

**TRUCK, AMBULANCE, LIGHT, 4 LITTER, FFR, WINCH, MC2 – LAND ROVER 110
6X6**

SUCTION PUMP DC-DC VOLTAGE CONVERTER REPLACEMENT

MISCELLANEOUS INSTRUCTION

This instruction is authorised for use by command of the Chief of Army. It provides direction, mandatory controls and procedures for the operation, maintenance and support of equipment. Personnel are to carry out any action required by this instruction in accordance with EMEI General A 001.

INTRODUCTION

1. The dc-dc converter currently used in the 6x6 Ambulance is no longer available. This instruction details the procedure to be used when the current dc-dc converter requires replacement.

AUTHORITY

2. The authority for this instruction is Land Rover ECN 3455.

Associated Publications

3. Reference may be necessary to the latest issue of the following documents:
- a. [EMEI Vehicle G 223](#);
 - b. [Electronic Supply Chain Manual: \(ESCM\)](#) and
 - c. [Technical Regulation of Army Materiel Manual \(TRAMM\)](#).

GENERAL

Action Required

4. The actions detailed in this instruction are to be performed by technical maintenance organisations authorised to carry out Light, Medium and Heavy Grade Repairs. Actions are to be performed by ECN 418 Technician Electrical or RAAF/civilian equivalent.

Estimated Work Hours

5. For initial planning purposes, it is estimated that the replacement of the DC-DC converter will require 2 hours to perform.

Stores Required

6. The stores required are listed in Table 1.

Table 1 Stores Required

Serial	NSN	Manufacturers Part No	Description	Qty Per Vehicle	Qty Per Kit
1	5895-66-158-1704	CYG9239	Kit, DC-DC Voltage Converter, consisting of items 2-6	1	N/A
2	5963-66-158-1703	CYG9224	DC-DC Voltage Converter including 4 spade terminals	N/A	1
3	5340-66-158-1700	CYG9237	Bracket, DC-DC Voltage Converter	N/A	2
4	N/A	CUG9238	Earth lead	N/A	1
5	N/A	RA608123	Pop rivet	N/A	4
6	N/A	DOI – Y- 1015	Instruction	N/A	1

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Items to be Removed

7. The voltage reducer part number VR3-10 is to be removed from the ambulance and is to be disposed of in accordance with current instructions.

DETAIL

8. Remove and destroy the instructions (Table 1, Serial 6) from the kit.

9. Replace the dc-dc converter as follows:

- a. Disconnect the module batteries.
- b. Open the soiled linen bin hatch on the left-hand side of the module.
- c. Remove the six screws securing the stainless steel cover plate and remove the stainless steel cover (Figure 1).

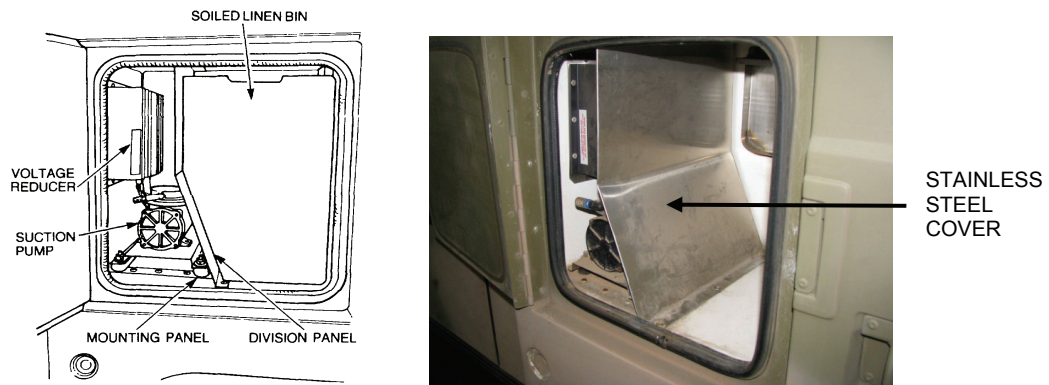


Figure 1 Suction Pump Cavity

d. Cut the three wires (red, white and black) protruding from the base of the existing voltage converter as close to the base of the converter as possible, ensuring that the fuse in the red wire remains with the vehicle harness (Figure 2).

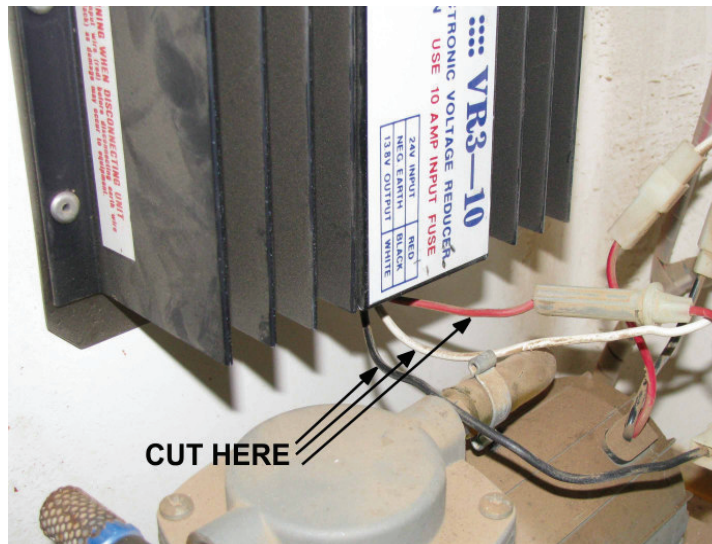


Figure 2 Cutting Wires

- e. Remove the six screws securing the backing plate to the cavity wall.
- f. Remove the voltage converter complete with the backing plate from the cavity wall.
- g. Remove the voltage converter from the backing plate by drilling out the pop rivets.

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- h. Crimp a spade connector to the red and white wires in the vehicle harness (Figure 3).

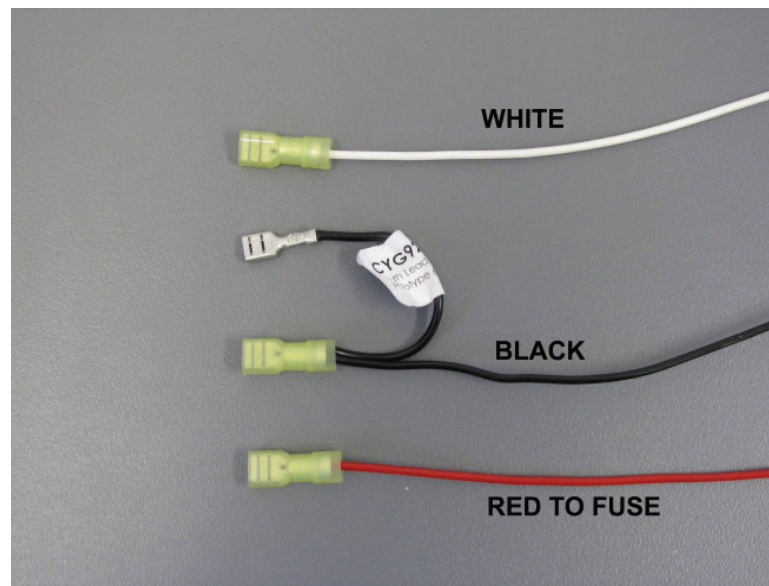


Figure 3 Crimping Wires

- i. Crimp the black wires using the existing the black wire and the earth wire supplied in the kit.
- j. Place the new voltage converter onto the backing plate (Figure 4).
- k. Position the two brackets (Table 1, Serial 3) over the voltage converter (Figure 4).
- l. Mark the location of the four mounting holes.
- m. Remove the voltage converter and brackets.

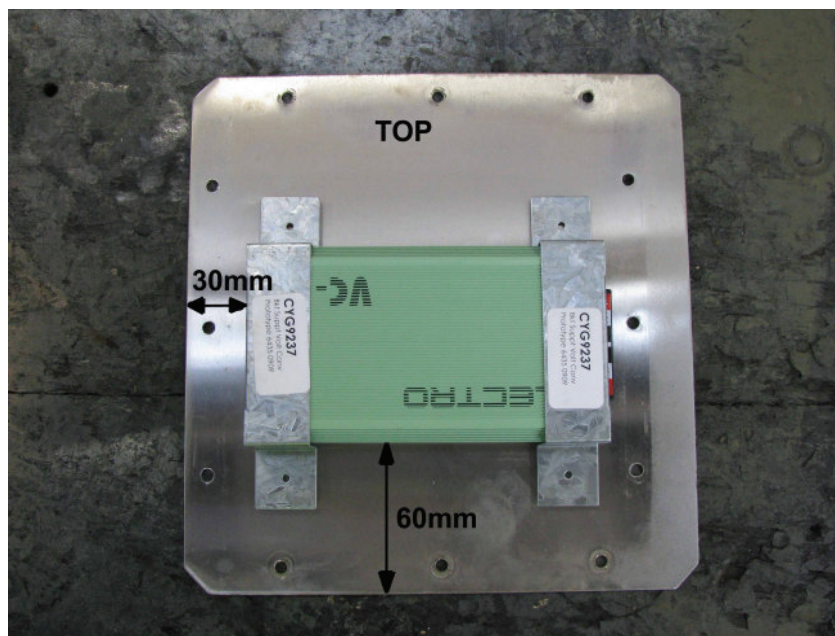


Figure 4 Bracket Position

- n. Drill the four holes through the backing plate.
- o. Secure the new voltage converter to the backing plate using the two brackets and four pop rivets (Table 1, Serial 5).

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- p. Connect the red, white and two black wires to the new voltage converter (Figure 5).

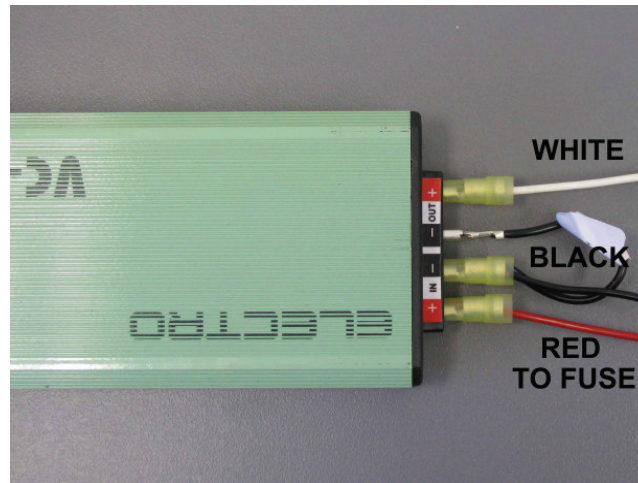


Figure 5 Wire Position

- q. Position the backing plate on the cavity wall and secure it with the six screws.
- r. Reconnect the module batteries.
- s. Check the system for correct operation.
- t. Re-install the stainless steel cover plate and close the soiled linen bin hatch.
10. Dispose of the old power converter in accordance with current instructions.

Recording Action

11. On completion of the replacement of the dc-dc converter, record the replacement of the dc-dc converter in Part 4 of the vehicles GM 120 and on MMM.

END

Distribution List: **VEH G 20.2 – Code 2** (Maint Level)
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