGURE 13 – CONTROL BOX CONNECTIONS**

**Note:** Run a small bead of silicone sealant around the wiring entering the control box to prevent chafing and to maintain the watertight integrity of the box.

**Receptacle**

Mount the receptacle, box, and cover near the control box. Fork terminals are provided in the hardware bag for making the connections to the receptacle. Ensure the receptacle has proper overcurrent protection installed at the main distribution panel. Plug the battery backup UPS into the receptacle. When it is time to start up the unit, be sure the control box is plugged into an outlet on the battery backup that states “Battery Supported.” *Do not plug any additional equipment into the battery backup.*

**Section 4: STARTUP & OPERATION**

## 4.0 Startup & Operation

This section describes the initial startup of the Marine Power Door. Before continuing with the startup, be sure the following checklist is complete:

- ❑ All components are mounted with no interferences.
- ❑ The door slides freely and the drive motor and pulley are in proper alignment.
- ❑ All electrical connections are complete and tight.
- ❑ Interior Lock Switch is in the UNLOCK position.
- ❑ Salon Exit Switch is in the AUTO position.
- ❑ Engine Room Key Switch is in the AUTO position.

### 4.1 Startup Instructions

1. Remove the cover on the control box.
2. Push the door approximately half-way open.
3. Power up the system by energizing the 120VAC circuit for the control box.
4. Depress the 2 bottom black buttons on the control board simultaneously for 3 seconds. The LED screen on the controller will light up and show "SC".

**Note:** The two left black buttons are used to scroll through the settings and the two right black buttons are used to change the setting values.

5. Press either the interior or exterior door button and watch the screen.
6. The door should begin to **OPEN SLOWLY** and the screen should say "SC LO" (Learn Open). If the door begins to close instead of open, cycle the power off and back on. Then, scroll to the setting called "Hn" (Hand) and change the value to the opposite hand (either "LH" or "RH"). Then, scroll back up to "SC" and repeat step 5 if necessary.
7. Push the interior or exterior button again.
8. The door will close slowly and the screen should say "SC LC" (Learn Close).





**Section 4: STARTUP & OPERATION**

9. The screen will then display the door opening measurement (ie: 30 inches).

10. The control settings are pre-programmed from the factory, but the following adjustments may be necessary:

DISPLAY CODE	DESCRIPTION	RECOMMENDED SETTING	NOTES
<i>Hn</i>	DOOR HAND	N/A	SEE STEP 6
<i>CS</i>	CLOSING SPEED	04	N/A
<i>oS</i>	OPENING SPEED	05-07	N/A
<i>RC</i>	AUTO-REVERSE IN CLOSING	50	DO NOT SET ABOVE 55 OR PHYSICAL INJURY COULD RESULT
<i>Ct</i>	CLOSING TORQUE	60	VALUE CAN BE INCREASED IF DOOR DRIFTS DURING BOAT ROLL
<i>oT</i>	OPENING TORQUE	60	N/A

**TABLE 2 – CONTROL SETTINGS**

11. The controller display will turn off after 5 minutes of non-use.

12. Install the cover on the control box. Door should now operate normally.

## 4.2 Programming the Keypad

Please contact Jay @ 302-922-0539 or Brad @ 717-574-5336 for programming assistance.

**Section 4: STARTUP & OPERATION**

## 4.3 Operation Instructions

### Normal Operation:

1. Set Salon Exit Switch to AUTO.
2. Set Interior Lock Switch to UNLOCK.
3. Set Engine Room Key Switch to AUTO.
4. Keypad is set to unlocked mode (left light is unlit, right light is green).
5. Push interior/exterior buttons to open and close door.

**NOTICE**

*While fishing and/or underway, be sure both the Salon Exit Switch and Engine Room Key Switch are set to AUTO. If not, the door will drift due to boat rolling motion.*

**SAFETY FEATURE**

*If an obstruction gets in the path of the door during closing, it will sense the resistance and automatically reverse. If an obstruction gets in the path of the door during opening, it will sense the resistance and stop.*

### Lock Door with Keypad and Leave Vessel:

1. Set all switches for normal operation as described above.
2. Press your keypad passcode (factory default is 0671) to lock the door. See section 4.2 for instructions on how to setup a custom passcode.
3. Exterior button is disabled.
4. Interior button is still active (egress is still possible).
5. Upon return, press the same passcode to unlock the door.

### Lock Door at Night While Sleeping (Night-time Security):

1. With all other switches set for Normal Operation, set the Interior Lock Switch to LOCK.
2. Exterior button is disabled.
3. Interior button is still active (egress is still possible).
4. Entry from exterior is possible by setting Engine Room Key Switch to EXIT (Push door manually open).

**Section 4: STARTUP & OPERATION****Resetting the Door after a Malfunction:**

1. Set Salon Exit Switch to EXIT.
2. Manually push door to approximately half-way open.
3. Reset Salon Exit Switch to AUTO.
4. Push Interior or Exterior Button to activate automatic resizing of the door stroke.
5. Door will slowly open and close and will operate normally during next cycle.

**Emergency Exit from Interior (Door Opener Inoperable):**

1. Set Salon Exit Switch to EXIT (System power disabled).
2. Manually push door open.

**Emergency Entrance from Exterior (Door Opener Inoperable):**

1. Set Engine Room Key Switch to EXIT (Locking Mechanism disabled).
2. Manually push door open.

**Loss of 120V Power to Vessel:**

1. Battery backup will beep and maintain operation for 5 hours.
2. After battery loses charge, the door reverts to manual operation.

**BONUS TIP:**

When the button is pushed to open the door, it will open the majority of the way at a fast speed (known as opening stroke), then slow down for the last several inches (known as backcheck stroke). If the button is pushed again during this short backcheck stroke, the door will automatically close behind you after you enter or exit the vessel.

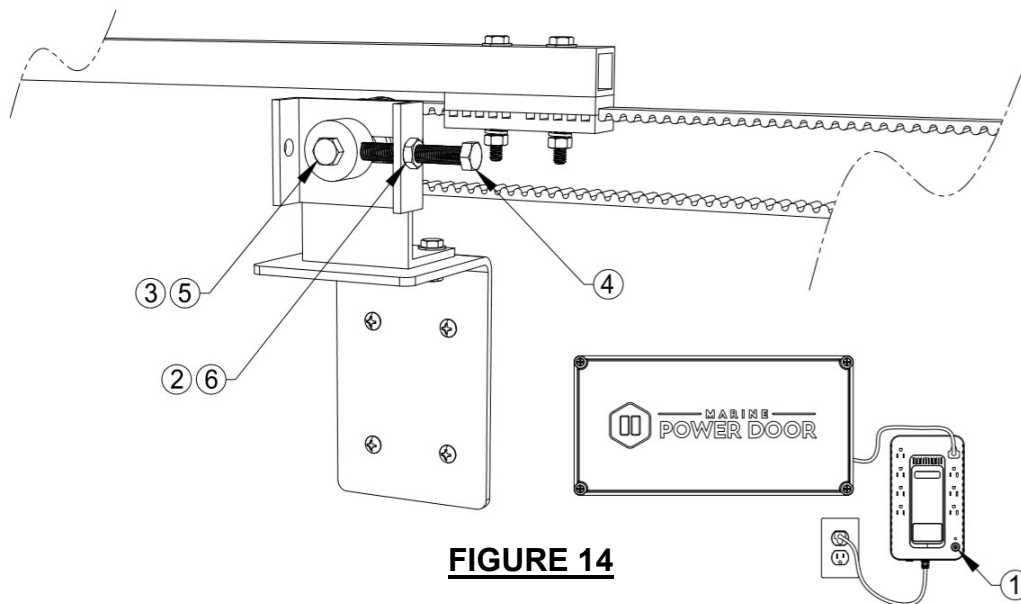
**Section 5: SYSTEM MAINTENANCE**

## 5.0 System Maintenance

The Marine Power Door system is designed to require very little maintenance, but some periodic inspections are needed to keep it operating at peak performance. The maintenance items listed below are not covered by the warranty. This section also covers both spare parts and optional accessories of the Marine Power Door system.

### 5.1 Maintenance Items

1. **Belt Tension** – The belt will naturally stretch over time, so it is important to make sure it maintains the proper tension. Check the belt at least once per year. See instructions below in Figure 14. These can also be used for the initial installation.



**FIGURE 14**

#### **TIGHTENING THE DRIVE BELT**

**TOOLS REQUIRED: 9/16" FLAT WRENCH OR SOCKET**

1. TURN OFF THE POWER TO THE SYSTEM (PUSH POWER BUTTON ON BATTERY BACKUP OR PULL PLUG FROM BATTERY BACKUP)
2. LOOSEN THE JAM NUT
3. LOOSEN THE CENTER PULLEY BOLT
4. TIGHTEN THE TENSIONER BOLT UNTIL BELT IS TIGHT
5. RE-TIGHTEN THE CENTER PULLEY BOLT
6. RE-TIGHTEN THE JAM NUT

**Section 5: SYSTEM MAINTENANCE**

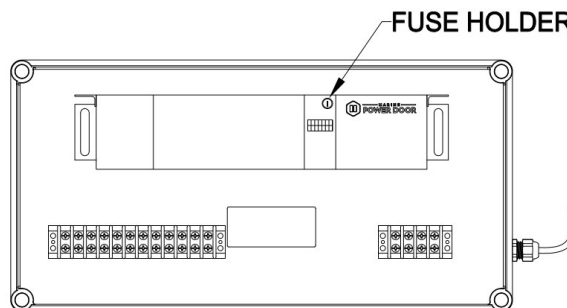
2. **Battery Backup** – Just like any other battery on your boat, the battery in your battery backup/UPS will need replacing every 2-4 years. It is recommended that it be changed at the same time you replace your engine and house batteries. The sealed lead-acid battery within the unit can be replaced, or the entire unit can be changed. We recommend replacing with the same or equivalent unit. Specifications are shown below:

<b>BATTERY BACKUP/UPS TECHNICAL SPECIFICATIONS</b>	
Capacity	650VA / 360W
Nominal Input Voltage	120VAC
Input Frequency	50/60Hz +/- 3 Hz
On-Battery Output Voltage	120VAC +/- 5%
On-Battery Output Frequency	50/60Hz +/- 1%
Max Load for Full-Time Surge Protection Outlets	12 Amps
On-Battery Output Wave Form	Simulated Sine Wave
Operating Temperature	+32°F to 104°F
Battery	Sealed Lead Acid Battery

3. **Control Fuse** – A fuse is located on the control board within the Marine Power Door control box. See Figure 15 below for location. Causes of a blown fuse typically include a lightning strike or attempting to operate the door while deadbolted.

To replace the fuse, first ensure the unit is unplugged. Then, use a small flathead screwdriver and 1/4 turn the cap on the fuse holder. The cap should pop off and the fuse can then be changed.

*Fuse Specification: SLO-BLO, 3A, 250V, Dimensions 5x20mm*



**FIGURE 15**

**Section 5: SYSTEM MAINTENANCE**

## 5.2 Spare Parts List

<b>RECOMMENDED SPARE PARTS</b>		
<i>Item</i>	<i>Qty</i>	<i>P/N</i>
Drive Belt – 9 Ft	1	MPD112501
Battery Backup/UPS Unit – 650VA	1	MPD115200
Pushbutton	1	MPD230200
Rocker Switch	1	MPD230203
Brake Transformer	1	MPD230204

**\*\*Contact J.R. Beers Marine Service for Pricing and Availability.**

## 5.3 Optional Parts List

<i>Item</i>	<i>P/N</i>
Motor/Brake Extension Harness – 5 Ft	MPD400050
Motor/Brake Extension Harness – 10 Ft	MPD400100
Motor/Brake Extension Harness – 15 Ft	MPD400150
Motor/Brake Extension Harness – 20 Ft	MPD400200
MPD Custom Extruded Aluminum Door Track – 6 Ft	MPD510006
MPD Custom Extruded Aluminum Door Track – 10 Ft	MPD510010
MPD Custom Door Carrier w/ Hanger & Anti-riser Wheels	MPD511000
Hanger Wheel	MPD511010
Anti-riser Wheel	MPD511020
Viking Yacht Door Roller Replacement	MPDVK1000
Extra Large Pushbutton (for Ø1" hole)	MPD231200
Infrared Motion Sensor	MPD223200

**\*\*Contact J.R. Beers Marine Service for Details, Pricing, and Availability.**

## 5.4 Warranty

J.R. Beers Marine Service warrants this product to be free from defects in workmanship and materials, under normal use and conditions, for a period of one (1) year for the original invoice date.

This warranty does not include:

1. Any condition resulting from other than ordinary and intended use.
2. Any condition resulting from incorrect or inadequate maintenance or care.
3. Maintenance items as outlined in Section 5.1.



**IMPORTANT:** ALL SYSTEM COMPONENTS MUST BE INSTALLED IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS. FAILURE TO DO SO WILL VOID THE WARRANTY.

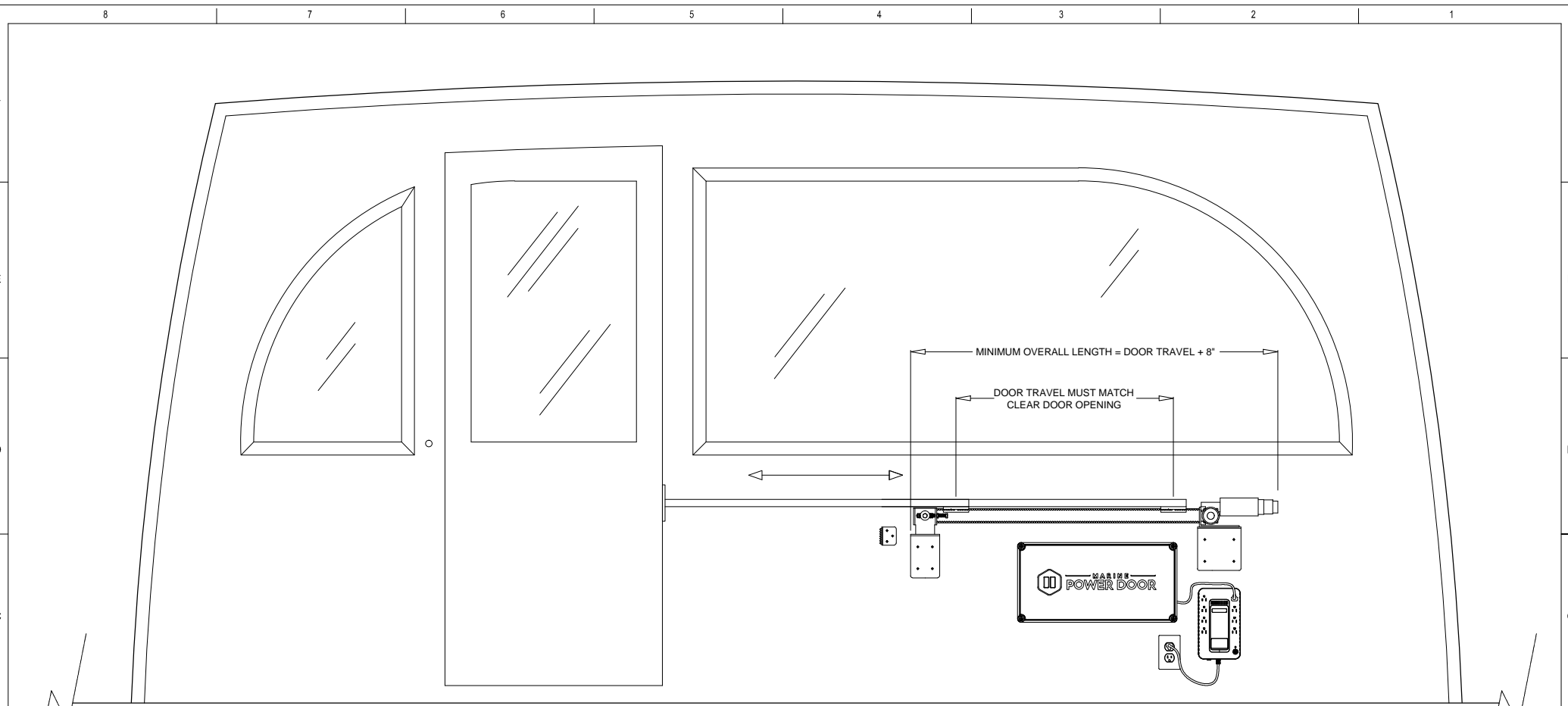


**Section 6: REFERENCE DRAWINGS**

## 6.0 Reference Drawings

The following drawings are included to aid in the installation of Marine Power Door. Please note that the drawings are representative of a typical installation and actual vessel installation may vary. Please contact J.R. Beers Marine Service for special engineering requirements.

<b>DRAWING #</b>	<b>REV</b>	<b>DRAWING NAME</b>
MPD01-A1	E	TYPICAL DOOR OPERATOR INSTALLATION
MPD01-A2	0	TYPICAL DOUBLE DOOR OPERATOR INSTALLATION
MPD01-A4	1	TYPICAL CENTER DOOR OPERATOR INSTALLATION
MPD01-D1	2	INSTALLATION DETAILS – MOTOR BRACKET
MPD01-D2	2	INSTALLATION DETAILS – IDLER PULLEY BRACKET
MPD01-D3	1	INSTALLATION DETAILS – BELT COUPLING & PUSH BAR
MPD01-E1	4	FIELD WIRING – 1 LINE ELECTRICAL DIAGRAM
MPD01-E2	2	FIELD WIRING – 120VAC CONNECTIONS
MPD01-E4	3	FIELD WIRING – LOW VOLTAGE PUSH OPEN/PUSH CLOSE CONNECTIONS



**AFT SALON BULKHEAD - TYP ELEVATION**  
**LKG AFT**

**GENERAL NOTES:**

1. DOOR MUST BE FREELY SLIDING THROUGHOUT ENTIRE STROKE PRIOR TO INSTALLATION.
2. BRACKETS, BAR, AND SLIDE MUST BE IN PROPER ALIGNMENT WITH DOOR STROKE.
3. STARBOARD-SIDE DOOR SHOWN; OTHER LAYOUT OPTIONS ARE COMPATIBLE WITH THE SYSTEM.

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REV	ZONE	DESCRIPTION	BY	DATE

**J.R. BEERS**  
MARINE SERVICE

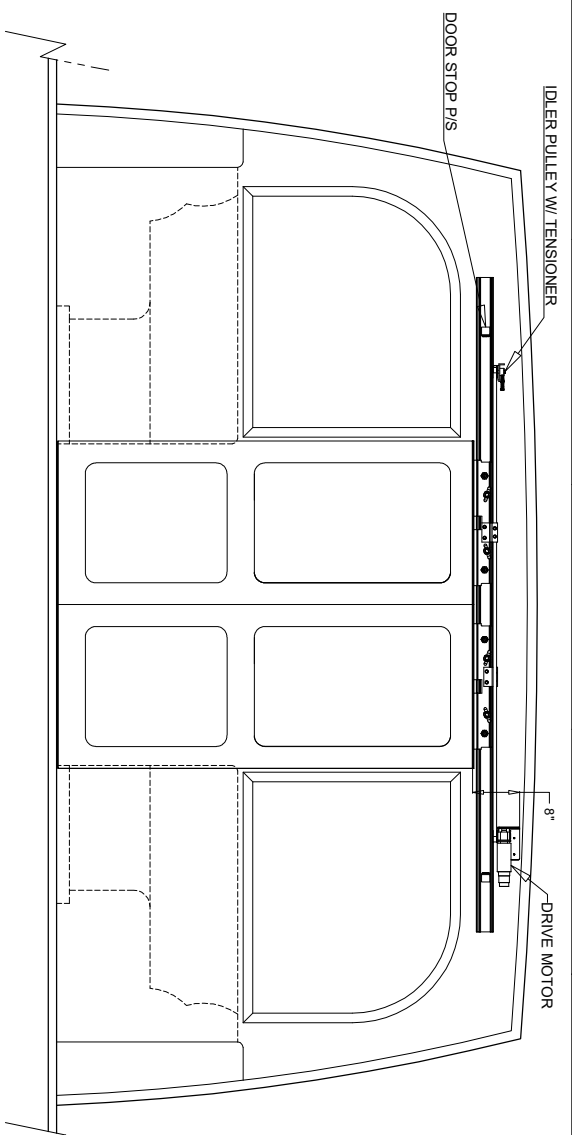
370 CHRISTIANA RIVER DRIVE CLAYTON, DE 19938      PHONE: 302.922.0539      BRAD@MARINEPOWERDOOR.COM

**MARINE POWER DOOR**

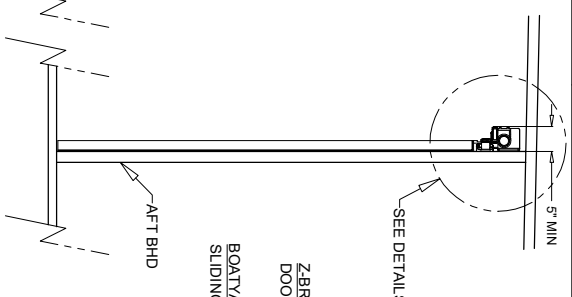
**TYPICAL DOOR OPERATOR INSTALLATION**

<small>DRAWN BY:</small> BRB	<small>PROJECT:</small> MPD01	<small>DRAWING NUMBER:</small> MPD01 - A1	<small>REV:</small> E
<small>DATE:</small> 05/05/19	<small>SCALE:</small> NONE	<small>SHT.</small> 1	<small>OF</small> 1

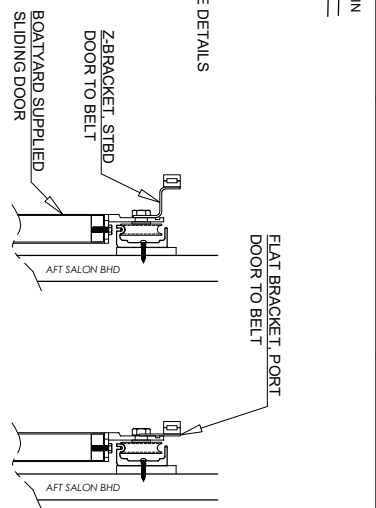




**AFT SALON BHD**  
LKG AFT

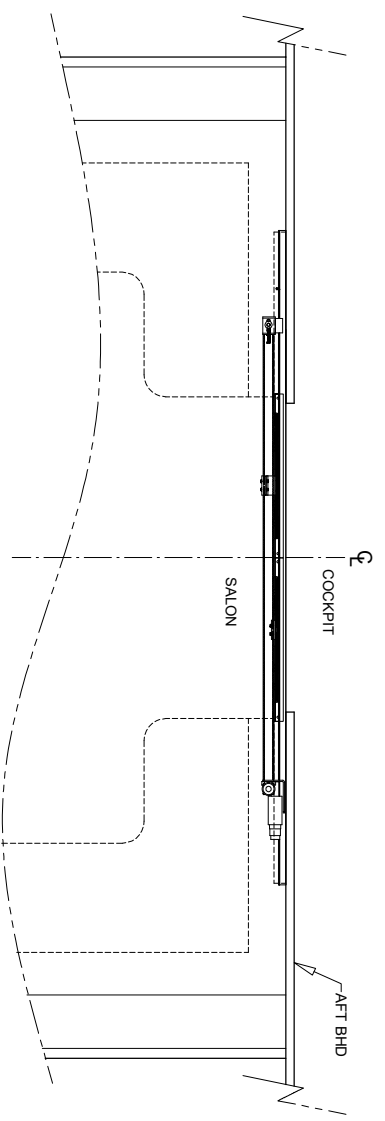


**SECTION VIEW**  
LKG STBD

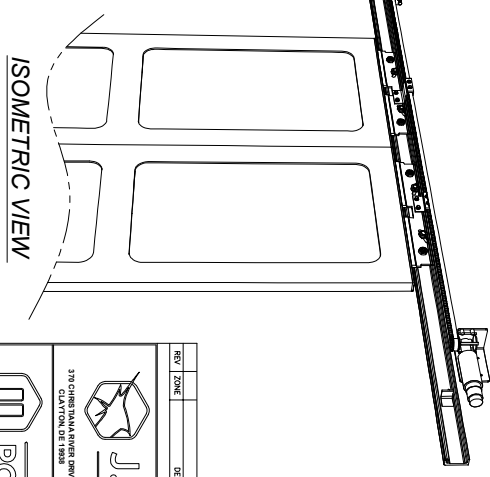


**DETAILS - DOOR ATTACHMENT**  
STBD DOOR  
PORT DOOR

SHOWN WITH MARINE POWER DOOR TRACK & CARRIER SYSTEM  
SEE DRAWING NO. MPD-033 FOR DETAILS



**SALON PLAN**



**ISOMETRIC VIEW**

**GENERAL NOTES:**

1. DOORS MUST BE FREELY SLIDING THROUGHOUT ENTIRE STROKE PRIOR TO INSTALLATION.
2. MOTOR HARNESS EXTENSION IS REQUIRED FOR OVERHEAD MOUNTING.

8 7 6 5 4 3 2 1

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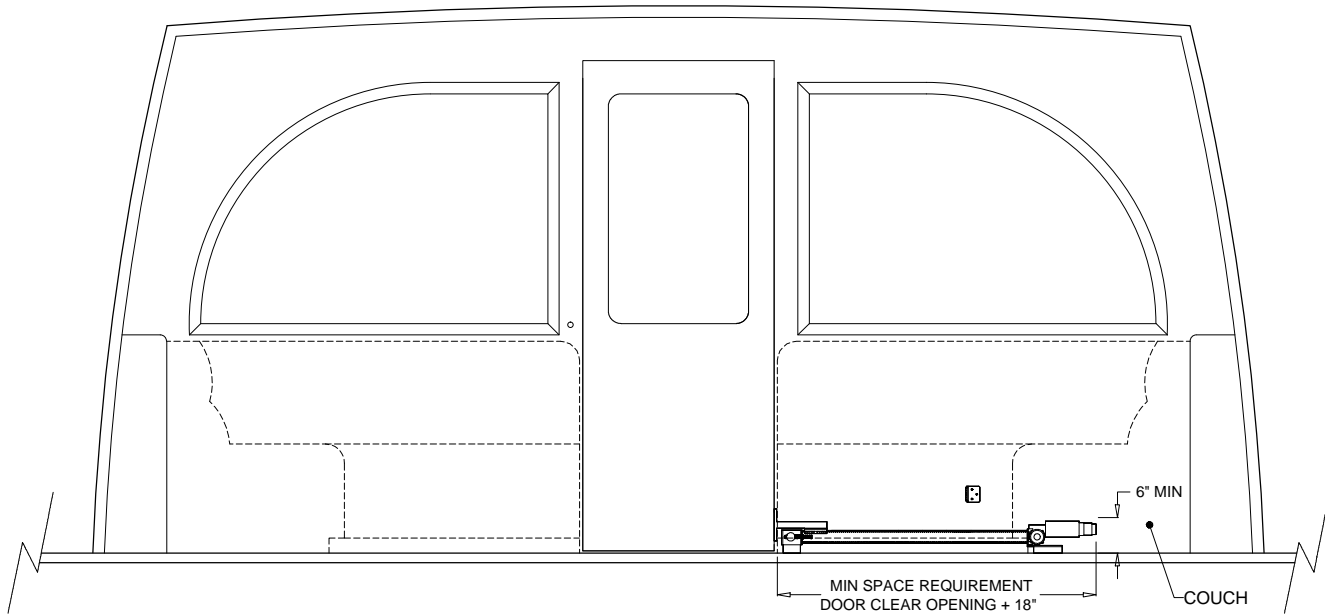
**J.R. BEERS**  
MARINE SERVICES  
370 CHESAPEAKE RIVER DRIVE  
CLAYTON, DE 19938  
PHONE: 302-243-8339  
EMAIL: JRB@JRBMS.COM

REV	ZONE	DESCRIPTION	BY	DATE

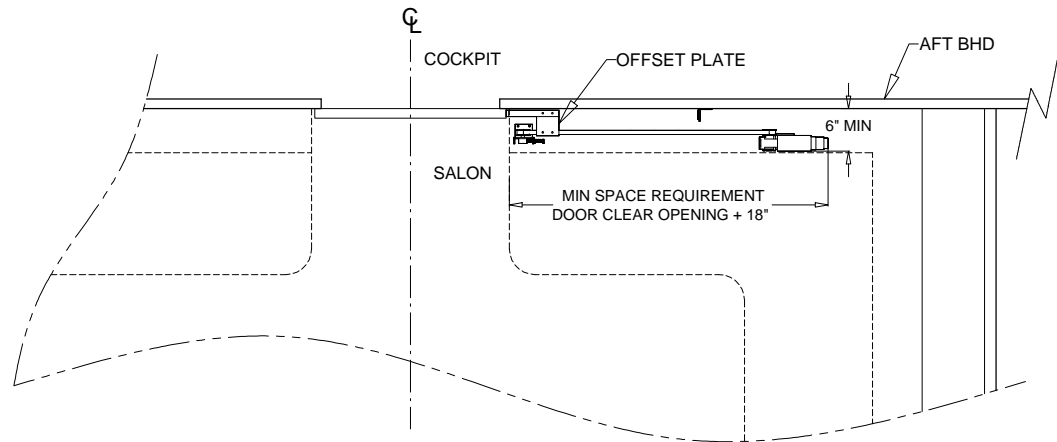
**TYPICAL DOUBLE DOOR OPERATOR INSTALLATION**

DATE	PROJECT	DRAWING NUMBER	REV
07/21/20	MP001	MP001 - A2	0

SCALE: NONE  
SHT. 1 OF 1



**AFT SALON BHD**  
LKG AFT



**SALON PLAN**

**GENERAL NOTES:**

1. DOOR MUST BE FREELY SLIDING THROUGHOUT ENTIRE STROKE PRIOR TO INSTALLATION.
2. BRACKETS, BAR, AND SLIDE MUST BE IN PROPER ALIGNMENT WITH DOOR STROKE.

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<b>TYPICAL CENTER DOOR OPERATOR INSTALLATION</b>				
DRAWN BY: BRB DATE: 05/05/19	PROJECT: MPD01	DRAWING NUMBER: MPD01 - A4	REV: 1	SHT. 1 OF 1

8 7 6 5 4 3 2 1

F

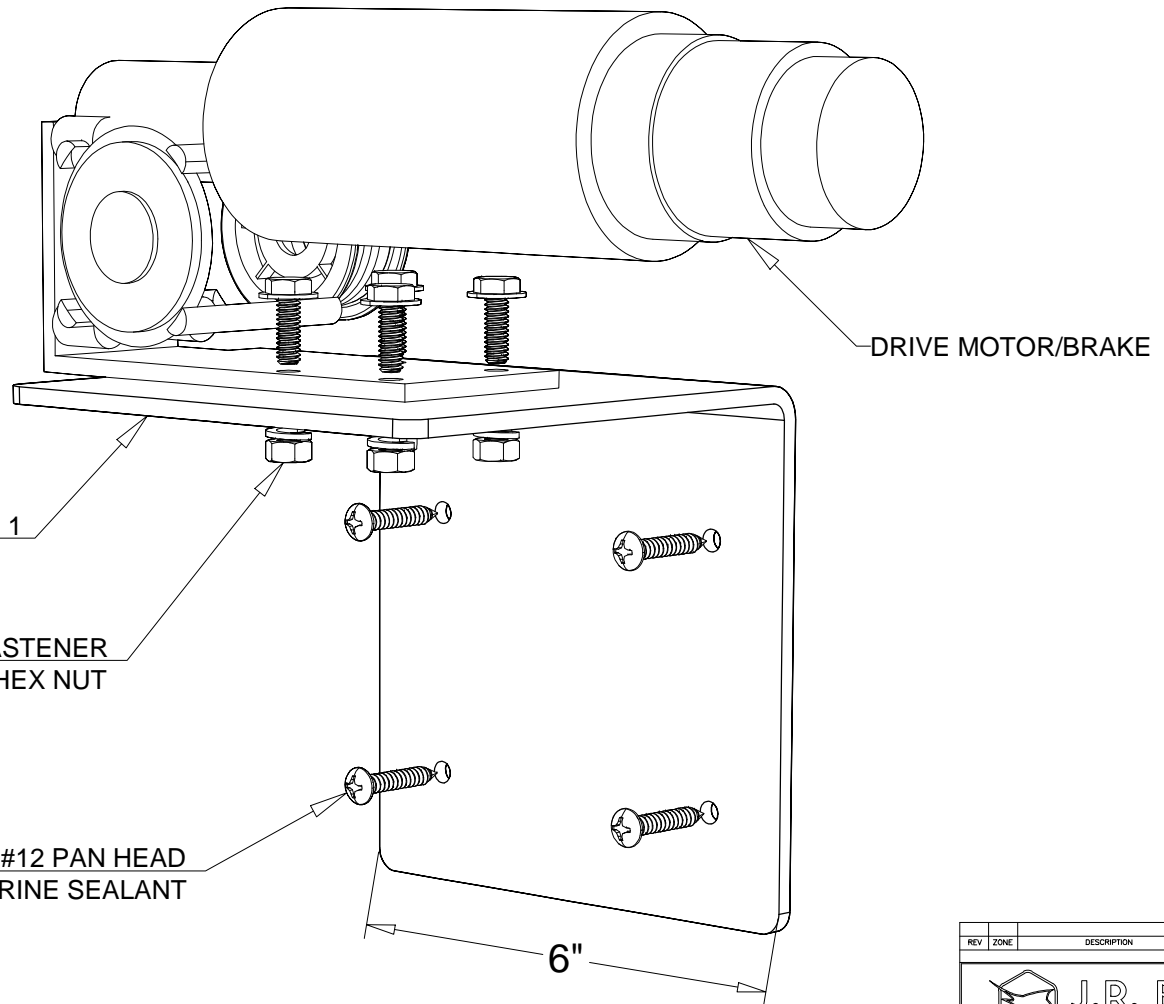
E

D

C

B



A

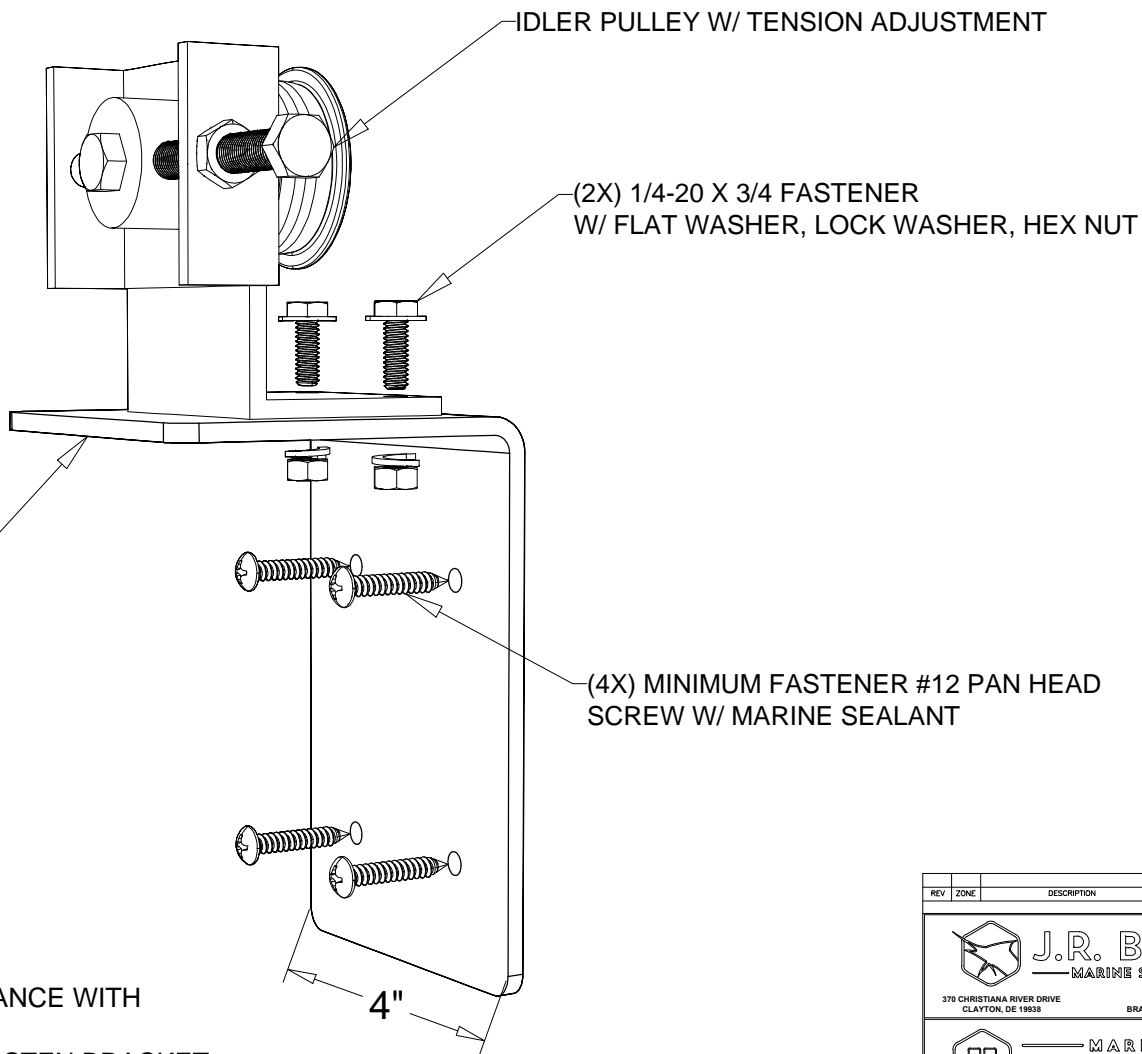


**GENERAL NOTES:**

1. TRIM BRACKET AS NECESSARY TO ENSURE CLEARANCE WITH COUCH OR OTHER OBSTRUCTION.
2. USE LONGEST POSSIBLE PAN HEAD SCREWS TO FASTEN BRACKET TO BULKHEAD WITHOUT PENETRATING OPPOSITE SIDE.
3. ALL FASTENERS TO BE STAINLESS STEEL.
4. PULLEY CAN FACE FWD OR AFT DEPENDING ON ARRANGEMENT.

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 370 CHRISTIANA RIVER DRIVE CLAYTON, DE 19938 PHONE: 302-922-0539 BRAD@MARINEPOWERDOOR.COM				
				
<b>INSTALLATION DETAILS</b> <b>MOTOR BRACKET</b>				
DRAWN BY: SRB	PROJECT: MPD01	DRAWING NUMBER: MPD01 - D1	REV: 2	
DATE: 05/05/19	SCALE: NONE	SHT. 1 OF 1		



SEE NOTE 1

IDLER PULLEY W/ TENSION ADJUSTMENT

(2X) 1/4-20 X 3/4 FASTENER  
W/ FLAT WASHER, LOCK WASHER, HEX NUT



(4X) MINIMUM FASTENER #12 PAN HEAD  
SCREW W/ MARINE SEALANT

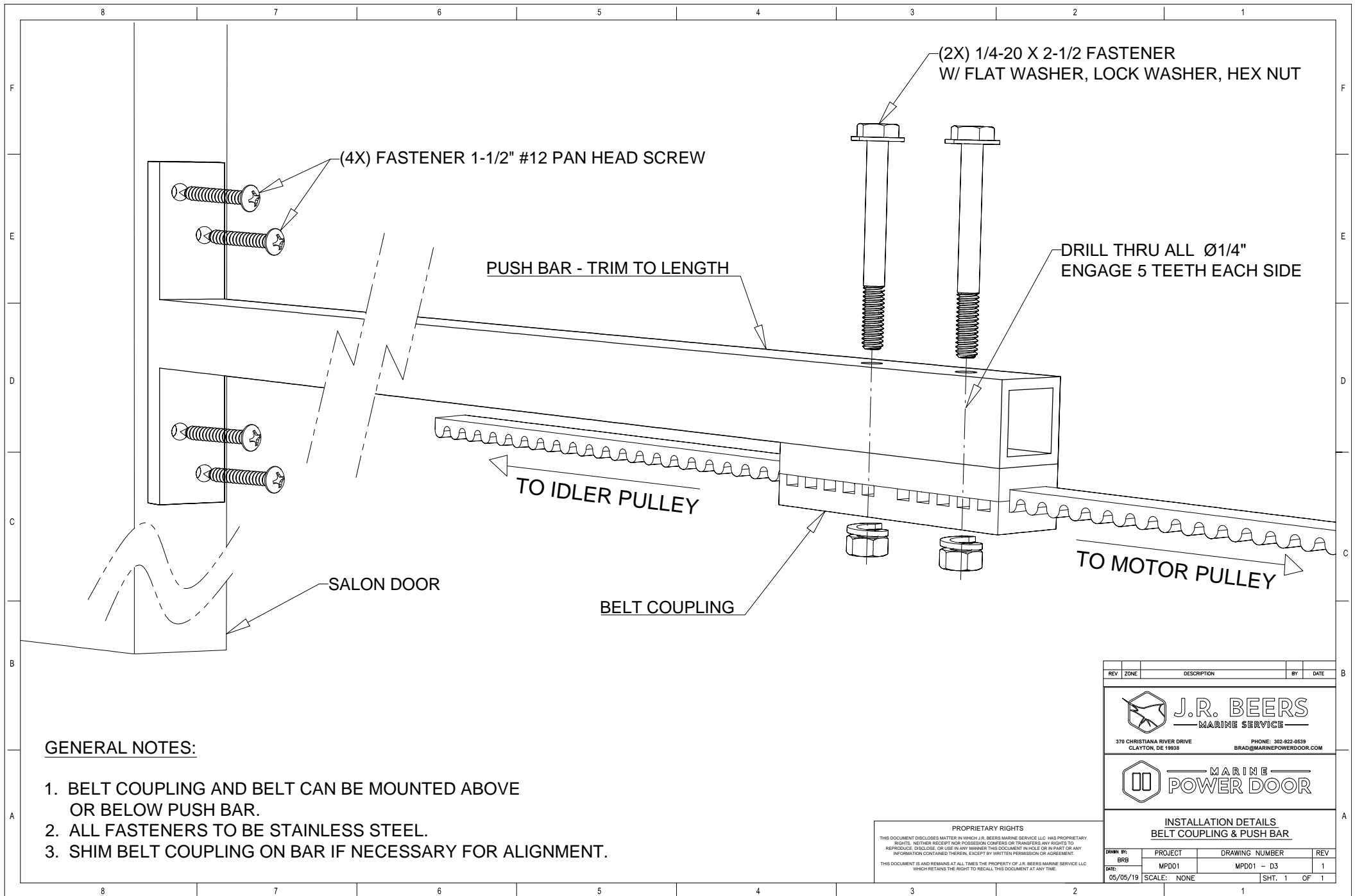
4"

**GENERAL NOTES:**

1. TRIM BRACKET AS NECESSARY TO ENSURE CLEARANCE WITH COUCH OR OTHER OBSTRUCTION.
2. USE LONGEST POSSIBLE PAN HEAD SCREWS TO FASTEN BRACKET TO BULKHEAD WITHOUT PENETRATING OPPOSITE SIDE.
3. ALL FASTENERS TO BE STAINLESS STEEL.
4. PULLEY CAN FACE FWD OR AFT DEPENDING ON ARRANGEMENT.

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<b>INSTALLATION DETAILS</b> <b>IDLER PULLEY BRACKET</b>				
DRAWN BY: BRB	PROJECT: MPD01	DRAWING NUMBER: MPD01 - D2	REV: 2	
DATE: 05/05/19	SCALE: NONE	SHT. 1 OF 1		



(4X) FASTENER 1-1/2" #12 PAN HEAD SCREW

(2X) 1/4-20 X 2-1/2 FASTENER  
W/ FLAT WASHER, LOCK WASHER, HEX NUT

PUSH BAR - TRIM TO LENGTH

DRILL THRU ALL Ø1/4"  
ENGAGE 5 TEETH EACH SIDE

TO IDLER PULLEY

TO MOTOR PULLEY

SALON DOOR


BELT COUPLING

**GENERAL NOTES:**


1. BELT COUPLING AND BELT CAN BE MOUNTED ABOVE OR BELOW PUSH BAR.
2. ALL FASTENERS TO BE STAINLESS STEEL.
3. SHIM BELT COUPLING ON BAR IF NECESSARY FOR ALIGNMENT.

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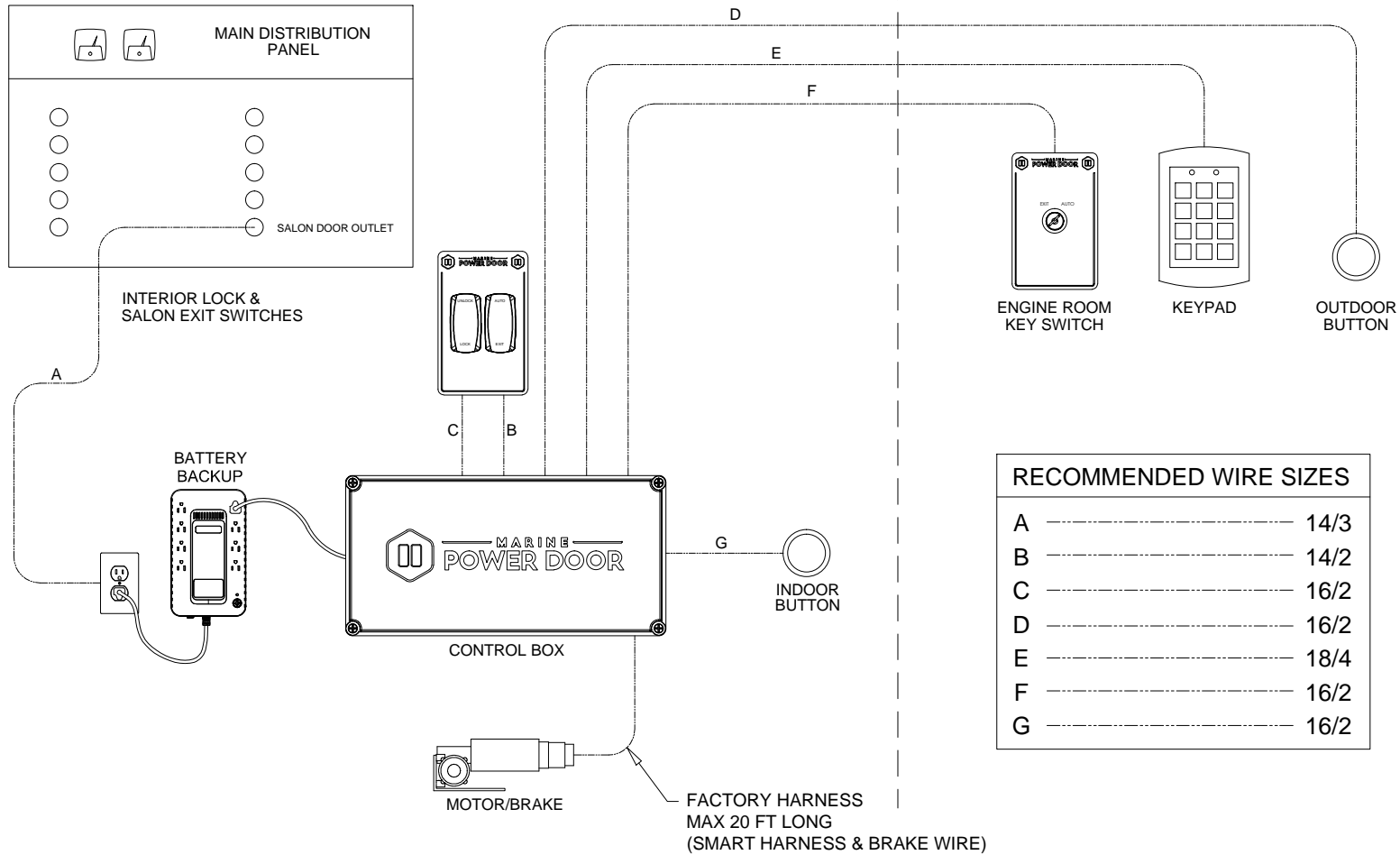
**INSTALLATION DETAILS  
BELT COUPLING & PUSH BAR**

DRAWN BY:	PROJECT:	DRAWING NUMBER:	REV:
SRB	MPD01	MPD01 - D3	1
DATE:	SCALE:	SHT. 1 OF 1	
05/05/19	NONE		

8 7 6 5 4 3 2 1

**INTERIOR**

**EXTERIOR**



RECOMMENDED WIRE SIZES	
A	14/3
B	14/2
C	16/2
D	16/2
E	18/4
F	16/2
G	16/2

**GENERAL NOTES:**

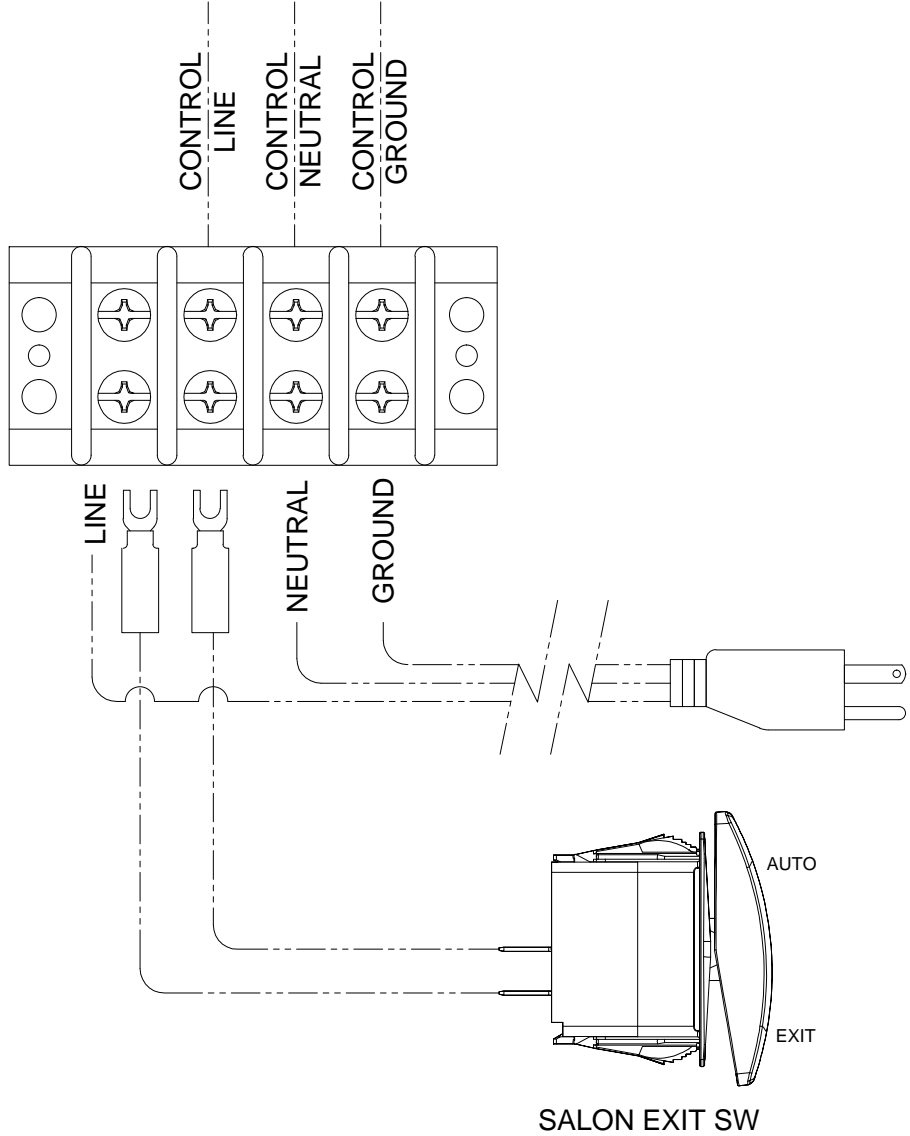
1. ALL WIRING TO BE USCG/ABYC ACCEPTED MARINE-GRADE CABLE.
2. ALL WORKMANSHIP SHALL MEET OR EXCEED ABYC STANDARDS.
3. SEE DWG#: MPD-E2, MPD-E3, & MPD-E4 FOR WIRING DIAGRAMS WITHIN THE CONTROL BOX.

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 PHONE: 302-822-6539 370 CHRISTIANA RIVER DRIVE BRAD@MARINEPOWERDOOR.COM CLAYTON, DE 19938				
<b>FIELD WIRING</b> <b>1-LINE ELECTRICAL DIAGRAM</b>				
DRAWN BY: BRB	PROJECT: MPD01	DRAWING NUMBER: MPD01 - E1	REV: 4	
DATE: 05/05/19	SCALE: NONE	SHT. 1 OF 1		

8 7 6 5 4 3 2 1



# 120 VAC CONNECTIONS



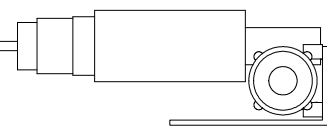
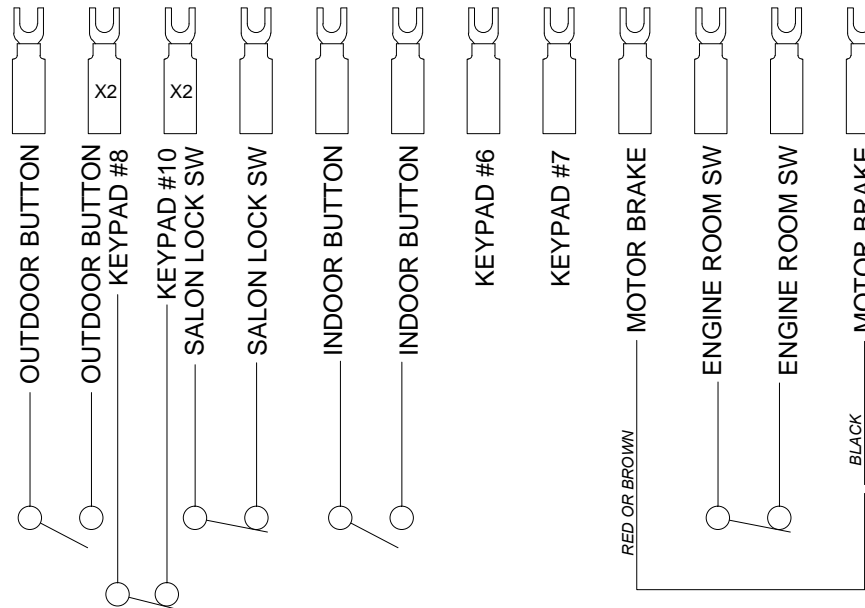
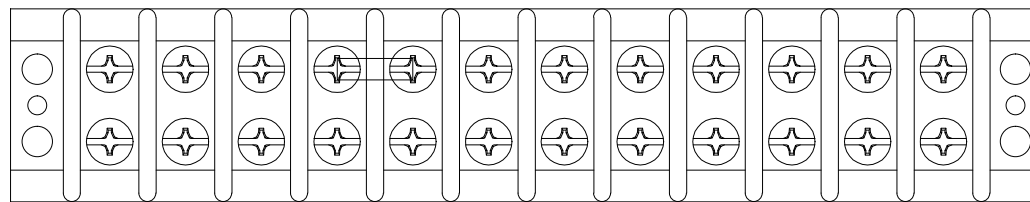
**GENERAL NOTES:**

1. ALL WIRING TO BE USCG/ABYC ACCEPTED MARINE-GRADE CABLE.
2. ALL WORKMANSHIP SHALL MEET OR EXCEED ABYC STANDARDS.

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REV	ZONE	DESCRIPTION	BY	DATE
 PHONE: 302-822-6539      370 CHRISTIANA RIVER DRIVE BRAD@MARINEPOWERDOOR.COM      CLAYTON, DE 19938				
				
<b>FIELD WIRING</b> <b>120 VAC CONNECTIONS</b>				
DRAWN BY: BRB	PROJECT: MPD01	DRAWING NUMBER: MPD01 - E2	REV: 2	
DATE: 05/05/19	SCALE: NONE	SHT. 1 OF 1		

# LOW VOLTAGE CONNECTIONS



OUTDOOR BUTTON --- N.O. CONTACTS  
 INDOOR BUTTON --- N.O. CONTACTS  
 KEYPAD CONTACTS #8 TO #10 --- N.C. AUTO, N.O. LOCKED  
 SALON LOCK SW --- N.O. LOCKED, N.C. UNLOCKED  
 ENGINE ROOM SW --- N.C. DOOR BRAKE ACTIVE, N.O. DOOR BRAKE INACTIVE

## PUSH OPEN / PUSH CLOSE

### GENERAL NOTES:

1. ALL WIRING TO BE USCG/ABYC ACCEPTED MARINE-GRADE CABLE.
2. ALL WORKMANSHIP SHALL MEET OR EXCEED ABYC STANDARDS.

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 PHONE: 302-822-6539      370 CHRISTIANA RIVER DRIVE BRAD@MARINEPOWERDOOR.COM      CLAYTON, DE 19938					
<b>FIELD WIRING</b> <b>LOW VOLTAGE CONNECTIONS</b>					
DRAWN BY: BRB	PROJECT: MPD01	DRAWING NUMBER: MPD01 - E4	REV: 3		
DATE: 05/05/19	SCALE: NONE			SHT. 1 OF 1	