#### **Exterior Lighting**

#### **Metal Outside Light**



PROJECTION: 6" BULBS: One 60W (not included) UL listed. Black finish. Use with 280902.

**280903** Fixture Only; 24/Ctn. **280902** Glass Globe Only; 48/Ctn. 280901 Hardware

#### **Brass Porch** Light

HEIGHT: 13" PROJECTION: 4-1/2" BULBS: One 60W (not included)

Solid polished brass with clear, beveled glass panes.

284033 12/Ctn.



## **Plastic Outside Light**



PROJECTION: 5-3/4" BULBS: One 60W (not included) UL listed.

280904 Black Fixture Only **280902** Glass Globe Only; 48/Ctn. 280906 White Fixture Only

280907 Replacement Hardware

#### **Porch Light**

HEIGHT: 17-1/2" PROJECTION: 8-1/2"

BULBS: One 60W (not included) MOUNTING BASE: 4-3/4"

284034 Black 284035 White



#### **Lite-Guard Security Light**

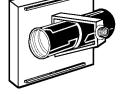


Pre-wired automatic outdoor security light with infrared motion sensor. Covers 50 ft. x 60 ft. - up to 3000 sq. ft. total area. Adjustable angles and sensitivity settings. 300W maximum. Auto shutdown in daylight.

280800

#### **Bathroom Glass Shade & Fixture**





White shade and white fixture.

PROJECTION: 4-1/4" LENGTH: 14" BULBS: Two 60W (not included)

284039 Shade; 12/Ctn.

284040 Base; 48/Ctn.

#### **Strip Light**

Fixture only.



284041 Brass, 24" Long, Takes 4 Bulbs (Not Included) 284042 Chrome. 30" Long, Takes 5 Bulbs (Not Included) Bathroom Lighting

Exterior &

#### **Wall Mount Fixtures**



(Shade and bulb not included)

#### **Brass Arm**

PROJECTION: 6" HEIGHT: 8" FINISH: Polished brass BULB: One 60W NECK: 2-1/4"

280405

280409 W/Wall Switch

#### **Clear Ribbed Shade**



DIAMETER: 4-3/4" HEIGHT: 4-1/2" NECK: 2"

**280408** Shade Only



#### **Clear Tulip Shade**

DIAMETER: 3-1/2" HEIGHT: 6" NECK: 2-1/2" 48/Ctn.

280406

#### **Frosted Tulip Shade**



DIAMETER: 5-1/2" HEIGHT: 5-1/4" NECK: 2-1/2"

284061

#### **Clear Crystal Shade**



DIAMETER: 5-5/16" HEIGHT: 5-1/4" NECK: 2-1/4" 24/Ctn.

281202

#### **White Globes**



284030 Plastic Ribbed, 5"



283701 Smooth 6" Glass

#### **Brass Finish Bullet**

Brass-finish, bullet-shaped wall fixture. For bulb, uses one R-20 reflector (not included). All metal with top switch. Can dimensions: 3" x 5-3/8". Swivels. Easy to install. UL listed.





& Shades

Ceiling Fixtures

#### **Ceiling Fixtures**

#### **Single Bulb Fixture**



BASE: Polished brass-colored. **DEPTH: 1-1/2"** BULBS: Two 60W (not included)

280403 6" Base; 24/Ctn. 280503 8" Base; 12/Ctn.





White alabaster glass shade; 5" projection, 6" dia.

280402 24/Ctn.



Frosted and ribbed glass shade; 5" projection, 8"

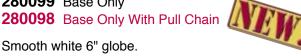
280502 16/Ctn.

#### 6" Globe & Fixture



Polished brass base, 2" deep x 4-7/8" diameter. Uses one 60W bulb (not included).

**280099** Base Only



283701 Glass



#### **Two-Bulb Fixture**

Projects 6", white fixture, uses two 60W (not included).

280103 24/Ctn.

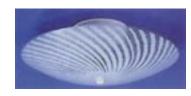
This two bulb ceiling fixture (280103) can be used with any of the following shades:



#### 12" Plastic

White plastic, 5" d x 12" dia.

280404 12/Ctn.



#### **14" Swirl Glass**

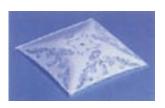
White w/swirl design. 14 " dia.

280301 12/Ctn.



#### 13" Plastic

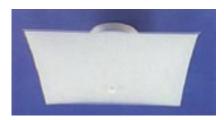
280102 White Plastic; 24/Ctn.



#### **Square Glass**

280201 White Patterned, 12" square; 12/Ctn.

### **Plain Square Glass**



280200 Solid White, 12" square; 12/Ctn.

#### **Bath Vents**



#### **Lighted Vent Fan**

- Ultra-quiet, U.L. Listed, 115V motor.
- Vertical exhaust
- Foam damper for a secure seal when not in operation
- Simple installation with plug-in motor & lamp, snap-in junction box cover
- 7" rough opening for 421206 and 421201
- 50 CFM; 8/Ctn.

421206 #V2244 w/Light



#### **Replacement Parts for 421206**

**421207** Plastic Light Lens (#1)

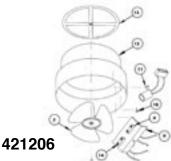
**421208** Foam Damper Assembly (#13)

**421401** Blade Only (#7)

**421204** Motor BCD0388-00 (#6)

#### Replacement Parts for Old Style 421206

420103 Motor BDC0190 120 VAC W/O Plug





## **Vent Fan without Light**



421201 #V2262-50 w/out Light

#### Replacement Parts for 421201

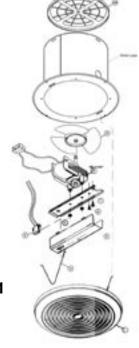
**421402** Grill & Spring Assembly (#1 & #2)

**421401** Blade Only (#9)

**421204** Motor BCD0338-00 (#8)

**Replacement Parts for Old Style 421201** 420103 Motor BDC0190 120 VAC W/O Plug

421201



#### Hardware and Bulbs

#### **Light Shade Screws**



Brass screws for light fixtures.

281501 Standard Size w/Smooth Head, Bulk 281505 Small Metric w/Phillips Head; 100/Pk.

#### **Shade Nuts**

285026



#### **Acorn Nuts**

White plastic; 50/Ctn.

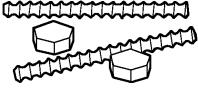
281605



### **Mounting Hardware**

for Indoor Light Fixtures

Two 8/32 cap nuts and two 8/32 x 2" steel studs. Bright brass.



285025

## **Handy Hint:**

Use these templates to the left to identify whether you need a candelabra base or a medium base. The drawings are shown actual size.





Medium

#### **Standard** 60 Watt Bulh Frosted bulbs by Supreme Lighting. Dependable: long-lasting. 60 watt. 120 bulbs per case. 281705

#### **Flame Bulbs**

Clear 130-volt. 40W; 25/Ctn.

281702 Candelabra Base 281725 Medium Base





### **Torpedo Bulbs**

Clear 130-volt. 25W; 25/Ctn.

281701 Candelabra Base 281726 Medium Base



#### **Vanity Bulbs**

281710 3", 60W 281709 3", 40W



#### **Ceiling Fans**



A great way to increase comfort and energy efficiency.

- 52" diameter
- 3-speed pull chain
- Reversing switch
- Polished brass accents
- Low wattage consumption
- Lubricated sealed ball bearings

#### **Ceiling Fan with Tulip Light Kit**

52" ceiling fan with three tulips lights. Silicon steel motor. Limited lifetime warranty. Motor size: 153 x 12. Triple capactitor, 3-speed reversible, dual mount, five blades, 12 degree pitch.

284065 Walnut & Polished Brass

284070 White



284076

Tulip Light Kit

Pewter finish and frosted shades.

## **Ceiling Fan**

52" ceiling fan, Cherry finish blades with pewter accents and silicon steel motor. Limited lifetime warranty. Motor size: 153 x 12. Triple capactitor, 3-speed reversible, dual mount, five blades, 12 degree pitch.

284075

#### Replacement Tulip Shades



Frosted. 36/Ctn.

284061

#### **Wall Plates**



#### Single Switch Plate

222301 Ivory; 250/Ctn.222303 White; 250/Ctn.222302 Brown; 250/Ctn.



#### Duplex Receptacle Plate

222601 Ivory; 250/Ctn.222603 White; 250/Ctn.222602 Brown; 250/Ctn.

#### **Midi Switch Plate**

For larger boxes: 3-1/8" W x 4-7/8" H.

**222304** Ivory; 100/Ctn. **222295** White; 100/Ctn. **222305** Brown; 100/Ctn.



## **Double Switch Plate**

4-15/16" W x 4-7/8" H. 100/Ctn.

222300 Ivory 222299 White



#### **Midi Receptacle Plate**



For larger outlet boxes: 3-1/8" W x 4-7/8" H for single gang. 100/Ctn.

221203 Ivory 221205 White 221204 Brown

#### **Single Blank**

**225005** White; 100/Ctn. **225006** Brown; 100/Ctn. **225007** Ivory; 100/Ctn.



**225008** Brown; 50/Ctn. **225009** White; 50/Ctn. **225010** Ivory; 50/Ctn.



#### **Decorator Plate**

Accomodates both decorator switches & receptacles. Furnished w/long screws. 100/Ctn.

222308 White 222309 Ivory 222310 Brown



# 300

# **Decorator Switch**

Touch-A-Matic single pole w/grounding terminal on E-Zwire device. Sealed against dust. High endurance.

**222311** Ivory; 100/Ctn. **222294** White; 100/Ctn.

#### **Duplex Receptacle**

Parallel grounding 15 amp 125V. UL listed. 100/Ctn.

221201 Ivory 221200 White 221202 Brown



#### Self-Contained Receptacle

Use 14-2/G or 12-2/G NM cables for in-line or end-of-line use. UL listed. 100/Ctn.

222326 White 222322 Ivory 222321 Brown



### Duplex Receptacle, Single Gang

Universal duplex. Ubend contact design for maximum conductivity and plug retention; exceeds UL standard for abrupt plug pull-out. UL498 listed.



222345 WDRU15IV; Ivory
 222347 WDRU15WT; White
 222346 Snap-on Ivory Plate
 222348 Snap-on White Plate

# Self-Contained Rocker Switch



Decorator quiet-touch. Single pole in-line. For sheet rock 5/16" to 1/2" thick or wall paneling 5/32" to 1/2" thick. Use only nonmetallic sheathed cable; types NM & MNC having copper conductors sizes #14 and #12 AWG. 15 amp/120 VAC; 100/Ctn.

222315 Ivory 222316 Brown 222329 White

# Self-Contained Switch

Use 14-2/G or 12-2/G NM cables for in-line or end-of-line use. UL listed. 100/Ctn.

222327 White 222319 Ivory 222320 Brown

222325 Plastic Pawl (Wing)

#### Self-Contained Receptacle

Single pole in-line. 15A/125V; 100/Ctn.

222330 White 222314 Brown 222313 Ivory



#### Toggle Switch



10-A-125V; 5-A-250V. 1" wide mounting strap. 100/Ctn.

221701 Ivory 221702 Brown 221703 White

#### Ground Fault Interrupter Receptacle



Fits easily into standard surface flush boxes. Feed-through ready. UL listed. 15 amp 125V at receptacle 20 amp 125V feed-through. 10/Ctn.

222889 White 222891 Ivory



## **Snap-On** Receptacle **Wallplates**

Side snaps assure proper alignment; quick to install. No screws to lose. Virtually unbreakable thermoplastic. Smooth surface for easy cleaning. Single

222346 WPRUIV, Ivory 222348 WPRUWT, White



## **Phone Jack**



Surface mount, snap cover for neat appearance with prewired combination head screw terminals. For surface mount onto baseboards, walls and other flat surfaces. Self-tapping mounting screws and adhesive pad provided. 4 conductor in almond.

222820



220315 1000'; Bulk

#### **Wall Boxes**

#### **Single-Gang**

Plastic. OD: 1-3/4" D, 3-3/4" H, 2-3/8" W. Ears securely molded to box.

221103 W/Ears

221105 W/Ears & Swing Bracket

222325 Plastic Wings (Pawls)

222328 Screws for Wings



## **Weatherproof Male Motor Base**

Three-wire outdoor wire receptacle with snap cover. Parallel grounding motor base. #999l. 50/Ctn.

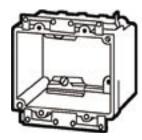
222815



#### Two-Gang

Plastic. OD: 1-3/4" D. 3-1/4" H, 4-1/16" W. Ears securely molded to box. Wire clamps included; bulk packaged.

221104



## **Weatherproof Protective Plate**

Weatherproofs any conventional or "U" ground duplex receptacle, duplex switch or combination switch/receptacle. Snaps shut with self-sealing rubber gaskets. Indestructable Lexan® polycarbonate. 50/Ctn.

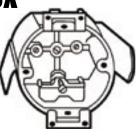
**221400** Gray 221405 White



#### **Round Box**

3.5" round outlet box. 2-1/8" diameter w/ high clamps, ears and snap-in bracket which secures box to wall or ceiling.

221106

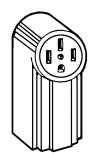


#### **Bakelite Wire Connector**

Easy grip with deep ribs. Tin-plated helical cone spring inside. Ideal for all connections. UL approved for copper or aluminum wire. 100/bag. 50/Ctn.

225001 Small

225000 Medium



#### Range Receptacle

4-wire, 50 amp, 125/250-volt range receptacle with "Quick-Lok" terminals. 50/Ctn.

224201

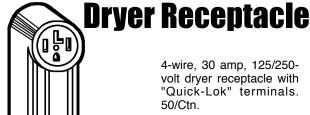
#### Thermostat Wire

20 gauge. UL listed.

220308 2 Wire, 500' 220311 3 Wire, 500' 220310 5 Wire, 250'

220313 8 Wire, 250'





4-wire, 30 amp, 125/250volt dryer receptacle with

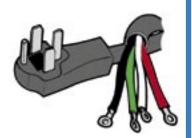
"Quick-Lok" terminals. 50/Ctn.

224301

#### **Range Cord**

3', 50 amp cord w/three #6 and one #8 conductors with molded cap and terminal plugs. 12/Ctn.

220306



#### **Temporary Adapter**

50 AMP, 125/250 volt. 20 amp, 125 volt. AD-50-20; 10/Ctn.

220301



To this:



#### 3-Wire **Female** Plug

15 amp 125V furnished with cord clamp for heavy duty use. Standard plug with parallel prong. UL listed.

223301 100/Ctn.

#### 3-Wire Male Plug

15 amp 125V thermoplastic rubber. cord dia. .25-.60". UL listed.

223201

#### **MH 4-Wire Dryer Cord**



Round rubber jacketed wire, molded-on plug. Black 4-wire 4' for mobile homes, 30 amp. 12/Ctn.

220307



#### **Cartridge Fuses**

Made with Rosin core solder, 250 volts. UL listed. 10 per box. 60 Amp; 50/Ctn.

221006

#### **Non Tamp Fuse**

Base shape prevents insertion of the wrong ampage. Thermal element provides time lag temporary overload by starting of appliance motors. Regular short-circuit protection. 4 per box.

220801 15 Amp; 125/Ctn. 220802 20 Amp; 125/Ctn.



#### **Cables & Conduits**

#### **Non-Metallic Sheathed Cable**



- Uncoated copper conductors ASTM B-3
- Insulated w/Cresin-90 PVC compound, color coded
- Two conductors are parallel w/ground wire & paper
- Three conductors twisted with cable fillers and wrapped ground wire to form round core
- Smooth 30 mil. PVC jacket

Both with ground. Materials, test and construction in accordance with NSI/UL 719 and Federal Specification J-C-30A.

220425 8-2 NM, 125' 220424 10-2 NM. 250' 220427 12-2 NM, 250'

#### **Liquidtite Flexible Non-Metallic Conduit**

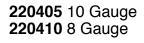
For electrical applications outside or inside, including transformer con-nections, air conditioning and heating. Joins with metallic or nonmetallic connectors. Easy to cut, impact and chemical resistant; will not kink or fracture.



220408 1/2" x 100' 220432 3/4" x 100'

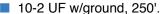
#### **Convenience Kit**

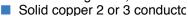
1/2" x 4' THHN wire with nonmetallic connectors for easy A/C hookup. 90° connector is removable. Straight connector not included. 6/Ctn.





#### **Underground Feeder Cable**





- 90° PVC insulation, color-co insulated conductors & bare ground laid parallel
- 600 volts
- Sunlight-resistant PVC jacket compound

Materials, test & construction in accordance with NSI/UL 493 and Federal Specification J-C-30A.

220426

#### **Liquidtite Non-Metallic Elbow Fitting**

Plastic elbow for use with non-metallic Liquidtite conduit, type B. Provides smooth connection, no sharp edges to strip wires so that wiring pulls through easily.

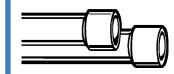
220431 1/2" 220434 3/4"

### **Liquidtite Non-Metallic Straight Connector**



For use with non-metallic Liquidtite conduit, type B. Provides smooth connection, no sharp edges to strip wires so that wiring pulls through easily.

220430 1/2" Plastic 220433 3/4" Plastic



#### **PVC Conduit**

220441 3/4" x 10'

Conduits & Cables

#### **Disconnect Switches**



#### **Pull-Out Style Disconnect Switches**

Not-fusible and fusible, NEMA TYPE 3R — Outdoor 240Vac, Single-phase, 2 wire with ground. Convenient combination knockout provisions on the side, back and bottom for maximum flexibility. Side-hinged doors for easy access and installation. Positive pull-out head contact for a durable, long-lasting electrical connection. Pull-out head storages in "OFF" position. Mounting slot for prehanging during installation. Metallic style is rugged, long-life galvanneal steel with power coat. Non-metallic is made of durable polymer for long-lasting protection against harsh elements.



METALLIC							
Part #	Description	HP Max	Line	Load	Equip. Grounding Terminals AI/Cu		
220406	60 Amp, Not-Fusible	10	#14-#3	#14-#3	(2) #14-#4		
220407	30 Amp, Fusible	3	#14-#3	#14-#6	(2) #14-#4		
220404	60 Amp, Fusible	10	#14-#3	#14-#3	(2) #14-#4		

# METALLIC 7.40 100 2.75 100 2.75

NON-METALLIC							
Part #	Description	HP Max	Line	Load	Equip. Grounding Terminals Al/Cu		
220400	60 Amp, Fusible <sup>1</sup>	10	#14-#3	#14-#3	(6) #14-#4		
220409	60 Amp, Not-Fusible <sup>2</sup>	3	#14-#3	#14-#3	(6) #14-#4		

#### 1. Suitable for use on systems with up to 10K RMS symmetrical amperes available fault current at 240 VAC.

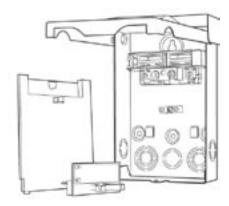
# **Cutler-Hammer Non-Fused Pull-Out Style Disconnect Switches**

- ON/OFF control provided by pullout handle
- Pullout handle can be conveniently stored in the compartment in the OFF position, helping to prevent the handle from being misplaced.
- Protective shield cannot be removed until the pullout handle is removed, disconnecting the power.

**220500** 60 Amp Non-Fused Metal







<sup>&</sup>lt;sup>2</sup> Does not contain overcurrent protection. Suitable for use on systems with up to 10K RMS symmetrical amperes available fault current at 240 Vac when protected by a fuse or circuit breaker rated 60 Amperes or less.

## **50 Amp Electric Box**

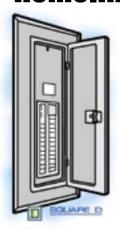


Height: 6". Width: 5.25". Depth: 4.5". Hub: 1.25". One S-54 50A-125/250V 4-wire receptacle.

220403 4/Ctn.



#### **Homeline Main Load Center**

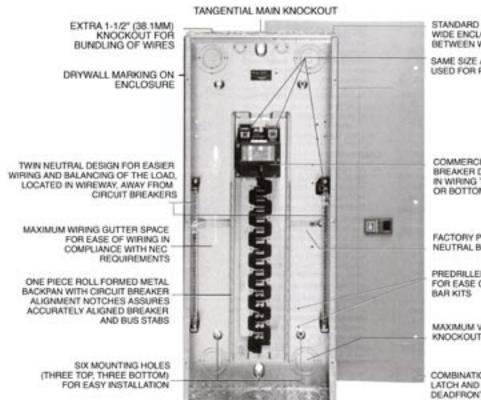


Rainproof, 10,000 RMS symmetrical amperes short circuit rating. Factory-installed main breaker with feed-thru lugs. 200 Ampere rating (when using copper wire). 8 spaces with a maximum of 16 single pole circuits and 8 tandem circuit breakers. Main wire size: #4-250.

**220417** 200 A Load Center **220418** 2" Hub for 220417

#### Cutler Hammer 200 Amp Main Load Center





STANDARD 14-3/8 INCHES (365.1MM) WIDE ENCLOSURES FIT SNUGLY BETWEEN WALL STUDS

SAME SIZE ALLEN WRENCH CAN BE USED FOR PHASE AND NEUTRAL LUGS

COMMERCIAL GRADE MAIN BREAKER DESIGNED FOR STRAIGHT-IN WIRING THAT ALLOWS FOR TOP OR BOTTOM FEED

FACTORY PRE-ATTACHED NEUTRAL BONDING STRAP

PREDRILLED MOUNTING HOLES FOR EASE OF INSTALLING GROUND BAR KITS

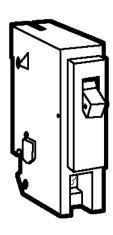
MAXIMUM VARIETY OF CONCENTRIC KNOCKOUTS, AT REAR AND SIDES

COMBINATION TRIM HAS SLIDING LATCH AND ADJUSTABLE DEADFRONT FOR NEAT, CLEAN APPEARANCE

Outdoor enclosure. 1 Phase - 3 Wire, 200 amp load center with 8 spaces and 16 circuits for BW10kAlC breakers. Wire size range Cu/Al 60°C or 75°C for main breaker: #2 - 300 kcmil.

220415 200 A Load Center

#### **Circuit Breakers**







#### **Homeline Circuit Breakers**

10,000 Amperes RMS — UL listed Interrupting Rating 120/240Vac. 15-30 Ampere breakers are suitable for use with  $60^{\circ}$ C or  $75^{\circ}$ C conductors. 40-125 Ampere breakers are suitable for use with  $75^{\circ}$ C conductors.

**220977** 15 Amp, 1 Pole ◆▲

**220982** 20 Amp, 1 Pole ◆▲

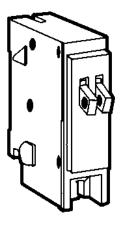
**220979** 20 Amp, 2 Pole, Common Trip ◆

**220980** 30 Amp, 2 Pole, Common Trip ◆

**220981** 40 Amp, 2 Pole, Common Trip ◆ **220984** 60 Amp, 2 Pole, Common Trip ◆

**220983** 50 Amp, 2 Pole, Common Trip ◆

- ◆ UL listed as SWD (switching duty) rated. Suitable for 120VAC fluorescent lighting loads.
- ▲ UL listed as HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.





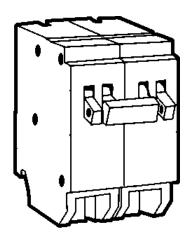
#### **Homeline Tandem Circuit Breakers**

10,000 AIR — One Pole Tandem 120/240Vac (one space required). 15-20 Ampere one pole tandem breakers are suitable for use with 60°C or 75°C conductors. 15-30 Ampere two pole tandem breakers are suitable for use with 75°C conductors.

**220989** 15 and 20 Amp **220978** 20 and 20 Amp **220993** 30 and 15 Amp



## **Homeline Quad Tandem Circuit Breakers**



10,000 AIR — Two Pole Tandem 120/240Vac (two spaces required). Represents two 1-pole outer poles and one 2-pole inner breaker with common trip.

15-20 Ampere one pole tandem breakers are suitable for use with 60°C or 75°C conductors. 15-30 Ampere two pole tandem breakers are suitable for use with 75°C conductors.

220986Two 20 Amp1 Pole, 30A 2 Pole220987Two 20 Amp1 Pole, 40A 2 Pole220988Two 20 Amp1 Pole, 50A 2 Pole220994Two 15 Amp1 Pole, 30A 2 Pole

#### **Circuit Breakers**

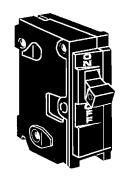
#### **IMPORTANT NOTE:**

In accordance with the National Fire and Safety Acts of 1990, all breakers must match the original manufacturer of the panel that the breaker will be used in. We do not assume any responsibility for installation of any electrical apparatus or the guarantee of the product.

All breakers listed are 240V AC, UL listed, C.S.A. approved.



			-, -	, -		2022	
Size	# of Poles	AMP	GE	Square D	Westinghouse	Classi <mark>f</mark> ied Cu <mark>tl</mark> er-H <mark>am</mark> mer	Cutler-Hammer
1"	1	15	220915	220977		220502	
1"	1	20	220916	220982		220503	
1"	1	30	220917			220504	
2"	2	20	220904	220979		220505	220510
2"	2	30	220905	220980	220990	220506	220512
2"	2	40	220906	220981		220507	220513
2"	2	30/20					220520
2"	2	30/40			220992		
2"	2	50	220907	220983			
2"	2	60		220984			
2"	2	100	220908				



#### **G.E. Half Sizes**

220925 1/2", 1P/15 Amp 220926 1/2", 1P/20 Amp 220927 1/2", 1P/30 Amp 220928 1/2", 1P/40 Amp 220930 1", 2P/30 Amp 220931 1", 2P/40 Amp

#### NEW

# 8

#### Cutler-Hammer UL Classified Circuit Breakers

#### Fits virtually any panel!

Why carry up to seven other brands when the industry's most reputable brand, Cutler-Hammer, is all you need?

Virtually eliminates the need to carry any other manufacturer's circuit breakers because these breakers are Classified as direct replacements by Underwriters Laboratories, Inc., and come with an outstanding 15 year warranty.

Designed and tested to be both mechanically and electrically interchangeable with circuit breakers manufacturered by GE, Thomas & Betts, ITE/Siemens, Murray, Crouse-Hinds and Square D.

UL Classified breakers are produced by one manufacturer for use in place of the breakers specificed on the panelboard. Like specified breakers, UL Classified breakers have been tested in the panel for which they are approved.

Original panelboard manufacturers may claim that the use of breakers others than those specified voids their warranty. However, the Magnusson-Moss Warranty Act prevents manufacturers from making warranties contingent upon the use of their replacement parts, as long as the third party part is safe. Since the safety has been proven by UL, the panelboard manufacturer's warranty is still effective when you chose a CL or CHQ breaker.

## **Understanding Classified Breaker Terminology:**

#### SPECIFIED CIRCUIT BREAKER:

Each manufacturer lists the brands of circuit breakers that can be used in their panel boards. Often, manufacturers will not list competitors as "specified," even though they are suitable replacements.

**UL CLASSIFIED BREAKER:** A breaker that is considered suitable by Underwriters Laboratory for use in the place of a specified breaker.

**LISTED BREAKER:** According to the NEC, the listing of a product is by an independent third party. Cutler-Hammer Classified Breakers are listed by UL.

**LABELED BREAKER:** A breaker with a label affixed by an independent third party.

Fits virtually any panel, so you can streamline your inventory!

Extensively tested for safety and performance

Meets all code acceptance regulations governed by the National Electric Code (NEC) and Underwriters Laboratories, Inc.

#### **Pipe Protection**

#### EASYHEAT

#### **AHB Electric Pipe Heating Cable**

Pre-Assembled Sets For Shelf or Rack Display



STOCK #	120 VOLTS 7 WATTS PER FT
S.O.	3 Foot (1m)
270515	6 Foot (2m)
270516	9 Foot (3m)
270517	12 Foot (4m)
270518	15 Foot (5m)
270519	18 Foot (6m)
270520	24 Foot (7m)
270521	30 Foot (9m)
S.O.	40 Foot (12m)
S.O.	60 Foot (18m)
S.O.	80 Foot (24m)
S.O.	Starter Assortment
S.O.	Med. Assortment
S.O.	Jumbo Assortment

Freeze protection on metal and plastic pipe. Complete, ready-to-install system in one compact box. CSA certified and UL listed. 120 VAC, 7 watts/ft., PVC inner insulation. Continuous ground braid, 3-wire grounded cord and plug (24") with weather-resistant PVC outer jacket, moisture-proof snap-action thermostat. "On" at approx. 38° F and "Off" at approx. 45° F.

#### **Easy to Follow Instructions!**

Detailed instructions inside every box take your customer through the simple step-by-step installation procedures. Cable runs straight along pipe and valves, held in place by application tape, and plugs into grounded electrical outlet. For odd lengths of pipe over 3/4" in diameter, we recomended two separate cables on opposite sides of the pipe with up to 3' of overrun at center of pipe run. Metal pipe requires 1/2" fiberglass insulation around cable. For plastic pipe, we recommend wrapping pipe with aluminum foil before cable installation.



#### **Pre-Packaged Kits**

Kits contain indicated length of Freeze-Free Cable, one fused plug kit, (1) instruction sheet and (1) set of warning labels.

**272314** 5' Kit; 5/Ctn. **272316** 15' Kit; 5/Ctn.



Custom pipe freeze protection at off-the-reel prices! Choose pre-packaged systems or for longer cable needs, just cut off the required length from the reel dispenser and attach plug, packaged separately. Freeze-Free uses a self-regulating conductive core that reacts to changes in temperature, needing no thermostat. Patented fused plug — the same quality connector used by the industry since 1992 — installs in minutes with basic household tools. Approved for use on both plastic and metal to -20° F. UL listed.

#### Floor Display



#### **100' Display**

Display contains 100' feet of cable with a pegboard holder, ten plugs and an attracive header with a supply of application guides. Other Freeze Free items can be added to complete an effective sales center.

**272308** 100' Display

#### **Cut-to-Length Cable**



**272305** 100' Reel **272306** 300' Reel **272304** 500' Reel

#### **Fused Plug Kits**

- Grounded 30" cord-set requires less heating cable
- Power indicator light shows that power gets to the plug and indicates an intact fuse
- UL System Listed
- Pipe mounting brackets for easy attachment to typical water pipes
- Built-in, fast-reaction fuse
- Easy to install: just insert the cable into the plug and tighten the screws
- Same reliability
- Now supports up to 75 feet of Freeze Free cable



272307 Kit 272317 Kit; Bulk

**272310** End Caps, 5/Bag; 10/Ctn.

#### **Thermostat**





- 35°F Automatic "On" 45°F Automatic "Off" (approx.)
- Controls any 120 volt heater, heating cables, engine heaters, electric heaters, heat lamps

No special wiring, easy to install—just plug it in. Reduces energy consumption. One outlet with an indicator light to let you know unit is functioning. 1800 watts maximum, 15 amps, 120 volts.

272318

NOTE: USE ON SPECIFIC VOLTAGE ONLY; MAKE SURE ELECTRICAL OUTLET IS NOT OVERLOADED.

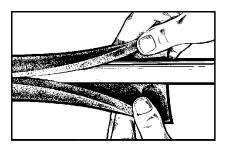
#### **Insulation Kit**



Contains one roll of 3" x 25' fiberglass and vinyl outer wrap. Use only with thermostatically controlled units.

270801 24/Ctn.

#### Permanent Pipe Insulation



Single step foam with half-slit slips easily over pipe. Self-closing, so no tape is needed. Flexible. 6' lengths. 48/Ctn.

**270526** 3/8" Wall Thickness, 7/8" ID

for 3/4" Copper Pipe

270527 3/8" Wall Thickness, 1-1/8"

ID for 1" Copper Pipe

270495 1" Wall Thickness, 1-1/8"

ID for 1" Copper Pipe

(R 6.4)

**270802** 3" Wall Thickness, 3' Long

270525 1/2" Wall Thickness 6' Long

#### **Installing Freeze Free**

#### How to Determine How Much You Will Need:

Gather the following information:

Pipe size EXAMPLE
Outside diameter 1-1/2" Pipe
Pipe length 12 feet

Lowest expected air temp

(disregard wind chill) -20°F/-29°C

Number of valves & spigots 1 ball valve

Distance from pipe to outlet 2 feet

Consult the correct chart below. Read down to find your pipe diameter, then read across to the box below your lowest expected temperature. The first number will tell you the length (feet) of cable you need per foot of pipe. The second number indicates the recommended distance between each spiral wrap of cable on the pipe. The abreviation "str" indicates that the cable should be run in a straight line instead of spiral wrap.

#### Chart 1 for Plastic Pipes (based on use of 1/2" insulation)

Pipe	Lowest Expected Temperature						
Dia.	+20°F/-7°C	0°F/-18°C	-20°F/-29°C	-40°F/-40°C	-60°F/-51°C		
1/2"	1' Str	1' Str	1.5' 2-3/8"	2' 1-1/2"	2.4' 1-1/4"		
3/4"	1' Str	1.1' 7-1/4"	1.7' 2-3/8"	2.3' 1-1/2"	2.9' 1-174"		
1"	1' Str	1.3' 5"	2' 2-3/8"	2.7' 1-5/8"	3.3' 1-3/8"		
1-1/4"	1' Str	1.6' 4-1/4"	2.3' 2-1/2"	3.2' 1-3/4"	4.1' 1-3/8"		
1-1/2"	1' str	1.8' 4"	2.5' 2-5/8"	3.6' 1-3/4"	4.7' 1-3/8"		
2"	1' Str	2.1' 4"	3' 2-5/8"	4.3' 1-3/4"	5.4' 1-1/8"		

#### Chart 2 for Metal Pipes (based on use of 1/2" insulation)

Pipe	Lowest Expected Temperature					
Dia.	+20°F/-7°C	0°F/-18°C	-20°F/-29°C	-40°F/-40°C	-60°F/-51°C	
1/2"	1' Str	1' str	1' str	1.3' 3-1/8"	1.7' 2"	
3/4"	1' Str	1' Str	1.1' 7-1/4"	1.5' 3"	2' 2"	
1"	1' Str	1' 5"	1.3' 5"	1.8' 2-3/4"	2.4' 1-7/8"	
1-1/4"	1' Str	1.1' 11-1/2"	1.6' 4-1/4"	2.1' 2-7/8"	2.9' 1-7/8"	
1-1/2"	1' str	1.2' 9"	1.8' 4"	2.4' 2-3/4"	3.2' 1-7/8"	
2"	1' Str	1.5' 6-5/8"	2.2' 3-3/4"	2.8' 2-7/8"	3.9' 2"	

Multiply the cable length required per foot of pipe by the length of your pipe. Add one extra foot for each valve in your line. Maximum cable length is 75 feet. For cable lengths longer than 75 feet, use two cables. Use of longer length may cause the internal fuse to blow.

#### **1. Installing end seal:**

- Cleanly cut off the end of the cable.
- Use a pencil or screwdriver to unravel the braid back 1" from the cable end.
- Twist the braid into a tight pigtail
- Tape the braid pigtail back on top of the braided cable.
- E. Pushing firmly, insert the cable into the end seal all the way (at least 3/4"). Some gel may ooze out. DO NOT wipe it off.

DO NOT TWIST THE END SEAL DURING OR AFTER INSERTION. DO NOT REUSE AN END SEAL.

#### 2. Installing the plug:

NEVERATTEMPTTO MAKE PLUG/END SEAL ASSEMBLY WHILE PLUG IS CONNECTED TO POWER.

Before removing the cover screws, plug the power cord into a known functioning 120 volt power outlet to check the Power Light indicator. If the light is not lit, do not install the cable. Call Easy Heat for technical assistance.

- Unplug the power cord from outlet. Remove 2 cover screws. (Fig. 1)
- 2. Open cover.
- Loosen 2 assembly screws (approx. 1/4") but DO NOT FULLY REMOVE them. (See Fig. 2a)
- Cleanly cut 1" off the end of the cable.
- Insert braided cable into assembly screw fixture opening (tunnel). Allow braid to slide back as cable is inserted.
- 6. Push until the yellow jacket is seen from the opening as shown in Fig. 2b.
- The ground braid MUST NOT enter the assembly screw fixture opening because of the danger of it contacting one of the assembly screws, which will be live when the system is operational.
- Tighten the two assembly screws until they are both snug against the metal surfaces on top of the assembly screw fixture (5" pounds torque).
- Make sure that the ground braid covering the cable is in contact with the ground strip when plug put back together. This will complete the system's ground circuit.(Fig. 3)
- 10. Close cover and replace cover screws until snug.











Fig. 1

power light

cover screws



tape

3. Attaching cable:

A. Mount plug on pipe with plastic wraps

at plug end and run cable in either

spiral wrap or straight trace:

wraps

valve

distance between

end

seal

cable valve

cable

end seal

provided, within 2 feet of outlet. Start

SPIRAL

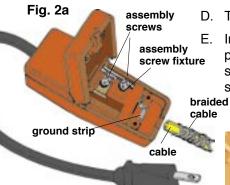
**STRAIGHT** 

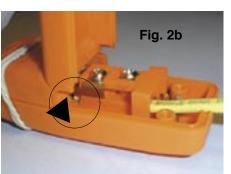
fused plug

fused plua

- B. Provide extra heat at spigot and valves by wrapping with one additional foot of cable, overlapping as required.
- C. Fasten cable tightly to pipe at 6" intervals with tape. If excess cable remains at end of pipe, DOUBLE IT BACK along the pipe where insulation will COMPLETELY cover it.
- D. Tape end seal/cable to pipe.

In a mobile home crock or stand pipe, NEVER install cable end seal where it would normally be submerged.







These instructions are provided to give you a basic idea of procedures. Consult the instructions provided with product for full details and



Notes		