

Table 4.
CR7160 44” Wide Two-High Air/Vacuum Parts List (see Figures 6, 7 and 8)

Material List Item Number	Part Description	Part Number	Qty.
108	Plug Button	N529P63B6	1
115	Left Track Supt.	139B8564G3	1
116	Right Track Supt.	139B8564G4	1
129	Washer Plate	194A7383P1	6
160	Vertical Lintel	68J220134FD0000AAB	1
161	Bottom LV Lintel	149B3258P1	1
162	Bottom HV Lintel	68J120134JD0000AAB	1
163	LV Mullion	174A8913G1	1
164	Dust Shield NEMA 1	68J120125EU0000AAB	1
170	Wire Trough	68J220134FU0000AAB	1
171	Upper LV Lintel	233A1836G1	1
172	Upper HV Lintel	68J120134FR0000AAB	1
173	Lintel Latch Screw Asm.	174A7367G1	2
174	RH Center Mullion	259A1447G1	1
175	CPT Fuse Base Asm.	68J220134FH0000AAB	1
176	CT Supt. Asm.	177B2069G1	1
180	CT Barrier	259A1452P1	1
181	CT Supt.	68J122217EY0000AAB	1
186	Coil Plug	169B7635G5	1
211	HV Bushing	577A180P3	2
218	Handle Asm.	116C9928G* ❶	1
250	Bus Insulation (Back Cover)	149B1741P1	1
268	Horz. & VB Asm.	116C9952G* ❷	1
274	Main Bus Splice	Consult factory	1
275	Motor Terminal Asm. Upper	157C8151G2	1
275	Motor Terminal Asm. Lower	149B1779G6	1
276	Compartment Barrier	68J120134FP0000AAB	1
289	Ground Bus	148B5352P* ❸	1
295	Ground Bus Splice	Consult factory	1
299	Ground Wire Harness	7118R29	1
300	Vertical Ground Bus	68J122218RG0000BB* ❹	1
300	Lower Track Spacer	194A7014P2	2
301	Upper Back Horz. Ground Bus Strap	68J122218RH0000BB* ❹	1
302	Back Vertical Ground Bus	68J122218RJ0000BB* ❹	1
303	Front Vertical Ground Bus	68J122218RK0000BB* ❹	1
304	Vertical Ground Bus Connection	68J122218RL0000BB* ❹	1
305	Lower Vertical Ground Bus	68J122218RM0000BB* ❹	1
306	Upper Front Vertical Ground Bus Strap	68J122223EN0000BB* ❹	1
309	Motor Stab Asm. Upper	116C9929G2	1

Material List Item Number	Part Description	Part Number	Qty.
309	Motor Stab Asm. Lower	116C9929G2	1
310	Track & Barrier Asm.	116C9939AAG2	1
315	Door Interlock Defeater Upper	194A6916G1	1
315	Door Interlock Defeater Lower	194A6916G4	1
500	Test Switch 10A	CR104PSG21B92	1
500	Test Switch 20A	328A1141P1	1
501	Switch NP 10A	328A1140P1	1
501	Switch NP 20A	Included with item 500 (20A)	1
502	Test Switch Mounting Bracket	68J122214NS0000AAB	1
508	Terminal Board Supt.	194A7176P1	3
553	LV Base	68J120125GL0000AAB	1
632	LV Door Latch Asm.	117B5064G3	2
635	HV Door Latch Asm.	104B9336G2	2
646	HV Door Vent Barrier NEMA 1	205A4475P2	1
646	Vent Cover NEMA 1A, 2, 12	68J120134EE0102AAB	1
653	LV Door	Consult factory	1
656	HV Door Upper	68J210551CMXXXXXB	1
656	HV Door Lower	68J210551CLXXXXXB	1
667	Door Hinge	147A4728G1	6
668	Hinge Pin	1459941P1	6
700	Upper Motor Cable Barrier	68J220134FS0000AAB	1
702	Inc. Line Barrier Upper	68J220134FK0000AAB	1
704	Inc. Line Barrier Lower	68J120134FM0000AAB	1
705	LV Base Barrier	68J120125FR0000AAB	1
707	RH Rear Barrier Upper	68J210553BAXXXXXXB	1
708	RH Rear Barrier Center	68J120125FD0000AAB	1
709	RH Rear Barrier Lower	68J210553BBXXXXXB	1
711	Bottom VB Barrier	194A6968P2	1
715	RH Motor Barrier Upper	68J220134FY0000AAB	1
716	RH Motor Barrier Center	68J220134FE0000AAB	1
717	RH Motor Barrier Lower	68J120134FT0000AAB	1
718	RH Motor Barrier Front	68J120134FW0000AAB	1
720	Upper Wire Harness	7122R81G2V	1
720	Lower Wire Harness	7122R82G3V	1
728	Contact Latch Asm.	194A6949G1	1
742	Shutter Asm.	116C9931G1	1
803	Power Fuse	❺	3
859	Bus Cover Plate	68J120125BM0000AAB	2
860	Cont. Lift Truck	116C9918G4	1

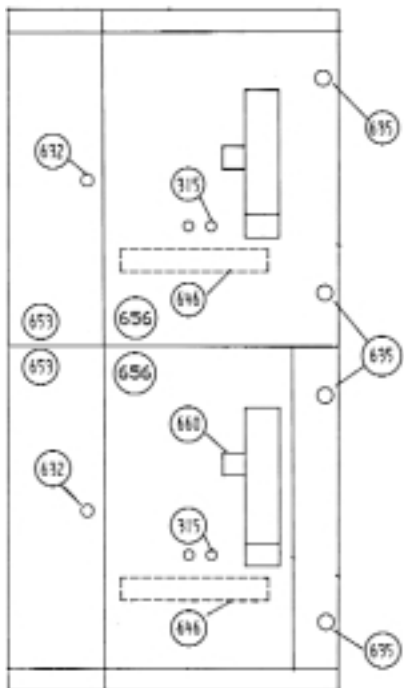


Figure 7. CR7160 Two-High Door Detail

- ❶ See Tables 6 and 7.
- ❷ See Table 13.
- ❸ See Table 15.
- ❹ Add suffix (*) per plating finish:
N=no plating, TC=Silver, TB=Tin.
See Figure 8 for motor ground bus detail.
- ❺ See panel data NP for fuse part number.

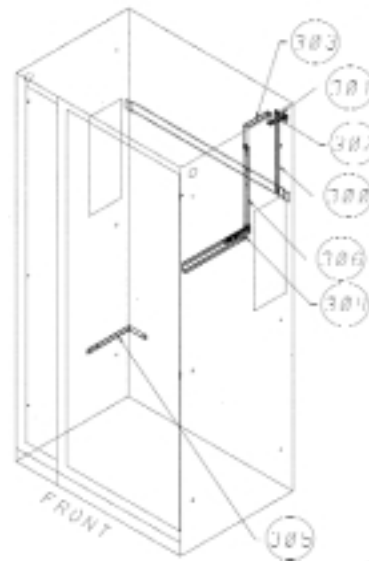


Figure 8. CR7160 Two-High Motor Ground Bus Detail



Three-High

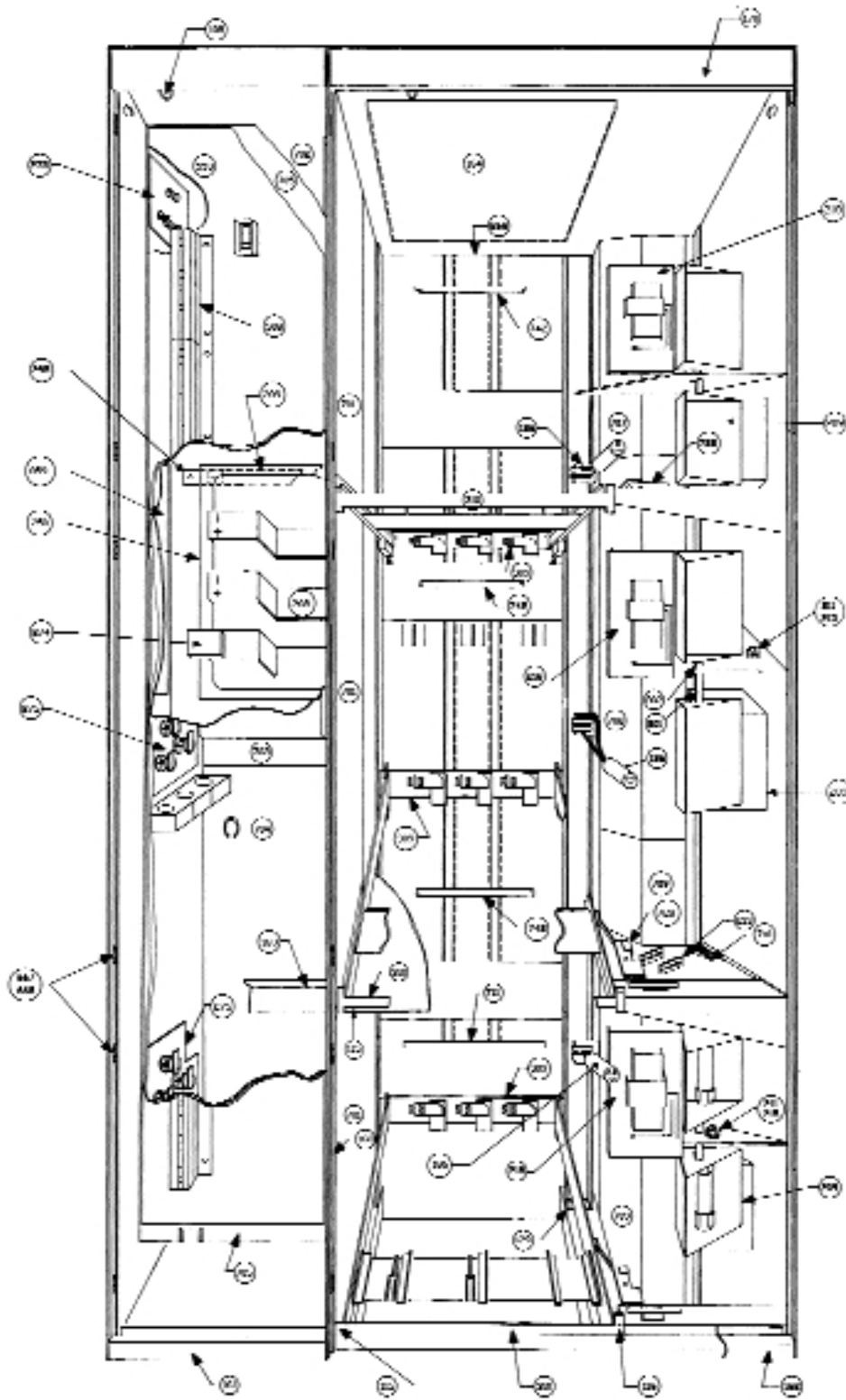


Figure 9. CR7160 Three-High

- Notes:**
500/501/502 - Located on LV Base
720 - Not Shown
803 - Mounted on Contactor
850/851/852 - Not Shown
860 - Not Shown

Table 5.
CR7160 44” Wide Three-High Air/Vacuum Parts List (see Figures 9, 10 and 11)

Material List Item Number	Part Description	Part Number	Qty.
108	Plug Button	N529P63B6	1
115	Left Track Supt.	139B8564G3	1
116	Right Track Supt.	139B8564G4	1
129	Washer Plate	194A7383P1	4
160	Vertical Lintel	68J210552BAXXXXXXB	1
161	Bottom LV Lintel	149B3258P1	1
162	Bottom HV Lintel	68J120125ET0000AAB	1
163	LV Mullion	174A8913G1	2
164	Dust Shield NEMA 1	68J120125EU0000AAB	1
170	Wire Trough	68J120125EB0000AAB	1
186	Coil Plug	169B7635G5	1
209	CPT Fuse Supt.	149B1782G4	2
211	HV Bushing Male	161A8674P3	3
213	CPT Cable Clamp	104B9335P5	2
215	HV Bushing Female	167A8405P3	3
218	Handle Asm.	116C9928G* ❶	1
250	Bus Insulation (Back Cover)	149B1741P1	1
268	Horz. & VB Asm.	116C9930G* ❷	1
274	Main Bus Splice	Consult factory	1
275	Motor Terminal Asm. Upper	149B1779G5	1
275	Motor Terminal Asm. Middle/Lower	149B1779G6	1
289	Ground Bus	148B5352P* ❸	1
295	Ground Bus Splice	Consult factory	1
300	Back Ground Bus Strap	68J122220UV0000BB* ❹	1
301	Ground Bus Strap Lower Left Side	68J122220UW0000BB* ❹	1
302	Front Lower Ground Bus	68J122220UX0000BB* ❹	1
303	Lower Vertical Ground Bus Connection	68J122220UY0000BB* ❹	1
304	Horz. Ground Bus	68J122220UZ0000BB* ❹	1
305	Upper Back Ground Bus Strap	68J122221KA0000BB* ❹	1
306	Ground Bus Spacer (Vertical Lintel)	68J122221KB0000BB* ❹	3
309	Motor Stab Asm.	116C9929G2	1
310	Track & Barrier Asm. Upper/Middle	116C9939AAG3	1
310	Track & Barrier Asm. Lower	116C9939AAG2	1
315	Door Interlock Defeater	194A6916G1	1
500	Test Switch 10A	CR104PSG21B92	1
500	Test Switch 20A	328A1141P1	1

Material List Item Number	Description	Part Number	Qty.
501	Switch NP 10A	328A1140P1	1
501	Switch NP 20A	Included with item 500 (20A)	1
502	Test Switch Mounting Bracket	68J122214NS0000AAB	1
508	Terminal Board Supt.	194A7176P1	3
553	LV Base	68J120132GE0000AAB	1
632	LV Door Latch Asm.	117B5064G3	1
635	HV Door Latch Asm.	104B9336G2	2
646	HV Door Vent Barrier NEMA 1	205A4475P1	1
646	HV Door Vent Barrier NEMA 1A	68J120134VR0000AAB	1
653	LV Door	Consult factory	1
656	HV Door NEMA 1, 1A	68J210551CAXXXXXXB	1
656	HV Door NEMA 2, 12	68J220128KA0551CBB	1
667	Door Hinge	147A4728G1	4
668	Hinge Pin	1459941P1	4
701	Upper Motor Cable Barrier	68J210553BDXXXXXB	3
702	Inc. Line Barrier Upper	68J210553BCXXXXXB	1
703	Inc. Line Barrier Center	194A6922G1	1
704	Inc. Line Barrier Lower	68J120125FM0000AAB	1
705	LV Base Barrier	68J120125FR0000AAB	1
707	RH Rear Barrier Upper	68J210553BAXXXXXXB	1
708	RH Rear Barrier Center	68J120125FD0000AAB	1
709	RH Rear Barrier Lower	68J210553BBXXXXXB	1
710	CPT Fuse Compartment Horz. Barrier	68J120125FF0000AAB	2
711	Bottom VB Barrier	194A6968P2	1
720	Wire Harness Upper	7114R81G2V	1
720	Wire Harness Middle/Lower	7114R796G2V	1
728	Contactorm Latch Asm.	194A6949G1	1
742	Shutter Asm.	116C9931G1	1
801	Fuse Supt.	194A7152G2	1
802	Fuse Supt.	194A7152G3	1
803	Power Fuse	❺	3
850	Upper Ground Bus	68J122206DJ0000BB* ❹	1
851	Middle Ground Bus	68J122205UV0000BB* ❹	1
852	Lower Ground Bus	68J122205UV0000BB* ❹	1
859	Bus Cover Plate	68J120125BM0000AAB	2
860	Cont. Lift Truck	116C9918G4	1

- ❶ See Tables 6 and 7.
- ❷ See Table 16.
- ❸ See Table 18.
- ❹ Add suffix (*) per plating finish:
N=no plating, TC=Silver, TB=Tin.
See Figure 11 for motor ground bus detail.
- ❺ See panel data NP for fuse part number.

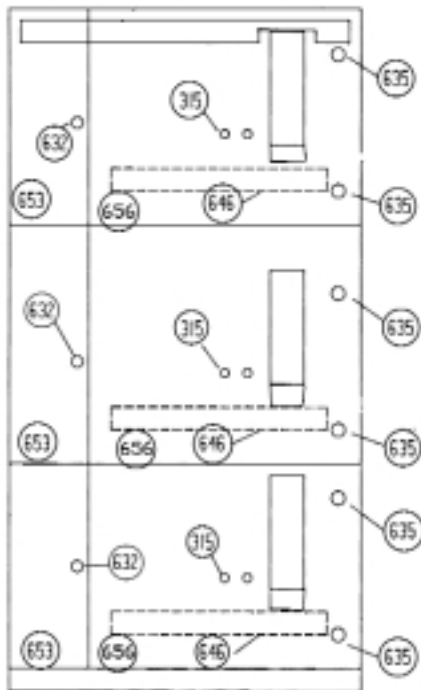


Figure 10. CR7160 Three-High Door Detail

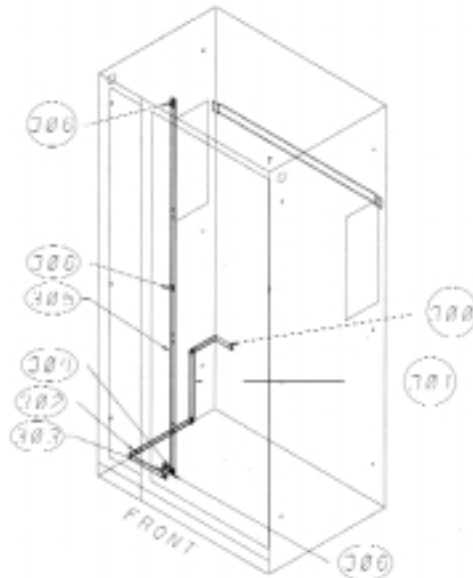


Figure 11. CR7160 Three-High Motor Ground Bus Detail



Handle Assembly

The non-load break isolating mechanism (handle assembly) is a complex construction requiring a special bench fixture to assemble and adjust the mechanical interlocking mechanisms. Therefore, we recommend the entire assembly be replaced if the handle mechanism becomes extensively damaged.

Entire assemblies are ordered by catalog number 116C9928G* (see Tables 6 and 7). The group number (G*) is found on an adhesive backed label stuck on the underside of the handle housing (see Figure 12). For G51, G52 and G55, order replacement assemblies G1, G2 and G5 respectively.

Entire assemblies can be ordered as follows:

Table 6.
CR7160 Air Break Handle Assemblies

Type of Starter Unit	Part Number
Full-voltage non-reversing	116C9928G1
Reduced-voltage non-reversing	116C9928G5
Full-voltage reversing-standard	116C9928G2
Full-voltage reversing-mine hoist	116C9928G1
Reduced-voltage reversing	116C9928G2
Wye-delta	116C9928G1
Part winding-contactors in series	116C9928G1
Part winding-contactors in parallel	116C9928G5
Two-speed, one-winding	116C9928G2
Two-speed, two-winding	116C9928G2

Table 7.
CR7160 Drawout Vacuum Handle Assemblies

Type of Starter Unit	Part Number
Full-voltage non-reversing	116C9928G1V
Reduced-voltage non-reversing	116C9928G5V
Full-voltage reversing-standard	116C9928G2V
Full-voltage reversing-mine hoist	116C9928G1V
Reduced-voltage reversing	116C9928G2V
Wye-delta	116C9928G1V
Part winding-contactors in series	116C9928G1V
Part winding-contactors in parallel	116C9928G5V
Two-speed, one-winding	116C9928G2V
Two-speed, two-winding	116C9928G2V

Some parts of the handle assembly are replaceable and can be identified by part number as shown below:

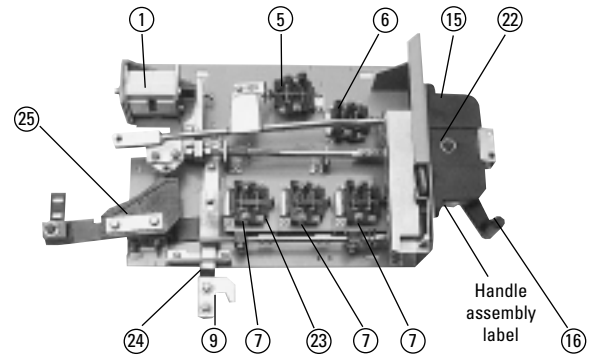


Figure 12. CR7160 Handle Assembly

Table 8.
CR7160 Handle Assembly Detail (see Figure 12)

Figure Item Number	Part Description	Part Number
1	Brain Box	979B444G* ❶
5	Test power interlocks with mounting bracket	205A5718G5
6	Control power interlocks (2NC)	723B245G274
7	Contactors auxiliary interlock (1NO, 1NC)	723B245G273
9	Sensor bar hook	194A7033P4
9	Weld nut assembly for hook	194A7033G1
15	Handle housing-standard	149B1759G1
15	Handle housing-if key interlocked	149B1759AAP1
16	Handle-standard	149B1746G1
16	Handle-if key interlocked	194A7179P1
22	Handle retainer clip	N910P62C6
23	Depressor Finger	139B8558P4
24	Sensor Bar	139B8555G2
25	Cam	194A1491P1

❶ * Group numbers for the 979B444 brain box are per starter type as follows:

Full voltage non-reversing	G12
Reduced-voltage non-reversing	G14
Full-voltage reversing	G13
Reduced-voltage reversing	G13
Wye-delta 1M contactor	G12
Wye-delta 2M contactor	G13
Part-winding contactors in series	G12
Part-winding contactors in parallel	G14
Two-speed, one-winding	G13
Two-speed, two-winding	G13

**One-High
Horizontal Bus**

**Table 9.
CR7160 One-High Horizontal Bus Parts**

Part Description	Part Number
Copper 1000A	104B9369P1* ❶
Copper 2000A	104B9369P1* ❶ ❷
Copper/Tin Plated 1000A	104B9369P9* ❶
Copper/Tin Plated 2000A	104B9369P9* ❶ ❸
Copper/Silver Plated 1000A	104B9369P2* ❶
Copper/Silver Plated 2000A	104B9369P2* ❶ ❹

- ❶ Consult factory for suffix (*) catalog number and for proper splice part numbers.
- ❷ Use QTY 6, 908B101P8 spacers per section.
- ❸ Use QTY 6, 908B101P21 spacers per section.
- ❹ Use QTY 6, 908B101P10 spacers per section.

Vertical Bus

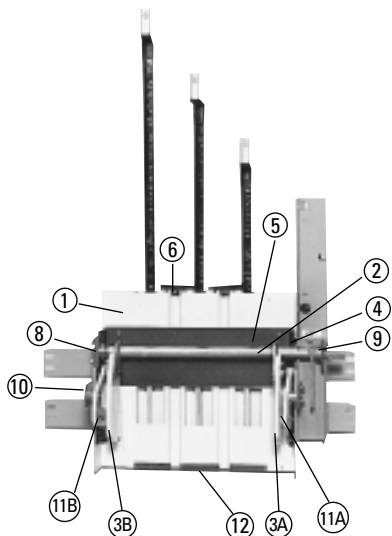


Figure 13. CR7160 Vertical Bus Assembly

**Table 10.
CR7160 One-High Vertical Bus Assembly Detail (see Figure 13)**

Figure Item Number	Part Description	Part Number	Qty.
1	Front Vertical Bus Cover	116C9921P5	1
2	Shutter Operator Pipe	139B8559G1	1
3A	Contactor Operator Right Hand	169C6351ATG1 ❶	1
3B	Contactor Operator Left Hand	169C6351ATG2 ❶	1
4	Shutter Bracket	194A6908P1	2
5	Shutter	149B1748P2	1
4,5	Shutter Assembly	149B1752G1	1
6	Holding Clamp	194A4466P1	2
8	Pipe Collar	181A4108P2	2
9	Bearing Plate	188A5537G1	2
10	Shutter Operator Bearing Support	139B8561G1	2
11A	Shutter Operator Right Hand	149B1768G1	1
11B	Shutter Operator Left Hand	149B1768G2	1
12	Bottom Vertical Bus Barrier	194A6968P2	1
13	MB Insulator (Not Shown)	157C8185P1	6

- ❶ Previous part numbers 149B1749G1, G2. New parts must be ordered in pairs when replacing old parts.

A one-high vertical bus assembly consists primarily of the bus bars, shutter, and operator assembly all constructed as one item. The complete assembly is the easiest to replace; however, if the user has the expertise, the bare bus bar assembly can be installed in the field. The following table is a cross reference from the complete assembly group number, 194A4480G*, to the bare bus bar assembly, 116C992_G_, shown in the following table.

See identification sticker on the vertical bus assembly for the correct group number.

**Table 11.
CR7160 One-High Vertical Bus Assembly Cross-Reference**

Complete Assembly	Bare Bus Assembly
194A4480G16 ❶	116C9925G10
194A4480G24 ❷	116C9925G15
194A4480G25 ❷	116C9925G16
194A4480G34 ❶	116C9925G25
194A4480G35 ❶	116C9925G19
194A4480G36 ❶	116C9925G20
194A4480G41 ❶	116C9926G7
194A4480G42	116C9925G26
194A4480G43	116C9925G27
194A4480G44	116C9925G30
194A4480G46	116C9926G8
194A4480G47	116C9926G9

- ❶ For use with 700-ampere contactor.
- ❷ 1983 to current date-standard for 400-ampere contactor.

Ground Bus

**Table 12.
CR7160 One-High Ground Bus Parts**

Part Description	Part Number
Copper 400A	104B9334P1* ❶
Copper 600A	104B9334P12* ❶
Copper/Tin Plated 400A	104B9334P19* ❶
Copper/Tin Plated 600A	104B9334P25* ❶
Copper/Silver Plated 400A	104B9334P15* ❶
Copper/Silver Plated 600A	104B9334P17* ❶

- ❶ Consult factory for suffix (*) catalog number and for proper splice part number.



Two-High

Table 13.
CR7160 Two-High Horizontal and Vertical Bus Parts

Part Description	Part Number
Copper 1000A	116C9952G19 ①
Copper 2000A	116C9952G20 ①
Copper/Tin Plated 1000A	116C9952G17 ①
Copper/Tin Plated 2000A	116C9952G18 ①
Copper/Silver Plated 1000A	116C9952G16 ①
Copper/Silver Plated 2000A	116C9952G14 ①

① Consult factory for proper splice part numbers.

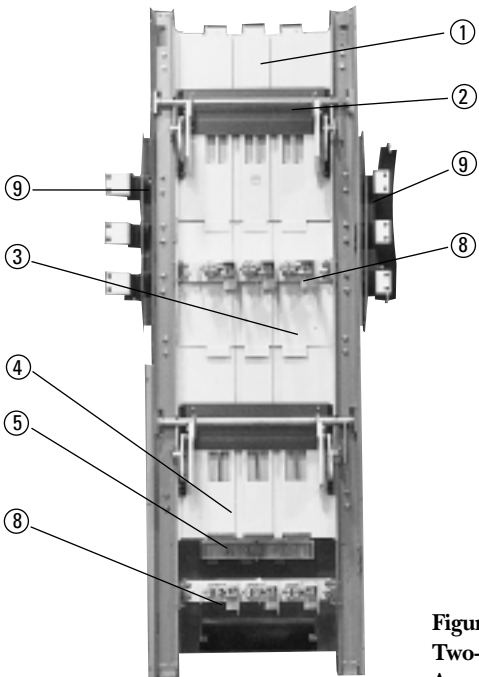


Figure 14. CR7160 Two-High Bus Assembly

Table 14.
CR7160 Two-High Bus Assembly Detail (see Figure 14)

Figure Item Number	Part Description	Part Number	Qty.
1	Top Vertical Bus Cover	116C9921P7	1
2	Stab and Molding Asm.	139B8559G2	1
3	Middle Vertical Bus Cover	194B6318P1	1
4	Bottom Vertical Bus Cover	116C9921P4	1
5	Bottom Vertical Bus Barrier	194A6968P2	1
8	Motor Stab Assembly	116C9929G2	1
9	Bus Insulator Barrier	233A2445P1	2

Table 15.
CR7160 Two-High Ground Bus Parts

Part Description	Part Number
Copper 400A	148B5352P4 ①
Copper 600A	148B5352P21 ①
Copper/Tin Plated 400A	148B5352P29 ①
Copper/Tin Plated 600A	148B5352P28 ①
Copper/Silver Plated 400A	148B5352P11 ①
Copper/Silver Plated 600A	148B5352P22 ①

① Consult factory for proper splice part numbers.

Three-High

Table 16.
CR7160 Three-High Horizontal and Vertical Bus Parts

Part Description	Part Number
Copper 1000A	116C9930G40 ①
Copper 2000A	116C9930G41 ①
Copper/Tin Plated 1000A	116C9930G38 ①
Copper/Tin Plated 2000A	116C9930G39 ①
Copper/Silver Plated 1000A	116C9930G3 ①
Copper/Silver Plated 2000A	116C9930G4 ①

① Consult factory for proper splice part numbers.

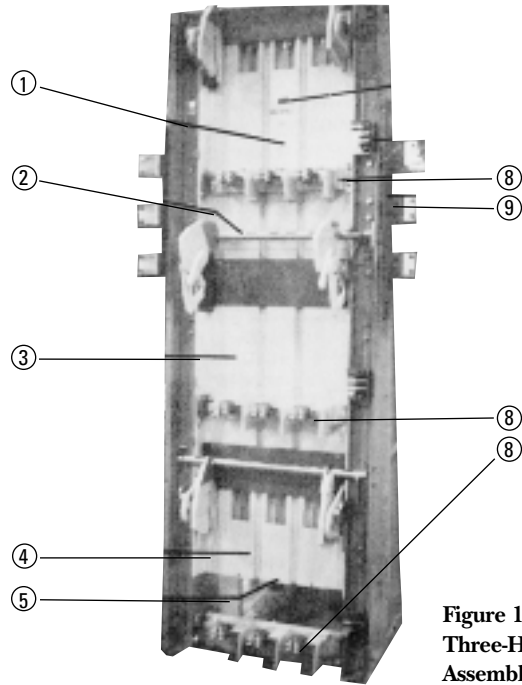


Figure 15. CR7160 Three-High Bus Assembly

Table 17.
CR7160 Three-High Bus Assembly Detail (see Figure 15)

Figure Item Number	Part Description	Part Number	Qty.
1	Top Vertical Bus Cover	116C9921P2	1
2	Stab and Molding Asm.	139B8559G2	1
3	Middle Vertical Bus Cover	116C9921P3	1
4	Bottom Vertical Bus Cover	116C9921P4	1
5	Bottom Vertical Bus Barrier	194A6968P2	1
8	Motor Stab Assembly	116C9929G2	1
9	Bus Insulator Barrier	233A2445P1	2

Table 18.
CR7160 Three-High Ground Bus Parts

Part Description	Part Number
Copper 400A	148B5352P4 ①
Copper 600A	148B5352P21 ①
Copper/Tin Plated 400A	148B5352P29 ①
Copper/Tin Plated 600A	148B5352P28 ①
Copper/Silver Plated 400A	148B5352P11 ①
Copper/Silver Plated 600A	148B5352P22 ①

① Consult factory for proper splice part numbers.

CPT Fuse Support Assemblies

CPT primary fuse support assemblies are most easily identified by using the fuse catalog number, type of enclosure (one-high, two-high, three-high) and the matrix below. This will provide the complete fuse support assembly catalog number.

Table 19.
CPT Fuse Support Assembly Part Numbers

Fuse Part Number	Enclosure Type					
	Qty.	One-High Part Number	Qty.	Two-High Part Number	Qty.	Three-High Part Number
CSC#A480T1E-1	1	55C682289G3	1	55C682289G3	1	149B1782G2
CSC#A480T2E-1	1	55C682289G3	1	55C682289G3	1	149B1782G4
CSC#A480T3E-1	1	55C682289G3	1	55C682289G3	1	194B6370G3
CSC#A480T5E-1	1	55C682289G3	-	-	-	-
9F60CCB007	1	104B9352G2	-	-	-	-

Intermediate Stab and Track Assembly
116C9939AAG2 and G3

Track assemblies are used in two- and three-high enclosures to support the contactor. This assembly includes the intermediate stabs.

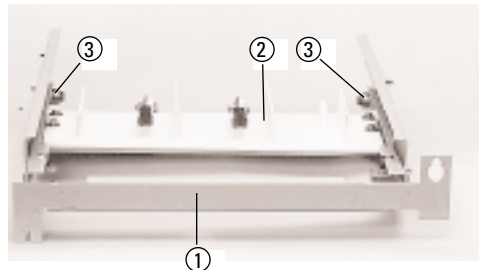


Figure 16. Intermediate Stab and Track Assembly

Note:

Group 2 assemblies are used in both two-high positions and in the bottom three-high position.

Group 3 assemblies are used in the top and middle three-high positions only.

Ground Finger assemblies for Group 3 tracks in older starters can be added to the new Group 3 tracks to make a complete replacement assembly. Ground finger assembly catalog number: 149B1781G2.

Table 20.
Intermediate Stab and Track Assembly Parts (see Figure 16)

Figure Item Number	Part Description	Part Number	Qty.
1	Track Frame	171B6050G1	1
2	Stab and Molding Assembly	169C6351ASG1	1
3	Roller	245A7436P1	4
4	Barrier (not shown). Mounts on underside of G3 assembly only	194A6946P1	1



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

