	<u>No.:</u> 98-02692-00	<u>Rev:</u> B
	<u>Date:</u> 8 Dec 2022	<u>Authorization #:</u> ECN1163407
<u>Title:</u> NaturaLINE Compressor Terminal Wire Instructions	<u>Supersedes:</u> Rev A	
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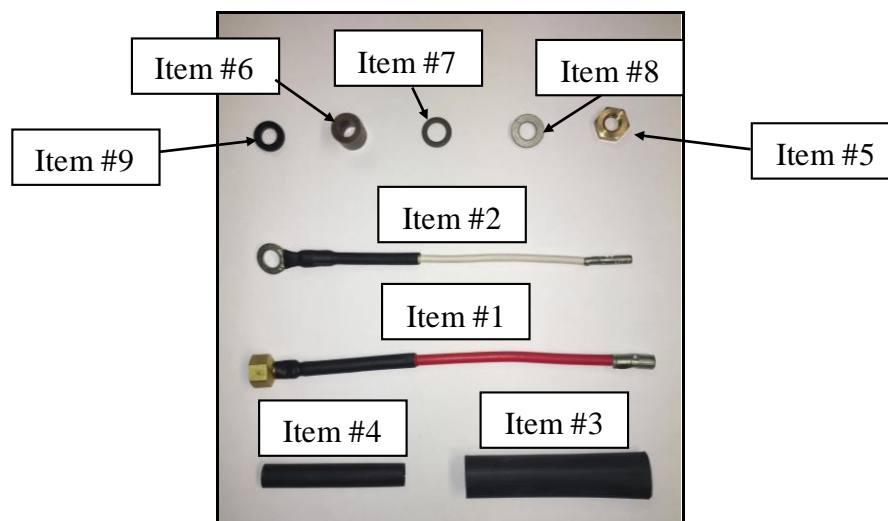
Tools and Item Required:

- | | |
|---|--------------------------------|
| 1. Crimper | 2. Wire Strippers |
| 3. Heat Gun | 4. 10mm Socket |
| 5. Wire Cutters | 6. 7/16 Open Ended Wrench (x2) |
| 7. 9/16 Open Ended Wrench or 9/16 Gear Ring Socket Wrench | |


Package content:

Item	Description	Part Number	Qty
1	RED WIRING ASSY 12AWG	22-01881-00	6
2	WHITE WIRING ASSY 16AWG	22-01881-01	2
3	HEAT SHRINK TUBE 1/2"	66-U---1--3803-1	8
4	HEAT SHRINK TUBE 1/4"	66-U---1--3803	8
5	NUT, JAM (TORQUE NUT)	AT14QA172	8
6*	BUSHING (ISOLATOR)	66-U---2--1122	8
7*	TORQUE FLAT WASHER	AU04AZ301	8
8*	TORQUE SPRING LOCK WASHER	AU11AG171	8
9*	SEAL, O-RING	6DZ5001BZ	8
10	SCREW 2.5" long	66-U---1--5361-19	4
11	MYLAR WASHER	34-06053-02	8
12	INSTRUCTION SHEET	98-02692-00	1

Items listed above with * may not be needed for new installation. These parts are added in case the insulation is cracked during assembly and needs to be replaced.



<u>Used On:</u> NaturaLINE	<u>Prepared By:</u> Swidler	<u>Approved By:</u> Hoover	<u>Date:</u> 12/8/22
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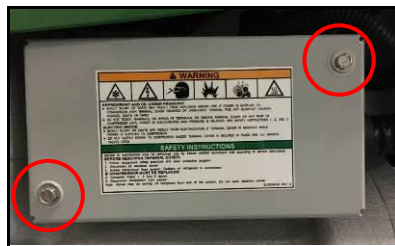
**Before starting the installation of this kit, make sure power to the unit is OFF and power plug disconnected before replacing the compressor.
Follow your regional lockout tag out procedure.**

Procedure:

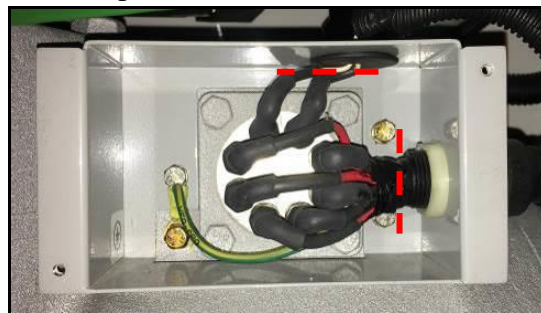
*If a new service compressor is being installed into a unit, it is recommended the terminal block wiring be added to the compressor prior to installation. Follow the preassembly instructions for the compressor outlined in the Operation and Service Manual.

1. Disassembly of Existing Compressor

- 1.1. With the unit off, disconnect the power plug from the electrical source
- 1.2. Remove the two screws located below to remove the cover from the terminal box.




- 1.3. Disconnect the ground from compressor using 10mm socket. **DO NOT CUT GROUND WIRE.**
- 1.4. Using wire cutters, cut the power leads and the two compressor overload leads as close to the compressor terminals as possible.



- 1.5. Remove nut from connector on the right side of the terminal box.
- 1.6. Pull wire harness out of terminal box.
- 1.7. Remove the three retaining screws holding the cover box to the compressor (10mm)
- 1.8. Remove existing Hat channel, screws, and Mylar washers with a 9/16” wrench
- 1.9. Save 2 of the screws and 4 of the best Mylar washers

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2. Preparation of New Compressor

2.1. Assemble the six red power wires (item #1) on the terminals 1-6, shown in [Figure 1](#). Secure connection by using an open ended 7/16” wrench.

Assemble the two white wires (item #2) on to terminals S1 and S2 shown in [Figure 1](#). The terminals are identified with black nuts. Secure connection by using 2 open ended 7/16” wrenches (one to hold the bottom terminal nut in place and the other to tighten the jam nut (item# 5). ***Care must be taken to not over tighten the lower torque nut as it could result in the cracking of the insulator sleeve.**

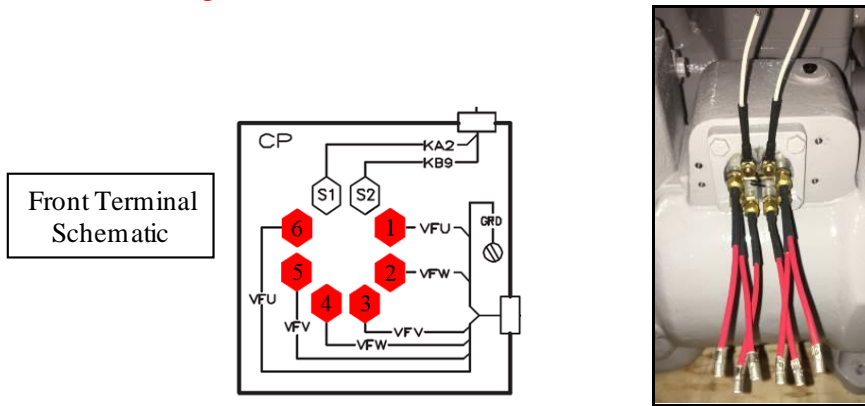



Figure 1

2.2. Bend the two white overload wires 90 degrees so that they pointing straight out from the compressor, parallel with the red power wires.

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2.3. Slide the large heat shrink tube (item #3) over each wire until it bottoms out against the terminal block. The sleeve must completely cover the isolator bushing (Item #6) see [Figure 2](#).



Figure 2

2.4. Using a heat gun, shrink the tubing in place.




2.5. After all wires have been attached to the compressor, re-attach the terminal box to the compressor and secure with the three bolts.

3. Electrical Check (Meg-ohm Connections)

- 3.1. Install the compressor into the unit following the instructions outlined in the operation and service manual (including adding oil before installing).
- 3.2. Before proceeding further, the terminal assembly should be checked for water tightness using a megohm meter (500 V-dc).
- 3.3. Connect the ground lead to the unit and spray each terminal with a mist of water.
- 3.4. Record the reading of each wire lead to ground. Readings should be from 2 megohms to infinity. Readings less than 2 megohms indicate moisture may be present in the terminal stud gaskets and they must be reworked.
 - 3.4.1. Causes of megohm failures are:
 - Cracked bushing (over torque)
 - Torn or improperly assembled O-ring
 - Fiber washers saturated with water or oil

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- Incorrect assembly of heat shrinkable sleeve

4. Installing New Compressor Into Unit

- 4.1. Install the 2 saved screws and 4 saved washers into the middle holes with a 9/16” wrench.
- 4.2. Position the compressor into the unit.
- 4.3. Install a new 2.5” screw and 2 mylar washers into each of the compressor’s feet with a 9/16” wrench.




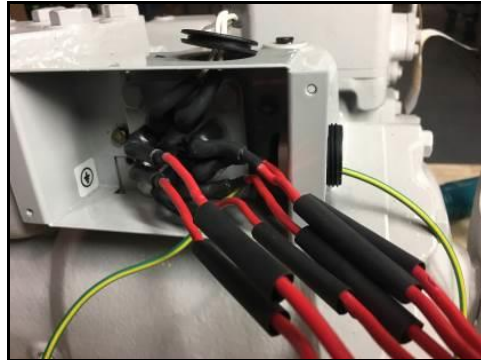
- 4.4. Strip back each wire 3/8” (1 cm) from wire harness.
- 4.5. Place a piece of 1/4” heat shrink (item #4) on every wire (8x) in harness before crimping.



- 4.6. Connect the harness wires to the proper wires on the terminal (pre-assembled with butt splice) using crimping tool. The wires are labeled and will correspond with configuration of the terminal in [Figure 1](#).
- 4.7. Align the 1/4” heat shrink over the center of every butt splice connection and use a heat gun to shrink it (8x).

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4.8. Carefully push the wires inside of the terminal box (applying a little heat using the heat gun assists in positioning the wires and softening the heat shrink). The butt splice and heat shrink should be fed back through the connector. See picture below for reference of final assembly:



4.9. Reinstall the terminal box cover.

4.10. Continue installing the compressor following procedure outlined in the NaturaLINE Operation and Service manual.

REV	REVISION RECORD	DATE	BY	ENGR	ECN NO.
A	INITIAL RELEASE	07 FEB 2017	HANDLEY KURT	KEN CRESSWELL	69N0010P17
B	ADDED FOOT INSTALL (SEC 1.8-1.9, 4.1-4.3)	08 DEC 2022	TYLER SWIDLER	ERIC SHEK	ECN1163407

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