

Load Centers and Circuit Breakers

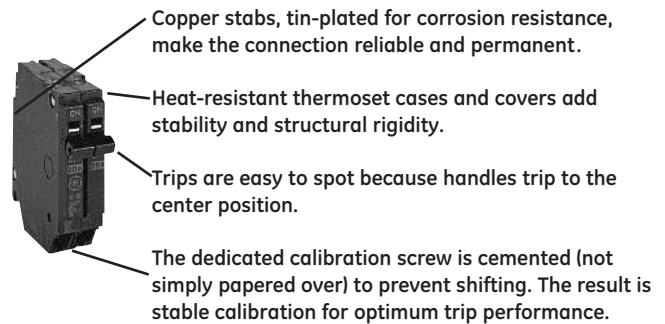
Q-Line Circuit Breakers

Section 1

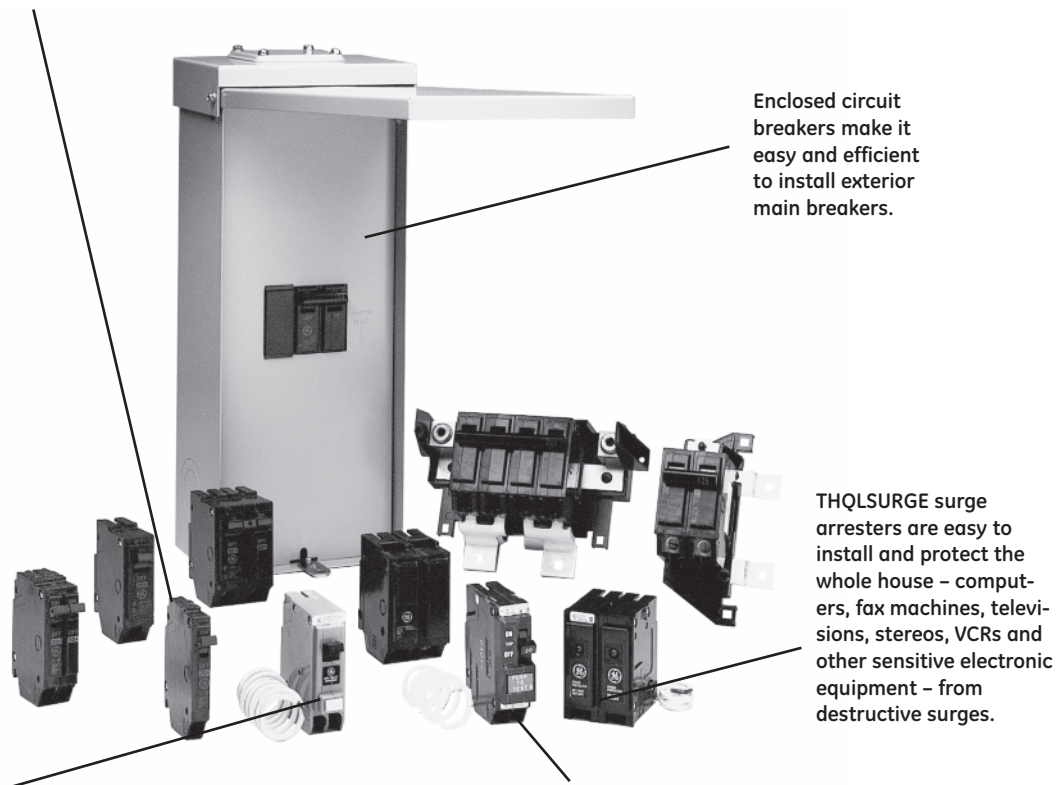
Reliability and Economy

Special Purpose Circuit Breakers

- PowerMark Gold Main Circuit Breakers
- Arc Fault Circuit Interrupter
- Dual Function GFCI/AFCI Ground Fault & Combination Arc Fault Circuit Breaker
- Ground Fault with Self-Test Feature
- Ground Fault with Equipment Protection
- Switching Neutral
- HID Lighting Breaker
- High Magnetic Breaker
- Molded Case Switch
- Surge Arrester
- TQ Breaker



At 1/2", THQP breakers are half the width of standard breakers, permitting the use of smaller load centers that save money and space in both new construction and service upgrades. They feature the same high-performance design, and meet the same stringent standards as other Q-Line breakers. Our 1" THQL will remain the breaker of choice for many contractors. In applications where space and cost are not critical, they're an excellent choice. But when size and money are driving considerations, THQP breakers are the smart choice.



Maximum protection against all-too-common electrical fires comes from the new technology built into GE's arc fault circuit interrupters (AFCIs). With its ability to detect and interrupt arcing caused by damaged wire insulation or a frayed extension cord, the AFCI takes home and family protection to a new, higher level.

The NEC requires ground fault protection of receptacles outdoors and in garages, bathrooms and spa areas. These ground fault circuit interrupters eliminate the need for separate GFCI receptacles, protect against short circuits and overloads, and prevent shock by detecting very low levels of current leaks and immediately shutting off power to the circuit.



Load Centers and Circuit Breakers

PowerMark Gold Load Centers

Section 1

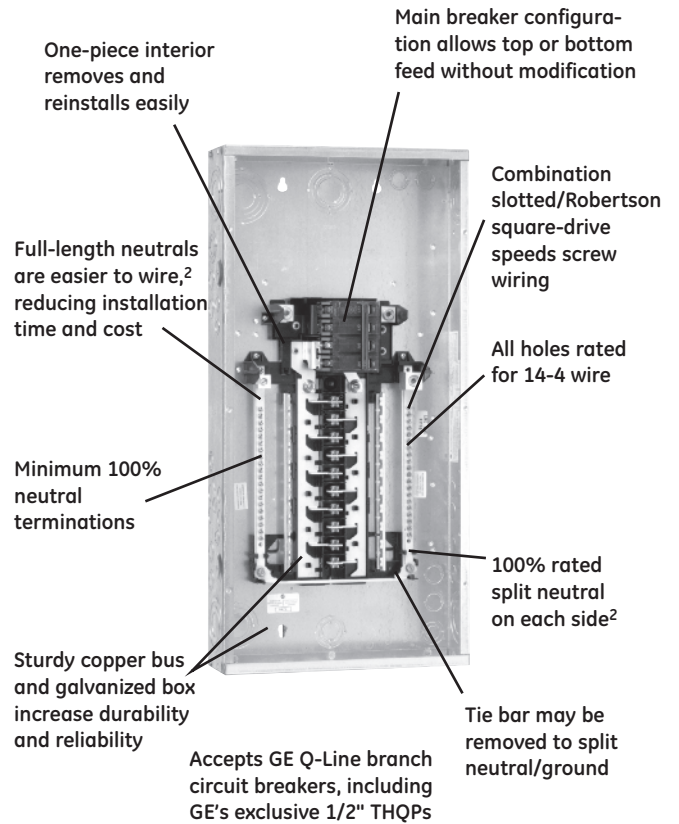
Highest Quality and Convenience

PowerMark Gold load centers lower your costs by making installation faster and easier, increasing application flexibility and reducing inventory requirements. At the same time, they deliver obvious and significant advances in design, function and quality.

- UL Listed (Panelboards No. 67)
- Service Barriers included for factory installed main circuit breaker and main circuit breaker kits (required to meet UL67 for service entrance applications)
- Suitable for Use as Service Entrance Equipment when installed in accordance with National Electrical Code
- 60°C/75°C Conductor Rating
- Single phase, 40-225A, 2-42 circuits
- Main lug models field convertible to main breaker
- Main breaker 22kAIC standard - factory installed
- All load centers top or bottom feed
- Indoor and outdoor rated enclosures
- Indoor fronts combination surface/flush
- Copper bus with tin plating standard¹
- Split neutrals extend the full length of the interior for ease of wiring
- Entire main lug line converts easily to main breaker
- Combination surface/flush front with spring-reinforced pan
- Combination slotted/Robertson square-drive screws on neutral,² ground, front and breaker lugs
- Front packed in inner carton for added protection
- Field installable feed-through lugs up to 200A
- Straight-through main wiring
- Main breaker is clearly marked and circuit numbers are stamped on front
- Isolated ground bar is available
- Compact box maintains optimum wire-bending space

Packaging features comprehensive selection and application data. Fronts are packed in inner cartons for added protection during shipment and at the job site.

Main lug load centers offer an economical solution for subpanels and similar applications. All main lug units 125A and above convert easily to main breaker.



A complete family of meter socket load centers — ring style and ringless, wide and narrow, meter mains, farm panels and more — deliver specialized solutions for special situations.

The PowerMark Gold line includes a wide range of outdoor as well as indoor units.

GE's residential load centers reach into commercial applications as well, with riser panels, auxiliary gutters, three-phase units with standard 22kAIC ratings, and all the accessories needed to complete the job.

Accessories and Options

- Door lock and handle
- Equipment ground kits
- Sub-feed and feed-thru lugs
- Front filler plates
- Handle lock and ties
- Hardware kits
- Main breaker retainers
- Neutral kits
- Universal raintight hubs

Safety accessories – convenient and easy to install

- THQLSURGE whole house surge protector
- Arc fault circuit interrupter breaker, 1- or 2-pole
- Ground fault circuit interrupter breaker, 5mA and 30mA
- Generator transfer panel – 30A or 60A, indoor or outdoor
- GE AC disconnects
- Service Barrier Kits

¹Three-phase PowerMark Plus load centers have aluminum bus with copper breaker mounting stabs.

²16 circuit and above.



Load Centers and Circuit Breakers

PowerMark Gold and Plus Load Centers

Section 1

Product Number Guides

Product Number Guide for Load Centers

(Product number for illustrative purposes only)

T	M	42	4	20	C	CU	B
GE Identification							
Type							
M = Main breaker							
L = Main lug							
LM = Convertible							
PL = Main lug (Thermoplastic)							
Maximum Number 1" Spaces							
2, 4, 6...42							
Insert for 3-Phase 4-Wire Load Centers							
						Insert for Specials	
						G or T = Factory installed ground bar	
						B = Bottom feed main breaker	
						FL = Factory installed feed-through lugs	
						D = Optional door for 6-8 circuit panel. (Doors standard on all units 12 circuits or greater)	
						W = White Front	
						Insert for PowerMark Gold	
						CU = Copper Bus	
						42 = Copper Bus Full 42 circuit panel	
						Enclosure Type	
						C = Combination surface/flush	
						F = Flush	
						S = Surface	
						R = Outdoor	
						Bus Ampere Rating	
						40 = 40 Amps 20 = 200 Amps	
						70 = 70 Amps 22 = 225 Amps	
						10 = 100 Amps 30 = 300 Amps	
						12 = 125 Amps 40 = 400 Amps	
						15 = 150 Amps 60 = 600 Amps	

Product Number Guide for Q-Line Plug-in Circuit Breakers

(Product number for illustrative purposes only)

T	H	QL	1	1*	15	GFT	
GE Identification							
Interrupting Rating							
H = 10kAIC							
HH = 22kAIC							
X = 65kAIC							
Type							
QL = 1" plug-in							
QP = 1/2" plug-in							
QB = 1" bolt-on							
Poles (1, 2, 3)							
						Ground Fault/Arc Fault Circuit Interrupter	
						AF2 = 1- & 2-pole Combination Arc Fault Circuit Interrupter	
						GFEP = 1- & 2-pole Ground Fault with Equipment Protection Interrupter-30 mA	
						GFT = 1- & 2-pole Ground Fault with Self-Test Feature Interrupter - 5 mA	
						DF = 1-pole Dual Function GFCI/AFCI Ground Fault & Combination Arc Fault Circuit Interrupter	
						Ampere Rating	
						Voltage	
						1 = 120/240V	
						2 = 240V	

*Omit character for THQP breakers, which are all 120/240V.



Load Centers and Circuit Breakers

PowerMark Gold and Plus Main Breaker Load Centers

Single-Phase, Three-Wire, 120/240 Vac

Main Breaker Factory Installed

Section 1

Load Center
1PH
Main Breaker
Indoor NEMA 1

Indoor (NEMA 1) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Product Number
150	32	16	0	0	32	Combination Flush/Surface	Top Bottom	11	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM3215CCU
150	24	12	36	18	42	Combination Flush/Surface	Top Bottom	9	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 (order separately), TLK32 (order separately)	TM2415C42
150	32	16	20	10	42	Combination Flush/Surface	Top Bottom	11	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 and TLK20 (order separately)	TM3215C42
200	16	8	32	14	32	Combination Flush/Surface	Top Bottom	7	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM1620CCU
200	16	8	32	14	32	Combination Flush/Surface	Top Bottom	8	1-250 (Cu), 2/0-250 (Al)	TGK32 installed	TM1620CCUG
200	20	10	40	18	40	Combination Flush/Surface	Top Bottom	8	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM2020CCU
200	20	10	40	18	40	White Combo Flush/Surface	Top Bottom	8	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately), TGK42 (order separately)	TM2020CCUW ³
200	20	10	40	18	40	Combination Flush/Surface	Top Bottom	8	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM2020CCUG
200	20	10	40	18	40	White Combo Flush/Surface	Top Bottom	8	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM2020CCUGW ³
200	32	16	16	6	40	Combination Flush/Surface	Top Bottom	11	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM3220CCU
200	40	20	0	0	40	Combination Flush/Surface	Top Bottom	13	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TM4020CCU
200	32	16	20	8	42	Combination Flush/Surface	Top Bottom	11	1-250 (Cu), 2/0-250 (Al)	TGK32 and TLK20 (order separately)	TM3220C42
200	42	20	0	0	42	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM4220CCU
225	42	20	0	0	42	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM4222CCU

¹Load center includes a factory installed ground bar and add-a-lug. See wiring diagram on page 1-31. A separate TGL2 can be added in the unlikely event that another ground bar is required.

²No lock provision available. Use next size larger load center such as TLM1612CCU with a TDL106 accessory if locking provision is required.

³Minimum order QTY is 40 for below 24 circuits; QTY 24 for 24 circuits and above. (See DEE-590)

Load Center
1PH
Main Breaker
Outdoor NEMA 3R

Outdoor (NEMA 3R) Enclosure⁴

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Product Number
100	12	5	20	8	22	Top	R3A	4-1/0	TGK12 (order separately), TGK24 (order separately)	TM1210RCU
100	20	10	0	0	30	Top	R4	4-1/0	TGK24 (order separately)	TM2010RCU
125	12	5	20	8	22	Top	R3A	1-2/0	TGK12 (order separately), TGK24 (order separately)	TM1212RCU
125	24	12	0	0	24	Top	R4	1-2/0	TGK24 (order separately)	TM2412RCU
150	8	4	16	6	16	Top	R5	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately)	TM815RCUFL
150	16	8	32	14	32	Top	R5	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 (order separately), TGK32 (order separately)	TM1615RCU
150	24	12	12	4	30	Top	R6	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 (order separately), TGK32 (order separately)	TM2415RCU
150	24	12	36	18	42	Top Bottom	R39	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately)	TM2415R42
150	32	16	0	0	32	Top	R7	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM3215RCU
200	8	4	16	6	16	Top	R5	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM820RCUFL
200	20	10	40	18	40	Top	R6	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately), TGK42 (order separately)	TM2020RCU
200	24	12	36	18	42	Top Bottom	R39	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately)	TM2420R42
200	32	16	16	6	40	Top	R7	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM3220RCU
200	40	20	0	0	40	Top	R8	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TM4020RCU
225	8	4	16	6	16	Top	R5	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately)	TM822RCUFL
225	42	20	0	0	42	Top	R8	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM4222RCU

⁴100-225 amp devices have removable closing caps. Larger ampere devices require field-cut openings. Order hubs separately. See page 1-27.

Note: See page 11-4, AL Series Lighting Panelboards as replacements for 300-600A load centers.



Load Centers and Circuit Breakers

PowerMark Gold and Plus Load Centers

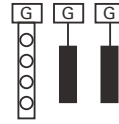
Circuit Breakers

Section 1

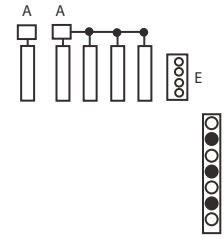
Wiring Diagrams

Breaker Symbol	Breaker Fill	
	1" THQL	1/2" THQP
	1	—
	1	2

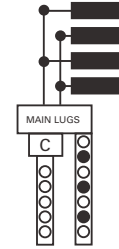
Terminal Symbol	Wire Range (AWG/kcmil)	
	Cu	Al
o	14-8	12-8
•	14-4	12-4
A	6-2	6-2
B	14-1/0	12-1/0
C	6-2/0	6-2/0
D	1-300	2/0-300
E	1-300	1-300
F	6-1	6-1
G	6-3	6-3



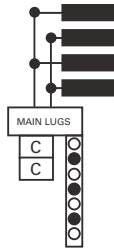
TL240SCU, RCU
TL270SCU, RCU



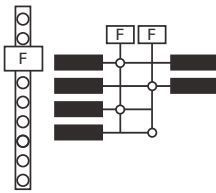
TL510RT



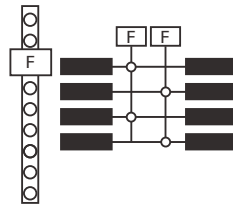
TPL412C, TL412C, TPL412R, TL412R1,
TL412R2, TL412R250GF, TL412R260GF



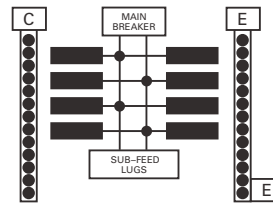
TPL412CT, TL412CT
TPL412RT, TL412RT1



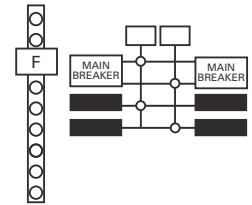
TLM612FCU, SCU
FCUD, SCUD, RCU



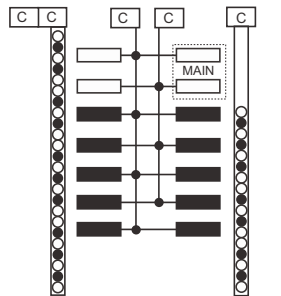
TLM812FCU, SCU,
FCUD, SCUD, RCU



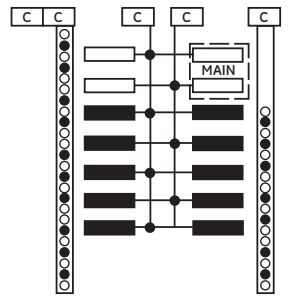
TM815RCUFL
TM820RCUFL



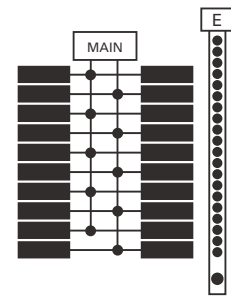
TM860FCUGEN, TLM830FCUGEN,
TM860SCUGEN, TLM830SCUGEN,
TM860RCUGEN, TLM830RCUGEN



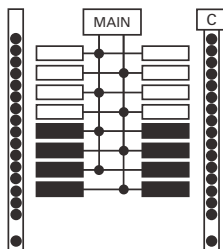
TM1210CCU, TM1212CCU, TLM1212CCU



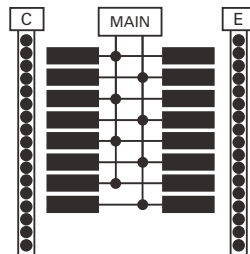
TM1210RCU, TM1212RCU, TLM1212RCU



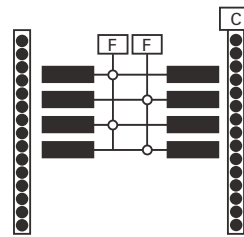
TLM2012CCURP



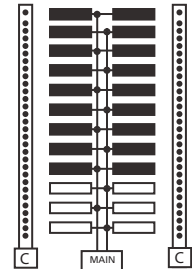
TLM1612CCU, TM1612CCU, TM1612RCU



TM1615CCU, TM1615RCU, TM1620CCU,
TLM1620CCU, TLM1620RCU



TLM812RCU2



TM2420R42B

