



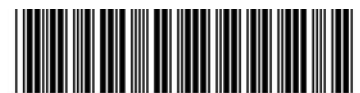
Electronic Distributor Control

Installation and Operation Manual

PNEG-1813

Date: **12-21-20**

GSIGROUP



PNEG-1813

Contents

Chapter 1 Safety	5
Safety Guidelines	5
Safety Instructions	6
Safety Decals	8
Chapter 2 Installation	9
Electronic Distributor Control Shaft Installation	9
Electronic Distributor Enclosure Installation	10
Junction Box Installation	11
Sensor Plate Angle and Proximity Sensor Bracket Installation	12
Proximity Sensor Location and Installation	13
Proximity Sensor Adjustment	15
Encoder and Bracket Installation	16
Motor Mounting Bracket Installation	19
Control Motor Installation	20
Wire and Fitting Selection Recommendations	21
Distributor to Junction Box Electrical Connections	22
Control Panel Cable to Distributor Fitting Connections	23
Motor Cable to Motor Junction Box Fitting Connections	24
Motor Wiring to Motor Junction Box Electrical Connections	25
Control Panel Wiring to Junction Box Electrical Connections	26
Enclosure Covers Installation	27
Control Panel Wiring from Motor Electrical Connections	28
Power Supply Wiring to Control Panel Electrical Connections	29
Control Panel Installation Guidelines	30
Chapter 3 Operation Procedures	31
Initializing Screen	31
Main Screen	31
Help Menu Screen	32
Move Screen	35
Setup Menu Screen	36
Manual Override	45
Chapter 4 Parts	47
Distributor Assembly	47
Chapter 5 Troubleshooting	49
Error Messages	49
Chapter 6 Schematic and Wiring Diagrams	53
White Panel Layout	53
White Panel Electrical Schematic	54
White Panel Electrical Schematic (Continued)	55
Chapter 7 Warranty	57

1. Safety

Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.

1. Safety

Safety Instructions

Our foremost concern is your safety and the safety of others associated with this equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where **SERIOUS INJURY** or **DEATH** may occur.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

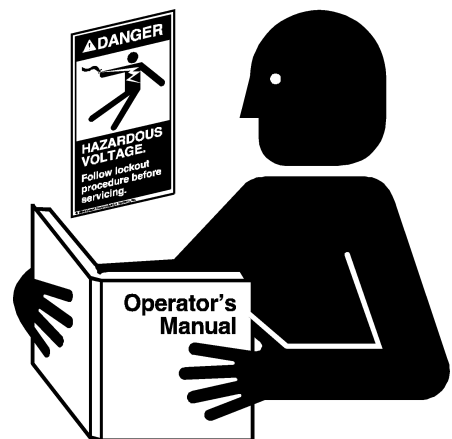
Follow Safety Instructions

Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual or need assistance, contact your dealer.



Read and Understand Manual

Practice Safe Maintenance

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet and clothing away from rotating parts.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any built up grease oil and debris.



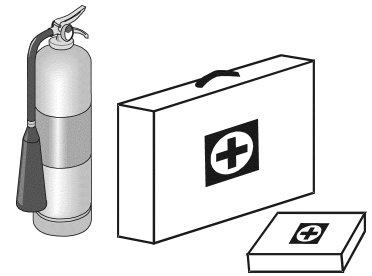
Maintain Equipment and Work Area

Prepare for Emergencies

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.



Keep Emergency Equipment Quickly Accessible

Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job.

Remove all jewelry.

Long hair should be tied up and back.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

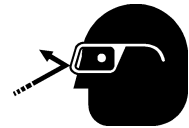
Wear steel toe boots to help protect your feet from falling debris. Tuck in any loose or dangling shoe strings.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

Wear hard hat to help protect your head.

Wear appropriate fall protection equipment when working at elevations greater than six feet (6').

Eye Protection



Gloves



Steel Toe Boots



Respirator



Hard Hat





Fall Protection

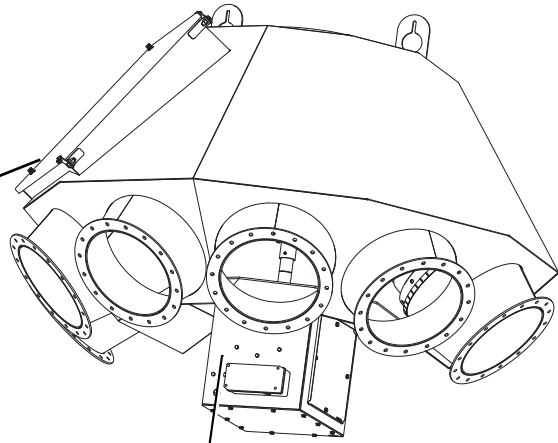



Safety Decals

The decals are located as shown below:



	WARNING
MOVING PARTS. Rotating spout can crush and cut. Lock out power before servicing.	
DC-2159	



	CAUTION
Do not operate with access panel removed. Lock out power before servicing.	
DC-2160	

2. Installation

Electronic Distributor Control Shaft Installation

Install the shaft (DEC0009) to the distributor shaft using two (2) roll pins (S-9288). **NOTE:** Flag extension should be installed in line with the spout to ensure proper alignment with the sensor. (See Figure 2A.)

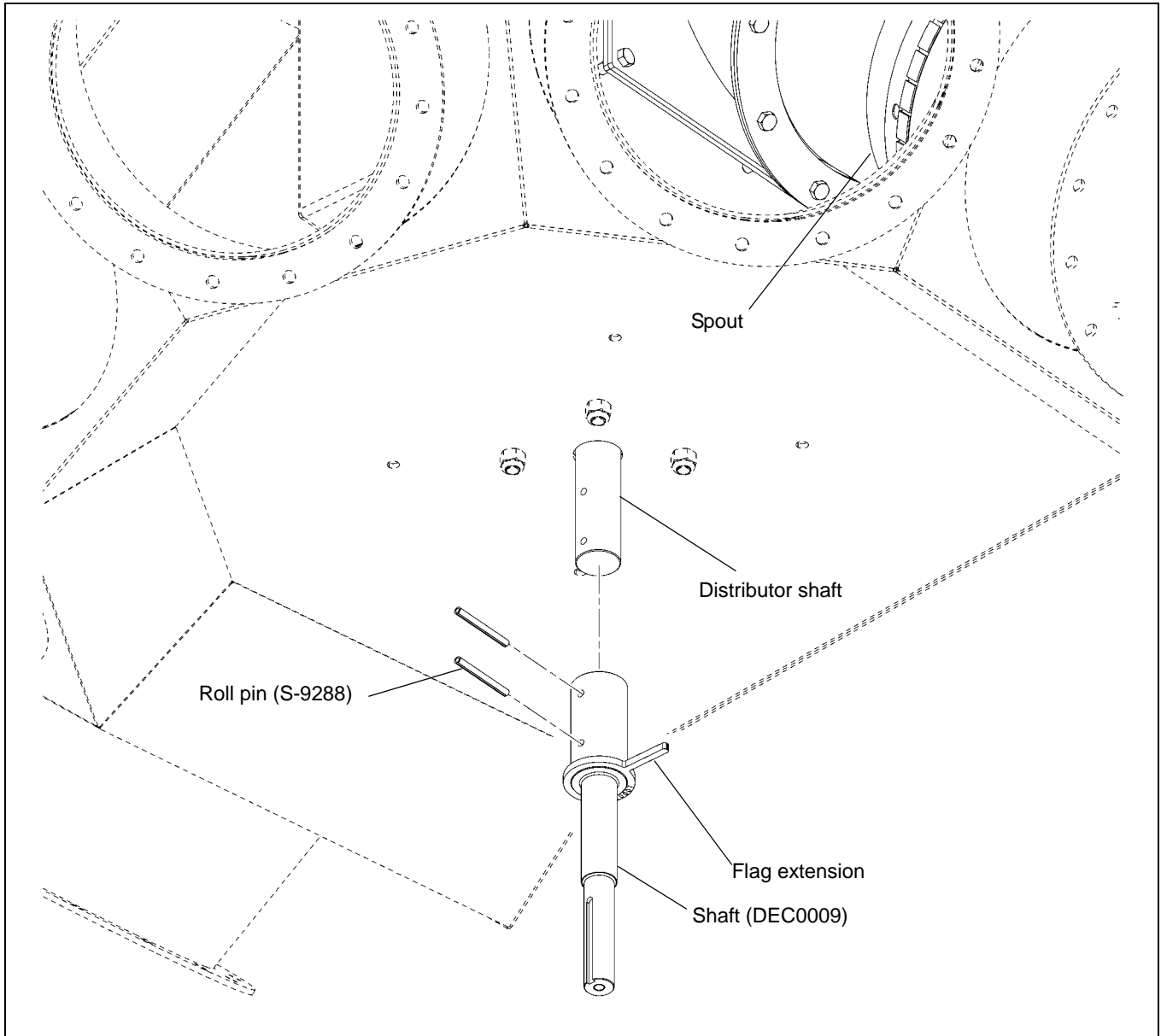


Figure 2A Electronic Distributor Control Shaft

2. Installation

Electronic Distributor Enclosure Installation

Install the enclosure (DEC0005) to the distributor using four (4) 3/8 bolts (S-7469) and nylock nuts (S-7383). (See [Figure 2B.](#))

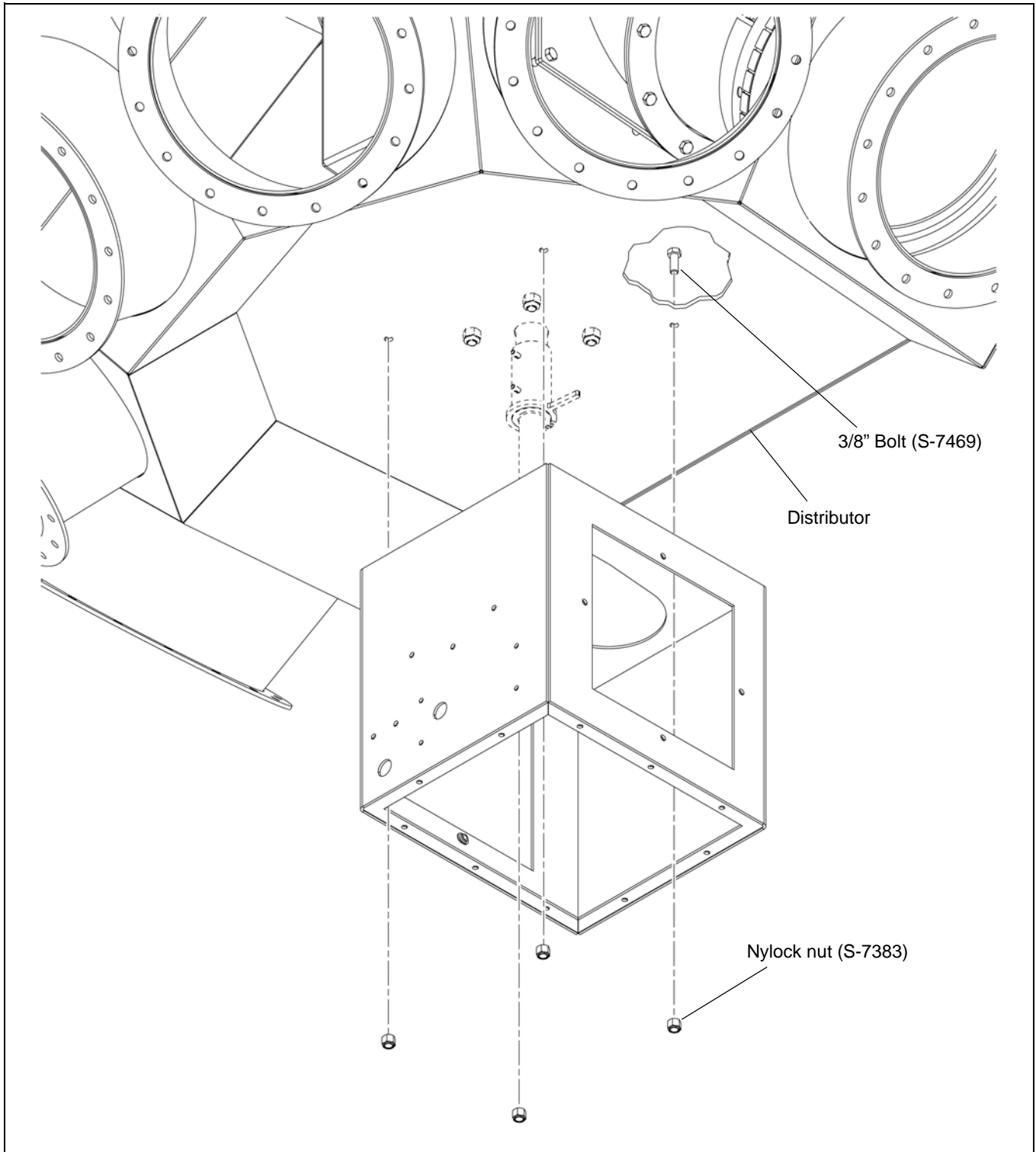


Figure 2B *Electronic Distributor Enclosure*

Junction Box Installation

Install the junction box (DEC0019) to the enclosure (DEC0005) using four self-drilling screws (S-280). Install the chase nipple, washer, and locknut. (See Figure 2C.)

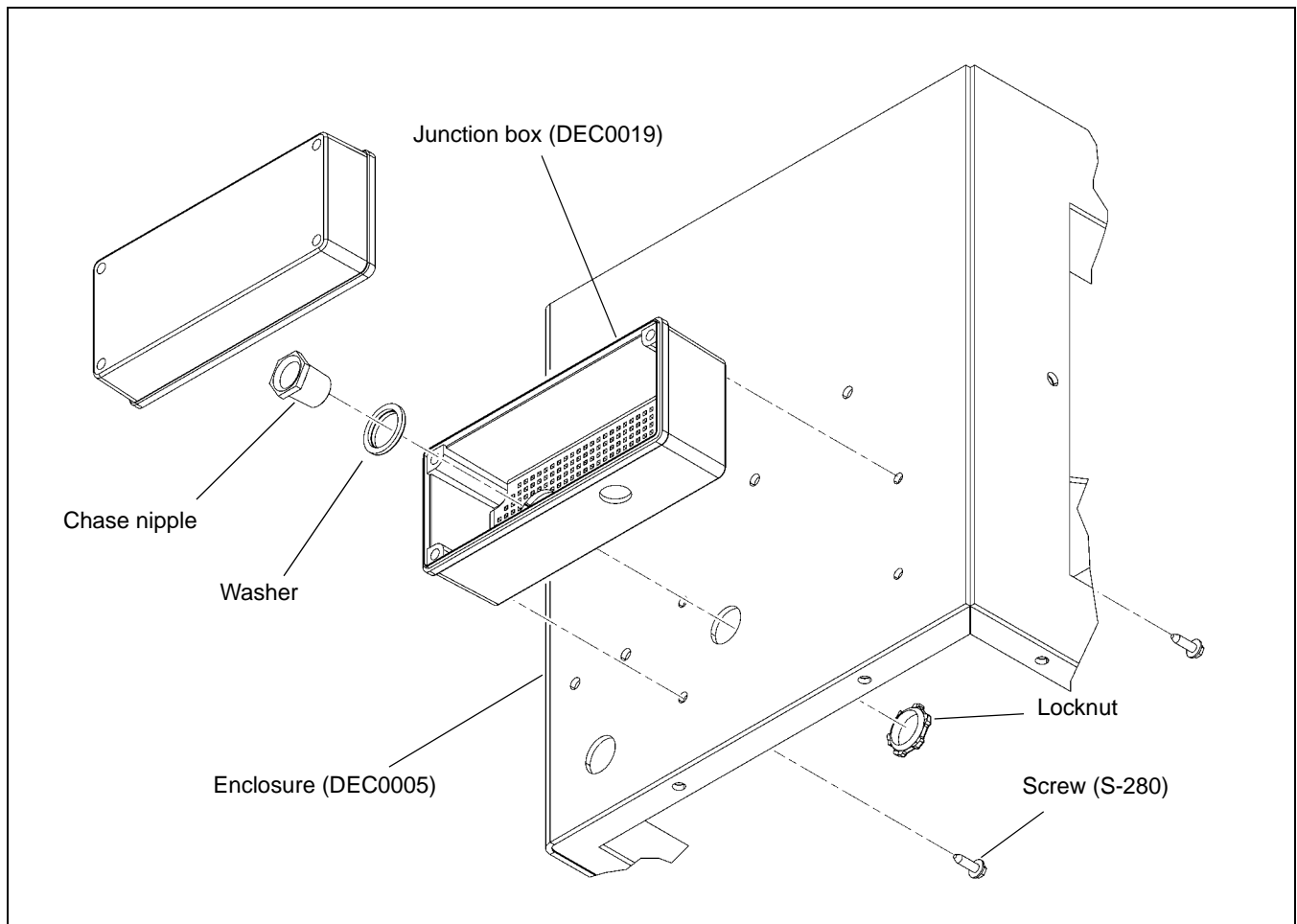


Figure 2C Junction Box

2. Installation

Sensor Plate Angle and Proximity Sensor Bracket Installation

Assemble the sensor plate angle (DEC0014) to the proximity sensor bracket (DEC0006) using three 1/4"-20 x 3/4" HHCS bolts (S-1429) and 1/4"-20 nylock nuts (S-7025) as shown in [Figure 2D](#).

Attach the proximity sensor bracket (DEC0006) to the inside of the enclosure (DEC0005) using three 1/4"-20 x 3/4" HHCS bolts (S-1429) and 1/4"-20 nylock nuts (S-7025). ([See Figure 2D](#).)

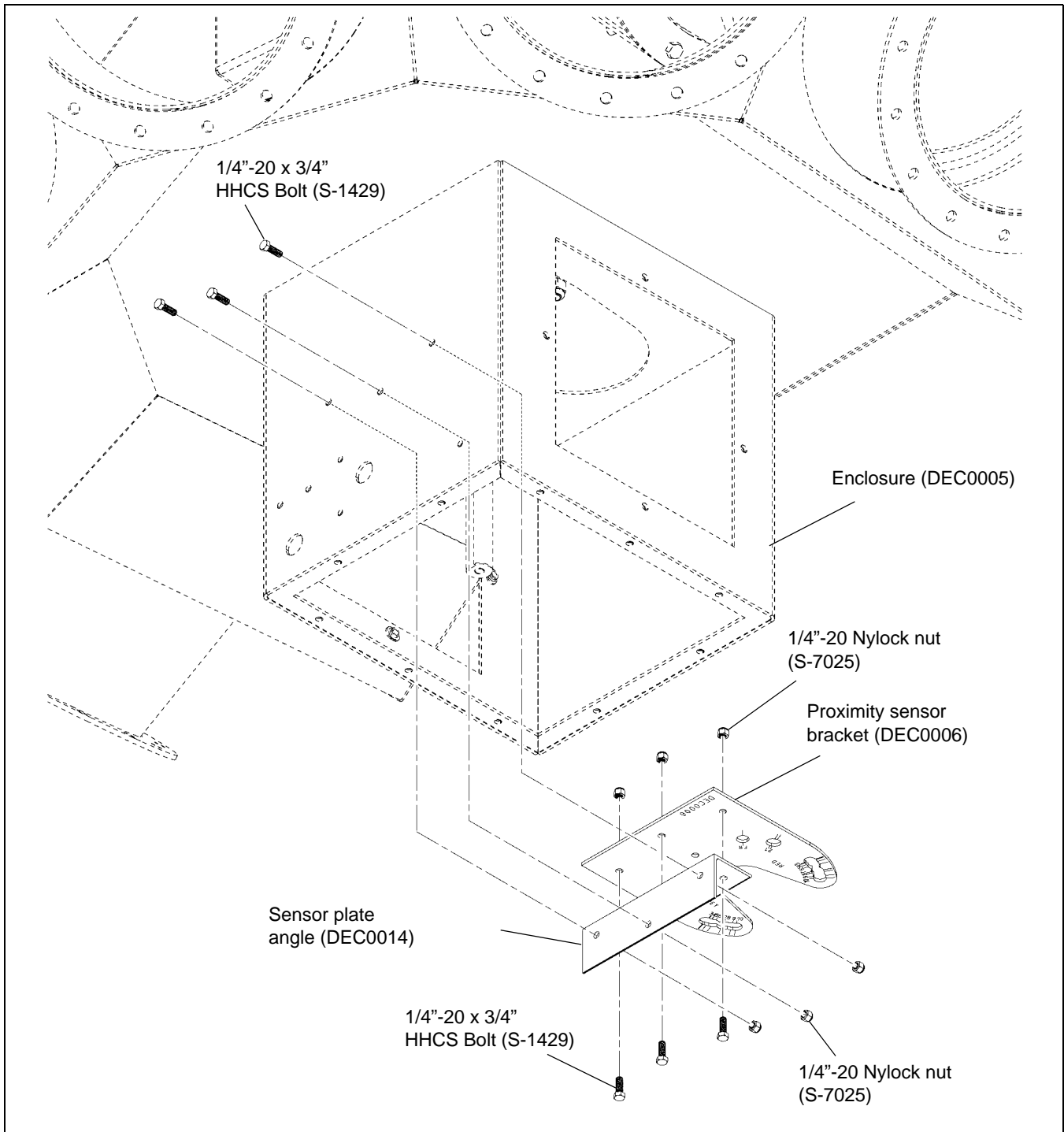


Figure 2D Sensor Plate Angle and Proximity Sensor Bracket

Proximity Sensor Location and Installation

NOTE: The location of the proximity sensor will be determined by the size of the distributor. Using the table shown in *Figure 2E*, locate the diameter and number of spouts of the distributor being used and note the proximity sensor reference number. This reference number is marked on the bottom of the proximity sensor bracket (DEC0006) and identifies the location for installing the proximity sensors (DEC0018).

Install the two proximity sensors (DEC0018) into the proximity sensor bracket (DEC0006) at the appropriate locations determined from the table. (See *Figure 2F*.)

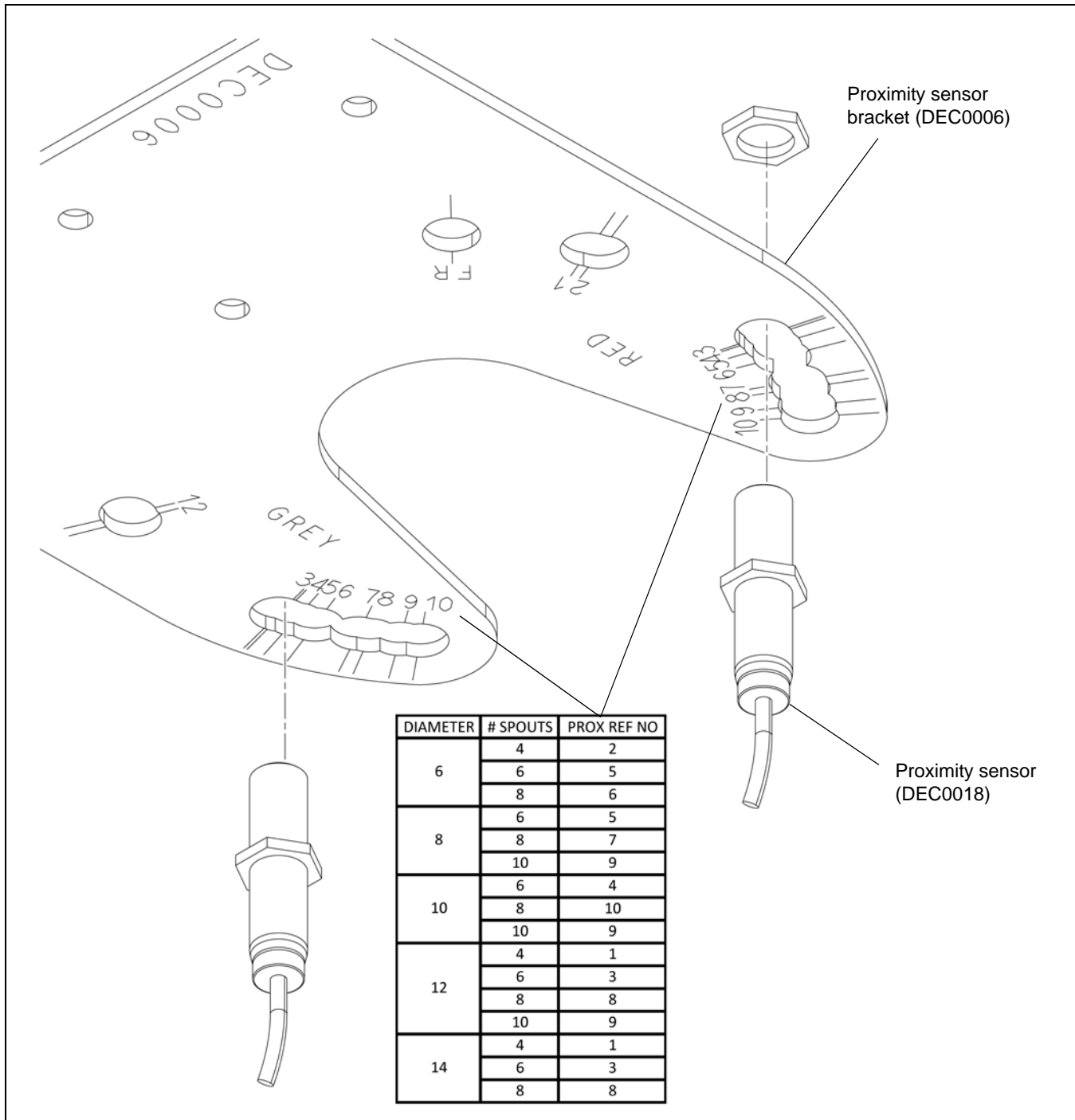


Figure 2E Proximity Sensor Location

2. Installation

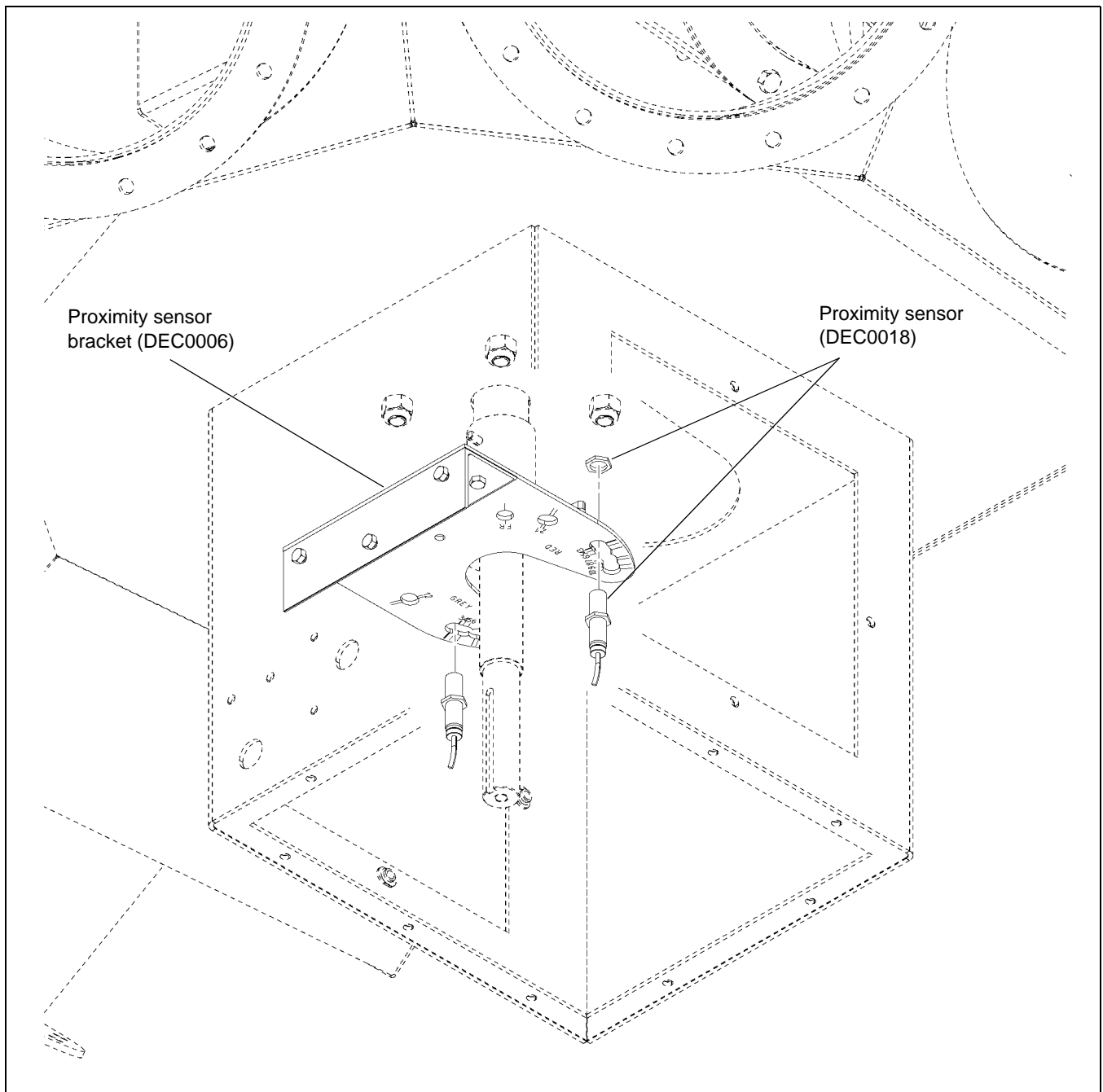


Figure 2F *Proximity Sensor Installation*

Proximity Sensor Adjustment

Set the clearance of the two proximity sensors (DEC0018) to $0.110'' \pm 0.01''$ from the face of each sensor to the flag on the shaft (DEC0009). (See Figure 2G.)

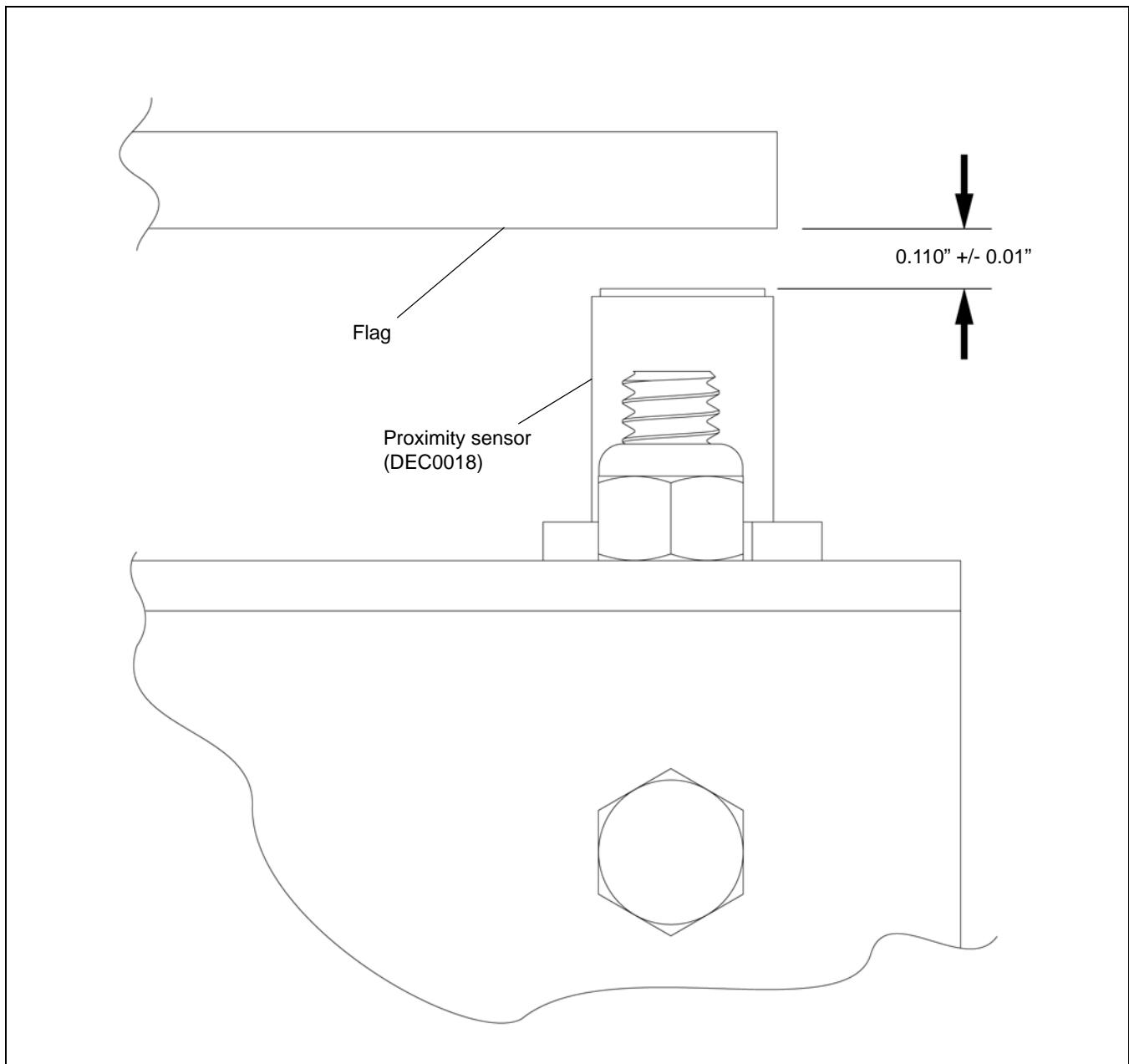


Figure 2G Proximity Sensor Adjustment

2. Installation

Encoder and Bracket Installation

Install the encoder (DEC0017) to the encoder mounting bracket (DEC0016) using the three #10-32 bolts (S-10167) and #10 washers (S-7223) as shown in [Figure 2H](#).

Tighten the encoder collar set screw as shown in [Figure 2I](#) to 8 in-lb.

Install the encoder mounting bracket (DEC0016) to the proximity sensor bracket (DEC0006) using the 1/4"-20 x 3/4" HHCS bolt (S-1429), 1/4" washer (S-2126), and 1/4"-20 nylock nut (S-7025) as shown in [Figure 2J](#).

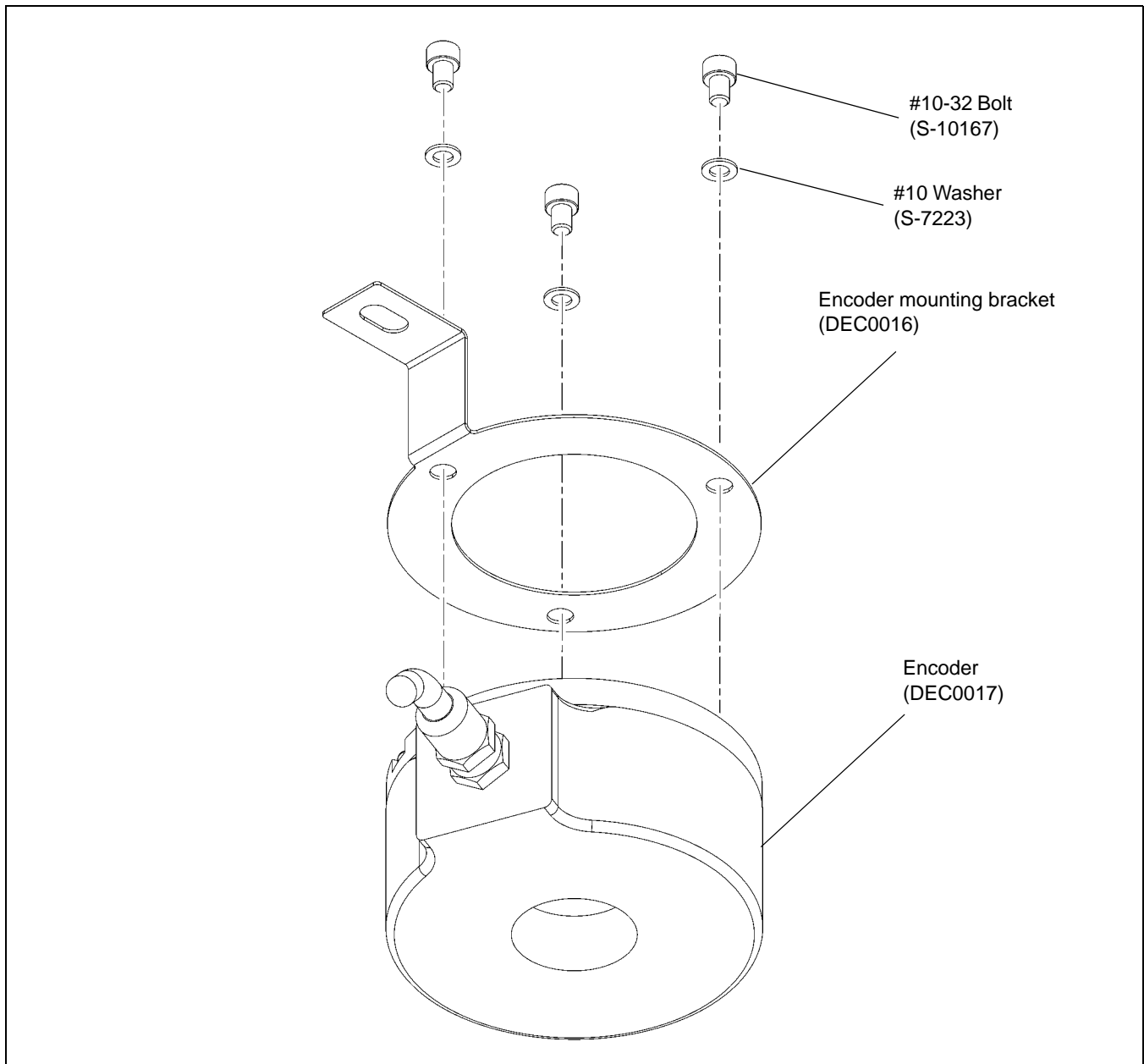


Figure 2H Encoder to Mounting Bracket

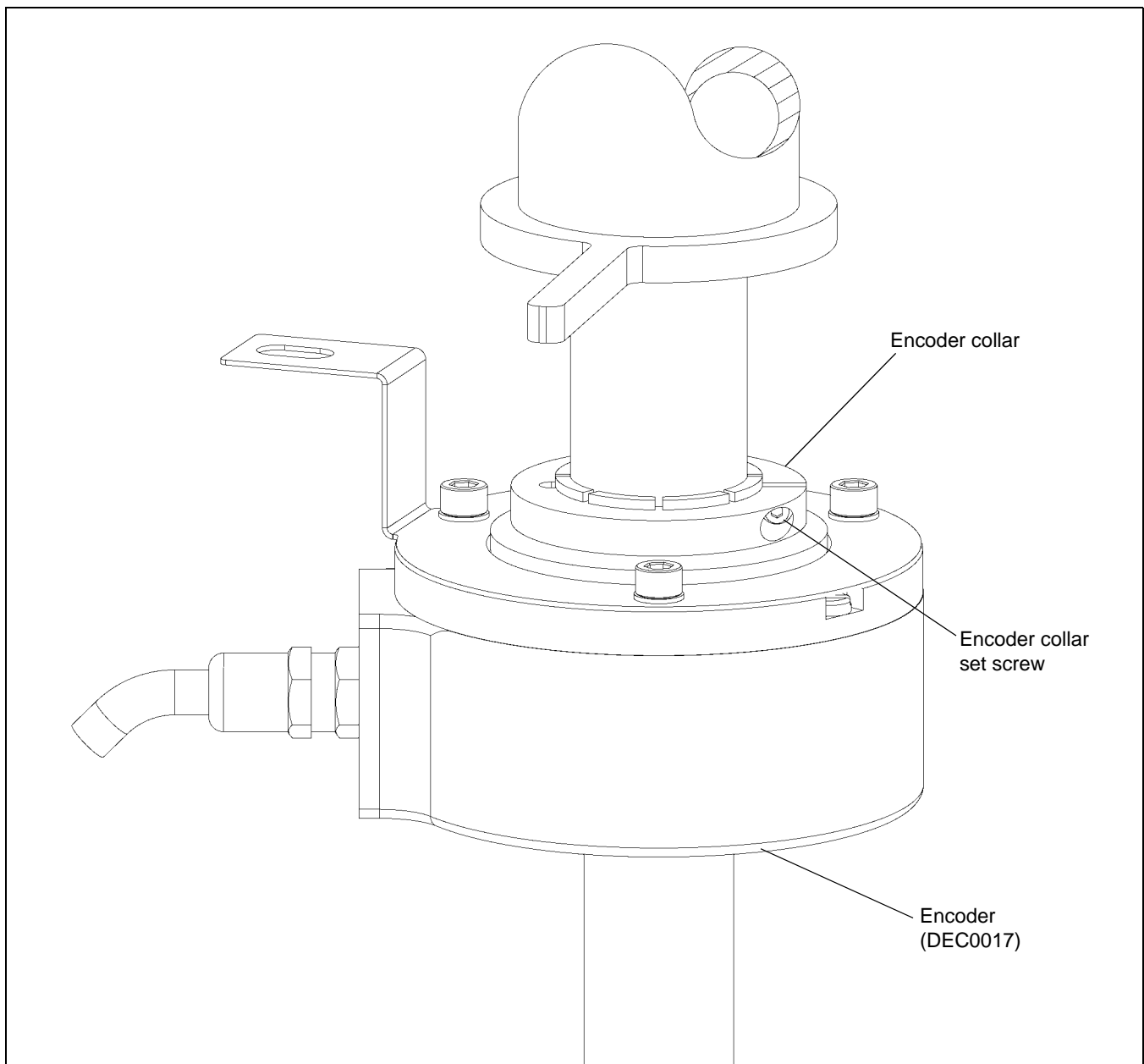


Figure 21 Encoder Collar Set Screw

2. Installation

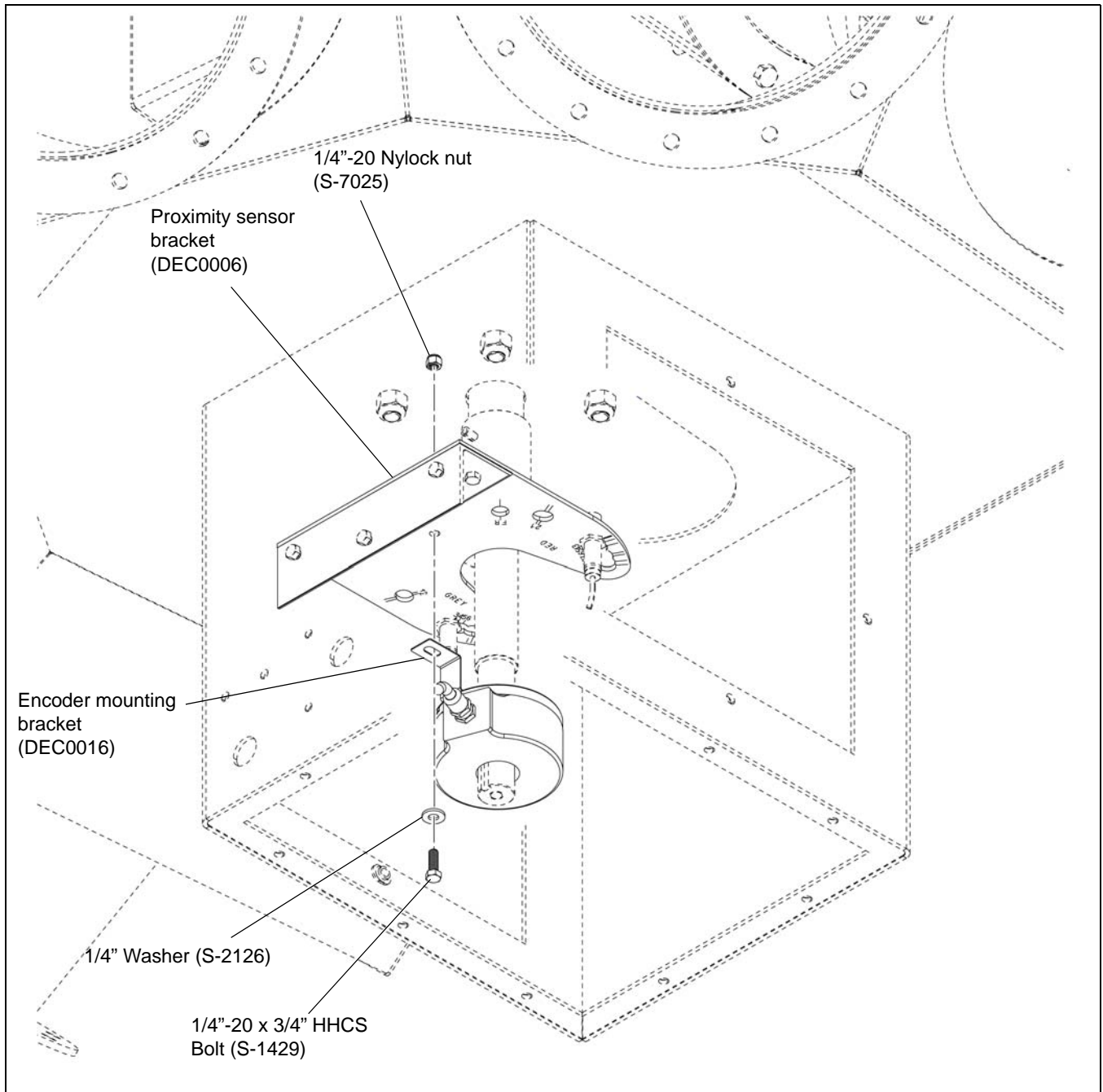


Figure 2J *Mounting Bracket to Proximity Sensor Bracket*

Motor Mounting Bracket Installation

Install the motor mounting bracket (DEC0003) to the enclosure (DEC0005) using two 1/4"-20 x 3/4" HHCS bolts (S-1429), 1/4" washers (S-2126), and 1/4"-20 nylock nuts (S-7025) as shown in [Figure 2K](#).

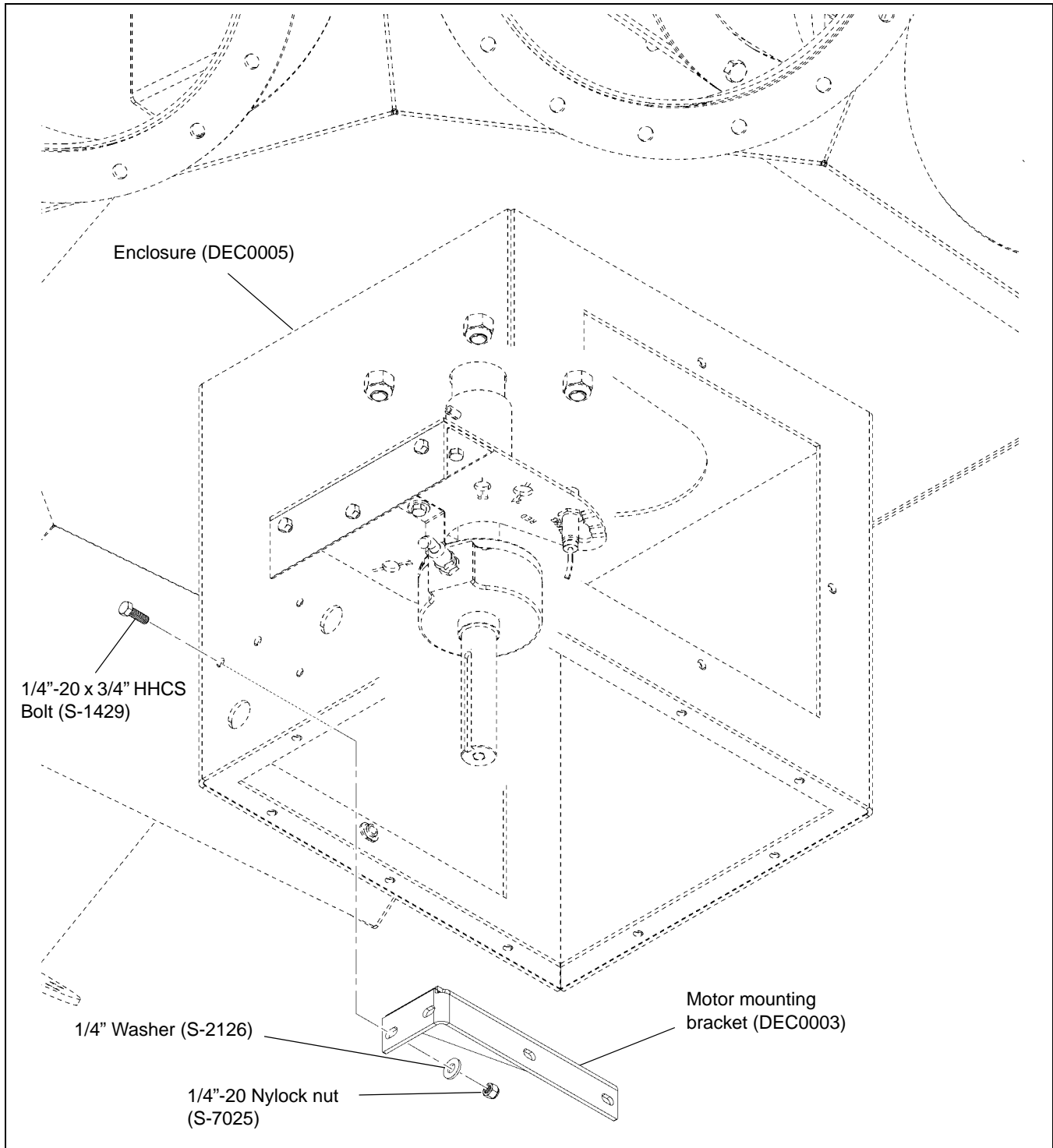


Figure 2K Motor Mounting Bracket

2. Installation

Control Motor Installation

Install the motor (DEC0015) to the motor mounting bracket (DEC0003) using two 1/4"-20 x 1" HHCS bolts (S-6998), four 1/4" washers (S-2126), and two 1/4"-20 nylock nuts (S-7025) as shown in [Figure 2L](#).

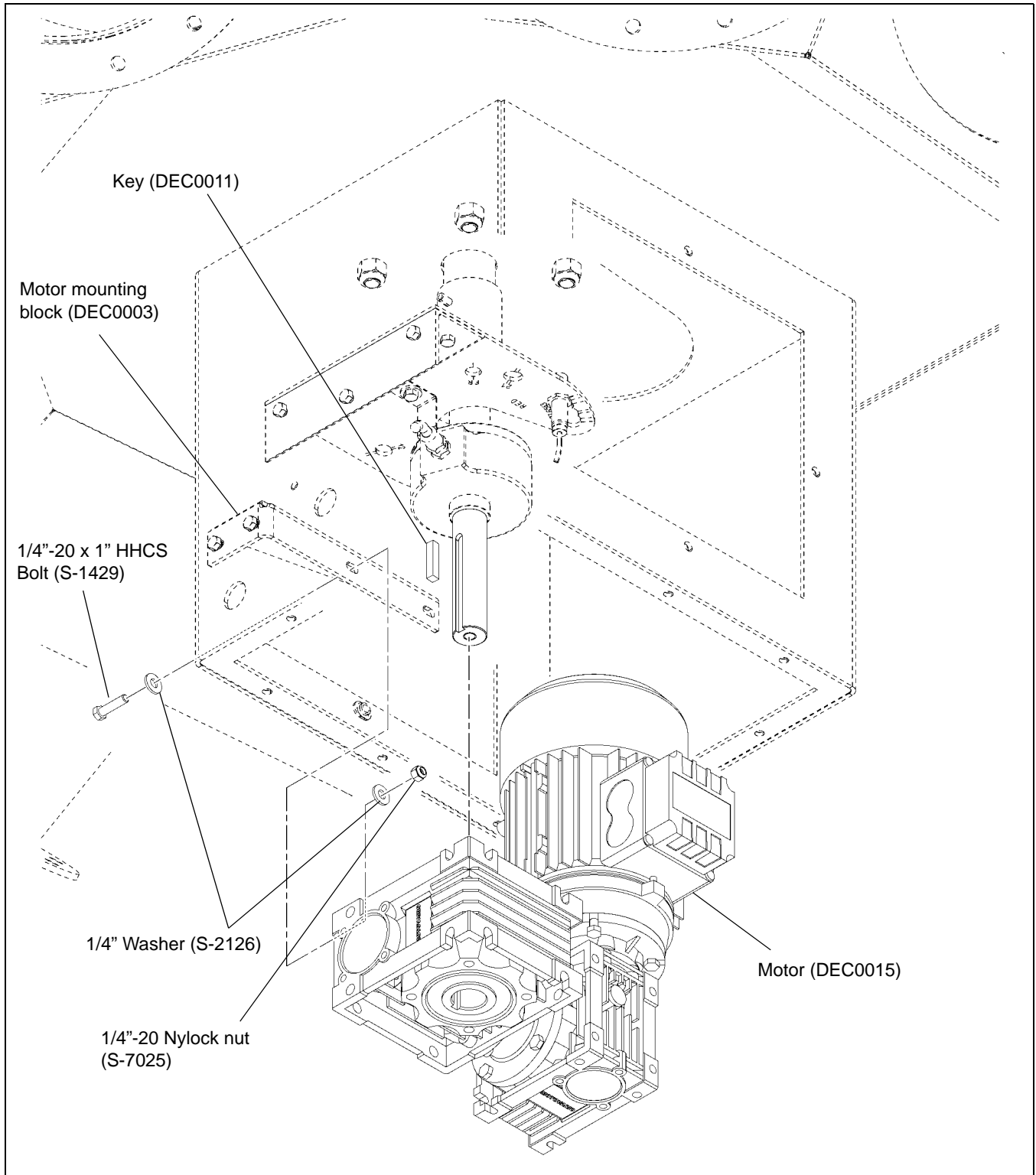


Figure 2L Control Motor Installation

Wire and Fitting Selection Recommendations

NOTE: *The power cable, encoder cable, proximity sensor cables, motor cable, and electrical fittings are not supplied with the electronic distributor control. The following recommendations should be followed when selecting wire types and electrical fittings:*

For the proximity sensor and encoder cables from the junction box to the control panel, use 10 conductor or greater shielded cable, 22 AWG or larger, and rated for the environment. If the wiring is run outside of conduit, it should be rated for UV.

For the motor cable from the motor to the control panel, use 4 conductor cable, shielded, 16 AWG or larger, and rated for the environment. If the wiring is run outside of conduit, it should be rated for UV.

All conduit and fittings should be outdoor-rated to keep things adequately sealed.

2. Installation

Distributor to Junction Box Electrical Connections

Connect wiring from proximity sensors (DEC0018) and encoder (DEC0017) to junction box terminal block as shown in [Figure 2M](#). **NOTE:** The grey and red color identifiers indicate the location of the proximity sensors and are shown on the bottom of the proximity sensor bracket (DEC0006).

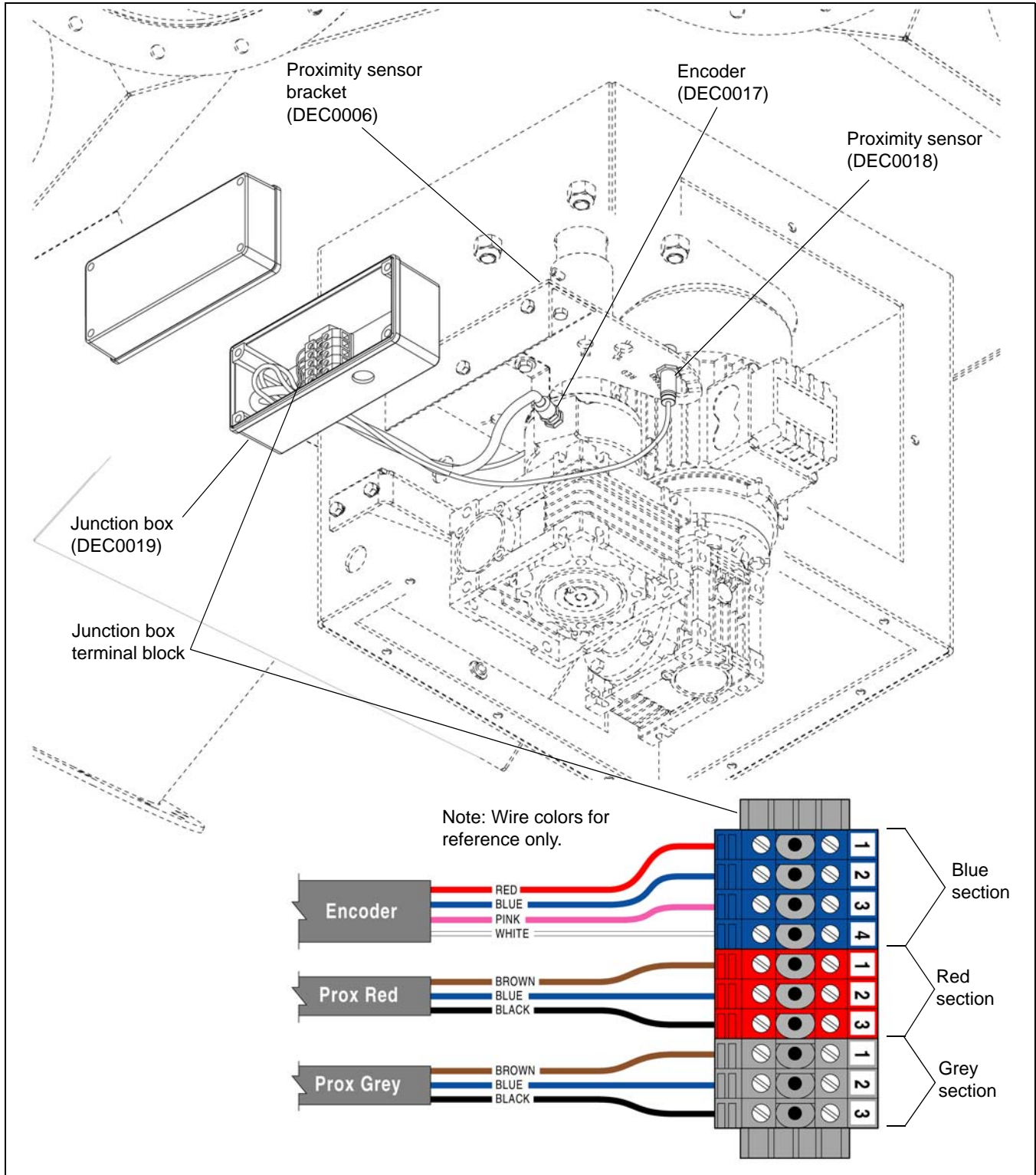


Figure 2M Distributor to Junction Box Electrical Connections

Control Panel Cable to Distributor Fitting Connections

Connect the motor cable from the control panel to the distributor enclosure (DEC0005) and connect the proximity sensors and encoder cable from the control panel to the junction box (DEC0019) using suitable fittings. (See [Figure 2N.](#))



Figure 2N

2. Installation

Motor Cable to Motor Junction Box Fitting Connections

Remove the four motor junction box cover screws and the motor junction box cover as shown in [Figure 20](#).

Connect the motor cable to the motor junction box using suitable fittings. ([See Figure 20.](#))

Cable fitting connection to motor junction box



Figure 20

Motor Wiring to Motor Junction Box Electrical Connections

Connect the motor wiring to the motor wiring terminal block as shown in [Figure 2P](#) and re-install the motor junction box cover and screws.

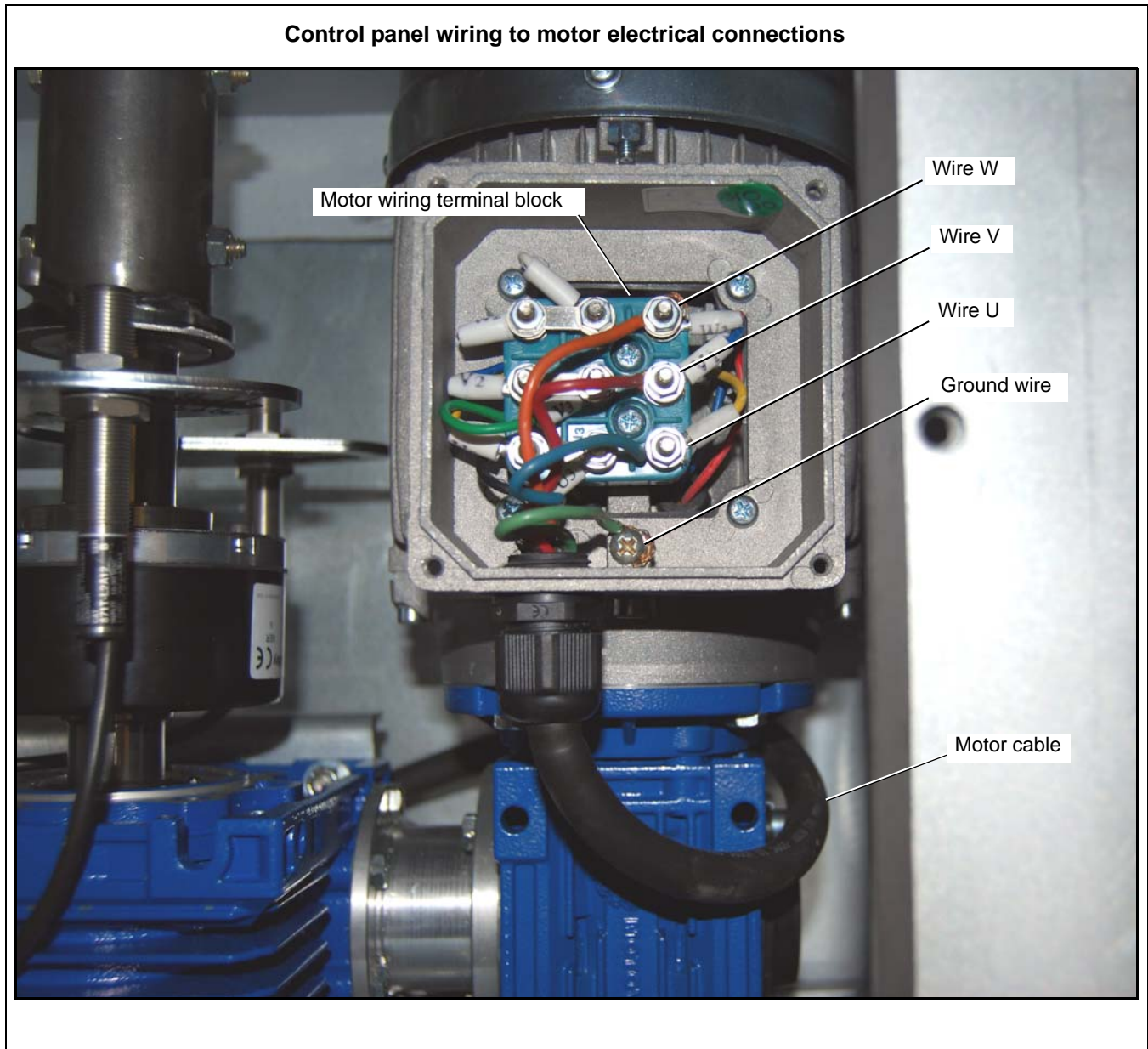


Figure 2P

2. Installation

Control Panel Wiring to Junction Box Electrical Connections

Connect the wiring from the control panel to the junction box (DEC0019) terminal block as shown in [Figure 2Q](#). **NOTE:** The grey and red color identifiers indicate the location of the proximity sensors and are marked on the bottom of the proximity sensor bracket (DEC0006).

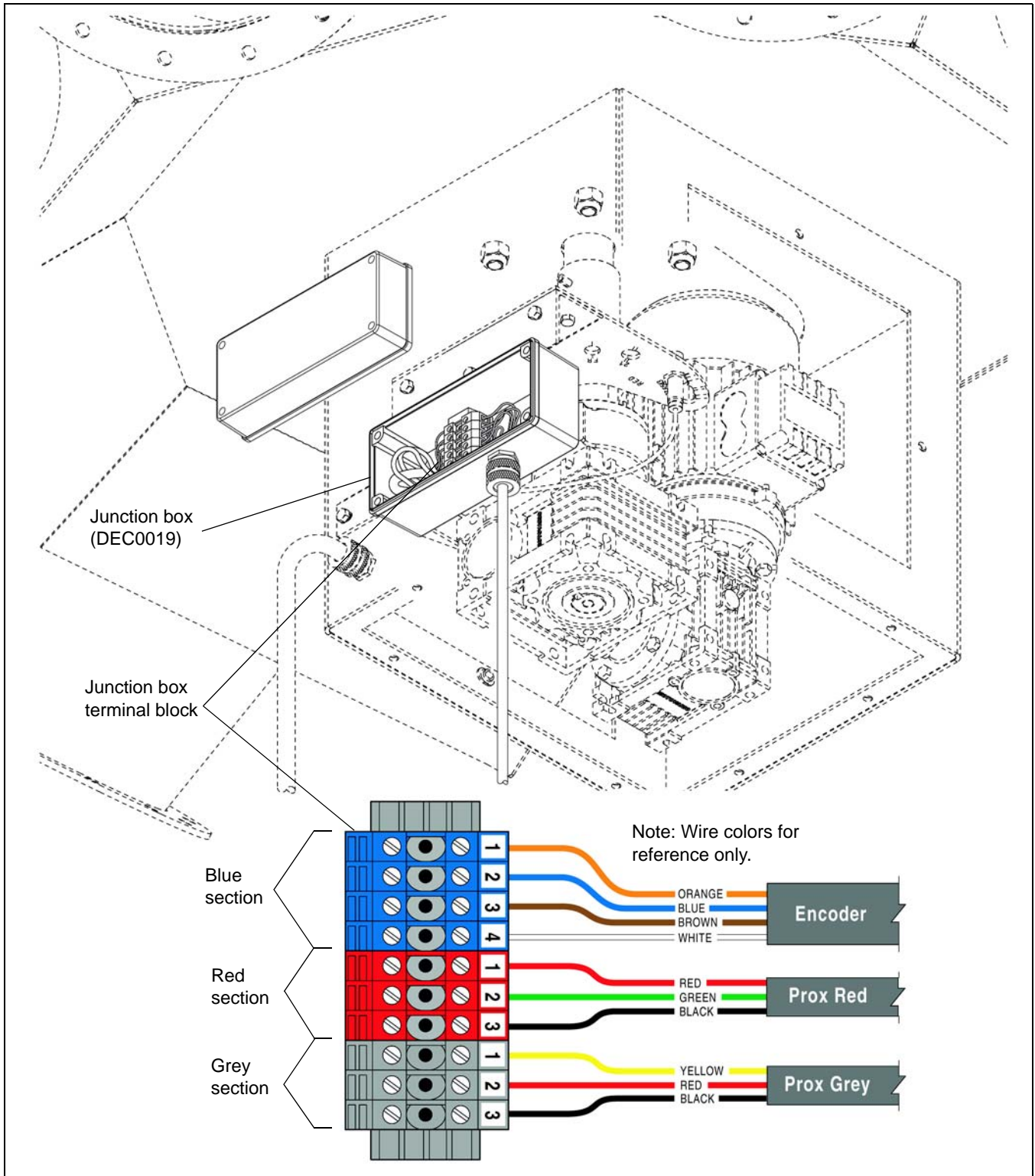


Figure 2Q Control Panel Wiring to Junction Box Electrical Connections

Enclosure Covers Installation

Install the two side access covers (DEC0012) using four 1/4"-20 x 3/4" HHCS bolts (S-1429) and 1/4" lock washer (S-2041) each and install the bottom enclosure cover (DEC0013) using ten 1/4"-20 x 3/4" HHCS bolts (S-1429) and 1/4" lock washers (S-2041) as shown in [Figure 2R](#).

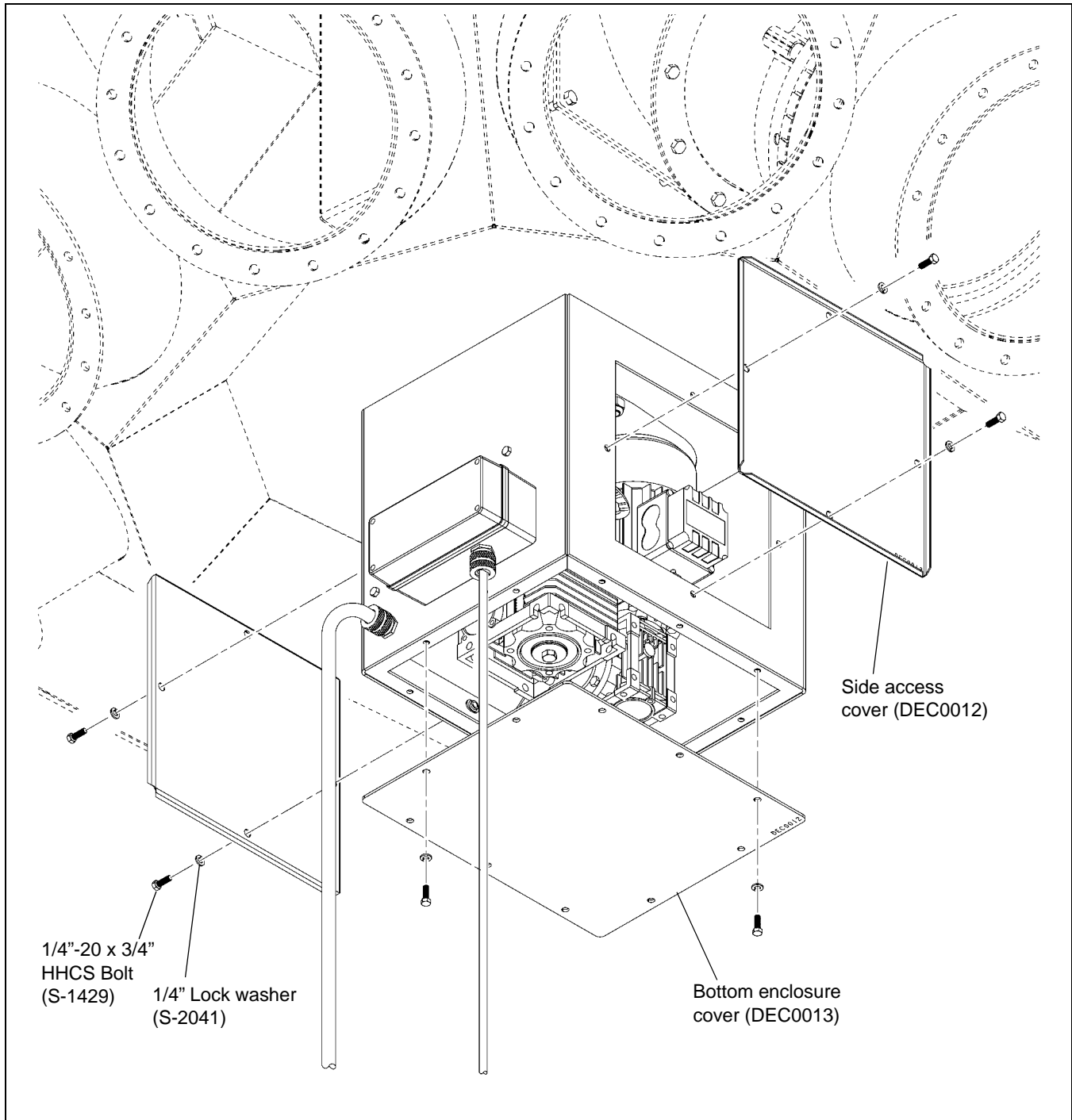


Figure 2R Enclosure Covers Installation

Control Panel Wiring from Motor Electrical Connections

Connect the motor wiring to the motor power terminal block in the control panel as shown in *Figure 2S*.

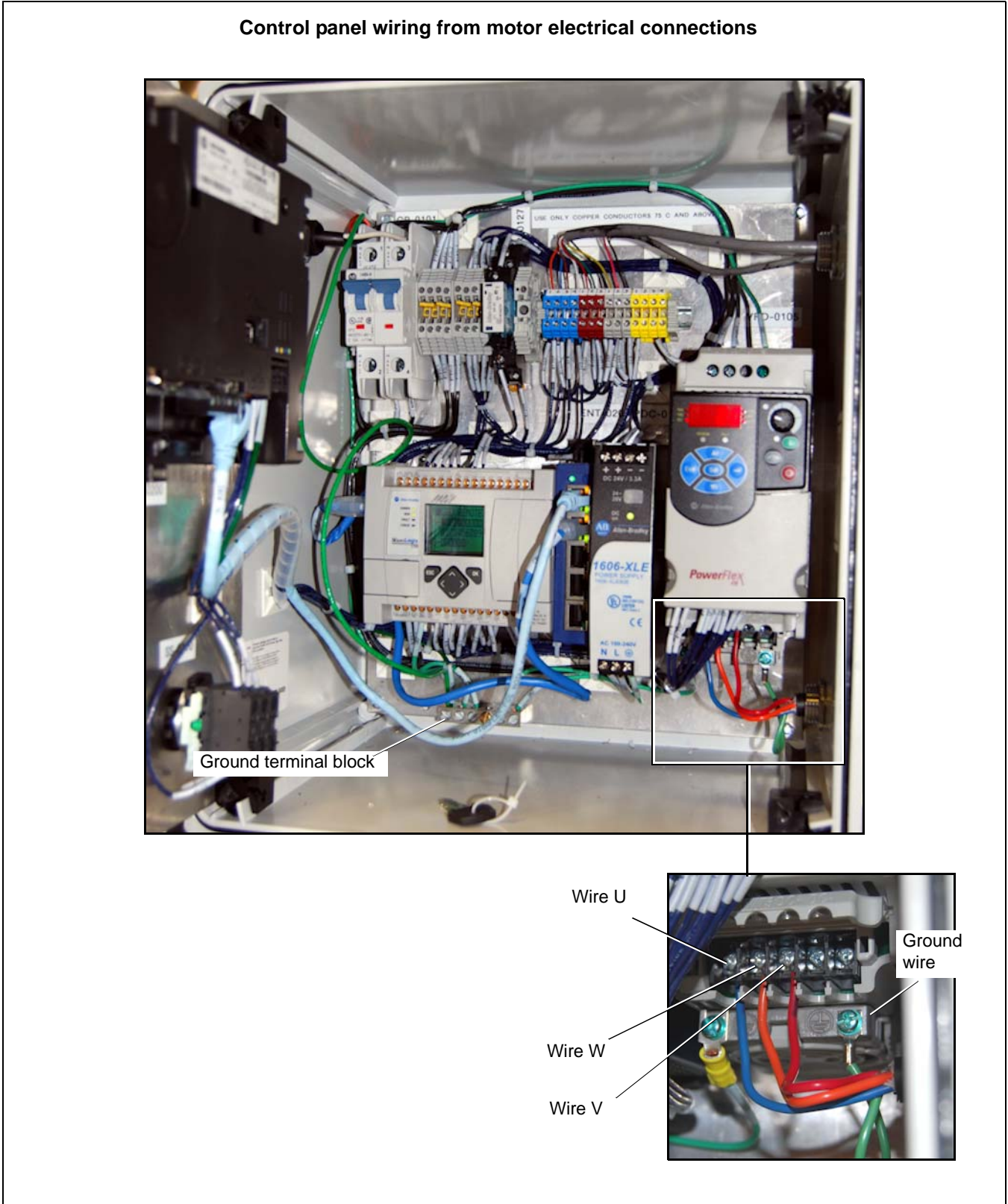


Figure 2S

Power Supply Wiring to Control Panel Electrical Connections

NOTE: Ensure the power supply voltage source is off before installation.

Install power supply cable through the control panel using suitable hardware as shown in [Figure 2T](#).

Connect the power supply hot wires to the control panel circuit breakers as shown in [Figure 2T](#).

Connect the power supply ground wire as shown in [Figure 2T](#) to the ground terminal block shown in [Figure 2S](#).

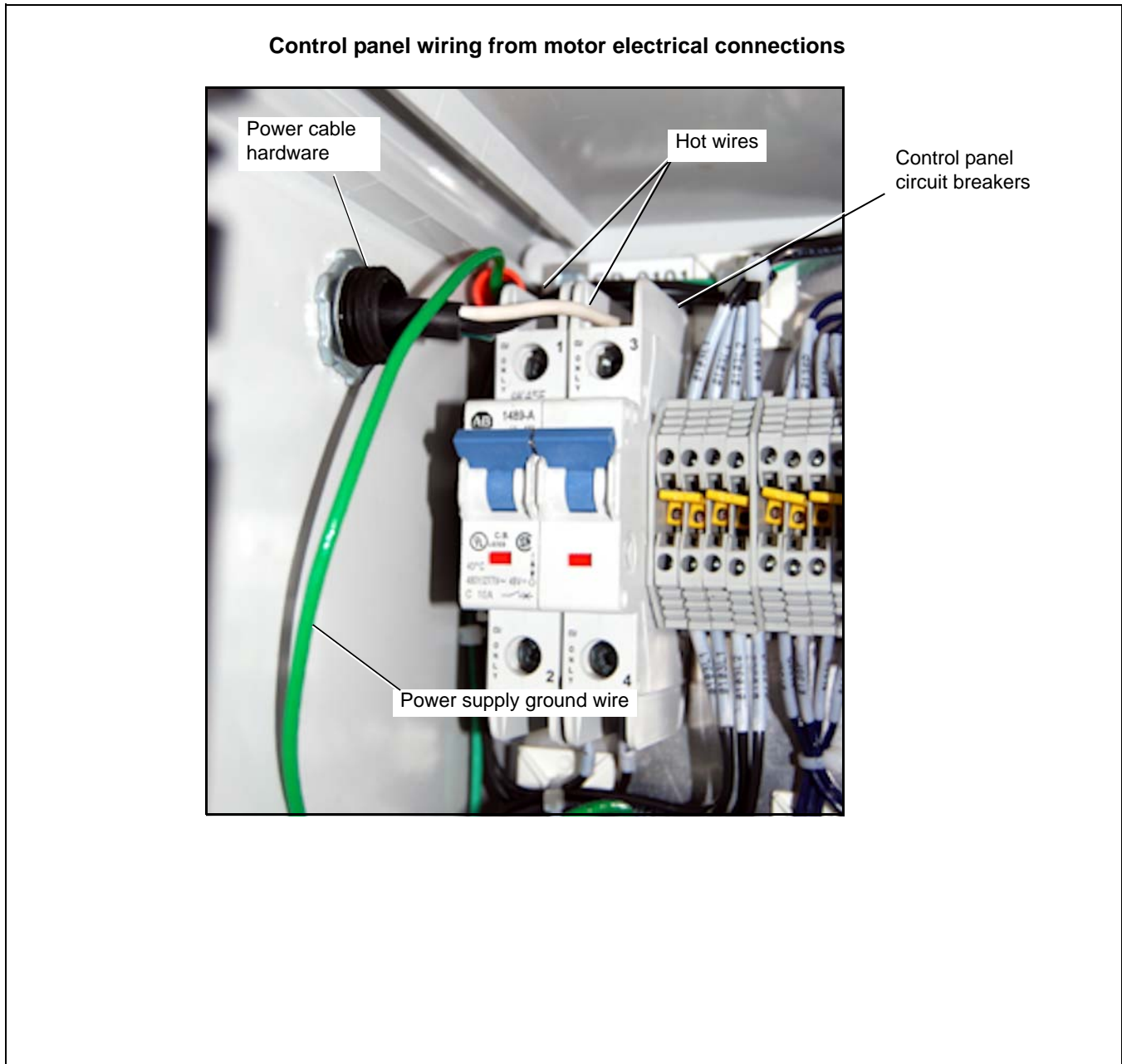


Figure 2T

Control Panel Installation Guidelines

The following recommendations should be followed when installing and mounting the control panel:

All wiring should be performed by a licensed/qualified electrician in accordance with the National Electric Code (NEC), state codes, and local codes.

Never mount the control panel immediately beside or above heat generating equipment, or directly below water or steam pipes.

The atmosphere surrounding the control panel must be free of combustible vapors, chemical fumes, and corrosive materials.

The location of the control panel and the routing of cables should provide safe access for maintenance and suitable operation of the control panel.

Mount the control panel on a flat, vertical surface using 1/4" fasteners.

Ensure that the mounting surface is sufficient to support the weight of the control panel.

3. Operation Procedures

Initializing Screen

When powering up the distributor the first screen that appears is the “Initializing” screen (See Figure 3A.) Press “OK” to proceed to the “Main” screen. See “Main Screen” on page 31.

NOTE: Pressing “OK” button after first time power up after a retrofit will bring you to the configuration screen.



Figure 3A Help Menu

NOTE: The following screens are taken from various models of distributors, which may result in differences between this manual and that of your actual display.

Main Screen

Depending on the number of spouts in your current configuration, one of the following screens will be displayed (See Figure 3B.) The name of the current spout is indicated at the top of the screen, and is indicated in the graphic with a green circle. At the bottom of the screen are three buttons to navigate to either the Help Menu, Move Screen, or Setup Menu.

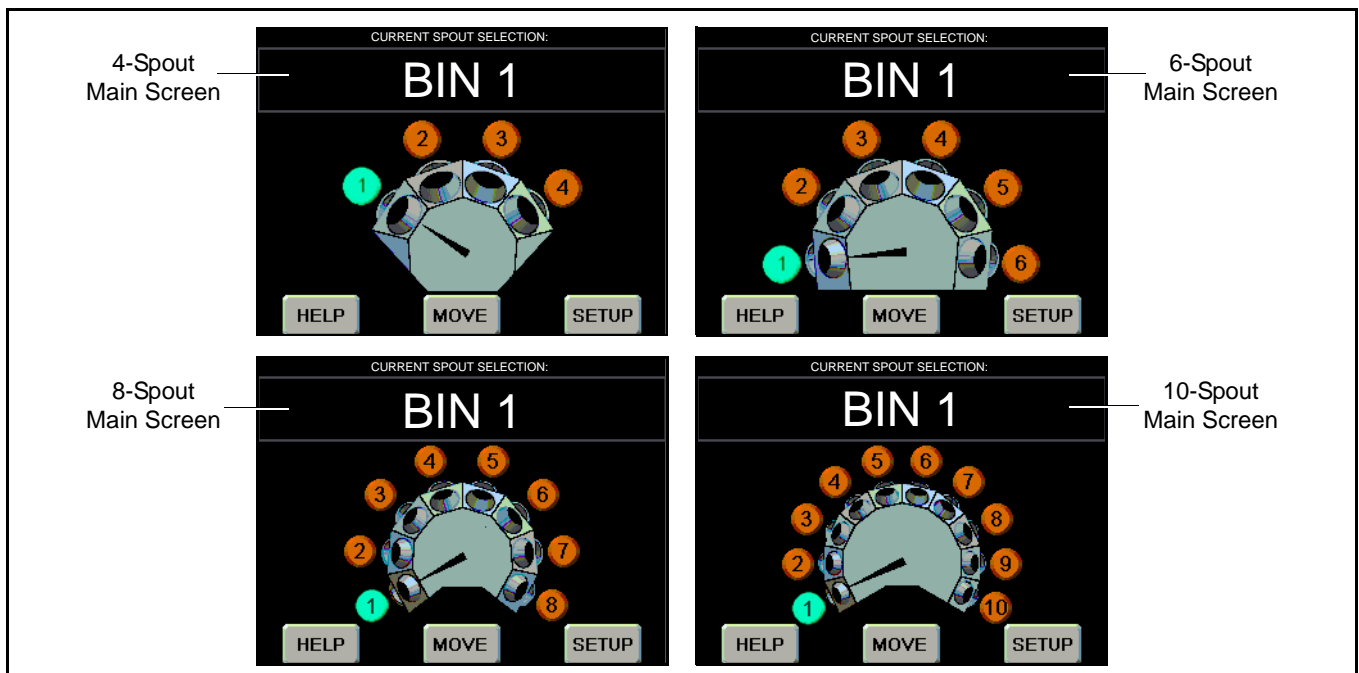


Figure 3B

Help Menu Screen

The help menu has three options for displaying troubleshooting information for different faults that may appear during the operation of your distributor.

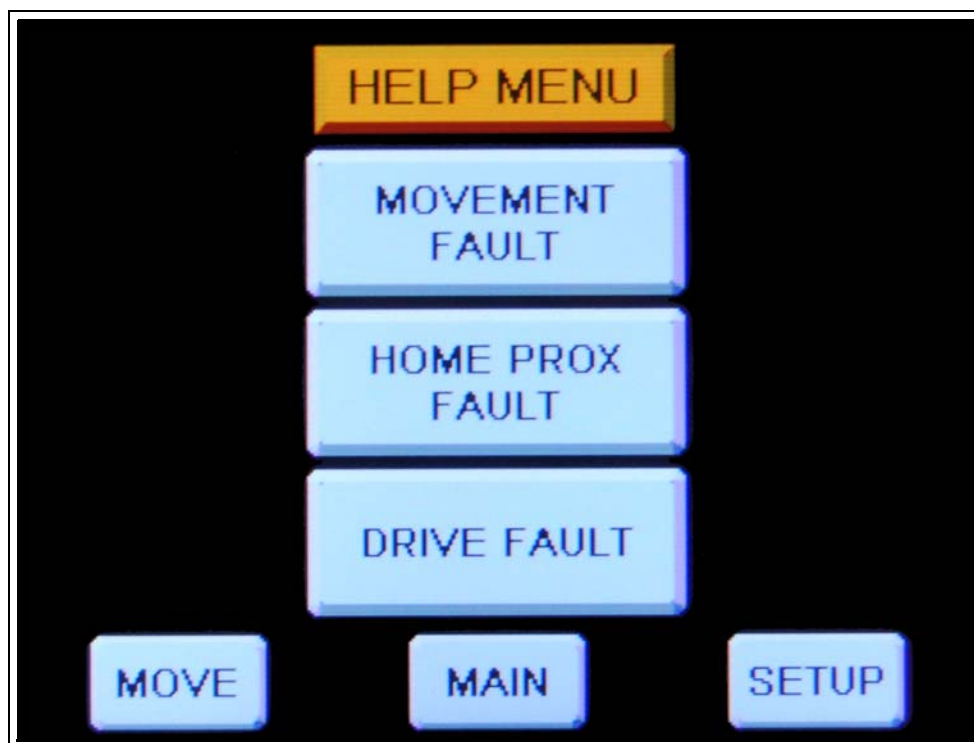


Figure 3C *Help Menu Screen*

Movement Fault: Displays the “Movement Fault” screen which offers possible causes and solutions to faults caused by distributor movement (*See Figure 3D on Page 33.*)

Home Prox Fault: Displays the “Home Sensor Fault” screen which offers possible causes and solutions to faults caused by a proximity switch failure (*See Figure 3E on Page 33.*)

Drive Fault: Displays the “VFD” Fault screen which offers possible causes and solutions to faults caused by the variable frequency drive (*See Figure 3F on Page 34.*)

Movement Fault Screen

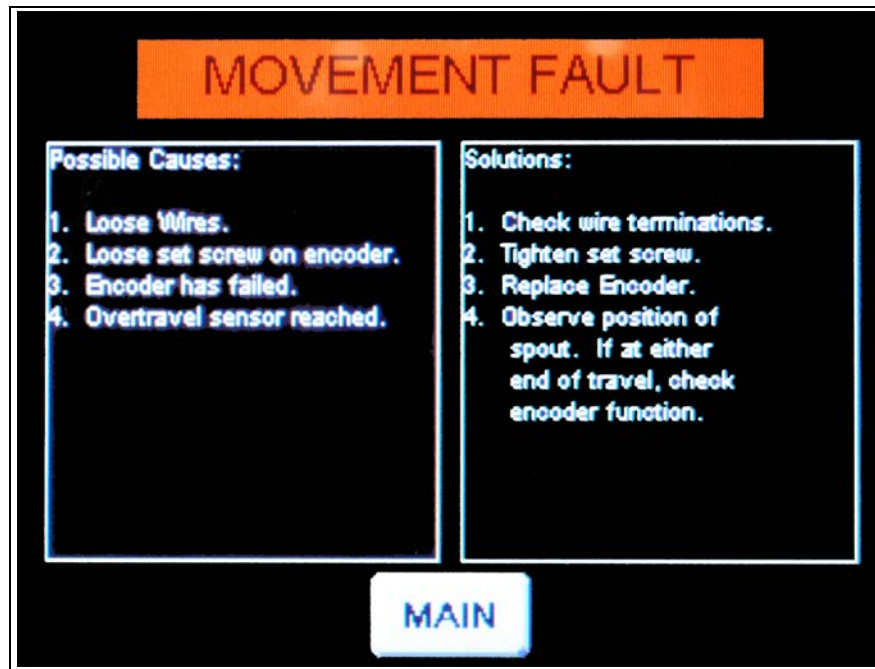


Figure 3D Movement Fault Screen

Home Prox Fault Screen

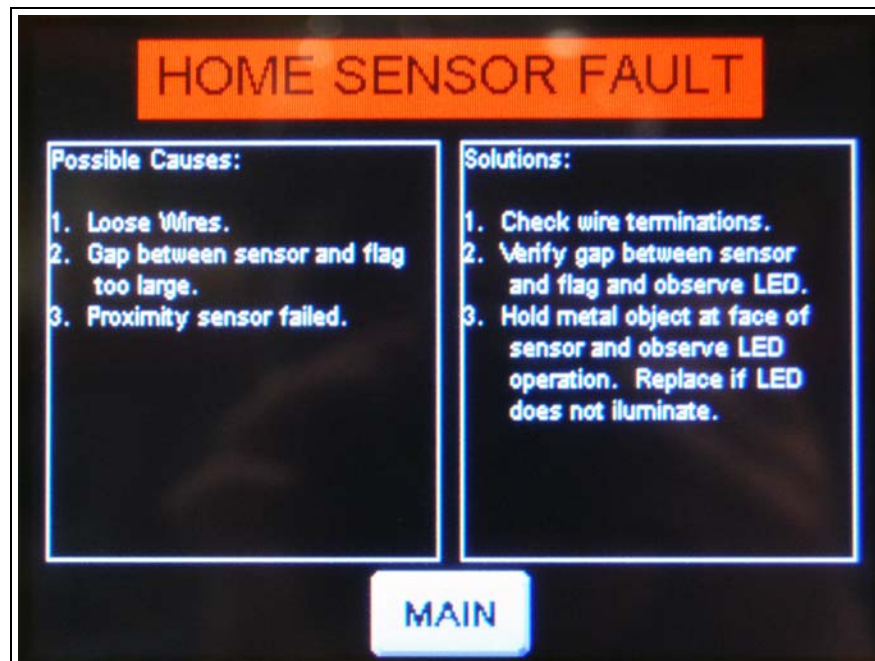


Figure 3E Home Prox Fault Screen

Drive Fault Screen

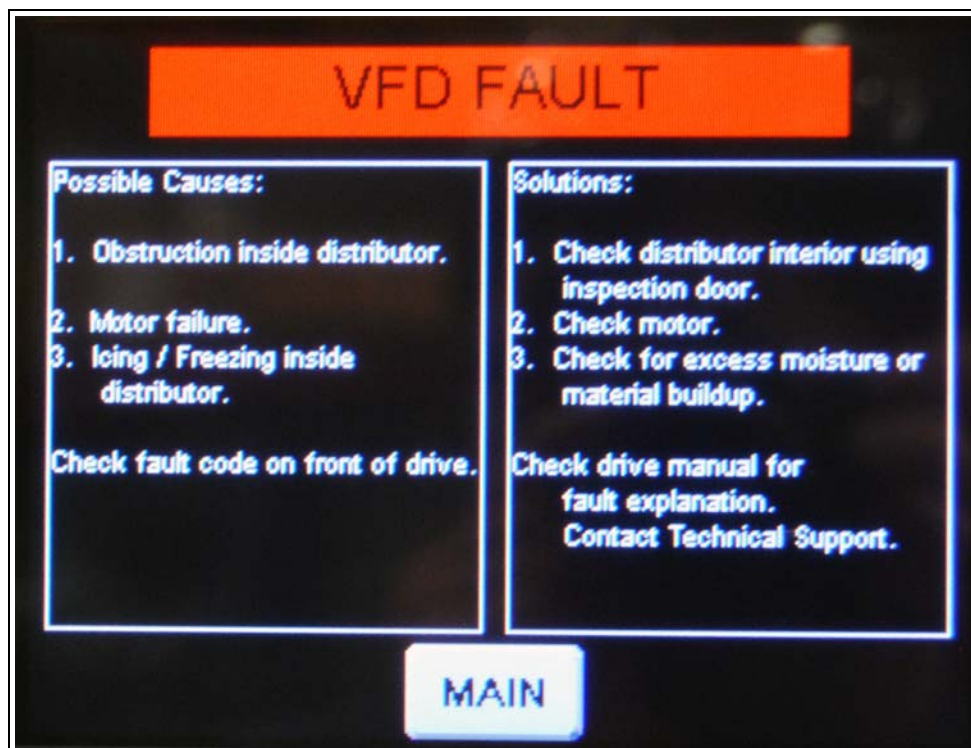


Figure 3F Drive Fault Screen

Move Screen

This screen allows the user to change the distributor's current spout position. The green highlighted spout number indicates the current selection. A spout number with a red circle with a line through it indicates a position that is currently locked out (See "Position Lock-Out Screen" on page 42.)

NOTE: The default names for each spout will be "BIN #", see "Position Names Screen" on Page 38 for customizing the spout names.



Figure 3G Move Screen

Moving Spout Position:

1. From the "Main" screen or the "Setup Menu" select "MOVE" to view the "Move Position" screen (See Figure 3G.).
2. On the "Move Position" screen, select the position you want the spout to move to by pressing the spout name on the screen.
3. The "Main Menu" screen will now display a flashing message "Moving to" at the top of the screen, the selected spout number will flash yellow while the pointer is moving to the selected spout. The destination spout number will turn green when the move is complete.

Verifying Spout Alignment:

NOTE: In the following steps, the distributor must be in a position to view the spout location in the distributor to verify that it lines up correctly. If the distributor is installed above ground level, two people will be needed; one to verify the alignment of the distributor spout and one to operate the controller.

1. From the "Main" screen or the "Setup Menu" select "MOVE" to view the "Move Position" screen (See Figure 3G.)

3. Operation Procedures

2. On the “Move Position” screen, select the position you want the spout to move to by pressing the spout name on the screen.
3. The “Main Menu” screen will now display a flashing message “Moving to” at the top of the screen, the selected spout number will flash yellow while the pointer is moving to the selected spout. The destination spout number will turn green when the move is complete.
4. Once the spout has finished moving, visually check and verify the spout is centered with the distributor discharge spout. If alignment requires adjustment, see “Position Locations Screen” [on Page 38](#) to adjust the positioning.
5. Repeat procedure for any other spouts that were repositioned.

Setup Menu Screen

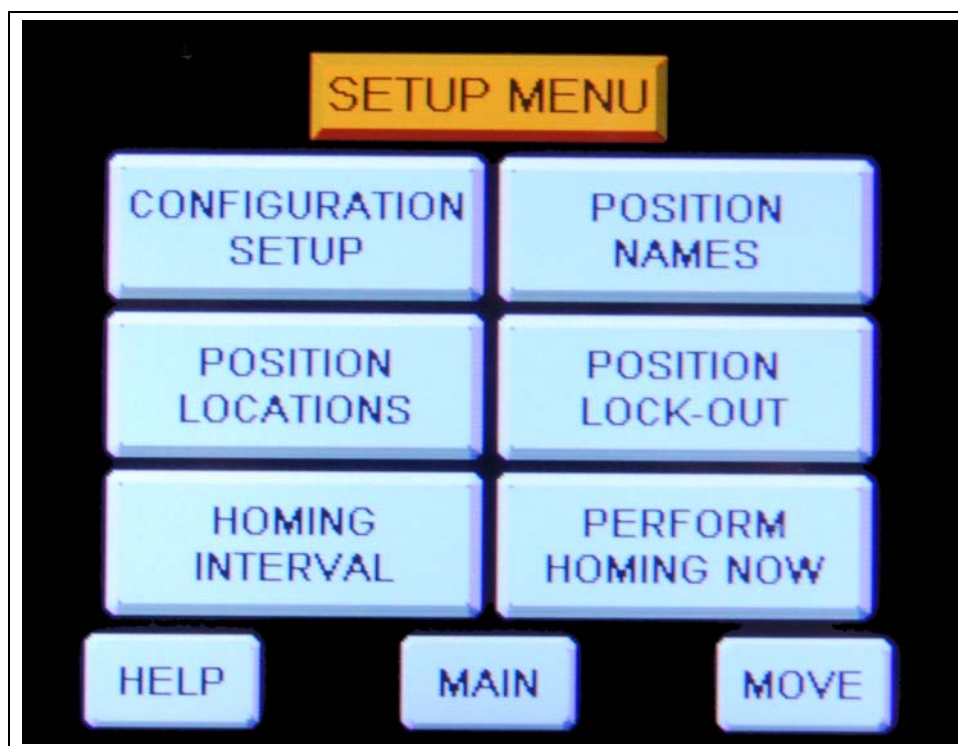


Figure 3H Setup Menu Screen

Configuration Setup: Displays the machine setup screen that allows the user to change the distributor’s parameters or reload default values. See “Configuration Setup Screen” on page 37.

Position Names: Allows the user to assign or change the name of each spout position, and to create or change a name for the distributor. See “Position Names Screen” on page 38.

Position Locations: Displays the positioning screen which allows the user to set the value that aligns the spouts with the distributor. See “Position Locations Screen” on page 40.

Position Lock-out: Allows the user to lock or unlock spouts from being used. See “Position Lock-Out Screen” on page 42.

Homing Interval: Allows the user to set the number of times before the “Perform Homing Now” warning appears. See “Homing Interval Screen” on page 43.

Perform Homing Now: Press this to perform the homing operation to re-calibrate the distributor.

Configuration Setup Screen

This screen allows the user to change the distributor's spout diameter property, total of number of spouts, and for resetting the distributor back to the default settings.

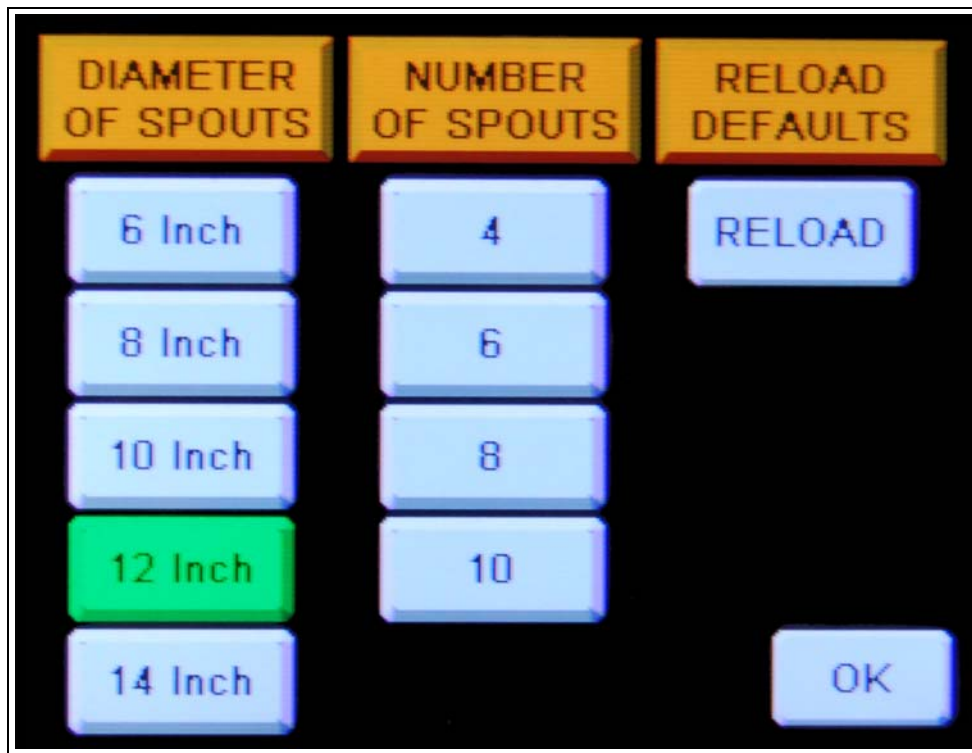


Figure 3I Configuration Setup Screen

Diameter of Spouts: Press the button that matches the size of the spout that is currently installed on the distributor. The diameter that is selected will turn green and the number of spouts available for that diameter will be displayed.

Number of Spouts: Press the button that matches the current configuration of your distributor. The number that is selected will turn green. The number of spout options will change according to the diameter of spout selected.

Reload Defaults: If during operation, any configuration parameters are altered from the original settings, pressing this button will revert settings to the default values.

OK: Press this button to save your current configuration and be brought back to the Setup Menu.

NOTE: A warning message will appear if distributor has already been previously configured.
(See Figure 3J.)

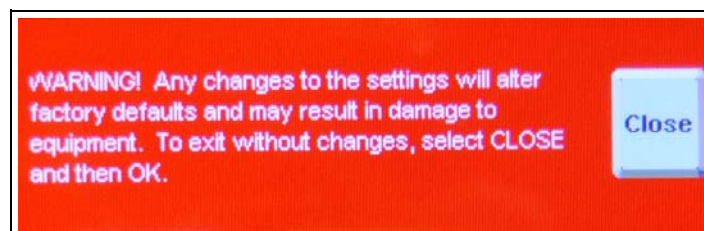


Figure 3J

3. Operation Procedures

Position Names Screen

This screen allows the user to individually name each of the of the distributor discharge spouts and is also used to create or modify a distributor name.

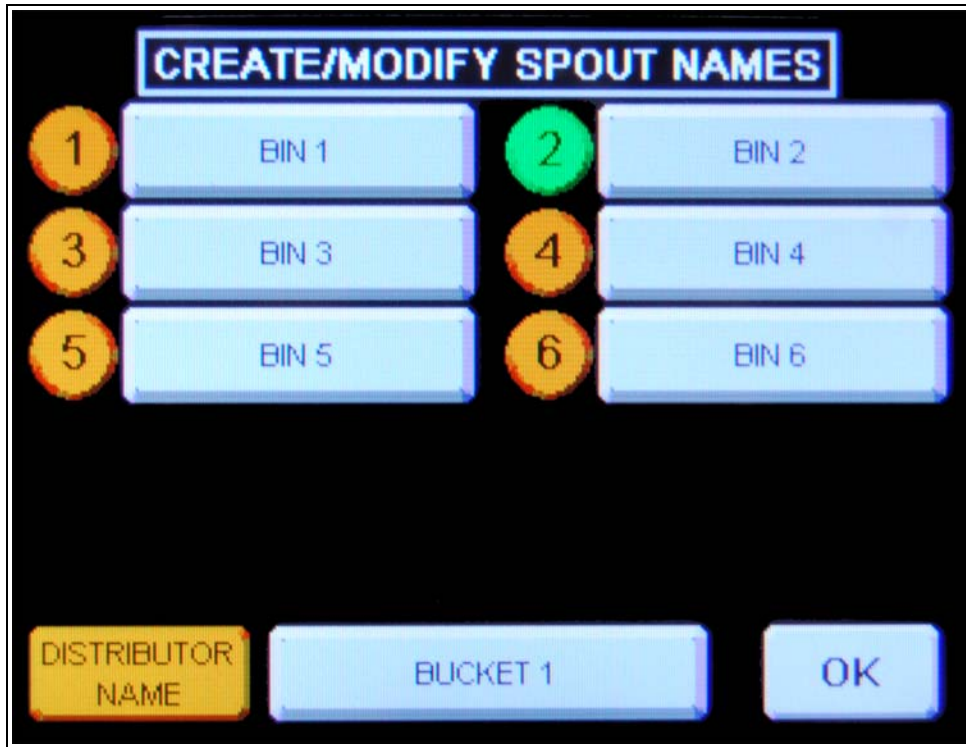


Figure 3K Create/Modify Spout Names

Create/Modify Spout Name:

1. From the "Setup Menu", select "Position Names" to bring up the "Create/Modify Spout Names" screen.
2. Press the spout name to be modified to display an alphanumeric keypad.
(See Figure 3L.)



Figure 3L Alphanumeric Keypad

3. Type in the desired name for the spout position and press “enter”. ←
4. Select “OK” to return to “Setup Menu”.

Create/Modify Distributor Name:

1. From the “Setup Menu”, select “Position Names” to bring up the “Create/Modify Spout Names” screen.
2. Next to ochre “Distributor Name” label, press the distributor name to display an alphanumeric keypad (*See Figure 3L.*)
3. Type in the desired name for distributor press “enter”. ←
4. Select “OK” to return to “Setup Menu”.

3. Operation Procedures

Position Locations Screen

This screen allows the user to adjust the spout positioning so it lines up with the center of the distributor discharge. Adjustments can be made individually or an offset can be used to adjust all spouts by the same amount.

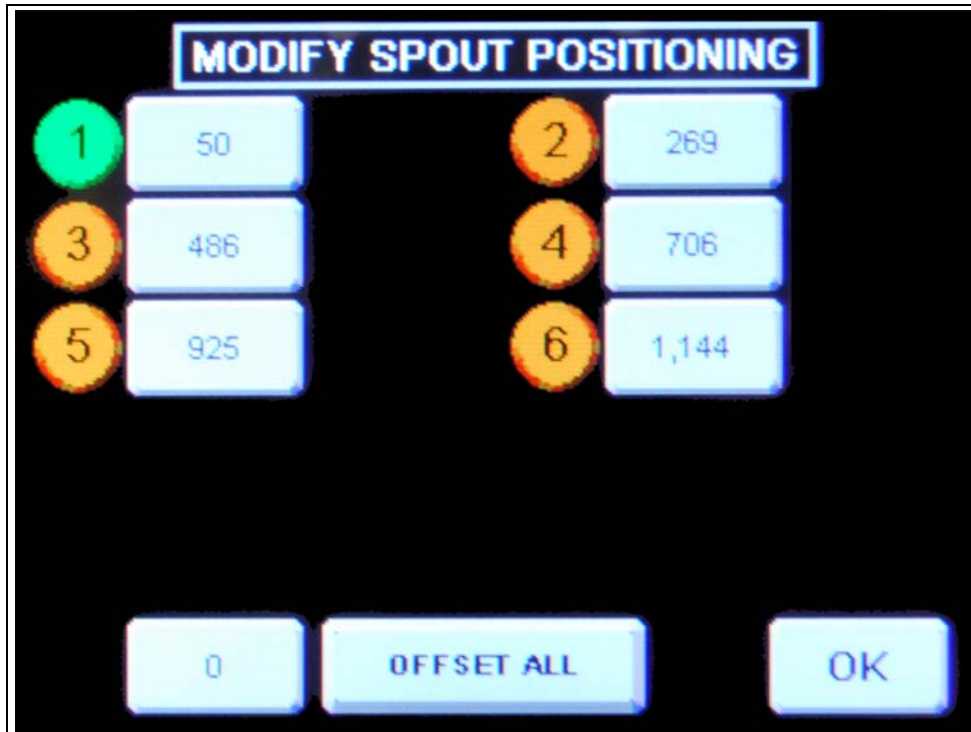


Figure 3M *Modify Spout Positioning*

Modify Spout Positioning:

1. From the “Setup Menu”, select “Position Locations” to bring up the “Modify Spout Positioning” screen.
2. In the “Modify Spout Positioning” screen select the spout that requires adjustment by touching the value pad next to the spout number balloon. A number keypad will display (See Figure 3N.)

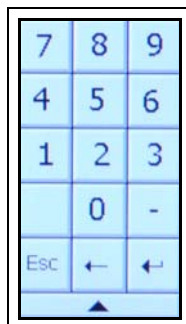


Figure 3N *Number Keypad*

3. Insert the desired value and press “enter”. ←↵

NOTE: *Entering a value larger than the existing value will move spout position to the left, entering a smaller value will move the position to the right.*

4. Select “OK” to return to “Setup Menu”.

5. Verify spout alignment with distributor. See “Verifying Spout Alignment:” on page 35.

Offset All:

1. From the “Setup Menu”, select “Position Locations” to bring up the “Modify Spout Positioning” screen.

2. In “Modify Spout Positioning” screen select the “0” key pad next to “OFFSET ALL”. A number keypad will display (See Figure 30.)

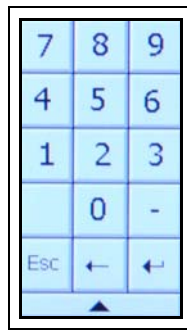


Figure 30 Number Keypad

3. Insert the desired offset value and press “enter” ←↵

To offset the spouts to the left, use a positive value and to offset to the right, use a negative value.

NOTE: *A maximum offset at any one time is +/- 5.*

4. Select “OK” to return to “Setup Menu”.

5. Verify each spout alignment with distributor. See “Verifying Spout Alignment:” on page 35.

3. Operation Procedures

Position Lock-Out Screen

The Position Lockout allows you to lock out a distributor discharge spout position so it can not be used until it is manually unlocked.

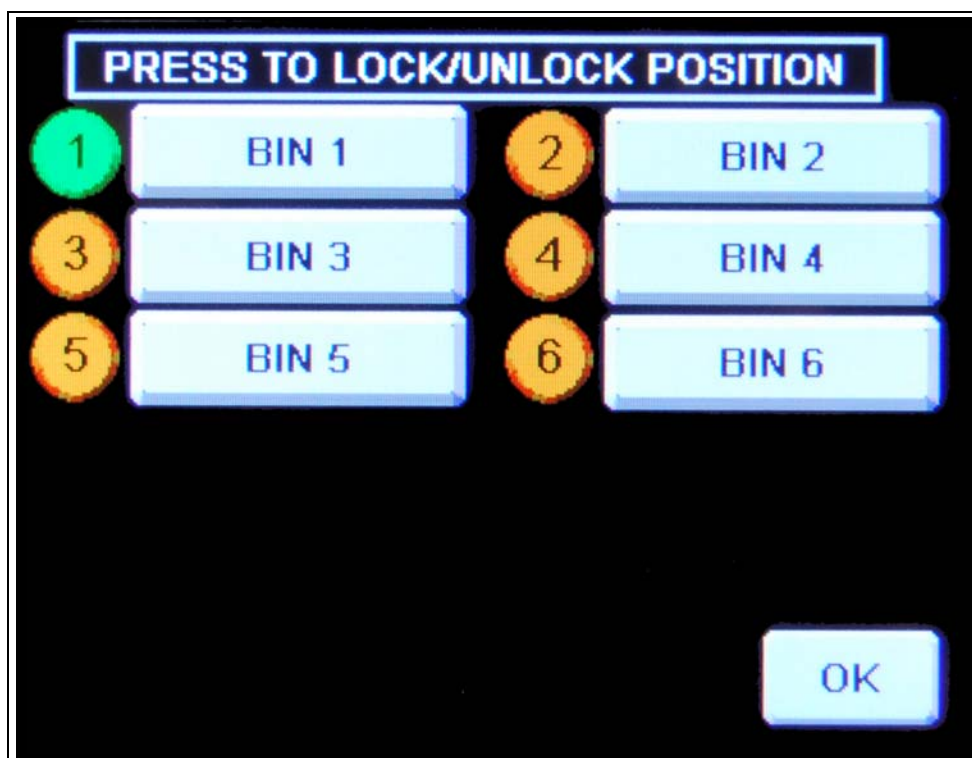


Figure 3P Lock/Unlock Position

Lock/Unlock Position:

1. From the "Setup Menu", select "Position Lock-out" to display the "Lock/Unlock Position" setup screen.
2. Press name of spout to toggle between locked and unlocked. When in the locked position the number balloon will change to a red circle with a line through it.

NOTE: *The position that the distributor is currently located, indicated by a green number balloon icon, can not be locked out. Move the spout position to a different location then try again. See "Move Screen" on page 35.*

3. Select "OK" to apply changes and return to "Main Menu".

Homing Interval Screen

The homing interval screen allows the user to set the number of times the distributor position may be moved before a warning displays for home position recalibration. The lower the value of this number, the greater the positioning accuracy. A default value of 50 is standard.

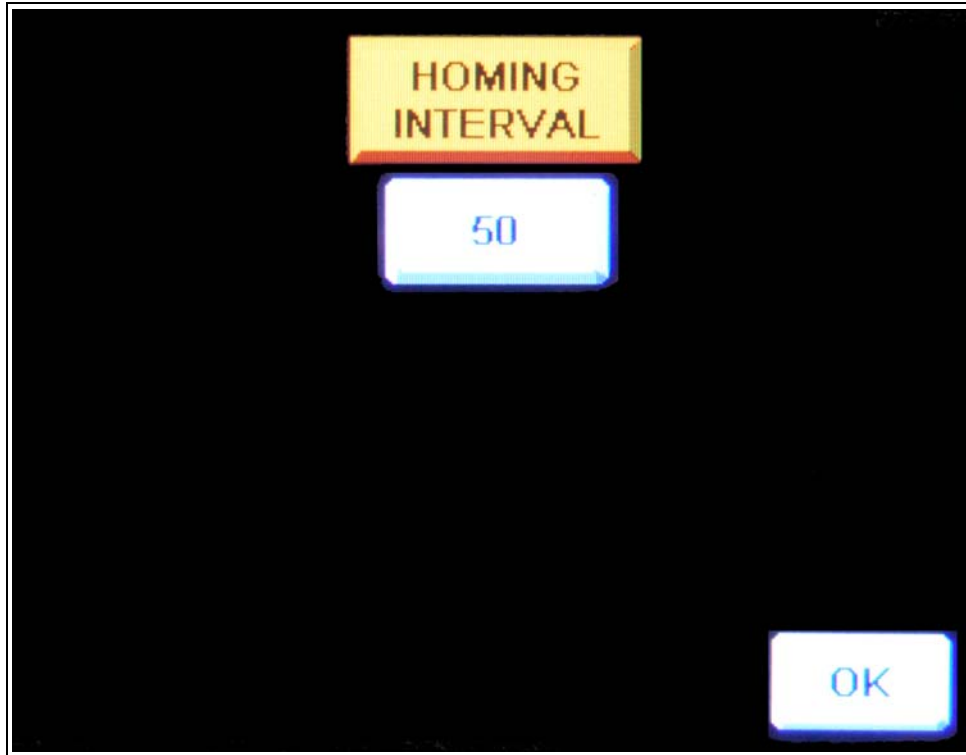


Figure 3Q Homing Interval Screen

Setting Homing Interval:

1. To access the homing interval from the "Setup Menu", select "Homing Interval" to display the "Homing Interval" setup screen.
2. Press the button under the "Homing Interval" label. A number keypad will display (See [Figure 30.](#))

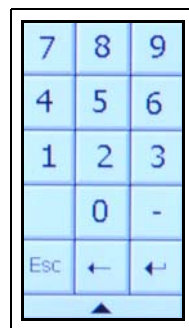


Figure 3R

3. Insert the desired interval and press "enter" ←
4. Select "OK" to apply changes and return to "Main Menu".

Homing Warning

To help ensure accurate positioning of the distributor a homing warning will display when the number of times the distributor is repositioned is equal to the homing interval. This message will occur every time that a spout move is attempted until the homing procedure is completed. The user will be given two options: "Home Now" and "Home Next Move".

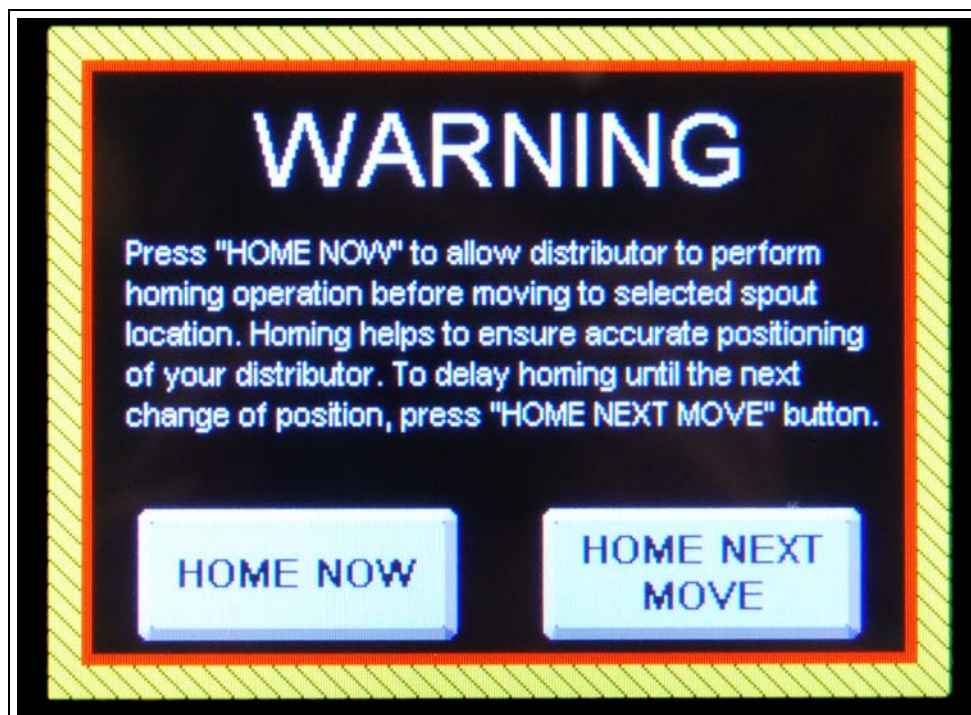


Figure 3S *Homing Warning*

Home Now: Select to perform the homing calibration immediately. The user interface will return to the "MAIN" screen and "Homing" will flash on and off in yellow. After homing is complete, the spout will return to the selected position.

Home Next Move: Select "Home Next Move" to skip the homing operation and move to the selected position. The user interface will continue to prompt you to home the unit during every subsequent move until homing is performed.

Manual Override

Located on the front of the controller is a manual/jog dial. This manual override is key locked and should only be used in case of a major equipment failure. It allows for manually moving the spout in the direction you turn the dial when the key is inserted.

It is recommended that two people perform this procedure. One person to operate the manual/jog dial and another to look through the distributor and verify alignment of the spout.

NOTE: Panel will not close with key inserted in the manual/jog dial. Always keep key in a safe location for access by authorized personnel only.



Figure 3T

NOTES

Distributor Assembly

INCHES		INCHES		INCHES	
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY
1	1	DFB12645G	12 6 - HOLE DISTRIBUTOR ASSEMBLY	1	1
2	1	DEC0009	WELDMENT, SHAFT & FLAG, 1/2 HP DIST CTRL	2	1
3	1	DEC0005	WELDMENT, ENCLOSURE, 1/2 HP DIST CTRL	3	1
4	1	DEC0014	ANGLE SENSOR PLATE MTG, 1/2 HP DIST CTRL	4	1
5	1	DEC0006	BRACKET, PROX SENSOR, 1/2 HP DIST CTRL	5	1
6	1	DEC0015	GMTR, DBL WRM, 1/2 HP, 400.1, DIST CTRL	6	1
7	1	DEC0003	BRACKET, MOTOR MOUNT, 1/2 HP DIST CTRL	7	1
8	1	DEC0016	BRACKET, ENCODER MOUNT, DIST CTRL	8	1
9	1	DEC0017	ENCODER, INCR, 2048 PPR, 30MM, DIST CTRL	9	1
10	2	DEC0018	SENSOR, PROXIMITY, INDUCTIVE, 12MM, S=4	10	2
11	1	DEC0019	BOX, JUNCTION, 1/2 HP DIST CTRL	11	1
12	2	DEC0013	COVER, SIDE ACCESS, 1/2 HP DIST CTRL	12	2
13	1	DEC0012	COVER, ENCLOSURE BTM, 1/2 HP DIST CTRL	13	1
14	18	S-2041	WASHER-LOCK SPLIT 1/4 MED ZN	14	18
15	27	S-1429	1/4" SAE WASHER	15	27
16	7	S-2126	1/4" SAE WASHER	16	7
17	2	S-6988	BOLT HHCS 1/4 - 20 X 1 1/2 ZN GR5	17	2
18	11	S-7025	NUT NYLOCK 1/4 - 20 ZN GR5	18	11
19	2	S-9288	SPRING PIN .250 X 2.50" LONG	19	2
20	5	S-7469	BOLT HHCS 3/8 - 16 X 1 1/2 ZN GR5	20	5
21	4	S-7383	NUT NYLOCK 3/8-16 ZN GR5	21	4
22	1	S-7569	WASHER FENDER 5/16 X 1-1/2 ZN	22	1
23	4	S-280	SCREW SDS #10-16 X 5/8 HWH ZN	23	4
24	3	S-7223	WASHER SPLITK #10	24	3
25	3	S-10167	BOLT, SHCS #10-32 X 1/4 ZN	25	3

ASSEMBLY PROCEDURE:

1. INSTALL SHAFT (DEC0009), WITH PROVIDED ROLL PINS (S-9288)
2. INSTALL ENCLOSURE (DEC0005) WITH 3/8 BOLTS AND NYLOCK NUTS
3. INSTALL JUNCTION BOX (DEC0019) WITH SELF-DRILL SCREWS (S-280)
4. INSTALL SENSOR MOUNTING ANGLE (DEC0014) AND PLATE (DEC0006)
5. INSTALL SENSORS (DEC0018, 2 EA) & SET CLEARANCE (SEE DETAIL A)
6. INSTALL ENCODER (DEC0017), TORQUE SET SCREW TO 8 IN-LBS
7. INSTALL MOTOR (DEC0015) AND MOUNTING BRACKET (DEC0003)
8. INSTALL BOTTOM (DEC0012) AND SIDE (DEC0013) COVERS

DETAIL A
SCALE 0.400

NOTE:
INSTALL SENSORS PER SENSOR LOCATION TABLE SHOWN IN FIG 2E, ON BOTH SIDES, SET 0.110 +/- 0.01 CLEARANCE FROM FACE OF EACH SENSOR TO FLAG ON SHAFT

DATE	BY	INITIAL RELEASE	REVISION DESCRIPTION
5/27/11	C		

DATE	BY	MATERIAL HANDLING	DATE	10-MAY-11	DRAWN	MAT	CHK'D	BY	ASSY	VT
									899.805	

DESCRIPTION	REV
12 6-HOLE 45 DEG. DIST. ASSY, ELEC. CTRL	1

SIZE	A
DFB12645G-EC	1

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GROUP

NOTES

5. Troubleshooting

Error Messages

Message:

The value entered was greater than the allowable deviation from the original position. Please enter a value between X and Z.

Reason:

This error is displayed when a position count value outside the acceptable range is entered while in the “Modify Spout Position” screen.

Remedy:

Enter a value between X and Z on the “Modify Spout Position” screen.

Message:

WARNING! Any changes to the settings will alter factory defaults and may result in damage to equipment. To exit without changes, select CLOSE and then OK.

Reason:

This message is displayed as you enter the “Configuration Setup” screen.

Message:

The Home proximity sensor was not detected. The homing process failed. Please check for proper operation of the sensor.

Reason:

This error is displayed when attempting to perform a “Homing” operation and the controller fails to receive a proximity sensor signal before the time out period is reached.

Remedy:

Check wiring, wiring connections, and proximity sensors. Repair or replace as necessary.

Message:

The position feedback does not match expected behavior. Please check for proper operation of the encoder.

Reason:

This error is displayed if the spout does not reach the desired position count while performing a “MOVE” operation.

5. Troubleshooting

Remedy:

Check wiring, wiring connections, and encoder. Repair or replace as necessary.

Message:

The VFD has faulted. Please check for proper operation of the VFD.

Reason:

This error displays when the variable frequency drive does not perform properly.

Remedy:

Repair or replace the VFD as necessary.

Message:

The bucket elevator is running. Please stop feed before moving.

Reason:

This error displays when trying to perform a move while bucket elevator is running.

Remedy:

Stop bucket elevator before performing spout move.

Message:

You cannot lockout this position because it is currently in use. Move the spout to a different position and then lockout this position.

Reason:

This error displays when trying to lock out a spout position that is in use.

Remedy:

Move spout to a different position and then lockout this position.

Message:

You are attempting to move to the currently selected position. Please select a different position.

Reason:

This error displays when trying to move spout to current position.

Remedy:

Select a different position.

Message:

You cannot select a locked-out position. Please select a different position.

Reason:

This error displays when trying to choose a spout position that is locked out.

Remedy:

Select a different position.

Message:

The spout has drifted out of position. Please verify current position of the spout.

Reason:

This error occurs when spout position reading changes without a move command being issued.

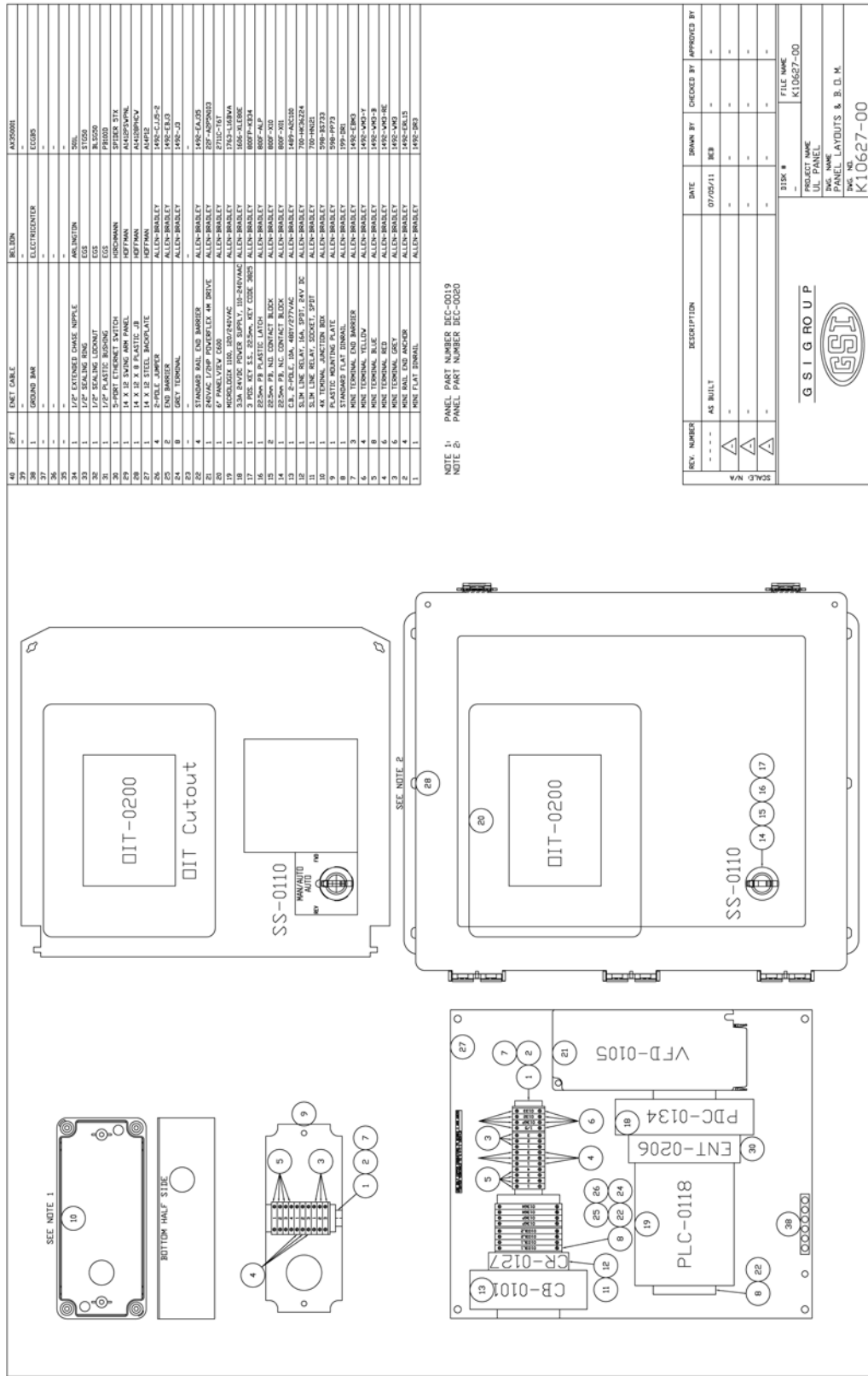
Remedy:

Check mechanical components for looseness, wear, or damage. Repair or replace as necessary.

NOTES

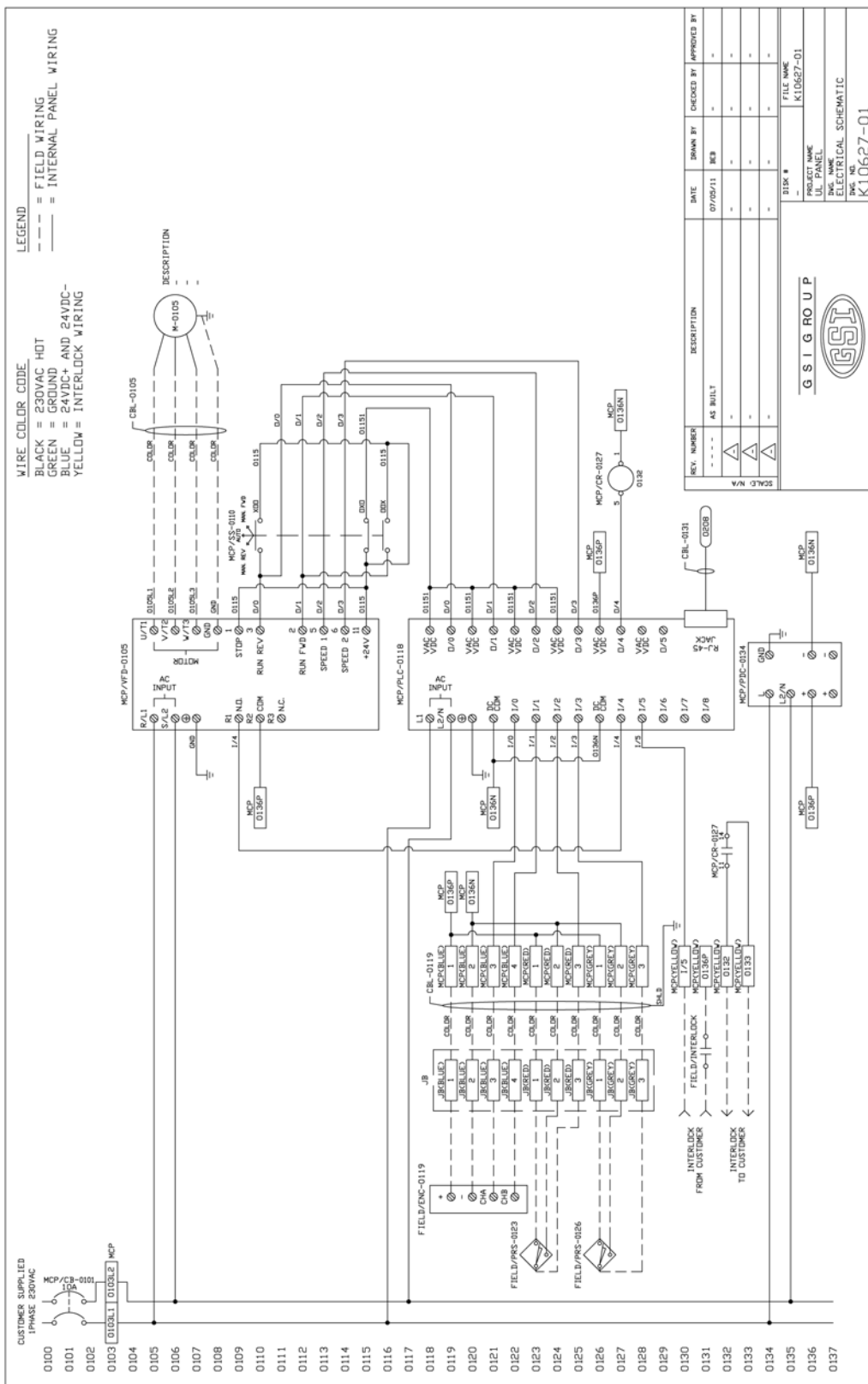
6. Schematic and Wiring Diagrams

White Panel Layout

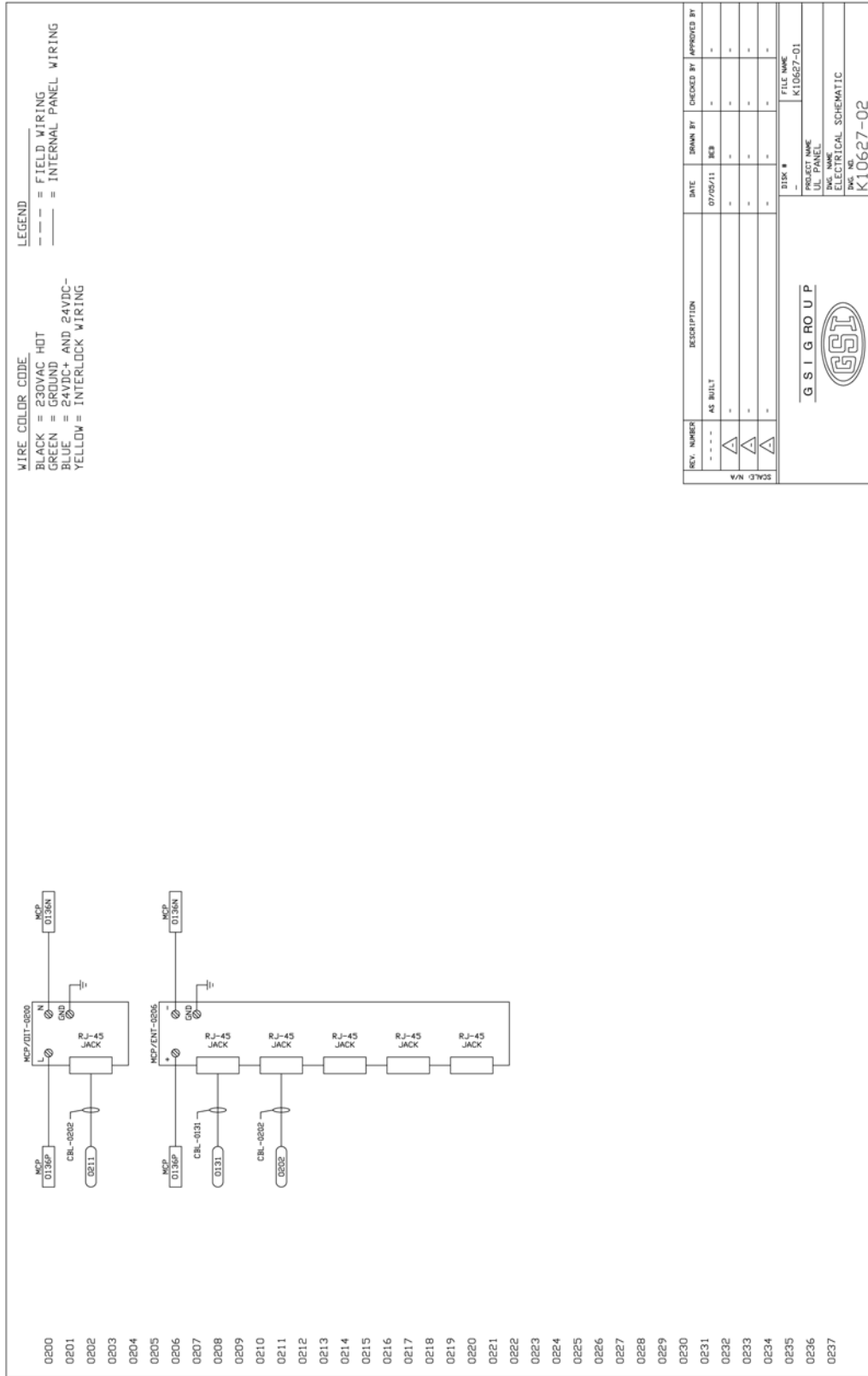


6. Schematic and Wiring Diagrams

White Panel Electrical Schematic



White Panel Electrical Schematic (Continued)



NOTES

Limited Warranty — N.A. Grain Products

The GSI Group, LLC. (“GSI”) warrants products which it manufactures, to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months from the date of shipment (or, if shipped by vessel, 14 months from the date of arrival at the port of discharge). If, in GSI’s sole judgment, a product is found to have a defect in materials and/or workmanship, GSI will, at its own option and expense, repair or replace the product or refund the purchase price. This Limited Warranty is subject to extension and other terms as set forth below.

Warranty Enhancements: The warranty period for the following products is enhanced as shown below and is in lieu of (and not in addition to) the above stated warranty period. (Warranty Period is from date of shipment.)

	Product	Warranty Period
Storage	Grain Bin Structural Design • Sidewall, roof, doors, platforms and walkarounds • Flooring (when installed using GSI specified floor support system for that floor) • Hopper tanks (BFT, GHT, NCHT, and FCHT)	5 Years
Conditioning	Dryer Structural Design – (Tower, Portable and TopDry) • Includes (frame, portable dryer screens, ladders, access doors and platforms)	5 Years
	All other Dryer parts including: • Electrical (controls, sensors, switches and internal wiring)	2 Years
	All Non-PTO Driven Centrifugal and Axial Fans	3 Years
	Bullseye Controllers	2 Years
Material Handling	Bucket Elevators Structural Design	5 Years
	Towers Structural Design	5 Years
	Catwalks Structural Design	5 Years
	Accessories (stairs, ladders and platforms) Structural Design	5 Years

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The sole and exclusive remedy for any claimant is set forth in this Limited Warranty and shall not exceed the amount paid for the product purchased. This Warranty only covers the value of the warranted parts and equipment, and does not cover labor charges for removing or installing defective parts, shipping charges with respect to such parts, any applicable sales or other taxes, or any other charges or expenses not specified in this Warranty. GSI shall not be liable for any other direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. Expenses incurred by or on behalf of a claimant without prior written authorization from the GSI warranty department shall not be reimbursed. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor. Prior to installation, the end-user bears all responsibility to comply with federal, state and local codes which apply to the location and installation of the products.

This Limited Warranty extends solely to products sold by GSI and does not cover any parts, components or materials used in conjunction with the product, that are not sold by GSI. GSI assumes no responsibility for claims resulting from construction defects, unauthorized modifications, corrosion or other cosmetic issues caused by storage, application or environmental conditions. Modifications to products not specifically delineated in the manual accompanying the product at initial sale will void all warranties. This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained.

Notice Procedure:

In order to make a valid warranty claim a written notice of the claim must be submitted, using the RMA form, within 60 days of discovery of a warrantable nonconformance. The RMA form is found on the OneGSI portal.

Service Parts:

GSI warrants, subject to all other conditions described in this Warranty, Service Parts which it manufactures for a period of 12 months from the date of purchase unless specified in Enhancements above.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

G S I G R O U P



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