

ACH580-01 PxR, UL Type 1/12 Frame R1/R2

Base drive replacement instructions

Purpose or Scope

The following are the instructions for replacing an ACH580-01 UL Type 1 (Frames R1 & R2) drive in PxR enclosures.

Equipment required*:

- Replacement drive (see note below)
- T20 bit
- T25 bit
- T30 bit
- PZ2 bit
- PZ3 bit
- Torque wrench
- Zip ties

Basic overview of steps

- Back-up drive parameters (if you can)
- Remove power and verify after 5 minutes
- Remove covers
- Disconnect all wiring
- Remove drive
- Prepare replacement drive
- Remove conduit assembly
- Install in reverse order
- Check connections
- Power drive
- Reprogram and test

Notes and cautions




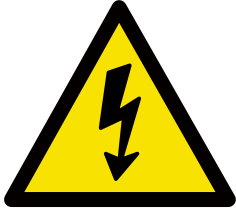


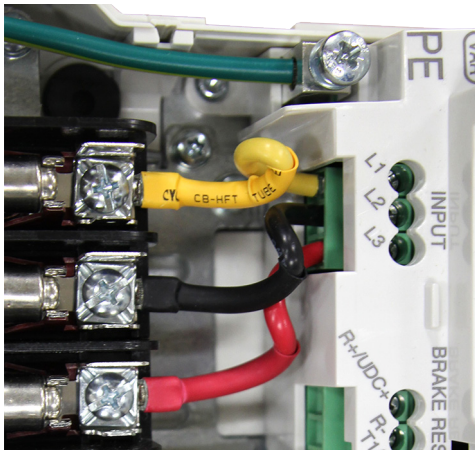
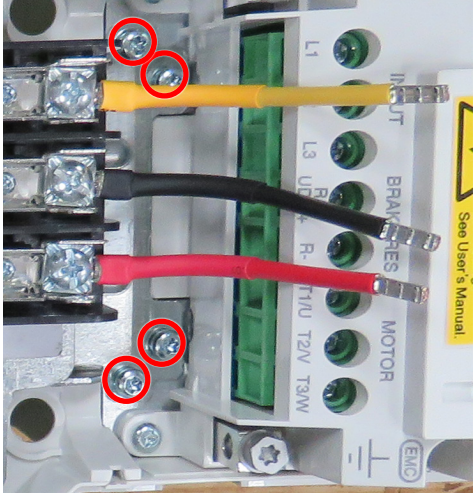

CAUTION! Review complete safety and electrical considerations prior to replacing the drive. See ACH580 IOM (3AXD50000049127).

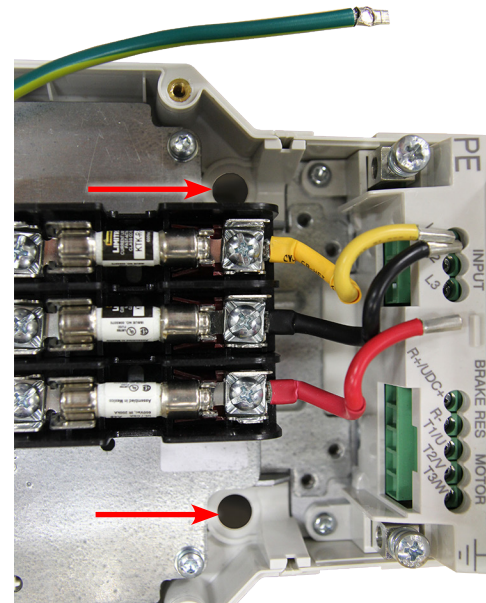

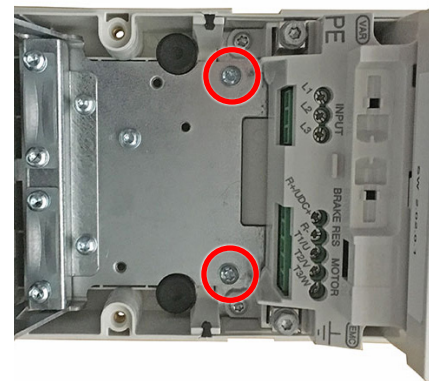
CAUTION! Two people are recommended for this job. The drive is heavy and can fall, causing property damage and injury.


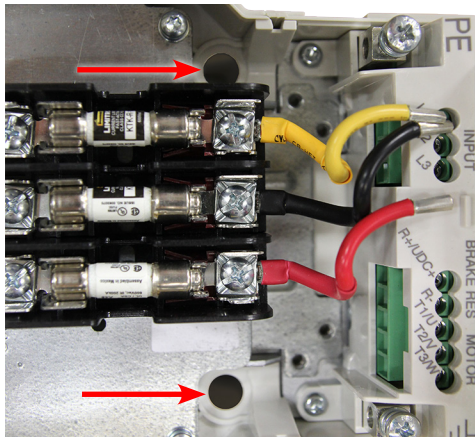
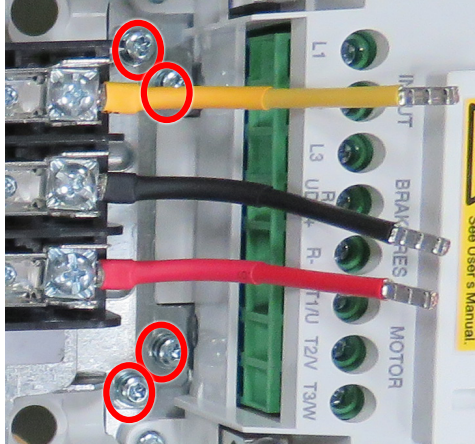
NOTE: UL Type 12 drives require a UL Type 12 replacement drive, UL Type 1 drives are not allowed as substitutes for UL Type 12.

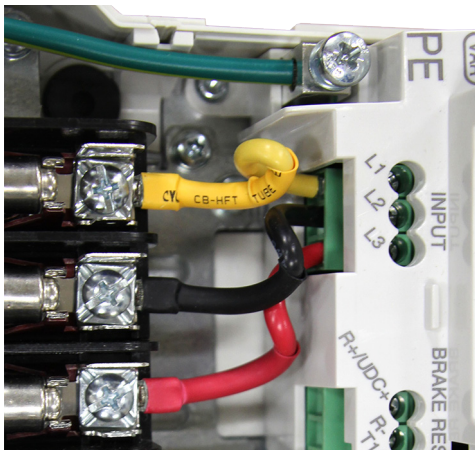
* Not all of these tools are needed for each frame size.

Step	Instruction	Diagram
1	<p>NOTE: If needed, back-up parameters prior to disconnecting power.</p> <p>Turn off source power and wait 5 minutes for the DC bus capacitors to discharge.</p> <p>Turn handle to the off position.</p>	 A photograph of the enclosure cover. A red circle highlights the black power handle with a red tab. To the right of the handle is a yellow warning label with a lightning bolt symbol and the word "WARNING". To the left is another yellow warning label with a lightning bolt symbol.
2	<p>Using a T20 bit, loosen four (4) M4x16 screws securing the enclosure cover.</p>	 A photograph of the enclosure cover. Four red circles are drawn around the screws at the corners of the cover: top-left, top-right, bottom-left, and bottom-right.
3	<p>Remove covers and unclip the drive cover from the enclosure cover.</p> <p>Recycle drive cover.</p>	 A photograph showing the interior of the enclosure cover. A hand is holding the left side of the cover. A red arrow points to a small tab on the right side of the cover, indicating where to unclip the drive cover.
4	<p>Perform voltage check to confirm no voltage is present.</p> <p>NOTE: If you have control wiring connected to the control unit, disconnect at this time.</p>	 A yellow triangular warning symbol with a black border and a black lightning bolt in the center.

Step	Instruction	Diagram
5	<p>Using a PZ2 bit, loosen and remove wires from the input terminals of the drive.</p> <p>Using a PZ3 bit, loosen and remove ground wire from the drive.</p>	
6	<p>Using a T20 bit, loosen and remove four (4) M4x8 screws.</p>	
7	<p>Using a T30 bit, loosen the two (2) bottom M5 screws securing the drive, four (4) turns of the screw.</p> <p>NOTE: Do not remove the screw completely. Only loosen enough to be able to lift the drive off the screws.</p>	

Step	Instruction	Diagram
8	<p>Remove two (2) grommets from the tray to access mounting screws.</p> <p>Using a T30 bit, loosen and remove the top two (2) M5 screws securing the drive.</p> <p>Carefully lift the drive out of channel.</p>	
9	<p>Unpack the replacement drive.</p> <p>UL Type 12: UL Type 12 drives require a UL Type 12 replacement drive, UL Type 1 are not allowed as substitutes for UL Type 12.</p> <p>Using a T20 bit, loosen screws securing the cover.</p> <p>UL Type 12: Recycle the hood that was included in the box.</p>	
10	<p>Using a T20 bit, loosen and remove two (2) M4x8 screws. Remove conduit assembly.</p> <p>Recycle the conduit assembly and hardware.</p>	

Step	Instruction	Diagram
11	<p>CAUTION! Use two people to install the drive.</p> <p>Lift the enclosure and slide the drive mounting holes over the bottom two (2) screws and slide drive in place.</p> <p>Torque two (2) mounting screws to 27 in-lb (3 Nm).</p>	
12	<p>Using a T30 bit, replace the two (2) M5 screws that were removed earlier.</p> <p>Torque two (2) mounting screws to 27 in-lb (3 Nm).</p> <p>UL Type 12: Reinstall grommets removed earlier.</p>	
13	<p>Secure the mounting plate using the four (4) M4x8 screws that were removed earlier.</p> <p>Using a T20 bit, torque to 13 in-lb (1.5 Nm).</p>	

Step	Instruction	Diagram
14	<p>Secure the ground wire to the drive.</p> <p>Using a PZ3 bit, torque to 14 in-lb (1.5 Nm).</p> <p>Connect the input wires (from fuse block) to the Input Terminals of the drive.</p> <p>Yellow U1 to L1 Black V1 to L2 Red W1 to L3</p> <p>R1 Frame: Using PZ2 bit, torque terminals to 5 in-lb (0.5 Nm). R2 Frame: Using a PZ2 bit, torque terminals to 14 in-lb (1.5 Nm).</p>	


15 Snap the enclosure cover into the drive cover.



16 Place the top of the drive cover on first, then press down on the bottom.



17 UL Type 12: Re-install Hood.

Step	Instruction	Diagram
18	<p>Secure enclosure cover using four (4) M4x16 screws that were removed earlier.</p> <p>Using a T20 bit, torque to 14 in-lb (1.5 Nm).</p> <p>UL Type 12: Reinstall the hood to drive.</p>	 A photograph of the white enclosure cover for the drive. The cover is laid flat on a wooden surface. In the center, there is a black circular component with a red handle. To the right of this component is a yellow warning label with the text 'A WARNING' and some smaller text. Four red circles are drawn on the cover, one in each corner, indicating the locations for the four M4x16 screws mentioned in the instructions. A yellow triangular warning symbol is visible in the bottom left corner of the cover.
19	Power and reprogram the drive.	
20	Test and verify drive operation and motor direction.	
21	Back-up and save parameters to the keypad prior to putting the drive back into service.	