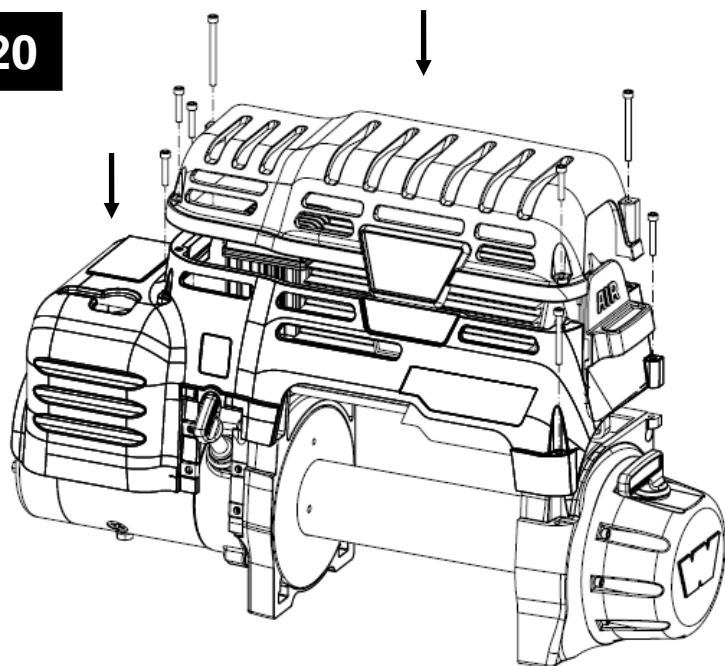




## INSTALLATION INSTRUCTIONS CONTACTOR ASSEMBLY

20



RE-INSTALL TOP COVERS AND MODE COVER.



## INSTALLATION INSTRUCTIONS CONTACTOR ASSEMBLY

Introduction: The following instructions will assist in the removal and replacement of the PowerPlant winch contactor and its associated wire harness.

### **⚠ WARNING**

- Always Know Your Winch. Take time to fully read the Instructions and/or Operations Guide, and/or Basic Guide to Winching Techniques, in order to understand your winch and its operations.
- Never route electrical cables across sharp edges.
- Never route electrical cables near parts that get hot.
- Never route electrical cables through or near moving parts
- Always keep wired remote control lead and power cord clear of the drum, rope, and rigging. Inspect for cracks, pinches, frayed wires or loose connections. Damaged components must be replaced before operation.
- Always consult installation manual for proper wiring details.
- Always place the supplied terminal boots on wires and terminals, as directed by the installation instructions.
- Always remove jewelry and wear eye protection.
- Never lean over battery while making connections.
- Never route electrical cables over battery terminals.
- Never short battery terminals with metal objects.
- Always verify area is clear of fuel lines, fuel tank, brake lines, electrical wires, etc., when drilling.
- Never mount contactor with electrical terminals touching metal objects.
- Never leave the winch remote plugged in when installing, freespooling, rigging, servicing or when the winch is not being used.
- Never leave remote control where it can be activated during free spooling, rigging, or when the winch is not being used
- Always insulate exposed electrical connections.
- Always stand clear, keep hands clear, keep others away.
- Always disconnect winch from battery before any repair is performed on PowerPlant.
- Replacement and installation is best performed with winch on bench top.



# INSTALLATION INSTRUCTIONS

## CONTACTOR ASSEMBLY

Tools needed: SAE Allen wrench set, flat blade screwdriver, 10 & 13mm combination wrench, Torque wrench.

1	91687	HARNESS_CONTACTOR_ASSY
2	91508	BRACKET_COVER
3	91507	CAP_RECEPTACLE PROTECTOR
4	91506	BUSBAR_A_PWRPLANT
5	91505	BUSBAR_F2_PWRPLANT
6	91504	BUSBAR_F1_PWRPLANT
7	91292	MOUNT_CONTACTOR
8	91290	BUSBAR SEPERATOR_CONTACTOR
9	82462	WASHER_RECTANGULAR
10	7636	BAG-PLASTIC-6X6.5-3 MIL
11	73978	POWER-WIRE-CONTROL
12	60595	NUT-M6X1.0-LOCKING HEX-GR 2-ZN-ELASTIC INSERT
13	6005	CLAMP_HOSE
14	26746	BOX_FOL
15	1450	CPSCR-#10-24 X 1/2-HEX SOCKET HEAD-PL
16	91222	CONTACTOR_12V_ALT-ARM
17	13455	NUT-M8X1.25-HEX-GR 8.8-ZN
18	1402	WSHR,LOCK,5/16,ZINC (KB)*
19	86346	CPSCR_M6-1X16_HEX-HD_8.8_W/PATCH
20	988150	INST INSTR - CONTACTOR ASSY
21	69500	CABLE TIE,6IN,40# BLK
22	64715	CABLE TIE, 3 3/4 X 3/32
23	71887	HEAD GASKET
24	71888	CYLINDER GASKET
25	7636	BAG PLASTIC 6X6

⚠ WARNING

Always disconnect winch from battery before any repair is performed on PowerPlant.

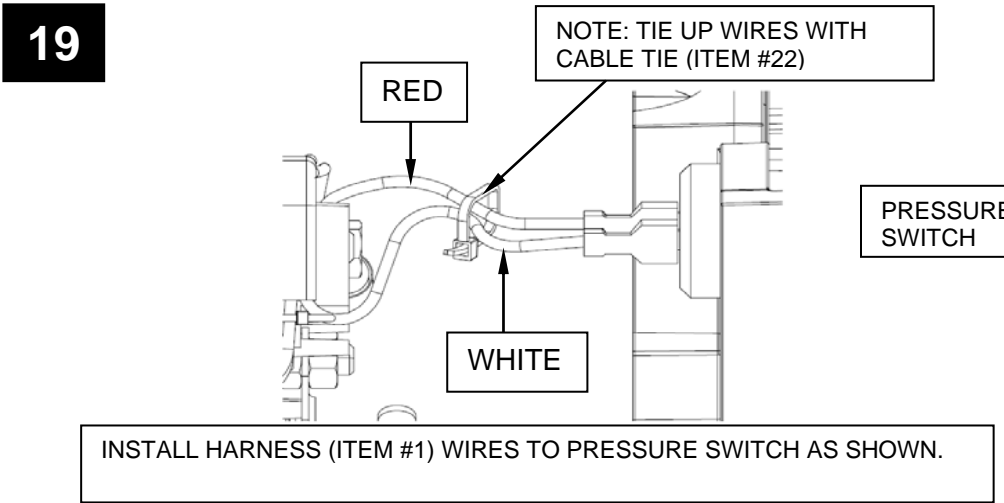
⚠ WARNING

Replacement and installation is best performed with winch on bench top.

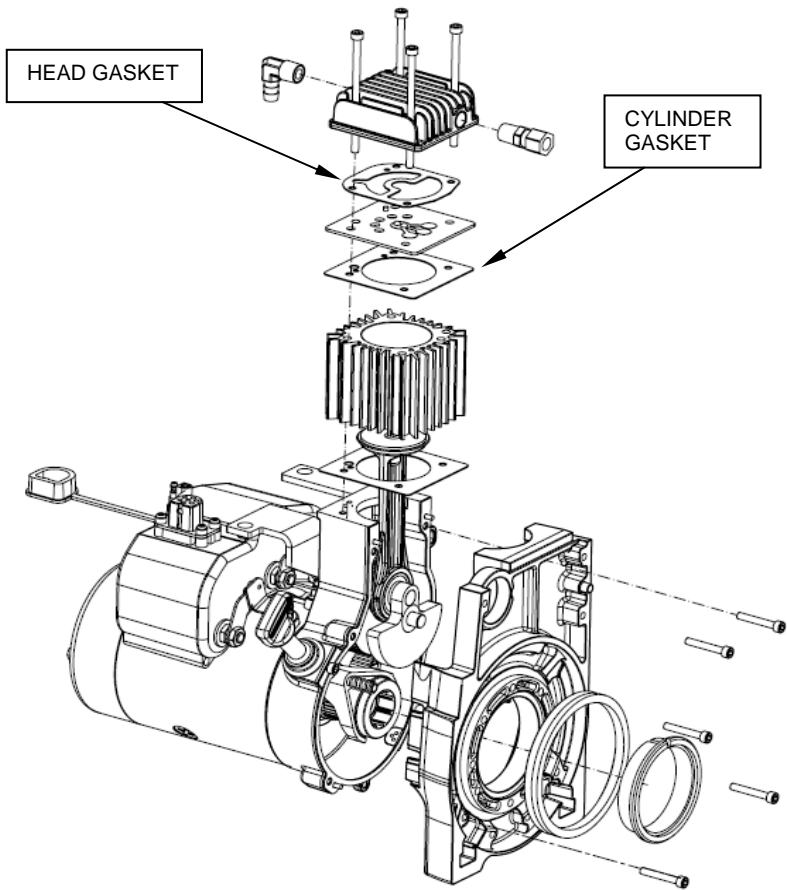


# INSTALLATION INSTRUCTIONS

## CONTACTOR ASSEMBLY

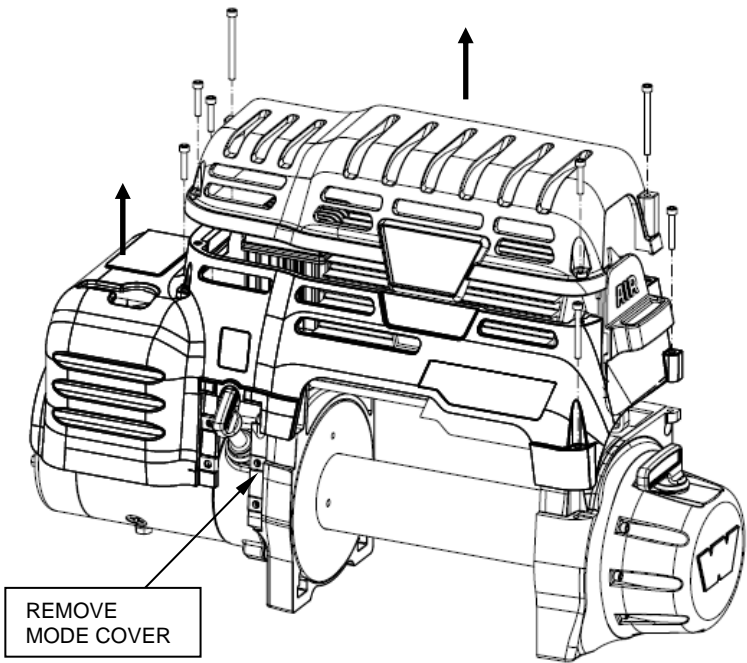


18



RE-ASSEMBLE CYLINDER HEAD. RE ASSEMBLE CRANK CASE USING NEW REPLACEMENT GASKETS (ITEM# 23 AND 24) AND ATTACH TO DRUM SUPPORT. ATTACH DRUM SUPPORT TO INTER COOLER WITH 3 10 inch LONG SOCKET HEAD SCREWS.

1



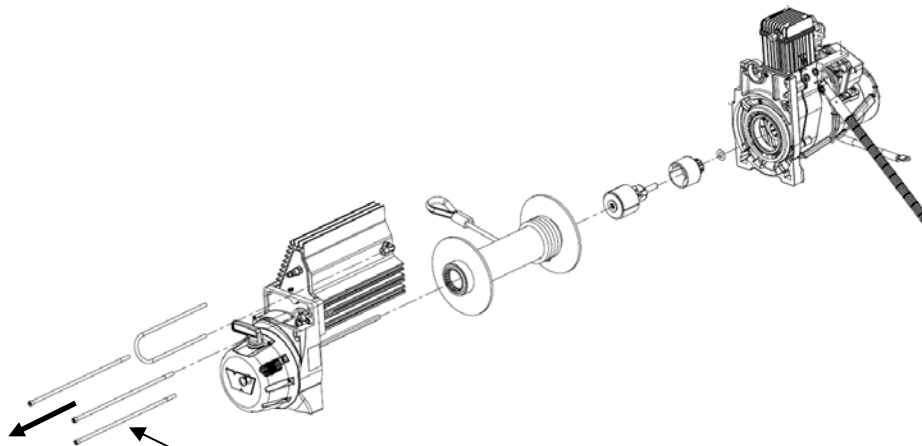
REMOVE HEX SOCKET SCREWS HOLDING TOP COVERS, AND MODE COVER BUTTON HEAD CAPSCREWS.



# INSTALLATION INSTRUCTIONS

## CONTACTOR ASSEMBLY

2



REMOVE 3 10" LONG HEX SOCKET HEAD SCREWS.

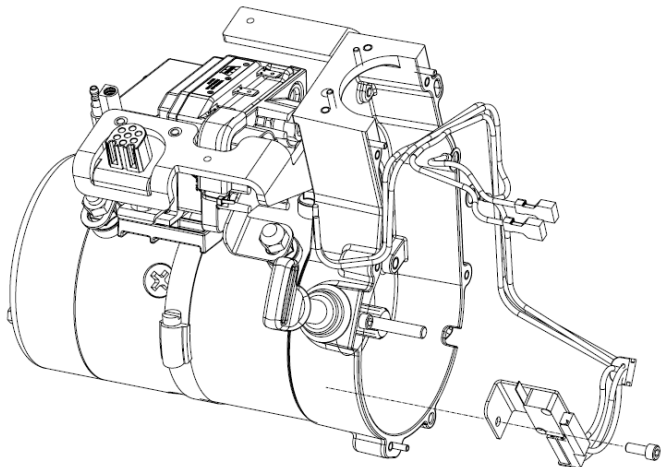
SEPARATE THE MOTOR DRUM SUPPORT FROM INNER COOLER BY REMOVING 10 inch LONG SOCKET HEAD SCREWS.



# INSTALLATION INSTRUCTIONS

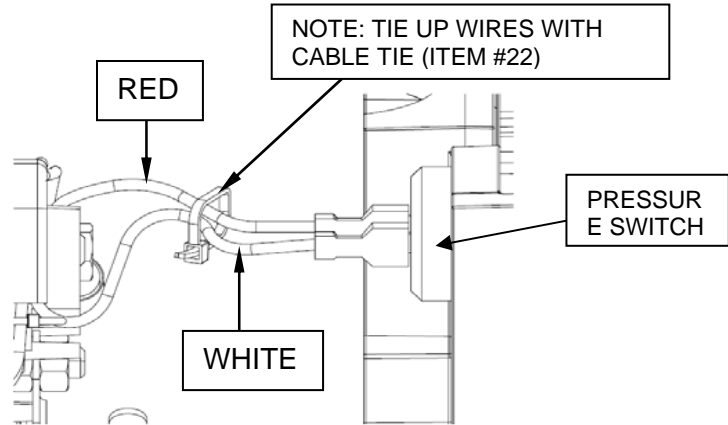
## CONTACTOR ASSEMBLY

16



INSTALL WIRE HARNESS LIMIT SWITCH INSIDE CRANK CASE WITH 10-24 HEX SOCKET SCREW (ITEM #15).

17



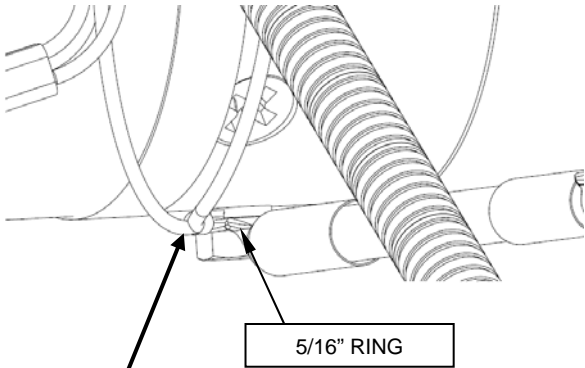
INSTALL HARNESS (ITEM #1) WIRES. CONNECT WIRES AS SHOWN TO PRESURE SWITCH.



# INSTALLATION INSTRUCTIONS

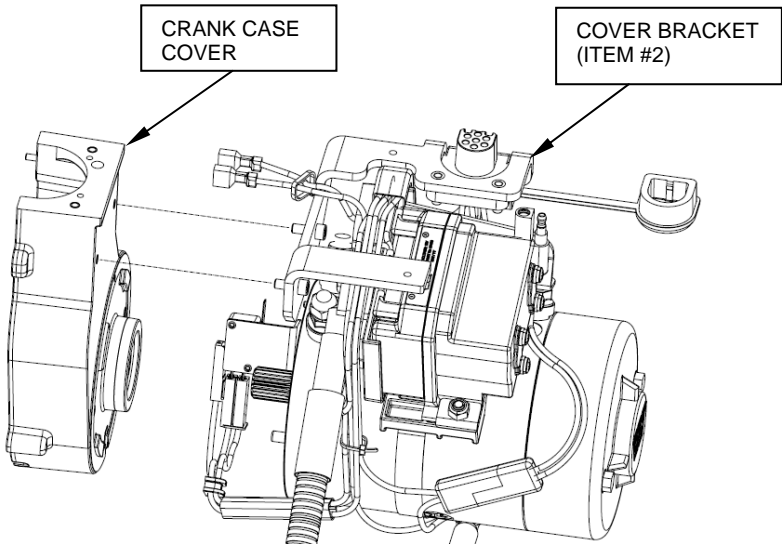
## CONTACTOR ASSEMBLY

14



INSTALL BLACK WIRE WITH 5/16" RING UNDER 2 AWG GROUND CABLE TERMINAL. TORQUE NUT TO 75in-lbs (9Nm)

15



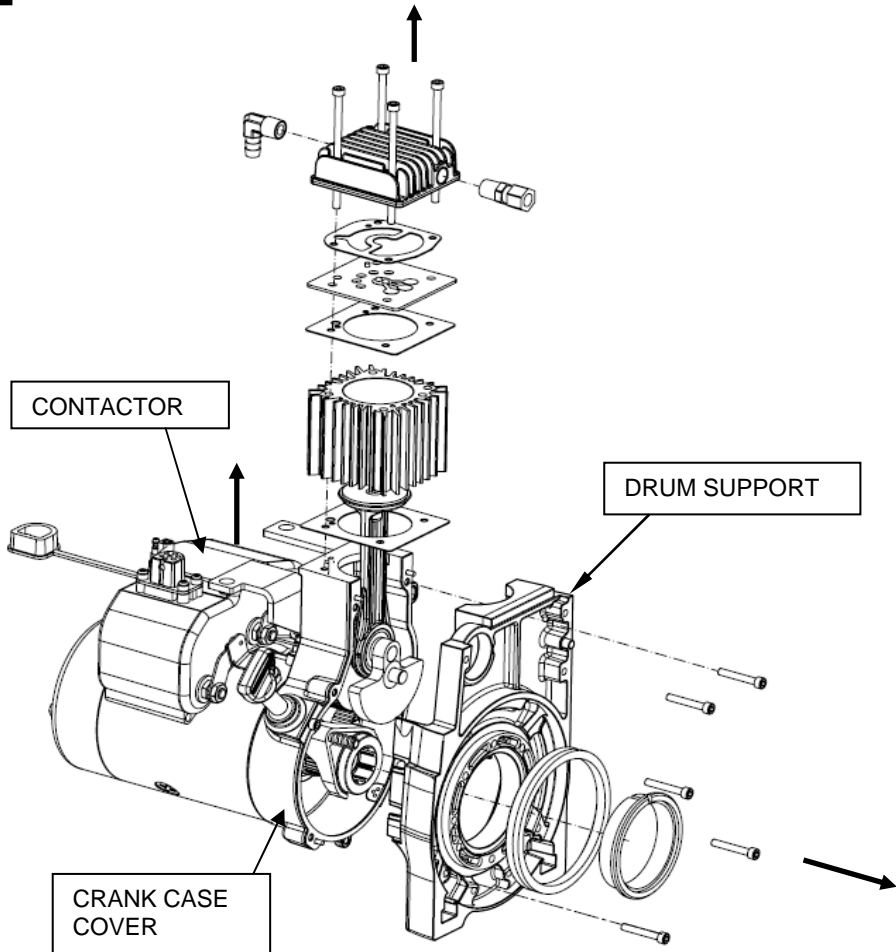
ATTACH MOTOR TO CRANK CASE HOUSING.



# INSTALLATION INSTRUCTIONS

## CONTACTOR ASSEMBLY

3

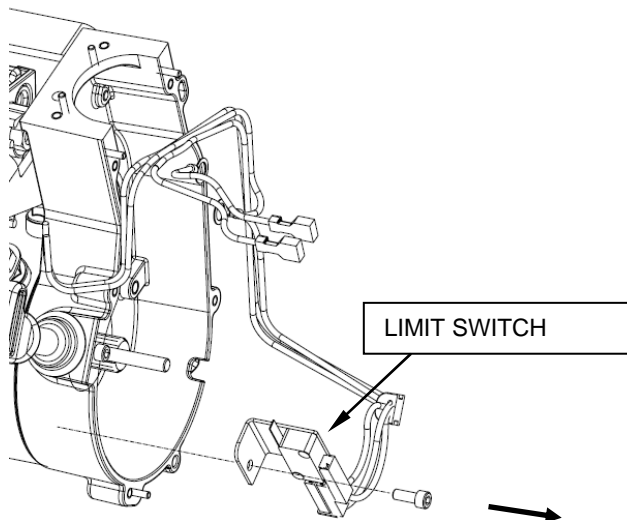


SEPARATE CRANKCASE COVER FROM DRUM SUPPORT. REMOVE CYLINDER HEAD. REMOVE MOTOR. REMOVE CONTACTOR. WHEN REMOVING MOTOR FROM THE CRANK CASE COVER APPLY PRESSURE TO MOTOR SHAFT SO THAT THE ARMATURE DOES NOT COME OUT OF MOTOR HOUSING OTHERWISE THE BRUSHES WILL NEED TO BE RESET.



## INSTALLATION INSTRUCTIONS CONTACTOR ASSEMBLY

4

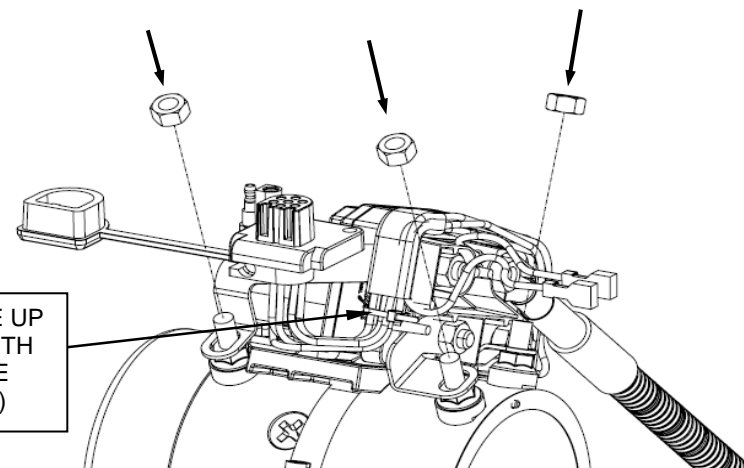


REMOVE LIMIT SWITCH INSIDE CRANK CASE COVER.



## INSTALLATION INSTRUCTIONS CONTACTOR ASSEMBLY

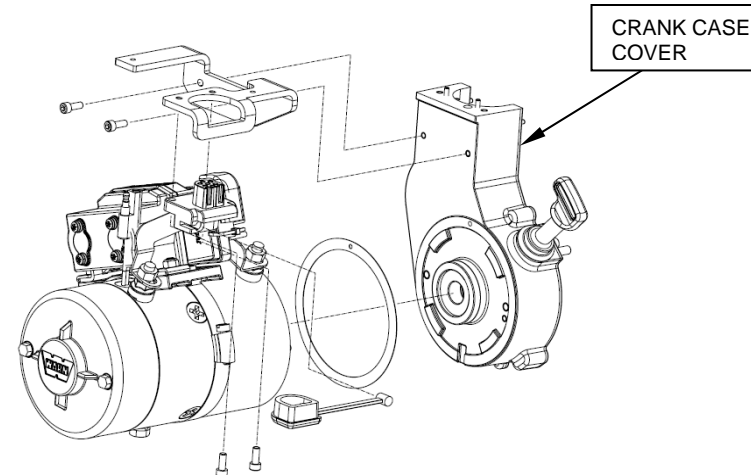
12



NOTE: TIE UP  
WIRES WITH  
CABLE TIE  
(ITEM #21)

INSTALL CONTACTOR ASSEMBLY ON THE MOTOR. ATTACH THE CONTACTOR MOUNT (ITEM #7) TO THE MOTOR WITH HOSE CLAMP (ITEM #13).  
NOTE: ADD CABLE TIE (ITEM #21) HERE TO HOLD HARNESS (ITEM #1) TO SEPERATOR PLATE (ITEM #8)

13



INSTALL RECEPTACLE CAP (ITEM #3) ON REMOTE RECEPTACLE. THEN ATTACH REMOTE RECEPTACLE TO COVER BRACKET (ITEM #2) TO CRANK CASE COVER WITH 10-24 HEX SOCKET SCREWS (ITEM #15).

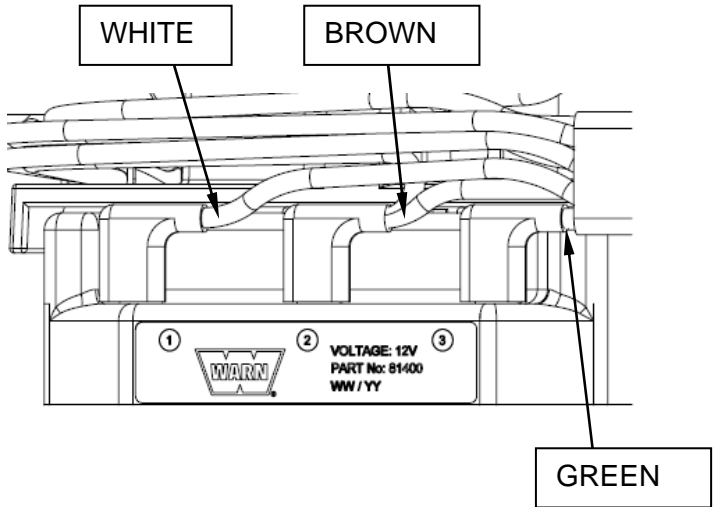




# INSTALLATION INSTRUCTIONS

## CONTACTOR ASSEMBLY

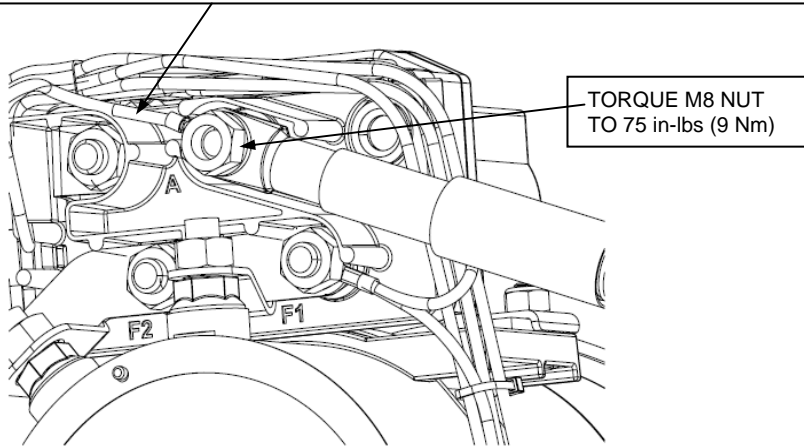
10



INSTALL HARNESS FLAG TERMINAL TO CONTACTOR TERMINALS AS SHOWN. CONNECT WHITE TO TERMINAL 1. BROWN TO TERMINAL 2, GREEN TO TERMINAL 3.

11

NOTE: CONNECTION OF RED WIRE UNDER POWER CABLE TERMINAL

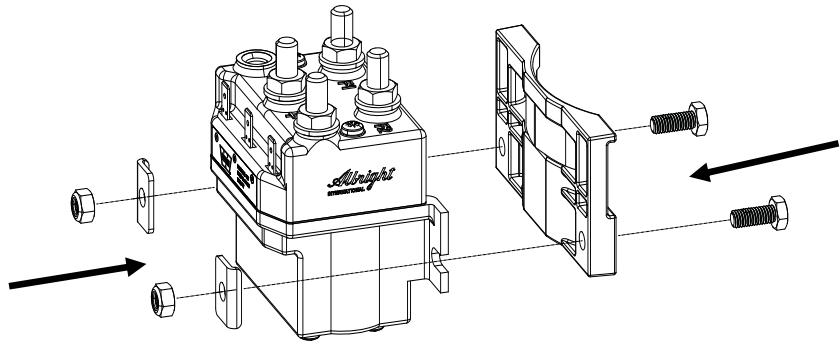




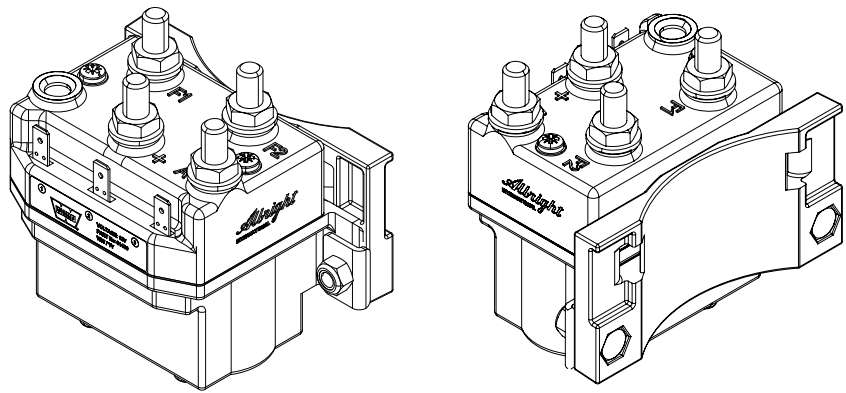
# INSTALLATION INSTRUCTIONS

## CONTACTOR ASSEMBLY

5



INSERT (2) CAPSCREWS (ITEM #19) INTO CONTACTOR MOUNT (ITEM #7)



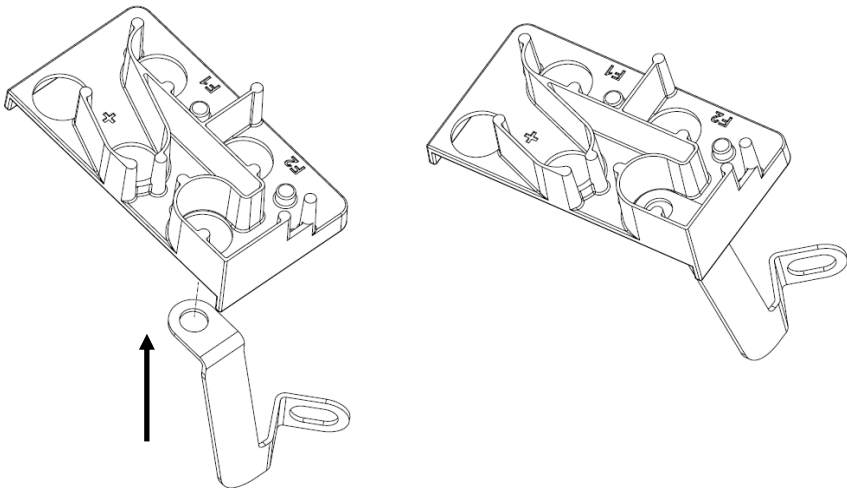
INSTALL (2) NUTS (ITEM #12), AND TORQUE TO 40 in-lbs (4.5Nm)



# INSTALLATION INSTRUCTIONS

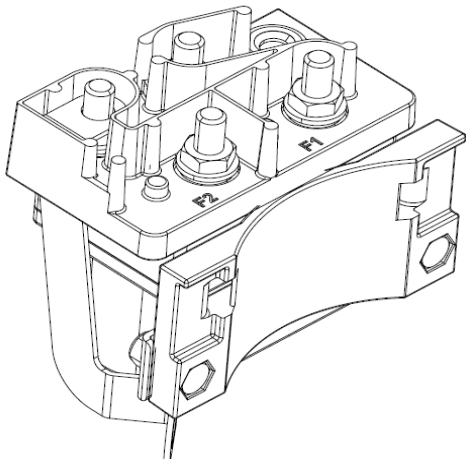
## CONTACTOR ASSEMBLY

6



INSERT BUS BAR (ITEM #4) INTO SEPARATOR (ITEM #8) AS SHOWN

7



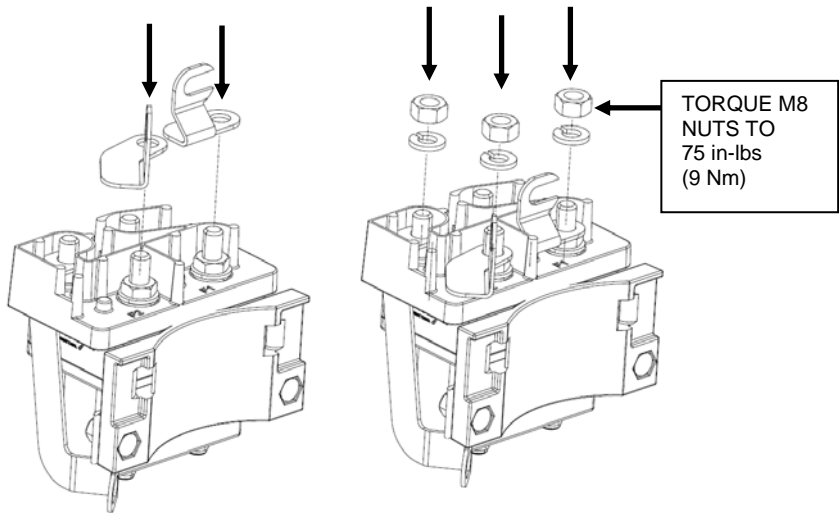
INSTALL SEPARATOR WITH BUS BAR ON CONTACTOR (ITEM #16)



# INSTALLATION INSTRUCTIONS

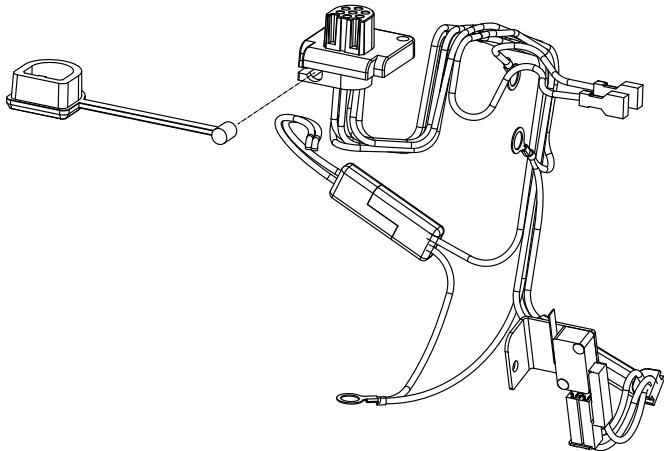
## CONTACTOR ASSEMBLY

8



INSTALL BUS BARS (ITEM #5 AND ITEM #6)

9



INSTALL RECEPTACLE CAP (ITEM #3) ON REMOTE RECEPTACLE.