

Installing AccessPack on a Demag pendant

Overview

All modern Demag hoists use CANBus pendants. These communicate with the crane controller digitally.

AccessPack interacts with these pendants primarily by interrupting the E-Stop contacts.

The original E-Stop switchgear is retained maintaining the safety features of Demags design.

Disassembly



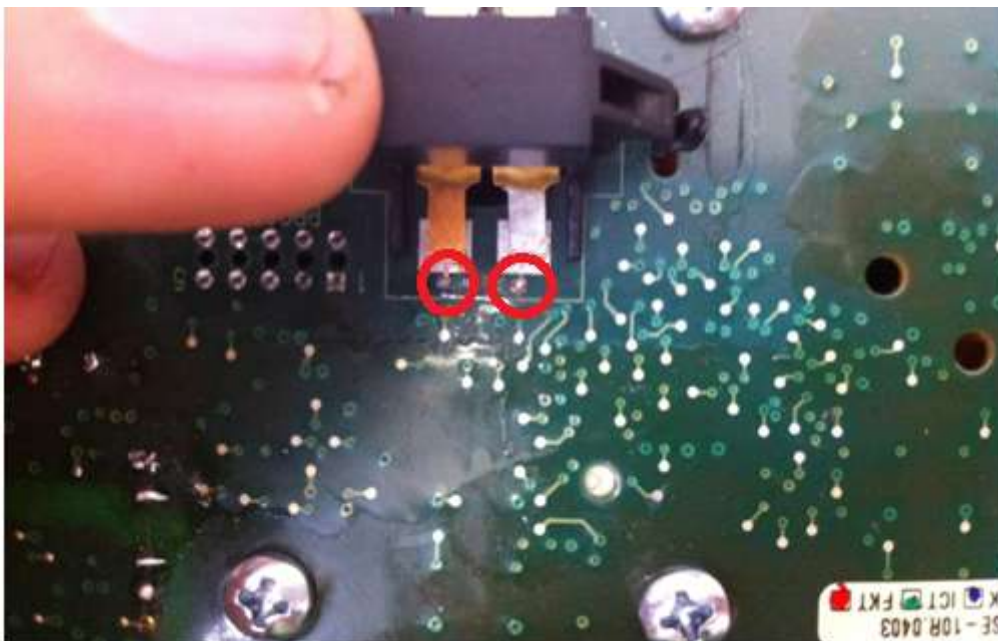
Step 1: Isolate the 48VAC going to the pendant. Undo the 4 case screws from the back of the pendant. Remove the back cover.

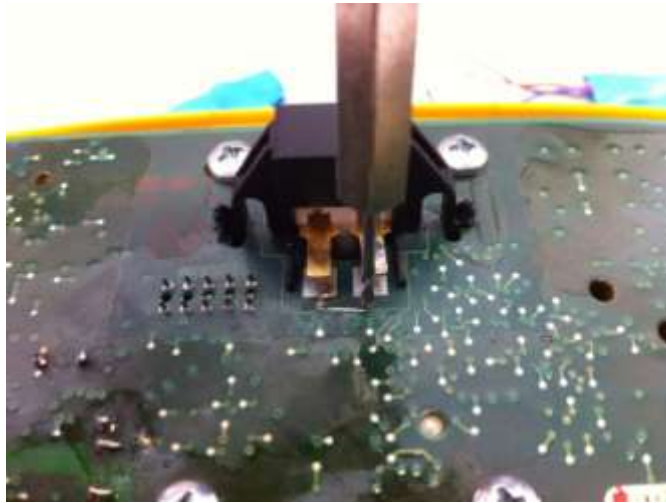




Modification

Step 2: With a small drill, gently drill out the via's indicated in the photo until the connection is broken. I used a 1.5mm drill bit and drilled around ½ a millimetre deep.





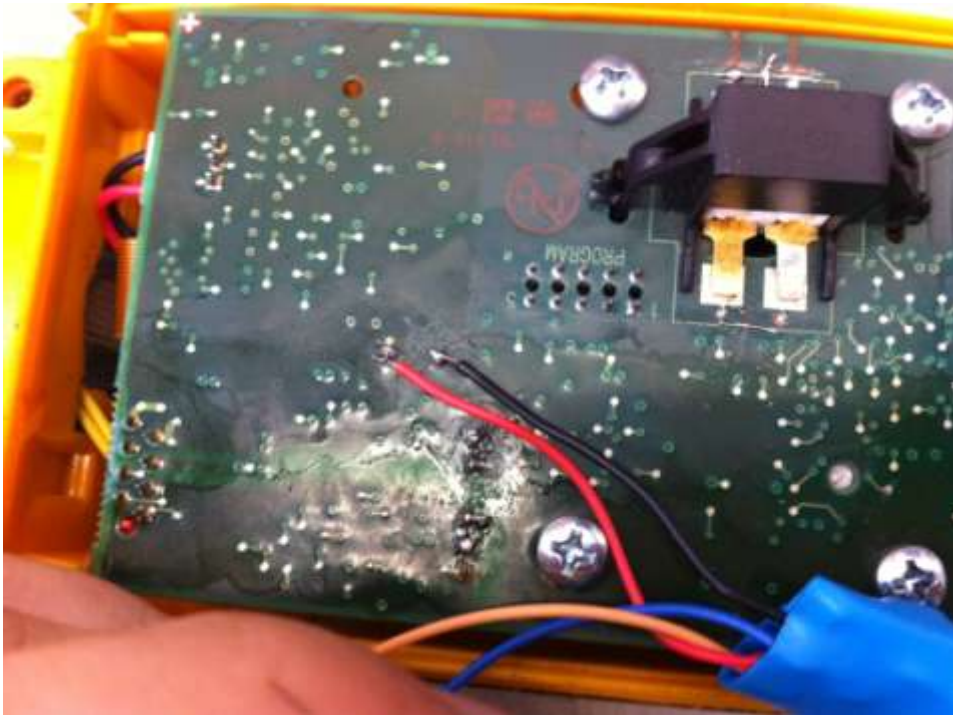
To confirm that the drilling was successful power the pendant back up and see if the e-stop button is still functional. It should not be.

AccessPack Connection

Step 3: Now that the modifications are made to the pendant, you can start installing the AccessPack. In the box should be a small wiring assembly that has a plug for the AccessPack, a blue shrink wrapped circuit board about half way along and some wires to solder to the pendant PCB. The wire colours will be Red, Black, Blue and Orange. Here are some pictures showing the connection points,



Black,



Blue,



Its important that when you solder the blue wire across the two pads that it doesn't inhibit the contacts of the switch. A pointy tip soldering iron helps here.

Orange,



The orange wire goes to both the little test points just below the switch. These pads are very small, so once you have it soldered down put some sort of adhesive (eg neutral cure silicone, hotmelt glue) on the pcb to hold the wire in place and stress relieve it. It's a good idea to do this for all the wires.



That completes the wiring install for the Pendant.

Mounting the AccessPack

Step 4: Now that the electrical side of the Pendant is done, you need to mount the actual AccessPack Puck onto the Pendant. To do this you will need some form of hand drill, a small pilot drill, your 1.5mm drill from earlier should work, and something to take the hole out to 22mm. We recommend a hole saw. First thing to do is mark the spot to drill your pilot hole. The dimensions for the pilot hole position is illustrated on the picture below;



Now that your pilot hole is drilled, you can go ahead and take it out to 22mm.



In this case the step drill used drill proceeded into the next plastic wall. We will use this hole to run the cables into the pendant.



Tighten it up until the thick gasket is squashed down hard against the pendant.



Testing

Step 5: Now, just plug the AccessPack into the harness and test. The AccessPack should be preconfigured to suit this pendant, but if it isn't, the key configuration parameters are:

Invert E-Stop input checked.

Invert E-Stop output not checked

Now when you power up the crane the lights on the AccessPack should flash briefly and the pendant LCD should read STOP, even with the e-stop button out.

With the E-Stop out, the LEDs on the AccessPack should flash green/red.

Swipe you card to log onto the AccessPack and the LCD on the pendant will display "DEMAG"

Pushing the E-Stop in should log off the AccessPack (NO LED's)

If it's all working correctly, reassemble the pendant.