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Product Bulletin # Wrench 015

Replacing Non-Hazardous Area Rated Circuit Breaker in the Driller's Console

The Torq-Matic™ Automated Floor Wrench driller's console (AY50146) is intended to be suitable for use in a Class 1, Division II area, per NEC standards.

It has come to Canrig's attention that the 1-amp circuit breaker installed on the driller's console is not rated for a hazardous area, and therefore must be replaced if the console is located in a hazardous area.

Recommendation

Remove the circuit breaker (E12126) and terminal (E12448) from the driller's console, and replace them with a Class 1, Division II-rated DIN-rail mounted circuit breaker.

Required Tools

- Flat head screwdriver
- Wire stripper
- Wire crimper
- Digital multi-meter

Required Parts

Driller's Console, Field Upgrade Kit (AY51010)

Qty	Canrig Part ID	Description
1	E17994	Breaker, Mini, 24v,1 Amp, sealed
1	E13696	18" Cable, 1 C #16 Awg, 19 Strands, 600v, blk
1	E10376	Ferrule, #16 Awg, Double, Ins, Red
1	E16-2018-010	Ferrule, #16 Awg, 14mm, Ins, Red



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Replacement Procedure



This procedure should be performed only by trained and qualified personnel.

Follow appropriate lock-out/tag-out procedures prior to opening the driller's console.

- 1. Open the driller's console.
- 2. Determine the load side of the current breaker by tracing the wire coming from terminal 19 back to the breaker (see Figure 1), and make note of its location.

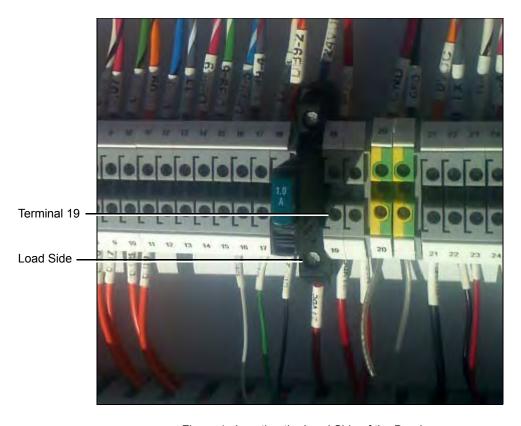


Figure 1: Locating the Load Side of the Breaker



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- 3. Remove the terminal and breaker using a flat head screwdriver.
- 4. Loosen the end barrier for the terminal blocks and slide them down approximately 1/4" (see Figure 2).



Figure 2: Circuit Breaker Removal

- 5. Remove wire 0V.d2 from terminal 21 and cut the existing ferrule.
- 6. Re-strip the 0 VDC wire and 16 AWG that came with the kit.
- 7. Crimp the two together with the double ferrule and reinstall the wires into terminal 21 (see Figure 3).

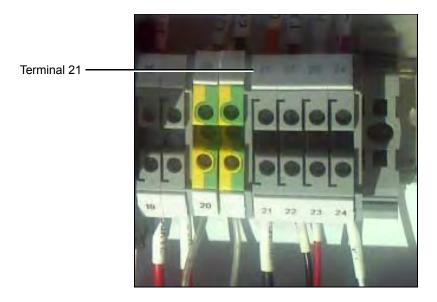


Figure 3: Terminal 21 (before 2nd wire is installed)



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8. Install the other end of the loose wire supplied with the kit to the 0 V DC connection on the circuit breaker (Figure 4).

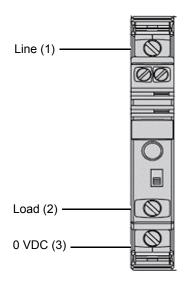


Figure 4: Circuit Breaker Connections

9. Use Figures 4, 5, and 6 to complete wiring to the new circuit breaker.

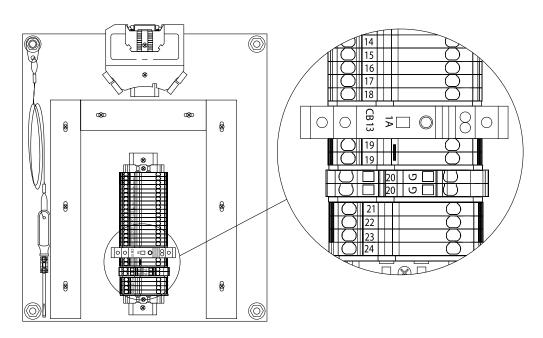


Figure 5: Terminal Strip Layout



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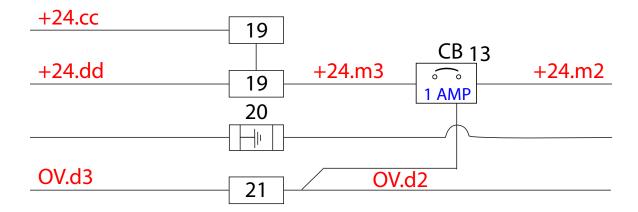


Figure 6: New Wiring Schematic