

Model: See models affected

Serial #: N/A

Jan. 3, 2018

Product Bulletin # PDC-016

Top Drive Control Power Modification in Driller Cabin

Issue

Some PACE-X rigs may lose top drive control power as a result of circuit breaker 7 (CB7) tripping. This condition is caused by overcurrent on the circuit after installing the oil quality sensor.

Models Affected

PACE-X Series, PACE-R800, PACE-M800, and PACE-M1000 Rigs.

Recommendation

Canrig has created a kit to address this issue. Contact RIGLINE 24/7™ Support to order the kit, and follow the procedure described in this document to modify the control circuit. Only one kit is required per rig.

| Canrig P/N | Description | Quantity |
|------------|---|----------|
| AY23627 | KIT, TD CONTROL PWR, RIO CABINET, D CABIN | 1 |

Procedure

Follow steps below to modify the control power circuit.



Follow local lock-out/tag-out procedures to isolate any power sources before performing this procedure.



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Driller Cabin RIO Cabinet (PLC Cabinet) Modification

- Note that the 4 A circuit breaker 8 (CB8) will be replaced by an 8 A breaker.
- All wires not related to top drive control power will be moved from TB35 and placed on TB34 terminal strip.
- All wires that are for top drive control power are moved and dedicated to CB8 and terminal strip TB35.
- See Figure 1 below and Figure 2 on page 3.
- See Table 1 on page 4 and Table 2 on page 5 for details.

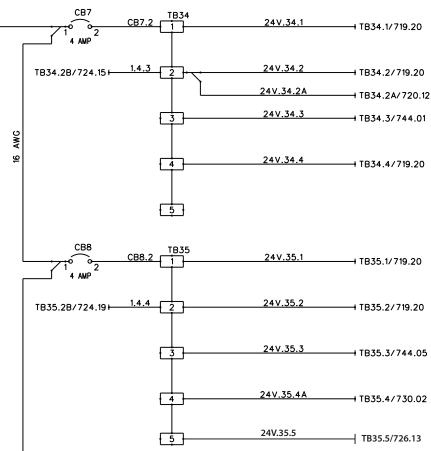


Figure 1: Wiring Before Changes on CB7 and TB34. Current Rig 1202.



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1. Replace CB8, 4A circuit breaker with 8A circuit breaker supplied with the kit. See Figure 2.

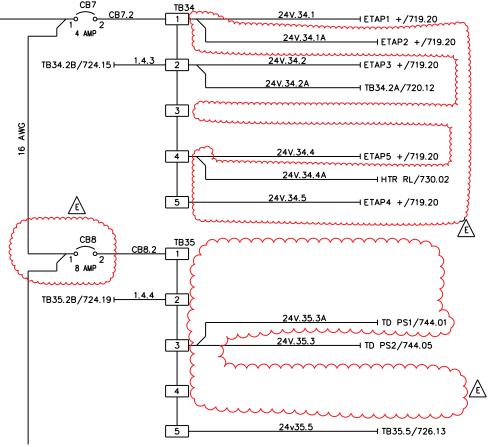


Figure 2: Wiring After Changes CB7 and TB34. Current Rig 1202.

- 2. Move wire number 24V.35.1 from TB35:1 to TB34:1. Relabel this wire to 24V.34.1A (ETAP 2 Power).
- 3. Move wire number 24V.35.2 from TB35:2 to TB34:5. Relabel this wire to 24V.34.5 (ETAP 4 Power).
- 4. Move wire number 24V.35.4A from TB35:4 to TB34:4. Relabel this wire to 24V.34.4A (HTR relay coil).
- 5. Move wire number 24V.34.3 from TB34:3 to TB35:3. Relabel this wire to 24V.35.3A (TD 24VDC).



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Table 1: TB34 Changes

| Before Wire Changes | | | After Wire Changes | | | |
|---------------------|-------------------|---------------------------------------|--------------------|-------------------|---------------------------------------|----------------------|
| Terminal # | Current Wire # | Old Destination | Terminal # | Current Wire # | New Destination | Comment |
| | CB7.2 | (from CB7) | TB34:1 | CB7.2 | (from CB7) | No change |
| TB34:1 | 24V.34.1 | ETAP 1 | | 24V.34.1 | ETAP 1 | No change |
| | | | | 24V.34.1A | ETAP 2 | Moved from TB35:1 |
| | 1.4.3 | PLC 1.4.3 (DC DLR2-ETAP PWR OK) | TB34:2 | 1.4.3 | PLC 1.4.3 (DC DLR2-ETAP PWR OK) | No change |
| TB34:2 | 24V.34.2 | ETAP 3 | | 24V.34.2 | ETAP 3 | No change |
| | 24V.34.2A | Stratix (PWR B) | | 24V.34.2A | Stratix (PWR B) | No change |
| TB34:3 | 24V.34.3 | TDLO_PS1:11 (Relay) | TB34:3 | | | Moved to TB35:3 |
| TB34:4 | 24V.34.4 | ETAP 5 | TB34:4 | 24V.34.4 | ETAP 5 | No change |
| 1034.4 | 24 V . 3 4 . 4 | LIAP 3 | 1034.4 | 24V.34.4A | HTR Relay | Moved from TB35:4 |
| TB34:5 | | | TB34:5 | 24V.34.5 | ETAP 4 | Moved from TB35:2 |



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Table 2: TB35 Changes

| Before Wire Changes | | | After Wire Changes | | | |
|---------------------|-------------------|------------------------|--------------------|-------------------|------------------------|---------------------------|
| Terminal # | Current Wire # | Old Destination | Terminal # | Current Wire # | New Destination | Comment |
| TB35:1 | CB8.2 | (from CB8) | TB35:1 | CB8.2 | (from CB8) | CB8.2 changed to 8A |
| | 24V.35.1 | ETAP 2 | | | | Moved to TB34:1 |
| TB35:2 | 1.4.4 | TD 24VDC PWR OK | - TB35:2 | 1.4.4 | TD 24VDC PWR OK | No change |
| 1835:2 | 24V.35.2 | ETAP 4 | | | | Moved to TB34:5 |
| TB35:3 | 1 24 1/ 35 3 1 | TDLO_PS2:11 (Relay) | TB35:3 | 24V.35.3A | TDLO_PS1:11 (Relay) | Moved from TB34:3 |
| | | | | 24V.35.3 | TDLO_PS2:11 (Relay) | No change |
| TB35:4 | 24V.35.4A | HTR Relay | TB35:4 | | | Moved to TB34:4 |
| TB35:5 | 24V.35.5 | TD HTR/CRT SWITCH | TB35:5 | 24V.35.5 | TD HTR/CRT SWITCH | No change |



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Top Drive PLC J-Box Wiring Modification

1. Add a jumper wire between TB30:1 and TB30:2 as shown on Figure 3.

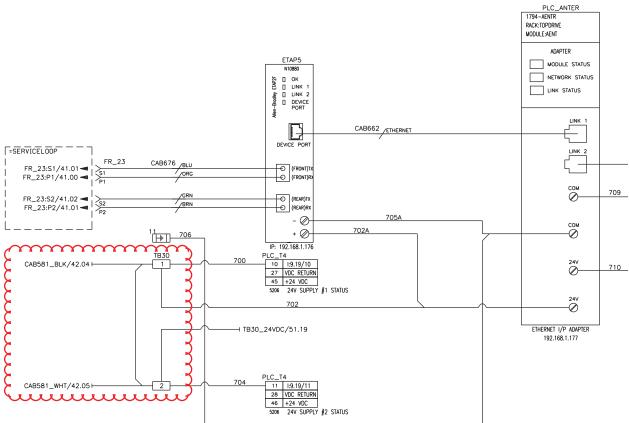


Figure 3: TD PLC J-Box