

# WARNING

DO NOT install, operate or service product unless you have read and understand the Safety Procedures, Warnings, Installation and Operating instructions contained in this manual. Failure to do so could result in serious injury and/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 AND/OR DEATH.

# **WARNING**

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY AND/OR DEATH.



KEEP THIS MANUAL AND ALL SAFETY PROCEDURES IN A SECURE LOCATION WITH EASY ACCESS.



WARNING! READ AND UNDERSTAND THIS ENTIRE MANUAL PRIOR TO OPERATING.



WARNING! DOCK EQUIPMENT CAN BE A POTENTIAL THREAT PERSONS AND PROPERTY, IF NOT USED PROPERLY. SAFE OPERATOR.



WARNING! DO NOT ENTER THE AREA IN FRONT OF OR BELOW THE DOCK LEVELER. SERIOUS PERSONAL INJURY AND/OR DEATH MAY RESULT.



WARNING! DO NOT ATTEMPT TO INSTALL, MAKE REPAIRS OR ADJUSTMENTS. ONLY A TRAINED AND AUTHORIZED SERVICE TECHNICIAN SHOULD PERFORM REPAIRS OR ADJUSTMENTS. ONLY A QUALIFIED CONTRACTOR/SUB-CONTRACTOR SHOULD PERFORM THE INSTALLATION PROCESS. CONTACT YOUR LOCAL PIONEER DEALER FOR ASSISTANCE.

# **Safety Procedures**



WARNING: Read and understand all safety practices and operating instructions Before installing, operating, or servicing the dock equipment. Failure to follow the safety practices and operating instructions may result in property damage, serious bodily injury and/or death.

If you do not understand the safety procedures or the instructions, ask your supervisor to explain the safety procedures and/or teach you how to use the dock equipment.



CAUTION: The installer and/or operator MUST be very familiar with the operation, function, and various parts of the PIONEER's Pit Leveler and Vehicle Restraint PRIOR to installation and/or operation. If this is not the case, it is IMPERATIVE that the installer and/or operator read, and fully understand, the entire contents of this manual. **Be certain to read and understand all warning and caution statements contained in this manual prior to any installation, operation, or servicing of this unit.** 

- 1. Do not operate this equipment while under the influence of drugs or alcohol.
- 2. Do not stand in the driveway between the dock leveler and/or vehicle restraint as a truck is backing or pulling away.
- 3. Be sure the truck wheels are chocked, or the truck is held in place by a restraining device, before attempting to load or unload the truck.
- 4. Do not use the dock leveler and/or vehicle restraint if it looks broken or does not seem to work right. Tell your supervisor immediately.
- 5. Do not operate the leveler with equipment, material, or people on the platform and/or lip or in front of the leveler.
- 6. Be certain that equipment, material, or people are not on the dock leveler before allowing a truck to pull out.
- 7. Keep clear of the dock leveler and/or vehicle restraint when it is moving. Never place your hands, arms, feet, or legs in the position where a moving dock leveler or a moving load could cause injury. If in doubt, do not do it!
- 8. If the dock leveler and/or vehicle restraint is not working properly, using the operation instructions in this manual; do not use the dock leveler and/or vehicle restraint. Contact your authorized PIONEER representative.
- 9. Never attempt to work under the dock leveler, for service or repair, without proper placement of safety bracing.
- 10. Never attempt to work on the vehicle restraint, for service or repair, without proper placement of traffic barricades.
- 11. Never attempt to work on or re-wire the SMART+ Versa Panel.
- 12. Damage to the dock leveler and/or vehicle restraint, personal injury or death can result from abuse and/or negligent use of this equipment.
- 13. If you have any questions, or if a malfunction occurs which is not understood, ask your supervisor to contact your authorized PIONEER representative for assistance PRIOR to attempting any corrective measures.



- \*\*Before doing any electrical work, make certain the power is disconnected and properly tagged or locked out.
- \*\*All electrical work must be done by a qualified technician and must meet all applicable codes.
- \*\*If it is necessary to make troubleshooting checks inside the control panel with the power on, USE EXTREME CAUTION.
- \*\*Do Not place fingers or uninsulated tools inside the control box. Touching wires or other parts inside the control box could cause electrical shock, serious injury and/or death.



- Before loading or unloading a trailer, while using the truck restraint, ALWAYS inspect to be sure that the R.I.G. is functional so that it can be captured by the truck restraint. If a condition occurs that cannot be remedied by backing the trailer firmly against the dock bumpers, secure the trailer by other means.
- Be sure the area around the housing assembly is free of all objects, debris, or any other obstructions.
- ALWAYS operate the truck restraint from the top of the dock.
- Inspect all restraint lights daily to make certain they work properly.
- SMART+™Versa Panel should only be operated by authorized personnel who have read and understand the Owner's Manual.

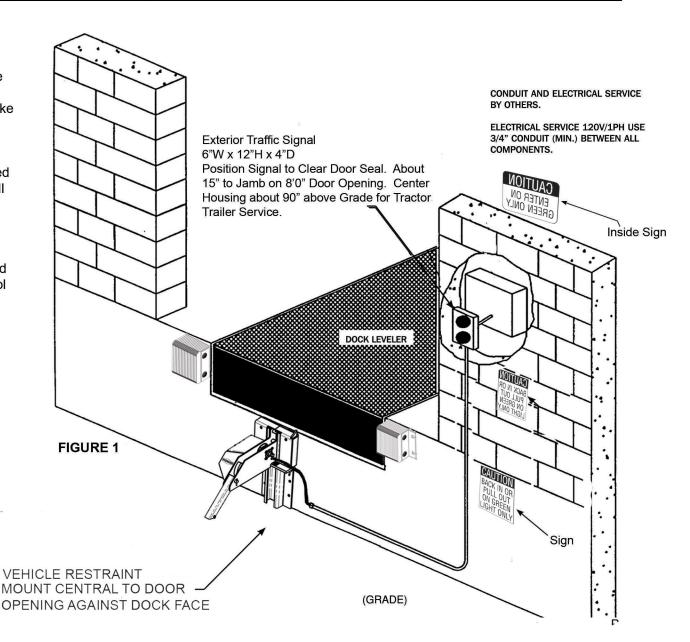
## ARRANGEMENT OF THE DOCK AREA

#### Standard Applications:

- Install the control panel on a wall adjacent to the overhead door at approximately 48 in. - 50 in. (1219 mm - 1270 mm) above the floor level. Make sure to mount where control panel is clear of obstructions.
- Drill a hole for the power supply conduit (supplied by others) in the bottom of the control panel. All holes drilled through the control panel must be through the bottom of the enclosure.
- Fused disconnect must be installed per latest edition of UL508A and NEC requirement, located within a 50' radius and be visible from the control panel location.



When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.



### **SECTION 1**

## **ELECTRICAL INSTALLATION INSTRUCTIONS**

#### MOUNTING CONTROL PANEL AND OUTSIDE LIGHTS

Mount Operator Station/Control Panel in a convenient location which will provide a good view for dock attendant of loading area. We recommend left side of opening looking "out" as shown in dock arrangements diagram as this simplifies installation. Right side of doorway mounting is fine if installation conditions warrant.

Mount exterior traffic light on truck driver's side of exterior wall (left side facing out) in area clearly visible to driver. Be certain to offer clearance for future or current installations of seal/shelter products. Light housing should be 90" above grade as noted on arrangement diagram.

Factory pre-wired junction box is inside Restraint console to harbor wire connections where control and motor leads from Operator Station will join prewired leads from console components.

Route conduit and connectors (supplied by electrical installer) to join console unit, restraint console and exterior traffic light (wire also to be supplied by installer). Make connections per diagram inside light box.

Install trucker's instruction signs above and below traffic light where clearly visible to incoming traffic.

Supply and connect incoming electrical power to terminals within operator station.

# **▲**WARNING

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

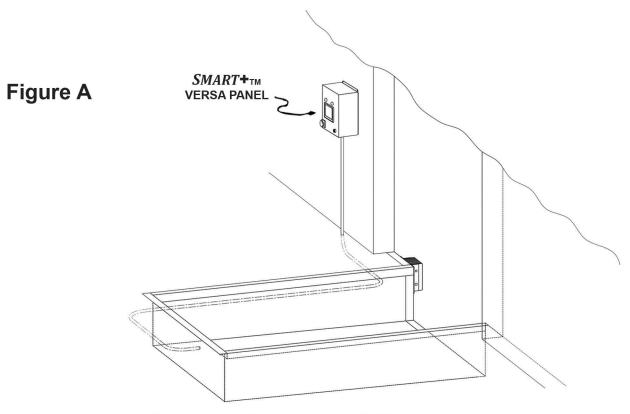
#### FIELD WIRING THE SMART+TM VERSA PANEL

The  $SMART+_{TM}$  Versa Panel comes pre-wired, ready for field installation. All field wiring is wired directly to the terminal strip provided. (See electrical drawings) It shows where to land the cable leads in the  $SMART+_{TM}$  Versa Panel.

There are three items that need to be wired in the field, power, outside lights, and the motor.

#### **Outside Light**

The outside light has 3 wires, one for red, one for green, and one common. Make sure that the wire for the red outside light is landed on terminal, Red Out. The wire for the green outside light should land on the Green Out terminal. The common wire for the outside lights should land on the 0 VDC terminal.



- 1. Install SMART+TM Versa Panel on wall near pit. (See Figure A)
- 2. Install wire leads for motor and proximity sensors per wiring diagram.

Wire must be installed through conduit. (Wire and Conduit to be supplied by others.) Additional wire leads may be used to supply temporary power to leveler from *SMART*+<sub>TM</sub> Versa Panel. Wires for motor must be long enough to reach mid section of leveler while in front of opening. This extra may be cut back and discarded after installation. (It is not necessary to hook up proximity sensors for this test.)

# **SMART**+ Versa Panel Order of Operation

Touch HMI Screen to bring up the Dock Equipment menu.

#### **Opening Door:**

- 1. Select the door option from the main menu (See Figure 1)
- 2. Hold the **open icon** until door is completely open (See Figure 2).

#### **Engaging Truck Restraint:**

- Select restraint option from the door screen or main menu.
- 2. Press and release the hook up icon (see Figure 3).
- 3. Visually confirm restraint has engaged the R.I.G. bar and signal lights have changed.

#### **Operating the Leveler:**

- 1. Select the leveler option from the restraint screen or main menu.
- 2. Press and hold the **operate icon** until the dock leveler fully ascends and extends the lip (see Figure 4).
- 3. Allow the leveler to descend onto the truck bed.

#### Storing the Leveler:

- 1. Press and hold the **operate icon** until the unit is high enough to store properly back in the lip keepers (see Figure 4).
- 2. Allow unit to descend into lip keepers

#### Releasing Restraint:

- 1. Select the **restraint option** from the **leveler screen** or the **main menu**.
- 2. Press and release the **hook down icon** (see Figure 3).
- 3. Visually ensure hook has cycled back into the stored position and panel signal lights have changed.

#### **Closing the Door:**

- 1. Select the door option from the restraint screen or main menu.
- 2. Press and hold the **close icon** until door is fully closed (see Figure 2).

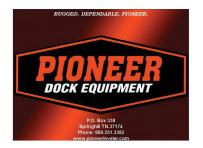






Figure 1

Figure 2







Figure 4

NOTE: The door must be completely opened, and restraint must be engaged for dock leveler to operate.

SECTION 2	Smarr+™ Versa Panel	OPERATING INSTRUCTIONS NORMAL RECYCLE PROCEDURE			
RECYCLE PROCEDU	RE WITH TRUCK AT DOCK:				
1. Press and hold the OPERATE icon.		Hold the icon until the platform partially raises and lip is fully withdrawn from truck.			
2. Release the OPEI	RATE icon.	Leveler will descend to stored, cross traffic position.			

SECTION 2 SMART+™ Versa Panel	OPERATING INSTRUCTIONS BELOW DOCK OPERATION				
LIP EXTENDED ONTO TRUCK FOR UNLOADING BELOW DOCK:					
Touch selector icon so it indicates Normal mode.					
Press and hold the OPERATE icon.	Wait until the platform raises and the lip fully extends.				
	With optional LIP OUT icon, simply allow leveler to rise above floor of truck, then also touch LIP OUT icon. Deck will stop and lip will extend.				
3. Release the OPERATE icon (and optional LIP OUT icon.)					
Touch the selector icon from Normal to Below Dock mode while leveler is descending.	Leveler will settle to truck floor as low as 12" below dock to service very low trucks without recycling.				



ALWAYS secure the truck with a vehicle restraint or wheel chocks before operating the dock leveler. DO NOT operate dock leveler with anyone standing on or in front of leveler. DO NOT drive on dock leveler or lip until it is fully extended and supported by the truck bed. ALWAYS keep hands and feet clear of all moving parts. ALWAYS re-store the leveler to its safe dock level position after servicing the truck.

## **OPERATION**

#### **ALARMS**

There are two (2) different fault conditions in which the alarm will be triggered. When either of these fault conditions exist, an alarm sounds and the lights on the *SMART*+<sub>TM</sub>Versa Panel blink in an alternating pattern. All alarms can be silenced by pressing the override icon on the vehicle restraint screen. The conditions that cause alarms are given below.

1) The hook does not rotate far enough to engage the R.I.G.

If the hook comes to a stop before fully engaging the R.I.G., the alarm will sound, signaling that the hook did not engage the R.I.G. To get out of this condition, press the override icon on the truck restraint screen. This turns off the alarm and allows the operator to move the hook by pushing the hook up or hook down icons.

2) The hook over travels to the upper travel limit and does not engage the R.I.G.

If the hook travels to the upper stop without engaging the R.I.G., the alarm will sound, signaling that the hook did not engage the R.I.G. To get out of this condition, press the override icon on the truck restraint screen. This turns off the alarm and allows the operator to move the hook by pushing the hook up or hook down icon.

If either of these situations occurs and the alarm sounds, visually check the restraint hook / R.I.G. interface. If the truck is noted to have an unusually located, missing, or obstructed R.I.G., press the override icon and utilize other measures to secure the trailer prior to loading and unloading. If the trailer is not firmly parked against the dock bumpers, retract the hook, have a trailer back up, and repeat the engagement procedure.

## **MAJOR COMPONENTS**

**Operating Station / Control Panel:** A fully -gasketed steel enclosure which houses the operating screen, the interior visual indicators and contains the electrical service which operate the motor(s) and the interior/exterior visual traffic signals.

**Exterior Traffic Lights:** Impact resistant enclosures for housing red and green visual traffic control indicators to display docking or no-go conditions for trucker. To open light housing, screw clamps must be loosened to service lights or wiring.

# SECTION 3 SMART + Versa Panel

**MAJOR COMPONENTS** 

HYDRAULIC FLUID CONTENT	Levelers are shipped filled with aircraft hydraulic fluid.			
ELECTRICAL Motor:	1 HP, 15 minute duty cycle			
SMART+™ Versa Panel:	Wall mounted metal box (16.75"x 14"x 8"), Meets N.E.M.A. 12, hinged cover for easy access.			
Proximity Sensor Controls:	Automatic Recycle Function, Below Dock Lip Control, 2 each Mode 8036A, Square D			

MOTOR VOLTAGE (AC)	PHASE	AMP DRAW (RUNNING)	POWER (amperage) REQUIREMENT
115	1	16.0	30
230	1	8.0	20
208-220-240	3	4.7	15
440-460-480	3	2.1	15

1 HP, 1 ph motor draws 25 amps to start motor.

To avoid voltage drop, Pioneer recommends #10 wire on short runs (45' or less) and #8 wire on long runs (72' or less). See page 8 for wire gauge chart.

Consult Code Requirements.

#### **CAUTION: A MOTOR CAN BURN OUT FOR ANY OF THE FOLLOWING REASONS:**

- 1. Hook up to incorrect line voltage.
- 2. Single phasing of polyphase motor caused by a blown fuse or loss of one leg of electrical supply.
- 3. Low voltage to motor due to insufficient line capacity. This is the most common with 110V, 1 ph operation.

# Choose the Right Gauge Wire

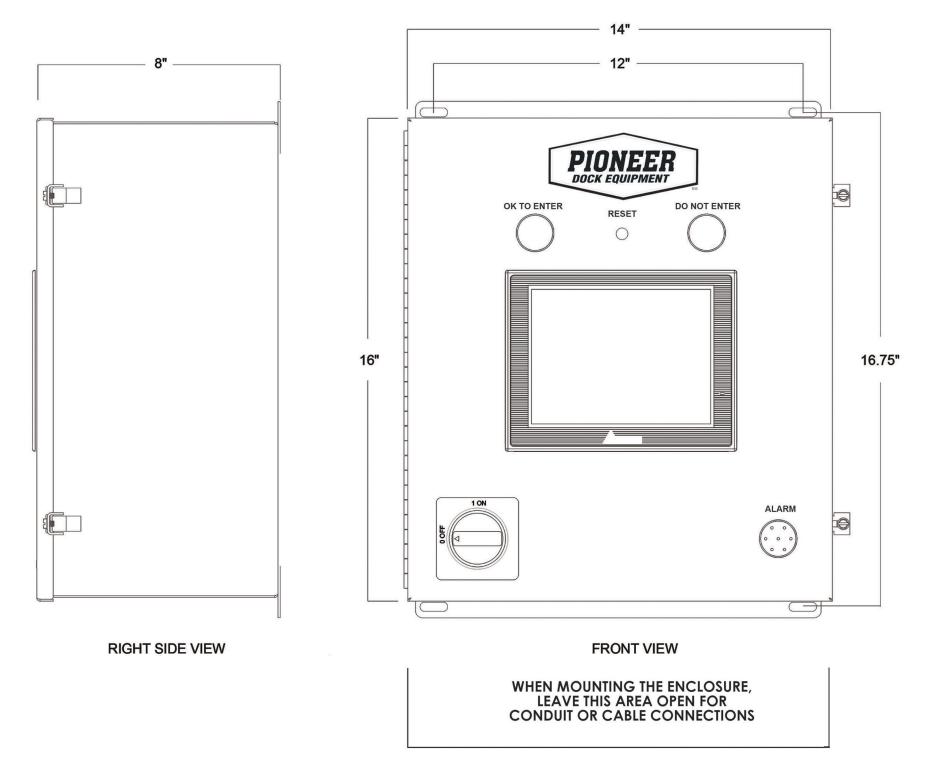
The correct wire gauge (size) for your project is based on the amperage, or power, required and the distance the wire travels. The chart below helps you determine what gauge wire you need. Remember, the smaller the number, the larger the wire. For example, a 6-gauge wire is larger than an 8-gauge wire.

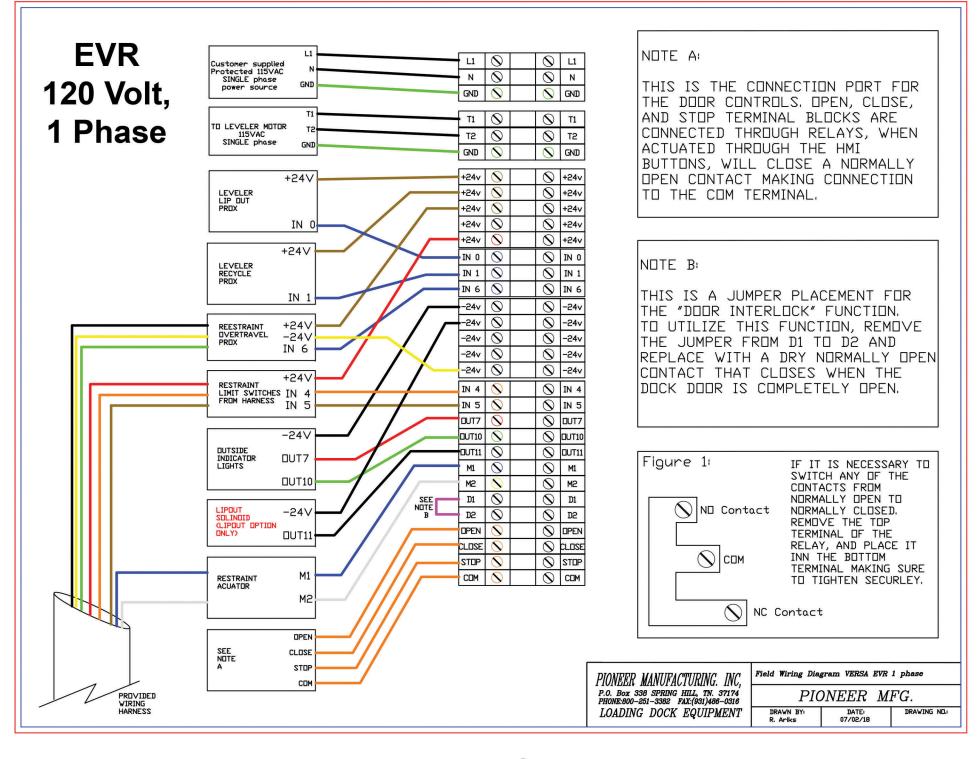
	GUAGE GUIDE FOR MAXIMUM ALLOWABLE WIRE LENGTH, 2% NOMINAL VOLTAGE DROP								
		COPPER CONDUCTORS							
AMPS	WATTS	UP TO 50'	UP TO 100'	UP TO 150'	UP TO 200'	UP TO 250'	UP TO 300'	UP TO 400'	UP TO 500'
15	1800	14 Gauge	12 Gauge	10 Gauge	6 Gauge	6 Gauge	6 Gauge	4 Gauge	4 Gauge
20	2400	12 Gauge	10 Gauge	8 Gauge	6 Gauge	6 Gauge	4 Gauge	4 Gauge	2 Gauge
30	3000	10 Gauge	8 Gauge	6 Gauge	6 Gauge	4 Gauge	4 Gauge	2 Gauge	2 Gauge
40	4800	8 Gauge	6 Gauge	4 Gauge	4 Gauge	2 Gauge	2 Gauge	1 Gauge	1/0 Gauge
50	6000	6 Gauge	6 Gauge	4 Gauge	4 Gauge	2 Gauge	1 Gauge	1/0 Gauge	2/0 Gauge

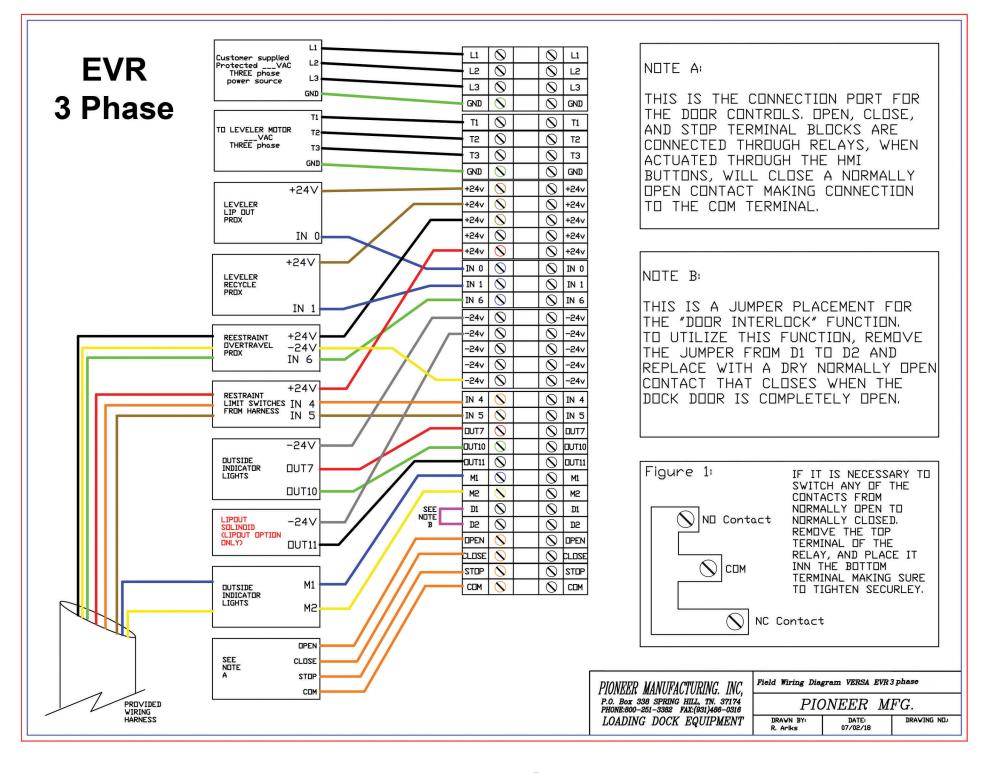
This information is provided as a general guideline only. For safe wiring practices consult the National Electric Code, local building codes and regulations, and your local building inspector. Always remember that installation of electrical wire can be hazardous and, if done improperly, can result in personal injury or property damage.

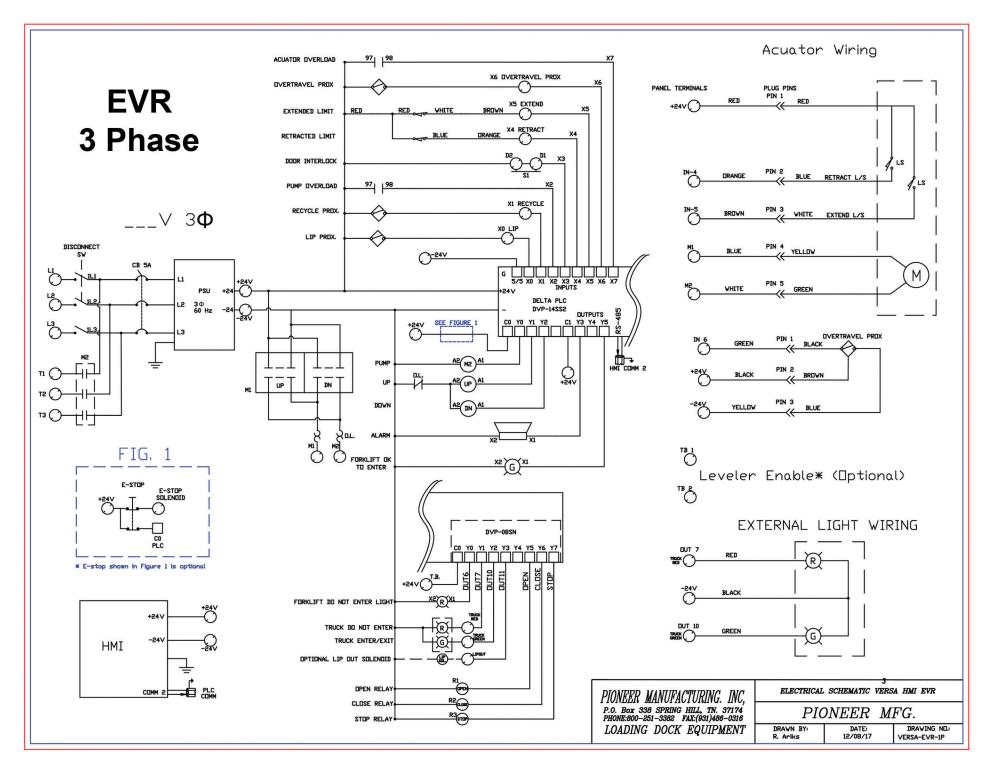
Canadian codes differ from the above charts. Check your provincial codes before completing your project

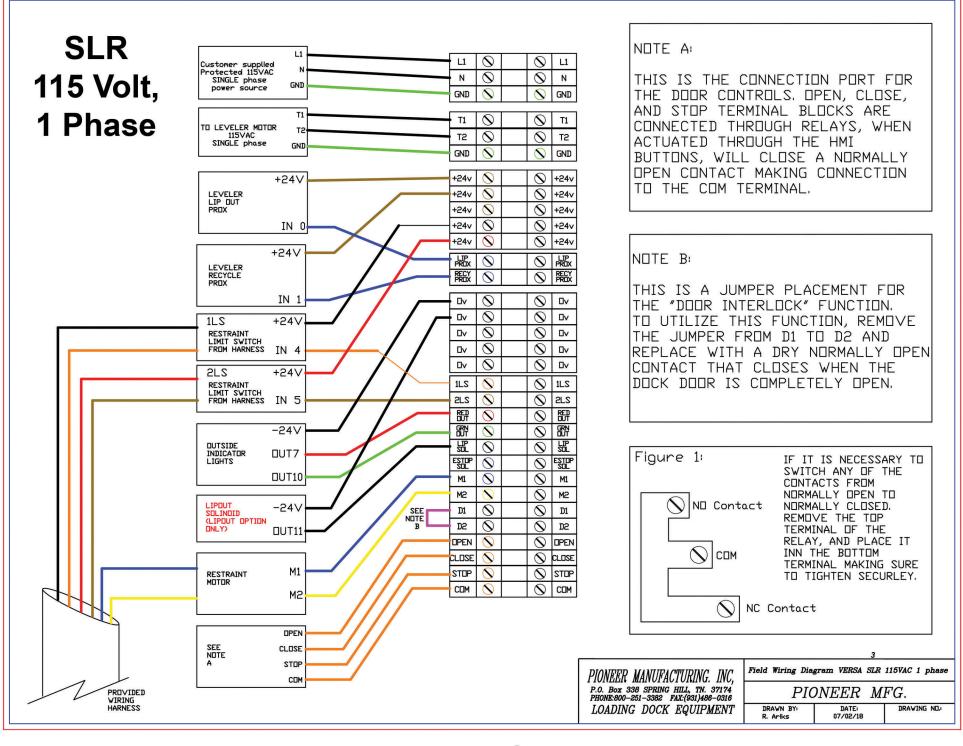
Chart and illustration provided and copyrighted by General Cable Technologies Corporation, makers of Romex(R) brand cable.

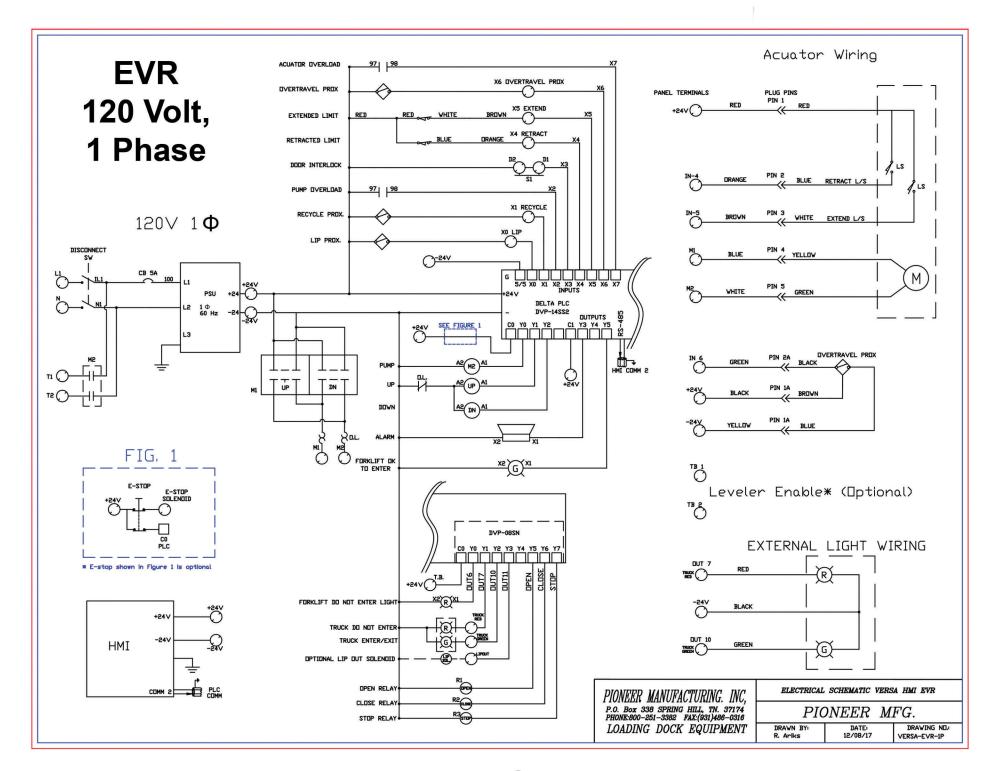


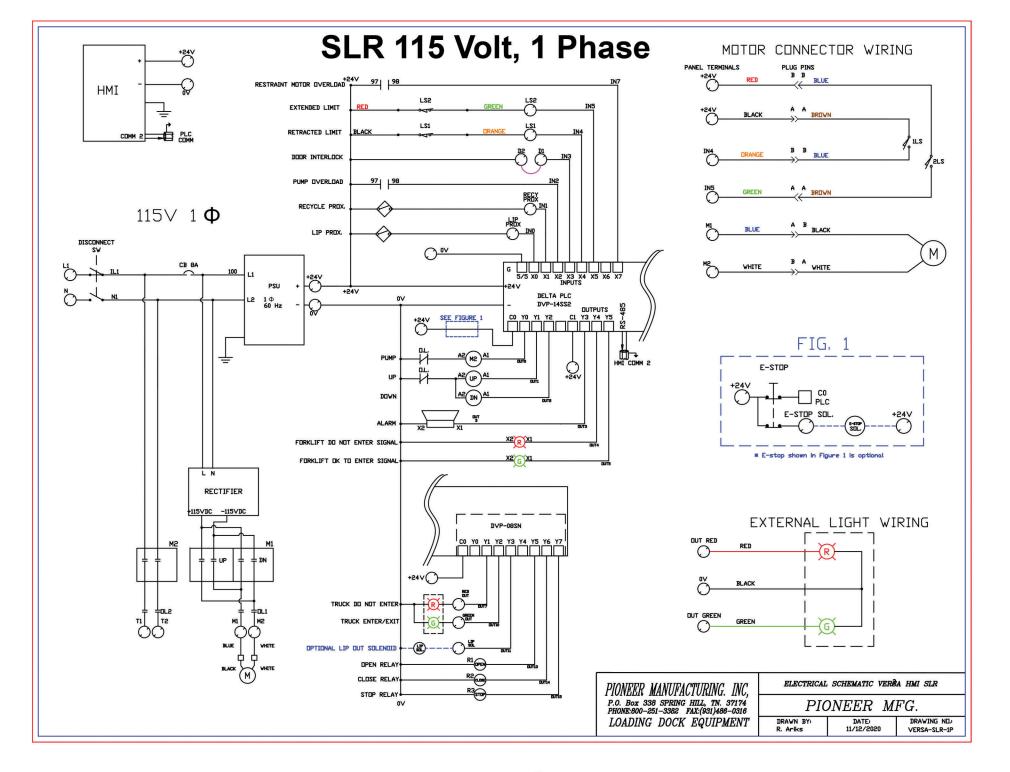


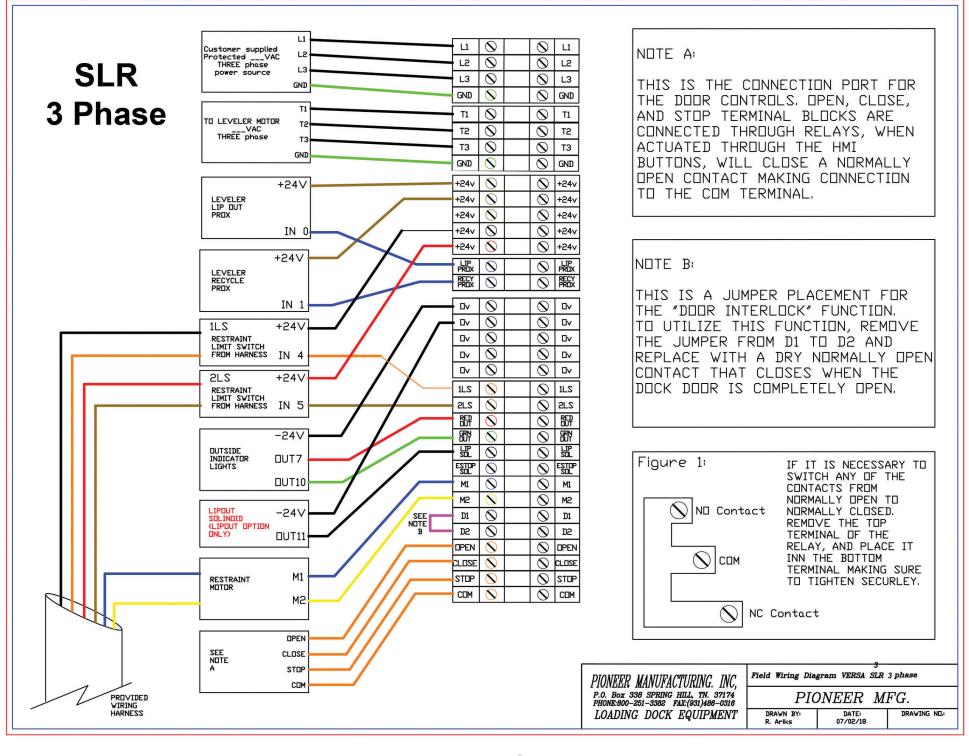


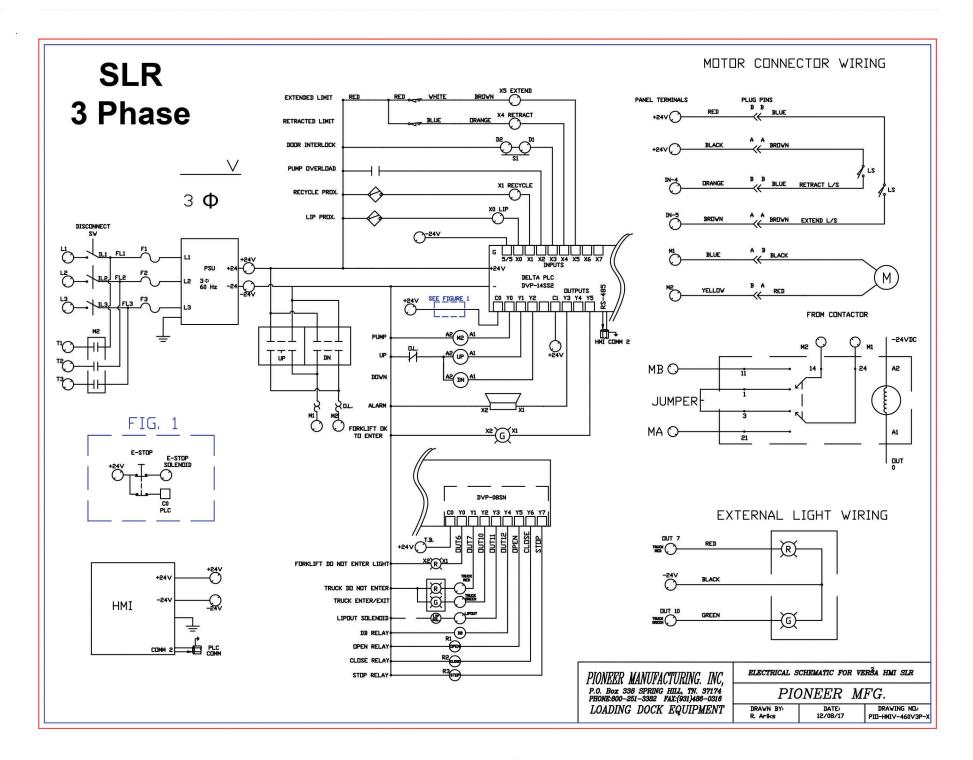














# **Warranty Procedure**

The information on the Warranty Claim Request Form must be provided with all warranty claims.

When a call is received with a warranty problem a Customer Service number (CSF ####) will be issued for that problem only and cannot be used again without prior approval. This number must be on all invoices submitted for payment and on all correspondence.

Before and after pictures of all the work performed must be supplied with each claim. If you take digital pictures, email them to <a href="mailto:connerh@pioneerleveler.com">connerh@pioneerleveler.com</a>. If you use a film camera forward the film to Pioneer Dock Equipment PO Box 338 Spring Hill TN 37174, Attn: Warranty Dept.

No claim will be considered for processing without the required information.

If warranty work is approved, Pioneer's warranty policy for labor requires a formal invoice from the company performing the warranty. Pioneer must receive the labor invoice within 30 days of warranty authorization. Once the invoice is approved by Pioneer, a check will be processed and mailed to the company performing the work.

## Replacement Part under Warranty

Any replacement parts will be invoiced and a credit will be given when the damaged parts are returned to Pioneer. Pioneer will determine the only exception, if the parts are not to be returned. A copy of the credit memo will be sent to your billing address. If a check payment is required, the request must be in writing. The request then has to be approved by Pioneer's accounts payable department.

Replacement parts will be sent at Pioneer's discretion either UPS ground or OTR truck. Any other request for shipments will be charged to the dealer. I.e. UPS next day- FedEx etc.

All returned parts will be issued a Return Goods Authorization Number (RGA ####). A form will be faxed to you with this number, the signed copy is to be faxed to 1-931-486-0316 or returned with the parts. The Return Authorization is only good for 30 days. The RGA # must be listed on all returns, using the RGA form as the packing list.

No credits will be issued without proper authorization. No Credit will be given on non-Pioneer parts.

A copy of the credit memo will be sent to your billing address. The credit will be given against the invoice issued for the replacement parts.

Any questions regarding Warranty or Return Authorization should be directed to Customer Service at connerh@pioneerleveler.com or 1-866-728-6195.

## WARRANTY

PIONEER MANUFACTURING, INC. guarantees its SMART Versa Panel to be free from defects in materials and workmanship for a period of one (1) full year from date of shipment.

A claim for breach of warranty will be honored if the product has been properly installed, maintained and operated and not damaged by abuse.

PIONEER will exchange or repair any component found to be defective in nature.

PIONEER MANUFACTURING, INC.. SHALL NOT BE LIABLE FOR LOSS OF USE OF ANY EQUIPMENT OR INCIDENTAL DAMAGES.

Pioneer reserves the right to make product improvement at any time without prior notice.

Warranty Phone # 1-866-728-6195