



WavePro™ Power Circuit Breaker Accessories

Shunt Trip for 3200–5000 A Frames

Introduction

The Shunt Trip allows the breaker to be tripped electrically from a remote location. The kit consists of the Shunt Trip module, mounting plate, trip paddle, and hardware, as illustrated in Figure 1. The catalog numbers for the Shunt Trip for various voltage applications are listed in Table 1. For installation instructions and trouble-shooting, see DEH-169.

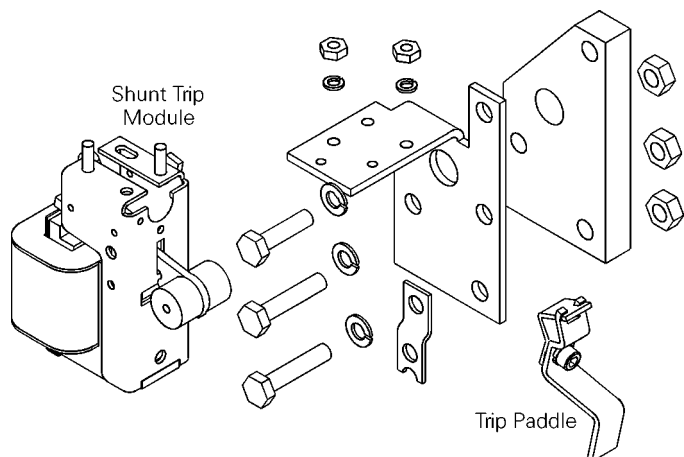


Figure 1. Shunt Trip accessory kit.

Operation

The Shunt Trip causes the circuit breaker to trip when its coil is energized. An “A” auxiliary switch, which is closed when the breaker is closed, is in series with the Shunt Trip coil, as illustrated in Figure 2. The external tripping source is connected to positions A5 and A7 on the secondary disconnect.

Catalog Number	Voltage Rating	Inrush Current, A	Sealed Current, A
WPS1LF60070	70 Vac, 60 Hz	—	—
WPS1LF60120	120 Vac, 60 Hz	12.3	10.8
WPS1LF60208	208 Vac, 60 Hz	3.2	2.6
WPS1LF60240	240 Vac, 60 Hz	3.9	3.4
WPS1LF50120	120 Vac, 50 Hz	7.6	6.7
WPS1LF50208	208 Vac, 50 Hz	3.8	3.1
WPS1LF50240	240 Vac, 50 Hz	4.7	4.1
WPS1LFDC012	12 Vdc	—	—
WPS1LFDC024	24 Vdc	8.3	8.3
WPS1LFDC048	48 Vdc	4.5	4.5
WPS1LFDC125	125 Vdc	2.0	2.0
WPS1LFDC250	250 Vdc	1.0	1.0

Table 1. Catalog numbers and electrical ratings for the Shunt Trip accessory.

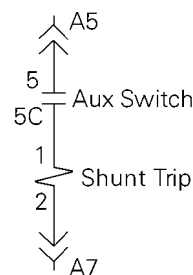


Figure 2. Shunt Trip connections to the Auxiliary Switch and secondary disconnect.

Installation

WARNING: Before installing any accessories, turn the breaker OFF, disconnect it from all voltage sources, and discharge the closing springs.

AVERTISSEMENT: Tourner le disjoncteur à la position OFF, le débrancher de toute source de tension et décharger les ressorts de fermeture avant l'installation de tout accessoire.

1. Open the breaker and remove it from the cubicle or substructure. (See DEH-135 for detailed instructions.)
2. Carefully place the breaker on a suitable working surface, so that the left side of the breaker (looking from the front) is accessible.
3. Line up the mounting bracket and spacer with the three mounting holes in the breaker side frame, as illustrated in Figure 3. Insert the three screws and

washers, placing the clip on the lower right screw, as shown, and secure with three nuts.

4. Insert the two mounting studs on the top of the Shunt Trip module into the holes on the top of the mounting bracket and secure with the two lock washers and nuts supplied.
5. Place the two parts of the trip paddle over the trip shaft and attach with the screw, as shown in Figure 3. The end of the paddle must line up with the Shunt Trip armature. Figure 4 shows the installed Shunt Trip in side view.
6. With the breaker mechanism reset, there must be clearance between the trip paddle and armature arm of 0.03 in minimum. If adjustment is necessary, bend the trip paddle to achieve this distance.

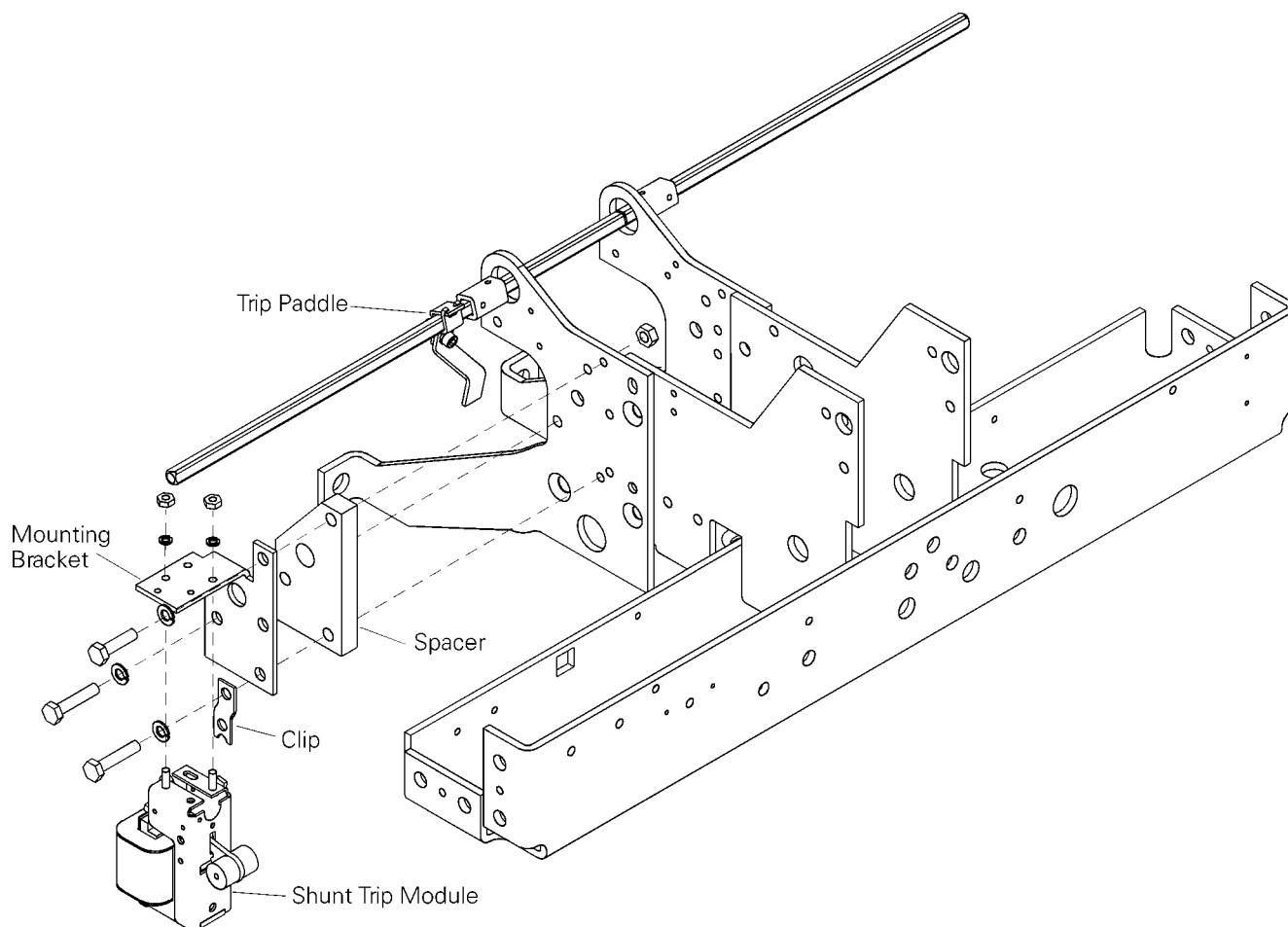


Figure 3. Installing the Shunt Trip on the left side of the breaker frame.

7. Route the wires from the Shunt Trip as shown in Figure 5. Run one wire to the Auxiliary Switch and connect it to terminal 5C. Run the other wire to the secondary disconnect A block, terminal 7. Cut both wires to the appropriate length and crimp on the terminals provided (the right-angle flag to the Auxiliary Switch, the spade terminal to the secondary disconnect). Figure 6 shows the secondary disconnect numbering scheme, as seen from the front of the breaker, with the Shunt Trip terminal in bold.
8. Reinstall the breaker into its cubicle or substructure.

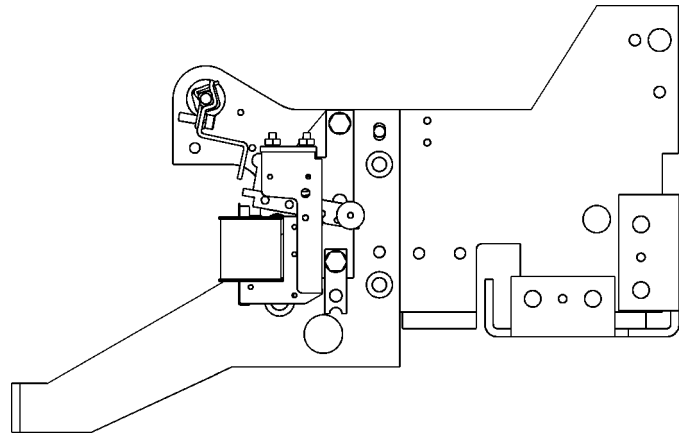


Figure 4. Side view of the Shunt Trip installed on the breaker.

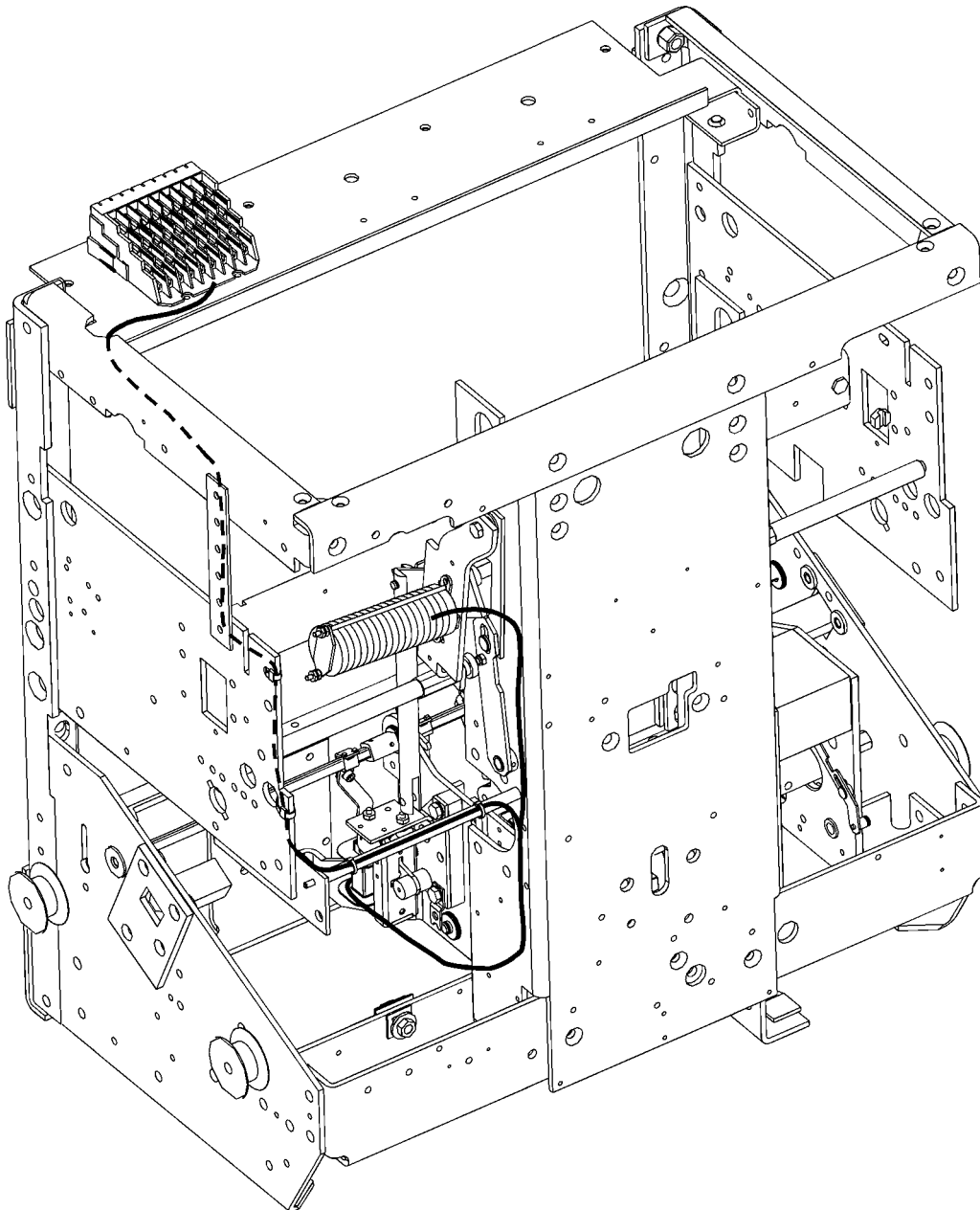


Figure 5. Path for routing wires from the Shunt Trip to the secondary disconnect and auxiliary switch.

9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11	10
27	26	25	24	23	22	21	20	19
36	35	34	33	32	31	30	29	28

Figure 6. Terminal numbering scheme of the secondary disconnect, as seen from the front of the breaker.



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