

WavePro™ Power Circuit Breakers
800–2000 A Frames, 240–600 Vac
Renewal Parts





# WavePro™ 800–2000 Ampere Power Circuit Breakers

#### Renewal Parts

# Introduction

This guide contains a listing of the parts and assemblies that are available as replacement parts for WavePro™ 800–2000 ampere low-voltage power circuit breakers. The listing "Qty. Reqd." refers to the quantity of each item required for a three-pole breaker.

Renewal parts as furnished may not be identical to the original parts since design changes may have been made in the interim. The parts supplied will, however, be interchangeable with the original parts.

Removal of existing parts and assemblies and installation of renewal parts are described in DEH-136, the *Maintenance Manual* for WavePro 800–2000 ampere breakers.

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# Back Frame Assemblies and Components

The Back Frame assemblies for various versions of the 800 A, 1600 A, and 2000 A frame breakers are illustrated in Figure 1, Figure 2, Figure 3, and Figure 4, with catalog numbers listed in Table 1.

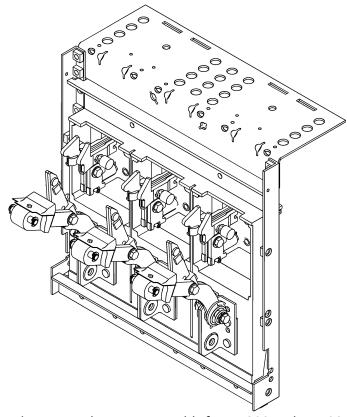


Figure 1. Back Frame assembly for WPS08 and WPF08.

		Catalog Number					
Desc	ription	WPS08 WPF08	WPH08	WPX08 WPS16 WPF16 ① WPH16	WPF16② WPS20		
Back	Frame	10080653G1	10080653G4	10080653G2	10080653G3		

① 2000 A maximum fuse and 1200 A maximum frame current.

Table 1. Catalog numbers of the Back Frame assemblies.

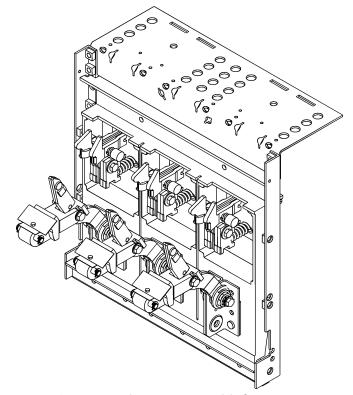


Figure 2. Back Frame assembly for WPH08.

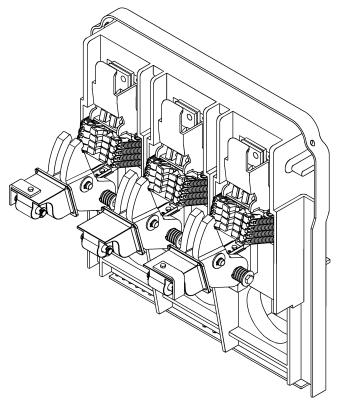


Figure 3. Back Frame assembly for WPX08, WPS16, WPF16, and WPH16. (WPF16 with 2000 A max fuse and 1200 A max frame current.)

<sup>2 2500</sup> A fuse and 1600 A maximum frame current.

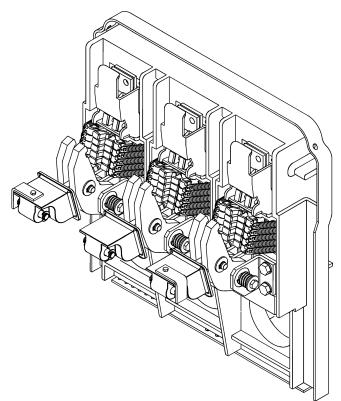


Figure 4. Back Frame assembly for WPF16 and WPS20. (WPF16 with 2500 A max fuse and 1600 A max frame current.)

Figure 5 and Figure 6 are views of the Upper and Lower Contact assemblies for WPS08 and WPF08 breakers. Figure 7 and Figure 8 are views of the Upper and Lower Contact assemblies for the WPH08 breaker. Table 2 lists the catalog numbers of the components available as renewal parts.

	WPF08, WPS08		,	WPH08
Description	Qty. Reqd.	Catalog Number	Qty. Reqd.	Catalog Number
Upper Contact Assembly	3	10080654G1	3	10080654G2
Arcing Contact Spring	6	323A6157P1	6	323A6157P1
Main Contact Spring	3	323A6155P1	_	_
Main Contact Spring (Inner)	_	_	6	323A6181P1
Main Contact Spring (Outer)	_	_	6	323A6182P1
Lower Contact Assembly	3	10080655G1	3	10080655G2
Insulator-link Assemb	ly 3	10060133G1	3	10060133G1
Movable Contact Spring	6	323A6163P1	6	323A6163P1

Table 2. Catalog numbers of the Upper and Lower Contact assemblies for WPF08, WPS08, and WPH08.

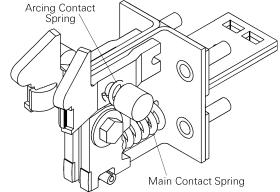


Figure 5. Upper Contact assembly for WPS08 and WPF08.

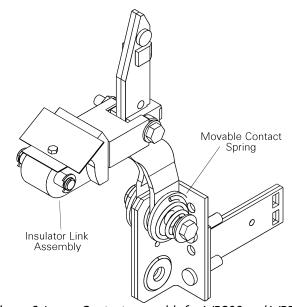


Figure 6. Lower Contact assembly for WPS08 and WPF08.

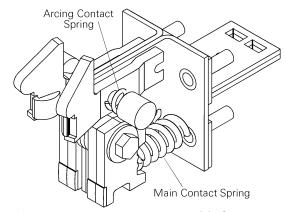


Figure 7. Upper Contact assembly for WPH08.

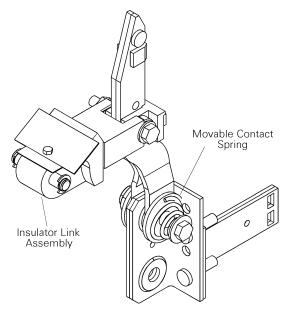


Figure 8. Lower Contact assembly for WPH08.

Figure 9 and Figure 10 are views of the Upper and Lower Contact assemblies for WPX08, WPS16, WPF16, and WPH16 breakers. Figure 11 and Figure 12 are corresponding views for WPF16 and WPS20 breakers. Table 3 lists the catalog numbers of the components available as renewal parts.

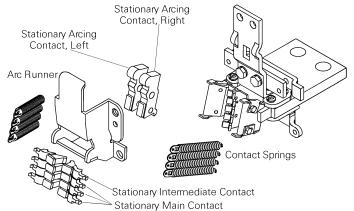


Figure 9. Upper Contact assembly for WPX08, WPS16, WPF16, and WPH16. (WPF16 with 2000 A max fuse and 1200 A max frame current.)

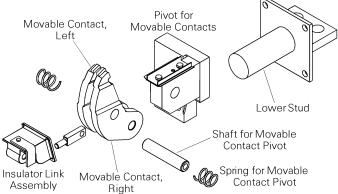


Figure 10. Lower Contact assembly for WPX08, WPS16, WPF16, and WPH16. (WPF16 with 2000 A max fuse and 1200 A max frame current.)

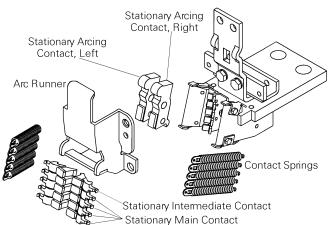


Figure 11. Upper Contact assembly for WPF16 and WPS20. (WPF16 with 2500 A fuse and 1600 A max frame current.)

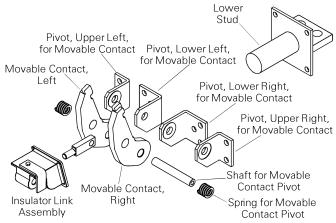


Figure 12. Lower Contact assembly for WPF16 and WPS20. (WPF16 with 2500 A fuse and 1600 A max frame current.)

		/PX08, WPS16, PF16 <sup>①</sup> , WPH16	WPF16 ② WPS20	
Description	Qty. Reqd.	Catalog Number	Qty. Reqd.	Catalog Number
Contactspring	24	192A9509G1	30	192A9509G1
Stationary arcing contact, right and left	6	568B509G6	6	568B509G6
Plunger for stationary arcing contact	3	192A9544G1	3	192A9544G1
Spring, outer, for stationary arcing contact	3	192A6990P146	3	192A6990P146
Spring, middle, for stationary arcing contact	3	192A6990P147	3	192A6990P147
Spring, inner, for stationary arcing contact	3	192A6990P148	3	192A6990P148
Pivot for stationary arcing contact	3	192A9514P1	3	192A9514P1
Stationary intermediate contact	6	192A9505G2	3	192A9505G2
Stationary main contact	18	192A9505G1	24	192A9505G1
Movable contact, left	3	192A9511G1	3	192A9977G2
Movable contact, right	3	192A9511G2	3	192A9977G1
Pivot for movable contact	3	192A9912G1	_	_
Pivot for movable contact, lower right	_	_	3	192A9972P1
Pivot for movable contact, lower left	_	_	3	192A9972P2
Pivot for movable contact, upper right	_	_	3	192A9972P3
Pivot for movable contact, upper left	_	_	3	192A9972P4
Shaft for movable contact pivot	3	192A9602P1	3	192A9985P1
Spring for movable contact pivot	6	192A6990P152	3	192A6990P190
Insulator link assembly	3	134C2127G1	3	134C2127G1
Lower stud	3	192A9819G2	3	192A9819G2
Lower stud with primary disconnect fingers	3	286A8043G3	3	286A8043G3
Arc Runner	3	568B504G1	3	568B504G1

 $<sup>\, \</sup>oplus \,$  2000 A maximum fuse and 1200 A maximum frame current.

Table 3. Catalog numbers of the individual contacts and other parts comprising the upper and lower contact assemblies for WPX08, WPS16, WPF16, WPH16, and WPS20. (All quantities are per circuit breaker.)

<sup>2 2500</sup> A fuse and 1600 A maximum frame current.

# Front Frame Assemblies and Components

Figure 13 show the Front Frame Assembly, with the catalog numbers listed in Table 4.

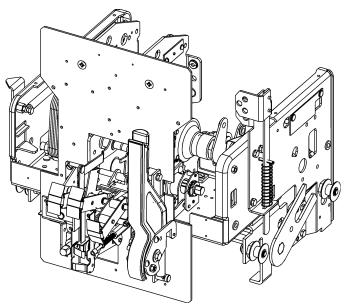


Figure 13. Front Frame Assembly.

	WPS08, WP	F08, WPH08		S16, WPF16, WPS20
Description	AKD-10	OEM	AKD-10	OEM
Front Frame	10057023G1	10057023G2	10057023G3	10057023G4

Table 4. Catalog numbers for the Front Frame Assemblies.

Figure 14 illustrates the Charging Handle and associated mounting hardware, with the catalog numbers listed in Table 5.

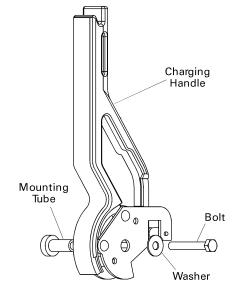


Figure 14. Charging Handle and mounting components.

Description	Catalog Number
Charging Handle	10060164G2
Bolt	N22P23036B6
Washer	N402P42B6
Handle Mounting Tube	10060138P1

Table 5. Catalog numbers of the Charging Handle and mounting hardware.

## Standard Parts and Assemblies

This section lists the parts and assemblies available as renewal parts for all WavePro breakers.

#### **Primary Disconnects**

Primary Disconnect assemblies are available for WPS08, WPF08, and WPH08 breakers, as illustrated in Figure 15. The Primary Disconnect assembly for WPX08, WPS16, WPF16, and WPH16 breakers is illustrated in Figure 16. The Primary Disconnect assembly for WPF16 and WPS20 breakers is illustrated in Figure 17. The catalog numbers are listed in Table 6.

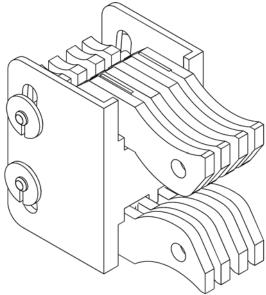


Figure 15. Primary disconnect for WPS08, WPF08, and WPH08 breakers.

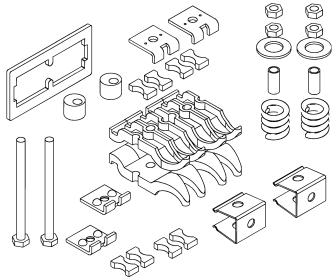


Figure 16. Primary disconnect for WPX08, WPS16, WPF16, WPH16, and WPS20 breakers. (WPF16 with 2000 A max fuse and 1200 A max frame current.)

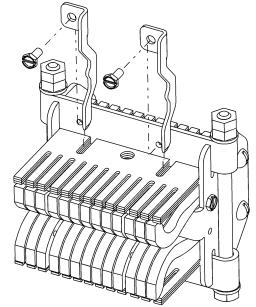


Figure 17. Primary disconnect for WPF16 breakers with 2500 A max fuse and 1600 A max frame current.

			Catalog Number			
Description	Qty. Reqd.	WPS08 WPF08 WPH08	WPX08 WPS16 WPF16 <sup>①</sup> WPH16	WPF16 <sup>②</sup> WPS20		
Primary Disconnect Assembly	③ 6	242B7062G1	192A9668G1	568B589G2		

 $<sup>^{\</sup>odot}$ 2000 A maximum fuse and 1200 A maximum frame current.

Table 6. Catalog numbers of the Primary Disconnects.

<sup>2500</sup> A fuse and 1600 A maximum frame current.

Includes both line and load sides.

#### Secondary Disconnects

The Secondary Disconnect block is illustrated in Figure 18, with the catalog number listed in Table 7.

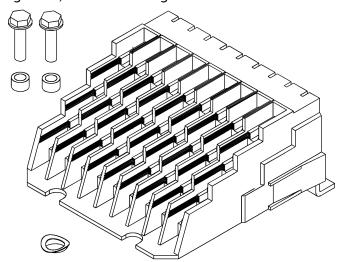


Figure 18. Secondary Disconnect.

Description	Catalog Number
Secondary Disconnect Bloc	k 10080736G1

Table 7. Catalog number of the Secondary Disconnect block.

#### Arc Chutes

The Arc Chute assemblies are illustrated in Figure 19 and Figure 20, with the catalog numbers listed in Table 8. The Arc Chute Interphase Barrier for WPS08, WPF08, and WPH08 breakers is shown in Figure 21, with the catalog number in Table 9. The Arc Chute Interphase Barriers and Arc Chute Retainer for WPX08, WPS16, WPF16, WPH16, and WPS20 breakers are illustrated in Figure 22, with the catalog numbers listed in Table 10.

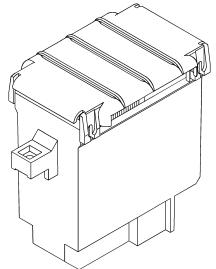


Figure 19. Arc Chute for WPS08, WPF08, and WPH08.

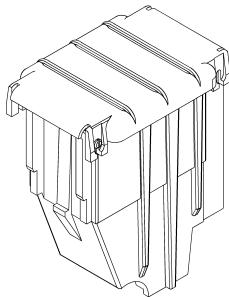


Figure 20. Arc Chute for WPX08, WPS16, WPF16, WPH16, and WPS20.

		Catalog Number		
Description	Qty. Reqd.	WPS08, WPF08 *	WPS16, WPF16,	WPX08, WPH16, WPS20
Arc Chute	3	161D6522G3	425D404G9	425D404G10

Table 8. Catalog numbers of the Arc Chutes. \*
Note: WPH-08 arc chute is not available due to
raw material obsolescence

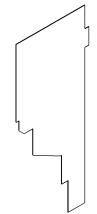


Figure 21. Arc Chute Interphase Barrier for WPS08, WPF08, and WPH08.

Description	Qty. Reqd.	Catalog Number
Arc Chute Interphase Barrier	4	10057260P1

Table 9. Catalog number of the Arc Chute Interphase Barrier for WPS08, WPF08, and WPH08.

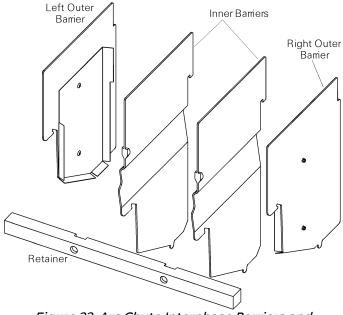


Figure 22. Arc Chute Interphase Barriers and Retainer for WPX08, WPS16, WPF16, WPH16, and WPS20.

Description	Qty. Reqd.	Catalog Number
Left Outer Interphase Barrier	1	568B408G2
Inner Interphase Barrier	2	568B545P1
Right Outer Interphase Barrier	1	568B408G1
Arc Chute Retainer	1	193A1169P1

Table 10. Catalog numbers of the Arc Chute Interphase Barriers and Arc Chute Retainer for WPX08, WPS16, WPF16, WPH16, and WPS20.

#### Flux Shifter

The Flux Shifter with reset linkage is illustrated in Figure 23, with the catalog number listed in Table 11. The reset spring is also available as a renewal part.

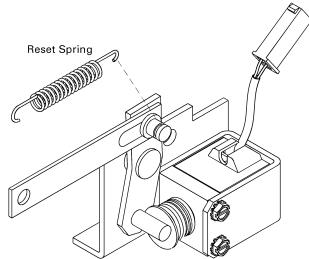


Figure 23. Flux Shifter.

Description	Qty. Reqd.	Catalog Number
Flux Shifter and Reset Linkage	1	10088415G1
Reset Spring	1	10086365P1
Reset Linkage	1	192A9831G2

Table 11. Catalog number of the Flux Shifter.

#### **Current Sensor**

The Current Sensor is illustrated in Figure 24, with the catalog numbers listed in Table 12. Three Current Sensors are required for a three-pole breaker.

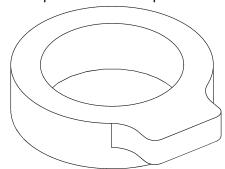


Figure 24. Current Sensor.

Current	Catalog Numbers			
Sensor	WP08 <sup>①</sup>	WPX08/WP16 <sup>①</sup>	WP20 <sup>①</sup>	
150 A	161D6536G1 <sup>②</sup> 161D6536G301 <sup>③</sup>	139C4970G25 <sup>②</sup> 139C4970G325 <sup>③</sup>	_	
400 A	161D6536G2 <sup>②</sup> 161D6536G302 <sup>③</sup>	139C4970G28 <sup>②</sup> 139C4970G328 <sup>③</sup>	_	
800 A	161D6536G3 <sup>②</sup> 161D6536G303 <sup>③</sup>	139C4970G30 <sup>②</sup> 139C4970G330 <sup>③</sup>	_	
1600 A	_	139C4970G32 <sup>②</sup> 139C4970G332 <sup>③</sup>	_	
2000 A	_	_	139C4970G33 <sup>②</sup> 139C4970G333 <sup>③</sup>	

- Check whether circuit breaker CTs have screw terminals or quick-disconnect spade terminals.
- ② CTs have screw terminals. (1998- approx. 2004)
- ③ CTs have quick-disconnect spade terminals. (since ~ 2004)

Table 12. Catalog numbers of the Current Sensors.

#### **Drawout Racking Mechanism**

The Drawout Racking Mechanism is illustrated in Figure 25, with the catalog numbers listed in Table 13. The Drawout Trip Paddle and Drawout Roller are illustrated in Figure 26, with the catalog numbers listed in Table 14.

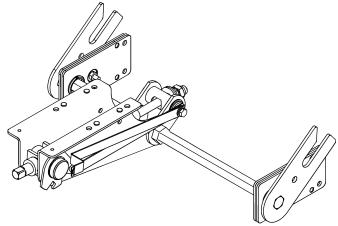


Figure 25. Drawout Racking Mechanism.

Description	Qty. Reqd.	Catalog Number
Racking Mechanism, AKD-10	1	10060041G1
Racking Mechanism, OEM	1	10060041G2

Table 13. Catalog numbers of the Racking Mechanisms.

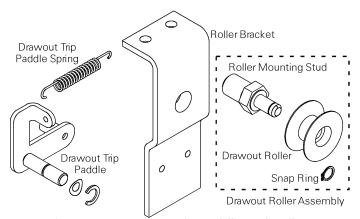


Figure 26. Drawout Trip Paddle and Roller.

Description	Qty. Reqd.	Catalog Number
Drawout Trip Paddle Assembly	1	10080673G1
Drawout Paddle Spring	1	192A6990P155
Roller Bracket	2	568B538P2
Drawout Roller Assembly	4	10083673G1

Table 14. Catalog numbers of the Drawout Trip Paddle and Roller renewal parts.

#### Escutcheon

The Escutcheon, illustrated in Figure 27, is available in a complete kit including trim and mounting hardware or as the molded cover only. In addition, the Hidden Close Push Button and Trip Unit doors are available separately. The manual charging handle is not included with the Escutcheon. Catalog numbers are listed in.

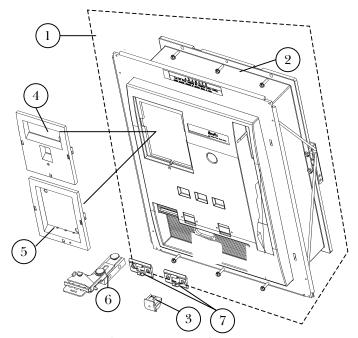


Figure 27. Escutcheon.

Drawing Key	Description	Catalog Number
1①	Escutcheon Kit, complete, AKD-10	10057276G1
1.0	Escutcheon Kit, complete, OEM	10057276 <b>G</b> 2
2①	Escutcheon, molded cover only, AKD-10	10060207G1
20	Escutcheon, molded cover only, OEM	10060207G2
3②	Hidden Close Push Button	WPHIDONKIT1
3	Standard Close Button	10054366G3
42	Trip Unit Door, MicroVersaTrip Plus™ and MicroVersaTrip PM™	10060051P1
5②	Trip Unit Door, Power+™	10055898G1
	Padlock Kit, OEM,Regular Close Button	WPSOEMPLKRC
6®	Padlock Kit,AKD-10,Regular Close Button	WPSFPLKRC
0	Padlock Kit, OEM, Hidden Close Button	WPSFOEMPLKHC
	Padlock Kit,AKD-10,Hidden Close Button	WPSFPLKHC
7	Pushbutton Covers (Qty. 2)	WPPBCVRKIT2

- Fits only circuit breakers w/ item 6 padlock design. Order Padlock Kit (DWG Key 6) for older breakers w/ pull down padlock circa 1998-2001
- Not included in item 1 above.
- ③ Includes a new Escutcheon

Table 15. Catalog numbers of the Escutcheon renewal parts.

# Mechanism Parts

This section describes the renewal parts that are available for maintaining the breaker mechanism.

#### Holding Pawl Kit

The holding pawl, pivot stud, spring, and mounting hardware, illustrated in Figure 28, are available as a complete kit. The catalog number is listed in Table 16.

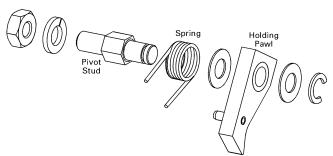


Figure 28. Holding pawl kit.

Description	Catalog Number	
Holding Pawl Kit	323A6081G1	

Table 16. Catalog number of the Holding Pawl kit.

## Ratchet Assembly Kit

The ratchet assembly kit, illustrated in Figure 29, is available as a renewal part with the catalog number listed in Table 17.

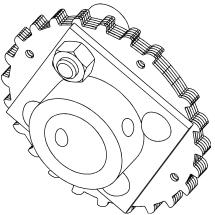


Figure 29. Ratchet assembly.

Description	Catalog Number	
Ratchet Assembly	343L731G1	

Table 17. Catalog number of the Ratchet assembly.

## Charging Pawl Kit

The motor drive charging pawl kit, illustrated in Figure 30, includes the pawl and the mounting hardware to attach it to the motor output eccentric. The catalog number is listed in Table 18.

If the motor eccentric is worn, consider replacing the motor, shown in Figure 37 on page 15.

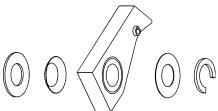


Figure 30. Charging Pawl kit.

Description	Catalog Number	
Motor Drive Pawl kit	323A6080G1	

Table 18. Catalog number of the motor drive charging pawl kit.

# WavePro™ 800-2000 Ampere Power Circuit Breakers

## Renewal Parts

## Trip Shaft Parts

The renewal parts available for the trip shaft are the buffer assembly and the return spring, illustrated in Figure 31. The catalog numbers of these parts are listed in Table 19.

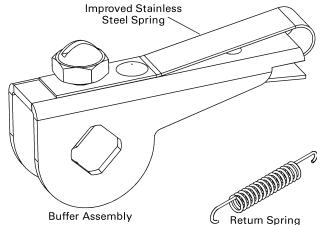


Figure 31. Trip Shaft Buffer assembly and Return Spring.

Description	Catalog Number	
Trip Shaft Buffer Assembly	192A9651G1	
Trip Shaft Return Spring <sup>①</sup>	192A6990P149	
Trip Shaft Return Spring ②	10087448P1	

① Used through fiscal week 8 of 2002.

Table 19. Catalog numbers of Trip Shaft renewal parts.

#### Latch Gap Adjuster

The Latch Gap Adjuster, which has been in use since fiscal week 8 of 2002, sets the gap between the latch and latch roller. It is illustrated in Figure 32 and the catalog number is listed in Table 20.

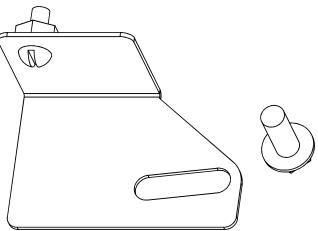


Figure 32. Latch Gap Adjuster.

Description	Catalog Number	
Latch Gap Adjuster	10088403G1	

Table 20. Catalog number of the Latch Gap Adjuster.

#### Breaker Retaining Hardware

The retaining hardware items listed in Table 21 are available in packages of 100 pieces. Order by the catalog number listed.

Shaft Size, In.	Squeeze Rings	Retaining Rings	Retaining Clips
0.187	10081394G5	10081394G9	
0.250	10081394G3	10081394G10	
0.312	10081394G2		
0.375	10081394G1	10081394G11	
0.438	10081394G7		
0.500	10081394G6	10081394G12	
0.625	10081394G4		
0.875		10081394G13	
1.000		10081394G14	
1.250		10081394G15	
Aux Switch			10081394G8

Table 21. Catalog numbers of retaining hardware available for WavePro breakers.

② Used after fiscal week 8 of 2002. Color coded red. Recommended for use only with red secondary latch torsion spring.

## Accessories

This section lists the renewal parts for the optional accessories available with WavePro breakers.

#### Bell Alarm

The Bell Alarm accessory, illustrated in Figure 33 can be configured with Automatic Reset or with Lockout. Renewal parts for the Bell Alarm are a complete kit, including mounting hardware; the module only; universal mounting bracket; and mounting studs. The universal mounting plate is required to convert a factory-built breaker equipped with Bell Alarm with Lockout to the Automatic Reset configuration. The catalog numbers are listed in Table 22.

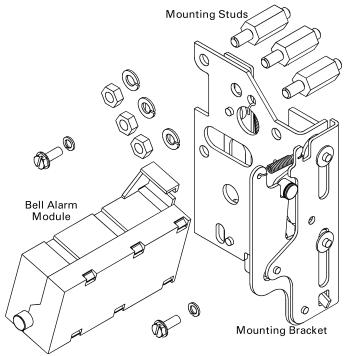


Figure 33. Bell Alarm accessory.

Description	Qty. Reqd.	Catalog Number
Bell Alarm Kit	1	WPBASF
Bell Alarm Module	1	10080044G1
Universal Mounting Bracket	1	10056728G2
Mounting Stud	3	10080023P1

Table 22. Catalog numbers of the Bell Alarm renewal parts.

#### Shunt Trip

The Shunt Trip accessory, illustrated in Figure 34, is available for a variety of control voltage applications. Renewal parts for the Shunt Trip are a complete kit, including mounting hardware, or the module only. The catalog numbers are listed in Table 23. In addition, the armature return spring is available separately, as listed in Table 24.

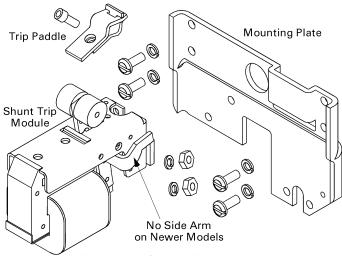


Figure 34. Shunt Trip accessory.

Shunt Trip	6 1. 17	Complete Kit,	
Control Voltage	Complete Kit	Shunt Trip 2	Module Only
70 Vac, 60 Hz	WPS1SF60070	_	139C4378G106
120 Vac, 60 Hz	WPS1SF60120	WPS2SF60120	139C4378G107
208 Vac, 60 Hz	WPS1SF60208	_	139C4378G110
240 Vac, 60 Hz	WPS1SF60240	WPS2SF60240	139C4378G113
120 Vac, 50 Hz	WPS1SF50120	_	139C4378G108
208 Vac, 50 Hz	WPS1SF50208	_	139C4378G111
240 Vac, 50 Hz	WPS1SF50240	_	139C4378G114
12 Vdc	WPS1SFDC012	_	
24 Vdc	WPS1SFDC024	WPS2SFDC024	139C4378G101
48 Vdc	WPS1SFDC048	_	139C4378G103
110/125 Vdc	WPS1SFDC125	WPS2SFDC125	139C4378G104
250 Vdc	WPS1SFDC250	WPS2SFDC250	139C4378G105

Table 23. Catalog numbers of the Shunt Trip accessory renewal parts.

Description	Catalog Number
Armature return spring	10087189P1

Table 24. Catalog number of Shunt Trip armature return spring.

## Undervoltage Trip Device

The Undervoltage Trip Device accessory, illustrated in Figure 35, is available for a variety of control voltage applications, with and without Time Delay. Renewal parts for the Undervoltage Trip Device are a complete kit, including mounting hardware, or the module only, with the catalog numbers listed in Table 25. The Time Delay module is available separately or with the Undervoltage Trip Device, with the catalog numbers listed in Table 26.

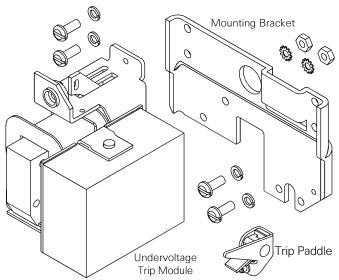


Figure 35. Undervoltage Trip Device accessory.

Undervoltage Trip Control Voltage	Complete Kit	Module Only
120 Vac	WPUVSF56120	10056791G1
240 Vac	WPUVSF56240	10056791G2
24 Vdc	WPUVSFDC024	10056791G4
48 Vdc	WPUVSFDC048	10056791 <b>G</b> 5
110 Vdc	WPUVSFDC110	10056791 <b>G</b> 6
125 Vdc	WPUVSFDC125	10056791G6
250 Vdc	WPUVSFDC250	10056791G7

Table 25. Catalog numbers of the Undervoltage Trip Device renewal parts.

Undervoltage Trip Control Voltage	Undervoltage with Time Delay	Time Delay Module
125 Vdc	WPUVSFTD125	TAKYUVT1
250 Vdc	WPUVSFTD250	TAKYUVT2
208 Vac	WPUVSFTD208	TAKYUVT5 <sup>®</sup>
240 Vac	WPLIVSETD240	ΤΔΚΥΠΝΤ4①

TAKYUVT3 is obsolete; replace with TAKYUVT4 or TAKYUVT5.

Table 26. Catalog numbers for the Time Delay modules.

#### Electric Lockout

The Electric Lockout accessory, illustrated in Figure 36, is available for a variety of control voltage applications. Renewal parts for the Electric Lockout are the complete kit, including mounting hardware, or the module only, with the catalog numbers listed in Table 27.

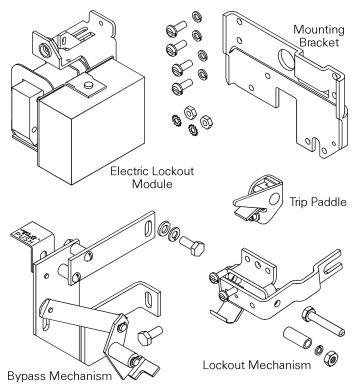


Figure 36. Electric Lockout accessory.

Electric Lockout Control Voltage	Complete Kit	Module Only
120 Vac	WPELSF56120	10056947G1
240 Vac	WPELSF56240	10056947G2
24 Vdc	WPELSFDC024	10056947G3
48 Vdc	WPELSFDC048	10056947G4
110 Vdc	WPELSFDC110	10056947 <b>G</b> 5
125 Vdc	WPELSFDC125	10056947G5
250 Vdc	WPELSFDC250	10056947 <b>G</b> 6

Table 27. Catalog numbers of the Electric Lockout renewal parts.

## **Charging Motor**

The Charging Motor accessory, illustrated in Figure 37, is available for a variety of control voltage applications. Renewal parts for the Charging Motor are the motor, the cut-off switch module, and the cut-off switch bracket. The catalog numbers are listed in Table 28.

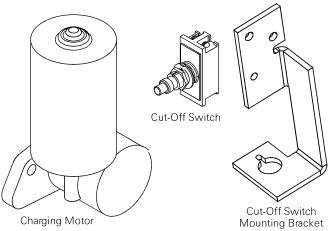


Figure 37. Charging Motor, Cut-Off Switch, and Switch Mounting Bracket.

	Catalog Number		
Motor Voltage	Motor 1 2	Cut-Off Switch	Switch Bracket
48 Vdc	568B596G4	192A7153P8	
110 Vdc, 120 Vac, 125 Vdc	568B596G5	192A7153P8	10081438P1
240 Vac, 250 Vdc	568B596G6	192A7153P8	

<sup>1</sup> Includes charging pawl.

Table 28. Catalog numbers of the Charging Motor renewal parts.

#### Remote Close

The Remote Close accessory, illustrated in Figure 38, is available for a variety of control voltage applications. Renewal parts for the Remote Close are the complete kit, the circuit board, and the solenoid. The catalog numbers are listed in Table 29.

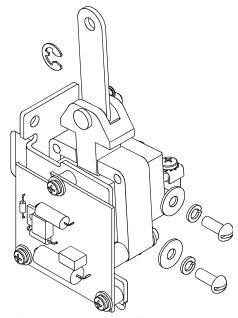


Figure 38. Remote Close accessory.

	Catalog Number		
Remote Close Voltage	Complete Kit	Circuit Board	Solenoid
120 Vac, 60 Hz	WPRCSF60120	10080367G3	10080505G1
240 Vac, 60 Hz	WPRCSF60240	10080367G4	10080505G2
120 Vac, 50 Hz	WPRCSF50120	10080367G3	10080505G1
240 Vac, 50 Hz	WPRCSF50240	10080367G4	10080505 <b>G</b> 2
48 Vdc	WPRCSFDC048	10080367 <b>G</b> 7	10080505 <b>G</b> 3
110 Vdc	WPRCSFDC110	10080367 <b>G</b> 8	10080505 <b>G</b> 4
125 Vdc	WPRCSFDC125	10080367G8	10080505G4
250 Vdc	WPRCSFDC250	10080367 <b>G</b> 8	10080505 <b>G</b> 5

Table 29. Catalog numbers of the Remote Close renewal parts.

② G4, G5, and G6 motors are universally accepted on all breaker frames.

#### **Auxiliary Switch**

The Auxiliary Switch accessory, illustrated in Figure 39, is available in two configurations of four or seven stages. The catalog numbers are listed in Table 30.

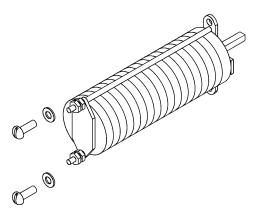


Figure 39. Auxiliary Switch accessory.

Description	Catalog Number
Auxiliary Switch, 4 stage	WPAUXSF4STG
Auxiliary Switch, 7 stage	WPAUXSF7STG

Table 30. Catalog numbers of the Auxiliary Switch.

## Open-Fuse Lockout

The Open-Fuse Lockout accessory is illustrated in Figure 40, with the catalog number listed in Table 31.

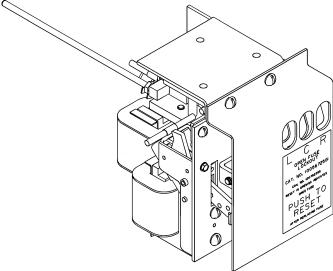


Figure 40. Open-Fuse Lockout accessory.

Description	Catalog Number
Open-Fuse Lockout	10056725G1

Table 31. Catalog number of the Open-Fuse Lockout.

#### Remote Charge-Indication Switch

The Remote Charge-Indication Switch is illustrated in Figure 41, with the catalog number listed in Table 32. The kit also includes a secondary disconnect, with mounting hardware, to be installed in the C position on the breaker. If necessary, order the equipment-mounted secondary disconnect separately.

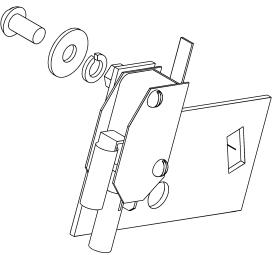


Figure 41. Remote Charge-Indication Switch.

Description	Catalog Number
Remote Charge-Indication Switch	WPRCISFKIT1

Table 32. Catalog number of the Remote Charge Indication Switch.

#### **Contact Position Switch**

The Contact Position Switch used on breakers built until June 2002 has been eliminated. Contact position for trip units with communication capability is now indicated by the Auxiliary Switch. If the Contact Position Switch needs replacement, disconnect its wires and route the harness shown in Figure 42 to the Auxiliary Switch. The catalog number for the wire harness is listed in Table 33.

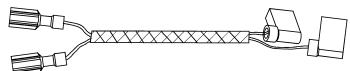


Figure 42. Contact Position Wire Harness.

Description	Catalog Number
Contact Position Wire Harness	10088360G1

Table 33. Catalog number of the Contact Position Wire Harness.

#### Padlock Provision

The Padlock Provision can be installed on 800-2000 Ampere WavePro Circuit Breakers to secure the breaker in the TEST or DISCONNECT position. The kit consists of one Padlock Provision assembly with the appropriate hardware. The catalog number for the Padlock Provision Kit is listed in Table 34. Mount it on the right side of the circuit breaker frame in the holes provided. Use of this feature can prevent accidental or unauthorized racking of the circuit breaker when it is in the TEST or DISCONNECT position.

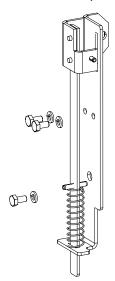


Figure 43. Padlock Provision Kit

Description	Catalog Number
Padlock Provision Kit	10091353G2

Table 34. Catalog number of the Padlock Provision Kit

# Operations Counter

The Operations Counter can be installed on 800-2000A WavePro Circuit Breakers. It is a non-resettable mechanical counter that advances each time the breaker closes. It operates by an interface with the Flux shifter reset linkage. On a non-automatic breaker only, the reset linkage and spring shown in Table 11 must be ordered separately, since this breaker type is not equipped with a flux shifter.

Description	Catalog Number
Operations Counter Kit	WPCTRSFKIT1

Table 35. Catalog number of the Operations Counter Kit

# Trip Units

Power+™ Trip Units and MicroVersaTrip Plus™ and MicroVersaTrip PM™ Trip Units are available in a large variety of configurations. To order a replacement Trip Unit, an "R" suffix is added to the original Trip unit Catalog number. Power +™ Rating Plugs & Target Modules and MicroVersaTrip Plus™ & PM™ Rating Plugs are available using the original catalog number. Alternatively, other compatible Rating Plugs and Target Modules can be selected from the GE Buylog.

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to the ABB Inc.