

# Vintage Westinghouse panelboards



PRL1-LX



PRL1 / PRL2



PRL3



CDP, HCDP



FDP

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Powering Business Worldwide

### Procedure for identifying renewal parts

1. Identify the type of panelboard (PRL1, PRL2, PRL3, PRL1-LX, PRL3-LX, CPD, FDP) from the data found on the nameplate. Critical information includes:

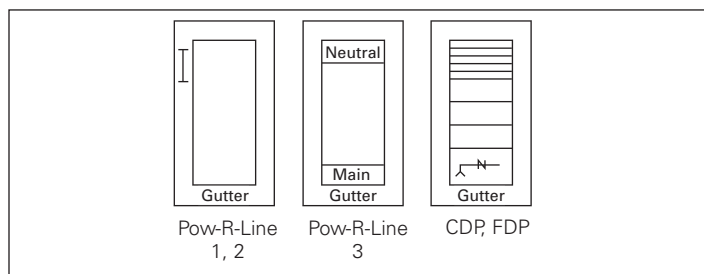
- Type of panelboard
- Ampere rating of the main
- Ampere rating of the neutral
- Voltage
- Type of service (phase/number of wires)
- General order number

2. Refer to the listing below and turn to the proper section in this renewal parts data to identify standard parts and components.

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3. This book identifies those replacement parts most frequently ordered and that are readily available from stock. These parts can be ordered by style or catalog number to speed up processing and delivery.

4. In the event that the nameplate is missing, it may still be possible to identify the panel type by the location of the neutral bar. **Figure 1** shows the position of the neutral in the panelboard.



**Figure 1. Panelboard Neutral Locations**

Box width may also be used to help identify the panelboard type. Standard width for PRL1, PRL2, and PRL3 is 20.00 inches (508.0 mm). CDP and FDP standard widths are 30.00, 38.00, 42.00, 48.00, and 50.00 inches (762.0, 965.2, 1066.8, 1219.2, and 1270.0 mm).

**⚠ CAUTION**

**HAZARDOUS VOLTAGE WILL CAUSE SEVERE INJURY OR DEATH. TURN OFF POWER SUPPLY TO EQUIPMENT BEFORE WORKING ON IT.**

### Distributor ordering instructions

1. Specify the part by catalog number.
2. Refer to PL01400002E for pricing information. Discount Symbol CE9 applies.
3. Enter the order on VISTA, location Q49 or SUM.

**Note:** For CDP retrofit kits shown on **Page 12**, you must enter the catalog number, list price, standard multiplier, and location Q49 or SUM.

4. When ordering a new circuit breaker to add to a CDP panelboard, the following options are available:

- Take the required breaker from your stock (or order from W34) and order the connector kit (**Page 14** and **Page 18**) from the Sumter Plant

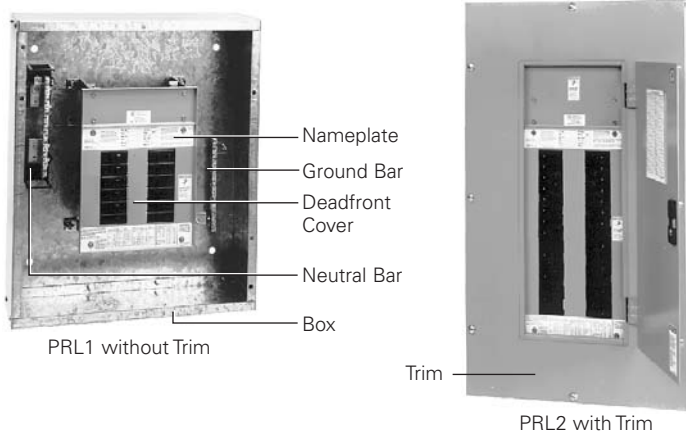
or

- Select the correct breaker retrofit kit (**Page 12**), which includes the breaker and connector kit in one package, one shipment, and one invoice from the Sumter Plant

5. Selling policy 25-000 applies.

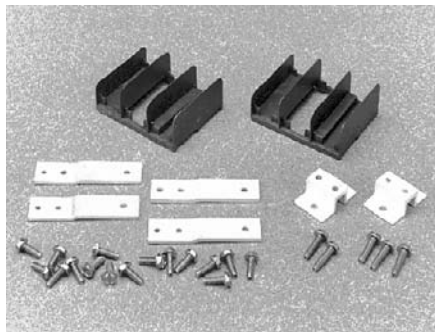
6. If additional support is required, contact the Sumter Plant Aftermarket Center at 803-481-6677. A complete listing of available services is on **Page 20**.

### PRL1 and PRL2 panelboards



PRL1 and PRL2 Panelboards

### Replacement connectors for PRL1 and PRL2



Replacement Connectors for PRL1 and PRL2

Each kit contains two sets of A, B, and C phase connectors, phase isolators, hardware, and instructions for mounting up to 12 poles. Silver-plated copper connectors are suitable for use with copper or aluminum bus. Maximum amperes connected to any one connector cannot exceed 140A.

**Table 1. Replacement Connectors**

Panel Type	Catalog Number
PRL1	KPRL1BAB
PRL2	KPRL2GHB

### Replacement boxes and trims for PRL1 and PRL2

Standard box and trim sizes are shown in **Table 2**. For other sizes, contact your local satellite. For Type 12/3R enclosures, refer to **Page 8**. Trim mounting may be either surface or flush. Flush trims overlap the box by 0.75-inch (19.1 mm) on all sides. Denote on order by using either S or F in the catalog number.

**Table 2. Replacement Boxes and Trims**

Box Dimensions in Inches (mm)			Type 1 Catalog Number	
Height	Width	Depth	Box	Trim
21.00 (533.4)	20.00 (508.0)	5.75 (146.1)	YS2021	LT2021S/F
24.00 (609.6)	20.00 (508.0)	5.75 (146.1)	YS2024	LT2024S/F
27.00 (685.8)	20.00 (508.0)	5.75 (146.1)	YS2027	LT2027S/F
30.00 (762.0)	20.00 (508.0)	5.75 (146.1)	YS2030	LT2030S/F
33.00 (838.2)	20.00 (508.0)	5.75 (146.1)	YS2033	LT2033S/F
36.00 (914.4)	20.00 (508.0)	5.75 (146.1)	YS2036	LT2036S/F
39.00 (990.6)	20.00 (508.0)	5.75 (146.1)	YS2039	LT2039S/F
42.00 (1066.8)	20.00 (508.0)	5.75 (146.1)	YS2042	LT2042S/F
45.00 (1143.0)	20.00 (508.0)	5.75 (146.1)	YS2045	LT2045S/F
48.00 (1219.2)	20.00 (508.0)	5.75 (146.1)	YS2048	LT2048S/F
51.00 (1295.4)	20.00 (508.0)	5.75 (146.1)	YS2051	LT2051S/F
54.00 (1371.6)	20.00 (508.0)	5.75 (146.1)	YS2054	LT2054S/F
57.00 (1447.8)	20.00 (508.0)	5.75 (146.1)	YS2057	LT2057S/F
60.00 (1524.0)	20.00 (508.0)	5.75 (146.1)	YS2060	LT2060S/F
63.00 (1600.2)	20.00 (508.0)	5.75 (146.1)	YS2063	LT2063S/F
66.00 (1676.4)	20.00 (508.0)	5.75 (146.1)	YS2066	LT2066S/F
69.00 (1752.6)	20.00 (508.0)	5.75 (146.1)	YS2069	LT2069S/F
72.00 (1828.8)	20.00 (508.0)	5.75 (146.1)	YS2072	LT2072S/F
75.00 (1905.0)	20.00 (508.0)	5.75 (146.1)	YS2075	LT2075S/F
78.00 (1981.2)	20.00 (508.0)	5.75 (146.1)	YS2078	LT2078S/F
81.00 (2057.4)	20.00 (508.0)	5.75 (146.1)	YS2081	LT2081S/F
84.00 (2133.6)	20.00 (508.0)	5.75 (146.1)	YS2084	LT2084S/F
87.00 (2209.8)	20.00 (508.0)	5.75 (146.1)	YS2087	LT2087S/F
90.00 (2286.0)	20.00 (508.0)	5.75 (146.1)	YS2090	LT2090S/F

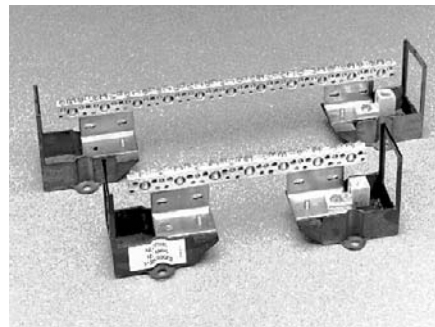
**PRL1 and PRL2 accessories**

**Table 3. Neutral Bars**

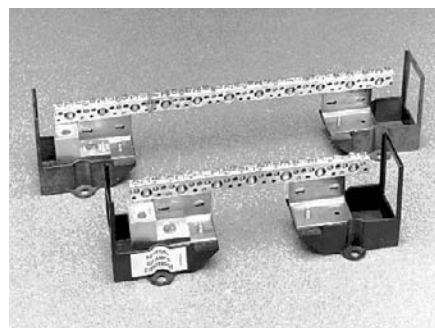
Description	Style Number
<b>100A</b>	
Boxes 30.00 inches (762.0 mm) and above	<b>5158C03G02</b>
Boxes less than 30.00 inches (762.0 mm) high	<b>5158C03G01</b>
<b>225A</b>	
Boxes 30.00 inches (762.0 mm) and above	<b>5158C03G04</b>
Boxes less than 30.00 inches (762.0 mm) high	<b>5158C03G03</b>
<b>400/600A</b>	
Neutral bar	<b>5158C04G01</b>

**Table 4. Blank Covers**

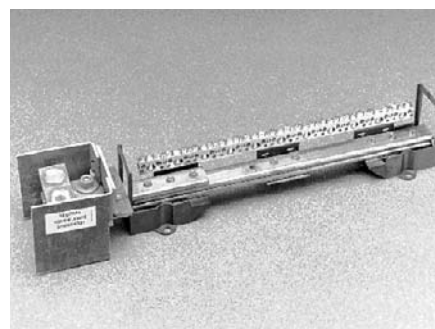
Blank Covers Height in Inches (mm)	Style Number
15.00 (381.0)	<b>3456B99H05</b>
3.00 (76.2)	<b>3456B99H01</b>
6.00 (152.4)	<b>3456B35H01</b>



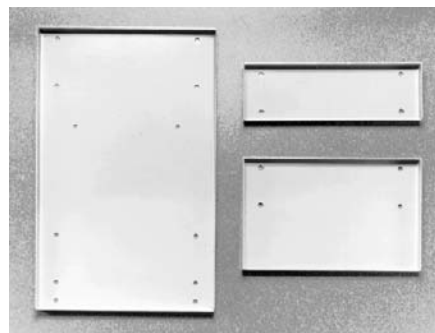
100A Neutral Bar



225A Neutral Bar



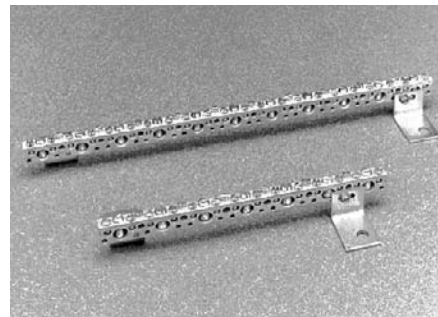
400/600A Neutral Bar



Blank Covers

**Table 5. Ground Bars**

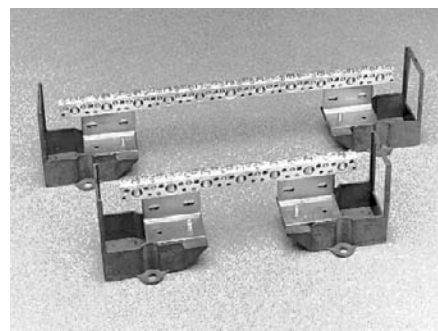
Description	Style Number
<b>Standard</b>	
Boxes 30.00 inches (762.0 mm) and above	<b>5158C05G02</b>
Boxes less than 30.00 inches (762.0 mm) high	<b>5158C05G01</b>
<b>Isolated</b>	
Boxes 30.00 inches (762.0 mm) and above	<b>5158C05G06</b>
Boxes less than 30.00 inches (762.0 mm) high	<b>5158C05G05</b>



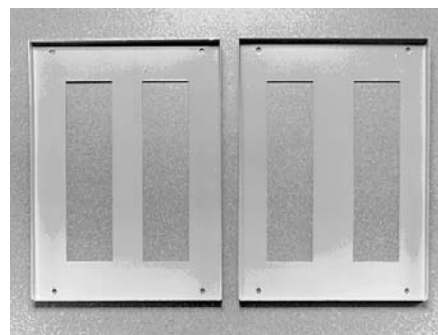
Standard Ground Bar

**Table 6. PRL1, PRL2 Branch Section Deadfront Covers**

Maximum Number of Circuits	Cover Height in Inches (mm)	Cover Style Number	
		PRL1	PRL2
12	10.00 (254.0)	<b>5156C10H01</b>	<b>5156C09H01</b>
18	13.00 (330.2)	<b>5156C10H02</b>	<b>5156C09H02</b>
24	16.00 (406.4)	<b>5156C10H03</b>	<b>5156C09H03</b>
30	19.00 (482.6)	<b>5156C10H04</b>	<b>5156C09H04</b>
36	22.00 (558.8)	<b>5156C10H05</b>	<b>5156C09H05</b>
42	25.00 (635.0)	<b>5156C10H06</b>	<b>5156C09H06</b>
48	28.00 (711.2)	<b>5156C10H07</b>	<b>5156C09H07</b>
54	31.00 (787.4)	<b>5156C10H08</b>	<b>5156C09H08</b>
60	34.00 (863.6)	<b>5156C10H09</b>	<b>5156C09H09</b>



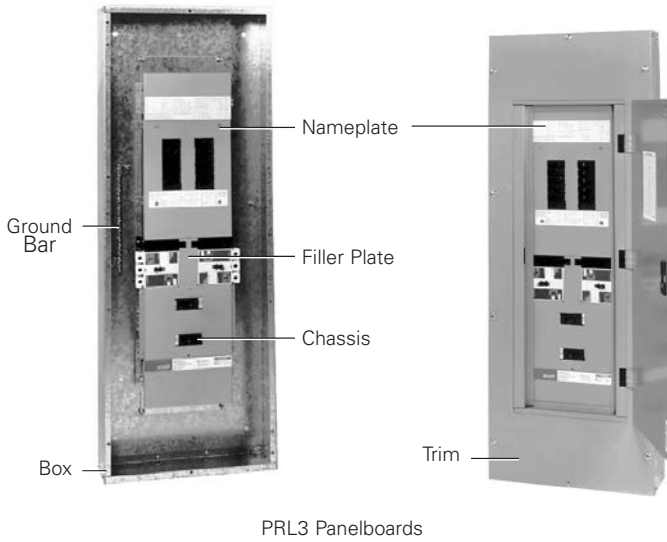
Isolated Ground Bar



PRL1 PRL2

Branch Section Deadfront Covers

**PRL3 panelboards**



PRL3 Panelboards

**Table 7. Standard Ground Bar**

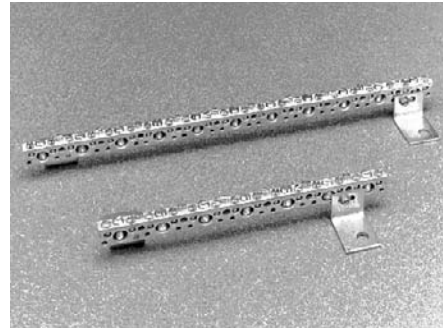
Description	Style Number
A Boxes 30.00 inches (762.0 mm) and above	<b>5158C05G02</b>
B Boxes less than 30.00 inches (762.0 mm) high	<b>5158C05G01</b>

**Replacement boxes and trims for PRL3**

Standard boxes and trim sizes are shown in **Table 8**. For other sizes, contact your local Satellite. For Type 12/3R enclosures, refer to **Page 8**. Trim mounting may be either surface or flush. Denote on the order by using either S or F in the catalog number. Flush trims overlap the box by 0.75-inch (19.1 mm) on all sides.

**Table 8. Replacement Boxes and Trims**

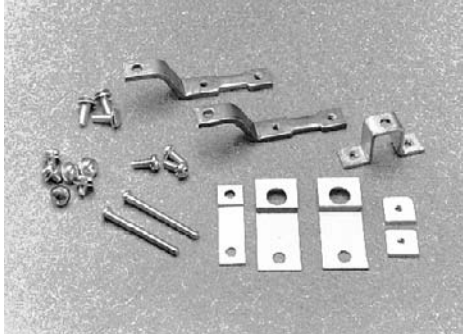
Box Dimensions in Inches (mm)			Type 1 Catalog Number	
Height	Width	Depth	Box	Trim
30.00 (762.0)	20.00 (508.0)	5.75 (146.1)	<b>YS2030</b>	<b>LTT2030S/F</b>
36.00 (914.4)	20.00 (508.0)	5.75 (146.1)	<b>YS2036</b>	<b>LTT2036S/F</b>
42.00 (1066.8)	20.00 (508.0)	5.75 (146.1)	<b>YS2042</b>	<b>LTT2042S/F</b>
48.00 (1219.2)	20.00 (508.0)	5.75 (146.1)	<b>YS2048</b>	<b>LTT2048S/F</b>
54.00 (1371.6)	20.00 (508.0)	5.75 (146.1)	<b>YS2054</b>	<b>LTT2054S/F</b>
60.00 (1524.0)	20.00 (508.0)	5.75 (146.1)	<b>YS2060</b>	<b>LTT2060S/F</b>
66.00 (1676.4)	20.00 (508.0)	5.75 (146.1)	<b>YS2066</b>	<b>LTT2066S/F</b>
72.00 (1828.8)	20.00 (508.0)	5.75 (146.1)	<b>YS2072</b>	<b>LTT2072S/F</b>
78.00 (1981.2)	20.00 (508.0)	5.75 (146.1)	<b>YS2078</b>	<b>LTT2078S/F</b>
84.00 (2133.6)	20.00 (508.0)	5.75 (146.1)	<b>YS2084</b>	<b>LTT2084S/F</b>
90.00 (2286.0)	20.00 (508.0)	5.75 (146.1)	<b>YS2090</b>	<b>LTT2090S/F</b>



Standard Ground Bar

**Replacement connectors for EHD, FDB, FD, HFD, and FDC breakers (240V, 480V, 600V)**

Kit contains A, B, and C phase connectors, hardware, and instructions to twin-mount two three-pole above listed frame breakers. Maximum amperes per breaker are not to exceed 150A, and maximum amperes connected to any one connector are not to exceed 200A (50–150A).

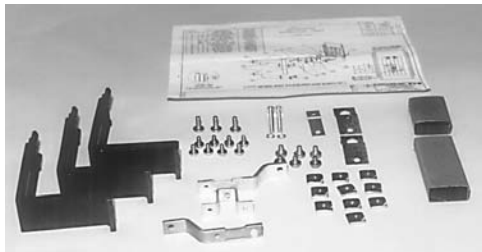


**Table 9. Replacement Connectors for EHD, FDB, FD, HFD, and FDC Breakers**

Replacement Connectors for Breakers	Catalog Number
EHD, FDB, FD, HFD, and FDC	KPRL3FD

**Replacement connectors for ED, EDH, and EDC breakers**

Kit contains A, B, and C phase connectors, hardware, cover, and instructions to mount one three-pole above breaker frame. (240V maximum.)

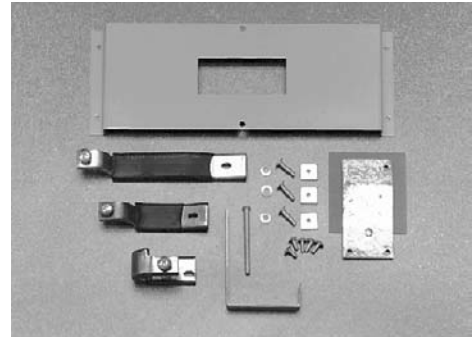


**Table 10. Replacement Connectors for ED, EDH, and EDC Breakers**

Replacement Connectors for Breakers	Catalog Number
ED, EDH, and EDC	KPRL3ED

**Replacement connectors for CA, CAH, and HCA breakers**

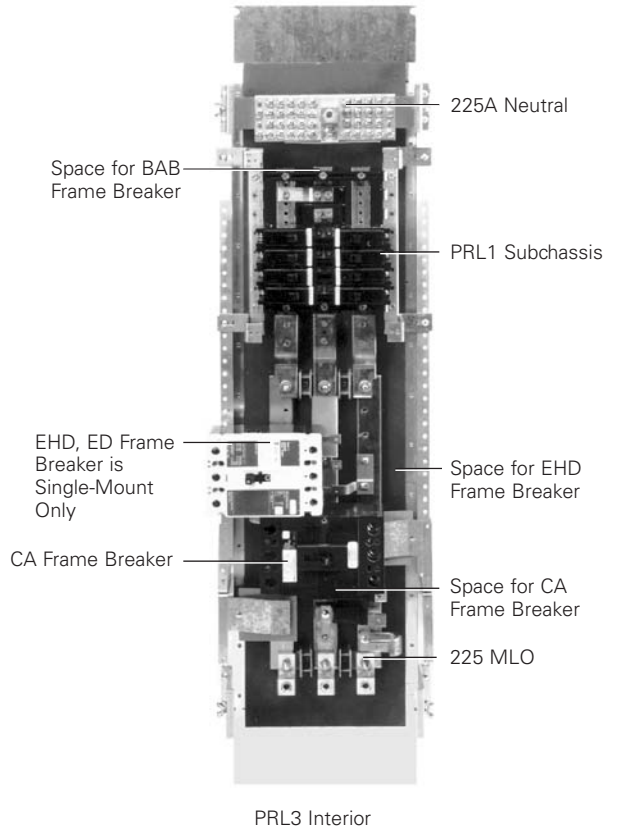
Kit contains A, B, and C phase connectors, hardware, cover, and instructions to mount one two- or three-pole CA frame breaker.



**Table 11. Replacement Connectors for CA, CAH, and HCA Breakers**

Replacement Connectors for Breakers	Catalog Number
CA, CAH, and HCA	KPRL3CA

**Note:** The PRL3 connector kits will fit the following panelboards: WEB, WCA, WEHB, WFB, and HWFB.



**PRL1, 2, and 3 special trims and enclosures**

**Ventilated trim**

Required on PRL1 and PRL2, 600A panels only. Order by adding the letter "V" to the standard trim catalog number. ADD 10 percent TO STANDARD TRIM LIST PRICE.

**Example:** LT2072S becomes LTV2072S.

Refer to **Page 3** for the standard trim catalog numbers.



Ventilated Trim

**Fastrim**

Used when concealed trim mounting hardware is required for PRL1, PRL2, and PRL3. Flush trim uses Style Number **414A380G01** trim clamps. Surface trim uses Style Number **8712C73H01** trim clamps. Trim clamps are included and shipped with the trim. Order by adding the letter "F" to the standard trim catalog number. ADD 20 percent TO STANDARD TRIM LIST PRICE.

**Example:** LT2072S becomes LTF2072S.

Refer to **Page 3** and **Page 5** for standard trim catalog numbers.



Fastrim

**Type 12/3R enclosures**



Type 12/3R Enclosures



**Door-in-door trim**

A piano hinge on the right side of the trim provides access to the wiring gutters without requiring removal of the trim. Order by adding the letters “DD” to the standard trim catalog number. ADD 20 percent TO STANDARD TRIM LIST PRICE.

**Example:** LT2072S becomes LTDD2072S.

Refer to **Page 3** and **Page 5** for standard trim catalog numbers.



Door-in-Door Trim

The complete enclosure consists of a box and the trim. The enclosure meets code requirements for both Type 12 (dust-tight) and Type 3R (rainproof) standards. Features include a laser-cut trim with rounded corners, concealed hinges, and a T-handle lock. Gasketing is provided around the trim door. The gasketed box is made of code-gauge steel with drip shield and is painted ANSI-61.

**Table 12. Type 12/3R Enclosures for PRL1, 2, and 3**

Box Dimensions in Inches (mm)			Catalog Number		
Height	Width	Depth	Box	PRL1, 2 Trim	PRL3 Trim
24.00 (609.6)	20.00 (508.0)	6.00 (152.4)	<b>GWPB2024</b>	<b>LWPT2024</b>	—
36.00 (914.4)	20.00 (508.0)	6.00 (152.4)	<b>GWPB2036</b>	<b>LWPT2036</b>	<b>LWT2036</b>
48.00 (1219.2)	20.00 (508.0)	6.00 (152.4)	<b>GWPB2048</b>	<b>LWPT2048</b>	<b>LWT2048</b>
60.00 (1524.0)	20.00 (508.0)	6.00 (152.4)	<b>GWPB2060</b>	<b>LWPT2060</b>	<b>LWT2060</b>
72.00 (1828.8)	20.00 (508.0)	6.00 (152.4)	<b>GWPB2072</b>	<b>LWPT2072</b>	<b>LWT2072</b>
78.00 (1981.2)	20.00 (508.0)	6.00 (152.4)	<b>GWPB2078</b>	<b>LWPT2078</b>	<b>LWT2078</b>

**Column-type panels**

**PRL1-LX replacement boxes and trims**

- Standard box includes box ends at top and bottom
- Box for trough is supplied with bottom box end only
- Contact the Sumter Plant Aftermarket Center at 803-481-6677 for availability and application information

**Table 13. Column-Type Panels**

Box Dimensions in Inches (mm)			Catalog Number		
Height	Width	Depth	Standard Box	Box for Trough	Surface Trim
42.00 (1066.8)	8.63 (219.2)	5.00 (127.0)	<b>114D939G10</b>	<b>114D939G26</b>	<b>6724D78G10</b>
54.00 (1371.6)	8.63 (219.2)	5.00 (127.0)	<b>114D939G12</b>	<b>114D939G28</b>	<b>6724D78G12</b>
66.00 (1676.4)	8.63 (219.2)	5.00 (127.0)	<b>114D939G14</b>	<b>114D939G30</b>	<b>6724D78G14</b>
78.00 (1981.2)	8.63 (219.2)	5.00 (127.0)	<b>114D939G16</b>	<b>114D939G32</b>	<b>6724D78G16</b>

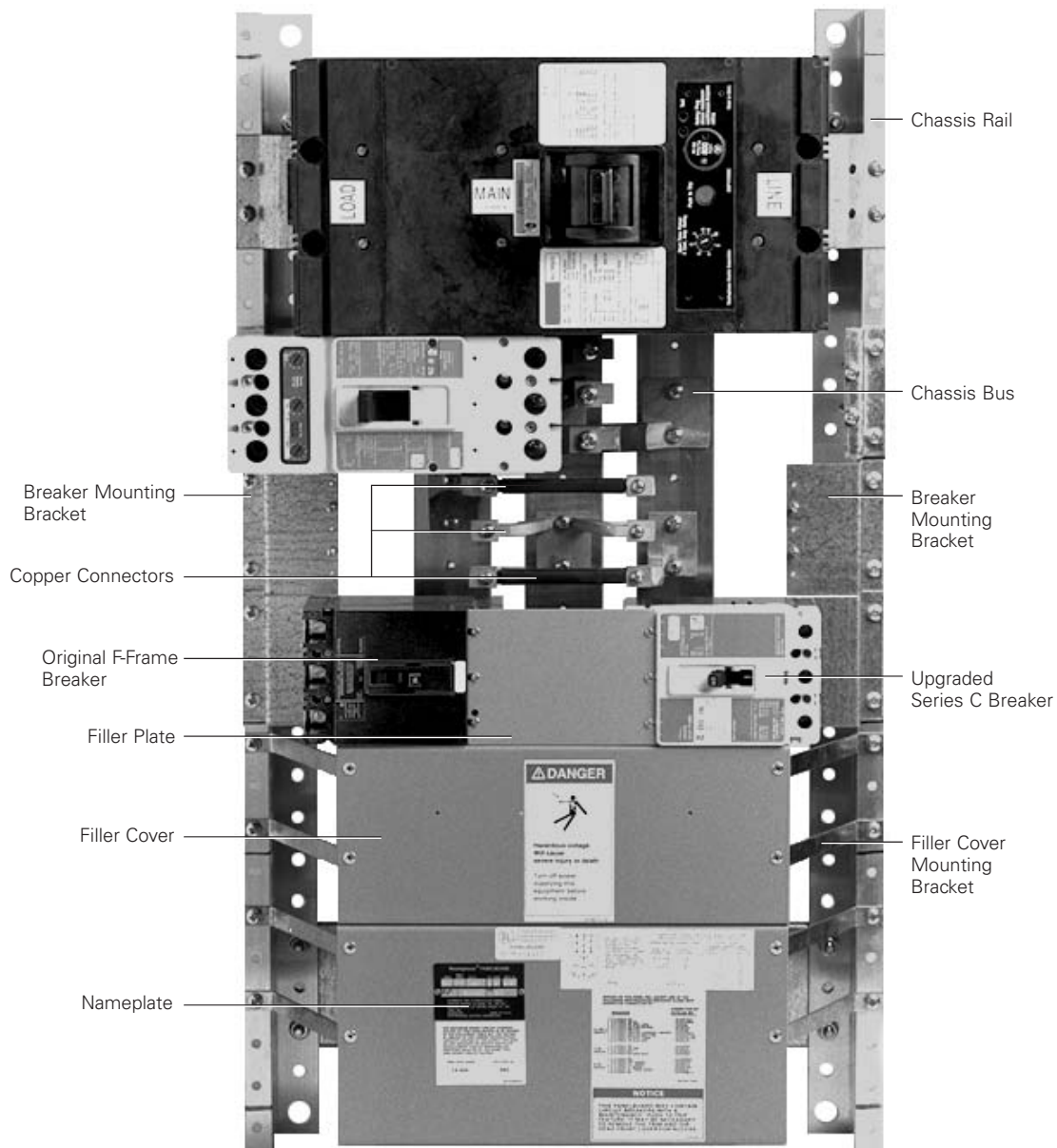
**PRL3-LX replacement boxes and trims**

- Standard box includes box ends at top and bottom
- Box for trough is supplied with bottom box end only
- Design is for top-feed application only
- Contact the Sumter Plant Aftermarket Center at 803-481-6677 for availability and application information

**Table 14. PRL3-LX Replacement Boxes and Trims**

Box Dimensions in Inches (mm)			Catalog Number		
Height	Width	Depth	Standard Box	Box for Trough	Surface Trim
<b>Main Lug Only (Top Feed)</b>					
40.75 (1035.1)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G01</b>	<b>6726D69G07</b>	<b>6726D70G01</b>
49.00 (1244.6)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G02</b>	<b>6726D69G08</b>	<b>6726D70G02</b>
57.25 (1454.2)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G03</b>	<b>6726D69G09</b>	<b>6726D70G03</b>
65.50 (1663.7)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G04</b>	<b>6726D69G10</b>	<b>6726D70G04</b>
73.75 (1873.3)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G05</b>	<b>6726D69G11</b>	<b>6726D70G05</b>
82.00 (2082.8)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G06</b>	<b>6726D69G12</b>	<b>6726D70G06</b>
<b>Main Breaker (Top Feed)</b>					
51.75 (1314.5)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G13</b>	<b>6726D69G19</b>	<b>6726D70G07</b>
60.00 (1524.0)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G14</b>	<b>6726D69G20</b>	<b>6726D70G08</b>
68.25 (1733.6)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G15</b>	<b>6726D69G21</b>	<b>6726D70G09</b>
76.50 (1943.1)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G16</b>	<b>6726D69G22</b>	<b>6726D70G10</b>
84.75 (2152.7)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G17</b>	<b>6726D69G23</b>	<b>6726D70G11</b>
93.00 (2362.2)	8.63 (219.2)	5.75 (146.1)	<b>6726D69G18</b>	<b>6726D69G24</b>	<b>6726D70G12</b>

**CDP/HCDP panelboards**



CDP/HCDP Panelboard

## Branch circuit breaker selection

**Step 1:** Select the correct breaker. When selecting a breaker, you need to know the following:

- Amperage
- System voltage
- Available short-circuit rating
- Number of poles
- Size and number of wires per phase

**Step 2:** Use the chart on **Page 14** to determine the space required.

**Step 3:** Create the retrofit kit catalog number by following the instructions on **Page 12**.

**Step 4:** Determine if extra filler covers are required. Additional filler covers may be necessary to fill the unused space. Refer to **Page 14** for this information.

**Note:** If the CDP panelboard has a subchassis lighting panel, contact the Sumter Plant Aftermarket Center for breaker selection.

**Table 15. Electrical Characteristics of Branch Circuit Breakers**

Circuit Breaker Type	Continuous Ampere Rating	Number of Poles	Vac	UL® Listed Interrupting Capacities—kA Symmetrical Amperes					
				AC Rating Volts			DC Rating Volts ①		
				240	277	480	600	125	250
EHD	15–100	1	277	—	14	—	—	10	—
EHD	15–100	2, 3	480	18	—	14	—	—	10
ED	100–225	2, 3	240	65	—	—	—	—	10
EDH	100–225	2, 3	240	100	—	—	—	—	10
EDC	15–225	2, 3	240	200	—	—	—	—	10
FDB	15–225	2, 3	600	18	—	14	14	—	10
FD	15–225	1	277	—	25	—	—	10	—
FD	15–225	2, 3	600	65	—	25	18	—	10
HFD	15–225	1	277	—	65	—	—	10	—
HFD	15–225	2, 3	600	100	—	65	25	—	22
FDC	15–225	2, 3	600	200	—	100	35	—	22
CA ②	100–225	2, 3	240	10	—	—	—	—	—
CAH ②	100–225	2, 3	240	22	—	—	—	—	—
HCA ②	100–225	2, 3	240	42	—	—	—	—	—
JD, JDB	70–250	2, 3	600	65	—	35	18	—	10
HJD	70–250	2, 3	600	100	—	65	25	—	22
JDC	70–250	2, 3	600	200	—	100	35	—	22
DK	250–400	2, 3	240	65	—	—	—	—	10
KD, KDB	100–400	2, 3	600	65	—	35	25	—	10 ③
HKD	100–400	2, 3	600	100	—	65	35	—	22 ③
KDC	100–400	2, 3	600	200	—	100	50	—	22 ③
LCL	125–400	2, 3	480	200	—	200	—	—	—
LD	300–600	2, 3	600	65	—	35	25	—	22 ③
HLD	300–600	2, 3	600	100	—	65	35	—	25 ③
LDC	300–600	2, 3	600	200	—	100	50	—	25 ③
MDL	300–800	2, 3	600	65	—	50	25	—	22 ③
HMDL	300–800	2, 3	600	100	—	65	35	—	25 ③
ND	600–1200	2, 3	600	65	—	35	25	—	—
HND	600–1200	2, 3	600	100	—	65	35	—	—
NDC	600–1200	2, 3	600	200	—	100	50	—	—
<b>Fused Circuit Breakers with LFB Current Limiters</b>									
FDB, LFB	15–150	2, 3	600	200	—	200	200	—	—
<b>TRI-PAC® Integrally Fused, Current-Limiting Circuit Breakers</b>									
FB-P	15–100	2, 3	600	200	—	200	200	—	④
LA-P	70–400	2, 3	600	200	—	200	200	—	④
NB-P	300–800	2, 3	600	200	—	200	200	—	④

① DC ratings apply to substantially non-inductive circuits.

② Not recommended for motor loads.

③ DC ratings not available with electronic trip.

④ 100K based on NEMA® test procedure.

## CDP panelboards

### CDP breaker retrofit kits

A retrofit kit includes one breaker and all the associated parts required for mounting on a CDP panel chassis. See **Table 16** below.

**Table 16. CDP Breaker Retrofit Kits**

Frame Ampere Rating	Breaker Frame	Trip Ampere Range	Mounting Type	Space Required	
				Inches (mm)	X Space
100	EHD	15–60	Twin	4.13 (104.9)	3X
	EHD	70–100	Twin	4.13 (104.9)	3X
	FDB	15–60	Twin	4.13 (104.9)	3X
	FDB	70–100	Twin	4.13 (104.9)	3X
	FD	15–60	Twin	4.13 (104.9)	3X
	FD	70–100	Twin	4.13 (104.9)	3X
	HFD	15–60	Twin	4.13 (104.9)	3X
	HFD	70–100	Twin	4.13 (104.9)	3X
	FDC	15–60	Twin	4.13 (104.9)	3X
	FDC	70–100	Twin	4.13 (104.9)	3X
225	FCL	15–100	Twin	4.13 (104.9)	3X
	FB-P	15–100	Twin	4.13 (104.9)	3X
	FDB	110–225	Twin	4.13 (104.9)	3X
	FD	110–225	Twin	4.13 (104.9)	3X
	HFD	110–225	Twin	4.13 (104.9)	3X
	FDC	110–225	Twin	4.13 (104.9)	3X
	ED	110–225	Twin	4.13 (104.9)	3X
	EDH	110–225	Twin	4.13 (104.9)	3X
250	EDC	110–225	Twin	4.13 (104.9)	3X
	JD	70–225	Twin	4.13 (104.9)	3X
	JD	250	Twin	4.13 (104.9)	3X
	HJD	70–225	Twin	4.13 (104.9)	3X
	HJD	250	Twin	4.13 (104.9)	3X
	JDC	70–225	Twin	4.13 (104.9)	3X
400	JDC	250	Twin	4.13 (104.9)	3X
	KD	100–400	Twin		
	HKD	100–400	Twin		
	KDC	100–400	Twin	5.50 (139.7)	4X
	LCL	125–400	Twin	8.25 (209.6)	6X
600	LA-P	70–400	Twin	8.25 (209.6)	6X
	LD	300–600	Twin	8.25 (209.6)	6X
	HLD	300–600	Twin	8.25 (209.6)	6X
800	LDC	300–600	Twin	8.25 (209.6)	6X
	MDL	400–800	Single	8.25 (209.6)	6X
	HMDL	400–800	Single	8.25 (209.6)	6X
1200	HND	400–800	Single	8.25 (209.6)	6X
	ND	600–1200	Single	8.25 (209.6)	6X
	HND	600–1200	Single	8.25 (209.6)	6X
	NDC	600–1200	Single	8.25 (209.6)	6X

### How to create a retrofit kit catalog number

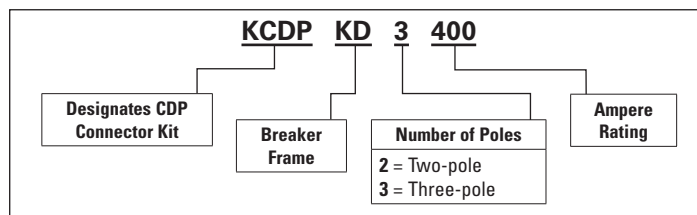
Use “KCDP” prefix and add the catalog number of the specific breaker as shown in **Table 18**.

Twin mounting indicates that only one set of connectors is required to mount two breakers (of similar frames) opposite one another.

A RETROFIT KIT INCLUDES ONE BREAKER ONLY, FOR EITHER SINGLE- OR TWIN-MOUNTED APPLICATIONS. If a second breaker is required for a twin-mounting application, it must be specified as a separate item.

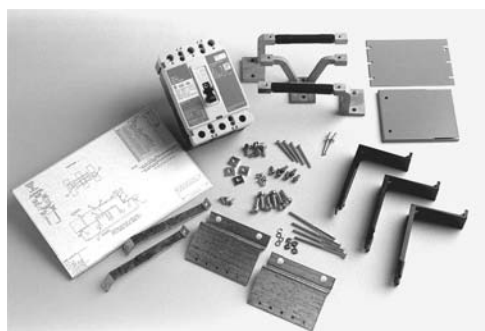
**Example:** The retrofit kit catalog number for a three-pole, 400A KD breaker is:

**Table 17. Catalog Numbering System**



### CDP retrofit kit

Each kit includes one breaker, copper connectors, mounting brackets, covers, hardware, and instructions.



## Breaker cross-reference chart

Use **Table 18** to cross-reference older industrial-type Westinghouse breakers with Series C® breakers. The Series C breakers shown on the right side of the table use the same "X" space as the older breaker on the left, eliminating the need for any filler covers when retrofitting a CDP panel. By using the retrofit kit catalog number, you can order the breaker, as well as the corresponding CDP connector kit, in one easy step.

**Note:** If the original space was already provided with connectors and hardware to mount the older breakers, then the Series C frames shown here will also fit in that same provision. (The Series C K family of breakers requires a TAD3 adapter kit when mounting a KD frame breaker onto existing LB frame connectors. This adapter kit is included in orders for either KD retrofit kits or connector kits, but may also be purchased separately for use with existing LB connectors.)

**Table 18. Breaker Cross-Reference Chart**

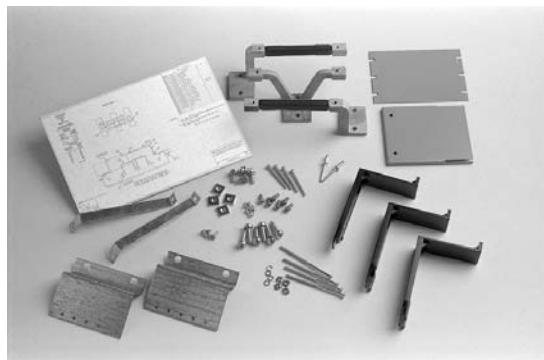
Existing Breaker		Order Series C Retrofit Kit	
Breaker Frame	Continuous Ampere Rating	Breaker Frame	Retrofit Kit Catalog Number
EB	15–100	EHD	KCDPEHD
EHB	15–100	EHD	KCDPEHD
FB	15–150	FDB	KCDPFDB
HFB	15–150	FD	KCDPFD
KA	70–225	KD	KCDPKD
HKA	70–225	HKD	KCDPHKD
KB	70–250	JD	KCDPJD
HKB	70–250	JD	KCDPJD
JA	70–225	KDB	KCDPKDB
JB	70–250	JDB	KCDPJDB
DA	250–400	DK	KCDPKD
LA	250–600	LD	KCDPLD
HLA	250–600	LD	KCDPLD
LB	70–400	KD	KCDPKD
LBB	125–400	KDB	KCDPKDB
HLB	125–400	KD	KCDPKD
LC	300–600	LD	KCDPLD
HLC	300–600	LD	KCDPLD
MA	125–800	MDL	KCDPMDL
HMA	125–800	MDL	KCDPMDL
MC	400–800	MDL	KCDPMDL
NB	700–1200	ND	KCDPND
HNB	700–1200	ND	KCDPND
NC	600–1200	ND	KCDPND
HNC	600–1200	ND	KCDPND

**CDP breaker connector kits**

A connector kit consists of copper connectors, mounting brackets, covers, hardware, and instructions for mounting breaker(s) on a CDP chassis. See below. If a breaker is also required, see the retrofit kits shown on **Page 12**.

**Connector kit**

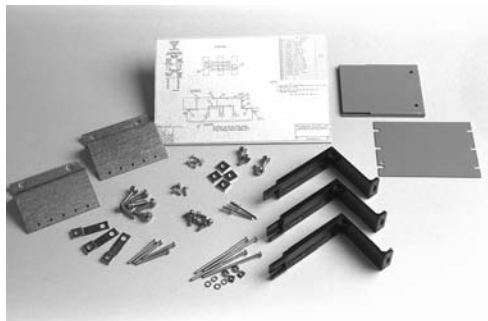
Each kit includes copper connectors, mounting brackets, covers, hardware, and instructions.



**Hardware kit**

Each kit includes mounting bracket(s), filler plates, and mounting hardware **ONLY**. Use the appropriate kit catalog number and add a -H to designate "hardware only."

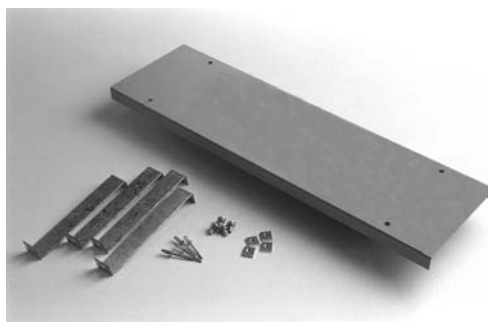
**Example:** KCDPFB100-H



**CDP filler covers**

Filler covers are available in any increment of 1X 1.38 inches (35.1 mm). Catalog number is KCDP\_X.

Fill in the blank with the size. Included are cover, mounting brackets, and hardware.



**Table 19. CDP Panelboards**

Breaker Frames	Number of Poles	Mounting Type	Space Required		Connector Kit Catalog Numbers
			Inches (mm)	X Space	
EHD, FDB, FD, HFD, FDC ①	3	Twin	4.13 (104.9)	3X	<b>KCDPFB100</b>
FD, FDB, HFD, FDC, ED, EDH, EDC	3	Twin	4.13 (104.9)	3X	<b>KCDPED225</b>
FB-P, FCL	3	Twin	4.13 (104.9)	3X	<b>KCDPFBP</b>
CA, CAH, HCA	3	Twin	4.13 (104.9)	3X	<b>KCDPCA</b>
JD, JDB, HJD, JDC	3	Twin	4.13 (104.9)	3X	<b>KCDPKB</b>
DK, KD, KDB, HKD, KDC	3	Twin	5.50 (139.7)	4X	<b>KCDPLB</b>
LA-P	3	Twin	8.25 (209.6)	6X	<b>KCDPLA400</b>
LD, HLD, LDC	3	Twin	8.25 (209.6)	6X	<b>KCDPLA600</b>
LCL	3	Single	8.25 (209.6)	6X	<b>KCDPLCL</b>
MDL, HMDL	3	Single	8.25 (209.6)	6X	<b>KCDPMC</b>
ND, HND	3	Single	8.25 (209.6)	6X	<b>KCDPNC</b> ②
NB-P	3	Single	8.25 (209.6)	6X	<b>KCDPNBP</b>

① 100A maximum.

② Connector kits are not rated for 100 percent breakers.

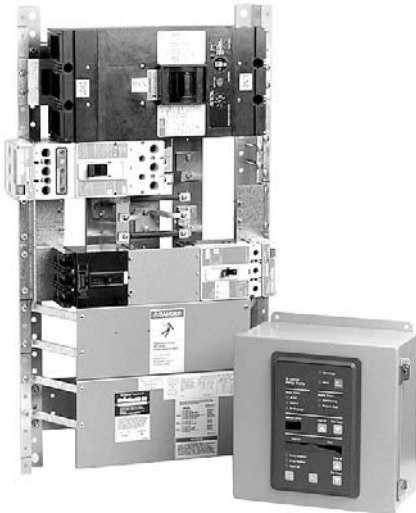
## Energy submetering for existing CDP panelboards

The IQ Energy Sentinel is a submetering device that mounts directly on a Series C circuit breaker and can be retrofitted into a CDP panelboard. It monitors both power and energy from 15 to 400A, with an overall accuracy of 99 percent. This high system accuracy is achieved by use of the Eaton SURE Plus Chip, which is a sophisticated microprocessor.

All that is necessary to complete an IQ Energy Sentinel installation is to insert it into the load side of a breaker; feed the load conductors through it; connect a neutral wire; and run the shielded twisted pair wire for communications. The IQ Energy Sentinel has a nonvolatile memory, is powered by the circuit breaker, and can be applied on three-phase / four-wire or single-phase / three-wire systems.

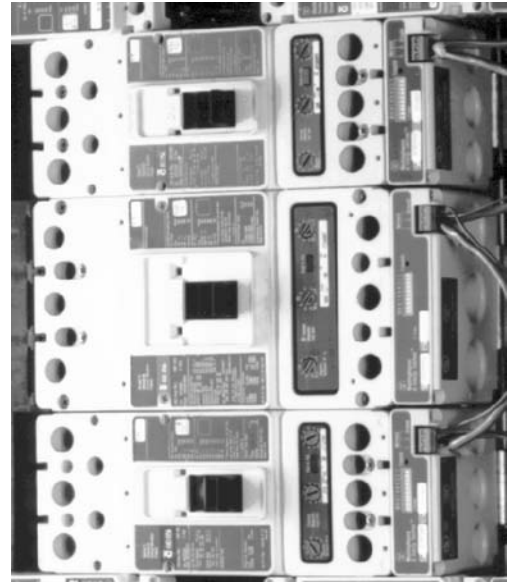
The space-saving design characteristics of the IQ Energy Sentinels means that they can be quickly and easily retrofitted onto Series C circuit breakers in existing equipment with no additional space required. Additionally, IQ Energy Sentinels can be installed when upgrading to Series C from older breakers that are physically interchangeable with no additional space requirements.

Power and energy information from IQ Energy Sentinels can be communicated to a personal computer, a panel-mounted central energy display (CED), or even existing building management or distribution control systems.



CDP Chassis with Energy Sentinel

## Series C breakers with Energy Sentinel



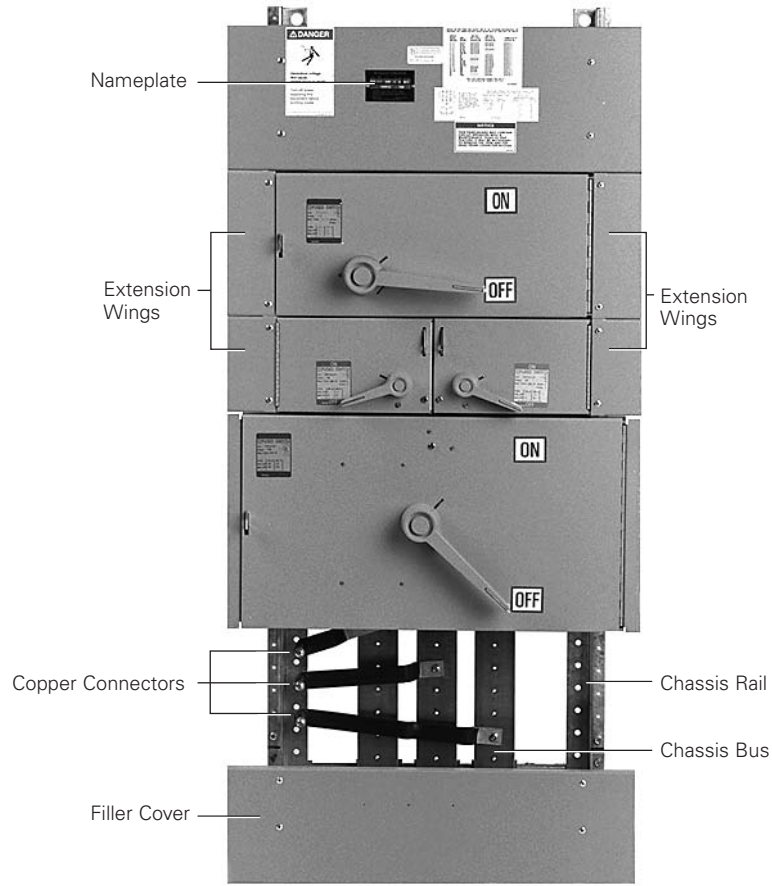
Series C Breakers with Energy Sentinel

## Retrofit capabilities

With the advent of this new technology, we can offer the capability to retrofit existing CDP panelboards. This is accomplished by providing a complete system package including:

- Series C breaker retrofit kit
- Energy Sentinel
- All necessary wiring diagrams and mounting instructions
- Startup assistance
- Communications capabilities with one of the following:
  - IQ Central Energy Display
  - Custom billing software package
  - PowerNet™

**FDP panelboards**



FDP Panelboard



**Branch FDPW and FDPB**

**Switch selection**

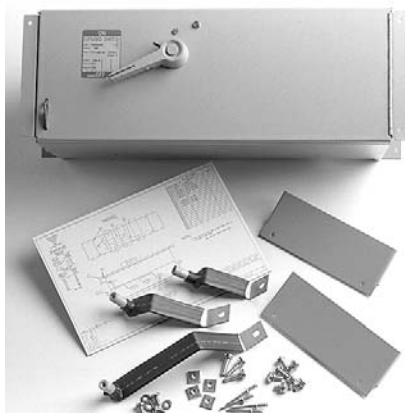
**Step 1:** Once you know the amperage and system voltage, choose the retrofit kit catalog number from **Table 20**.

**Step 2:** Check for space requirements from **Table 20**.

**Step 3:** Determine if extra filler covers are required. Additional filler covers may be necessary to fill the unused space.

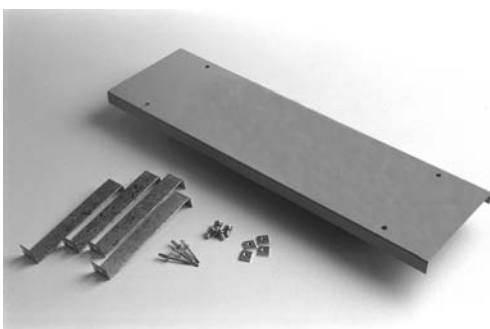
**Retrofit kit**

Each kit includes one switch, copper connectors, covers, hardware, and instructions.



**FDP filler covers**

Filler covers are available in any increment of 1X 1.38 inches (35.1 mm). Catalog number is KFDP\_X. Fill in the blank with the size. Included are cover, mounting brackets, and hardware.



**FDPW and FDPB retrofit kits**

A retrofit kit includes the switch and all the associated parts required for mounting on a FDP panel chassis.

Switches up to 600A are designed for use with rejection-type fuses. For other fuse applications, contact the Sumter Plant Aftermarket Center. Switches rated 800A and 1200A are designed for use with Class L fuses, which are not included.

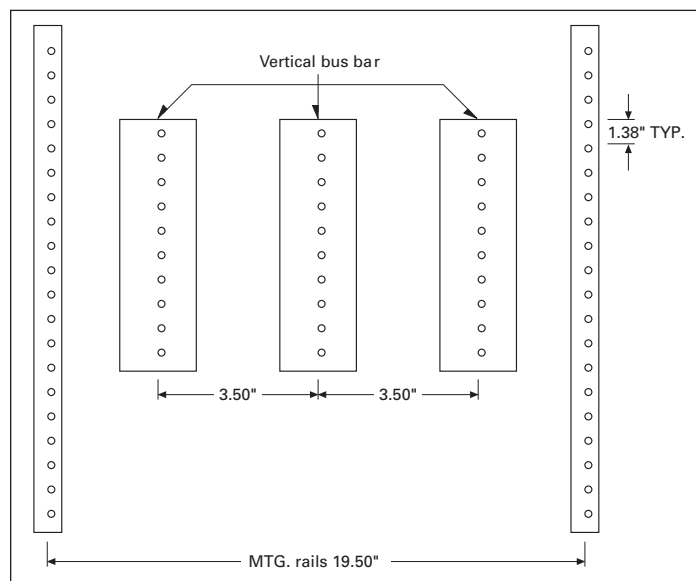
**Table 20. 3P Retrofit Kits**

Space Required		Switch Ampere Rating	Catalog Number	
Inches (mm)	X Space		240V	600V
5.50 (139.7)	4X	30-30	KFDPWT3211R	KFDPWT3611R
5.50 (139.7)	4X	60-60	KFDPWT3222R	KFDPWT3622R
5.50 (139.7)	4X	100-100	KFDPWT3233R	—
6.88 (174.8)	5X	100-100	—	KFDPWT3633R
8.25 (209.6)	6X	200	KFDPBS324R	KFDPBS364R
12.38 (314.5)	9X	400	KFDPW325R	KFDPW365R
15.13 (384.3)	11X	600	KFDPW326R	KFDPW366R
15.13 (384.3)	11X	800	KFDPW367	KFDPW367
20.63 (524.0)	15X	1200	KFDPW368	KFDPW368

**Switch connector and retrofit kits**

FDPW or FDPB switch connector kits and retrofit kits are to be installed in vintage Westinghouse FDP panelboards and switchboards. Vertical bus bars must be 3.50 inches (88.9 mm) center-line phase to phase. See **Figure 2**.

**Note:** If bus bar spacing is 4.25 inches (108.0 mm), these switches will not fit and no parts are available.



**Figure 2. Switch Connector and Retrofit Kits**

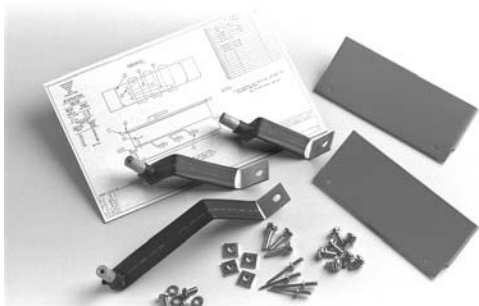
**Note:** Dimensions shown apply to CDP and FDP chassis.

**FDPW and FDPB connector kits**

Each kit includes copper connectors, extension wings (when required), hardware, and instructions to mount one FDPW or FDPB switch on an FDP panel chassis.

**Connector kit**

Each kit includes copper connectors, mounting brackets, covers, hardware, and instructions.



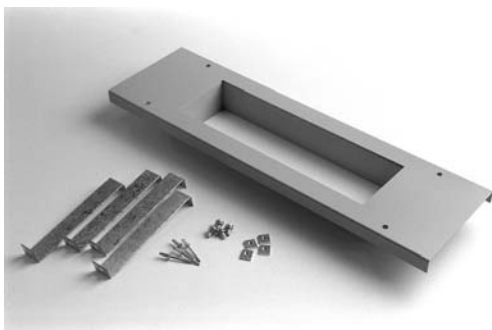
**Table 21. FDP Panelboards**

Space Required			Catalog Number		
			Three-Pole FDPW and FDPB		
Inches (mm)	X Space	Switch Ampere Rating	240V	600V	Connector Kit
5.50 (139.7)	4X	30–30	FDPWT3211R	FDPWT3611R	KFDP4XT
5.50 (139.7)	4X	60–60	FDPWT3222R	FDPWT3622R	KFDP4XT
5.50 (139.7)	4X	100–100	FDPWT3233R	—	KFDP4XT
6.88 (174.8)	5X	100–100	—	FDPWT3633R	KFDP5XT
8.25 (209.6)	6X	200	FDPBS324R	FDPBS364R	KFDPB6X-2
12.38 (314.5)	9X	400	FDPW325R	FDPW365R	KFDPW9X-4
15.13 (384.3)	11X	600	FDPW326R	FDPW366R	KFDPW11X-6
15.13 (384.3)	11X	800	FDPW367	FDPW36	KFDPW11X-8
20.63 (524.0)	15X	1200	FDPW368	FDPW368	KFDPW15X-12

**“Picture frame”**

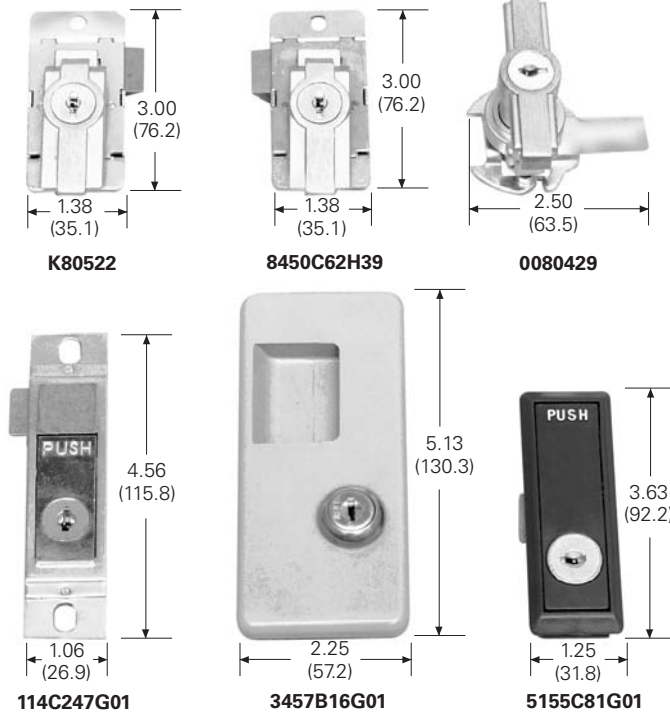
To permit installation of circuit breakers in an FDP panel, a “picture frame” is required. Add 2X to the breaker size for the transition.

Contact the Sumter Plant Aftermarket Center at 803-481-6677 for technical assistance and pricing.



**Panelboard trim locks**

**Note:** Dimensions in inches (mm).

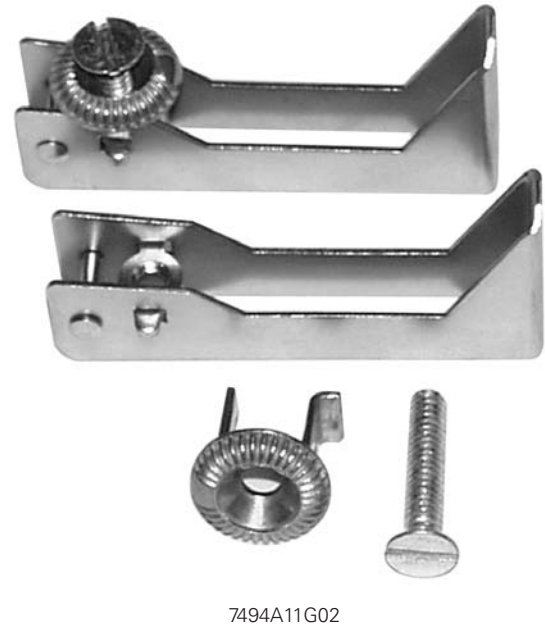


**Table 22. Panelboard Trim Locks**

Description	Catalog/Style Number
For use on left-handed door (hinged on the left side)	<b>K80522</b>
For use on right-handed door (hinged on the right side)	<b>8450C62H39</b>
T handle lock—At one time used on all panels over 48.00 inches (1219.2 mm) in height; also used on outdoor (N3R) panels	<b>0080429</b>
Used on lighting and small power panels as standard; replacement lock uses WEM-3 key	<b>114C247G01</b>
Used on lighting and small panels as standard	<b>3457B16G01</b>
This is the present-day lock used on standard PRL1, 2, and 3; WEM 2 key	<b>5155C81G01</b>

Contact the Sumter Plant Aftermarket Center at 803-481-6677 for prices and details.

**Replacement panelboard trim clamps**



These trim clamps are used to mount Fastrims. This type of trim used to be supplied as standard on all panels, and is still available today when concealed trim-mounting hardware is specified. They come in bags of six. Please note that some larger panels may require more than one bag.

- Overall length of 3.13 inches (79.5 mm)
- Used on B10B and PRL1, 2, 3



- Overall length of 2.50 inches (63.5 mm)
- Used on CDP, FDP, and NQB

## Sumter aftermarket services

All the parts and kits shown in this Renewal Parts data will come from the Sumter Plant Aftermarket Center (order entry location Q49 or SUM).

To extend the life of your existing equipment, the Sumter Aftermarket group will:

- Provide all new components
- Manufacture per original specifications
- Follow UL procedures
- Provide full Eaton warranty

Services offered include:

- Parts and kits for CDP and FDP panelboards
- Retrofit kits for WF and WRP distribution sections
- Connector kits for WF and WRP distribution sections
- Emergency service

## Additional services

Because virtually all panelboards are supplied to meet specific customer requirements, other parts not listed in this publication might occasionally be needed. Price and availability for parts not shown may be obtained by contacting the Sumter Plant Aftermarket Center (803-481-6677) and providing a complete description of the part, along with the data on the panelboard nameplate.

Should you experience difficulty in determining what replacement parts are needed, contact the Sumter Plant Aftermarket Center, which can provide help to:

- Identify and recommend replacement parts
- Verify the correct connector kits that should be ordered for each circuit breaker or fusible switch
- Provide a recommended spare parts list

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### **WARNING**

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**HAZARDOUS VOLTAGE WILL CAUSE SEVERE INJURY OR DEATH. TURN OFF POWER SUPPLY TO EQUIPMENT BEFORE WORKING ON IT.**

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