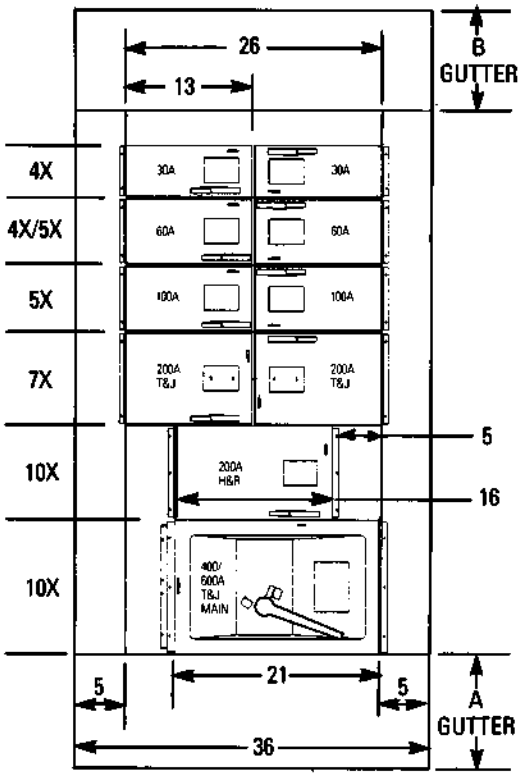
DE-166A Typical

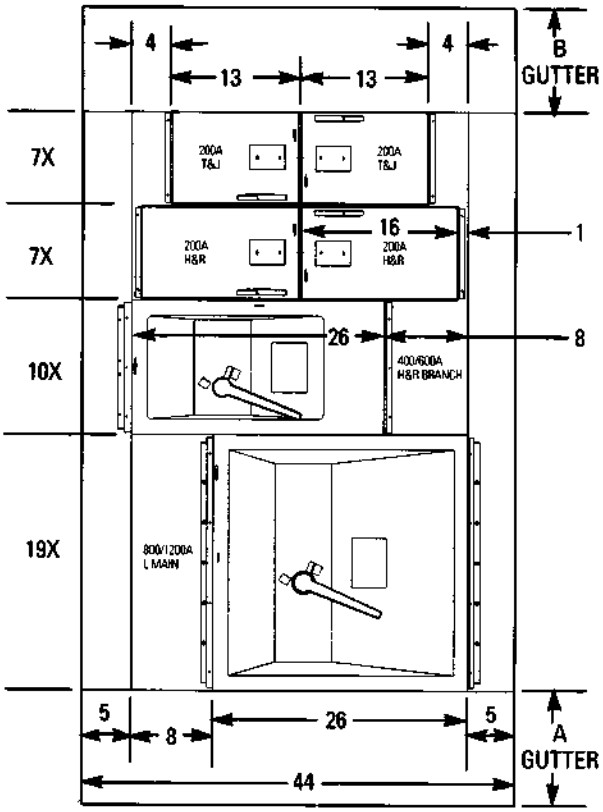
Spectra Series™
Power Panelboards

Fusible Mains and Feeders

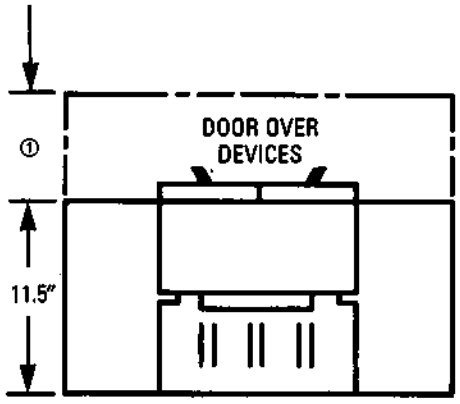
Fusible Mains and Feeders



Typical 36" Wide Fusible Panel



Typical 44" Wide Fusible Panel



Typical Sectional End View

① Standard 36" and 44" wide enclosures are 11.5" deep. When a door or NEMA3R/NEMA12 construction is required, the panelboard is 16.25" deep.

NOTES:

When 400A through 1200A devices are applied as main switches their line cables terminate on the left side. When these devices are mounted as branch devices the load cables terminate on the right side.

"A" gutter is located on the end with the main switch module or the main lug module. "B" gutter is located at the opposite end.

Boxes are furnished without knockouts.

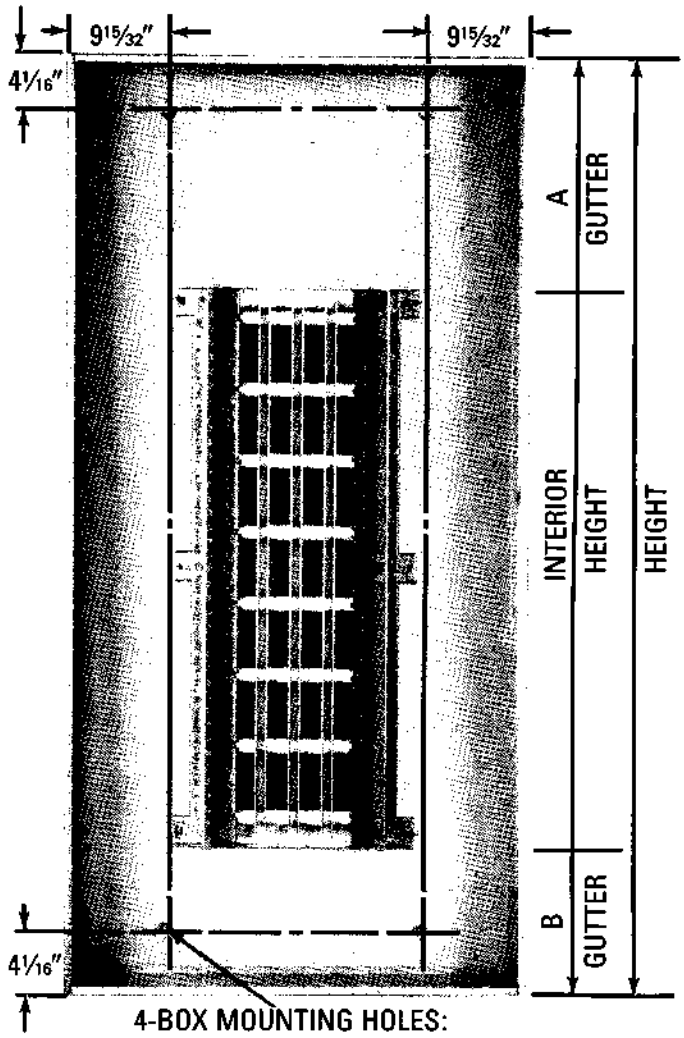
Note: X Value = 1.375"

Main Lug Assemblies

Maximum Amp Rating (Single and Dual)	Lug Type	Box Widths	X-Height
250 400 600 800 1200	Mechanical	36"- 44"	4X
250 400 600 800 1200	Compression Mechanical 750 kcmil Lug Provisions	36"- 44"	6X

Main Switch Modules

Main Rating Amps	Poles	Voltage	Available Fuse Class						X-Height	Minimum Enclosure Width
			H	J	K	L	R	T		
200	2/3	240	✓	—	✓	—	✓	—	7	36"
	2/3	600	✓	✓	✓	—	✓	—	7	36"
400	2/3	240	✓	—	✓	—	✓	✓	10	36" wide with
	2/3	600	✓	✓	✓	—	✓	✓	10	J or T fuses.
600	2/3	240	✓	—	✓	—	✓	✓	10	All others are
	2/3	600	✓	✓	✓	—	✓	✓	10	44" wide
800	2/3	600	—	—	—	✓	—	—	19	44"
1200	2/3	600	—	—	—	✓	—	—	19	44"



Shown with Plug-in Style Interior

Enclosures

Enclosure heights are determined by two criteria: interior height and main device rating (to provide adequate wire-bending space). Enclosure widths are determined by the largest main/branch device.

For NEMA1 construction, 36" and 44" wide enclosures are 11.50" deep. When a door or NEMA 3R/NEMA 12 construction is required, the enclosure depth is 16.25".

Main Amp Rating	Interior Height		Gutter Inches		Enclosure Dimensions	
	X-Height	Inches	A	B	Height Inches	Width Inches
250	18X	24.75	19.94	19.94	64.63	36
	23X	31.63	19.94	13.13	64.63	36
	28X	38.50	19.94	6.25	64.63	36
	38X	52.25	22.75	14.25	89.25	36
	48X	66.00	19.94	10.25	96.13	36
400	18X	24.75	19.94	19.94	64.63	36/44
	23X	31.63	19.94	13.13	64.63	36/44
	28X	38.50	22.75	14.25	75.50	36/44
	33X	45.38	22.75	21.25	89.25	36/44
	38X	52.25	22.75	14.25	89.25	36/44
	48X	66.00	19.94	10.25	96.13	36/44
600	23X	31.63	19.94①	13.13①	64.63①	36/44
	28X	38.50	22.75	14.25	75.50	36/44
	33X	45.38	22.75	21.25	89.25	36/44
	38X	52.25	22.75	14.25	89.25	36/44
	43X	59.13	22.75	14.25	96.13	36/44
	48X③	66.00	19.94	10.25	96.13	36/44
800	23X	31.63	22.75①	21.25①	75.50	36/44
	28X②③	38.50	22.75	14.25	75.50	36/44
	33X②③	45.38	22.75	21.25	89.25	36/44
	38X②③	52.25	22.75①	14.25	89.25①	36/44
	43X②	59.13	22.75	14.25	96.13	36/44
1200	23X	31.63	22.75①	21.25①	75.50	36/44
	28X②③	38.50	22.75	14.25	75.50	36/44
	33X②③	45.38	22.75	21.25	89.25	36/44
	38X②③	52.25	22.75①	14.25	89.25①	36/44
	43X②	59.13	22.75	14.25	96.13	36/44

① This dimension may change if dual main, feed through and neutral, or 200% neutral are provided.
② This enclosure is available for use with a single main and single neutral only.
③ This enclosure is not available for use with 200% neutrals.

Branch Fusible Switch Units

Amps	Poles	Voltage	H	J	K	L	R	T	Mounting				Minimum Wiring Space To Side Wall	
									Module Config.	① Blank Option	X-Height	Minimum Enclosure Width	36" Box	44" Box
30	2/3	240	✓	—	✓	—	✓	—	Double	Yes	4	36"	5"	9"
	2/3	600	✓	✓	✓	—	✓	—	Double	Yes	4	36"	5"	9"
60	2/3	240	✓	—	✓	—	✓	—	Double	Yes	4	36"	5"	9"
	2/3	600	✓	✓	✓	—	✓	—	Double	Yes	5	36"	5"	9"
100	2/3	240	✓	—	✓	—	✓	—	Double	Yes	5	36"	5"	9"
	2/3	600	✓	✓	✓	—	✓	—	Double	Yes	5	36"	5"	9"
	2/3	240/600	—	—	—	—	—	✓	Double	Yes	7	36"	5"	9"
200	2/3	240/600	✓	—	✓	—	✓	—	Double	No	7	44"	—	5"
	2/3	240/600	✓	—	✓	—	✓	—	Single	No	7	36"	10"	14"
	2/3	240	—	—	—	—	—	✓	Double	Yes	7	36"	5"	6"
	2/3	600	—	✓	—	—	—	✓	Double	Yes	7	36"	5"	9"
400/600	2/3	240/600	✓	—	✓	—	✓	—	Single	No	10	44"	—	13"
	2/3	240	—	—	—	—	—	✓	Single	No	10	36"	10"	14"
	2/3	600	—	✓	—	—	—	✓	Single	No	10	36"	10"	14"
800/1200	2/3	600	—	—	—	✓	—	—	Single	No	19	44"	—	13"

①Fusible switch expansion kits are available for installation in empty (blank) halves of double-branch switch modules. Voltage and x-height must match switch in the double-branch module. If switch in module is two poles, expansion kit must be two poles.

Termination Information

Standard Main Lug Terminations (Al Mechanical)

Amp Rating	Single Main		Dual Main	
	Wire Size (Cu/Al)	Single Main Lugs-① # Wires Per Phase	Dual Wire Size (Cu/Al)	Dual Main Lugs-① # Wires Per Phase
250	#8 - 500 kcmil 2/0 - 600 kcmil	1 1	8 - 500 kcmil 2/0 - 600 kcmil	1 1
400	#8 - 500 kcmil 2/0 - 600 kcmil	1 1	2/0 - 600 kcmil	4
600	#8 - 500 kcmil 2/0 - 600 kcmil	1 1	2/0 - 600 kcmil	4
800	2/0 - 600 kcmil	4	2/0 - 600 kcmil	8
1200	2/0 - 600 kcmil	4	2/0 - 600 kcmil	8

① One lug per phase.

Standard Fusible Switch Module Terminations (CU/AL Mechanical)

Amp Rating	Voltage	Wire Size (CU/AL)	# Wires Per Lug	# Lugs Per Phase
30	240/600	#2-#14	1	1
60	240	#2-#14	1	1
60	600	#14-1/0	1	1
100	240/600	#14-1/0	1	1
200	240/600	#6-250 MCM	1	1
400	240/600	1/0-250 MCM or #2-600 MCM	2 or 1	1
600	240/600	1/0-250 MCM or #2-600 MCM	2 or 1	2
800	600	1/0-250 MCM or #2-600 MCM	2 or 1	3
1200	600	1/0-250 MCM or #2-600 MCM	2 or 1	4

Ground lugs are available in kit form for field installation. Catalog numbers are included here for references.

Ground Lug Terminations (CU/AL Mechanical)

Lug Quantity	Wire Size	Catalog Number	Insulated/ Isolated
10	#6-2/0 CU/AL	AEG 10	No
12	#14-#8 CU, #12-#8 AL — Solid or #12-#8 CU, #12-#8 AL — Stranded	AEG 21	No
9	#14-#8 CU, #12-#8 AL — Solid or #10-#4 CU, #10-#4 AL — Stranded	AEG 21	No
12	Identical lug offering as listed above for Cat. #AEG 21	AEG 21S	Yes
9	Identical lug offering as listed above for Cat. #AEG 21	AEG 21S	Yes
12	Identical lug offering as listed for AEG 21	AEG 31S	Yes
9	Identical lug offering as listed for AEG 21	AEG 31S	Yes
10	#6-2/0 CU/AL	AEG 31S	Yes

Standard Neutral Lug Terminations (Al Mechanical)

Amp Rating	Lug Type	Lug Quantity	Wire Size (Cu/Al)
250	Main Branch Branch Branch	2 24 15 5	#2 - 600 kcmil #14 - #4 #14 - 2/0 #6 - 300 kcmil
400	Main Branch Branch Branch	2 24 15 5	#2 - 600 kcmil #14 - #4 #14 - 2/0 #6 - 300 kcmil
600	Main Branch Branch Branch Branch	4 4 10 9 10	#2 - 600 kcmil #2 - 600 kcmil #14 - #4 #14 - 2/0 #6 - 300 kcmil
800	Main Branch Branch Branch Branch	4 4 10 9 10	#2 - 600 kcmil #2 - 600 kcmil #14 - #4 #14 - 2/0 #6 - 300 kcmil
1200	Main Branch Branch Branch Branch	4 4 10 9 10	#2 - 600 kcmil #2 - 600 kcmil #14 - #4 #14 - 2/0 #6 - 300 kcmil

GENERAL:

- Panelboards are listed and labeled by Underwriters Laboratories, Inc. in accordance with UL Standards 50 and 67, and shall conform to the latest requirements of the National Electrical Code and NEMA standard PB.1.
- The panelboard will meet service entrance requirements when specified.
- Federal specifications: panelboards, W-P-115a; fusible switches, W-S-865c.
- Boxes are corrosion-resistant galvanealed (zinc finished) sheet steel with removable end walls. Boxes are furnished without knockouts. Panel fronts are cold-rolled steel, coated with a phosphatized rust inhibitor and then finish coated with ANSI 61 light gray enamel.
- A four-piece front is furnished to provide ease of wiring access. All screw fasteners are zinc coated to retard corrosion.
- Main and branch-fusible switches are of the positive, quick-make, quick-break type with double-break, over-center mechanism. The external handle is suitable for padlocking in the "OFF" position and is interlocked with the switch cover to prevent access to the switch interior when the switch is in the "ON" position—an interlock override release is provided. Fusible switch units are fully interchangeable without disturbing the adjacent units.
- Panelboards symmetrical interior is so designed and assembled that the circuit-protective modules (fused switches less than 800A) are mounted onto the bus bar with positive gripping jaw assemblies and locked pressure connections. The circuit-protective module can be removed or replaced without removing the main bus or branch circuit connections.
- Bus bars are current density rated and meet UL67 temperature rise limits thru actual tests. All bus bars are silver plated aluminum unless otherwise stated on the drawing.
- Bus bars are sequenced-phased, and rigidly supported by high-impact resistant, insulated bus supporting assemblies to prevent vibration and resulting damage when subjected to stress, vibration or short circuits. All solderless terminations are suitable for either copper or aluminum UL Listed wire or cable and have been tested and listed in conjunction with appropriate UL standards.
- Panelboards are so designed to permit the oncoming line conductors to enter either the top or bottom of the enclosure.
- The neutral bar is fully rated and capable of being relocated to either corner of the enclosure at the line end to facilitate conductor termination.
- Ground wire terminations is provided as an option in kit form suitable for installation by the panelboard installer without voiding UL label.

Installation Publications

ANK Neutral Assembly Kit Installation ..... GEH 6289
Equipment Grounding Kit ..... GEH 5586
APF Surface Front Trim Kit ..... GEH 5587
Installing Interior Into Box ..... GEH 5589

GE Electrical Distribution & Control

General Electric Company
41 Woodford Ave., Plainville CT 06062
www.ge.com/edc

DE-166A 1197 BL