

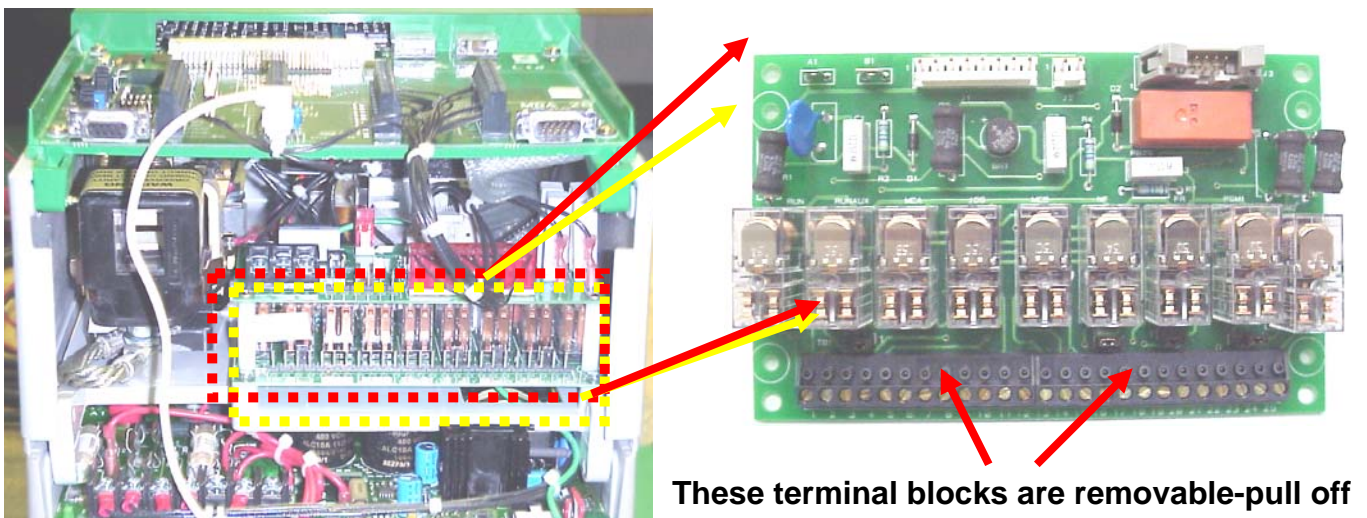
## Chattering Contactor on Quantum III Size 1

**Problem** – Due to discontinuation of a contactor used in two Quantum III models, a replacement contactor was selected. Unfortunately it has been found that the coil characteristics are slightly different such that at lower line voltages the contactor may not fully energize. This can result in chattering on the contactor of QIII 9500-8X02 and 9500-8x03.

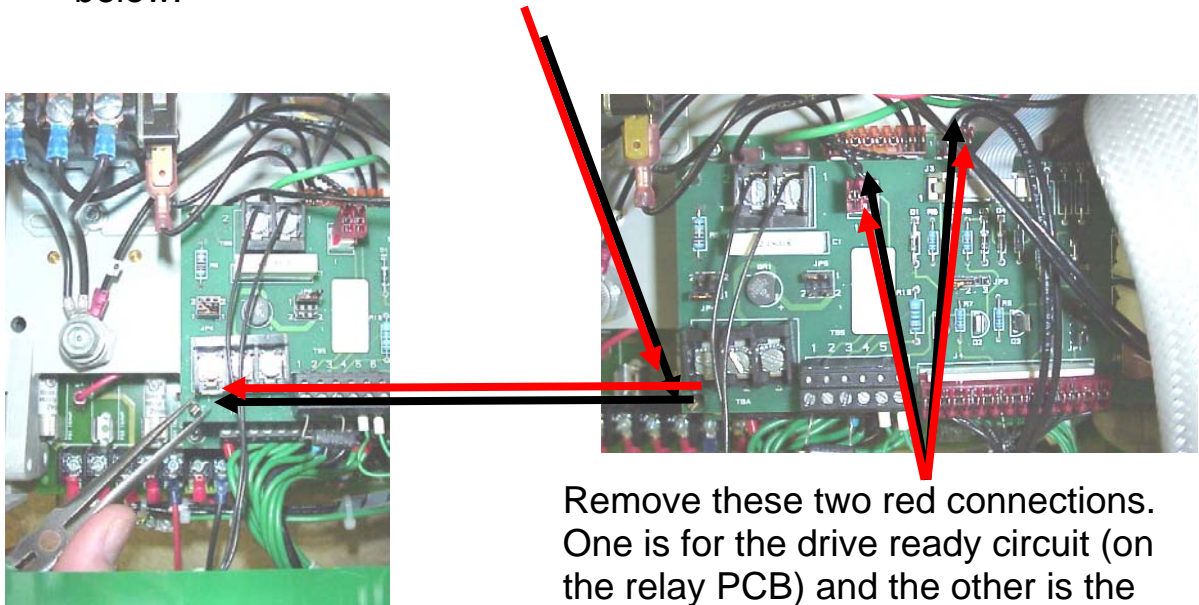
**Solution** – Removal of diode (D1) and jumping out the connection will allow full voltage to be applied to the coil therefore allowing the contactor to fully pull in. There are two different options that you have to resolve this issue:

1. Replace the board with a new board. To replace the board with the modification done to the unit, you must order the part # 9500-4026 and specify your drive size and the reason for the replacement. The new board will come with the replacement instruction [CTRI 217](#) this will go step-by-step on the procedures. **Search for CTRI217 using Google**
2. The other option is to do the modification yourself. This guide will detail the location and the procedure to perform this operation at your facility.

### Location:



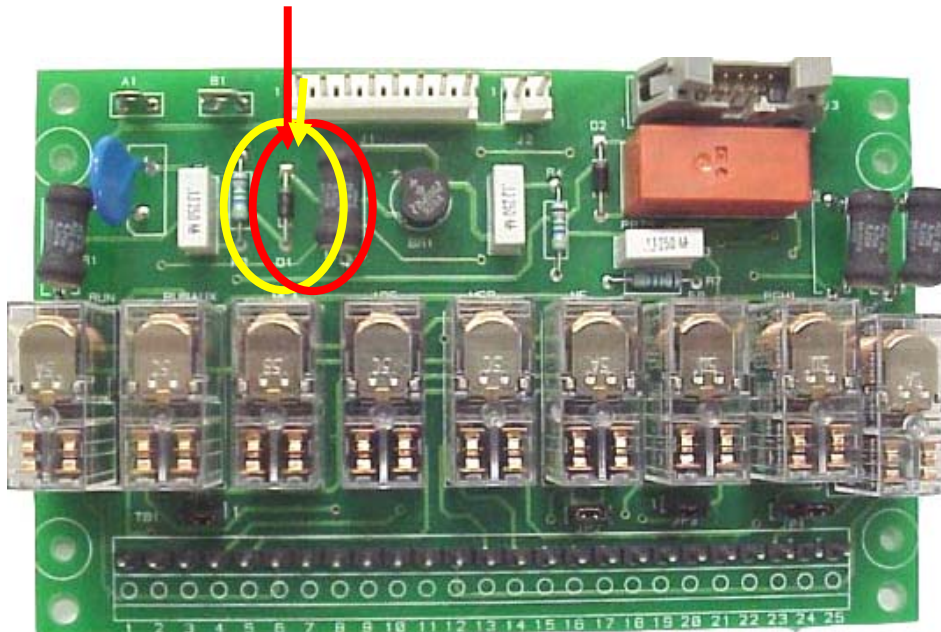
1. The Tachometer Interface Board (9500-4030) resides on top of the Relay board and it must be removed first. Anatom style connectors or screws will hold it on. The Anatom style connections can be removed by squeezing the ends with needle nose pliers as shown below.



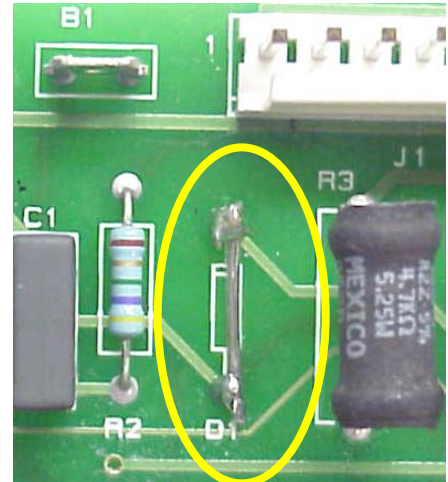
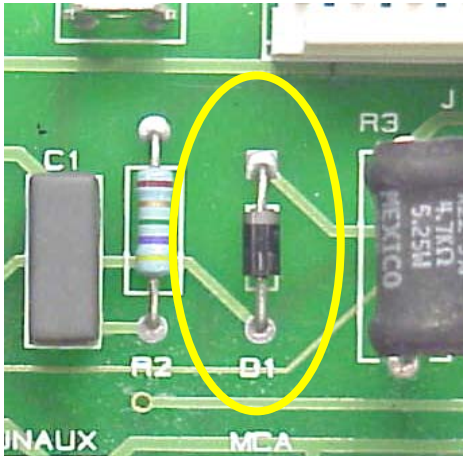
Remove these two red connections. One is for the drive ready circuit (on the relay PCB) and the other is the burden wire (on the Tach. PCB).

2. The relay board will now be exposed. The location of D1 is shown below.

D1 Location



3. You could elect to leave the diode D1 in place and simply solder a jumper in parallel with the D1 diode. If this method is selected, you can skip to step 6.
4. Removal of D1 can be done in two ways. You can de-solder the component from the board, or you can snip the diode out with a pair of cutters. I have found this is the easier of the two ways. It is faster and if the unit is still mounted to the wall you have something to press the wire against when you leave the leads long enough from the diode. Make sure to remove any clippings that you may produce while cutting.
5. Once the diode is removed then you must add a jumper where D1 was formerly. The wire can be insulated or a single straight bare wire.



6. After you have completed this task, reconnect any wires that you have removed and re-attach the tach board to the unit.

**Questions: Ask the author ??**

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