



EPEQ® Electrified Power Equipment®
45 CFM Rotary Screw Air Compressor
Manual Part Number: 6210004
Replaced by 090205



USER GUIDE

OPERATION MANUAL AND SERVICE PARTS LIST KEEP THE MANUAL WITH THE VEHICLE

NOTE: Read this manual before installing, operating or servicing this equipment. Failure to comply with the operation and maintenance instructions in this manual will VOID THE EQUIPMENT WARRANTY.

This publication contains the latest information available at the time of preparation. Every effort has been made to ensure accuracy. Vanair®, a Lincoln Electric Company, reserves the right to make design change modifications or improvements without prior notification.

Making unauthorized modification to the system components WILL VOID THE WARRANTY! Always contact Vanair® before beginning any changes to the EPEQ® AIR45 Compressor Series system.

EPEQ® ELECTRIFIED POWER
EQUIPMENT®

EXCLUDES
ELIEMENT® BATTERY



VANAIR® VANTAGE
WARRANTY

This limited warranty supersedes all previous Vanair® warranties and is exclusive with no other guarantees or warranties expressed or implied.

LIMITED WARRANTY—Subject to the expressed terms and conditions set forth below, Vanair®, a Lincoln Electric Company ("Vanair"), of Michigan City, Indiana (USA), warrants to the original retail purchaser of new Vanair® equipment that such equipment is free from defects in materials and workmanship when shipped by Vanair®.

For warranty claims received by Vanair® within the applicable warranty periods described below, Vanair® will repair or replace any warranted equipment, parts or components that fail due to defects in material or workmanship or refund the purchase price for the equipment, at Vanair's discretion. Vanair® is not responsible for time or labor to gain access to the machine to perform work. WARRANTY WILL BE VOID IF GENUINE VANAIR® PARTS AND FLUIDS ARE NOT USED.

Vanair® must be notified in writing within thirty (30) days of any such defect or failure. **All warranty or returns must be pre-authorized in writing prior to performing warranty work.** Call Vanair® for process and forms. Vanair® will provide instructions on the warranty claim procedures to be followed.

Warranty will commence upon receipt of the Warranty Registration Card. If the Warranty Registration Card is not received within six (6) months of shipment from Vanair®, the warranty commencement date shall be thirty (30) days from the date of shipment from Vanair®. Records of warranty adherence are the responsibility of the end user.

1. Inverters: 1 Year Parts / 1 Year Labor
2. Converters: 1 Year Parts / 1 Year Labor
3. Chargers: 1 Year Parts / 1 Year Labor
4. Electric Motors: 1 Year Parts / 1 Year Labor
5. EPEQ® Lithium Welder: 1 Year Parts / 1 Year Labor
6. Alternators: 1 Year Parts / 1 Year Labor
7. Compressor Air End:
 - Rotary Screw: Lifetime with Vanair® Authorized Service Kits and Lubricants : 3 Years Labor
 - Reciprocating: 3 Years Parts / 1 Year Labor
 - Scroll: 1 Year Parts / 1 Year Labor
8. Hydraulic Pumps/Motors: 2 Years Parts / 1 Year Labor
9. 1 Year Parts/Labor on the following:
 - All electronics and controls including, but not limited to:
 - (i) I/O Boards
 - (ii) Modules
 - (iii) Panel Boxes
 - (iv) Instrumentation
 - (v) Clutches
 - (vi) Solenoids
 - (vii) Running Gear/Trailers
 - (viii) Cooler Cores and Fans
 - (ix) Battery Management Systems and Controllers

This Limited Warranty shall not apply to:

1. Consumable components, such as: shaft seals, valves, belts, filters, capacitors, contactors, relays, brushes, wire or parts that fail due to normal wear and use.
2. Items furnished by Vanair®, but manufactured by others, such as engines and trade accessories (these items are covered by the manufacturer's warranty, if any).
3. Equipment that has been modified by any party other than Vanair® or equipment which has not been used and maintained in accordance with Vanair's specifications.

4. Equipment which has been improperly installed and/or improperly operated, based upon Vanair's specifications for the equipment or industry standards.
5. Equipment installed by non-authorized or third party personnel. Vanair® products are intended for purchase and use by commercial/industrial users and persons trained and experienced in the use and maintenance of industrial equipment.

In the event of a warranty claim covered by this Limited Warranty, the exclusive remedies shall be, at Vanair's sole discretion: (i) repair; or (ii) replacement; (iii) where authorized in writing by Vanair® in appropriate cases, the reasonable cost of repair or replacement at an authorized Vanair® service facility; or (iv) payment of (or credit for) the purchase price (less reasonable depreciation based upon actual use) upon return of the equipment at the warranty claimant's risk and expense. Vanair® will pay standard ground freight for any warranty item shipped to and from Vanair® or (Vanair® designated facility) within the first year of the applicable warranty period. Any additional expedited freight cost is the responsibility of the purchaser.

TO THE GREAT EXTENT PERMITTED BY APPLICABLE LAW, THE REMEDIES PROVIDED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES APPLICABLE TO THE VANAIR® EQUIPMENT. IN NO EVENT SHALL VANAIR® BECOME LIABLE FOR DIRECT, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT OR LOST BUSINESS OPPORTUNITY), WHETHER BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY. IN NO EVENT SHALL VANAIR® BECOME OBLIGATED TO PAY MORE ON ANY WARRANTY CLAIM THAN THE PURCHASE PRICE ACTUALLY PAID BY THE ORIGINAL RETAIL PURCHASER.

THIS LIMITED WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTY OR GUARANTY ARISING BY OPERATION OF LAW. ANY WARRANTY NOT EXPRESSLY PROVIDED HEREIN, IMPLIED WARRANTY, GUARANTY AND ANY REPRESENTATION REGARDING THE PERFORMANCE OF THE EQUIPMENT, AND ANY REMEDY FOR BREACH OF CONTRACT, IN TORT, OR ANY OTHER LEGAL THEORY WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE, OR COURSE OF DEALING ARE EXCLUDED AND DISCLAIMED BY VANAIR®.

Some states in the United States of America do not allow limitations of how long an implied warranty lasts, or the exclusion of incidental, indirect, special or consequential damages, and as such, the above limitations and exclusions may not apply to you. This warranty provides specific legal rights. Other rights may be available to you, but may vary from state to state.

In Canada, legislation in some provinces provides for certain additional warranties or remedies other than as stated herein, and to the extent that they may not be saved, the limitations and exclusions set out forth above may not apply. This Limited Warranty provides specific legal rights, and other rights may be available, but may vary from province to province.

**ALL WARRANTY OR
RETURNS MUST BE
PRE-AUTHORIZED PRIOR
TO PERFORMING
ANY WARRANTY WORK.**

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EFFECTIVE: MAY 20, 2022



Warranty & Claims Procedure

WARRANTIED VANAIR® PARTS

This process must be used by owners of Vanair® equipment in situations where a warrantied item needs repair or replacement under the terms of the purchase warranty. Do not return items to Vanair® without prior authorization from the Vanair® Warranty Administrator.

PROCEDURE: Customers needing assistance in troubleshooting a system and/or returning parts, please follow the steps below.

Locate the machine's serial number(s). (Serial numbers are listed on the invoice and on the Serial Plate affixed to the compressor itself, inside the canopy.)

Make a list of the symptoms/condition/malfunctions noticed along with any applicable temperature and pressure readings, and also the number of operational hours if available:

Note that the above information is required on the RMA (Return Material Authorization) form; necessary for warranty processing if the warranty claim is deemed valid by the service case review.

Contact the Vanair® Service Department by phone (1-844-VANSERV or 1-219-879-5100) to speak with a service technician.

Vanair® Service will troubleshoot the problem based on the information provided by the customer, and attempt to return the unit to service as quickly as possible.

If the unit cannot be returned to service, and Vanair® determines this matter is a warranty issue, the Service Technician will assign an RMA number that will provide for the return of the item to Vanair® for analysis and a final determination as to the item's warranty status.

Warranty Claims are solicited via a Return Material Authorization (RMA) form. This form can be obtained via download from the web site, or requested directly from the Vanair® Service Department.

- Once a blank RMA form has been obtained, follow the instructions given on the form to fill in the information needed. This form is used for the purpose of requesting a warranty case.
- All of the field information (except for the bottom section block fields which includes Disposition of Goods, Notifications and Additional Notes) will be required.

IMPORTANT NOTES:

Once a Return Merchandise Authorization (RMA) has been issued, the customer has 30 days to return that item or parts to the Vanair® Service Department. After 30 days, it becomes void and any claims under it will be denied. The customer is responsible for requesting a new RMA.

All estimated labor costs, invoices, and the cost of the repair must be approved by the Vanair® Warranty Administrator prior to starting any repair work. All paperwork associated with the returned item and warranty repair cost must reference the RMA number issued against the part, and be forwarded to Vanair® within 30 days of the completion of work.

The RMA number must appear and be legible on the outside of the package where it can be seen before being returned.

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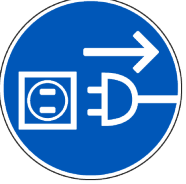
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SECTION 1: Safety

	WEAR EYE PROTECTION (Flying debris or other eye hazard may be present)		EXPLOSIVE MATERIAL OR EXPLOSIVE HAZARD (Conditions or materials may exist that can cause explosion)
	WEAR HEARING PROTECTION (Harmful sound volume may be present)		HOT SURFACE WARNING (Surfaces may be hot - use caution, proper protection or allow to cool before handling)
	READ INSTRUCTIONS OR MANUAL		ROTATING OR MOVING PARTS WARNING (Moving/rotating parts present, may cause damage or physical injury)
	DISCONNECT POWER (Disconnect from power to avoid accidental start or avoid electrical current)		HAND ENTANGLEMENT WITH BELT DRIVE WARNING (Belt drive present, use caution to avoid pinch points and personal injury)
	WEAR PROTECTIVE GLOVES (Chemical, thermal or harmful conditions may exist that may be harmful to bare hands)		AUTOMATIC START UP WARNING (Equipment can start up/run automatically without warning)
	DO NOT EXTINGUISH WITH WATER (Water may spread, cause harm or further damage when used on certain types of fires)		BURST / PRESSURE RELEASE WARNING (High pressure condition may exist that can cause equipment to burst or cause bodily injury)
	GENERAL CAUTION OR WARNING (Important information regarding cautions or warnings)		BATTERY CHARGING WARNING (Beware of heat, leaks & harmful gas around certain types of batteries being charged)
	ELECTRICAL SHOCK / ELECTROCUTION HAZARD (Electricity and electrical circuits present that may cause electrical shock or sparking)		FLAMMABLE MATERIAL / FIRE HAZARD WARNING (Conditions and/or materials exist that may be flammable or cause a fire)

NOTE:

For parts, service or technical assistance, make sure you have the **Serial Number** and **Model Number** of the unit. Please record the information in the spaces below for future reference.

Serial Number:	
Model Number	

1.1 EPEQ® AIR45 - 45 CFM ROTARY SCREW AIR COMPRESSOR

The EPEQ® AIR45 is an electrically driven rotary screw air compressor designed to provide reliable, quiet, clean, compressed air output at 30-45 CFM at 150 PSI max. when paired with two (2) ELiMENT® 48V DC 100 Ah Batteries. All controlled by the Vanair® EPEQ® Smart Display. Ideal for air on demand.

1.2 GENERAL INFORMATION

The products provided by Vanair® Manufacturing, Inc. are designed and manufactured for safe operation and maintenance. Ultimately, the responsibility for the safe use of this equipment belongs to those using and maintaining the equipment. Part of that responsibility is to read and become familiar with the contents of this manual before attempting to use it or perform maintenance actions.

IMPORTANT: Read this manual before operating or servicing the EPEQ® AIR45 system. Failure to do so, could result in damage to the equipment, bodily injury or even death.

1.3 INTERNATIONAL SAFETY SYMBOL



The symbols shown and defined in **Section 1: Safety** are used throughout this manual to call attention to and identify possible hazards.

The international warning symbol shown above is used on all decals, labels and signs that contain information pertaining to bodily harm. When you see this symbol, pay very careful attention and follow the given instructions or indications to avoid any possible hazard.

1.4 DANGERS, WARNINGS CATIONS & NOTICES

1.4.1 MOVING PARTS CAN CAUSE INJURY



- Keep hands, clothing, loose jewelry, long hair, or loose objects away from fans, belts and any rotating parts. Keep all doors, panels, covers and guards closed and securely in place.



- Stop engine before installing or connecting unit.
- Disconnect the AIR45 from the battery to prevent accidental start-up during servicing.
- Have only qualified people remove the doors, panels, covers or guards for maintenance and troubleshooting if necessary.



- Keep hands, hair, loose clothing, jewelry, and tools away from moving parts.
- Replace or close any opened or removed panels, covers, doors, or guards after service or maintenance has been completed and **BEFORE** starting engine.

1.5 COMPRESSED AIR HAZARDS



DANGER

Identifies actions or conditions which, if not avoided, will cause death or severe bodily injury.



WARNING

Identifies actions or conditions which, if not avoided, could cause death or severe bodily injury.



CAUTION

Identifies actions or conditions which, if not avoided, could cause minor or moderate bodily injury.

NOTICE

Additional information (or existing information) which should be brought to the attention of operators/maintainers affecting safety, operation, maintenance or warranty requirements.

1.5.1 BREATHING

COMPRESSED AIR CAN CAUSE SERIOUS INJURY OR DEATH



- Air from reciprocating compressors often contain harmful gases, oil particulates and other contaminants. **Do not use compressed air from this machine as breathing air.**

- Use only for cutting, gouging and operating tools.

1.5.2 COMPRESSED AIR CAN CAUSE INJURY



- Wear approved safety eye protection.
- Do not direct air stream towards self or others. Bits of debris can be propelled at high speed by the air stream.

1.5.3 TRAPPED AIR PRESSURE AND WHIPPING HOSES CAN CAUSE INJURY

Release air pressure from tools and system before servicing, adding or changing attachments, or opening compressor oil drain or oil fill cap.

1.5.4 HOT PARTS CAN CAUSE SEVERE BURNS



- Do not touch hot parts with bare hands.
- Allow cooling period before working on equipment.

1.5.5 READ INSTRUCTIONS



- Read Operation Manual before using or servicing this unit.
- Stop engine and release air pressure before servicing.
- Use only genuine Vanair®, or Vanair® approved AIR45 replacement parts.

1.6 ADDITIONAL SYMBOLS FOR INSTALLATION, OPERATION AND MAINTENANCE

1.6.1 FALLING UNIT CAN CAUSE INJURY



- Use lifting bail to lift unit and its properly installed accessories only. (See *Figure 1-2: AIR45 Dimension Diagram* to locate lifting bail access panel.)
- Lift and support unit only with proper equipment and correct procedures.
- If using lift forks to move unit, be sure the forks are long enough to extend beyond the opposite side of the unit.

1.6.2 OVERUSE CAN CAUSE OVERHEATING



- Unit gets hot during normal operation.
- Unit monitors operating temperature and may reduce output in extreme temperatures in effort to prevent heat damage to this compressor.
- If overheating should occur in extreme conditions, pause operation and allow unit to cool.
- Do not block or restrict airflow to the unit.

1.6.3 TILTING OF TRAILER CAN CAUSE INJURY



- If using a trailer, use a tongue jack or blocks to support weight to prevent the trailer from tipping.
- Properly install unit onto trailer according to instructions supplied with the trailer.

1.6.4 READ DIRECTIONS



- Read Operation Manual before using or servicing unit.
- Stop engine and release air pressure before servicing.
- Use only genuine EPEQ® AIR45 replacement parts.

1.7 CALIFORNIA PROPOSITION 65 WARNINGS



WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

1.7.1 PRINCIPAL SAFETY STANDARDS

- National Electrical Code, NFPA Standard 70, from National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (phone: 617-770-3000, website: www.nfpa.org and www.sparky.org).
- Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 11West 42nd Street, New York, NY 10036-8002 (phone: 212-642-4900, web site: www.ansi.org).
- OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart Q, and Part 1926, Subpart J, from U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250 (there are 10 Regional Offices; (phone for Region 5, Chicago, is 312-353-2220, web site: www.osha.gov).

1.7.2 SAFETY DECALS



Safety decals are placed onto, or located near system components that can present a hazard to operators or service personnel. All pertinent decals listed in **Section 7.18, Decals – Location and Identification**, are located near components or access

paths. All information given on these decals is respect in terms of safety precaution and awareness of hazardous conditions. Always heed the information noted on the safety decals.



1.7.3 *DISPOSING OF MACHINE FLUIDS*



- Always dispose of machine fluids (such as used oil) under guidance of all applicable local, regional and/or federal laws.



- Vanair® encourages recycling when allowed. For additional information, consult the fluid product container.
- Consult **Section 5: Maintenance**, of this manual for additional information on the safe operation and maintenance of the EPEQ® AIR45.

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SECTION 2: Specifications

EPEQ® AIR45 SPECIFICATIONS	
Type:	Vanair® EPEQ® AIR45 electrically driven rotary screw air compressor. New and in current production.
Capacity:	45 CFM free air at up to 150 PSIG operation.
Compressor:	Oil flooded, rotary screw, single-stage. 2 speed control 30 CFM AND 45 CFM output in lieu of the following – 45 CFM and up to 150 PSIG. Oil capacity : Approx. 3 US quarts.
Motor:	48V, permanent magnet AC (PMAC) electric motor drive.
Air Intake Filters:	1-stage filter, fine separator cartridge.
Battery:	Two (2) Vanair® ELiMENT® 48V Lithium Iron Phosphate Batteries complete with Battery Management System (BMS) to include over current, over/under voltage and over temperature protection. BMS to monitor charge state and provide charge leveling.
Charger:	120V AC EPEQ® Shore Power ELiMENT® Battery charging.
Instrument Panel:	The EPEQ® Smart Display is IP67 weatherproof rated and features an LCD display panel that is viewable in low and bright light conditions with navigation buttons. The controller has proprietary software designed to intelligently monitor and control all EPEQ® system components. The controller reads, monitors, and commands operations. Each component can communicate to the display allowing the user to make priority decisions to manage the load applied to the battery. The loads allowed to draw the battery can be adjusted based on various factors such as: temperature, heat build-up, duty cycle, assigned function priorities, and power remaining. The EPEQ® Smart Display provides on screen information for on/off function, battery temperature, state of charge, PSI, speed, charge time remaining, warnings and general information.
Options:	____(With/Without) 3kW EPEQ® 48V, 120VAC Inverter, Pure Sine Wave ____(With/Without) 48V EPEQ® Auxiliary Alternator/Regulator for on-the-go ELiMENT® Battery charging ____(With/Without) 12V to 48V, 20A DC-DC Converter for ELiMENT® Battery charging ____(With/Without) 12V to 48V, 30A DC-DC Converter for ELiMENT® Battery charging ____(With/Without) 48V to 12V, 60A DC-DC Converter for powering 12V vehicular lighting and auxiliary equipment when vehicle is off utilizing the ELiMENT® Battery
Warranty:	Vanair® Rotary Screw Air Compressors come with a lifetime warranty when following the prescribed maintenance schedule. This warranty does not cover damage caused by accident, misuse, or negligence. If the unit is disassembled the warranty is void.
Installation:	Systems must be installed by a factory authorized installation center.

2.1 ADDITIONAL SPECIFICATIONS

- Physical Dimensions:
34.73" L x 15.68" W x 18.66" H
(882.15mm x 398.28mm x 473.97mm)
- Weight: 261 lbs.
- Two Speed: 30 CFM and 45 CFM output
- 150 PSI Maximum
- Duty Cycle: Up to 100%; On demand.
- Capacity: 200 Ah (Two ELiMENT® 48V DC Batteries)
- Approximate Low Speed Run Time: 87.6 minutes
- Approximate High Speed Run Time: 39 minutes

SECTION 3: Installation

3.1 PRE-INSTALLATION

1. Unpacking: when received, make sure that the compressor is free of any visible damage, broken or loose wires or physical obstructions.
2. The unit is temporarily secured to the shipping packaging with fasteners utilizing the unit's shipping feet - as shown in **“Figure 3-3: EPEQ® AIR45 Dimension Diagram”**. (Which are not to be used for operational installation. Always use the mounting holes as shown in **“Figure 3-1: Mounting Hole Pattern”**.)
3. If using a hoist to move or position the machine - there is a lifting bail located under a removable access cover on the top of the AIR45 canopy. (See **Figure 3-3**.)
4. Find a clean, stable and level surface or equipment frame to secure the EPEQ® AIR45 using the (4) mounting holes in the base of the frame with four (4) 5/16"-18 bolts with sufficient length to accommodate the thickness of the mounting surface. Desired mounting surface must be able to support the weight of the machine's weight of 261 lbs.(118.4 kg).
5. Rectangular mounting hole spacing is 25.00" x 11.50" O.C. (**Figure 3-1**).
6. The EPEQ® AIR45 Compressor receives power from two (2) ELiMENT® Batteries. However, power to the motor is controlled using the EPEQ® 7" Smart Display. (See **Figure 4-2**).
7. Position the battery and compressor close enough so that the power cables are not strained or have undue force exerted on them.

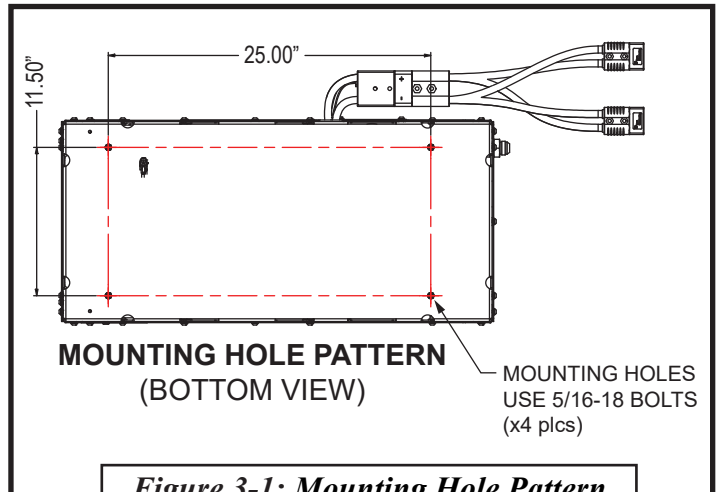
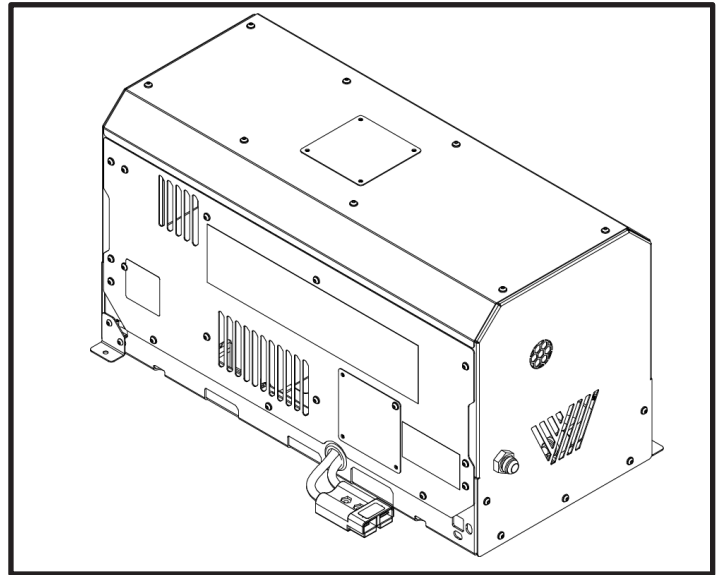


Figure 3-1: Mounting Hole Pattern

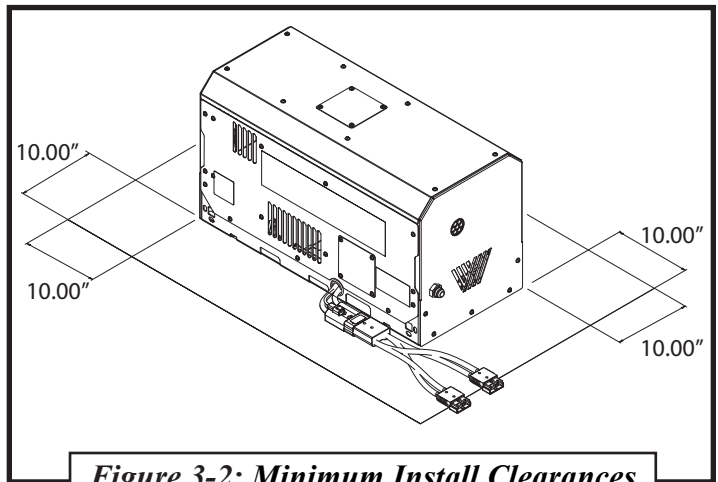
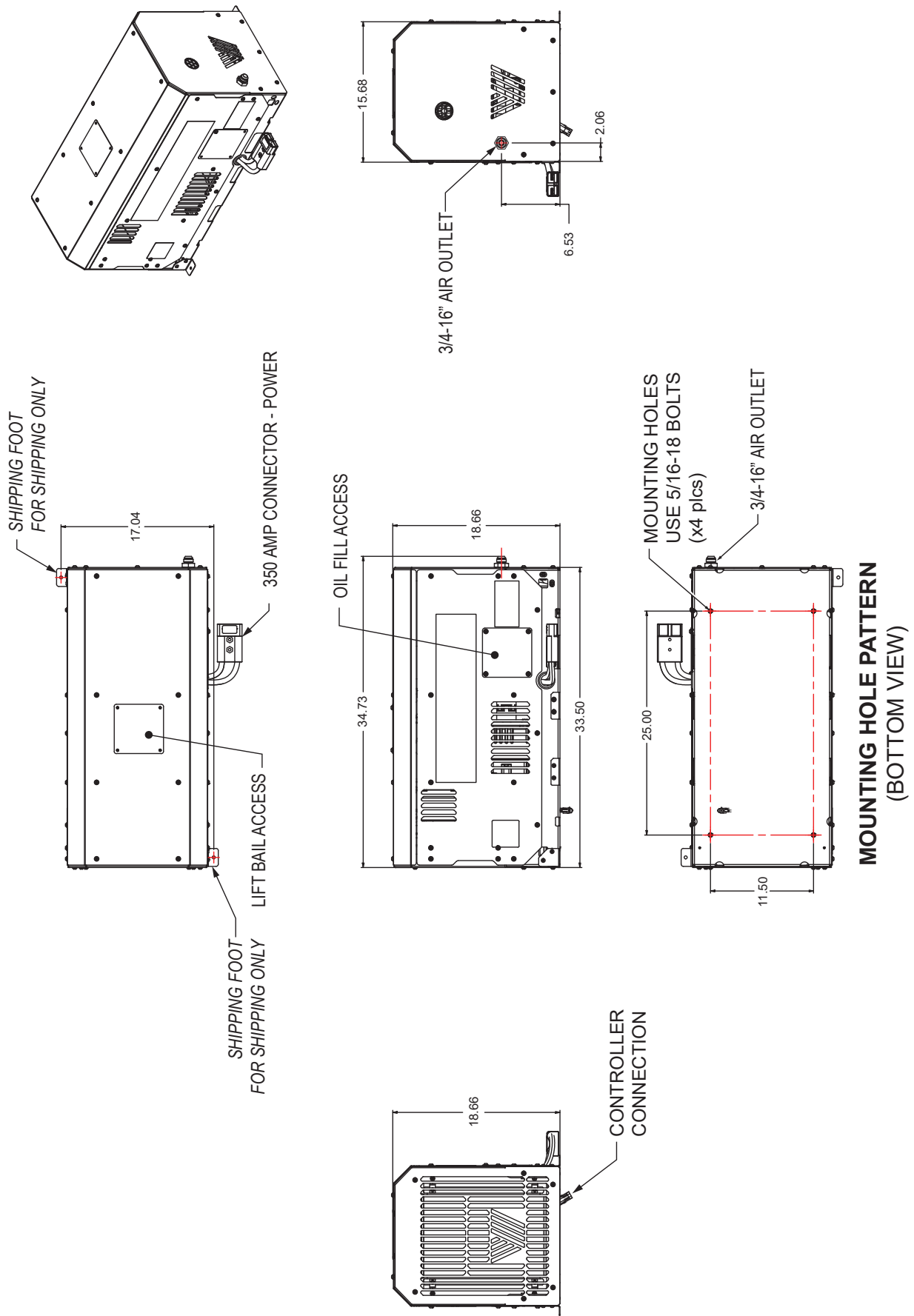


Figure 3-2: Minimum Install Clearances

8. When planning for your installation, 10" clearance on all sides around the unit is recommended for proper cooling and ventilation, (with 7" as a minimum). *See Figure: 3-2.*
9. Refer to the **EPEQ® Install Guide**, for proper installation information.
10. Before use, all cable and wire connections should be checked to make sure connectors are fully engaged and properly connected.
11. CAUTION: To avoid damaging the cables and internal parts of the equipment, do NOT attempt to lift or pull the compressor, battery(s) or other components using signal wires or power cables.

For more detailed information regarding the installation of the EPEQ® AIR45 compressor with other EPEQ® system components, please refer to the **EPEQ® Install Guide**.

Figure 3-3: EPEQ® AIR45 Dimension Diagram



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SECTION 4: Operation

4.1 GENERAL INFORMATION

A comprehensive array of controls and safety measures are built into the AIR45 system. **Refer to diagram in Section 7.3** for a general overview to identify and locate the system's main components.

4.2 OPERATION

1. Before starting always check for proper oil level before use. Unit should be sitting on a flat, level surface for accurate oil level readings. (The oil level sight glass can be viewed without removing the canopy for convenience.) *Please refer to Figure 4-1.*

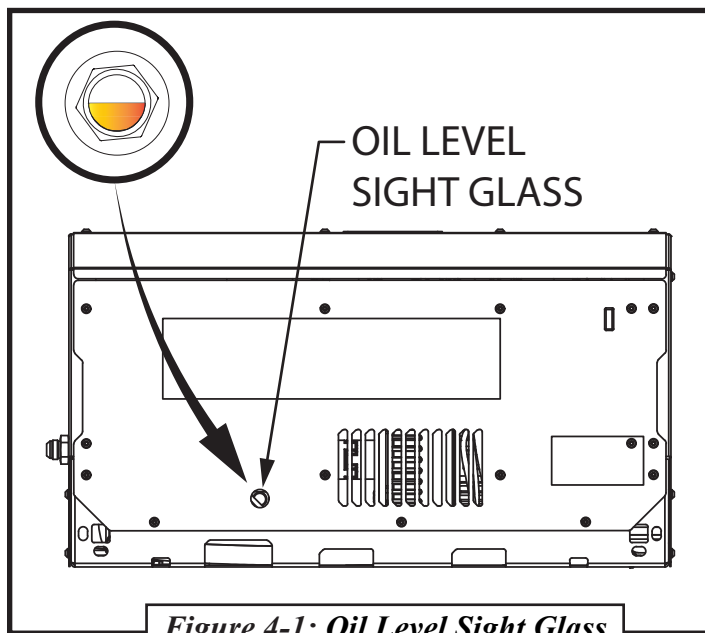


Figure 4-1: Oil Level Sight Glass

- Ideal oil level is at the halfway mark. (See inset.) Oil level should always be maintained between 1/4 and 3/4 full.
- If oil level is outside these limits, please follow instructions in the *Routine Maintenance Table* for compressor oil

check in “*Table 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE*” - KEY [1] and KEY [7].

- Look for and fix any known oil leaks.
2. Check battery charge level for adequate power for the job being done. A fully charged battery works best. If low, charge the battery as needed.
 3. Check that all rotating and moving parts, as well as vents, are free from obstruction or debris to prevent accidental injury, damage or equipment from overheating.
 4. Connect the ELiMENT® Batteries’ Anderson-type orange power connectors from each battery into the PDM. Plug the blue Anderson-type connector from the AIR45 into the PDM. Make sure your connections are secure. **(Refer to diagram in Section 7.2)**
 5. Using the EPEQ® Smart Display IP67 control panel, power up the EPEQ® AIR45 air compressor when ready. Unit produces up to 45 CFM, and up to 150 PSI. Choose air tools designed to work within these parameters.

During normal use, air compressors can become hot. Please use caution while unit is hot, and allow the air compressor to cool before handling or wear protective gloves.

4.3 START UP

NOTE: Before starting, be sure the oil is filled to the proper level. (See Figure 4-1.) Check for any sign of oil leaks. If leaks are present always fix/repair leaks prior to proceeding.

1. **Step 1:** To power up the system, press and hold the “silver push button”.

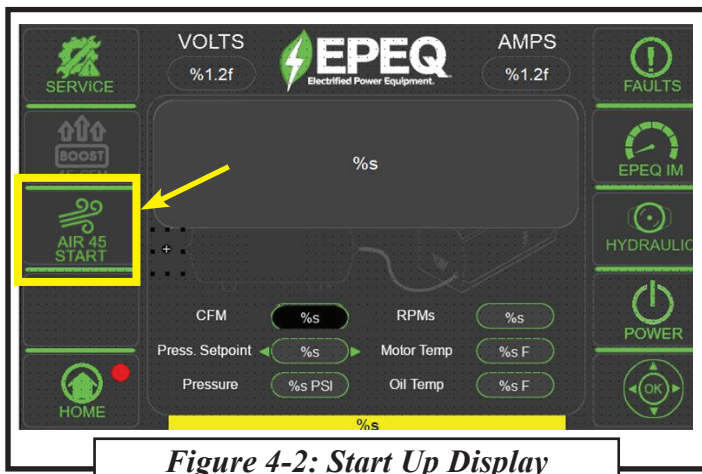


Figure 4-2: Start Up Display

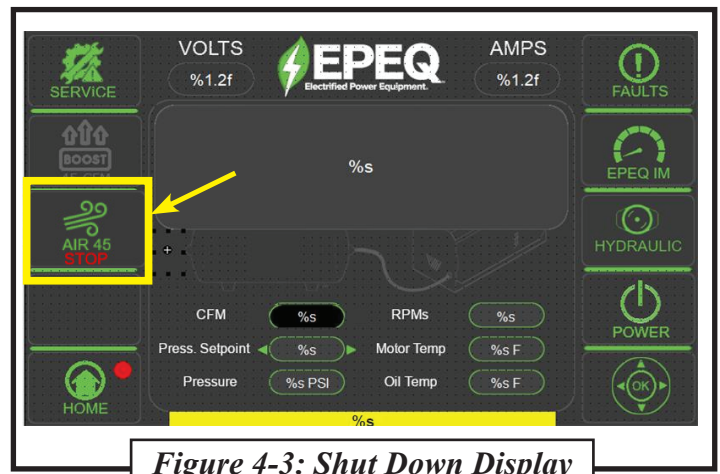


Figure 4-3: Shut Down Display

- Once the display has gone through the start up sequence, an icon for the AIR45 will appear on the display when properly connected. (See “**Figure 4-2: Start Up Display**”.)
- If there is no AIR45 icon on the display - please check the connections, cycle power and repeat step 1.
- Step 2:** Press the AIR45 button to navigate to the AIR45 page on the display.
- Step 3:** Find and press the “AIR45 START” button on the left side of the Display. (See **Figure 4-2.**) Using the directional pad located on the bottom right corner of the display, you can request pressure changes or capacity on the display. Here, you may also select the pressure set point, RPMs are dependent on the CFM request.
- Adjustable Pressure Set Points:**
Pressure can be adjusted in 5 lb. increments from 100 PSI up to 150 PSI.
(100 PSI, 105 PSI, 110 PSI, 115 PSI, etc.)
- Available CFM Selections**
 - 30 CFM
 - 45 CFM

4.4 SHUT DOWN

- Step 1:** Navigate to the AIR45 Page on the display.
 - Step 2:** Press the “AIR45 STOP” button on the left side of the display. (See “**Figure 4-3: Shut Down Display**”.) A message will appear indicating the unit has entered blow-down.
- This operation takes about 90 seconds.
 - During the time, the machine cannot be operated unless the sump pressure is below 5 PSI.
 - When using a receiver air tank, release air pressure from the tank using the ball valve on the tank until tank pressure reads less than 10 PSI.
 - Open tank’s drain valve to allow any accumulated condensation or moisture to escape. Close drain valve when done.

4.5 OPERATING CONDITIONS

- Make sure there are no obstructions blocking the cooling air input and hot air output vents around the machine.
- For best practice, do not rest or place anything on top of the compressor unit.

Compressors can produce high heat during operation. There should be no restrictions that may interfere with the air flow or designed cooling operations.

- Always operate the AIR45 with the cover in place.
- Refer to **Section 2 - Specifications** for operating parameters.

4.6 EXTREME CONDITION OPERATION

When operating in dusty, dirty, or extreme hot or cold conditions, extra attention should be given to any indications that could lead to a serious problem. Machine review and maintenance check schedules should be more frequent than the normal condition schedule outlined in **Section 5, Table 5A: Routine Maintenance Schedule**.

Note: While the duty cycle is rated up to 100%, internal protections may govern the compressor's output to maintain safe operating temperatures in extremely hot ambient conditions.

NOTICE

If start-up and shut-down procedures are not followed, damage to the system may occur.

NOTICE

Do not stop the compressor abruptly by cutting power. Follow the shutdown procedure outlined in Section 4.4.

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SECTION 5: Maintenance

5.1 GENERAL INFORMATION

Adhering to a strict maintenance program is the key to long life for the EPEQ® AIR45 Series machines. Below is a program that, when followed, should keep the equipment in top operating condition. Refer to **Sub Sections 5.4, 5.5 and 5.6** in this section of the manual for procedures and detailed descriptions of specific compressor components.



WARNING

DO NOT perform maintenance when compressor is running or pressurized. Stop compressor, de-pressurize system, and disconnect from power prior to performing maintenance of the system. Wear personal protective equipment such as gloves, work boots, and eye and hearing protection as required for the task at hand.



WARNING

Follow all applicable safety recommendations as outlined in Section 1: Safety of this manual.

NOTICE

Operating the machine package in a severe environment may require more frequent service intervals.

Vanair® considers the maintenance schedule given in “**Table 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE**”, to be part of the warranty agreement with the customer. This scheduled regimen must be followed in order to maintain the warranty of the machine package.

Vanair® especially requires that a consistent service regimen be established for compressor oil changes, as well as compressor air filter servicing. The following schedule is designed so that other maintenance tasks may be completed when the compressor’s filters are serviced, and the oil is changed.

Before starting the compressor system, inspect the machine for any suspect condition that may cause a safety hazard or interfere with normal operation. Replace damaged components with genuine Vanair® Replacement Parts.

Please take a moment to acquaint yourself with the service schedule presented in **Table 5A & 5B**.

For assistance in obtaining routine maintenance or replacement parts, consult **Section 7.1, Parts Ordering Procedure**, and **Tables 7A & 7B**.

NOTICE

Follow the prescribed periodic maintenance (PM) schedule as recommended. Perform the required PM schedule at recommended intervals. Failure to follow this prescribed periodic maintenance at the recommended intervals will impair the equipment’s safety, performance characteristics, shorten the equipment’s life, and will negatively affect the warranty coverage of the unit.

5.2 MACHINE MAINTENANCE SCHEDULE

Refer to “**Table 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE**”. A routine maintenance schedule based on time and/or hours logged, is given in **Table 5A**. The intervals are determined from machine usage under typical operating conditions. However, the operator must be aware that operating conditions may vary depending on such things as: a customer’s requirements, environmental temperatures and cleanliness of the ambient air where the machine is being operated.

With this in mind, the specifications given in **Table 5A** should be used as a guideline rather than a fixed agenda. A safe approach is to perform routine maintenance tasks more frequently under harsher conditions.

Vanair® provides a routine maintenance parts list in **Section 7, Table 7A**. Should a part require servicing or repair that is not part of normal maintenance, please refer to the parts lists and illustrations in **Section 7** to help identify the part in question. Our Parts and Service departments are ready to assist in identifying and/or replacing non-routine parts.



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vanair.com

For assistance in obtaining routine maintenance or replacement parts, consult **Section 7.1, Parts Ordering Procedure** and **Table 7A: Recommended Spare Parts List**.

When performing service or maintenance, please adhere to all Safety Procedures outline in **Section 1: Safety**.

5.3 REPLACEMENT PARTS

Replacement parts should be purchased through your local Vanair® representative or where the compressor system was purchased. If for any reason parts are not available in this manner, they can be purchased through Vanair® directly.

NOTICE

For assistance in ordering new replacement parts, consult Section 7.1, Parts Ordering Procedure, and Table 7A: Recommended Spare Parts List

NOTICE

If additional spare parts are being stored for future use, be sure to store them in proper containers to protect them against contaminations and kept in a clean area of moderate temperature.

For information on storing the machine or parts for periods of non-use, consult Section 5.4.8.2, Long Term Storage.

TABLE 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE

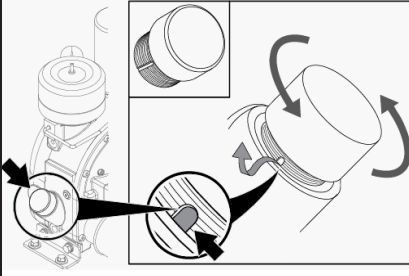
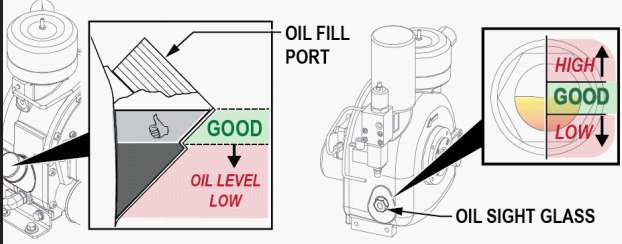
 WARNING		BREAK-IN PERIOD	MAINTENANCE SCHEDULE			
Before performing maintenance, shut down machine, relieve all system pressure and lock out all power, as per the Safety Section of this manual. (For lock out/tag out - disconnect the positive (+) battery cable.)		First 20 Hours of Operation	Daily or after 8 hrs operation	Yearly (or 100 hrs.)	Every 500 hrs.	NOTE: PLEASE FOLLOW PROPER POWER DOWN/LOCKOUT PROCEDURES AS THIS EQUIPMENT CAN START REMOTELY
KEY	TASK DESCRIPTION					ACTION TO TAKE
1	Check and Maintain Compressor Oil Level at Proper Amount Shown in the Sight Glass. <i>CAUTION! Before removing the cap. Relieve air pressure. In order to remove any residual air in the sump, SLOWLY open the cap until the vent groove shows above the thread line for a few seconds. (See inset below.) This will allow any remaining air pressure to safely bleed out to the atmosphere.</i> 	✓	✓	✓	✓	NOTE: Ensure vehicle is situated on a level surface before checking oil level. Add oil if necessary. REFERENCE: Optimal oil level is indicated by the "GOOD" or GREEN area shown below. If oil level is LOW, add additional oil using the oil fill port. (About halfway using the sight glass is optimal; Do not use if Oil Level is below 1/4 or above 3/4, or the compressor may be damaged.) Two methods of checking oil level on the AIR45 are shown below. Sight glass is the preferred method. Note, the oil level sight glass is visible with canopy in place. (See Figure 4-1.) ORDER: Replacement oil no. 264626-1 GAL (gallon container) 
2	Before starting visually check for any leaks, loose bolts, connections or obstructions that may interfere with normal operation.		✓	✓	✓	Repair or tighten as necessary.
3	After starting, check pressure reading for correct air pressure		✓	✓	✓	Allow compressor to warm up and verify that the levels are all within their recommended ranges. Refer to Section 2: Specifications for pressure operating range.
4	Check for leaks		✓	✓	✓	Visually note any leaks or evidence of leaks around the compressor unit, engine and hose connections. Tighten any loose connection point where needed. Repair or replace any damaged parts.
5	Inspect ventilation openings		✓	✓	✓	Ensure openings are not blocked or clogged with debris. Clear any congestion from the machine ventilation areas before operating the equipment.

TABLE 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE (CONT.)

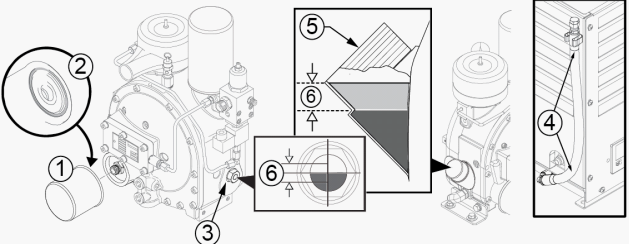
 WARNING		BREAK-IN PERIOD	MAINTENANCE SCHEDULE			
Before performing maintenance, shut down machine, relieve all system pressure and lock out all power, as per the Safety Section of this manual. (For lock out/tag out - disconnect the positive (+) battery cable.)		First 20 Hours of Operation	Daily or after 8 hrs operation	Yearly (or 100 hrs.)	Every 500 hrs.	NOTE: PLEASE FOLLOW PROPER POWER DOWN/LOCKOUT PROCEDURES AS THIS EQUIPMENT CAN START REMOTELY
KEY	TASK DESCRIPTION					ACTION TO TAKE
6	Clean and inspect the compressor air intake filter		✓	✓	✓	REFERENCE: Air Filter Element Replace if membrane is worn, contains tears or pinholes, or if filter is otherwise damaged. For details on ordering and changing the compressor air filter, refer to KEY [8]
7	Change the compressor oil and oil filter element. IMPORTANT: Refer to the CAUTION note instruction in Key [1] before removing oil fill port cap. NOTE: The compressor oil is the key to a long and useful life for a compressor. Dirt and other foreign mater can be introduced into the compressor system through the air intake. A clean air filter will ensure the compressor is protected.	✓		✓	✓	REFERENCE: (See diagram below.) 1. Oil Filter Element 2. Oil Filter Seal Ring 3. Oil Level Sight Glass 4. Oil Drain Hose 5. Oil Fill Port 6. Optimal Oil Level (See KEY [1]) ORDER: • 50 Hr. interval, order service kit no. KIT1285 • 500 Hr. interval, order service kit no. KIT1095 • Vanair® Compressor Oil, order kit no. 264626-GAL (gallon) PROCEDURE: Drain oil from compressor. Remove worn oil filter. Coat surface of sealing ring on new filter with oil before mounting into place. Hand tighten, then tighten another 1/4 to 1/2 turn using a filter wrench. Replace the cap on the oil drain tube and re-secure capped end to clamp to the canopy. Refill compressor with new oil; compressor oil fill is approximately (4) four quarts. Dispose of used oil in accordance with local and district guidelines and recycling. Run compressor for approximately five (5) minutes, then re-check oil level. Fill to proper oil level as needed.
						

TABLE 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE (CONT.)

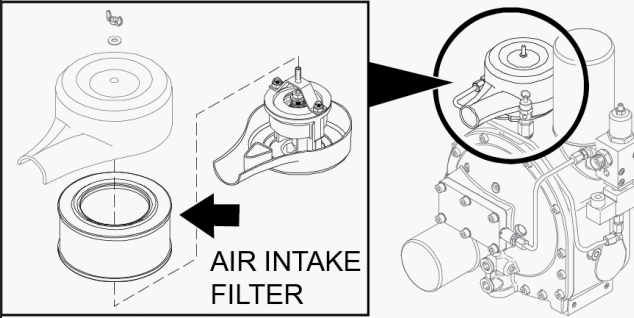
 WARNING		BREAK-IN PERIOD		MAINTENANCE SCHEDULE			
Before performing maintenance, shut down machine, relieve all system pressure and lock out all power, as per the Safety Section of this manual. (For lock out/tag out - disconnect the positive (+) battery cable.)		First 20 Hours of Operation		Daily or after 8 hrs operation		Yearly (or 100 hrs.)	
						Every 500 hrs.	
						NOTE: PLEASE FOLLOW PROPER POWER DOWN/LOCKOUT PROCEDURES AS THIS EQUIPMENT CAN START REMOTELY	
KEY	TASK DESCRIPTION					ACTION TO TAKE	
8	Replace intake air filter.			✓*	✓	Replace air intake filter yearly or after every 500 hours of operation. *If operating in a dirty /dusty environment, changing the filter more often may be needed for efficient operation and air intake. REFERENCE: •Air Filter Element ORDER: •Compressor Air Filter, order filter 264469 •500 hour Maintenance (includes air filter) order kit no, KIT1359 PROCEDURE: 1. The compressor air filter should be replaced at least every 500 hrs.; annually, or when dirty operating environments require it. 2. Unscrew wing nut and remove top of air intake cover from base. 3. Pull used filter upwards to remove it to check/clean or discard it according to local and district guidelines. 4. Replace filter with cleaned or new filter. (Do not use if filter membrane is torn.) 5. Replace cover and tighten wingnut.  AIR INTAKE FILTER	

TABLE 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE (CONT.)

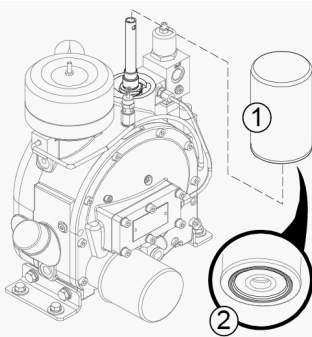
 WARNING		BREAK-IN PERIOD	MAINTENANCE SCHEDULE			
Before performing maintenance, shut down machine, relieve all system pressure and lock out all power, as per the Safety Section of this manual. (For lock out/tag out - disconnect the positive (+) battery cable.)		First 20 Hours of Operation	Daily or after 8 hrs operation	Yearly (or 100 hrs.)	Every 500 hrs.	NOTE: PLEASE FOLLOW PROPER POWER DOWN/LOCKOUT PROCEDURES AS THIS EQUIPMENT CAN START REMOTELY
KEY	TASK DESCRIPTION					ACTION TO TAKE
9	Replace seperator element.			✓*	✓	ORDER: Seperator element is included with the 500 hour full service kit no. KIT1359 ▪ For compressor oil drain hose location, see KEY [7] in this table. ▪ Coat surface of seal ring on coalescer filter element with compressor oil before mounting back into place. REFERENCE: (see below)  1. Separator Element 2. Element Ring Seal
10	Inspect exterior of front-mounted oil cooler.			✓	✓	Clear away any debris from the cooler covers both within the enclosure and the exterior. Clean as needed. If core becomes clogged use a low pressure auxilliary air source to blow through the fins from inside the canopy to clean it out. The fan may need to be removed from the shroud in order to reach parts of the core. Do not use high pressure air or a pressure washer.

TABLE 5B: ROUTINE REPLACEMENT KIT ORDER INFORMATION

KEY	DESCRIPTION	PART NO.	QTY	KEY	DESCRIPTION	PART NO.	QTY
1	Kit, Initial 50 hr. Maintenance	KIT1285	1	4	Filter, Air Compressor. Element Only	264469	1
2	Kit, Compressor 500 hr. Maintenance	KIT1095	1	5	Separator, Air/Oil, Compressor Spin-on; Vanair®	264470	1
3	Vanguard® Compressor Oil (1-gallon container)	264626-1GAL	1	6	Filter, Oil Compressor; Vanair®	264471	1

5.4 PARTS REPLACEMENT AND ADJUSTMENT PROCEDURES

Procedures and schedule intervals can be found in **Table 5A: Routine Maintenance Schedule** for routine maintenance items. Though many components on the machine will not require maintenance throughout the machine's life-cycle, some parts are susceptible to wear on an indeterminable basis, due to many factors involved with day to day operation.

Parts and component assemblies most prone to indiscernible wear can be identified by looking through the parts listings found in **Section 7**. For parts not identified in this section, nor in **Table 7A**, refer to the itemized diagrams found in **Section 7: Illustrated Parts List** to help determine the item's identification and part number.

Replacement parts should be purchased through your local Vanair® representative or where the EPEQ® AIR45 machine was purchased. If parts are not available in the manner, they may be purchased through Vanair® directly.

CAUTION

Compressors generate heat and create hot surfaces. Use caution when operating or servicing the equipment as some surfaces may become hot.

5.4.1 ALIGNMENT

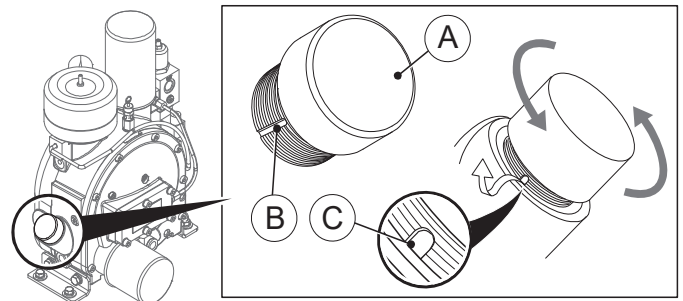
There is no need to adjust the compressor/motor alignment; as it is achieved via the motor to unit adapter. In the case the drive coupling requires service, **refer to Section 5.4.7**. Alignment is automatically achieved by securing the motor to the unit via the motor adapter.

However, if the coupling element should ever need replacement, or the alignment is causing excessive vibration, etc. there is a hub alignment check that should be performed once the maintenance has been accomplished. Refer to **Section 5.4.7** for drive coupling hub alignment check procedure.

WARNING

DO NOT remove caps, plugs and/or other components when the compressor is running **OR** pressurized. Stop the compressor and de-pressurize system prior to maintenance or service. Relieve the entire system pressure by opening the air tank drain/vent valve - allowing pressure to vent to atmosphere.

Wear personal protective equipment such as gloves, work boots, eye and hearing protection as needed for the task at hand. (Refer to *Figure 5-1*.) Open fill cap **SLOWLY**. Contents may be under pressure. Loosen cap only enough to allow any residual pressure to vent completely, before removing the cap all the way.



Key	Description
A	RED COMPRESSOR FILL CAP
B	FILL CAP BLEED VENT GROOVE
C	OPEN CAP SLOWLY UNTIL GROOVE VENT IS EXPOSED TO RELIEVE PRESSURE.

Figure 5-1: Pressure Relief

5.4.2 SETTING THE MINIMUM PRESSURE VALVE

Refer to **Figure 5-2** and the following procedure.

1. Start the machine and allow it to assume idle speed.
2. Start the compressor and allow it to accumulate pressure build-up.
3. Using the electronic display as a guide, adjust the grub screw [C] until minimum pressure level is achieved.
4. Tighten the lock nut [D] to secure the grub screw at the proper minimum pressure level.



WARNING

Before performing maintenance, shut down the machine, relieve all system pressure and lock out all power, per the Safety Section of this manual.

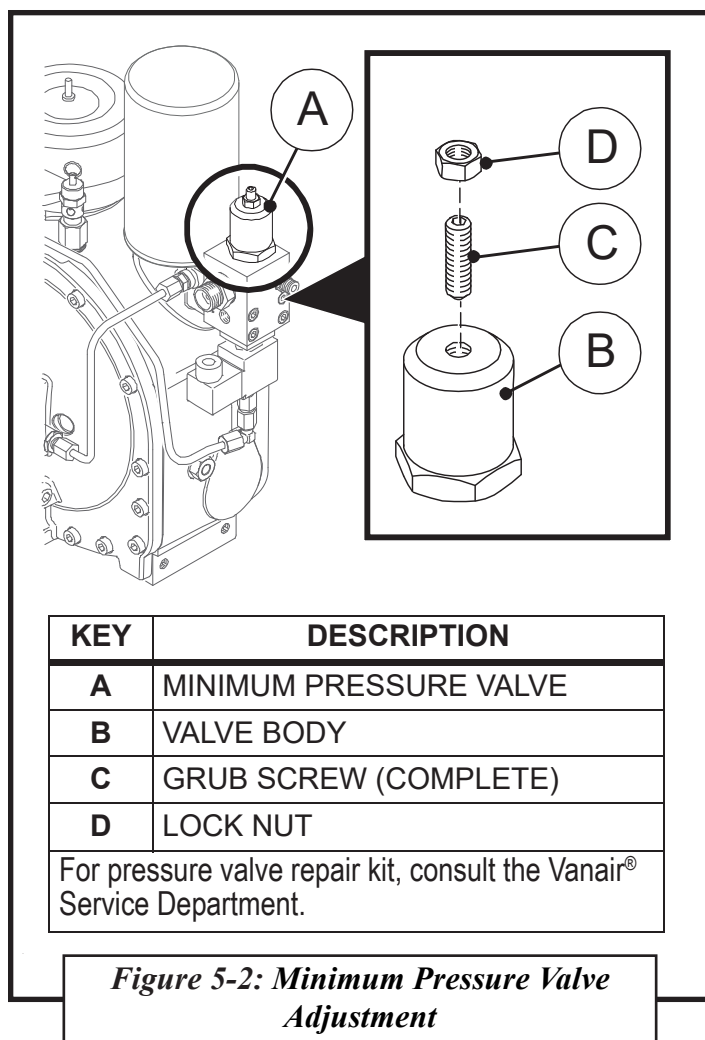
NOTE: THIS MACHINE CAN BE STARTED REMOTELY.

Be sure to clearly tag the start up control panel against accidental system start-ups during maintenance.

5.4.3 SERVICING SYSTEM CIRCUIT BREAKER, FUSES AND RELAY

Consult **Section 6.4 Troubleshooting**, and **Section 7.3 AIR45 Location Diagram** for information and locations of system relays and components..

Look for the fuses for the Inverter Fan, Cooler Fan and Motor Controller on the wiring harness in close proximity to the protected components. **(See Section 7.3)**



5.4.4 PRESSURE RELIEF VALVE

Although the pressure relief valve has a reset ring at the cap - DO NOT test the pressure relief valve by pulling on the reset ring. This valve requires no testing. If faulty, replace the valve. (Refer to symptoms and recommendations in the **Troubleshooting Guide** in **Section 6**.)

5.4.5 REPLACING THE DRIVE COUPLING

(See 7.3 AIR 45 Location Diagram.)
With proper care of the machine, the drive coupling should normally last indefinitely. However, things happen and it may become worn or ruptured and need to be



WARNING

DO NOT remove caps, plugs and/or other components when the compressor is running **OR** pressurized. Stop the compressor and de-pressurize system prior to maintenance or service. Relieve the entire system pressure by opening the air tank drain/vent valve - allowing pressure to vent to atmosphere.

Wear personal protective equipment such as gloves, work boots, eye and hearing protection as needed for the task at hand. (Refer to Figure 5-1.) Open fill cap SLOWLY. Contents may be under pressure. Loosen cap only enough to allow any residual pressure to vent completely, before removing the cap all the way.

NOTICE

Alignment checks should not be needed as the machine aligned at the factory.

However, if it ever becomes necessary to replace the coupling element, proper sizing and offset measurements must be properly set and checked to avoid damage to both the machine and the coupling.

replaced. To replace the drive coupling, order replacement element **PN 282865** and follow the following procedure

IMPORTANT: The drive coupling contains elements that wear normally with use and may eventually fail over time. The operator must ensure that the assembly is enclosed to avoid possible injury in case of failure.

5.4.5.1 REPLACING THE DRIVE COUPLING ELEMENT

1. Remove the screws from the AIR45 cover and slide the cover away from the unit to access the drive coupling assembly. *(Refer to Figure 5-3.)*

2. See diagram shown in **Section 7.5**. Remove the four nuts holding the motor mount from the screws **[19]** which secure the motor and motor mount to the lifting bail arm plate **[18]**.
3. Carefully extract the motor and mount - pulling directly away from the compressor; this will separate the coupling assembly.
4. Remove old spider coupling element **[12]**.
5. Carefully wipe the coupling halves with a clean cloth and place the new element into position on the compressor's coupling half.
6. Replace the motor with the motor-side coupling half to mate with coupling element and compressor coupling half.
Be aware that the coupling may need to be rotated slightly by hand to align the motor-side coupling with the new element.
7. Re-install the four screws and nuts to secure the motor and motor mount.
8. Before torquing the bolts - perform an alignment check on the hubs. **(See Section 5.4.7.1).**

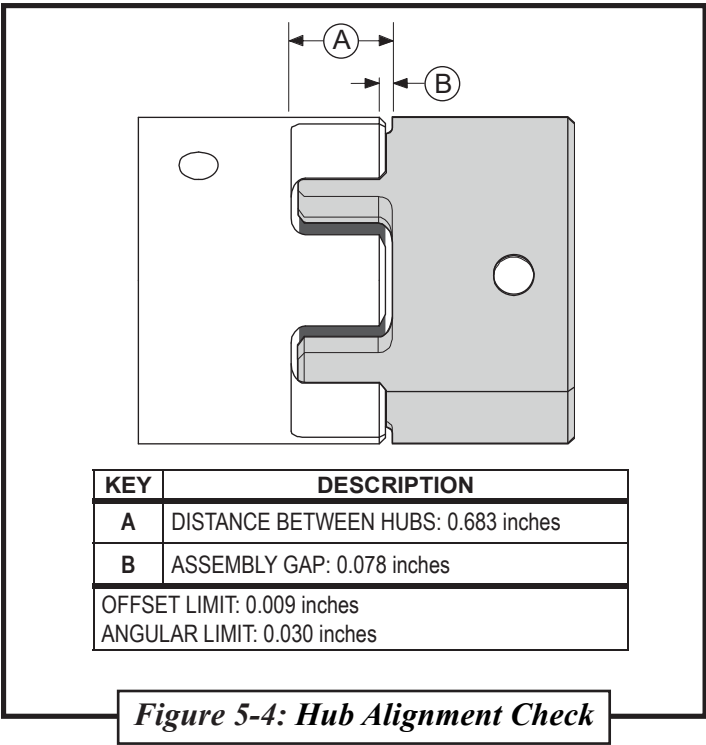
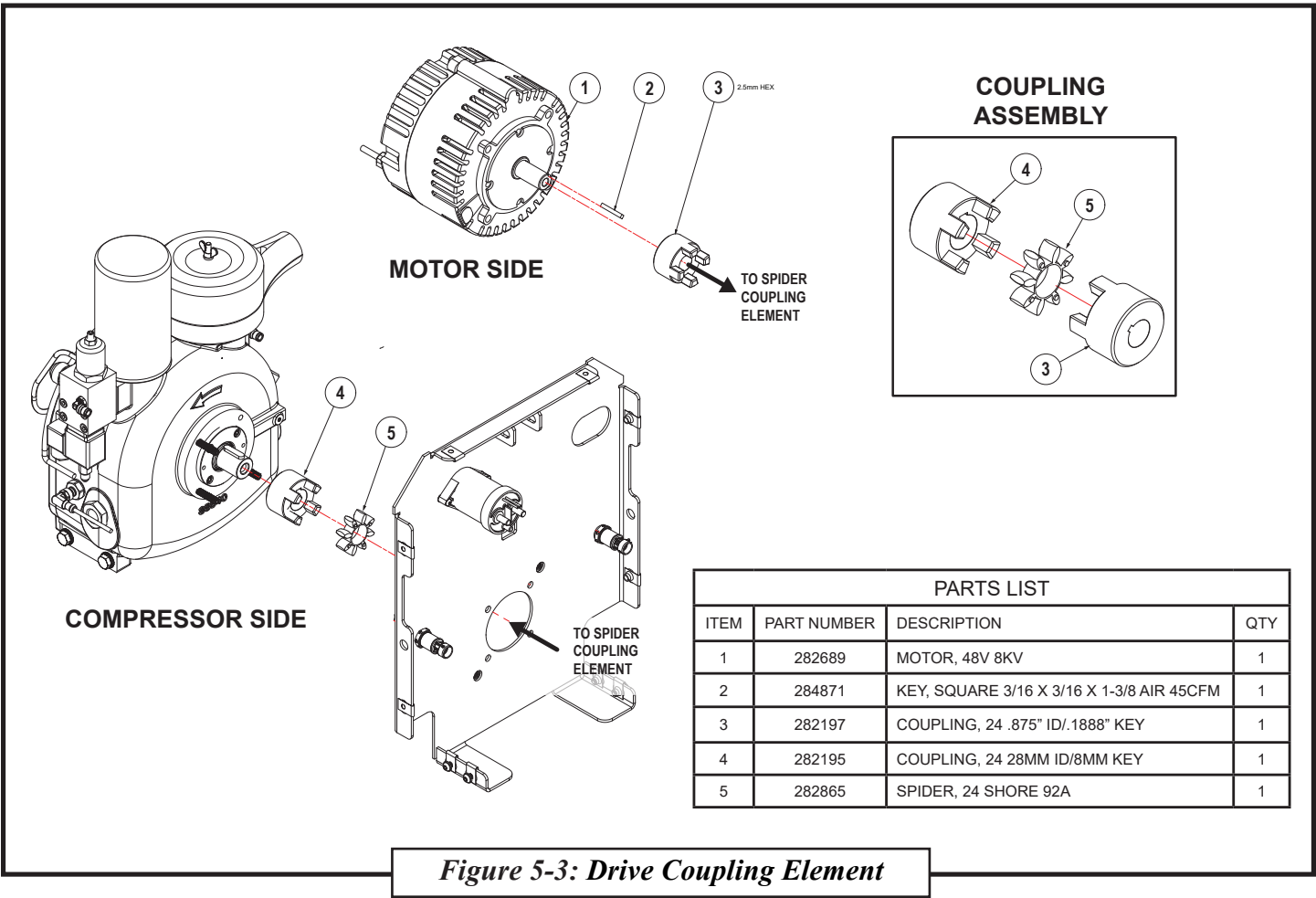
5.4.5.2 COUPLING ASSEMBLY

TOOLS REQUIRED

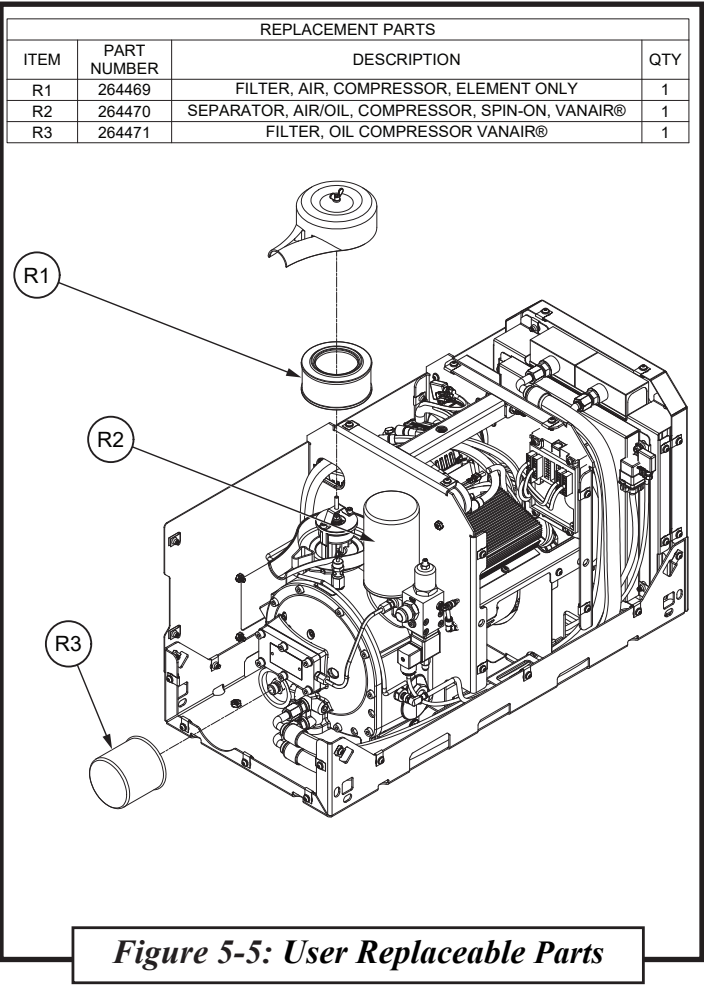
TORQUE WRENCH	ALLEN SOCKETS
MEDIUM STRENGTH REMOVABLE LOCTITE®	CALIPERS / FEELER GAUGES
ALIGNMENT TOOLS (i.e. straight edge, dial indicator, shims, etc.)	

The following method is used for a full re-installation of a drive coupling system. For performing an element change only, please refer to **Section 5.4.5.1**.

1. Install and mate coupling hub bore with the drive shaft. Hub should be installed with the hub body towards the driving unit. **(See “Figure 5-4: Hub Alignment Check”.)**
2. See **“Figure 5-5: User Replaceable Parts”** to view user replaceable maintenance parts and part numbers.



3. See the procedure for replacing these parts in **“Table 5A: MAINTENANCE SCHEDULE AND PROCEDURE TABLE”**.
- 5.4.6 CLEANING**
- Always remove all power to the AIR45 before performing any service maintenance or cleaning.
 - The hood, or canopy can be wiped down with a rag dampened with water and mild soap as needed.
 - The main item when cleaning the unit is to keep the air intake and outlet vents free of dirt and debris. Make sure there are no obstructions to the air flow for cooling.
 - Keep damp rags from any electrical connections.



CAUTION

Electrical shock can cause injury.
Do not touch wires or power connectors while machine is running.

NOTICE

When using a cleaning solvent, always follow the directions for proper use and safety precautions listed on the product.

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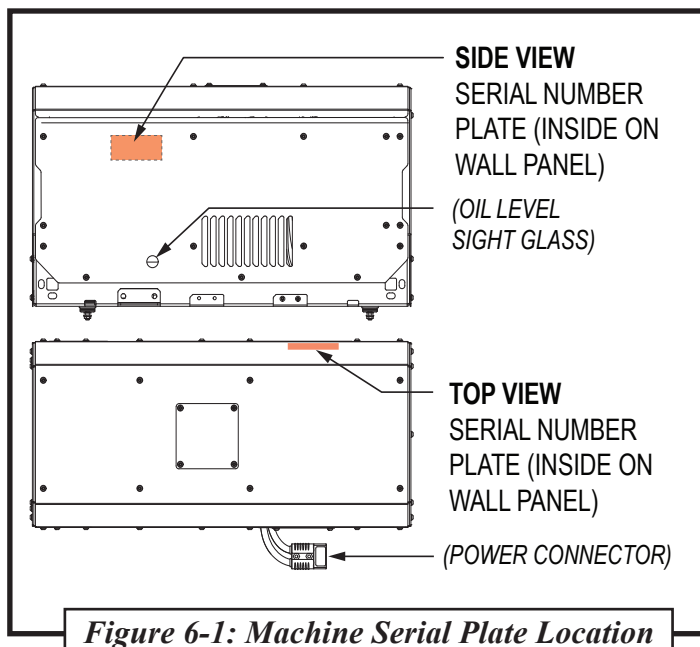
SECTION 6: Troubleshooting

6.1 GENERAL INFORMATION

The information contained in this section has been compiled over the years from the field. It contains symptoms and known causes for the most common types of issues which may occur. Each situation should be analyzed before making repairs or replacing components to help ensure the best known course of action is taken.

A visual inspection is worth performing when analyzing any issue and may identify and prevent unintended damage to the machine or components. Procedures which can be accomplished with the least amount of time and effort should be performed first as they may resolve the problem most efficiently.

Vanair® strives to anticipate most circumstances that may occur during the operation of these machines. However, it is inevitable an issue may occur that was not anticipated or covered in this Troubleshooting Section. Should a problem arise that remains unresolved after referring to this troubleshooting information, please contact the Vanair® Service Department.



NOTICE

When contacting the Vanair® Service Department, please have the machine model and serial number on hand to expedite service. See Figure 6-1 for the location of your machine's serial number. The machine's serial number is displayed on the display panel on start up.



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Michigan City, IN 46360

Toll Free: (800) 526-8817
Telephone: (219) 879-5100

Service: (844) VAN-SERV
(844) 826-7378

vanair.com



WARNING

DO NOT operate this machine when there are known unsafe conditions. Disable the machine by turning unit OFF, de-pressurizing the air tank(s) and disconnecting battery power. Lock and tag out to prevent others from using the machine until safe repairs can be made.

6.2 EXTREME CONDITIONS

Machine review and tasks on the maintenance schedule should be done more frequently when operating the equipment under harsh conditions or in a dusty or dirty environment.

See **Table 5A** and **Table 5B**

For additional information on the safe operation of this equipment under extreme conditions, consult **Section 4.7 Extreme Condition Operation** in this manual.

6.3 VISUAL INSPECTION

When something is not working as expected with your AIR45 Compressor take a moment to visually inspect the machine. Before other troubleshooting operations such as cleaning, disassembly or replacing parts, look at the external appearance of the machine. There may be visible clues as to what may be causing an issue.

- Is there oil present on the surface, or a visible leak?
- Lots of dust and dirt on the surface?
- Are any hoses or fittings loose or disconnected?
- Are any screws, nuts or bolts missing?
- Are vents and cooling fins obstructed or covered by any debris?
- Are there any signs of damaged or broken parts or loose wires?
- All observations offer clues of possible problems during your troubleshooting process.



WARNING

STAY SAFE!

Before performing maintenance or mechanical repairs on powered equipment, always make sure the unit is turned OFF and the unit has been disconnected from the power source.

After checking the external appearance of the machine, clean it of excess dust, dirt, debris, grease and oil spills using a clean soft cloth or soft brush as needed. Then proceed with Troubleshooting outlined in **Section 6.4**.

6.4 TROUBLESHOOTING

Compressor Fails to Run

- When the System is not functioning as expected always check the Smart Display for any Banner Error Messages. (Refer to EPEQ® Troubleshooting Guide or contact your Vanair® Service Representative for more detailed information.)
- Check that proper start up procedure has been followed for the AIR45 and that the AIR45 is recognized and appears on the Display Controller. (**See Section 4.3 Start Up**)
- Check for loose wiring and cable connections.
- Check for damaged hoses or tubes.
- Check battery charge level.
- Relays and fuses - The AIR45 contains two (2) relays and three (3) fuses. It is possible one of these may fail. If any of the following components are not working check to see if the fuses are blown or the relays need to be replaced. **See Section 7 - 7.10 AIR45 Wiring Diagram.**
 1. Motor Controller
 - 10A Fuse - (Note: If this fuse is blown, *the machine will not start*. See **Compressor Motor Fails to Run** at the end of this Section.)
 2. Cooler Fan
 - Relay 50A (**See 7.3 Location Diagram**)
 - 15A Fuse - (Note: if this fuse blows, the oil may eventually overheat and the system will shut down)

3. Inverter Fan

- Relay 50A (**See 7.3 Location Diagram**)
- 10A Fuse - (Note: if this fuse blows, the motor controller will run hot and the system will shut down.)

NOTE - Errors with the contactor can also cause issues with the motor, and may appear as an error on the Smart Display screen.

System Overheating

- Turn off system and disconnect from power before performing repairs or maintenance.
- Follow instructions for checking proper oil level. (**See 4.2 Operation and refer to Figure 4-1: Oil Level Sight Glass**)
- Check air flow has proper clearance as shown in **Figure 3-2**.
- Check for error messages on the Display Controller screen. If messages are displayed, refer to EPEQ® Troubleshooting Guide for details, or contact your Vanair® Service representative.
- Make sure all vents are free from debris.
- The AIR45 uses two (2) fans for cooling. Without proper cooling - the AIR45 can overheat. Checking that these fans are working properly is a must.
 1. **Inverter Fan** - located on the power cable side of the compressor housing cover in the top left side behind 5 vents slots.
 - This fan should be running whenever the machine is turned on.
 - If it is NOT blowing - there could be an issue with the fuse or relay.
 - Turn off the machine and disconnect from batteries.
 - Check the inverter fan fuse to see if it is blown. If so - remove and replace the

blown fuse with a new, identical fuse.

- If the fuse is NOT blown, the issue could be that the relay needs to be replaced. (**See Section 7.3** for Inverter Fan Relay location.)

Replacement Parts

Inverter Fan fuse: Vanair® PN 283199

Inverter Fan relay: Vanair® PN 267305

2. **Cooler Fan - Not Running.- Refer to Section 7 - 7.10 AIR45 Wiring Diagram** for location. The cooler fan should kick in once oil temperature reaches approximately 170° F. If this fan does not turn on once oil temperatures reach that temperature, the oil temperature may rise above the upper temperature limit and the machine will shut down.
 - Check for blown cooler fan fuse. If the fuse is blown, replace it with an identical new one.
 - If the fuse is NOT blown, the issue could be that the cooler fan relay needs to be replaced. (**See Section 7.3** for cooler fan relay location.)

(NOTE: Relays and fuses are common items that may be found at a local automotive parts store.)

Replacement Parts

Cooler Fan fuse: Vanair® PN 284868

Cooler Fan relay: Vanair® PN 267305

Compressor Motor Fails to Run

1. Check the Smart Display for any error messages.
2. With system turned off and power disconnected from the battery, look for any loose or disconnected connections or damaged wiring leading to the electric motor.
3. Check fuse for the motor controller. If fuse has blown, replace with new identical fuse.

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SECTION 7: Illustrated Parts List

7.1 PARTS ORDERING INFORMATION

Part orders for the Vanair® EPEQ® AIR 45 COMPRESSOR Series, should be placed through the distributor from whom the unit was purchased.

If for any reason parts cannot be obtained in this manner, contact the factory directly at the address or phone numbers below, or go to vanairpartsstore.com for online access to most parts for your Vanair® equipment.

When ordering parts always indicate the **serial number** of your machine. This can be obtained from the Bill of Lading for the machine package, or from the unit's serial number plate. The serial plate should be located on the INTERIOR WALL OF THE SIDE PANEL (above sight glass cutout).

See “Figure 7-1: Serial Number Plate Location” for location of machine serial plate. Consult **Table 7A: Recommended Spare Parts List** and other AIR45 parts shown in this section within the next several pages.

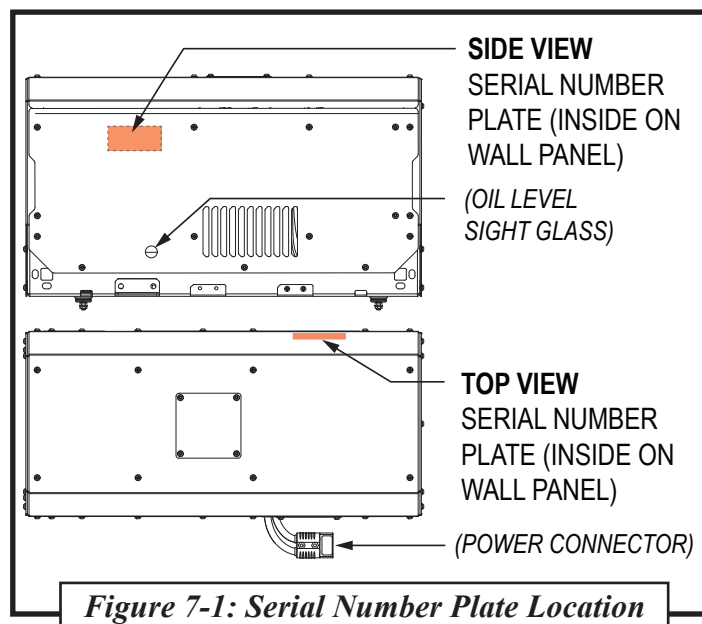


Figure 7-1: Serial Number Plate Location



10896 West 300 N.
Michigan City, IN 46360

Toll Free: (800) 526-8817
Telephone: (219) 879-5100

Service: (844) VAN-SERV
(844) 826-7378

vanair.com

TABLE 7A: SCHEDULED MAINTENANCE KITS

KEY NO.	VANAIR PART NO.	DESCRIPTION	QTY
FULL SERVICE MAINTENANCE KITS			
1	KIT1285	KIT, COMPRESSOR SERVICE - INITIAL 50 HR	1
2	KIT1095	KIT, COMPRESSOR SERVICE - 500 HR	1
3	KIT1394	KIT, COMPRESSOR SERVICE - 3 YEAR	1
4			
5			

TABLE 7B: INDIVIDUAL MAINTENANCE PARTS

INDIVIDUAL MAINTENANCE ITEMS			
6	264626-1GAL	OIL, VANAIR VANGUARD COMPRESSOR OIL (1- GALLON)	1
7	264469	ELEMENT, REPLACEMENT FOR COMPRESSOR AIR FILTER	1
8	264470	ELEMENT, REPLACEMENT FOR COMPRESSOR SEPARATOR	1
9	264471	ELEMENT, REPLACEMENT FOR COMPRESSOR OIL FILTER	1

COMPRESSOR WARRANTY! Use only Vanair® compressor oil and genuine Vanair® parts. Inspect and replace damaged components before operating. Substituting Vanair® oil or genuine Vanair® parts for non-Vanair® oil or parts WILL VOID THE WARRANTY! Compressor service oil capacity is approximately 3 U.S. quarts. (2.84 L)

Some standard components, such as fuses, may be obtained more quickly and more economically from local sources such as an auto parts store.

Before shipping EPEQ® ELiMENT® Batteries, Vanair® strongly suggests contacting the Vanair® Service department for proper handling, shipping instructions and documentation. DO NOT SHIP LITHIUM BATTERIES VIA AIR.

[Department of Transportation Information on shipping and handling Lithium batteries. \(click link\)](#)

PLEASE NOTE: WHEN ORDERING PARTS - INDICATE THE MACHINE'S SERIAL NUMBER

IMPORTANT: The above tables contain lists of items that require maintenance on a regular basis. Parts listed above may also require maintenance based on the compressor's usage and environment of the work area. While this is a recommended list of often needed replacement parts, it is possible for other parts not on this list to require maintenance and replacement that may cause damage to the machine that is beyond the scope of this listing. Should any part of the compressor package not listed above, become damaged or inoperable, use the included subsections in **Section 7** to best locate and identify the damaged part(s).

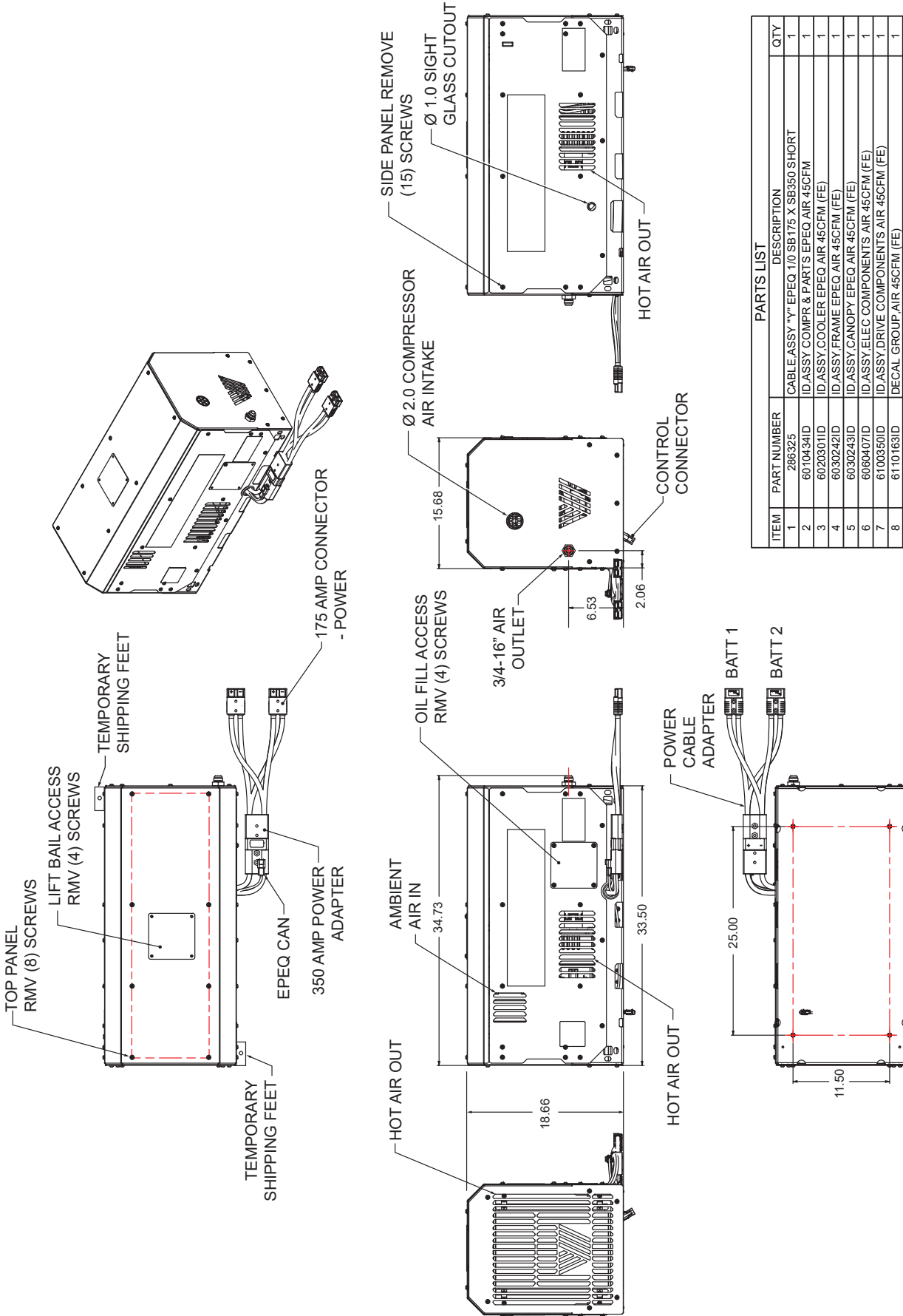
IMPORTANT: If additional spare parts are being stored for future use, ensure they are stored in proper containers that allow protection against contamination and kept in a clean area of moderate temperature.

[illegible]

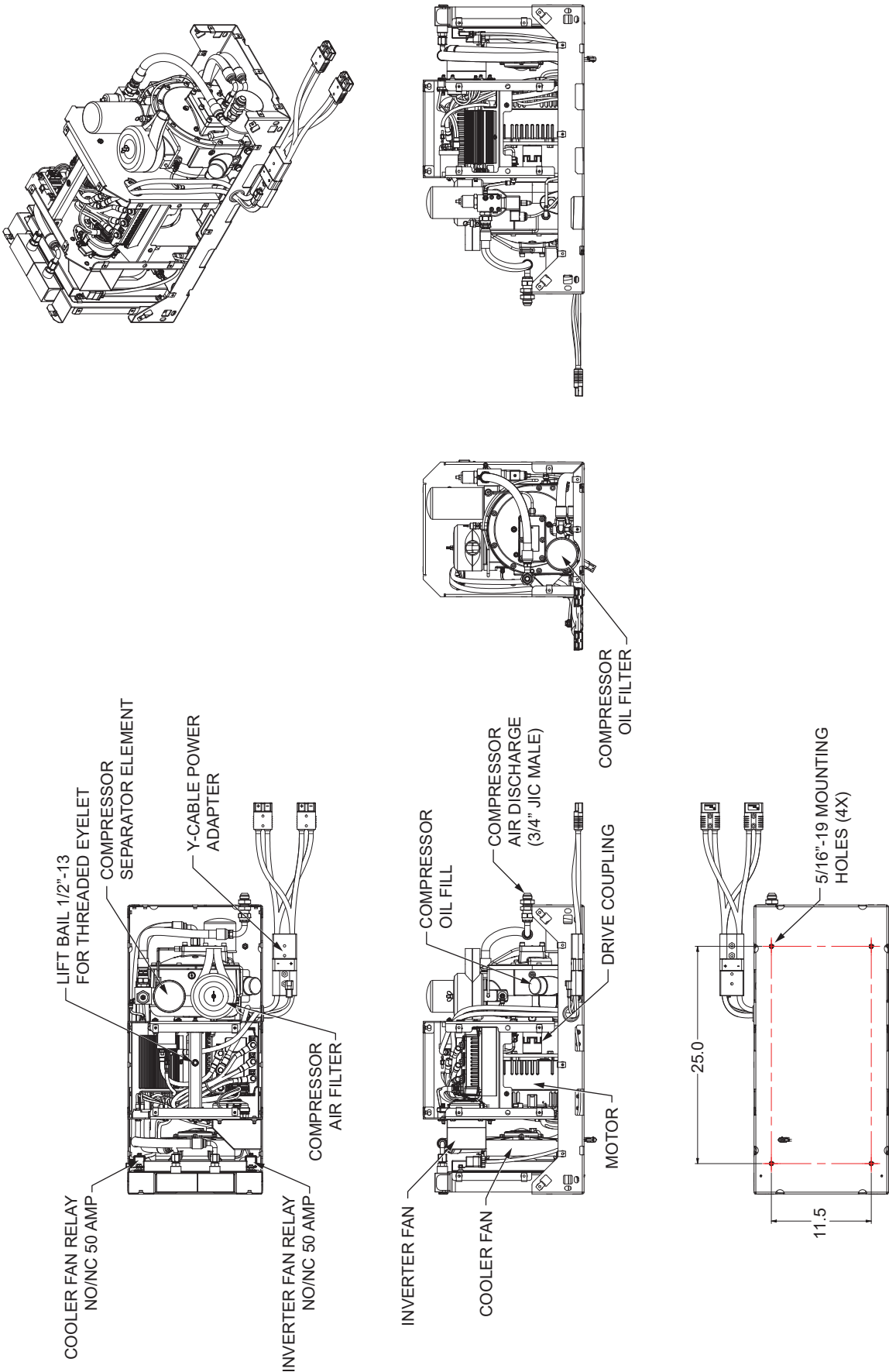
[illegible]

[illegible][illegible]

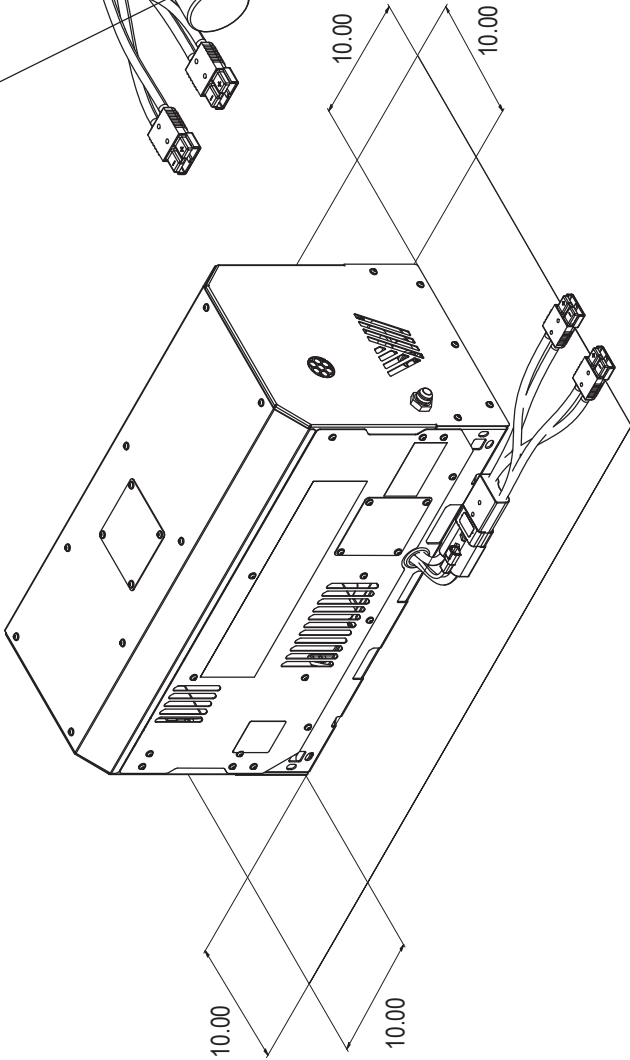
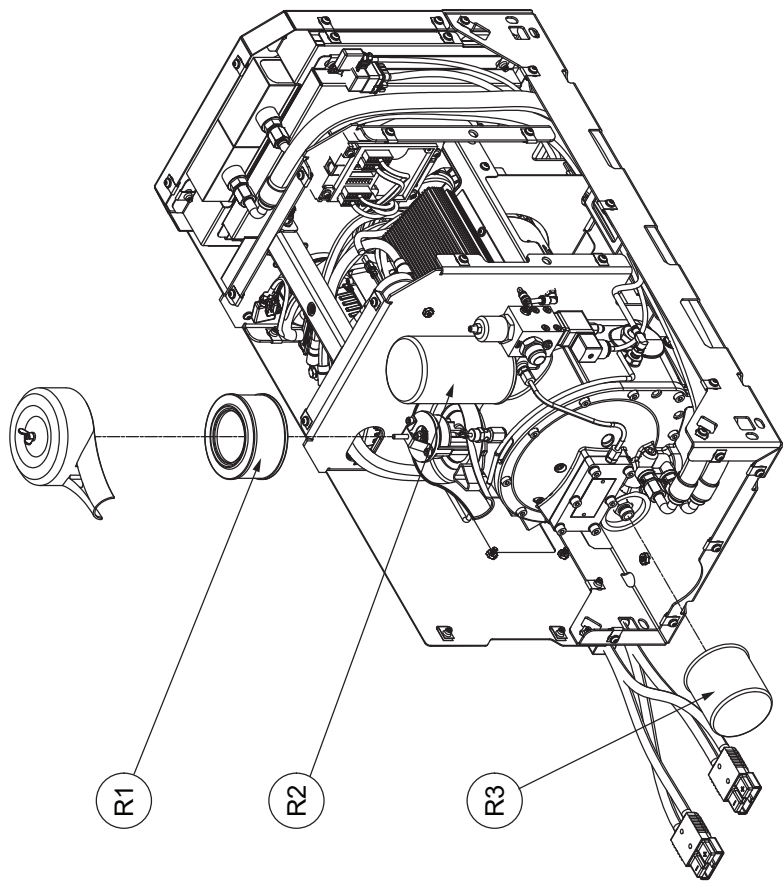
7.2 EPEQ® AIR 45 - ASSEMBLIES LIST



7.3 EPEQ® AIR 45 - LOCATION DIAGRAM



7.4 OIL AND AIR FILTER PARTS & AIR FLOW CLEARANCES

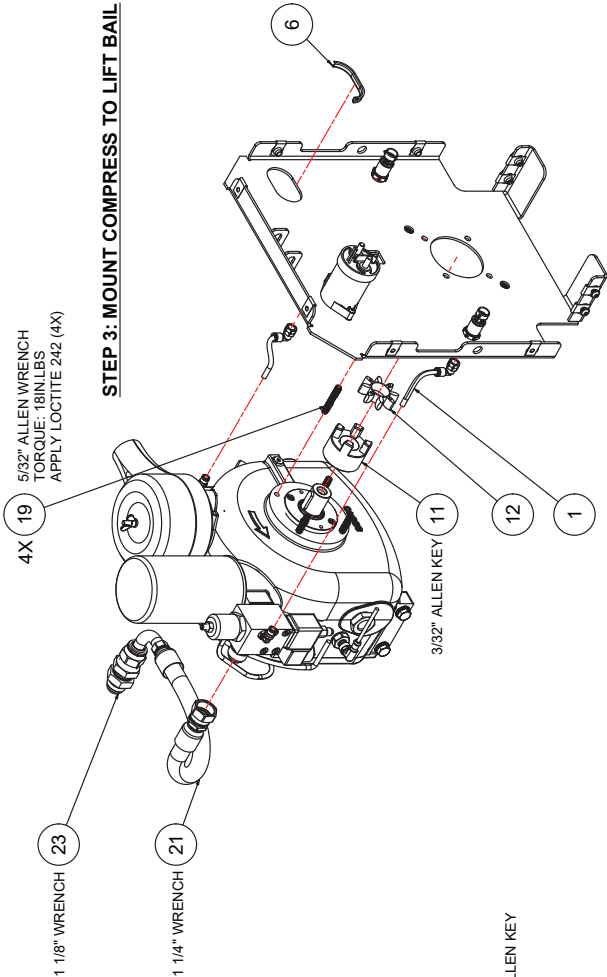
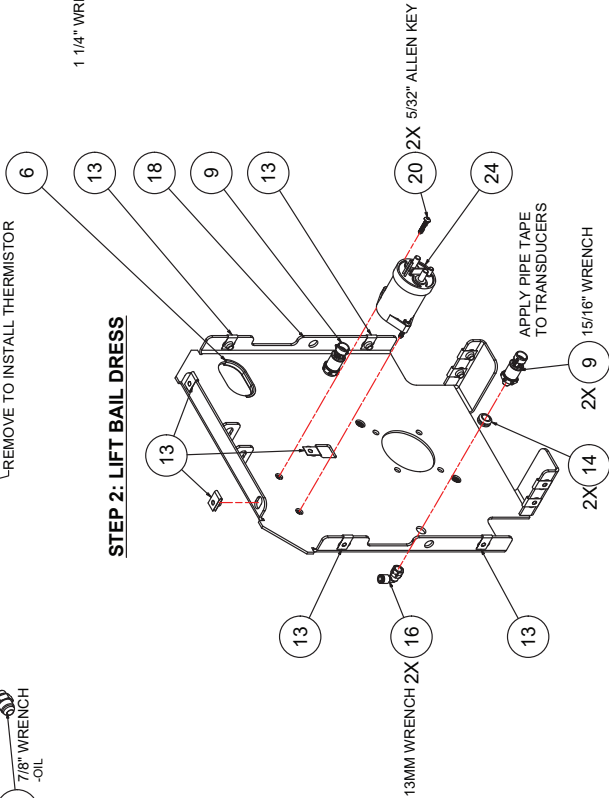
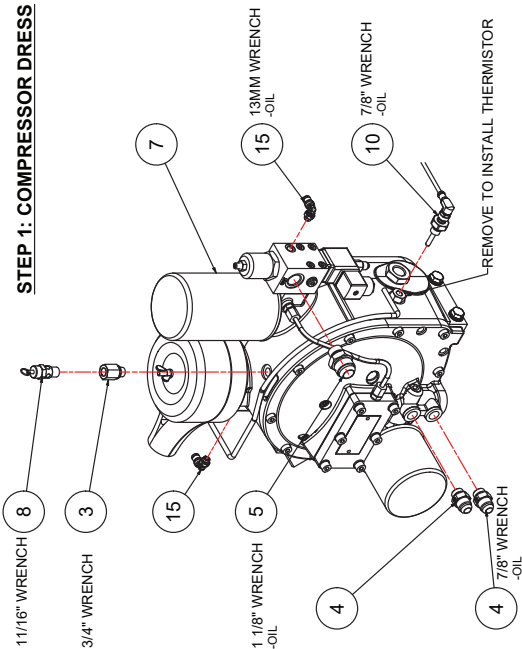


MINIMUM INSTALLATION CLEARANCES

REPLACEMENT PARTS		
ITEM	PART NUMBER	DESCRIPTION
R1	264469	FILTER, AIR, COMPRESSOR, ELEMENT ONLY
R2	264470	SEPARATOR, AIR/OIL, COMPRESSOR, SPIN-ON, VANAIR®
R3	264471	FILTER, OIL COMPRESSOR VANAIR®

7.5 COMPRESSOR ASSEMBLY AND PARTS - 01

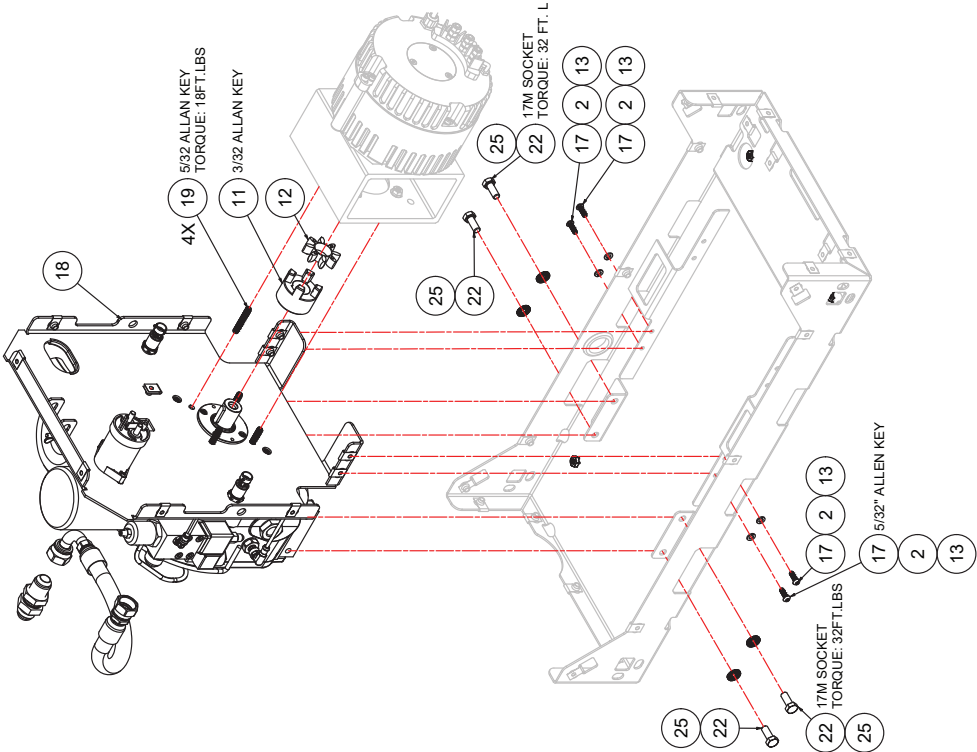
PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	261322	TUBING,NYLON 1/4 NATURAL WHITE WP 250 PSI	1
2	262704	WASHER, NYLON FLAT 1/4	4
3	263748-004	ADAPTER,FEMALE PIPE x BSPP 1/4	1
4	264312-007	ADAPTER, M-JIC 1/2 x BSPP 3/8	2
5	264312-016	ADAPTER,M-JIC 3/4 X BSPP 1/2	1
6	268080	TRIM-LOK 1/4 GROOVE	25
7	269761	COMPRESSOR,VANAIR NK31 STD-SHAFT	1
8	277127	VALVE, RELIEF 225 PSI 1/4 NPT MALE	1
9	278283	TRANSUDCER PRESS 1/8NPT 200PSI -40 to 125 C	2
10	278497	THERMISTOR, TEMP. 1/4 BSPP	1
11	282195	COUPLING, 24 28MM ID/8MM KEY	1
12	282865	SPIDER,24 SHORE 92A	1
13	283066	NUT,CLIP-ON BARREL 1/4"-20, 0.631 FROM CENTER TO EDGE	11
14	283135	GROMMET,RUBBER PUSH-IN 9/16 HOLE DIA 1/8" MATERIAL THK 7/16ID	2
15	283138	ELBOW,90° PUSH-IN G1/8 X 1/4"	2
16	283215	ELBOW,1/4 FNPT SWVL X 1/8 PUSH-ON ZP	2
17	283441-075	SCREW,BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC	4
18	284462	BAIL LIFTING AIR 45CFM (FE)	1
19	284475	SCREW,SET M8-1.25 X 50MM	4
20	284479-100	SCREW,BUTTON HEAD HEX DRIVE 10-24 X 1 BLK ZINC	2
21	285212	HOSE,DISCHARGE 1/2" AIR 45CFM (FE)	1
22	828010-025	CAPSCREW, HEX 10mm 1.5 x 25	4
23	862112-075	BULKHEAD M-JIC x M-JIC 3/4 (1 1/16-12)	1
24	EL270483	RELAY, 500 AMP 12V COIL NO	1
25	FA49463	WASHER, 3/8ID X 13/16OD NORD-LOCK	4



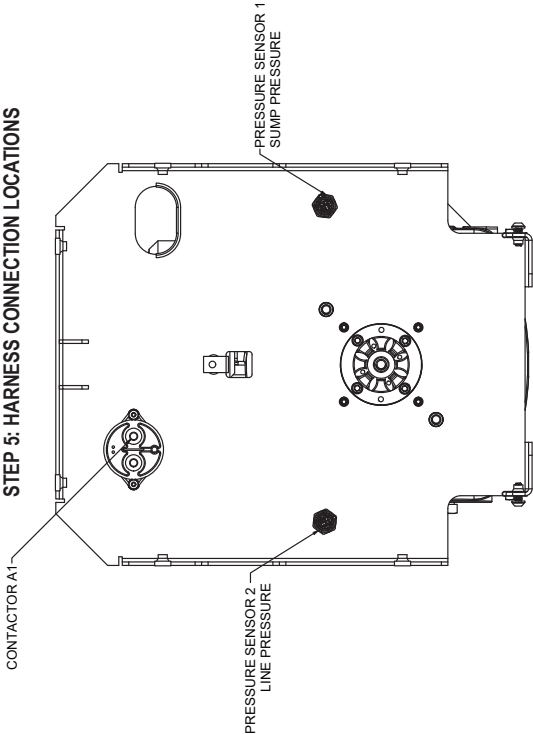
7.5 COMPRESSOR ASSEMBLY AND PARTS - 02

PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	261322	TUBING, NYLON 1/4" NATURAL WHITE WP 250 PSI	1
2	262704	WASHER, NYLON FLAT 1/4"	4
3	263748-004	ADAPTER, FEMALE PIPE x BSPP 1/4"	1
4	264312-007	ADAPTER, M-JIC 1/2" x BSPP 3/8"	2
5	264312-016	ADAPTER, M-JIC 3/4" x BSPP 1/2"	1
6	268080	TRIM-LOK 1/4" GROOVE	.25
7	269761	COMPRESSOR, VANAIR NK31 STD-SHAFT	1
8	277127	VALVE, RELIEF 225 PSI 1/4" NPT MALE	1
9	278283	TRANSducer PRESS 1/8"NPT 200PSI -40 to 125 C	2
10	278497	THERMISTOR, TEMP. 1/4" BSPP	1
11	282195	COUPLING, 24 28MM ID/8MM KEY	1
12	282865	SPIDER 24 SHORE 92A	1
13	283066	NUT, CLIP-ON BARREL 1/4"-20, 0.531" FROM CENTER TO EDGE	11
14	283135	GROMMET, RUBBER PUSH-IN 9/16" HOLE DIA 1/8" MATERIAL THK 7/16ID	2
15	283138	ELBOW 90° PUSH-IN G1/8" X 1/4"	2
16	283215	ELBOW 1/4" FNPT SWVL X 1/8" PUSH-ON ZP	2
17	283441-075	SCREW, BUTTON HEAD HEX DRIVE 1/4"-20 X 3/4 BLACK ZINC	4
18	284462	BAIL LIFTING AIR 45CFM (FE)	1
19	284475	SCREW/SET M8-1.25 X 50MM	4
20	284479-100	SCREW, BUTTON HEAD HEX DRIVE 10-24 X 1 BLK ZINC	2
21	285212	HOSE, DISCHARGE 1/2" AIR 45CFM (FE)	1
22	828010-025	CAPSCREW, HEX 10mm 1.5 X 25	4
23	862112-075	BULKHEAD, M-JIC x M-JIC 3/4" (1 1/16-12)	1
24	EL270483	RELAY, 500 AMP 12V COIL NO	1
25	FA49463	WASHER, 3/8ID X 13/16OD NORD-LOCK	4

STEP 4: MOUNTING TO THE FRAME

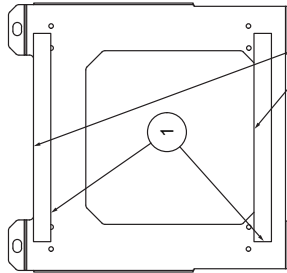


STEP 5: HARNESS CONNECTION LOCATIONS

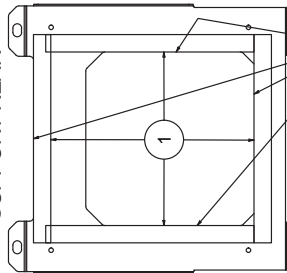


7.6 COOLER ASSEMBLY AND PARTS - 01

COOLER BAFFLE
SUPPORT FRONT



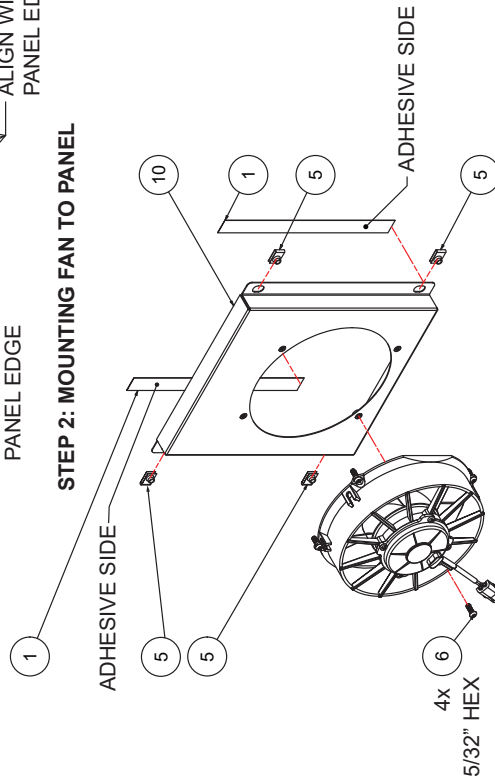
ALIGN WITH
PANEL EDGE



ALIGN WITH
PANEL EDGE

ALL PIECES ARE
CUT TO 12"

STEP 2: MOUNTING FAN TO PANEL



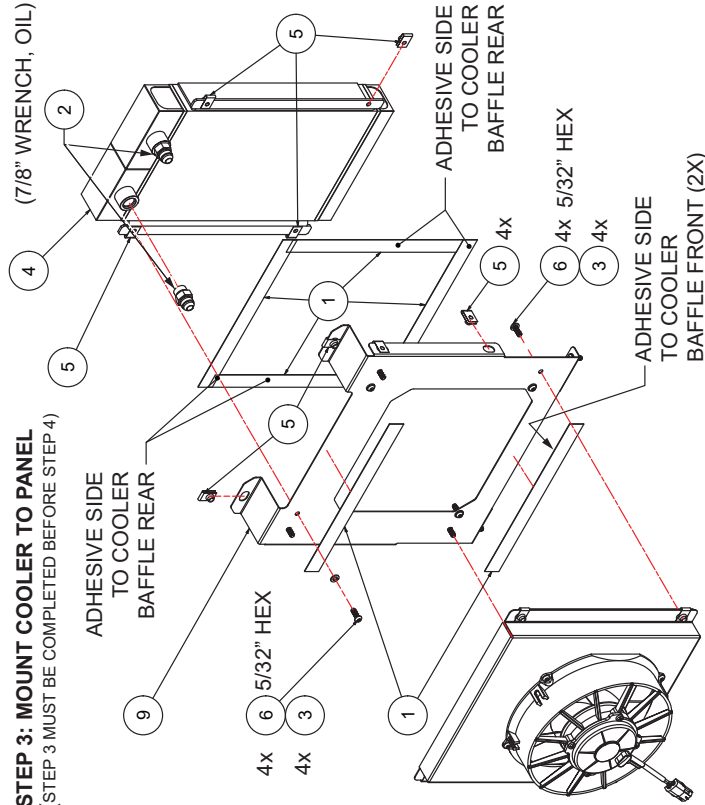
ASSEMBLY DRAWING STANDARD NOTE:

1. USE LOCTITE 567 THREAD SEALANT W/ PTFE OR EQUIVALENT SEALANT ON ALL MALE PIPE THREADS.
2. LUBRICATE ALL SEALS/GASKETS/O-RINGS BEFORE TIGHTENING.
3. ALL BOLTS TO BE TORQUED TO THEIR RESPECTIVE SAE TORQUE SPEC FOR ITS GRADE AND SIZE.
4. CHECK CONTINUITY OF COALESCER ELEMENT.
5. REMOVE, LUBRICATE GASKET - THEN HAND TIGHTEN OIL FILTER.
6. KEEP O-RING; DISCARD METAL RING FROM FITTING.
7. HOSES WITH _____ PREFIX ARE PART OF HOSE KIT _____.

PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	680-088	STRIP, WEATHER 1/8"X1"X50'(X50)	8
2	260387-107	CONNECTOR,O-RING 1/2 X 1/2JIC	2
3	262704	WASHER, NYLON FLAT 1/4"	10
4	282743	COOLER,COMP.R OIL 40CFM SCREW	1
5	283066	NUT ,CLIP.ON BARREL 1/4"-20 0.531 FROM CENTER TO EDGE	14
6	283441-075	SCREW,BUTT.ON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC	14
7	284477	HOSE,OIL COOLER SUPPLY 1/2" X 90° & 90°	1
8	284477	HOSE,OIL COOLER RETURN 1/2" X 90° & 90°	1
9	285209	SUPPORT COOLER BAFFLE AIR 45CFM (FE)	1
10	285210	PANEL,FAN SHROUD AIR 45CFM (FE)	1
11	6310008	FAN & MOTOR ASSY. 9 INCH PUSHER W/CONN (269093)	1

STEP 3: MOUNT COOLER TO PANEL

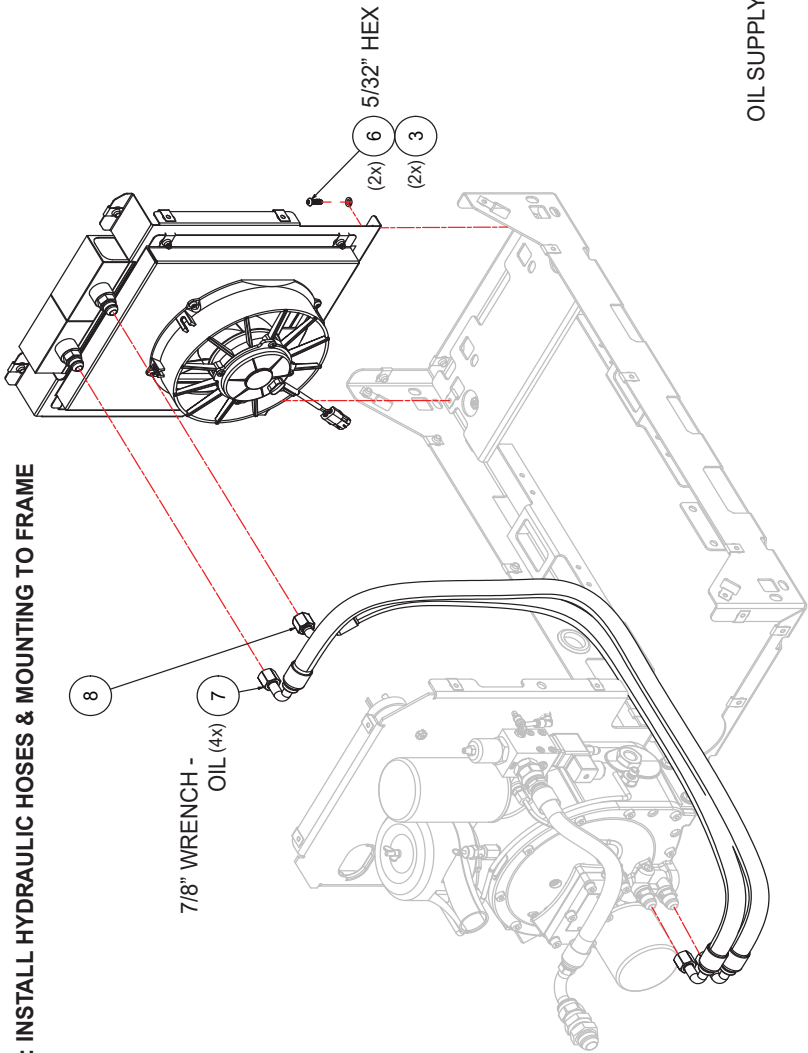
(STEP 3 MUST BE COMPLETED BEFORE STEP 4)



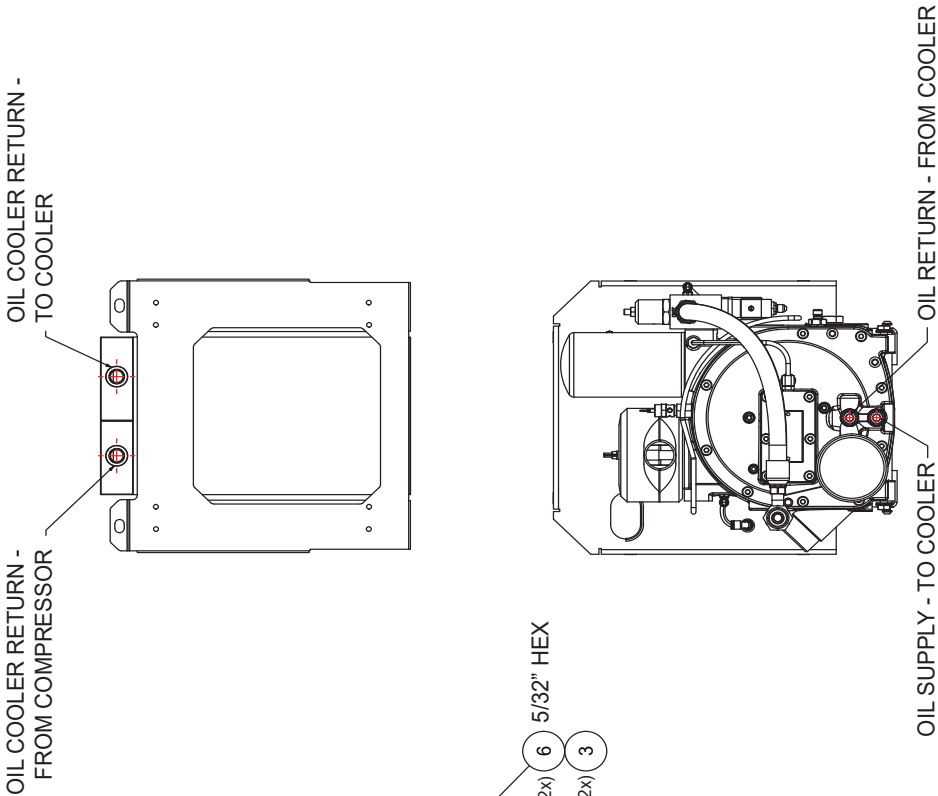
7.6 COOLER ASSEMBLY AND PARTS - 02

PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	660-068	STRIP, WEATHER 1/8X1"x50"(X50)	8
2	260387-107	CONNECTOR O-RING 1/2 X 1/2 JIC	2
3	262704	WASHER, NYLON FLAT 1/4	10
4	282743	COOLER COMPRESSOR OIL 40CFM SCREW	1
5	283066	NUT CLIP-ON BARREL 1/4"-20, 0.531 FROM CENTER TO EDGE	14
6	283441-075	SCREW, BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC	14
7	284476	HOSE, OIL COOLER SUPPLY 1/2" X 90° & 90°	1
8	284477	HOSE, OIL COOLER RETURN 1/2" X 90° & 90°	1
9	285209	SUPPORT, COOLER BAFFLE AIR 45CFM (FE)	1
10	285210	PANEL, FAN SHROUD AIR 45CFM (FE)	1
11	6310008	FAN & MOTOR ASSY, 9 INCH PUSHER W/CONN (269093)	1

STEP 5: INSTALL HYDRAULIC HOSES & MOUNTING TO FRAME

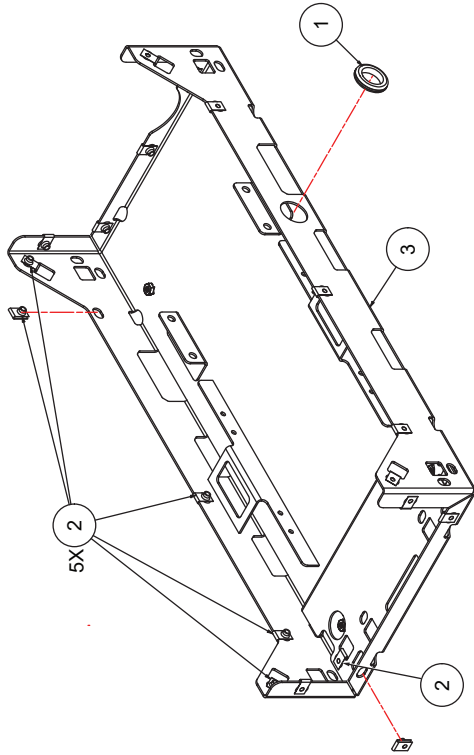
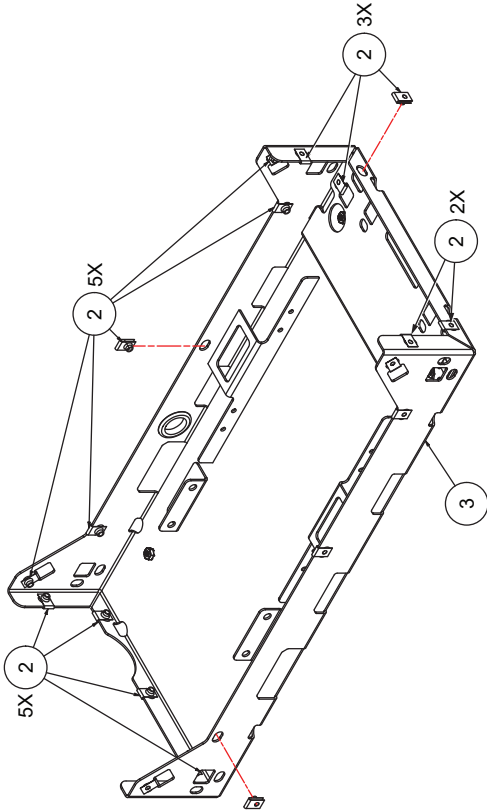


HOSE NOTE:
1. INSTALL BOTTOM HOSE FIRST



7.7 FRAME ASSEMBLY AND PARTS

PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	264362	GROMMET,RUBBER 1 1/4ID x1 1/2 x 3/32	1
2	283066	NUT,CLIP-ON BARREL 1/4"-20, 0.531 FROM CENTER TO EDGE	21
3	284461	FRAME,EPEQ AIR 45CFM (FE)	1



ASSEMBLY DRAWING STANDARD NOTE:

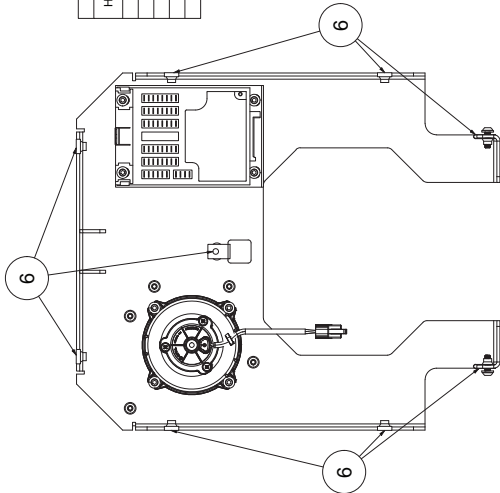
- 1. USE LOCTITE 567 THREAD SEALANT W/ PTFE OR EQUIVALENT SEALANT ON ALL MALE PIPE THREADS.
- 2. LUBRICATE ALL SEALS/GASKETS/O-RINGS BEFORE TIGHTENING.
- 3. ALL BOLTS TO BE TORQUED TO THEIR RESPECTIVE SAE TORQUE SPEC FOR ITS GRADE AND SIZE.
- 4. CHECK CONTINUITY OF COALESCER ELEMENT.
- 5. REMOVE, LUBRICATE GASKET - THEN HAND TIGHTEN OIL FILTER.
- 6. KEEP O-RING; DISCARD METAL RING FROM FITTING.
- 7. HOSES WITH _____ PREFIX ARE PART OF HOSE KIT _____.

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7.8 ELECTRONIC COMPONENTS AND PARTS - 01

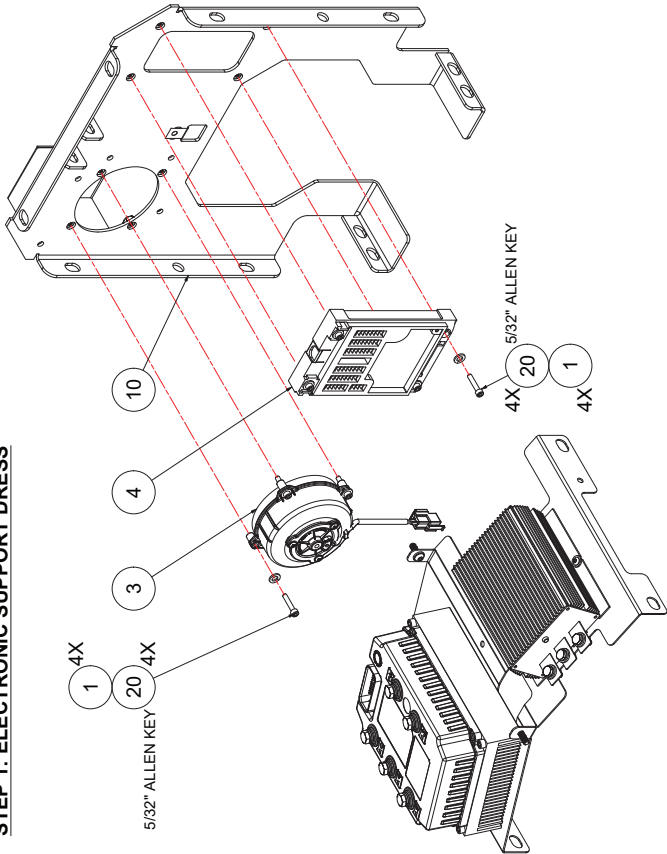
ITEM	PART NUMBER	DESCRIPTION	QTY
1	262704	WASHER, NYLON FLAT 1/4"	21
2	265257	TRIM-LOK 1/16 GROOVE NEOPRENE PUSH ON STYLE.	1
3	277248	FAN, PULL 4" SPAL	1
4	278395	CONTROLLER BASIC 12 IN/8 OUT/2 CAN	1
5	282101	CONVERTER 48V-12V 60A	1
6	283066	NUT CLIP-ON BARREL 1/4"-20 0.531 FROM CENTER TO EDGE	16
7	283441-075	SCREW BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC	11
8	284009	CONTROLLER MOTOR 36V/48V PREMIUM LONGITUDINAL HEATSINK	1
9	284460	HARNESS MAIN AIR 45CFM (FE) (NOT SHOWN)	1
10	284463	SUPPORT ELECTRICAL BRACKET AIR 45CFM (FE)	1
11	284464	BRACKET ELECTRICAL AIR 45CFM (FE)	1
12	284466	BAFFLE FAN ELECTRONIC AIR 45CFM (FE)	1
13	284479-050	SCREW BUTTON HEAD HEX DRIVE 10-24 X 1/2 BLACK ZINC	2
14	284558	WIRE ASSY AIR 45CFM 1/0 PHASE (V) GREEN	1
15	284559	WIRE ASSY AIR 45CFM 1/0 PHASE (U) YELLOW	1
16	284560	WIRE ASSY AIR 45CFM 1/0 PHASE (W) BLUE	1
17	284563	WIRE ASSY AIR 45CFM 1/0 B+ RED	1
18	286324	WIRE ASSY AIR 45CFM 1/0 ANDERSON CONN	1
19	825205-273	NUT, HEX 5/16-18	2
20	828302-100	CAPSCREW S.H. #10-24UNC X 1	8
21	828304-225	CAPSCREW S.H. 1/4-20 X 2 1/4	4

STEP 1: ELECTRONIC SUPPORT DRESS

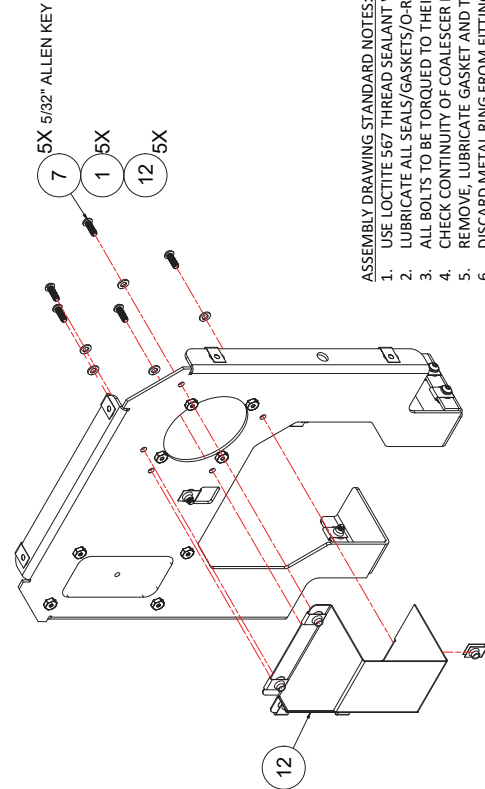


HARNESS LABEL	COMPONENT LABEL	WIRE COLOR
IO - A	BASIC CONTROLLER - A	RED/BLUE/BLK
IO - B	BASIC CONTROLLER - B	BLK/WHITE
IO - F	BASIC CONTROLLER - F	BLK/WHY/YEL
IO - PN 1	BASIC CONTROLLER - PN 1	WHT/BLK/BLU
IO - N2	BASIC CONTROLLER - N2	GRN/YELLOW

STEP 1: ELECTRONIC SUPPORT DRESS



STEP 2: MOUNT INVERTER FAN BAFFLE

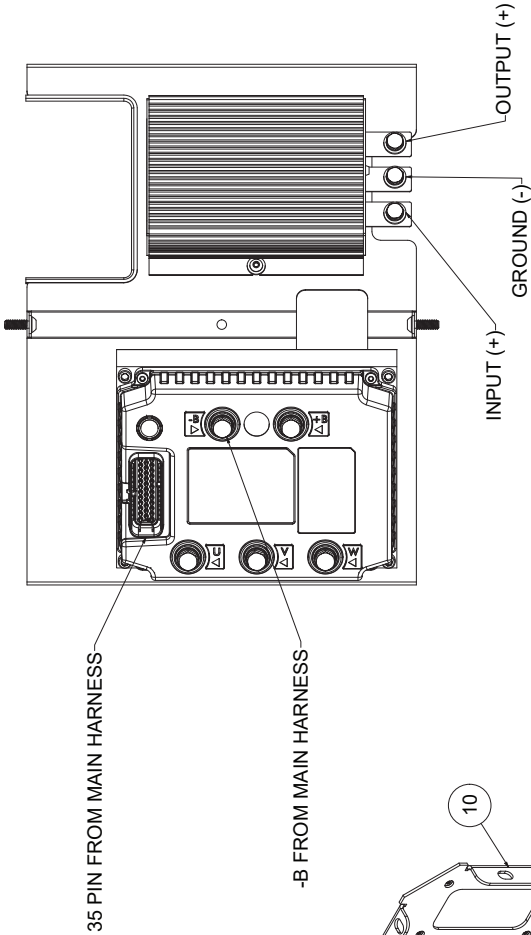
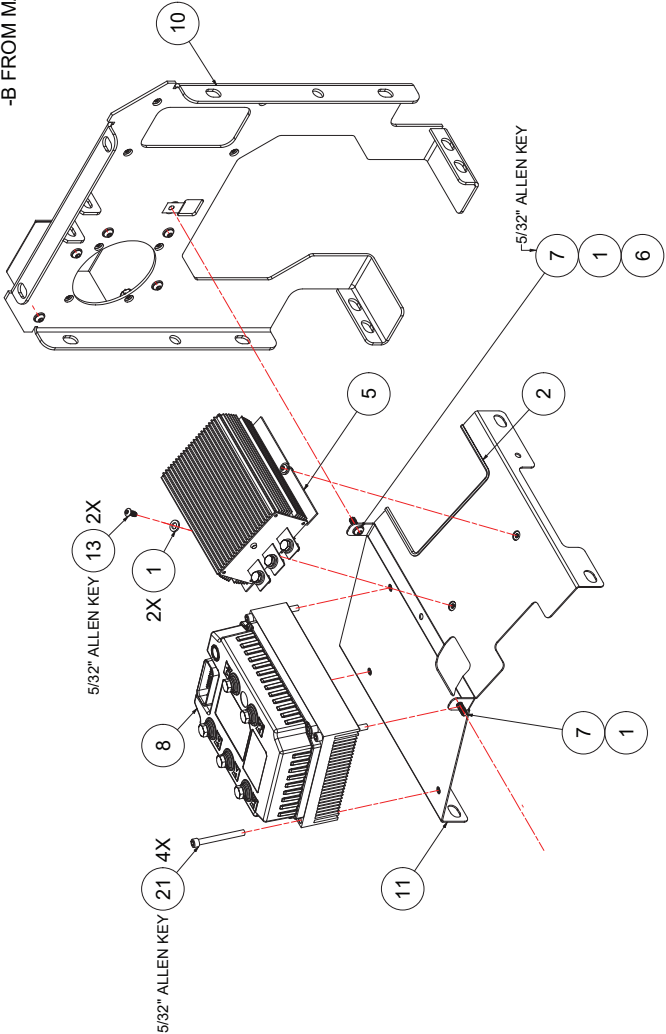


- ASSEMBLY DRAWING STANDARD NOTES:
- USE LOCTITE 567 THREAD SEALANT WITH PTFE OR EQUIVALENT SEALANT ON ALL MALE PIPE THREADS.
 - LUBRICATE ALL SEALS/GASKETS/O-RINGS BEFORE TIGHTENING.
 - ALL BOLTS TO BE TORQUED TO THEIR RESPECTIVE SAE TORQUE SPEC FOR ITS GRADE AND SIZE.
 - CHECK CONTINUITY OF COALESCEMENT ELEMENT.
 - REMOVE, LUBRICATE GASKET AND THEN HAVE TIGHTEN OIL FILTER.
 - DISCARD METAL RING FROM FITTING. LEAVE O-RING.
 - HOSES WITH _____ PREFIX ARE PART OF HOSE KIT _____.

7.8 ELECTRONIC COMPONENTS AND PARTS - 02

PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	262704	WASHER, NYLON FLAT 1/4	21
2	265257	TRIM-LOK 1/16 GROOVE NEOPRENE PUSH ON STYLE.	1
3	277248	FAN PULL 4" SPAL	1
4	278395	CONTROLLER BASIC 12 IN/8 OUT/2 CAN	1
5	282101	CONVERTER 48V/12V 60A	1
6	283066	NUT, CLIP-ON BARREL 1/4"-20, 0.531 FROM CENTER TO EDGE	16
7	283441-075	SCREW BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC	11
8	284009	CONTROLLER MOTOR 36V/48V PREMIUM LONGITUDINAL HEATSINK	1
9	284460	HARNES MAIN AIR 45CFM (FE) (NOT SHOWN)	1
10	284463	SUPPORT ELECTRICAL BRACKET AIR 45CFM (FE)	1
11	284464	BRACKET ELECTRICAL AIR 45CFM (FE)	1
12	284466	BAFFLE FAN ELECTRONIC AIR 45CFM (FE)	1
13	284479-050	SCREW BUTTON HEAD HEX DRIVE 10-24 X 1/2 BLACK ZINC	2
14	284568	WIRE ASSY AIR 45CFM 1/0 PHASE (V) GREEN	1
15	284569	WIRE ASSY AIR 45CFM 1/0 PHASE (U) YELLOW	1
16	284560	WIRE ASSY AIR 45CFM 1/0 PHASE (W) BLUE	1
17	284563	WIRE ASSY AIR 45CFM 1/0 B+ RED	1
18	286324	WIRE ASSY AIR 45CFM 1/0 ANDERSON CONN	2
19	825205-273	NUT, HEX 5/16-18	2
20	828302-100	CAPSCREW, S.H. #10-24UNC X 1	8
21	828304-225	CAPSCREW, S.H. 1/4-20 X 2 1/4	4

STEP 3: MOUNT INVERTER & CONVERTER TO BRACKET

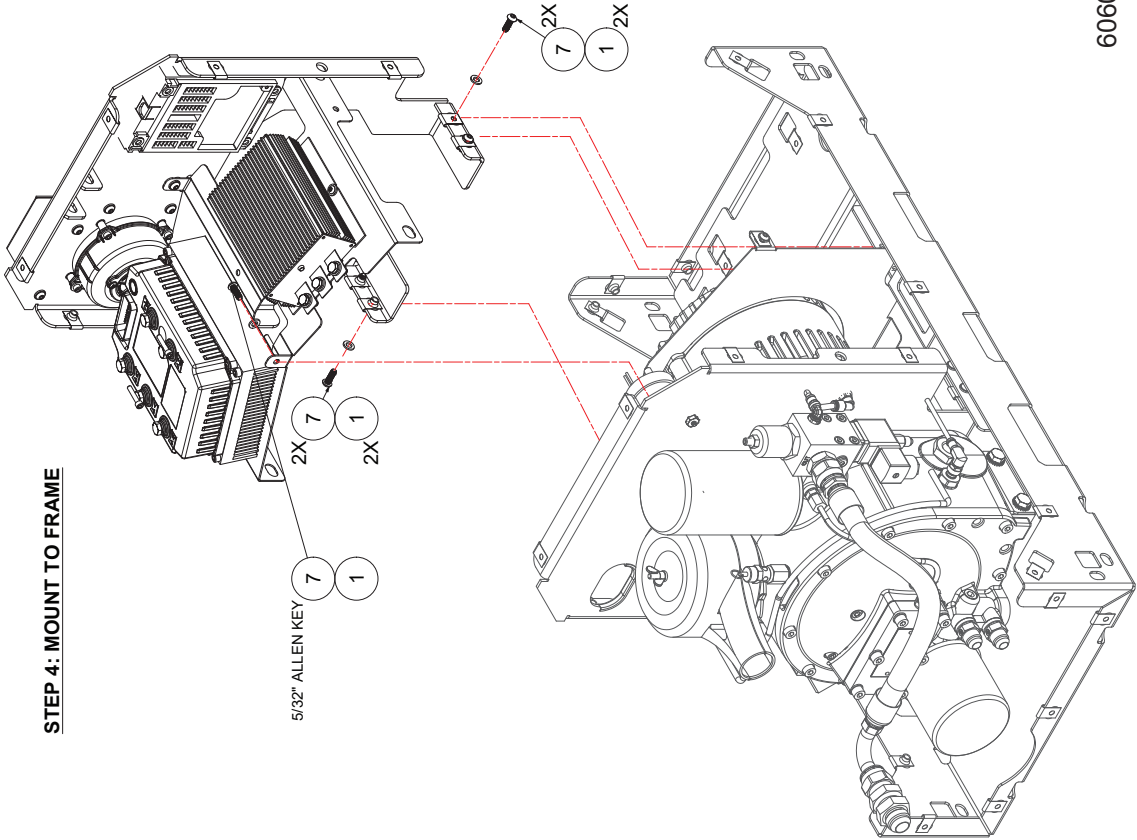


HARNES TABLE		
HARNES LABEL	COMPONENT LABEL	WIRE COLOR
MOTOR CONTROLLER	35 PIN	ORANGE
POWER	INPUT (+)	ORANGE
GND	GROUND (-)	BLACK
POWER	OUTPUT (+)	YELLOW
MOTOR CONTROLLER-B	-B	BLACK

7.8 ELECTRONIC COMPONENTS AND PARTS - 03

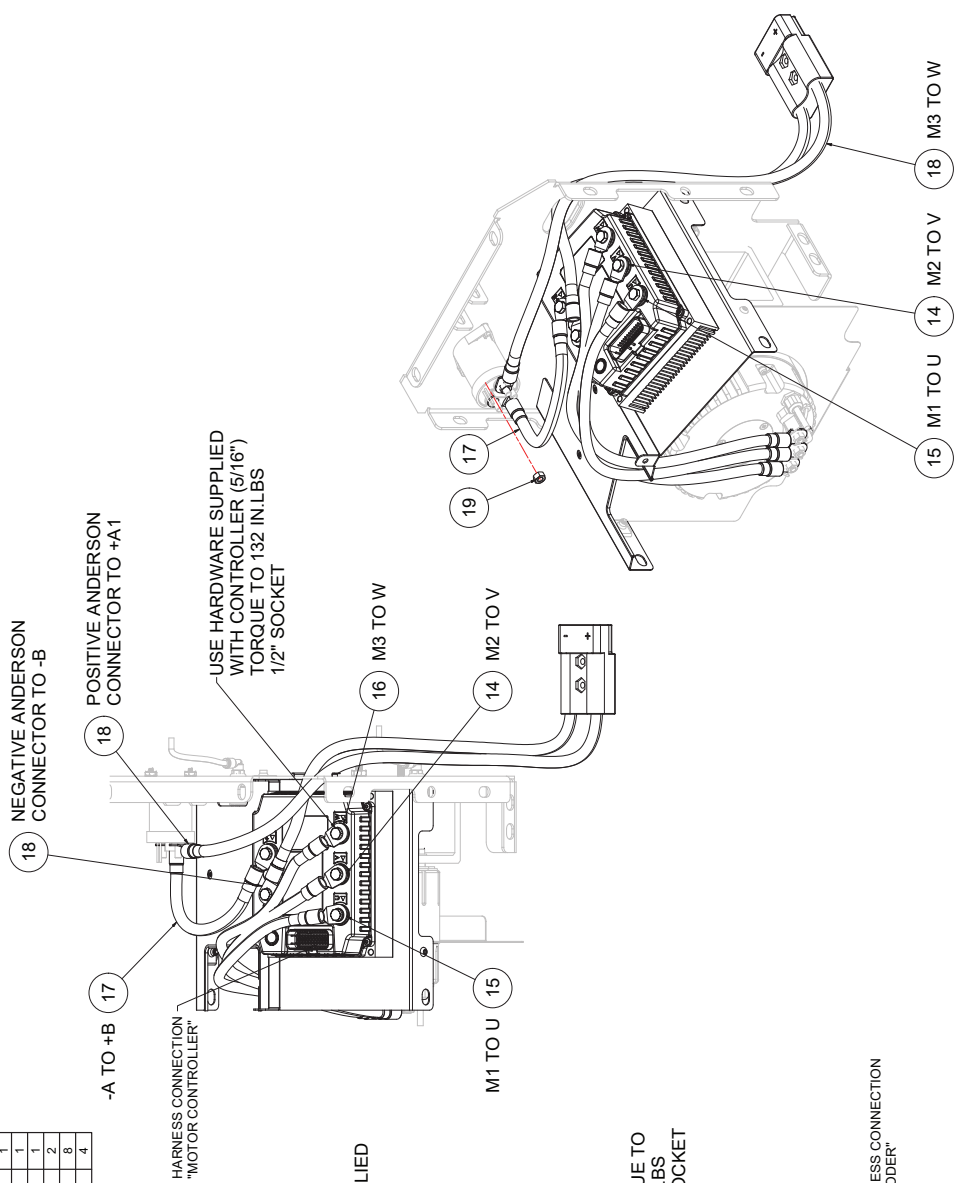
PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	262704	WASHER, NYLON FLAT 1/4
2	265257	TRIM LOK 1/16 GROOVE NEOPRENE PUSH ON STYLE
3	277248	FAN, PULL 4" SPAL
4	278395	CONTROLLER BASIC 12 IN/8 OUT/2 CAN
5	282101	CONVERTER 48V-12V 60A
6	283066	NUT CLIP-ON BARREL 1/4"-20 0.531 FROM CENTER TO EDGE
7	283441-075	SCREW BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC
8	284009	CONTROLLER MOTOR 36V/48V PREMIUM LONGITUDINAL HEATSINK
9	284460	HARNESS MAIN AIR 45CFM (FE) (NOT SHOWN)
10	284463	SUPPORT ELECTRICAL BRACKET AIR 45CFM (FE)
11	284464	BRACKET ELECTRICAL AIR 45CFM (FE)
12	284466	BAFFLE FAN ELECTRONIC AIR 45CFM (FE)
13	284479-050	SCREW BUTTON HEAD HEX DRIVE 10-24 X 1/2 BLACK ZINC
14	284538	WIRE ASSY AIR 45CFM 1/0 PHASE (V) GREEN
15	284559	WIRE ASSY AIR 45CFM 1/0 PHASE (U) YELLOW
16	284560	WIRE ASSY AIR 45CFM 1/0 PHASE (W) BLUE
17	284563	WIRE ASSY AIR 45CFM 1/0 B+ RED
18	286324	WIRE ASSY AIR 45CFM 1/0 ANDERSON CONN
19	825203-273	NUT, HEX 5/16-18
20	828302-100	CAPSCREW S.H. #10-24UNC X1
21	828304-225	CAPSCREW, S.H. 1/4-20 X 2 1/4

STEP 4: MOUNT TO FRAME

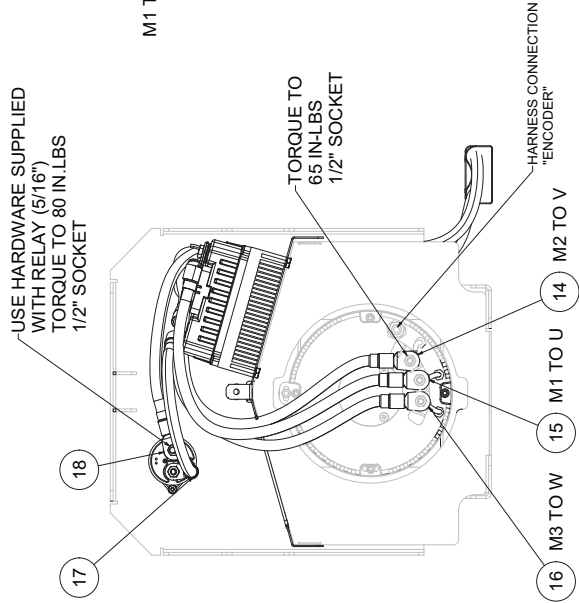


7.8 ELECTRONIC COMPONENTS AND PARTS - 04

PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	262704	WASHER, NYLON FLAT 1/4
2	265257	TRIMLOK 1/16 GROOVE NEOPRENE PUSH ON STYLE
3	277248	FAN PULL 4" SPAL
4	278395	CONTROLLER BASIC 12 IN8 OUT12 CAN
5	282101	CONVERTER 48V-12V 60A
6	283066	NUT CLIP-ON BARREL 1/4"-20 0.031 FROM CENTER TO EDGE
7	283441-075	SCREW BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC
8	284009	CONTROLLER MOTOR 36V/48V PREMIUM LONGITUDINAL HEATSINK
9	284460	HARNESS MAIN AIR 45CFM (FE) (NOT SHOWN)
10	284463	SUPPORT ELECTRICAL BRACKET AIR 45CFM (FE)
11	284464	BRACKET ELECTRICAL AIR 45CFM (FE)
12	284466	BAFFLE FAN ELECTRONIC AIR 45CFM (FE)
13	284479-050	SCREW BUTTON HEAD HEX DRIVE 10-24 X 1/2 BLACK ZINC
14	284558	WIRE ASSY AIR 45CFM 10 PHASE (V) GREEN
15	284559	WIRE ASSY AIR 45CFM 10 PHASE (U) YELLOW
16	284560	WIRE ASSY AIR 45CFM 10 PHASE (W) BLUE
17	284563	WIRE ASSY AIR 45CFM 10 B+ RED
18	286324	WIRE ASSY AIR 45CFM 10 ANDERSON CONN
19	625205-273	NUT, HEX 5/16-18
20	628302-100	CAPSCREW 3/8" #10-24UNC X 1
21	628304-225	CAPSCREW, S.H. 1/4-20 X 2 1/4
		QTY
		21



STEP 5: PHASE CABLE AND CONTACTOR INSTALLATION

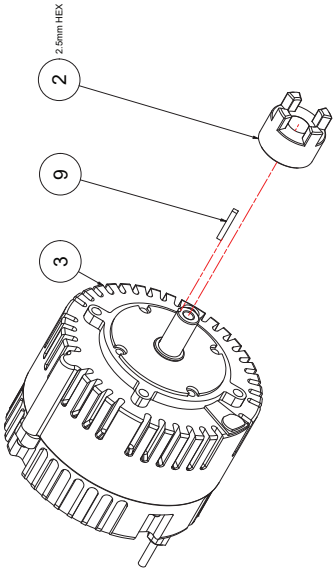


NOTES:
1. PROPER TORQUE MUST BE APPLIED TO ALL NUTS AND BOLTS.

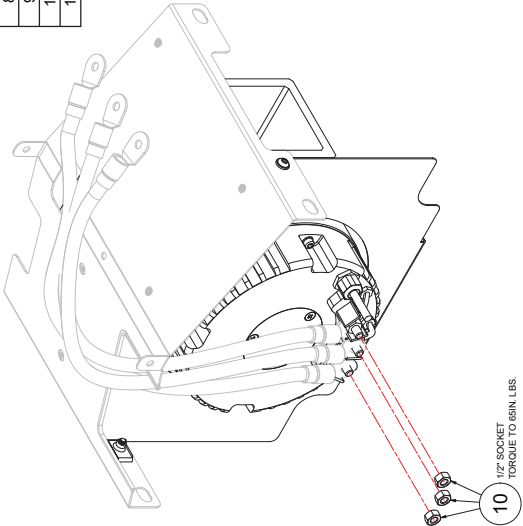
7.9 DRIVE COMPONENTS AND PARTS

PARTS LIST			Q
ITEM	PART NUMBER	DESCRIPTION	
1	262704	WASHER, NYLON FLAT 1/4"	
2	282197	COUPLING, 24 .875" ID/.188" KEY	
3	282689	MOTOR 48V 8KW	
4	283086	NUT CLIP-ON BARREL 1/4"-20, 0.531 FROM CENTER TO EDGE	
5	283390	ADAPTER HOUSING EPEQ AIR 45CFM	
6	283441-075	SCREW BUTTON HEAD HEX DRIVE 1/4-20 X 3/4 BLACK ZINC	
7	284465	BAFFLE MOTOR AIR 45CFM (FE)	
8	284480	NUT SPIN M8 X 18MM ZP	
9	284871	KEY SQUARE 3/16 X 3/16 X 1-3/8 AIR 45CFM	
10	825205-273	NUT, HEX 5/16-18	
11	829706-075	SCREW, SER WASH 3/8-16 x 0.75	

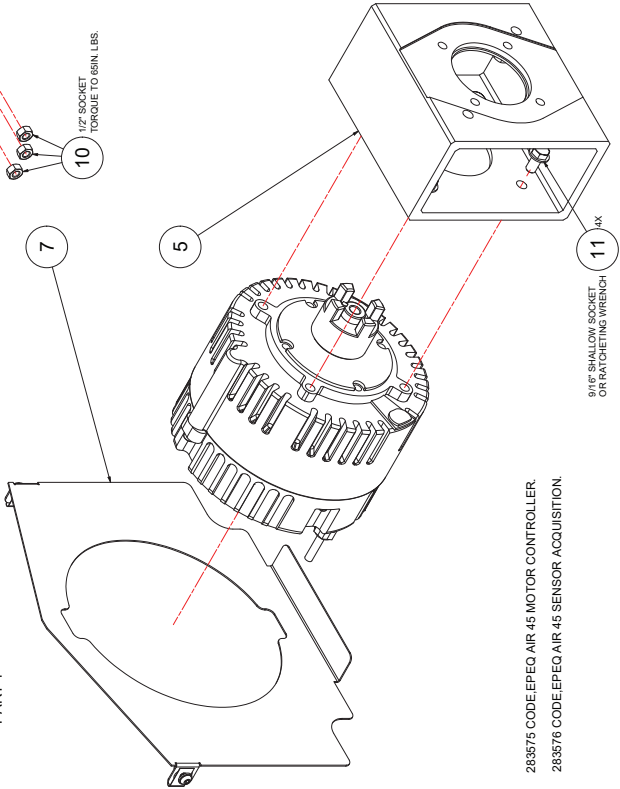
STEP 1: COUPLING INSTALL



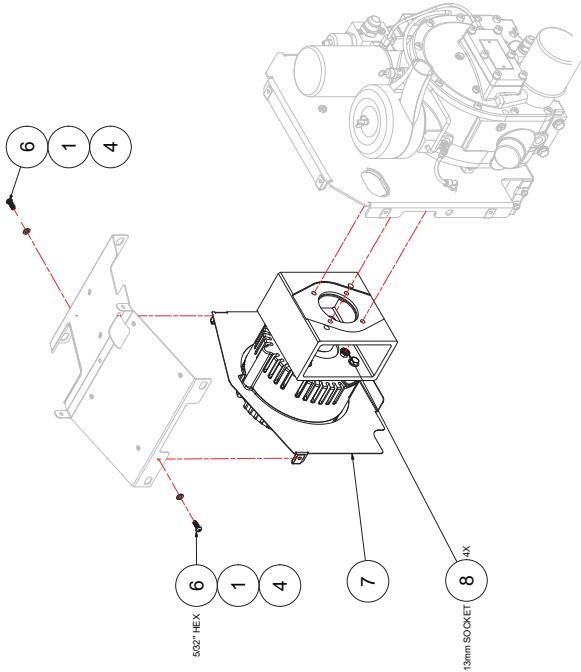
STEP 2: TORQUE NUTS FOR PHASE WIRES
PART 2



STEP 2: MOUNTING TO MOTOR ADAPTER HOUSING
PART 1



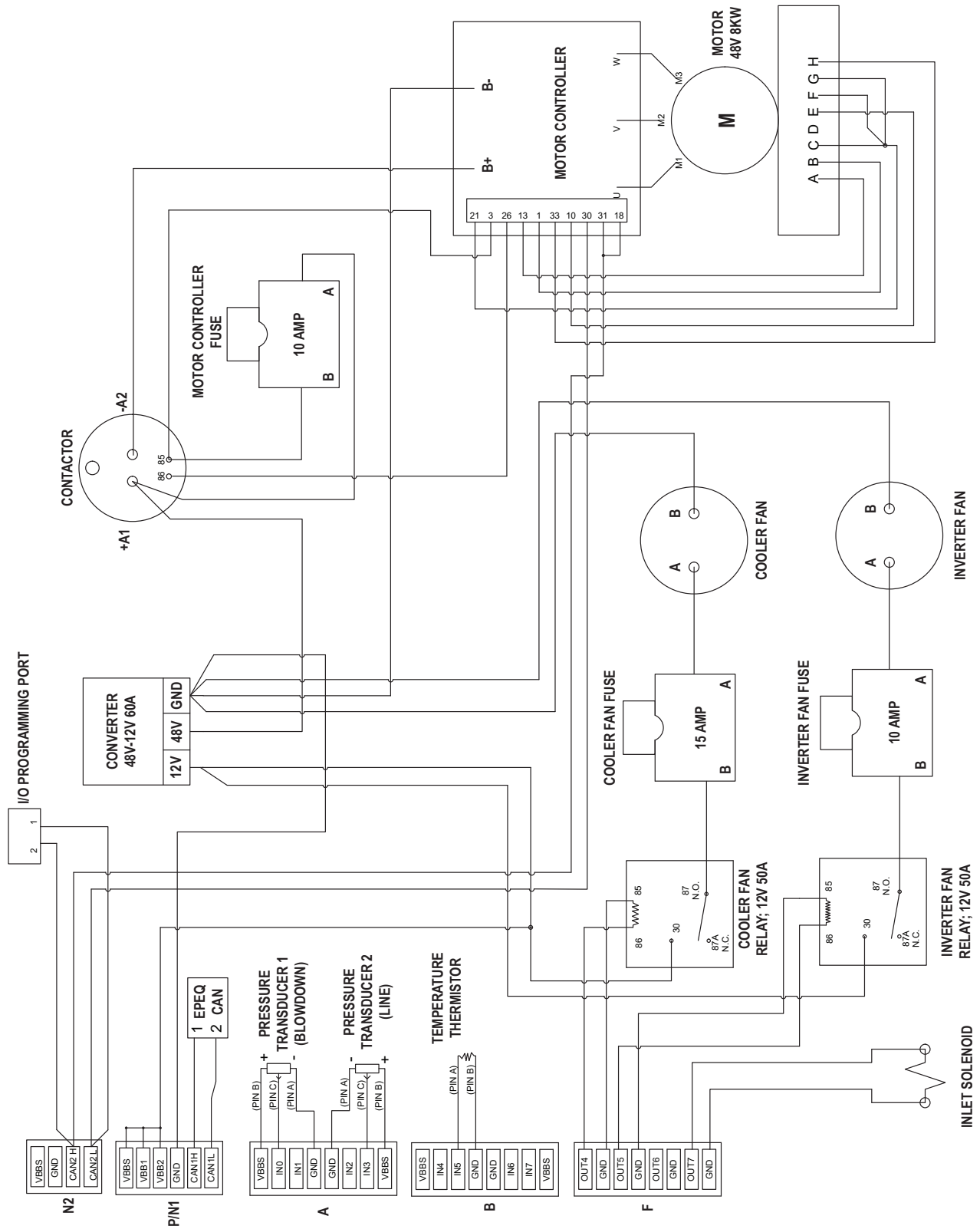
STEP 3: MOUNTING ADAPTER HOUSING TO COMPRESSOR



NOTES:
1. PROPER TORQUE MUST BE APPLIED TO ALL NUTS AND BOLTS.
2. PERFORM SENSOR ACQUISITION AFTER MOUNTING MOTOR TO ADAPTER HOUSING, BEFORE MOUNTING ADAPTER HOUSING TO THE COMPRESSOR.

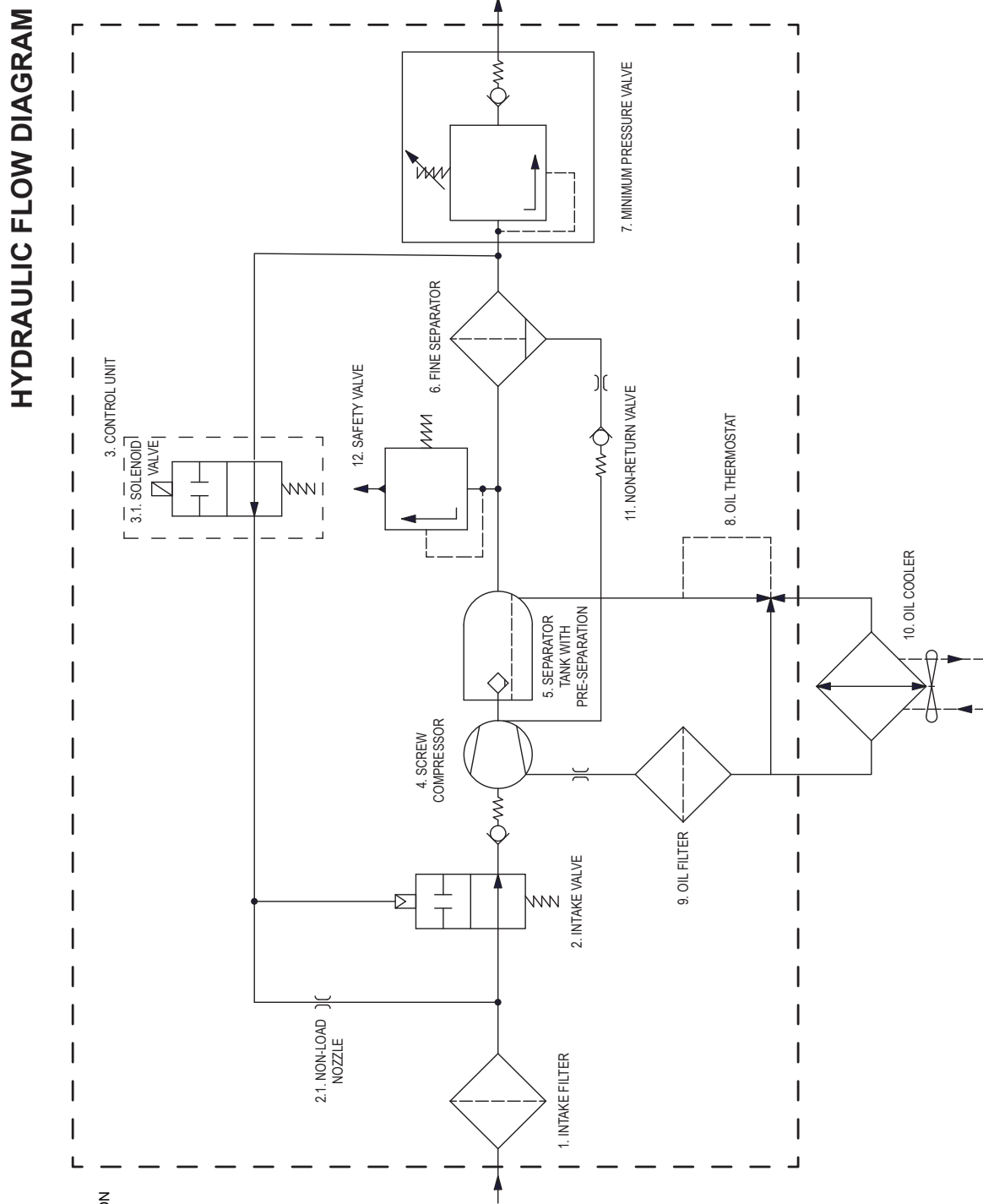
283575 CODE EPEQ AIR 45 MOTOR CONTROLLER
283576 CODE EPEQ AIR 45 SENSOR ACQUISITION

7.10 EPEQ® AIR45 WIRING DIAGRAM

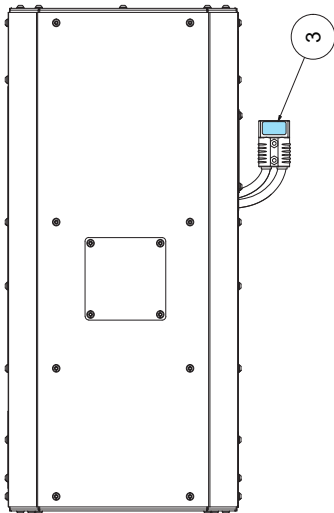


7.11 EPEQ® AIR45 HYDRAULIC FLOW DIAGRAM

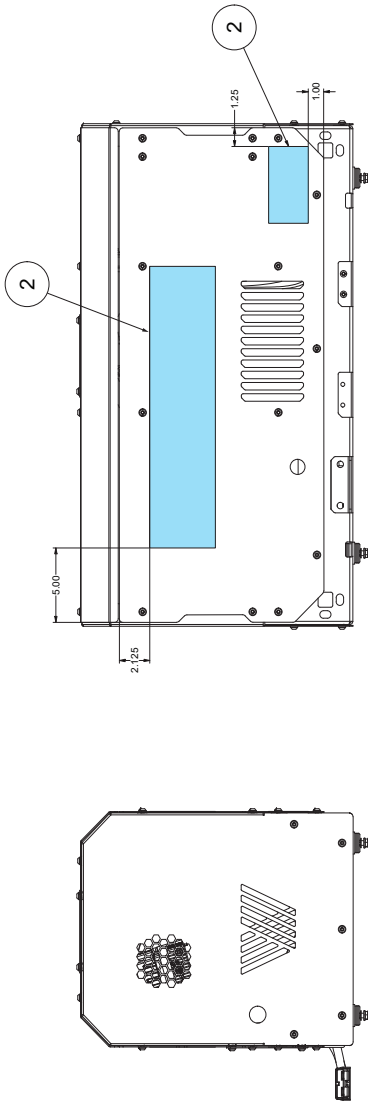
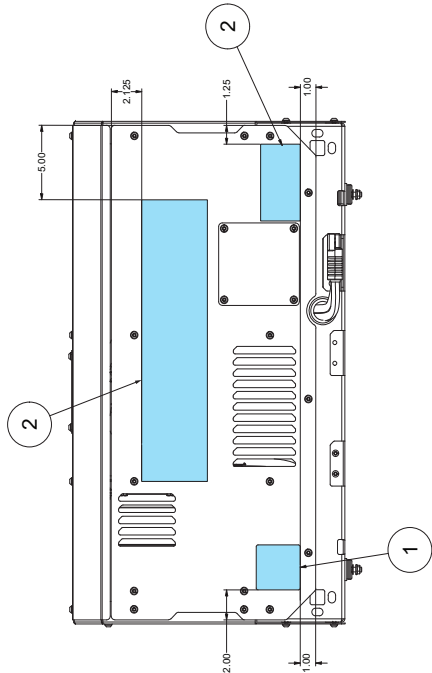
1. INTAKE FILTER
2. INTAKE VALVE
- 2.1. NO-LOAD NOZZLE
3. CONTROL UNIT
- 3.1. SOLENOID VALVE
4. SCREW COMPRESSOR
5. SEPARATOR TANK WITH PRE-SEPARATION
6. FINE SEPARATOR
7. MINIMUM PRESSURE VALVE
8. OIL THERMOSTAT
9. OIL FILTER
10. OIL COOLER
11. NON-RETURN VALVE
12. SAFETY VALVE (OPTIONAL)



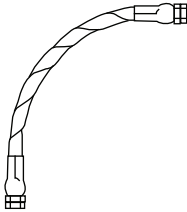
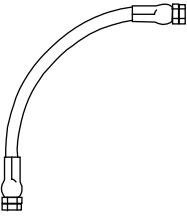
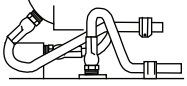
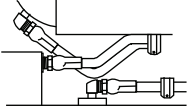
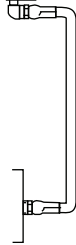
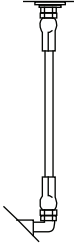
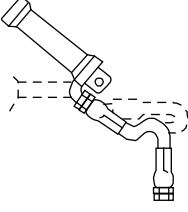
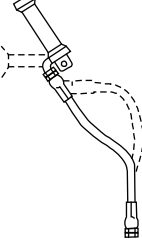
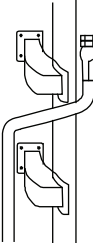
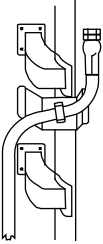
7.12 DECAL GROUP



PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	285124	DECAL, QR CODE EPEQ AIR45	1
2	285320	SET,DECAL EPEQ AIR 45CFM (FE)	1
3	282580	DECAL,EPEQ ORANGE ANDERSON CONN.	1



7.13 HOSE INSTALLATION GUIDE

7.13 HOSE INSTALLATION GUIDE					
HOSE LAYOUT CONSIDERATION	WRONG	RIGHT	HOSE LAYOUT CONSIDERATION	WRONG	RIGHT
1. Hose is weakened when installed in twisted position. Pressure in twisted hose tends to loosen fitting connections. Design so that machine motion produces bending rather than twisting.			4. Use elbows or other adapters as necessary to eliminate excess hose length and to insure neater installation for easier maintenance.		
2. Ample bend radius should be provided to avoid collapsing of line and restriction of flow.			5. When hose assembly is installed in a flexing application, remember that metal hose fittings are not part of the flexible portion. Allow ample free length for flexing.		
3. Exceeding minimum bend radius will greatly reduce hose assembly life.			6. When properly routing, use clamps to secure the hose in its proper position.		

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Manual Part Number: 6210004 Replaced by 090205

Effective Date: 11/06/2025