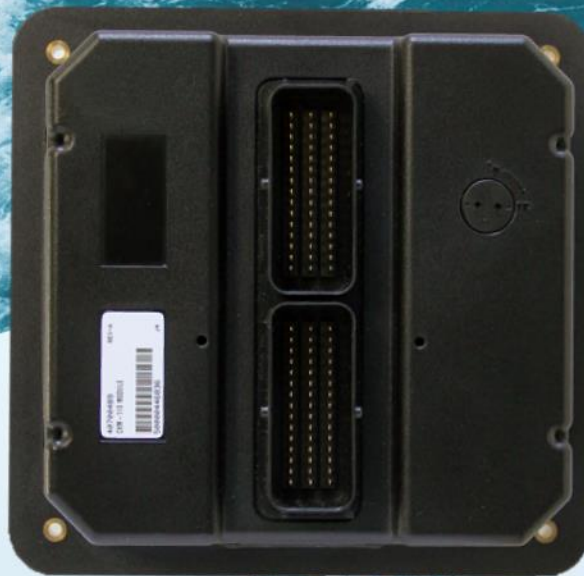




ecomizerpro

CXM-110 WIRING HARNESS MODIFICATION

ENGINE START OUTPUT UPDATE





Introduction

This manual describes the procedure to change the “Engine Start” output from the CXM-110 (PLC) module. In the first generation pumps a relay output has been used for all Diesel Engines to initiate a crank procedure. For applications where a Hatz engine is installed there is a risk that the internal circuitry from the CXM-110 will be damaged and therefore an “Engine Start” attempt won’t be initiated. The “Engine Start” output must be swapped to a Digital Output of the CXM-110 module to prevent malfunction of the machine.

For the altered Engine Start output the software version must be at least compatible with the version described below.

Impulse – SIP CAN – V21-00

ATTENTION!

Impulse Pumps always recommend updating all machines with Hatz engines with the altered Engine Start output.



1. Needed Equipment

p. 1

2. Change Description

p. 2

Impossible to live without water

1. Needed Equipment

- CXM Engine Start Output Update Kit (Impulse part number: 35059)
 - CXM-110 contact with wire extension
 - Solder sleeve
- Heatgun
- Ty-wraps
- Extraction tool



2. Change Description

Step 1:

Make sure the "OFF-ON-Start" switch is in the "OFF" position and disconnect the negative pole from the battery.

Step 2:

Release the connector from the CXM-110 and remove the ty-wrap at the protection cap.



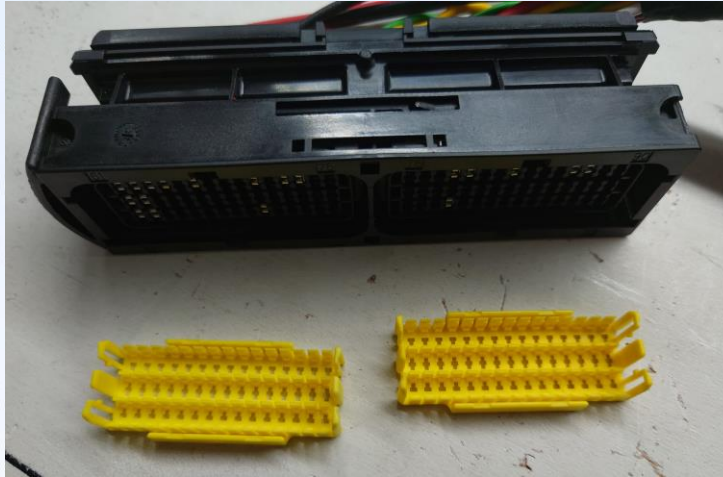
Step 3:

Remove the protection cap by sliding to the front.

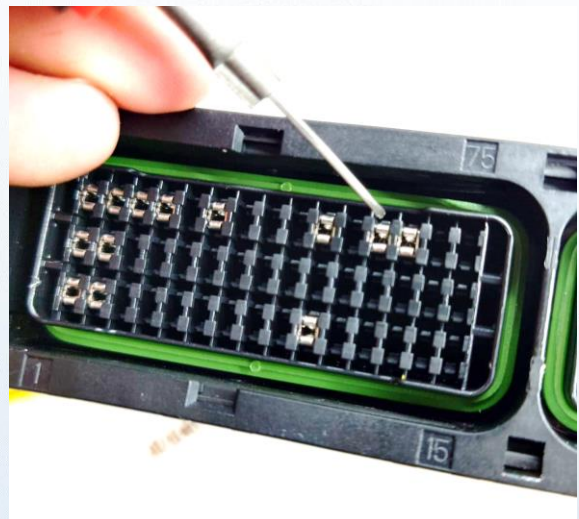


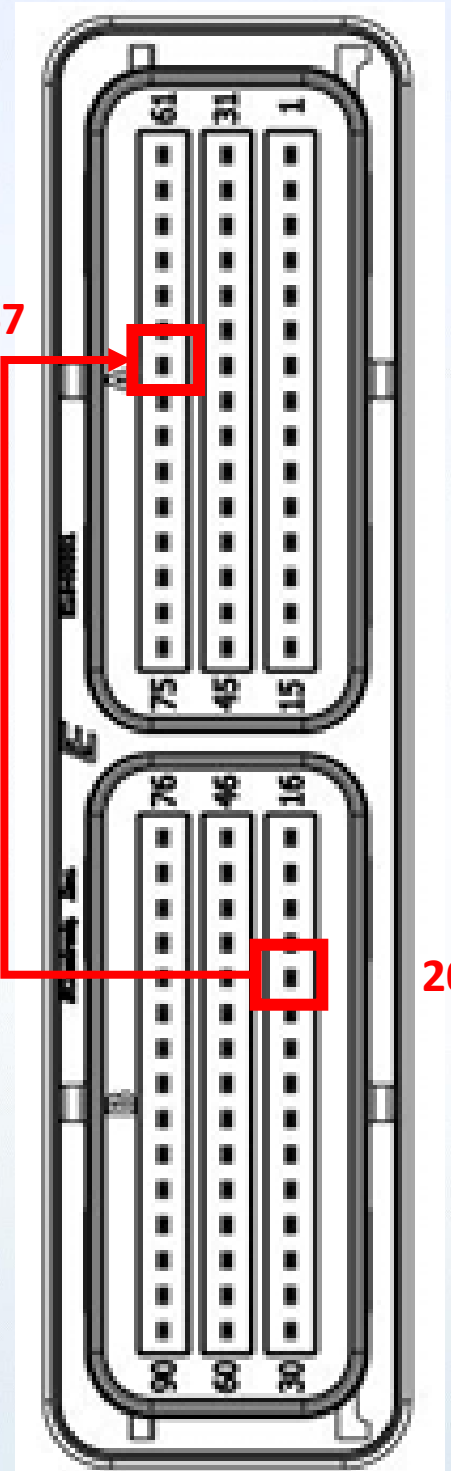
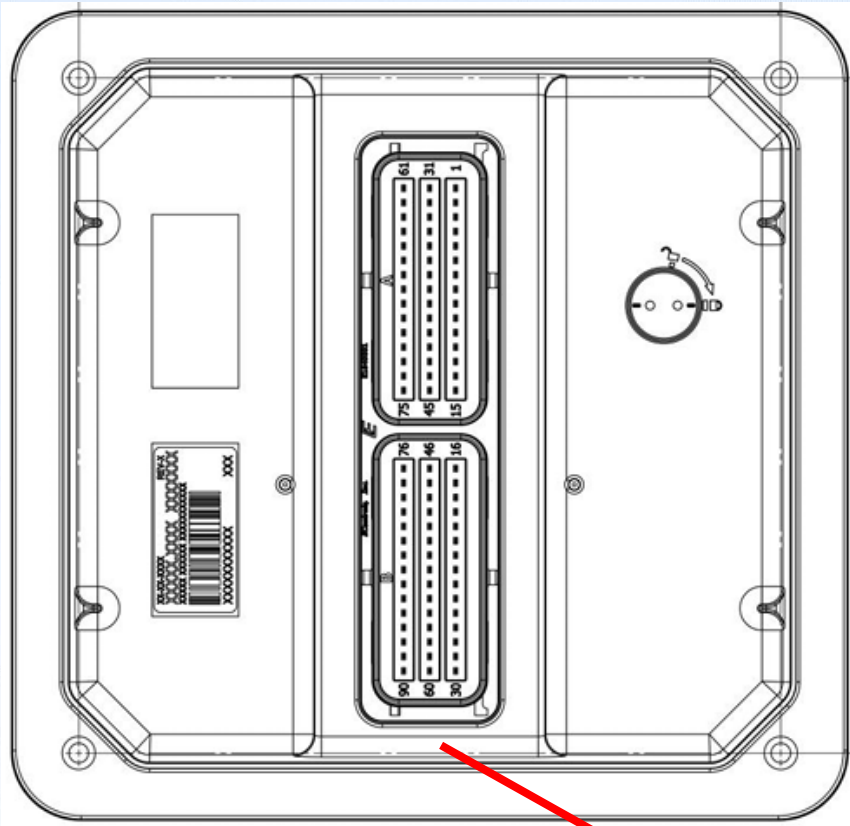
Step 4

Remove the two yellow wedges. The wedges are fragile and should be removed without using force!

**Step 5**

Cavity 20 need to be removed and should be installed in cavity 67. A detailed view of the cavity numbers is shown on the next page. In order to remove the contact and wire from cavity 20 you need to push the lock wedge on the side of the contacts outwards on both sides. In the picture below the lock wedge on one side is indicated with the extraction tool. Please be aware that the lock wedges are fragile and no force is required to remove the contact! Once the lock wedges are pushed outwards pull slightly on the wire to empty the cavity.



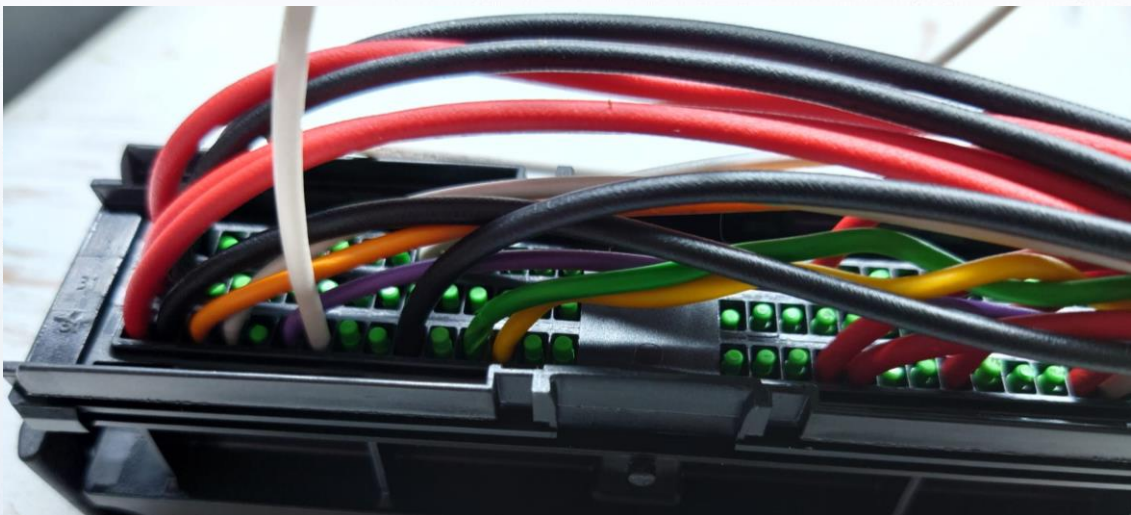


Step 6

Remove the cavity plug in cavity 67 and install this in the cavity 20 which has been emptied in the previous steps.

**Step 7**

Install the contact with wire in cavity 67 and push until it is seated firmly. Test if the contact is firmly seated by pulling slightly on the wire. The wire should remain seated.

**Step 8**

Re-install the yellow wedges which are removed in Step 4. The yellow wedges should be locked in position without force. If the yellow wedges are not easy to install you need to inspect if the wire in cavity 67 has been installed properly and if the lock wedges are not damaged.

Step 9

Cut off the contact which was previously installed in cavity 20 and twist the wire with the new installed wire. Slide the solder sleeve over the wires and make sure that the solder ring is at the same height as the bare copper wires. Heat the solder sleeve with a heat gun until the solder ring is completely melted. Press the open end of the solder sleeve with pliers immediately after heating to close the open end.

ATTENTION: Please note that you don't overheat the solder sleeve to maintain a watertight joint!



Step 10

Fixate the wire with a ty-wrap or tape and re-install the protection cover. Install a ty-wrap around the protection cover to make sure that all wires have sufficient strain relief, and all wires are not harmed by potential mechanical stress.

**Step 11**

Connect the battery and start the system. Try to start the engine in Manual Mode and make sure the engine starts and runs as expected.





ECOMIZER-PRO pump technologies are designed for a better and greener planet

All rights strictly reserved. Reproduction or issue to third parties in any form whatsoever is not permitted without written authority from the proprietor.
Property of Impulse Holding B.V. Copyright Impulse Pumps B.V.

Impossible to live without water



Impulse Pumps B.V.
Arendsenweg 9
7021 PC Zelhem

Tel: +31 (0)314 641288
parts@impulsebv.com
www.impulsebv.com