www.engproducts.com

Welcome to
Engineered Products Company (EPCO)!

We are the premier brand supplier of specialty products to Electrical Distributors and Contractors. Headquartered in Minnetonka (a suburb west of Minneapolis), EPCO has supported the electrical industry since 1976 by supplying a broad range of standard and unique consumables for commercial, industrial, residential, and agricultural buildings.

Our reliable, durable, and quality products are designed and engineered with innovative product features specifically intended to save installation time and cost. And EPCO's unique display packaging provides exceptional convenience for Contractors.

Thousands of Distributors and Contractors know just how easy it is to do business with EPCO because we consistently ship and deliver on time, error-free, and risk-free.

When you select EPCO products, you join an exclusive group of Electrical Distributors and Contractors who demand the very best in electrical specialty products. All of our standard catalogued products are in stock in our 52,000 square foot warehouse and available for immediate shipment. We are committed to providing our customers with the "complete" quality customer service experience from technical support, easy ordering, shipping orders 100% complete in 24 hours or less, comprehensive post sale technical support, and "hassle-free" returns.

Our goal is to provide you with competitively priced, quality products with customer service and delivery dates that meet your requirements. If you don't see exactly what you need in our catalog, call or fax your product request to us today.

Everyone at Engineered Products Company appreciates your business!

Respectfully,

Jack Schuster, President
Engineered Products Company

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LIGHTING PRODUCTS

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RETROFIT LIGHTING

Our RetroFit Conversion Kits convert older 4-foot and 8-foot T8 or T12 strip-light fixtures into energy efficient T5 or T8 light fixtures. Each kit includes T5 or T8 Bi-Pin Lamp Sockets, RetroFit Bracket Socket Plates, and Self-Tapping Screws.

- Complies with UL Standard 1598B and 1598C.
- Pre-wired conversion kit brackets; the installer only needs to complete the bracket installation and ballast lead terminations.
- Pre-painted with smooth, glossy, highly reflective white paint.
- Includes pre-drilled holes for installing Ballast Cover or Reflectors.

BENEFITS FOR THE FACILITY OWNER

- Simple upgrade to an energy efficient T5 or T8 light fixture.
- The original light fixture housing is reused. This reduces the retrofit conversion time for a new T5 or T8 light fixture to half the cost and half the time compared to the installation of a new fixture.
- Improved efficiency, lighting quality, and longer lamp life.
- Simplifies your lamp inventory to one lamp type and color temperature.
- Converting old light fixtures to energy efficient T5 or T8 light fixtures will provide energy savings up to 49%, and the return on investment can be as short as 15 months.

DISTRIBUTOR BENEFITS

- The combination of our low cost RetroFit Conversion Kit, electronic ballasts, and T5 or T8 fluorescent lamps are recognized as the most energy efficient lighting system today.
- Our RetroFit Conversion Kits are made in the USA, complies with the American Recovery and Reinvestment Act (ARRA), and allows the Contractors to readily participate in Government sponsored lighting retrofit projects.

CONTRACTOR BENEFITS

- Viable retrofit opportunities in commercial, industrial, and institutional buildings that have not converted to the energy efficient T5 or T8 lighting systems.
- Labor savings! The combination of high efficiency ballast, T5 or T8 lamps, and the low cost of our RetroFit Conversion Kits is a fast and easy installation.
- Requires minimal rewiring.
- Minimal recycling on the job site.

RETROFIT LIGHTING

BALLAST COVERS AND REFLECTORS

- Tool-less installation. Quickly and easily attaches to the RetroFit Conversion Kit Bracket using 1/4 Turn Retainer Clips.
- Complies with the majority of utility rebate requirements.
- Optimizes light output and helps to reduce energy consumption.
- Standard Ballast Cover (Steel) - P/N 14080: White, Reflectance 92%.
- Nominal Length: 4-Feet.
- Aluminum Reflectors - Improves the usable light.
  – P/Ns 14091 (6-inch) and 14095 (10-inch): White, Reflectance 92%.
  – P/Ns 14092 (6-inch) and 14096 (10-inch): Specular, Reflectance 96%.

TYPICAL APPLICATIONS:

- Commercial and industrial facilities
- Factories
- Warehouses and storage areas
- Strip malls and shopping centers
- Schools and recreation areas
- Airport, train and bus terminals
- Fast food restaurants
- Other applications where retrofitting existing lighting systems will provide improved lumen output and energy savings.
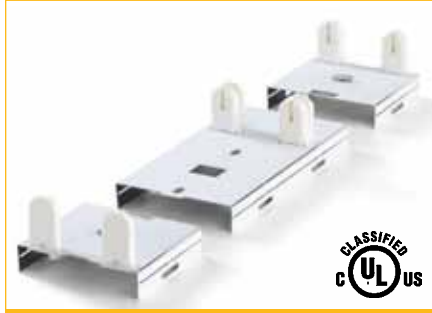
8-FT T8 RETROFIT KIT - P/N 14050

4-FT T8 RETROFIT KIT - P/N 14090

P/N 14080: Standard Ballast Cover

P/Ns 14091 and 14095: White Reflector

P/Ns 14092 and 14096: Specular Reflector

P/N 14085: 1/4 Turn Retainer Clips

10-Inch Reflector

5.10"
2.25"
2.5"
9.25"

6-Inch Reflector

4.58"
0.43"
5.40"
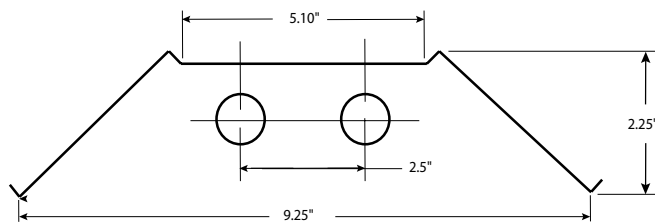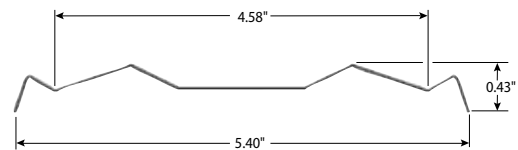
Part Numbers - 14060 and 14050: Converts an 8-foot, 2 Lamp T12 "strip-type" Light Fixture into an 8-foot, 4 Lamp T5 or T8 Light Fixture
(Shown with optional P/Ns 14080, 14095 or 14096)
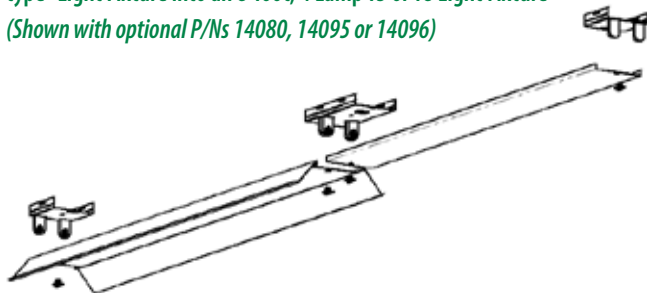
Note: *Does not include optional Ballast Cover or Reflectors.*

Part Numbers -14066 and 14090: Converts a 4-foot, 2 Lamp T12 "strip-type" Light Fixture into a 4-foot, 2 Lamp T5 or T8 Light Fixture
(Shown with optional P/Ns 14095 or 14096)
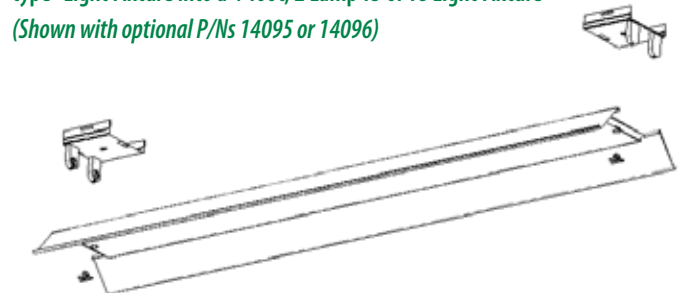
Note: *Does not include optional Ballast Cover or Reflectors.*

4   LIGHTING PRODUCTS
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RETROFIT LIGHTING

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
T5 RetroFit Conversion Kits										
14060†	14060	**T5 RetroFit Conversion Kit:** for 8-FT Fixture, 4 Lamp	EA	1	BG	10	10	10	Yes	14
14065†	14065	**T5 RetroFit Conversion Kit:** for 8-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	14
14066†	14066	**T5 RetroFit Conversion Kit:** for 4-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	14
14067†	14067	**T5 RetroFit Conversion Kit:** for 4-FT Fixture, 1 Lamp	EA	1	BG	10	10	10	Yes	14
T8 RetroFit Conversion Kits*										
14050	14050	**T8 RetroFit Conversion Kit:** for 8-FT Fixture, 4 Lamp	EA	1	BG	10	10	10	Yes	14
14051	14051	**T8 RetroFit Conversion Kit:** for 8-FT Fixture, 4 Lamp, with Jumper and WAGO® Connector	EA	1	BG	10	10	10	Yes	14
14055	14055	**T8 RetroFit Conversion Kit:** for 8-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	14
14056	14056	**T8 RetroFit Conversion Kit:** for 8-FT Fixture, 2 Lamp, with Jumper and WAGO Connector	EA	1	BG	10	10	10	Yes	14
14057	14057	**T8 RetroFit Conversion Kit:** for 4-FT Fixture, 1 Lamp	EA	1	BG	10	10	10	Yes	14
14070†	14070	**T8 RetroFit Conversion Kit:** for 8-FT Fixture, 2 Lamp, to be used with Programmed Start Ballast ONLY	EA	1	BG	10	10	10	Yes	14
14076†	14076	**T8 RetroFit Conversion Kit:** for 4-FT Fixture, 2 Lamp, to be used with Programmed Start Ballast ONLY	EA	1	BG	10	10	10	Yes	14
14090	14090	**T8 RetroFit Conversion Kit:** for 4-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	14
RetroFit Conversion Kit Accessories										
14080	14080	**Standard Ballast Cover:** White with 1/4 Turn Retainer Clips	EA	1	BX	20	20	20	Yes	27
14085	14085	**1/4 Turn Retainer Clips:** for Ballast Cover and Reflectors	EA	1	BG	40	40	40	Yes	1
14091	14091	**White Reflector:** 6-Inch - with 1/4 Turn Retainer Clips	EA	1	BX	20	20	20	Yes	14
14092	14092	**Specular Reflector:** 6-Inch - with 1/4 Turn Retainer Clips	EA	1	BX	20	20	20	Yes	14
14095	14095	**White Reflector:** 10-Inch - with 1/4 Turn Retainer Clips	EA	1	BX	20	20	20	Yes	16
14096	14096	**Specular Reflector:** 10-Inch - with 1/4 Turn Retainer Clips	EA	1	BX	20	20	20	Yes	16

Note: *1. **T8 RETROFIT KIT FOR USE WITH INSTANT START BALLAST ONLY EXCEPT P/NS 14070 AND 14076!**

2. *Accommodates fixture housing widths between 4.25" to 5.0".*

3. *Energy consumption and savings will vary based on the operating hours per day, the number of operating days per year, the energy cost from your local service provider, and lamp cost.*

†4. ***Our RetroFit Conversion Kits may be suitable for use with Linear LED Retrofit Lighting.*** *These designated RetroFit Conversion Kit part numbers fitted with "non-shunted" lamp holders are suitable for use with linear LED engines (T5 and T8 shaped LED tubes) as long as the LED engine is classified per UL 1598C.*

UTILITY LIGHTING

Our energy efficient and cost-effective Utility Light Fixtures and Accessories meet a very broad variety of lighting applications. We currently provide linear, multi-lamp fluorescent light fixtures as well as single-lamp utility light fixtures. Both light fixture types are UL listed for use in "damp" or "wet" lighting applications.

GFF AND GFFW SERIES™

The GFF and GFFW Series multi-lamp light fixtures high-efficacy, energy-efficient, and highly desirable NEMA 4X and IP 66/67 rating makes these light fixtures especially suitable for use in "wet" locations where high-pressure wash down is required. Easily configurable for a range of lighting applications using either T5 or T8 lamps, the fast installation saves time for the Contractor reducing the overall labor cost.

With capacity up to six T5 or T8 lamps, the GFF and GFFW Series is ideal for high-bay locations such as warehouses, parking garages, food processing facilities, commercial kitchens, pedestrians walkways, road tunnels, as well as other locations that require above-average lighting. In many of these installations, the use of GFF and GFFW Series light fixtures can reduce the number of fixtures required to meet your lighting needs.

PROSERIES™ AND PROSERIES GU24

The newest addition to our single lamp Utility Light Fixtures is the UL listed ProSeries™ Utility Light that is rated for use in "wet" locations. The ProSeries is available in two (2) "socket" base types, Edison-base and GU24! This UV resistant, high impact and corrosion resistant construction features a "unique" 18 cubic-inch junction box that provides capacity for running an additional power circuit that meets the National Electric Code junction box fill requirements. Many agricultural buildings are beginning to transition to this type of light fixture because of the lower maintenance cost and the opportunity to qualify for rebates from their local utility.

15000 SERIES

For agricultural and animal confinement applications, our single lamp Utility Light Fixtures have been a key factor for many years to support worker safety, improved animal production, and providing overall farmstead security. The core of our single-lamp light fixtures is the 15000 Series, UL listed and rated for use specifically in "damp" locations. We have sold more of these light fixtures than any other manufacturer primarily because of our outstanding quality and in-use longevity. Older barns and utility out-buildings that have substandard lighting systems could be greatly improved with the installation of our 15000 Series light fixtures.

GFF AND GFFW SERIES™ LIGHT FIXTURES

Our domestically manufactured GFF and GFFW Series Light Fixtures accommodate both T5 and T8 lamps, both rated for long life, energy efficiency, and more uniform lumen distribution. For high or low ceiling applications, the highly reflective coated finish of the GFF and GFFW light fixtures' gear tray surface translates into improved efficacy by providing more usable lumens per watt.

FEATURES

- UL Listed. Suitable for use in wet locations. File Number: E319552.
- Fast installation saves time and reduces labor cost.
- Reliable, durable, maintenance free performance!
- Meets the requirements of the 2011 National Electrical Code: Articles 410.10(A), 410.104(A), 410.130(G)(1), 547.5(C)(1) and (2), and 547.8(A) and (B).
- Long lasting fixtures will not deteriorate under most hostile environments when it is installed according to factory procedures.
- Suitable for indoor or outdoor use.
- Multiple configurations available in 2-foot, 4-foot and 8-foot lengths.
  Note: *The GFFW Light Fixture is only available in 4-foot length!*
- Ingress Protection – NEMA 4X and IP66/IP67 rated dust and moisture resistant luminaire; suitable for use in wet locations where high-power pressure wash-down is required.
- Gear tray: tethered and hinged for the GFF and GFFW, respectively. Both light fixtures provide quick access to the ballast wiring to simplify installation, power-to-ballast termination, and allow for easy ballast replacement.
- Continuous "poured-in-place" closed cell polyurethane gasket completely seals the fixture from dust and moisture.
- GFF Series Mounting Hardware allows the Contractor to pre-install the mounting brackets to the mounting surface without drilling into the fixture housing.
- Luminaire Disconnect: Enables the Electrical Contractor to easily and safely disconnect the incoming power to allow safe servicing of the GFF and GFFW Series Light Fixtures.
- Impact resistant acrylic diffusers withstand breakage from high power pressure washers; lowers replacement and maintenance costs.
- Solid reinforced fixture housings provide strong rigidity with no deflection. The fixture housing is rated 5VA-F1 fiberglass.*
- "Captive" Acetal (Plastic) or Stainless Steel Latches.
- Domestic Ballast Manufacturer.
- 100% factory tested before shipping. No Contractor callbacks!
- Two (2) 1/2" trade size knockouts on each end of the light fixture accommodate standard conduit fittings.

*__*Note:__* Quantified and tested by Underwriters Laboratories, reference UL 746C.*

GFF NARROW BODY

GFF WIDE BODY (GFFW)

TYPICAL APPLICATIONS:

- Food processing facilities
- Commercial kitchens
- Laundries
- Industrial facilities
- Saunas
- Car washes
- Storage buildings
- Pedestrian and Road Tunnels
- Parking Garages
- Elevator Shafts
- Refrigerators and Freezers
- Locker Rooms
- And more...

INGRESS PROTECTION

Continuous "poured-in-place" closed cell polyurethane gasket seals the GFF and GFFW Series Fluorescent Fixtures from dust and moisture and provides protection from −40ºC/−40ºF to 80ºC/176ºF.

GFF/GFFW OCCUPANCY SENSOR – THE "R" OPTION

Our GFF and GFFW Series Occupancy Sensor (OS) is the energy and cost efficient method to manage lighting systems in applications such as stairwells, warehouses, utility and maintenance buildings, storage areas, tunnels and more.

Installing our occupancy sensor can reduce energy consumption by almost 45%. Its installation lowers energy cost by operating similar to a light switch. The sensor turns the lights on when it senses activity in a room or area, then turns the lights off automatically after sensing no activity after a preset time.

UTILITY LIGHTING

FIXTURE LATCH OPTIONS

GFF Light Fixtures can be ordered with your choice of Acetal (Plastic) or Stainless Steel Latches.

Note: GFFW Light Fixtures are only available with Stainless Steel Latches.
Both cam-type latch options accommodate a variety of application environments.

Acetal (Plastic) Latches provide an exceptional combination of heat resistance, durability and strength over a wide range of ambient temperatures with minimal attachment of airborne particles.

Stainless Steel Latches are ideal for food processing facilities and related applications. These latches can withstand extreme temperatures for refrigerator and freezer applications as well as the chemicals present in car washes. They are also impervious to acidic conditions making them suitable for use in livestock containment buildings.

Tamper Resistant Screws can help the building owner save thousands of dollars in re-lamping cost by protecting the fluorescent lamps installed in the GFF and GFFW Light Fixtures from tampering, vandalism and theft.

Acetal (Plastic) Latch

Stainless Steel Latch

Tamper Resistant Screws

LAMP GUARD

Our Lamp Guards are constructed of cold-rolled steel wire and resistance welded in a rectangular grid pattern. The Lamp Guard attaches to directly to the GFF and GFFW Light Fixtures using the factory-mounted Acetal (Plastic) or Stainless Steel latches.

Material Finish: Silver powder coated epoxy; moisture and weather resistant.

Typical applications include:

- Classrooms
- Offices
- Lavatories
- Commerical Kitchens
- Restaurants
- Shopping Centers
- Factories
- Workshops
- Warehouses
- Parking Garages
- Gymnasiums
- Other areas where the fluorescent lamps may be exposed to forceful contact or damage.

Note: *Custom colors are available on special order. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.*

GFF

GFF Wire Spacing: Outside section: 2.75" x 3.0"
Center section: 3.0" x 3.0"

GFFW

GFFW Wire Spacing: Outside section: 2.75" x 3.0"
Center section: 3.0" x 3.5"

SPECULAR REFLECTORS

- Specular reflectors can reduce lighting energy costs by as much as 30%.
- Provides additional light into the work space.
- Delivers the highest efficacy at the lowest watts per square foot that enables lamps to perform to maximum efficiency.
- Two (2) reflector styles:
  - *The Basic Reflector* concentrates light to specific work areas and provides more uniform illumination.
  - *The Wide Reflector* provides a broader dispersion of light at higher and lower mounting levels in warehouses, manufacturing areas, factories, commercial kitchens, parking garages, as well as outdoor lighting applications.
- Both reflectors provide 95% reflectivity to enhance energy efficiency for more effective lighting.

Note: *Wide Reflector is available ONLY for 4-foot, two (2) lamp and 8-foot, four (4) lamp GFF Series Light Fixtures.*

GFFW - Specular Reflector
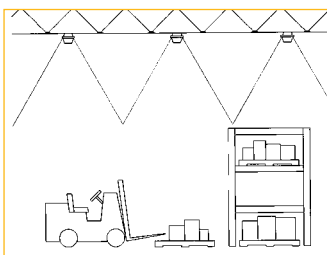
GFF - Basic Specular Reflector
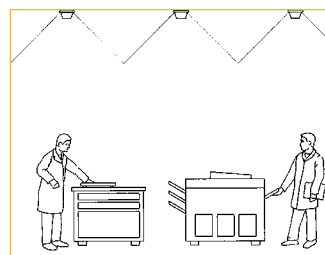
GFF - Wide Specular Reflector

IMPACT RESISTANT UV STABILIZED DIFFUSERS

- 100% Impact Resistant Acrylic Diffusers.
- No tools or fasteners are required to attach the Diffuser to the fixture housing.

GFF Acrylic Ribbed Diffuser is standard on all GFF Series Light Fixtures. The Basic Specular Reflector can be used with this Diffuser.

GFF Acrylic Clear Diffuser is intended for use with the Basic and Wide Specular Reflectors.

GFFW Acrylic Clear Diffuser is standard on all GFFW Series Light Fixtures.

Note: Each end of the Acrylic Clear Diffuser is frosted to minimize untargeted light dispersion. The GFF Acrylic Clear Diffuser is available for 4-foot and 8-foot GFF Series Light Fixtures ONLY.

GFF Acrylic Ribbed Diffuser

GFF Acrylic Clear Diffuser

GFFW Acrylic Clear Diffuser

GFF/GFFW FIXTURE SUSPENSION SYSTEM KIT

The GFF and GFFW Fixture Suspension Kit provides instant and "tool-less" infinite height adjustment when installing our GFF and GFFW Series Light Fixtures.

- Accommodates two (2) GFF Light Fixtures or one (1) GFFW Light Fixture.
- Easily suspends light fixtures, signage, mechanical, HVAC systems, and other objects that require suspension from beams, trusses, or joists.
- Eliminates the need for chain, S-Hooks, threaded rods and strut support nuts.
- Maintenance-free and requires no ongoing adjustments.
- Suspension Cable Length: 100-inches with two (2) 20-inch Y-cables and two (2) swaged spring-loaded steel hooks with bright nickel plating on Y-cable ends with fuse cut cable to prevent fraying.
- Safe Working Load: 75 lbs. (34 kg.)
- Minimal breaking strength: 420 lbs. (190.5 kg.)
- Maximum load rating for one (1) cable: 62 lbs. (28.1 kg.); two (2) cables: 124 lbs. (56.2 kg.)
- Warranty - one (1) year.
- One (1) kit includes:
  – Two (2) 1/16" (1.587 mm) x 10-foot galvanized steel cables with two (2) attached spring-loaded steel hooks ensure positive attachment. Steel Hook Inside Diameter: 0.5 inches.
  – Two (2) tool-less suspension cable adjustment blocks.

FIXTURE MOUNTING/HANGING HARDWARE

Fixture Mounting/Hanging Hardware is available for the GFF and GFFW light fixtures that eliminates drilling through the fixture housing to maintain the IP66/IP67 "wet" location ingress protection rating.

- *GFF Light Fixture: For Ceiling Applications (P/N: GFF-MH)* the fixture mounting hardware includes two (2) "snap-on" stainless steel fixture hanging brackets that attach to the underside of the fixture housing.

- *GFF Light Fixture: For Wall Mount Applications (P/N: GFF-WMH)* the fixture mounting hardware includes two (2) "snap-on" mounting brackets that attach to the outside of the fixture housing after the brackets have been mounted to desired wall mount location.

- *The GFFW* uses two (2) V-Hooks that are primarily used for chain or cable mounting applications to expedite fixture installation.

Installation Notice: We recommend the purchase and use of the Fixture Mounting Hardware when installing a 2-foot, 4-foot or 8-foot GFF Series Light Fixture and the V-Hooks when installing a 4-foot GFFW Series Light Fixture. Any GFF and GFFW Series Light Fixture that has been incorrectly installed by drilling, puncturing, piercing or any other means that will alter the integrity of the light fixture housing will void the warranty!

Bail Hanger: use for chain or cable hanging installations.

Mounting Bracket: use for ceiling hanging installations.

GFF-WMH: Wall Mount Fixture Mounting Hardware
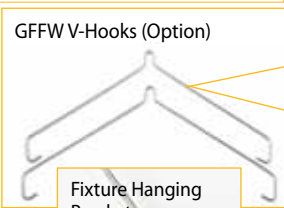
GFFW V-Hooks (Option)

Fixture Hanging Bracket
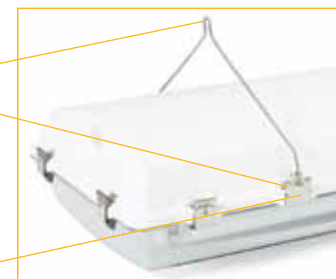
V-Hooks (Option): attach to the GFFW Fixture Hanger Bracket

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LIGHTING PRODUCTS   9

SURFACE MOUNT BRACKET- "Y" OPTION

The Surface Mount Bracket (SMB) provides the Contractor with the ability to locate and install a 2-foot, 4-foot or 8-foot GFF Series Light Fixture directly under or over a junction box to surface mount the fixture to a ceiling or wall.

- The ability to wire the GFF Series fixture directly into the junction box.
- Eliminates the cost and installation of a fixture whip and junction box cover plate.
- Reduces installation time and lowers labor cost.
- Providing a water and bug resistant seal that protects the critical area between the junction box's supply conductors and the light fixture. No adhesive sealant or gasket material is required.
- The finished installation of the light fixture will be more pleasing to the building owner without the fixture whip running across the ceiling.
- The SMB in combination with the GFF Light Fixture maintains its UL Listing for "wet" location applications.
- Eight (8) slotted holes to simplify and expedite installation.
- Compliant with 2011 National Electrical Code: Article 410.24(B).

Note: *The Surface Mount Bracket is a "factory installed" option and is not available for Sale as an Accessory or for Field Retrofit.*

We will pre-drill a hole in the GFF Series Light Fixture housing at the designated "number" location shown in the following diagrams to facilitate pulling the supply conductors from the junction box and into the fixture.

Junction Box

Patent Pending
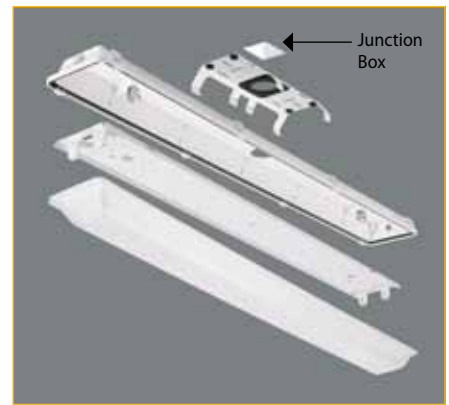
SURFACE MOUNT BRACKET: 2-FOOT GFF FIXTURE

Option - Y
Large Bracket

SURFACE MOUNT BRACKET: 4-FOOT GFF FIXTURE

Option - Y1
Large and Small Bracket

Option - Y2
Large Bracket

SURFACE MOUNT BRACKET: 8-FOOT GFF FIXTURE

Option - Y1
Large and Small Bracket

Option - Y2
Large and Small Bracket

Option - Y3
Large and Small Brackets (2)

GFF AND GFFW SERIES SPECIFICATIONS

GFF and GFFW Series Fluorescent Light Fixtures provide a degree of protection against the ingress of solid foreign objects (e.g., falling dirt), the ingress of water (e.g., hose directed water), protection against corrosion, and will be undamaged by the external formation of ice on the enclosure.

- UL Listed and approved for use in wet locations.
- Meets the requirements of the 2011 National Electrical Code: Article 410.10(A).
- NEMA 4X and IP66/67 rated as a water resistant luminaire; protected against dust and strong jets of water.
- Meets the requirements of NSF ANSI Standard 2.*
- Operating Voltage: 120V - 277 VAC @ 60 Hz.

National Sanitation Foundation (NSF International) is a leader in product certification and standards development. The NSF mark (NSF) is your assurance that all GFF and GFFW Series Light Fixtures have been tested and certified. This Standard establishes minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of the GFF and GFFW Series Light Fixtures in the area of food handling and food processing equipment.

SHIPPING WEIGHT (APPROXIMATE):

- 2-Foot GFF Series Light Fixture: 8 Lbs. (3.62kg)
- 4-Foot GFF Series Light Fixture: 13 Lbs. (4.98kg)
- 8-Foot GFF Series Light Fixture: 21 Lbs. (8.61kg)
- 4-Foot GFFW Series Light Fixture: 26 Lbs. (11.79kg)

RECOMMENDED LAMP TYPES

- T5 Lamps
- T8 Lamps

Warning: T8 HO and T8 VHO Lamps must not be used under any circumstances! You will damage the light fixture and void the warranty!

MINIMUM STARTING TEMPERATURE:

- T5 - High/Standard Output: -20ºF / 29ºC.
- T8 - Standard Output Ballast: 0ºF / 18ºC.
- T8 - High Ballast Factor (HBF): -20ºF / 29ºC.

Note: High Ballast Factor is a system operating a standard output lamp to a higher wattage and lumen performance within standard lamp design. High Output (HO) lamps operate with a higher current, thereby requiring ballasts to match the high output lamp designation and design.

GFF and GFFW Limited Warranty

Engineered Products Company (herein known as EPCO) warrants that it will repair, replace or refund, at EPCO's sole option, any GFF and/or GFFW Series Light Fixture that is defective in materials or workmanship for a period of one (1) year from the date of original purchase. This warranty only applies to the original purchaser and is not transferable.

This warranty does not apply to any of the following:

- Any GFF or GFFW Series Light Fixture that has been incorrectly installed by drilling holes, puncturing, piercing or any other means that will alter the integrity of the fixture housing.
- Product damage as determined by EPCO to be caused by a crash, impact, or obvious signs of abuse to the GFF or GFFW Series Light Fixture.
- Damage resulting from use of the GFF or GFFW Series Light Fixture in what EPCO, at its sole discretion, considers extreme applications.
- Damage caused by the use of parts, components, and/or other equipment(s) that is not compatible, suitable, and/or authorized by EPCO for use with the GFF or GFFW Series Light Fixture.
- No charge-backs for any labor required to remove, re-install, or re-power the GFF or GFFW Series Light Fixture.
- **Note:** The Chemical Resistance of Plastics Chart (posted on EPCO's web site) provides an overview of those chemical compounds where these light fixtures should not be installed.

The Ballast Warranty is five (5) years and is limited to the original purchaser only. Contact the ballast manufacturer directly for more specific information on their warranty policy and procedures.

EPCO GFF and GFFW Series Fluorescent Light Fixtures are Made in the USA. Complies with the American Recovery and Reinvestment Act - Buy American Provision.

GFF SERIES LIGHT FIXTURES - LAMPS PER FIXTURE

Maximum of three (3) T5 or T8 Lamps

2-Foot Fixture

Maximum of three (3) T5 or T8 Lamps

4-Foot Fixture

Maximum of six (6) T5 or T8 Lamps
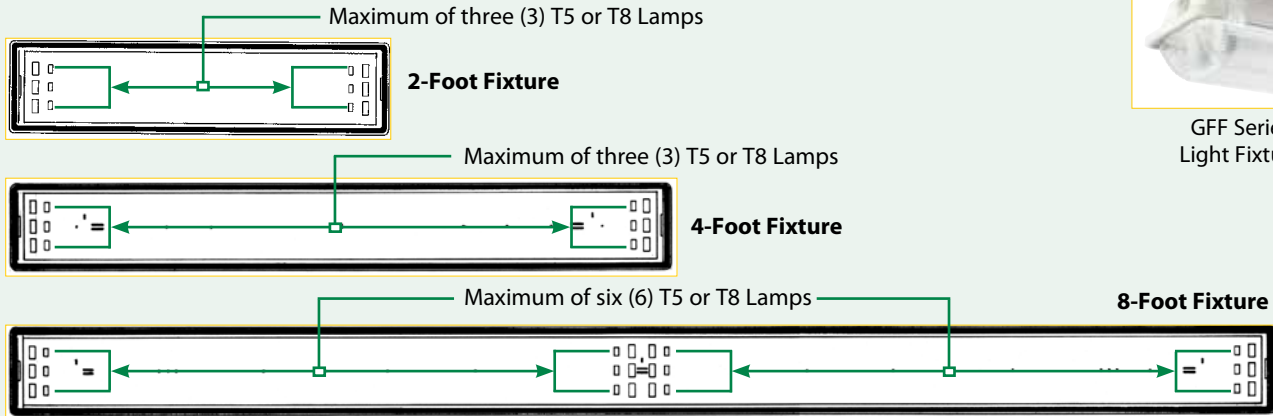
8-Foot Fixture

GFF Series
Light Fixture

Note: 1. Top down view of 2-foot, 4-foot and 8-foot GFF Series Gear Tray.
2. The GFF Series 8-foot Light Fixture <u>will not</u> accommodate 8-foot T8 lamps.

A	B	C	D	E	F	G	H	I
4.25" (1) / 5.75" (2)	6.812"	2.44"	49.7"	51.7"	100"	98.0"	27.7"	25.7"
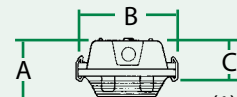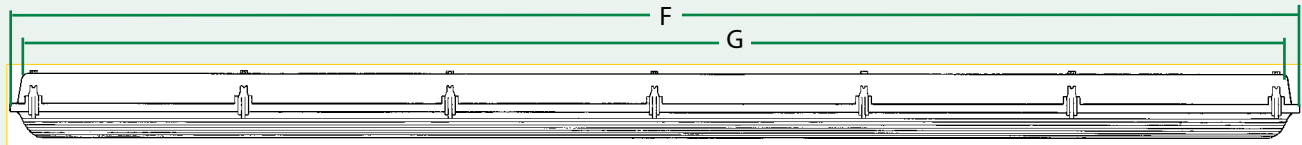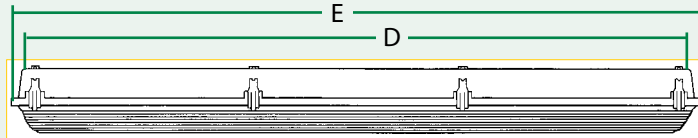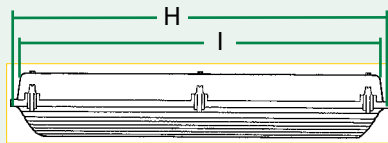
(1) Acrylic Ribbed Diffuser
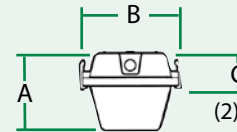
(2) Acrylic Clear Diffuser

Note: Dimensions "E", "F" and "H" reference the 1/2" trade size knockouts on each end of the light fixture.

GFFW SERIES LIGHT FIXTURE - LAMPS PER FIXTURE

Minimum of four (4) or Maximum of six (6) T5 or T8 Lamps

GFFW Series
Light Fixture
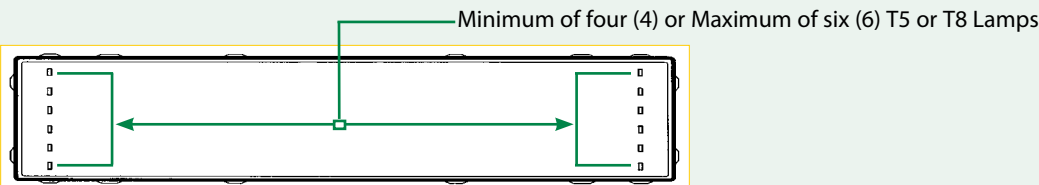
Note: Top down view of 4-foot GFFW Series Gear Tray.

A	B	C	D	E
6.125"	14.6"	3.0"	49.5"	51.5"
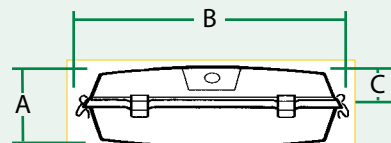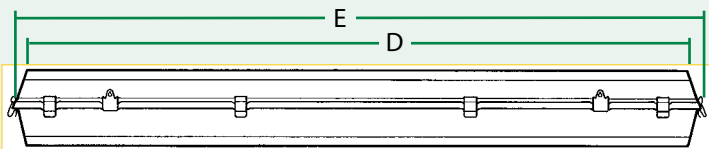
Note: Dimension "E" references the 1/2" trade size knockouts on each end of the light fixture.

UTILITY LIGHTING

GFF SERIES - ORDERING INFORMATION EXAMPLE

Note: *GFF Series Light Fixtures do not include T5 or T8 lamps!*

G 8 L6 T8 – B L S Y 3

GFF Series Light Fixture

Fixture	Length	Number of Lamps	Ballast Type
[G]	2 = 2-Feet 4 = 4-Feet 8 = 8-Feet	L1 = 1 Lamp L2 = 2 Lamps L3 = 3 Lamps L4 = 4 Lamps L6 = 6 Lamps	T5 - High Output T8 - Standard Output T8HBF - High Ballast Factor
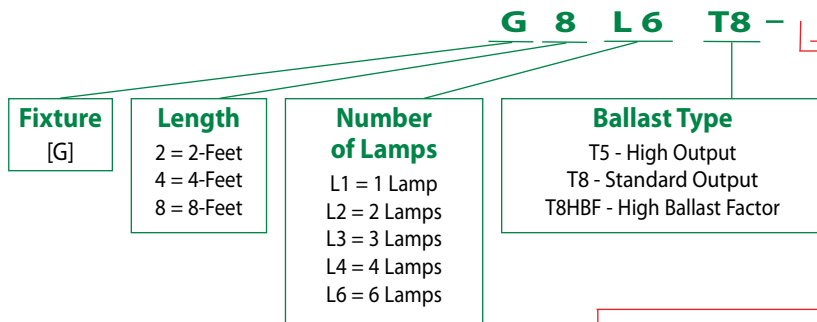
GFF Fixture Options

A. 6-Foot Power Cord (PSS6)
B. Basic Specular Reflector *(can be used with either the Acrylic Ribbed of Clear Diffuser)*
C. Acetal (Plastic) Latches *(See Note 2)*
E. Emergency Battery Back-up Ballast *(See Note 3)*
F. One (1) 1/2" Water Resistant Hub *(See Note 8)* *(required for Pendant Mounting a 2-foot or 4-foot fixture)*
G. Two (2) 1/2" Water Resistant Hubs *(See Note 8)* *(required for Pendant Mounting an 8-foot fixture)*
H. One (1) 3/4" Water Resistant Hub *(See Note 8)* *(required for Pendant Mounting a 2-foot or 4-foot fixture)*
I. Two (2) 3/4" Water Resistant Hubs *(See Note 8)* *(required for Pendant Mounting an 8-foot fixture)*
K. 3-Port Luminaire Disconnect *(required when a second ballast is installed)*
L. 2-Port Luminaire Disconnect *(included on all GFF Series Fixtures)*
M. Fixture Mounting Hardware for Hanging Applications *(two (2) per package)*
O. Wire Lamp Guard *(See Note 6)*
P. Wall Mount Brackets *(two (2) per package)*
Q. Clear Diffuser *(Note: The Acrylic Ribbed Diffuser is standard with all GFF Series Fixtures unless otherwise specified. Not available for the 2-foot GFF Light Fixture)*
R. Occupancy Sensor
S. Stainless Steel Latches
W. Wide Specular Reflector *(See Notes 4 and 5)*
Y. Surface Mount Bracket *(See Note 7)*
Z. Bulk Packaging *(25 or 50 per skid)*

The GFF Fixture can be built to your specifications by adding the respective item numbers.
Note:
1. When entering Bulk orders, do not include Mounting Hardware or Tamper Resistant Screws in your part numbering scheme.
2. Acetal (Plastic) Latches <u>ARE NOT</u> recommended for the following applications:
   - Swimming Pools because of the chlorine.
   - Food Processing because of the cleaning chemicals.
   - Car Washes because of the chemicals used.
   - Agriculture because of the ammonia.
3. Two (2) lamps is the maximum lamp configuration when specifying a T5 2-foot light fixture with an Emergency Battery Back-up Ballast.
4. The Wide Reflector for T5 and T8 lamps can only be used with two (2) lamp 4-foot GFF Fixtures or four (4) lamp 8-foot GFF Fixtures.
5. The Wide Reflector can only be used in conjunction with the Acrylic Clear Diffuser (Option Q). The Standard Acrylic Ribbed Diffuser will not fit! The Wide Reflector <u>WILL NOT</u> fit a 2-foot GFF Light Fixture.
6. When your part number includes the Wire Lamp Guard:
   - The Acrylic Diffuser is not included with the light fixture.
   - UL listing changes from a "wet" location to a "damp" location light fixture.
7. When adding the Surface Mounting Bracket (SMB - Y Option) to your part number, we will pre-drill a hole in the fixture housing at the designated "number" location shown in the diagrams, on page 10, to facilitate pulling the supply conductors from the junction box and into the light fixture. When specifying the Y Option for the 2-foot GFF Light Fixture, there is no designated "number" location. Just include the Y Option as part of your 2-foot light fixture order configuration.
8. When adding the Water Resistant Hubs the UL listing changes from a "wet" location to a "damp" location light fixture.

GFFW SERIES - ORDERING INFORMATION EXAMPLE

Note: *GFFW Series Light Fixtures do not include T5 or T8 lamps!*

W 4 L6 T5 – L N V

GFFW Series Light Fixture

Fixture	Length	Number of Lamps	Ballast Type
[W]	4 = 4-Feet	L4 = 4 Lamps L6 = 6 Lamps	T5 - High Output T8 - Standard Output T8HBF - High Ballast Factor
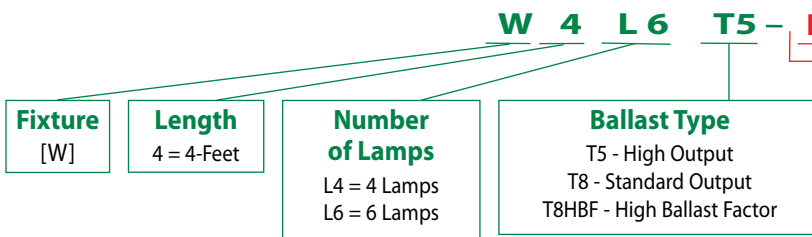
GFFW Fixture Options

A. 6-Foot Power Cord (PSS6)
E. Emergency Battery Back-up Ballast
G. Two (2) 1/2" Water Resistant Hubs *(See Note 3)* *(required for Pendant Mounting an 8-foot fixture)*
I. Two (2) 3/4" Water Resistant Hubs *(See Note 3)* *(required for Pendant Mounting an 8-foot fixture)*
L. Luminaire Disconnect *(included on all GFFW Series Fixtures)*
N. Specular Reflector
O. Wire Lamp Guard *(See Note 2)*
R. Occupancy Sensor
T. Tamper Resistant Screws
V. V-Hooks for Chain *(two (2) per Package)*
X. Two (2) Circuit Fixture

The GFFW Fixture can be built to your specifications by adding the respective item numbers.
Note:
1. Six (6) GFFW Fixtures is the minimum order quantity. We will not ship any GFFW Fixtures that do not meet the minimum order quantity requirement!
2. When your part number includes the Wire Lamp Guard:
   - The Acrylic Diffuser is not included with the light fixture.
   - UL listing changes from a "wet" location to a "damp" location light fixture.
3. When adding the Water Resistant Hubs the UL listing changes from a "wet" location to a "damp" location light fixture.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
GFF Series Light Fixture Accessories										
GFF-DC4	14251	**Replacement Clear Acrylic Diffuser:** for 4-FT GFF Series Light Fixture	EA	1	BX	5	5	5	Yes	10
GFF-DC8	14252	**Replacement Clear Acrylic Diffuser:** for 8-FT GFF Series Light Fixture	EA	1	BX	5	5	5	Yes	21
GFF-DR2	14335	**Replacement Ribbed Acrylic Diffuser:** for 2-FT GFF Series Light Fixture	EA	1	BX	5	5	5	Yes	5
GFF-DR4	14253	**Replacement Ribbed Acrylic Diffuser:** for 4-FT GFF Series Light Fixture	EA	1	BX	5	5	5	Yes	10
GFF-DR8	14254	**Replacement Ribbed Acrylic Diffuser:** for 8-FT GFF Series Light Fixture	EA	1	BX	5	5	5	Yes	21
GFF-FSSK	14256	**GFF/GFFW Fixture Suspension System Kit**	BG	2	BG	12	12	12	Yes	5
GFF-L2C	14336	**Replacement Acetal (Plastic) Latches:** for 2-FT GFF Series Light Fixture	BG	6	BG	0	0	6	Yes	1
GFF-L2SS	14337	**Replacement Stainless Steel Latches:** for 2-FT GFF Series Light Fixture	BG	6	BG	0	0	6	Yes	1
GFF-L4C	14240	**Replacement Acetal (Plastic) Latches:** for 4-FT GFF Series Light Fixture	BG	8	BG	0	0	8	Yes	1
GFF-L4SS	14239	**Replacement Stainless Steel Latches:** for 4-FT GFF Series Light Fixture	BG	8	BG	0	0	8	Yes	1
GFF-L8C	14250	**Replacement Acetal (Plastic) Latches:** for 8-FT GFF Series Light Fixture	BG	14	BG	0	0	14	Yes	1
GFF-L8SS	14249	**Replacement Stainless Steel Latches:** for 8-FT GFF Series Light Fixture	BG	14	BG	0	0	14	Yes	1
GFF-MH	14241	**Fixture Mounting Hardware:** for Ceiling Applications	BG	2	BG	0	0	2	Yes	1
GFF-SWLG4/8	14255	**Steel Wire Lamp Guard:** for 4-FT or 8-FT GFF Series Light Fixture	EA	1	BX	5	5	5	Yes	15
GFF-TPS-C	14248	**Tamper Resistant Stainless Steel Screws:** for Acetal (Plastic) Latches	BG	100	BG	0	0	1	Yes	1
GFF-TPS-S	14245	**Tamper Resistant Stainless Steel Screws:** for Stainless Steel Latches	BG	100	BG	0	0	1	Yes	1
GFF-WMH	14221	**Fixture Mounting Hardware:** for Wall Mount Applications	EA	2	BG	0	0	2	Yes	1
JC14B/100B	10205	**14 AWG Jack Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	30
DL3B/100B	10211	**14 AWG Bright Double Loop Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	30
GFFW Series Light Fixture Accessories										
GFF-FSSK	14256	**GFF/GFFW Fixture Suspension System Kit**	BG	2	BG	12	12	12	Yes	5
W-DC4	14238	**Replacement Clear Acrylic Diffuser:** for 4-FT GFFW Series Light Fixture	EA	1	BX	5	5	5	Yes	27
W-SWLG	50001	**Wire Lamp Guard:** for 4-FT GFFW Series Light Fixture	EA	1	BX	5	5	5	Yes	19
W-VHook	50002	**Fixture Hanging Hardware:** for 4-FT GFFW Series Light Fixture	BG	2	BG	0	0	2	Yes	2

Key: Order Unit: The Unit to be ordered; Unit Quantity: Number of same pieces in each Unit; Units per Case: Unit Packages contained in the case; Tʟ Cᴀsᴇ = Total Case Quantity: The number of similar items in the Unit Package; Unit Package: The type of Packaging; Mɪɴ Oʀᴅᴇʀ = Minimum Order Quantity: The smallest Unit to order; MM Rᴇǫ = Multiple Minimum Order Required: Must order multiples of Unit the quantities; Sʜɪᴘ Wᴛ = Shipping Weight: Total weight of the Unit Package; Order Unit / Packaging Types: BG = Bag; BRL = Barrel; BX = Box; BN = Bulk; LS = Loose; PKG = Package; RL = Roll; EA = Each; Package; LB = Pound; C = Hundred; M = Thousand

PROSERIES AND PROSERIES GU24 UTILITY LIGHT FIXTURES

- UL Listed. Suitable for use in wet locations. File Number: E182610.
- Appropriate for use with all non-metallic wiring systems.
- Provides the Contractor and Facility Manager with reliable, durable, maintenance free performance!
- Labor savings! Fast installation saves time and reduces labor cost.
- Versatile light fixture is suitable for numerous applications.
- Rated for use with circuit conductors up to 150°C.
- Can be used where high-pressure wash-down is required.
- UV resistant, high impact, corrosion resistant construction.
- Integrated Octi-Junction Box™ Cover:
  – Meets requirements of the 2011 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), 410.10(A), 410.104(A), 547.5(C)(1) and (2) and 547.8(A) and (B).
  – Provides extra junction box capacity for adding an additional power circuit.
  – Easy to install; uses eight (8) mounting brackets that are "in-line" with 1/2" and 3/4" trade size knockouts; eliminates a 2" x 4" stub-in by the installer.
    Note: The Octi-Junction Box is not sold separately and will not fit our Ceiling Mount Light Fixture P/Ns: 15050, 15051, 15055, and 15056.
- Optional impact resistant quarter-turn safety cage attaches to the Octi-Junction Box without tools.
- The 18 Cubic Inch Octi-Junction Box and the "optional" Safety Cage are made from Polybutylene Terephthalate (PBT) material.

Shown with optional Safety Cage

PROSERIES

TYPICAL APPLICATIONS:

- Food processing facilities
- Commercial kitchens ▪ Industrial facilities
- Livestock containment buildings
- Saunas ▪ Laundries ▪ Car washes
- Elevator shafts ▪ Storage buildings
- Refrigerators and Freezers
- Pedestrian and road tunnels

5.5"
4.1"
3.5"

ENGINEERED PRODUCTS COMPANY
MINNETONKA, MN
SERIES 15800
SUITABLE FOR WET LOCATIONS
FOR USE WITH NON-METALLIC
WIRING SYSTEMS ONLY
18 CUBIC INCH

7.25"
10.5"
*9.5"
3.875"
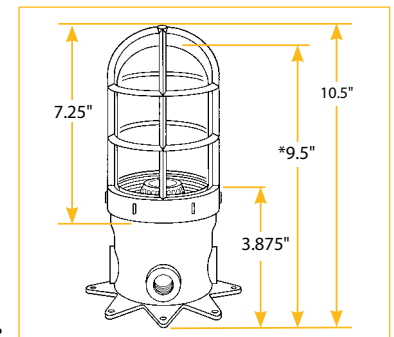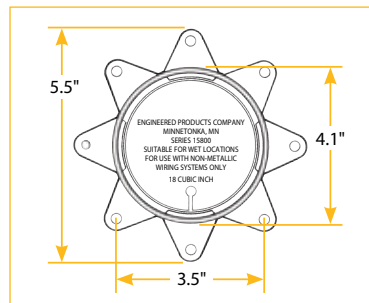
Note: Measured without the Optional Safety Cage

ProSeries (Edison Base) Octi-Junction Box Cover

18 Cubic Inch Octi-Junction Box uses eight (8) mounting brackets that are "in-line" knockouts; eliminates a 2" x 4" stub-in.

Meets the box fill requirements as referenced in the 2011 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), 410.10(A), 410.104(A), 547.5(C)(1) and (2) and 547.8(A) and (B). The Octi-Junction Box provides additional capacity for an extra power circuit.

Captive stainless steel set screw and posi-stop detent tab on Octi-Junction Box Cover expedites fixture installation.

Recessed Octi-Junction Box Cover with integral nickel-plated brass screw shell accommodates high profile incandescent or compact fluorescent lamps.

Captive stainless steel set screw secures the Octi-Junction Box Cover to the Octi-Box – expedites fixture installation.

Recessed Octi-Junction Box Cover with integral GU24 socket base accommodates high profile Bi-Pin Compact Fluorescent Lamps.

1/2" and 3/4" trade size knockouts.

Octi-Junction Box with ProSeries (Edison Base) Octi-Junction Box Cover

ProSeries GU24 Octi-Junction Box Cover

Octi-Junction Box with ProSeries GU24 Octi-Junction Box Cover

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
ProSeries Utility Light Fixture (Edison Base)										
15800	15800	**ProSeries Utility Light:** Standard Glass Globe; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	38
15801	15801	**ProSeries Utility Light:** Standard Glass Globe and Safety Cage; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	38
15805*	15805	**ProSeries Utility Light:** Acrylic Prismatic Globe; Rated for 60-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	41
15806*	15806	**ProSeries Utility Light:** Polycarbonate Clear Globe; Rated for 60-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	38
15807*	15807	**ProSeries Utility Light:** Acrylic Prismatic Globe (Tall); Rated for 60-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	26
15810	15810	**ProSeries Utility Light:** Tempered Glass Globe; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	26
15811	15811	**ProSeries Utility Light:** Tempered Glass Globe and Safety Cage; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BX	12	12	1	No	26
15812	15812	**Safety Cage:** 1/4 Turn Attachment	EA	1	BX	12	12	1	No	6
15815	15815	**Octi-Junction Box Cover:** with Porcelain Lamp Holder	EA	1	BX	12	12	1	No	4
15680	15680	**Compact Fluorescent Lamp:** 23-watt, Self-Ballasted Lamp (5000K); Light output is equal to 90-watt incandescent lamp	EA	1	BX	50	50	1	No	8
ProSeries GU24 Utility Light Fixture										
15865	15865	**ProSeries GU24 Utility Light:** Standard Glass Globe; Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	38
15867	15867	**ProSeries GU24 Utility Light:** Standard Glass Globe and Safety Cage; Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	39
15870*	15870	**ProSeries GU24 Utility Light:** Acrylic Prismatic Globe; Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	26
15873*	15873	**ProSeries GU24 Utility Light:** Polycarbonate Clear Globe; Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	39
15875*	15875	**ProSeries GU24 Utility Light:** Acrylic Prismatic Globe (Tall); Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	26
15880	15880	**ProSeries GU24 Utility Light:** Tempered Glass Globe; Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	38
15885	15885	**ProSeries GU24 Utility Light:** Tempered Glass Globe and Safety Cage; Rated for 23-watt GU24 Lamp (maximum)	EA	1	BX	12	12	1	No	39
15812	15812	**Safety Cage:** 1/4 Turn Attachment	EA	1	BX	12	12	1	No	6
15890	15890	**Octi-Junction Box Cover:** with GU24 Lamp Socket	EA	1	BX	12	12	1	No	4
15670	15670	**Compact Fluorescent Lamp:** 23-watt, GU24 Bi-Pin, Self-Ballasted Lamp (5000K); Light output is equal to 90-watt incandescent lamp	EA	1	BX	50	50	1	No	8

***Note:** Optional Safety Cage (Part Number 15812) will not fit ProSeries Part Numbers 15805, 15806, 15807, 15870, 15873 and 15875.*

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CEILING MOUNT LIGHT FIXTURES (EDISON BASE)

- Medium-Base, UL Listed. File Number: E182610. Suitable for use in damp locations.
- Meets the requirements of the 2011 National Electrical Code: Articles 314.16(A)(2), 314.17(C), 410.10(A) and 547.5(C)(1) and (2).
- High impact, corrosion resistant, compression molded phenolic junction box and fixture base.
- Glass and Tempered Glass Globes rated for 150-watt/A21 incandescent lamp (maximum), medium-base compact fluorescent or LED lamps.
- Polycarbonate and Acrylic Prismatic Globes rated for 60-watt/A19 incandescent lamp (maximum), medium-base compact fluorescent or LED lamps.
- All Ceiling Mount Fixtures are supplied with a cork mounting gasket and corrosion protected screws with rubber washer. Wired with 50°C (302°F) minimum supply wires (THHN).

TYPICAL APPLICATIONS:
- Walk-in Refrigerators
- Elevator Shafts
- Tunnels
- Storage Buildings
- Maintenance Areas
- Hog and Poultry Confinement Buildings

With Polycarbonate Clear Globe

3.72"
7.875"
6"
3.28"

Part Numbers
15005   15055

Glass and Tempered Glass Globes

7.4375"
6.7"
3.3"

Part Numbers
15050   15051

With Acrylic Prismatic Globe (Tall)

1.9375"
3.7"
11.625"
9.4375"
7.86"
3.3"

Part Numbers
15006   15056

FIXTURE GLOBE AND JUNCTION BOX DIMENSIONAL REFERENCE

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
With 12 Cubic Inch Junction Box (15045)										
15000	15000	**Utility Light:** 1/2" & 3/4" Knockout Combo - Glass Globe	EA	1	BX	12	12	12	Yes	24
15001	15001	**Utility Light:** 1/2" & 3/4" Knockout Combo - Tempered Glass Globe	EA	1	BX	12	12	12	Yes	24
15002	15002	**Utility Light:** 3/4" Knockout - Glass Globe	EA	1	BX	12	12	12	Yes	24
15005	15005	**Utility Light:** 1/2" & 3/4" Knockout Combo - Polycarbonate Globe	EA	1	BX	12	12	1	No	18
15006	15006	**Utility Light:** 1/2" & 3/4" Knockout Combo - Acrylic Prismatic Globe (Tall)	EA	1	BX	12	12	1	No	19
15007	15007	**Utility Light:** 1/2" & 3/4" Knockout Combo - Acrylic Prismatic Globe	EA	1	BX	12	12	1	No	19
Without Junction Box										
15050	15050	**Utility Light:** Standard Glass Globe	EA	1	BX	12	12	12	Yes	20
15051	15051	**Utility Light:** Tempered Glass Globe	EA	1	BX	12	12	12	Yes	20
15055	15055	**Utility Light:** Polycarbonate Clear Globe	EA	1	BX	12	12	1	No	14
15056	15056	**Utility Light:** Acrylic Prismatic Globe (Tall)	EA	1	BX	12	12	1	No	15
15090	15090	**Edison-Type Fixture Base:** Globe not included	EA	1	BX	12	12	1	No	7

Key: Order Unit: The Unit to be ordered; Unit Quantity: Number of same pieces in each Unit; Units per Case: Unit Packages contained in the case; TL Case = Total Case Quantity: The number of similar items in the Unit Package; Unit Package: The type of Packaging; Min Order = Minimum Order Quantity: The smallest Unit to order; MM Req = Multiple Minimum Order Required: Must order multiples of Unit the quantities; Ship Wt = Shipping Weight: Total weight of the Unit Package; Order Unit / Packaging Types: BG = Bag; BRL = Barrel; BX = Box; BN = Bulk; LS = Loose; PKG = Package; RL = Roll; EA = Each; Package; LB = Pound; C = Hundred; M = Thousand

UTILITY LIGHTING

STANDARD NON-METALLIC JUNCTION BOXES

- UL Listed. File Number: E182992.
- High impact, compression molded phenolic plastic rated to 150°C (302°F).
- Meets the requirements of the 2011 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), and 547.5(C)(1) and (2).
- Suitable for use in "wet or damp" locations.
- Corrosion resistant.

12 Cubic Inch

19 Cubic Inch

Round Junction Box Cover and Gasket

16 Cubic Inch

Single-Gang Junction Box Cover and Gasket

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15045	15045	**12 Cubic Inch Junction Box:** 1/2" and 3/4" Knockout Combo	EA	1	BX	12	12	12	Yes	6
15046	15046	**12 Cubic Inch Junction Box:** 1/2" Knockouts	EA	1	BX	12	12	12	Yes	6
15047	15047	**12 Cubic Inch Junction Box:** 3/4" Knockouts	EA	1	BX	12	12	12	Yes	6
15049	15049	**19 Cubic Inch Junction Box:** 3/4" Knockouts	EA	1	BX	12	12	12	Yes	6
15070	15070	**16 Cubic Inch Single-Gang FS Type Junction Box:** 1/2" Knockouts	EA	1	BX	12	12	12	Yes	6
15071	15071	**16 Cubic Inch Single-Gang FS Type Junction Box:** 3/4" Knockouts	EA	1	BX	12	12	12	Yes	6
15075	15075	**Single-Gang Junction Box Cover and Gasket**	EA	1	BX	12	12	12	Yes	2
15690	15690	**Universal Mounting Bracket**	EA	1	BG	0	0	1	No	6
15905	15905	**Round Junction Box Cover and Gasket**	EA	1	BX	12	12	12	Yes	2

SPIDERBOX™ NON-METALLIC JUNCTION BOXES

- UL Listed. File Number: E182992.
- Suitable for use in "wet or damp" locations.
- Corrosion resistant.
- Easy to install using the eight (8) mounting brackets that are in-line with knockouts.
- Eliminates a 2" x 4" stub-in.
- High impact compression molded phenolic plastic rated to 150°C (302°F).
- Meets the requirements of the 2011 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), 547.5(C)(1) and (2).

COMPACT FLOURESCENT LAMPS

23-Watt GU24 Bi-Pin Compact Fluorescent Lamp (P/N: 15670)

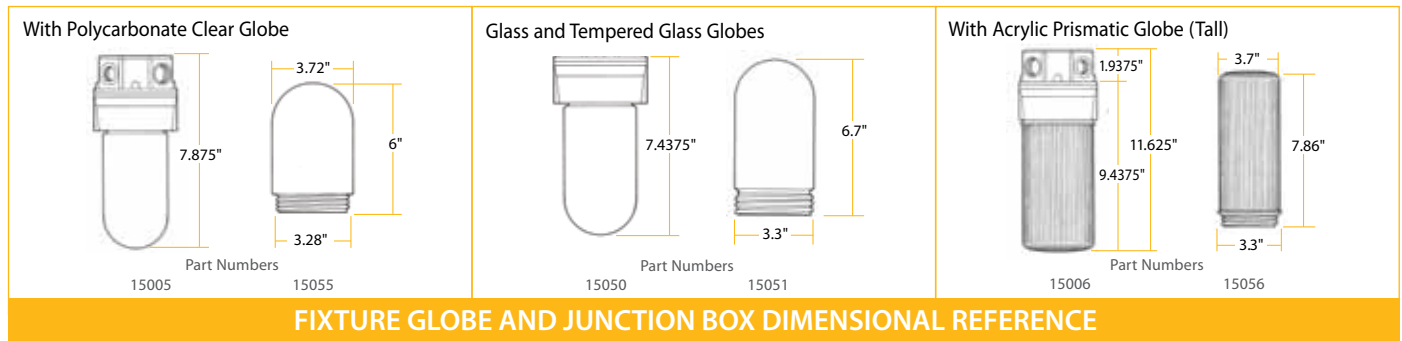| Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SPIDERBOX Non-Metallic Junction Boxes										
15246	15246	**12 Cubic Inch SPIDERBOX Junction Box:** 1/2" Knockouts	EA	1	BX	12	12	12	Yes	6
15247	15247	**12 Cubic Inch SPIDERBOX Junction Box:** 3/4" Knockouts	EA	1	BX	12	12	12	Yes	6
15905	15905	**Round Junction Box Cover and Gasket**	EA	1	BX	12	12	12	Yes	2
Compact Fluorescent Lamps										
15670	15670	**Compact Fluorescent Lamp:** 23-watt, GU24 Bi-Pin, Self-Ballasted Lamp (5000K); Light output is equal to a 90-watt Incandescent Lamp	EA	1	BX	50	50	1	No	8
15680	15680	**Compact Fluorescent Lamp:** 23-watt, Self-Ballasted Lamp (5000K); Light output is equal to a 90-watt Incandescent Lamp	EA	1	BX	50	50	1	No	8

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

UTILITY LIGHTING

FIXTURE GLOBES

GLASS AND TEMPERED GLASS GLOBES

- Withstands extreme temperature changes.
- Rated for use with a 150-watt/A21 incandescent lamp (maximum), medium-base compact fluorescent or LED lamp.

(a) Acrylic Prismatic Globe (Tall)
(b) Glass Globe
(c) Tempered Glass Globe
(d) Acrylic Prismatic Globe
(e) Polycarbonate Clear Globe

(a)   (b)   (c)   (d)   (e)

ACRYLIC PRISMATIC AND POLYCARBONATE GLOBES

- UV stabilized material. The Acrylic Prismatic Globes resist discoloration four times longer than polycarbonate material.
- 3 Year guarantee against discoloration from UV exposure. For applications that require high-pressure washdown.
- Acrylic Prismatic Globes feature internal ribbing and smooth exterior.
- Rated for use with a 60-watt/A19 incandescent lamp (maximum), medium-base compact fluorescent or LED lamps.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15015	15015	**Glass Globe**	EA	1	BX	32	32	32	Yes	34
15016	15016	**Tempered Glass Globe**	EA	1	BX	32	32	32	Yes	34
15020	15020	**Polycarbonate Clear Globe**	EA	1	BX	12	12	12	No	5
15025	15025	**Acrylic Prismatic Globe** (Tall)	EA	1	BX	12	12	12	No	5
15401	15401	**Acrylic Prismatic Globe**	EA	1	BX	12	12	12	No	5

Note: Fixture Globes are sold ONLY in case quantities.

NON-METALLIC UF CABLE CONNECTORS

- Compression type specifically designed for use with 14/2 or 12/2 AWG Romex® cable.
- Low profile design fits the smaller UF Cables as well as standard sizes.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15035	15035	**Non-Metallic UF Cable Connector – 1/2":** Accommodates 14/2 and 12/2 Romex Cable and our SPT 16/3 Flat Power/Appliance Cords	BG	12	BG	0	0	12	Yes	1
15040	15040	**Non-Metallic UF Cable Connector – 3/4":** Accommodates 14/3 and 10/2 Romex Cable and our SPT 16/3 Flat Power/Appliance Cords	BG	12	BG	0	0	12	Yes	1

REPLACEMENT LAMP SOCKET

- High temperature porcelain lamp socket with 6-inch 18 AWG stranded wire leads.
- Includes corrosion resistant nickel-plated brass screw shell.
- Can be used with 150-watt/A21 incandescent lamp (maximum), medium-base compact fluorescent or LED lamps.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15031	15031	**Replacement Lamp Socket:** Porcelain	BG	12	BG	0	0	12	Yes	1

Note: Porcelain lamp sockets are not interchangable with light fixtures built with phenolic sockets.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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LIGHTING PRODUCTS   19

UTILITY LIGHTING

WIRE GUARD

- Fits Glass, Tempered Glass and Acrylic Prismatic (short) Globes only.
- 8 AWG steel, with a three-coat electrolytic plating.
- Clamp-type attachment.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15063	15063	**Wire Guard**	EA	1	BX	0	0	1	No	2

WALL MOUNT LIGHT FIXTURES (EDISON BASE)

- UL Listed. Suitable for use in damp locations. File Number: E182610, Volume 2.
- Meets the requirements of the 2011 National Electrical Code: Articles 314.16(A)(2), 314.17(C), 410.10(A) and 547.5(C)(1) and (2).
- Can be used with incandescent lamps rated up to 150-watts/A21.*
- Globe options: Glass, Tempered Glass or Acrylic Prismatic.
- High impact, corrosion resistant construction.
- Medium-Base – fits 3.25" or 4.0" Junction Box.**
- Low cost alternative to Vapor Tight Light Fixtures.
- Nickel-plated Brass Screw Shell.
- UV resistant – will not fade or discolor.

* When used with Glass or Tempered Glass Globes.
** Use the optional universal mounting bracket (P/N: 15690) for residential junction box applications.
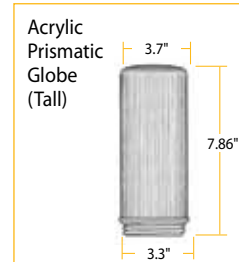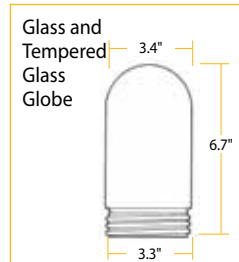
Black Fixture with Tempered Glass Globe

White Fixture with Acrylic Prismatic Globe (Tall)

Glass and Tempered Glass Globe — 3.4" — 6.7" — 3.3"

Acrylic Prismatic Globe (Tall) — 3.7" — 7.86" — 3.3"

23-Watt Spiral Fluorescent Lamp (P/N: 15680)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Wall Mount Utility Light Fixtures										
15600	15600	**Utility Light:** Tempered Glass Globe - Black	EA	1	BX	12	12	1	No	22
15605	15605	**Utility Light:** Tempered Glass Globe; 12 Cubic Inch Junction Box with Combination 1/2" and 3/4" Knockouts - Black	EA	1	BX	12	12	1	No	28
15610	15610	**Utility Light:** Acrylic Prismatic Globe (Tall) - Black	EA	1	BX	12	12	1	No	16
15615	15615	**Utility Light:** Acrylic Prismatic Globe (Tall); 12 Cubic Inch Junction Box Combination 1/2" and 3/4" Knockouts - Black	EA	1	BX	12	12	1	No	22
15620	15620	**Utility Light:** Tempered Glass Globe - White	EA	1	BX	12	12	1	No	22
15625	15625	**Utility Light:** Tempered Glass Globe; 12 Cubic Inch Junction Box with Combination 1/2" and 3/4" Knockouts - White	EA	1	BX	12	12	1	No	28
15630	15630	**Utility Light:** Acrylic Prismatic Globe (Tall) - White	EA	1	BX	12	12	1	No	16
15635	15635	**Utility Light:** Acrylic Prismatic Globe (Tall); 12 Cubic Inch Junction Box with Combination 1/2" and 3/4" Knockouts - White	EA	1	BX	12	12	1	No	22
Fluorescent Lamp										
15680	15680	**Compact Fluorescent Lamp:** 23-watt, Self-Ballasted (5000K); Light output is equal to a 90-watt Incandescent Lamp	EA	1	BX	50	50	1	No	8
Universal Mounting Bracket										
15690	15690	**Universal Mounting Bracket**	EA	1	BG	0	0	1	No	6

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

UTILITY LIGHTING

PORCELAIN AND PLASTIC LAMP HOLDERS

- UL Listed. File Number: E236781.
- Nickel-plated Brass Screw Shell will not corrode.
- For Commercial, Industrial, Residential and Agricultural Lighting Applications.
- Medium-Base fits 3.25 inch or 4.0 inch Outlet Box.
- UV resistant Lamp Holders will not fade or discolor.
- Optional Plastic and Metal Safety Cages fit all Edison Base Lamp Holders.
- Includes corrosion resistant mounting screws.
- Meets the requirements of the 2011 National Electrical Code:
  - Part Numbers: 16500, 16502, 16510, 16512 and 16514 - Articles 410.74(A)(B) and 410.122
  - Part Numbers: 16520, 16522, 16524 and 16526 - Articles 410.52, 410.74(A)(B) and 410.122

Part Number: 16500

Part Number: 16502

Part Number: 16510

Part Number: 16512

Part Number: 16514

Part Number: 16520

Part Number: 16522

Part Number: 16524

Part Number: 16526

Part Number: 16100

Part Number: 16501

Lamp Holder (P/N: 16512) shown with Metal Safety Cage (P/N: 16501)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16500	16500	**Porcelain Lamp Holder:** Keyless, 4-Terminal	EA	1	BX	48	48	48	Yes	33
16502	16502	**Porcelain Lamp Holder:** Pull Chain	EA	1	BX	48	48	48	Yes	35
16510	16510	**Plastic Lamp Holder:** Keyless, 4-Terminal	EA	1	BX	48	48	48	Yes	11
16512	16512	**Plastic Lamp Holder:** Pull Chain	EA	1	BX	48	48	48	Yes	13
16514	16514	**Porcelain Lamp Holder:** Pull Chain and 15 AMP Receptacle	EA	1	BX	48	48	48	Yes	40
16520	16520	**Porcelain Lamp Holder:** Keyless, 4-Terminal with 7" Black and White Conductors	EA	1	BX	48	48	48	Yes	33
16522	16522	**Porcelain Lamp Holder:** Pull Chain with 7" Black and White Conductors	EA	1	BX	48	48	48	Yes	35
16524	16524	**Plastic Lamp Holder:** Keyless, 4-Terminal with 7" Black and White Conductors	EA	1	BX	48	48	48	Yes	11
16526	16526	**Plastic Lamp Holder:** Pull Chain with 7" Black and White Conductors	EA	1	BX	48	48	48	Yes	13
16100	16100	**Safety Cage:** Yellow	EA	1	BX	10	10	10	Yes	1
16501	16501	**Safety Cage:** Metal	EA	1	BX	12	12	12	Yes	6

Note: *Lamp Holders are sold ONLY in case quantities of 48 per Carton.*

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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LIGHTING PRODUCTS   21

GU24 LAMP HOLDERS

KEYLESS

PULL CHAIN

TYPICAL APPLICATIONS:

- Closets
- Garages
- Attics
- Utility Rooms
- Basements
- Storage buildings
- Commercial, industrial, residential, and agricultural lighting
- And more...

3.10"

4.60"

3.75"

5.03"

- UL Listed.
- Includes 13-watt GU24 Bi-Pin compact fluorescent lamp (CFL) and polycarbonate lamp diffuser.
- Can be used with a standard wall switch.
- 13-Watt GU24 Bi-Pin compact fluorescent lamp:
  – Lamp Output = 900 lumens
  – Lamp Color = 2700K
  – Lamp Life (approximately 10,000 hours)
- Lamp Holder Rating: 120W-250VAC, 60Hz
- Impact resistant construction.
- 7" Conductors simplify installation.
- Suitable for indoor use only.
- Medium-Base fits 3.25 inch or 4.0 inch Outlet Box.
- Meets the requirements of the 2011 National Electrical Code: Articles 410.16(A)(2), 410.52, 410.74(A)(B), 410.722.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16530	16530	**GU24 Lamp Holder:** Keyless	EA	1	BX	24	24	24	Yes	11
16535	16535	**GU24 Lamp Holder:** Pull Chain	EA	1	BX	24	24	24	Yes	11
15675	15675	**Compact Fluorescent Lamp:** 13-watt, GU24 Bi-Pin, Self Ballasted Lamp (2700K)	EA	1	BX	25	25	1	No	8

Note: *Lamp Holders are sold ONLY in case quantities of 24 per Carton.*

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

22   LIGHTING PRODUCTS

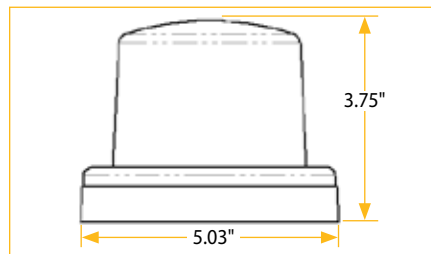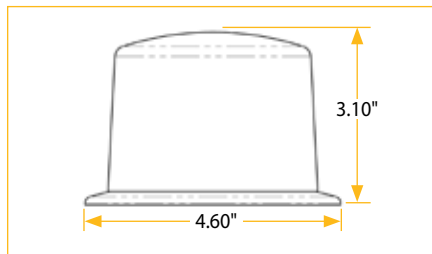Engineered Products Co. | P 800.336.1976 | F 800.336.2801 | www.engproducts.com
Specifications subject to change without prior notice.

FIXTURE WHIPS

We are the leading American manufacturer of fixture whips for the electrical construction industry. Our pre-wired armored cable fixture whips are factory fabricated wiring assemblies typically used for lighting and power distribution in commercial buildings.

Our Fixture Whips consist of flexible metal conduit (FMC), .375mm (3/8") and .5" (1/2") trade sizes and meet all requirements of the National Electrical Code (NEC), Article 348. These pre-assembled Fixture Whips provide an excellent mechanical protection and a cost-effective, reliable installation. The connectors used are designed to simplify the connection to metallic junction boxes and lighting fixtures. Typical applications include both new and remodeled commercial buildings, industrial facilities, shopping centers, hotels, as well as health care, educational and recreational facilities.

ADVANTAGES FOR THE CONTRACTOR

- A cost-effective and efficient alternative to traditional labor-intensive pipe and wire installation methods.
- Significantly reduces installation time to connect branch circuit power distribution and lighting systems.
- Fixture whip accessory products are available for the Contractor to expedite and facilitate installation.
- We can also build "custom" labor-saving Fixture Whips to the Contractor's specifications. Please review page 29 for more specific information.

WHY CONTRACTORS USE UL LISTED EPCO FIXTURE WHIPS

- 100% of our Fixture Whips are assembled in our facility using UL Listed or UL Recognized components.
- Permitted for use by virtually all local building codes and approved by Electrical Inspectors in the majority of municipalities across the U.S.
- A UL label attached to every Fixture Whip is an immediate identifier to the Electrical Inspector and Contractor that our fixture whips have been inspected at the factory, listed by UL (File Number E87199) and comply with the NEC.
- We provide product liability insurance as additional protection in the event of product defects that may cause a liability to the Contractor.
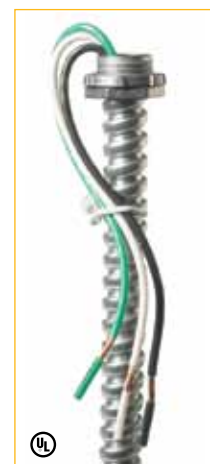
FIXTURE WHIPS WITH DIE CAST SCREW-IN CONNECTORS

- UL Listed. File Number: E87199.
- Stranded and Solid THHN Conductors.
- Includes Die Cast Screw-In Connectors on each end.
- Packaging - 30 per Carton or 100 in an extra strong fiber drum.
- Meets the requirements of the 2011 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.177(C), and 410.137(C).

Note: Specify packaging requirements when placing your order. Add the "C" suffix to indicate 30 Fixture Whips per Carton.

All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors.

We manufacture Fixture Whips for 277 Volt applications. Contact our Inside Sales Department *(800.336.1976 or sales@engproducts.com)* for more specific information.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wire Fixture Whips - 3/8" (.375") Conduit										
EPW1262	10311	**2-12 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263	10315	**3-12 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462	10303	**2-14 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463	10307	**3-14 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464	10308	**4-14 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662	10300	**2-16 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663	10301	**3-16 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664	10302	**4-16 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862	10297	**2-18 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863	10298	**3-18 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864	10299	**4-18 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Solid Wire Fixture Whips - 3/8" (.375") Conduit										
EPW1262S	10336	**2-12 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263S	10337	**3-12 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462S	10333	**2-14 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463S	10334	**3-14 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464S	10335	**4-14 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662S	10330	**2-16 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663S	10331	**3-16 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664S	10332	**4-16 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862S	10327	**2-18 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863S	10328	**3-18 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864S	10329	**4-18 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Stranded Wire Fixture Whips - 1/2" (.5") Conduit										
EPW1263-1/2	11600	**3-12 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	186
EPW1264-1/2	10286	**4-12 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	195
EPW1463-1/2	10309	**3-14 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1464-1/2	10313	**4-14 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
Solid Wire Fixture Whips - 1/2" (.5") Conduit										
EPW1263S-1/2	10314	**3-12 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	186
EPW1264S-1/2	10289	**4-12 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	195
EPW1463S-1/2	10575	**3-14 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1464S-1/2	10577	**4-14 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

FIXTURE WHIPS WITH DIE CAST SNAP-IN CONNECTORS

- UL Listed. File Number: E87199.
- Significant Labor Savings!
- 3/8" Flexible Steel Conduit; 6-foot length – Standard.
- Stranded and Solid THHN Conductors – Standard.
- Manufactured using UL Listed or UL recognized components.
- Packaging – 30 per Carton or 100 in an extra strong fiber drum.
- Meets the requirements of the 2011 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(C), and 410.137(C).

Note: Specify packaging requirements when placing your order. Add the "C" suffix to indicate 30 Fixture Whips per Carton.

All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors.

We manufacture Fixture Whips for 277 Volt applications. Contact our Inside Sales Department *(800.336.1976 or sales@engproducts.com)* for more specific information.

Die Cast Snap-In Fixture Whips Part Number Reference Example: E P W 1 8 6 4 S A D
18 = Wire Gauge; 6 = Length (in feet); 4 = Wires; S = Solid Wire; AD = Die Cast Snap-In Connector

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wire Fixture Whips										
EPW1262AD	10554	**2-12 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263AD	10556	**3-12 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1264AD	10558	**4-12 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1462AD	10560	**2-14 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463AD	10369	**3-14 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464AD	10442	**4-14 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662AD	10566	**2-16 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663AD	10517	**3-16 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664AD	10568	**4-16 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862AD	10569	**2-18 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863AD	10281	**3-18 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864AD	10280	**4-18 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Solid Wire Fixture Whips										
EPW1262SAD	10555	**2-12 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263SAD	10557	**3-12 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1264SAD	10559	**4-12 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1462SAD	10561	**2-14 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463SAD	10450	**3-14 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464SAD	10451	**4-14 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1862SAD	10570	**2-18 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863SAD	10367	**3-18 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864SAD	10368	**4-18 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

FIXTURE WHIPS WITH POLYCARBONATE SNAP-IN CONNECTORS

- UL Listed. File Number: E87199
- Significant Labor Savings!
- Stranded and Solid THHN conductors – Standard.
- Manufactured using UL Listed or UL recognized components.
- Packaging – 30 per Carton or 100 in an extra strong fiber drum.
- Meets the requirements of the 2011 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(C), and 410.137(C).

Note: Specify packaging requirements when placing your order. Add the "C" suffix to indicate 30 Fixture Whips per Carton.

All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors.

We manufacture Fixture Whips for 277 Volt applications. Contact our Inside Sales Department *(800.336.1976 or sales@engproducts.com)* for more specific information.

Polycarbonate Snap-In Fixture Whips Part Number Reference Example: E P W 1 8 6 4 S A
18 = Wire Gauge; 6 = Length (in feet); 4 = Wires; S = Solid Wire; A = Polycarbonate Snap-In Connector

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wire Fixture Whips										
EPW1262A	10318	**2-12 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263A	10319	**3-12 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462A	10316	**2-14 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463A	10317	**3-14 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464A	10326	**4-14 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662A	10323	**2-16 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663A	10324	**3-16 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664A	10325	**4-16 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862A	10320	**2-18 AWG Stranded Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863A	10321	**3-18 AWG Stranded Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864A	10322	**4-18 AWG Stranded Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Solid Wire Fixture Whips										
EPW1262SA	10347	**2-12 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263SA	10348	**3-12 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462SA	10344	**2-14 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463SA	10345	**3-14 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464SA	10346	**4-14 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662SA	10341	**2-16 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663SA	10342	**3-16 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664SA	10343	**4-16 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862SA	10338	**2-18 AWG Solid Wire:** 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863SA	10339	**3-18 AWG Solid Wire:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864SA	10340	**4-18 AWG Solid Wire:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

FIXTURE WHIPS

QUIKWHIP FIXTURE WHIPS

- UL Listed as a complete wire assembly that complies with the 2011 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(C), and 410.137(C). File #E87199.
- Significant Contractor time and labor savings!
- Pre-attached connectors add speed and dependability when finalizing fixture whip terminations.
  - Two (2) Die Cast "Snap-In" Connectors on each end of the QuikWhip. Snaps directly into the fixture housing.
  - WAGO® Pushwire 4-port connectors on each end of the QuikWhip.
- No tools required to install the QuikWhip! A cost-effective solution that eliminates lock nuts and wire nuts.
- Easily insert the fixture's conductors into the corresponding ports on the WAGO connector and you're finished. No wire nuts to twist or taping required.
- Average Time Savings: 45% or up to three (3) minutes per fixture installation.
- Approximate "installed" cost savings per fixture: $2.00 - $3.00.
- Solid or Stranded THHN Conductors enclosed in 6-feet of 3/8" (.375") Flexible Steel Conduit – Standard.

When you add-up your time and material cost, it makes economic sense to buy "pre-fabricated," ready-to-install QuikWhips from EPCO.

Note: The ground bonding conductor on each end of the QuikWhip includes a "green" WAGO grounding conductor.

Quikwhip Fixture Whips Part Number Reference Example: E P W 1 8 6 4 S A D P 2 - H N G
18 = Wire Gauge; 6 = Length (in feet); 4 = Wires; S = Solid Wire; AD = Die Cast Snap-In Connector; P = Pushwire Style Connector; 2 = Each End.
WAGO Connectors will be pre-attached to each end of the QuikWhip on the HOT, Neutral and Ground wires. HNG = Hot/Neutral/Ground.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wire QuikWhips										
EPW1463ADP1-HN	10546	**3-14 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1463ADP1-HNG	10540	**3-14 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1463ADP2-HNG	10531	**3-14 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1464ADP2-HNG	10532	**4-14 AWG:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171
Solid Wire QuikWhips										
EPW1263SADP1-HN	10548	**3-12 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	191
EPW1263SADP1-HNG	10542	**3-12 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	191
EPW1263SADP2-HNG	10535	**3-12 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	191
EPW1863SADP1-HN	10544	**3-18 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	161
EPW1863SADP1-HNG	10538	**3-18 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	161
EPW1863SADP2-HNG	10533	**3-18 AWG:** 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	161
EPW1864SADP1-HN	10545	**4-18 AWG:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1864SADP1-HNG	10539	**4-18 AWG:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1864SADP2-HNG	10534	**4-18 AWG:** 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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Specifications subject to change without prior notice.

LIGHTING PRODUCTS   27

RETROFIT FIXTURE WHIPS WITH DIE CAST SCREW-IN CONNECTORS

- UL Listed. File Number: E87199.

- Labor saving Fixture Whips that expedite the installation process when Contractors upgrade existing fluorescent fixtures with new energy saving ballast.

- All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors and eliminate lost lock nuts.

- Includes Die Cast Screw-In Connectors on each end.

Meets the requirements of the 2011 National Electrical Code: Article 410.137(C) as follows:

Wired luminaire (fixture) sections are paired, with a ballast(s) supplying a lamp or lamps in both. For interconnection between paired units, it shall be permissible to use metric designator 12 (trade size 3/8") flexible metal conduit in lengths not exceeding 7.5 m (25 ft) in conformance with Article 348. Luminaire (fixture) wire operating at line voltage, supplying only the ballast(s) of one of the paired luminaires (fixtures), shall be permitted in the same raceway as the lamp supply wires of the paired luminaires (fixtures).

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wire Retrofit Fixture Whips										
EPW18103	10400	**3-18 AWG Stranded Wire:** 3/8" Conduit, 10-FT Length - Black, White, Green	EA	1	BRL	100	100	10	Yes	133
EPW18104	10402	**4-18 AWG Stranded Wire:** 3/8" Conduit, 10-FT Length - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	142
Solid Wire Retrofit Fixture Whips										
EPW18103S	10401	**3-18 AWG Solid Wire:** 3/8" Conduit, 10-FT Length - Black, White, Green	EA	1	BRL	100	100	10	Yes	133
EPW18104S	10403	**2-16 AWG Solid Wire:** 3/8" Conduit, 10-FT Length - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	142

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

CUSTOM FIXTURE WHIP ORDER FORM

We will build "Labor Saving" Fixture Whips to your specifications. Please use the information below to specify your non-Catalog Custom Fixture Whip requirements. Complete this form and fax to:

Engineered Products Company, Attention: Inside Sales Department, FAX: 952.767.8786

If you need a quote on more than one Custom Fixture Whip, please complete a separate form for each variation.

Distributor:_____ Contact: _____

Address: _____ City: _____ State/Zip: _____

Sales Agency:_____ Contact Name: _____ Target Price ($):_____
(required)

Wire (TFFN or THHN): ☐ Solid ☐ Stranded

Wire Gauge: ☐ **12** ☐ **14** ☐ **16** ☐ **18**

Wire Lead Length: ☐ 6-inch ☐ 12-inch ☐ Other (specify) _____

Connector Type: ☐ Left End ☐ Right End (specify) _____
Select a connector type (number) _for each Fixture Whip_ from the _Connector Reference Guide_ shown below.

Wire Colors: ☐ Black ☐ White ☐ Red

☐ Green ☐ Blue ☐ Gray

☐ Brown ☐ Purple ☐ Pink

☐ Orange ☐ Yellow ☐ Other* (specify): _____

Conduit Material: ☐ 3/8-inch ☐ 1/2-inch (Flexible Metal, Steel)

Insulated Throat: ☐ Yes ☐ No

If your application requires a Connector other than what is shown in the Reference Guide, please indicate the following:

Connector Type: _____

Manufacturer: _____

Part Number: _____

Conduit Length:

☐ 6-Foot ☐ 8-Foot ☐ 10-Foot ☐ 12-Foot ☐ Other* _____ _* require longer lead times_

Quantity Needed: _____ **Requested Shipping Date:** _____

Description: _____

_____

Push-in Wire Connectors: Select wire color _AND_ choose which end requires a Push-in Wire Connector:

☐ Left End ☐ Right End ☐ Black   ☐ Left End ☐ Right End ☐ White   ☐ Left End ☐ Right End ☐ Red
☐ Left End ☐ Right End ☐ Green   ☐ Left End ☐ Right End ☐ Blue   ☐ Left End ☐ Right End ☐ Grey
☐ Left End ☐ Right End ☐ Brown   ☐ Left End ☐ Right End ☐ Purple   ☐ Left End ☐ Right End ☐ Pink
☐ Left End ☐ Right End ☐ Orange   ☐ Left End ☐ Right End ☐ Yellow

CONNECTOR REFERENCE GUIDE
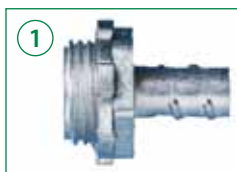
① Size: 3/8": P/N E00-001-000 / 1/2": P/N E00-026-000 **Type:** Screw-in **Material:** Die Cast **Insulated:** Yes or No (circle one)
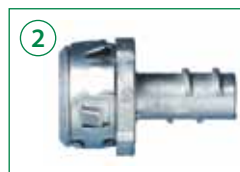
② Size: 3/8": P/N E00-003-000 / 1/2": P/N E00-005-000 **Type:** Screw-in/Snap-in **Material:** Die Cast **Insulated:** Yes or No (circle one)

③ Size: 3/8": P/N E00-003-001 **Type:** Set Screw, Snap-in **Material:** Die Cast **Insulated:** No

④ Size: 3/8": P/N E00-041-000 / 1/2": P/N E00-042-000 **Type:** Set Screw, Squeeze **Material:** Die Cast **Insulated:** No

⑤ Size: 3/8": P/N E00-002-000 / 1/2": P/N E00-013-000 **Type:** Exterior, Snap-in **Material:** Plastic w/Steel **Insulated:** Yes
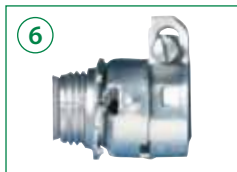
⑥ Size: 1/2": P/N E00-042-002 **Type:** Set Screw, Squeeze **Material:** Steel **Insulated:** Yes or No (circle one)

⑦ Size: 3/8": P/N E00-041-002 **Type:** Set Screw, Squeeze **Material:** Steel **Insulated:** No

⑧ Size: 3/8": P/N E00-007-000 / 1/2": P/N E00-010-000 **Type:** Set Screw, 90º **Material:** Die Cast **Insulated:** Yes or No (circle one)

⑨ Size: 3/8": P/N E00-015-000 / 1/2": P/N E00-005-001 **Type:** Snap-in, 90º **Material:** Die Cast **Insulated:** No

⑩ Size: 3/8": P/N E00-003-003 / 1/2": P/N E00-004-003 **Type:** Speed Lock Style, Snap-in **Material:** Steel **Insulated:** Yes

TUBE GUARDS

Make us your resource for Standard and UV filtering fluorescent tube guards! Their primary function is to provide superior protection against broken glass and sparks that can result when fluorescent lamps shatter.

Our Tube Guards are "add-on" polycarbonate sleeves that are held in place around the linear fluorescent lamp by two (2) plastic end caps. We always recommend using the end caps to maintain an air space between the fluorescent lamp wall and the inside of the tube guard when placed around the lamp.

Note: It is extremely important to properly install our tube guards utilizing the supplied end caps. Improperly installed tube guards that come into direct contact with the fluorescent lamp wall may cause premature lamp failure.

The average temperature to manufacturer polycarbonate tube guards is approximately 500°F. While some manufacturers might use recycled polycarbonate material for tube guard production, we only use virgin polycarbonate material for the best stability and long-term reliability. This means the melting point for our tube guards is much higher and lowers the probability of them melting or deforming at the end of the fluorescent lamp's life. When the lamp and ballast system is wired correctly, the lamp and tube guard combination will function satisfactorily during normal lamp life. However, toward the end of the lamp's life, the ends of the lamp create excessive heat that may cause the tube guard to heat up, distort and discolor. We always recommend using Heat Sink Screens (P/N: 17893 - T5 HD, 17800 - T8, 17860 - T12) during the initial installation of new tube guards or when retrofitting and reusing tube guards.

ADVANTAGES FOR THE CONTRACTOR

- Standard Tube Guards satisfy OSHA, FDA and USDA requirements for food processing, commercial businesses and industrial plants.
- UV Filtering Tube Guards screen out harmful ultra-violet light emissions.

WHY CONTRACTORS USE EPCO TUBE GUARDS

- Our Standard Tube Guards are always "in-stock" and available for immediate shipping.
- End caps are included.
- Easy to install without the use of tools.
- Efficient, cost-effective and provides maximum protection against lamp breakage.

TUBE GUARDS

STANDARD TUBE GUARDS

The Standard Tube Guard is a light stabilized polycarbonate and has 0% transmittance below 365 nanometers (Clear Tube Guards only). Available Colors: Clear, Amber, Red, Green, Yellow and Blue. Available Sizes: T5, T8, and T12.

- An efficient economical solution where fluorescent lamp breakage would be hazardous to personnel, product, equipment or animals.
- Slip over fluorescent lamps to retain shattered glass and control the release of mercury vapor and phosphorescent material.
- Constructed of unbreakable lexan polycarbonate.
- "Cut-to-order" custom lengths are also available. Contact our Inside Sales Department *(800.336.1976 or sales@engproducts.com)* for more information.

T5 HD SERIES TUBE GUARDS

Using T5 lamps is a cost-effective lighting systems solution for a variety of reasons. Unfortunately the average T5 lamp will dissipate about 73% of its total lamp power as heat. And when this lamp is used in combination with a tube guard, that heat must be properly dissipated from the lamp.

Our T5 HD (Heat Dissipation) Series Tube Guard takes into consideration two major factors; the temperature on the inside of the tube guard, and how close the T5 lamp is actually located to the tube guard.

- Our T5 HD Series Tube Guard's larger diameter and its "vented" End Caps allow a layer of air to absorb heat from the lamp and cool it before making contact with the inside wall of the tube guard. This results in a 25°F temperature drop.*
- The larger diameter of the T5 HD Series Tube Guard allows it to accommodate Heat Sink Screens to control and distribute heat, in addition to lowering the temperatures over a larger area on the end of the tube guard.

  Note: We strongly recommend using Heat Sink Screens with our T5 HD Series Tube Guards.

- The combination of the T5 HD Series Tube Guard, "vented" End Caps, and Heat Sink Screens lower the inside temperature of the tube guard approximately 30°F.**
- Together, these components provide a unique operational advantage over other competitors T5 tube guards and still fits all T5 lamp applications.

STANDARD TUBE GUARDS

TYPICAL APPLICATIONS:
- Food Processing Facilities
- Commercial Kitchens
- Grocery Stores
- Laundries
- Industrial Facilities
- Saunas
- Car Washes
- Storage Buildings
- Pedestrian and Road Tunnels
- Parking Garages
- Elevator Shafts
- Refrigerators and Freezers
- Locker Rooms
- And more...

T5 HD Series "Vented" End Cap

T5 HD Series Heat Sink Screen

T5 HD Series Tube Guard

TEMPERATURE TESTING	
CONFIGURATION	**TEMPERATURE***
Original T5 Tube Guard	215°F
T5 HD Series Tube Guard and "Vented" End Caps	190°F*
T5 HD Series Tube Guard, "Vented" End Caps and Heat Sink Screen	185°F**

Note: The temperature is measured on the inside surface of the Tube Guard. The ambient testing temperature was 72°F using a T5 F54 HO Lamp.

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LIGHTING PRODUCTS   31

TUBE GUARDS

EPCO's YELLOW TUBE GUARDS - How do they work?

Insects and humans have different visual perceptions. Light sources that radiate ultraviolet energy and blue light are most attractive to insects. Light sources that insects have a difficult time seeing are "yellow" hues in the color spectrum. Our yellow tube guards will minimize the number of insects.

TYPICAL APPLICATIONS

- Commercial businesses that maintain night-time operations such as gas stations, fast food restaurants, etc.
- Commercial food preparation and serving areas
- Parking lots loading areas
- Airport, Train and Bus Stations
- Building entrances
- Decks and patios

YELLOW TUBE GUARDS

STANDARD AND UV FILTERING TUBE GUARD DIMENSIONS

T5 HD SERIES TUBE GUARDS		
DIM. "A"	DIM. "B"	NOMINAL LENGTH
44.68	45.27	4'

T8 TUBE GUARDS		
DIM. "A"	DIM. "B"	NOMINAL LENGTH
46.38	47.10	4'
68.56	69.28	6'
92.38	93.10	8'

T12 TUBE GUARDS		
DIM. "A"	DIM. "B"	NOMINAL LENGTH
46.12	47.25	4'
68.56	69.67	6'
92.12	93.25	8'

"A" – Cut Tube Length

T5

"B" – Overall Length

"A" – Cut Tube Length

T8

"B" – Overall Length

"A" – Cut Tube Length

T12

"B" – Overall Length
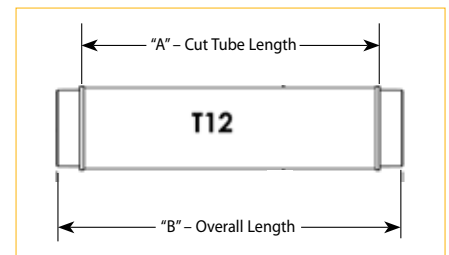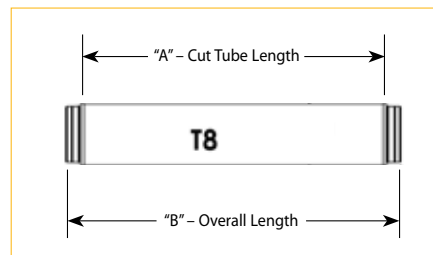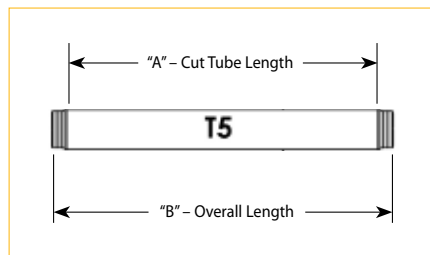
Note: *Dimension "B" includes End Caps.*

STANDARD TUBE GUARD END CAPS (BLACK)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
17103	17103	**End Caps:** for T5 HD Series, "Vented"	BG	48	BG	0	0	48	Yes	1
17100	17100	**End Caps:** for T8	BG	48	BG	0	0	48	Yes	1
17101	17101	**End Caps:** for T12	BG	48	BG	0	0	48	Yes	1

Note: *End Caps for T5 HD Series, T8 and T12 Tube Guards fit inside the Tube Guard.*

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
T5 HD Series 4-Foot										
17183*	17183	**Clear Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	48	48	48	Yes	6
17184*	17184	**Clear Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	120	120	120	Yes	16
17194†	17194	**Amber Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17195†	17195	**Red Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17196†	17196	**Green Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17197†	17197	**Blue Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17199†	17199	**Yellow Polycarbonate:** with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
T8 4-Foot										
17000	17000	**Clear Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	6
17005	17005	**Amber Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	6
17010	17010	**Red Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	6
17015	17015	**Green Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	6
17020	17020	**Blue Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	6
17025	17025	**Yellow Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	6
T8 6-Foot										
17050	17050	**Clear Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	8
T8 8-Foot										
17030	17030	**Clear Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
17031	17031	**Amber Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
17032	17032	**Red Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
17033	17033	**Green Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
17034	17034	**Blue Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
17035	17035	**Yellow Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
T12 4-Foot										
17060	17060	**Clear Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	7
17065	17065	**Red Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	7
17070	17070	**Amber Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	7
17075	17075	**Yellow Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	7
17080	17080	**Blue Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	7
17085	17085	**Green Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	7
T12 6-Foot										
17040	17040	**Clear Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	10
T12 8-Foot										
17087	17087	**Red Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	13
17088	17088	**Green Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	13
17089	17089	**Blue Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	13
17090	17090	**Clear Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	13
17091	17091	**Amber Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	13
17092	17092	**Yellow Polycarbonate:** with Black End Caps	EA	1	BX	24	24	24	Yes	13

Note: *1. Standard Tube Guards are sold ONLY in case quantities of 24 per Carton. We will not break case carton quantities! The exception is the T5 HD Series - Clear, which is available in carton quantities of 48 and 120 Units (P/Ns: 17183 and 17184).

†2. Indicates long lead time. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.

3. Standard Tube Guards are not intended for use with HO or VHO Lamps! The exception is the T5 HD Series Tube Guard that is rated for use with a T5 HO Lamp.

4. Tube Guards, other than sizes and colors listed, can be special ordered. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.

EPCO Standard Tube Guards are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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LIGHTING PRODUCTS   33

UV FILTERING TUBE GUARDS

- Our UV Filtering Tube Guards provide the basic reduction of harmful UV energy by filtering 99% of harmful UV rays up to 390 nanometers.*
- Manufactured using thin-wall high tensile and impact resistant polycarbonate material that is flexible to grasp the lamp to facilitate lamp changes; does not easily crack.
- Special UV additive filters UV rays better than acrylic materials with comparable wall thickness (0.016" wall thickness).
- Minimizes premature color shifting (fading) and deterioration that can be detrimental to food products, paper, natural and synthetic textiles, paints, coatings, wood and polymer materials, inc.
- Provides years of protection from dangerous UV light.
- Can readily be "field-cut" to length if desired.
- Manufactured to the highest quality standards.
- Sizes: T5, T8, and T12.
- Available in nominal 4-foot and 8-foot lengths.

Note: Tested by two independent light testing laboratories.

UV FILTERING TUBE GUARDS

TYPICAL APPLICATIONS:

- Food Service
- Commercial Kitchens
- Photography Studios
- Grocery Stores
- Fabric Stores
- Movie Theaters
- Book Stores
- Libraries
- Furniture Stores
- Warehouses
- Special lighting applications where UV protection is required

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
T5 HD Series 4-Foot										
17206	17206	**Clear UV Filtering:** with "Vented" Green End Caps	EA	1	BX	24	24	24	Yes	4
T8 4-Foot										
17201	17201	**Clear UV Filtering:** with Green End Caps	EA	1	BX	24	24	24	Yes	7
T8 8-Foot										
17202	17202	**Clear UV Filtering:** with Green End Caps	EA	1	BX	24	24	24	Yes	12
T12 4-Foot										
17203	17203	**Clear UV Filtering:** with Green End Caps	EA	1	BX	24	24	24	Yes	8
T12 8-Foot										
17204	17204	**Clear UV Filtering:** with Green End Caps	EA	1	BX	24	24	24	Yes	15

Note: 1. UV Filtering Tube Guards are sold ONLY in case quantities of 24 per Carton. We will not break case carton quantities.
2. UV Filtering Tube Guards are not to be used with HO or VHO fluorescent lamps! The exception is the UV Filtering T5 HD Series Tube Guard that is rated for use with a T5 HO lamp.

UV FILTERING TUBE GUARD END CAPS (GREEN)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
17303	17303	**End Caps:** for T5 HD Series, "Vented"	BG	48	BG	0	0	48	Yes	1
17300	17300	**End Caps:** for T8	BG	48	BG	0	0	48	Yes	1
17301	17301	**End Caps:** for T12	BG	48	BG	0	0	48	Yes	1

Note: End Caps for T5, T8 and T12 Tube Guards fit inside the Tube Guard.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

34   **LIGHTING PRODUCTS**

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HEAT SINK SCREENS

We recommend the use of Heat Sink Screens with all of our Tube Guards to aid in controlling heat that is generated by the fluorescent lamp. The primary function of our Heat Sink Screens is to distribute heat and lower the temperatures of the fluorescent lamp over a larger area at each end of the Tube Guard.

The Heat Sink Screens are available in sizes for the T5 HD Series Tube Guard, as well as T8 and T12 Tube Guards.

T8 End Cap

T8 Heat Sink Screen

T8 Tube Guard
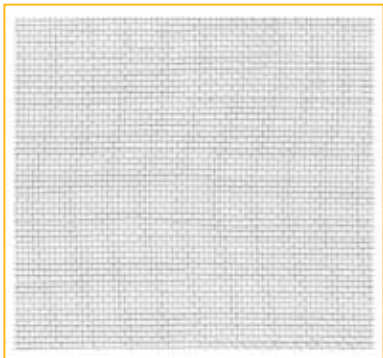
T5 HD SERIES HEAT SINK SCREEN
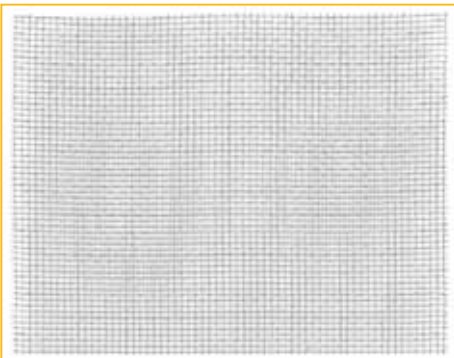
T8 HEAT SINK SCREEN
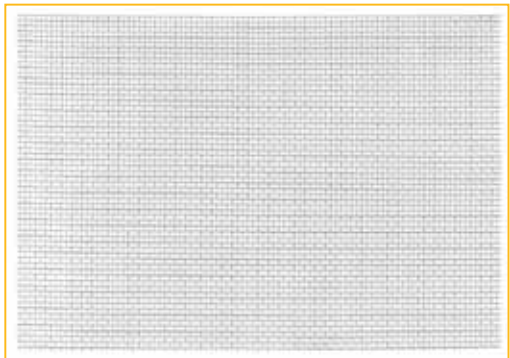
T12 HEAT SINK SCREEN

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
17893	17893	**Heat Sink Screen:** for T5 HD Series Tube Guards	BG	2	BG	0	0	2	Yes	1
17800	17800	**Heat Sink Screen:** for T8 Tube Guards	BG	2	BG	0	0	2	Yes	1
17860	17860	**Heat Sink Screen:** for T12 Tube Guards	BG	2	BG	0	0	2	Yes	1

Note: *Heat Sink Screens are not to be used with HO or VHO lamps! The exception is the T5 HD Series Heat Sink Screen that is rated for use with a T5 HO lamp.*

⚠ WARNING

We recommend using Heat Sink Screens with all Tube Guards.

It is safe to use our Tube Guards preferably in conjunction with electronic high efficiency ballasts that are designed to prevent over-heating of the lamp during use and at the lamps's "end of life."

We <u>do not recommend</u> using our Tube Guards under any condition where the surface temperature of the lamp can exceed 225°F (107°C) or in any enclosed light fixture where normal venting is prohibited.

Heat Sink Screens T5 HD Series: Part Number 17893
Heat Sink Screens T8: Part Number 17800
Heat Sink Screens T12: Part Number 17860

Note: *Our Tube Guards should not be used in any application where power surges or voltage spikes can cause arcing or over-burning the lamps.*

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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LIGHTING PRODUCTS   35

TEMPORARY LIGHTING

New buildings under construction or retrofitting an existing building is an ever changing environment for temporary lighting. Adequate temporary lighting is necessary for the safety and productivity of the workers, as well as the quality of the completed work.

The General Contractor typically places the responsibility to provide temporary lighting on the Electrical Contractor. And when it's time to specify temporary lighting, 9 out of 10 times the Electrical Contractor chooses Engineered Products Company, well-known for providing the best value for temporary lighting applications.

TYPE-O PULSE-START LIGHTING TECHNOLOGY

- High-intensity light fixtures enhance productivity and provide increased security and safety.
- Energy efficient high lumen maintenance lowers operating expenses.
- Compact size and dependable high performance lighting source.
- Reliable operation and performance in a wide range of ambient temperatures.

CORDLIGHTS™

- Weather resistant lamp sockets feature rigid-mounted eyelets for hooks or wire to simplify hanging.
- Suitable for indoor and outdoor use.
- Unique open and secure closure clasp on the heavy duty lamp cage easily facilitates lamp changes.
- A patented detent "snap-off, snap-on" fitting on the lamp socket enables quick replacement if the Safety Cage becomes damaged.

HID Temp Lights and CordLight products are always in stock!

TIGER 400 AND TIGERCUB 175 HID™

TEMPORARY LIGHTING

LIGHTING PRODUCTS

TIGER 400 AND TIGERCUB 175 HID™ TEMPORARY LIGHT FIXTURES

- Complies with the 2007 Energy Independence and Security Act (EISA).*
- Meets the requirements of the 2011 National Electrical Code: Articles 410.62(C)(1) and (2), 410.104(A), 410.122, 410.130(F)(5) and 590.4(F).
- Compact size, lightweight and balanced construction.
- Easy to carry and install. UL Listed. Suitable for use in damp locations. TIGER 400 and TIGERcub 175 HID Light Fixtures and lamp combinations increase light levels up to 60% over traditional probe-start fixtures while using the same number of fixture locations and wiring.

PULSE-START BALLAST

- Reliable, durable, maintenance free performance!
- A cost-effective solution to incandescent string lighting.
- Compact size, lightweight and balanced construction. Easy to carry and install.
- Faster warm-up time (2 min. vs. 4 min.)
- Faster "hot" restrike (3-4 min. vs. 15-20 min.)
- Improved cold weather starting performance.
- Lower maintenance and operating cost – ballast efficiency is 88%.
- Pre-wired at the factory for 120V operation. The multi-tap ballast can be re-configured for 208V, 240V or 277V applications.
- Improved efficacy (up to 45% more lumens per watt).

FIXTURE LAMP WITH CERAMIC ARC TUBE

- Improved lumen maintenance (up to 25%).
- Reduced color shift – more consistent lamp-to-lamp color.
- Longer lamp life – up to 30% improvement over traditional probe-start fixtures.
  – 15,000+ hours for the TIGER 400 HID.
  – 12,000+ hours for the TIGERcub 175 HID.
- Higher initial lumen output.
- Superior color rendering and light stability.

During the construction phase, a skeletal framework is used which forms an interior subspace called a "bay," which in turn marks the space as either "high-bay" or "low-bay." We reference high-bay spaces as greater than 30-feet off the floor and low-bay spaces as less than 25-feet off the floor.†

TYPICAL HIGH-BAY APPLICATIONS FOR TIGER 400 HID:

- Construction Sites
- Industrial Facilities
- Arena Lighting
- High Rise Buildings
- Manufacturing Facilities
- Large Retail Centers
- Big Box Stores
- Discount Warehouses

TYPICAL LOW-BAY APPLICATIONS FOR TIGERCUB 175 HID:

- Parking Garages
- Grocery Stores
- Retail Stores
- Mezzanine Areas
- Outdoor Areas
- Schools and University Gymnasiums

METAL HALIDE LAMP SPECIFICATIONS						
	Color Temperature	Lumen Output	Average Rated Life (In Hours)	Color Rendering Index	Voltage	(AMPs)
TIGER 400 HID	4000K	38,000	15,000	60	120	3.25
TIGERcub 175 HID	4000K	16,600	12,000	60	120	1.5

*Note: These fixtures comply with the 2007 Energy Independence and Security Act (EISA) effective January 1, 2009. The intent of this federal legislation focuses on improving the efficiency of certain consumer and electrical products – including metal halide fixtures – as well as moving the United States toward reducing energy consumption and energy independence.

In compliance with EISA, EPCO's TIGER 400-watt and TIGERcub 175-watt fixtures clearly display a capital letter "E" printed within a circle (Ⓔ) on the product carton and the ballast as specified by the Federal Trade Commission (FTC).

† The Illuminating Engineering Society of North America (IESNA), the authority in lighting, categorizes spaces as either high-bay (greater than 30-feet) or low-bay (less than 25-feet).
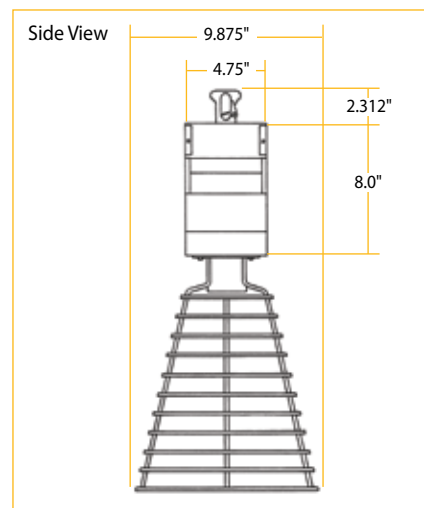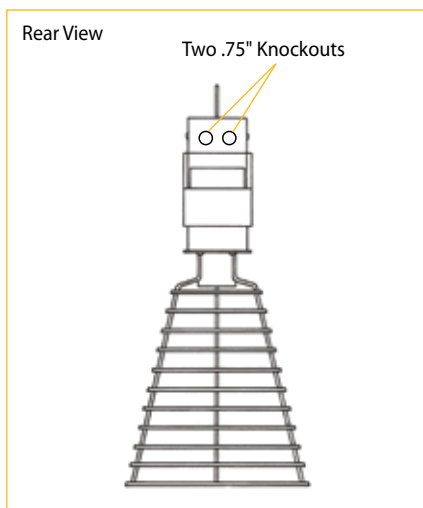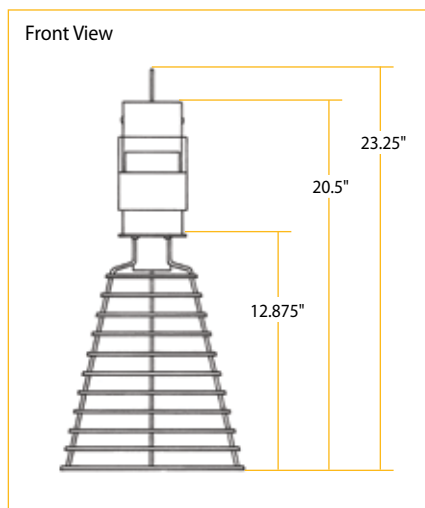
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LIGHTING PRODUCTS   37

TEMPORARY LIGHTING

Front View

23.25"
20.5"
12.875"

Rear View

Two .75" Knockouts

Side View

9.875"
4.75"
2.312"
8.0"

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
TIGER 400 HID Temporary Lighting										
15702	15702	**TIGER 400 HID:** 400-watt Type-O Metal Halide Lamp, Safety Cage and Lamp Guard	EA	1	BX	1	1	1	No	22
15752	15752	**Type-O 400-Watt Metal Halide Lamp:** Pulse-Start	EA	1	BX	20	20	1	No	2
TIGERcub 175 HID Temporary Lighting										
15711	15711	**TIGERcub 175 HID:** 175-watt Type-O Metal Halide Lamp, Safety Cage and Lamp Guard	EA	1	BX	1	1	1	No	20
15757	15757	**Type-O 175-Watt Metal Halide Lamp:** Pulse-Start	EA	1	BX	20	20	1	No	2
HID Temporary Lighting Accessories										
15760*	15760	**Universal Replacement HID Safety Cage and Lamp Guard:** Clamp Mount	EA	1	BX	5	5	1	No	9

*** Note:** Fits majority of manufacturer's HID Type-O and Type-S Temporary HID Lighting Fixtures.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

38   LIGHTING PRODUCTS

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TEMPORARY LIGHTING

TEMPORARY CORDLIGHTS

- UL Listed. File Number: E190858. Meets all OSHA Standards.
- Meets the requirements of the 2011 National Electrical Code: Article 590.4(B)(C).
- Suitable for indoor and outdoor use.
- Weather-resistant lamp sockets feature rigid-mounted eyelets for hooks or wire to expedite and simplify hanging.
- Unique open and secure closure clasp on the heavy-duty Safety Cage easily facilitates bulb changes.
- A patented detent "snap-off, snap-on" fitting on the lamp socket enables quick replacement if the Safety Cage becomes damaged.
- Rated only for use with Type A23 incandescent lamp - 150-watt rating (maximum), compact fluorescent or LED lamps.
- U.S. Patent Number: D.439,697.

TYPICAL APPLICATIONS:
- Construction Sites
- Parking Lots
- Walkways
- Festivals
- Circus Tents
- Christmas Tree Lots
- Farmer's Markets

DELUXE CORDLIGHTS

Deluxe CordLights are intended for severe environments and are impervious to dust, dirt, chemical vapors, salt spray and other corrosive elements. Constructed of heavy-duty 14/2, 14/3 or 12/3 SJTW round cord with a 75°C (167°F) temperature rating, Deluxe CordLights are UL Listed and complies with UL Standard 1088 for Temporary Lighting Strings.

CONTRACTOR GRADE CORDLIGHTS

Contractor Grade CordLight is designed for medium-duty applications and is ideal for budget-minded Contractors who need quality temporary lighting at an affordable price. The Contractor Grade CordLight is constructed of heavy-duty 14/2 flat cord. Only available in a 100-foot length.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Deluxe CordLights										
16010	16010	**Deluxe CordLights:** 14/2 SJTW Round Cord, 100-FT Length, 10-FT Centers (without Plug) - Yellow	EA	1	BX	0	0	1	No	13
16300	16300	**Deluxe CordLights:** 14/3 SJTW Round Cord, 100-FT Length, 10-FT Centers (without Plug) - Yellow	EA	1	BX	0	0	1	No	14
16301	16301	**Deluxe CordLights:** 14/3 SJTW Round Cord, 100-FT Length, 10-FT Centers (with Molded Plug) - Yellow	EA	1	BX	0	0	1	No	14
16350	16350	**Deluxe CordLights:** 12/3 SJTW Round Cord, 100-FT Length, 10-FT Centers (without Plug) - Yellow	EA	1	BX	0	0	1	No	19
16353	16353	**Deluxe CordLights:** 12/3 SJTW Round Cord, 100-FT Length, 10-FT Centers (with Molded Plug) - Yellow	EA	1	BX	0	0	1	No	19
16100	16100	**Safety Cage:** for Deluxe CordLight - Yellow	EA	1	BX	10	10	10	Yes	1
Contractor Grade CordLights										
16030*	16030	**Contractor Grade CordLight:** 14/2 Flat Cord, 100-FT Length, Ten (10) Lamp Sockets on 10-FT Centers - Yellow	EA	1	BX	0	0	1	No	7
16222	16222	**Contractor Grade CordLight Kit:** Includes Ten (10) Lamp Sockets and Ten (10) Safety Cages	EA	1	BX	0	0	1	No	3
16110	16110	**Safety Cage:** for Contractor Grade CordLight - Yellow	EA	1	BX	10	10	10	Yes	1

***Note:** The Contractor Grade CordLight is not UL Listed.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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LIGHTING PRODUCTS 39

TEMPORARY LIGHTING

SAFETY CAGES

- Suitable for indoor and outdoor use.
- Unique open and secure closure clasp on the heavy-duty Safety Cage easily facilitates lamp changes.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16100	16100	**Safety Cage:** for Deluxe CordLight - Yellow	EA	1	BX	10	10	10	Yes	1
16110	16110	**Safety Cage:** for Contractor Grade CordLight - Yellow	EA	1	BX	10	10	10	Yes	1

INSULATION PIERCING LAMP SOCKET

- Suitable for indoor and outdoor use.
- Use to repair Contractor Grade CordLights, signage, appliances or other lighting fixtures.
- Integrally designed terminals and contacts provide a superior electrical connection.
- Use with 12 or 14 AWG THHN insulated stranded-wire.
- No cutting, wire stripping, wire nuts or soldering required.
- Rated only for use with Type A23 incandescent lamp - 150-watt rating (maximum), compact fluorescent or LED lamps.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16022	16022	**Insulation Piercing Lamp Socket**	EA	5	BG	0	0	5	Yes	1
16110	16110	**Safety Cage:** for Contractor Grade CordLight - Yellow	EA	1	BX	10	10	10	Yes	1

PIGTAIL LAMP SOCKET

- A patented detent "snap-off, snap-on" fitting on the lamp socket enables quick replacement if the Safety Cage becomes damaged. Can be used with EPCO Safety Cage (P/N: 16100).
- Suitable for indoor or outdoor use.
- 6-Inch leads, pre-stripped 5/8" (.625").
- Rated only for use with Type A23 incandescent lamp - 150-watt rating (maximum), compact fluorescent or LED lamps.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16023	16023	**Pigtail Lamp Socket:** with 6-Inch Leads	EA	5	BG	0	0	5	Yes	1
16100	16100	**Safety Cage:** for Deluxe CordLight - Yellow	EA	1	BX	10	10	10	Yes	1

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LANDSCAPE LIGHTING

The specific design of an outdoor lighting system is influenced by a variety of factors, including the site characteristics, the scope of the landscape, its function, as well as the building owners requirements. But the creation of an outdoor lighting system should always include our Landscape SplicePost or LightPost™. A few of the value-added benefits include:

- Suitable for use in wet locations.
- Ready to install. No assembly required.
- 3" Outside diameter PVC LightPost fixture fitting.
- Replaces EMT, conduit connectors and weatherproof boxes.
- 100% UV, corrosion and shatter-resistant.
- Accommodates a 1/2" trade size conduit nipple to mount a variety of light fixtures.
- The Uni-Stabilizer™ is made of durable polycarbonate material featuring four (4) uniquely shaped concaved stabilizing blades. This design enables ground material to be easily packed around the Landscape LightPost or SplicePost as well as provide solid in-ground support. The uni-stabilizer also helps resist against ground movement typically caused by ground freezing and thawing.
- The 20° slanted top virtually eliminates water pooling or leakage into the interior of the Landscape LightPost and SplicePost.
- 65° angled to bottom enables easy entry of UF Cable or conduit.
- Compact and attractive regardless of final height placement.

Compared to other designs, these landscape light fixture fittings are a cost-effective and simple solution for permanent landscape, accent lighting or sign facade.

LANDSCAPE SLICEPOST™

Our Landscape SplicePost for outdoor lighting fixtures is different from any other "hollow pipe" style landscape lightpost on the market. It features an internal wiring compartment/junction box, rated for 19 cubic inches that easily accommodates two (2) 20 AMP circuits. The Landscape SplicePost allows the installer to make a proper ground connection to safeguard people and property from electrical shock hazards.

- The Landscape SplicePost is UL Listed as a "Luminaire Fixture Fitting," suitable for use in wet locations.
- Meets the requirements of the 2011 National Electrical Code: Articles 314.3, 314.4, 314.15, 314.16(A)(2) and 314.17(B).
- The Landscape SplicePost features a Separator Disk™ and SpliceCap™ that creates an integral "junction box" suitable for splicing.
- The PVC SpliceCap is non-metallic and suitable for the majority of outdoor lighting fixtures on the market.

5.0"

15.25"

Buried

Note: *Cut-away shows wiring connections inside the SplicePost Cap.*
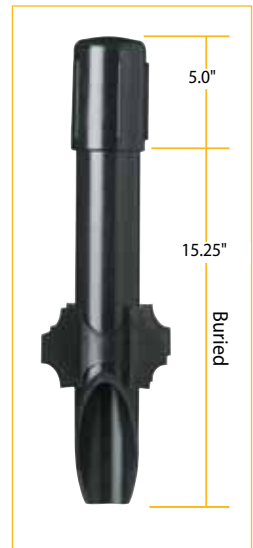
NEC Article 314.15 … boxes, conduit bodies and fittings installed in wet locations shall be listed for use in wet locations.

NEC Article 314.16(A)(2) – Boxes 1650 cm³ (100 in³) or less, other than those described in Table 314.16(A), and non-metallic boxes shall be durably and legibly marked by the manufacturer with their volume.

The Landscape SplicePost is shatter resistant to denting or cracking typically caused by landscape maintenance equipment. It is also corrosion and UV resistant and impervious to changing environmental conditions.

When wiring multiple lighting fixtures in series, the Landscape SplicePost's angled bottom allows UF Cable or Conduit to easily enter at different depths to eliminate cable congestion.

SpliceCap accommodates a 1/2" trade size conduit nipple.

NEC Article 314.17 – Conductors entering boxes, conduit bodies or fittings shall be protected from abrasion and shall comply with 314.17(A) through (D).

… Where raceway or cable is installed with metal boxes or conduit bodies, the raceway or cable shall be secured to such boxes and conduit bodies.

NEC Article 314.4 – All metal boxes shall be grounded and bonded in accordance with Parts I, IV, V, VI, VII, and X of Article 250 as applicable, except as permitted in 250.112(I).

Replaces EMT, conduit connectors and weatherproof boxes.

Uni-Stabilizer™ features unique concave stabilizing blades that allow ground material to be easily packed around the Landscape SplicePost for fast, easy and secure installation.

The Uni-Stabilizer helps minimize the Landscape SplicePost's movement typically caused by ground freezing and thawing.

LANDSCAPE SPLICEPOST - SPLICECAP CUT-AWAY EXAMPLE

The SpliceCap's 19 cubic inch box volume can house two (2) 20 AMP circuit conductors.

Eight (8) internal "Stops" seat and firmly hold the Separator Disk in place when the SpliceCap is positioned on the PVC Pipe.
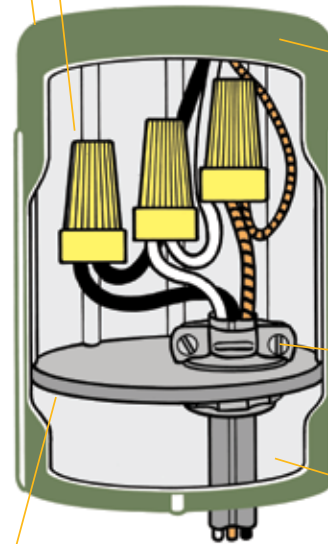
SpliceCap compartment fully encloses and protects the circuit conductors from moisture, dirt and abrasion.

Raised "Grips" simplify installation and removal of the SpliceCap.

UF Connector secures the incoming supply line cable to the Separator Disk.

Incoming supply line cable.

Separator Disk with attached Ground Wire. Use with non-grounded metallic light fixtures to make a safe ground connection.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Landscape SplicePost										
LSPB	17200	**Landscape SplicePost:** PVC - Black	EA	1	BX	9	9	9	Yes	21
17230	17230	**Landscape SplicePost Cap:** PVC, Separator Disk - Black	EA	1	BX	0	0	1	Yes	1

Note: *Landscape SplicePosts are ONLY sold in case quantities of 9 per Carton.*

UNITS OF MEASURE KEY **Order Unit:** The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton.

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LANDSCAPE LIGHTING
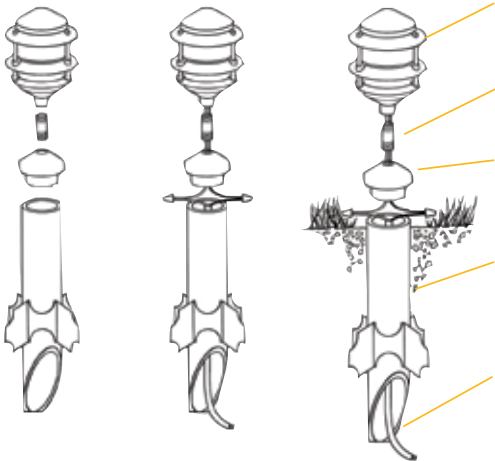
LANDSCAPE LIGHTPOST®

LANDSCAPE LIGHTPOST™

The Landscape LightPost is UL Listed as a "Luminaire Fixture Fitting," suitable for use in wet locations and complies with the 2011 National Electrical Code: Article 314.15. It is designed for line voltage landscape light fixtures but can also be used for low voltage fixtures.

Note: The Landscape LightPost should always be used with a UL Listed Fixture and a grounding means (i.e., ground bonded third wire) suitable for use in wet locations.

LIGHTING PRODUCTS

ASSEMBLY INSTRUCTIONS

1. Feed the light fixture's black, white and ground wires through the 1/2" nipple (not supplied) and Nesting Cap. Thread and tighten the 1/2" nipple into the top of the Nesting Cap.

2. Using wire nuts or another appropriate connector, connect the supply wires to the light fixture's wires. Then push the light fixture and Nesting Cap onto the top of the Landscape LightPost.

3. Place the wired Landscape LightPost into the excavated trench and position to the desired height.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Landscape LightPost										
LLPN25B	12701	**Landscape LightPost:** 17.5" - Black	EA	1	BX	9	9	9	Yes	21
E04-002-004	14025	**Landscape LightPost Cap:** Black	EA	1	BX	0	0	1	No	1

Note: Landscape LightPosts are ONLY sold in case quantities of nine (9) per Carton.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton.

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LIGHTING PRODUCTS   43

GROUND BONDING

- **GROUND BONDING PIGTAILS™**
- **POWERTAILS® DEVICE WIRING CONDUCTORS**
- **GROUND SCREWS**
- **GROUND CLIP**

GROUND BONDING PIGTAILS™

We introduced the Stranded Grounding PigTail over 37 years ago. Today, we have sold millions of Ground Bonding PigTails. Our manufacturing expertise, quality, reliability, and expedited delivery time have always met customer expectations.

Our Ground Bonding products provide a permanent and positive connection for the grounding system to ensure an effective, low-impedance ground-fault current path to safeguard people and property from electrical hazards.

WHY CONTRACTORS USE EPCO GROUND BONDING PIGTAILS™ AND POWERTAILS®

No other company manufacturers more combinations of PigTails and PowerTails Device Wiring Conductors than we do. Our solid and stranded wire single and dual-gang Ground Bonding PigTails are available in 6.5", 8", 10", and 12" lengths and include a grounding screw, a machine-formed and insulated crimped Ring or Flanged Spade Fork Terminal.

- The Ring Terminal used is a true grounding ring that actually "bites" into the screw head and receptacle box to ensure an excellent "ground" connection.
- The factory made insulation crimp on the Ring Terminal and Flanged Fork Spade Terminal puts less stress on the conductor's strands to ensure an excellent ground and power connection because the strands will not break or separate when these conductors are pushed into the junction box.
- The Flanged Fork Spade Terminal has "angled" flanges on the end of the "fork" that will stay in place to help the installer connect the PigTail or PowerTail to the appropriate screw on the receptacle, switch or device.

ADVANTAGES FOR THE CONTRACTOR

- Installation speed and reliability!
- Cost-effective and efficient.
- Quickly connect receptacles, switches or other devices.
- The perfect products for pre-fabrication work in the shop or on the job site.
- A variety of configurations and lengths that meet a broad range of applications.
- Ground Bonding PigTails and PowerTail products are available in re-usable tubes.
- 12 AWG is the standard wire size. 14 AWG Ground Bonding PigTails are available.
- Solid Wire Ground Bonding PigTails: THHN Building Wire.
- Stranded Wire Ground Bonding PigTails: THHN Building Wire (19 or 65 strand).
- Ground Bonding PigTails in bulk quantities of 1,000 are available. Contact our Inside Sales Department *(800.336.1976 or sales@engproducts.com)* for more information.

GROUND SCREW CHOICES

- Self-tapping GSC Ground Screw is used by Contractors when the metallic junction box's ground screw hole is not tapped or is not "cleanly" tapped.
- Tapered Point GSH Ground Screw is a labor savings screw used by Contractors. This ground screw is easy to start in the pre-tapped hole.

GROUND BONDING PIGTAILS – INSULATED SOLID WIRE (12 AWG AND 14 AWG)

- UL Listed.
- Our Solid Wire Ground Bonding PigTails are recommended for use in metal box applications.
- Features a captive GSH or GSC Green Ground Screw on one end, the other end is pre-stripped 1".

  Note: See Page 51 for detailed descriptions on the differences between the GSC and GSH Ground Screws.

- Available in 6.5", 8", 10" and 12" lengths.
- Typical applications:
  – Ground bonding in a power distribution box, junction box or multi-gang receptacle box.
  – When a standard Stranded Wire PigTail is not required.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(A) and (B) and 250.8.

Part Number: 20009
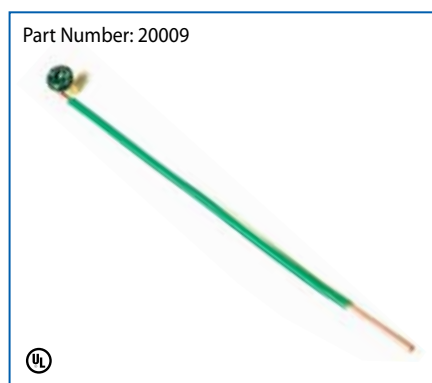
Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
With GSC Ground Screw										
20016	20016	**6.5" PigTail:** Captive GSC Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	9
20086	20086	**8" PigTail:** Captive GSC Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	11
20088	20088	**10" PigTail:** Captive GSC Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	13
20090	20090	**12" PigTail:** Captive GSC Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	1
With GSH Ground Screw										
20009*	20009	**6.5" PigTail:** Captive GSH Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	9
20010	20010	**6.5" PigTail (14 AWG):** Captive GSH Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	7
20011*	20011	**8" PigTail:** Captive GSH Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	11
20087	20087	**10" PigTail:** Captive GSH Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	13
20089	20089	**12" PigTail:** Captive GSH Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	15
20091	20091	**8" PigTail (14 AWG):** Captive GSH Ground Screw – Stripped 1"	PKG	50	PKG	10	500	50	Yes	9

*Contractor preferred

REFERENCE GUIDE – INSULATED SOLID WIRE PIGTAILS (12 AWG AND 14 AWG)

PART NUMBERS

20016: 6.5-Inch
20086: 8-Inch
20088: 10-Inch
20090: 12-Inch

PigTail: With captive GSC Ground Screw - Stripped 1".

GSC Ground Screw

20009: 6.5-Inch*
20011: 8-Inch*
20087: 10-Inch
20089: 12-Inch
20010: 6.5-Inch (14 AWG)
20091: 8-Inch (14 AWG)

PigTail: With captive GSH Ground Screw - Stripped 1".

GSH Ground Screw

EPCO Ground Bonding PigTails are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

46 GROUND BONDING

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GROUND BONDING PIGTAILS – INSULATED STRANDED WIRE (12 AWG AND 14 AWG)

- UL Listed.
- Labor and Time Savings!
- Our Stranded Wire Ground Bonding PigTails can save the Contractor up to 50 cents per installation.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(A) and (B) and 250.8.
- Factory-crimped Flanged Spade Terminal or Ring Terminal meets the requirements of the 2011 National Electrical Code: Article 110.4 and provides precise electrical terminations.
- Typical applications: Ground bonding in a power distribution box, junction box or multi-gang receptacle box.

Part Number: 20004

Note: See Page 51 for detailed descriptions on the differences between the GSC and GSH Ground Screws.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
20007	20007	**7" PigTail (14 AWG):** One (1) Flanged Spade Terminal – Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	11
20008*	20008	**8" PigTail:** One (1) Flanged Spade Terminal – Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	13
20082	20082	**10" PigTail:** One (1) Flanged Spade Terminal – Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	13
20084	20084	**12" PigTail:** One (1) Flanged Spade Terminal – Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	15
With GSC Ground Screw										
20020	20020	**10" PigTail:** Ring Terminal, captive GSC Ground Screw, One (1) Flanged Spade Terminal	PKG	50	PKG	10	500	50	Yes	15
20026	20026	**12" PigTail:** Ring Terminal, captive GSC Ground Screw, One (1) Flanged Spade Terminal	PKG	50	PKG	10	500	50	Yes	17
20035	20035	**10" PigTail:** Ring Terminal, captive GSC Ground Screw - Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	14
20036	20036	**8" PigTail:** Ring Terminal, captive GSC Ground Screw - Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	12
20040	20040	**8" PigTail (14 AWG):** Ring Terminal, captive GSC Ground Screw, One (1) Flanged Spade Terminal	PKG	50	PKG	10	500	50	Yes	11
20041	20041	**8" PigTail:** Ring Terminal, captive GSC Ground Screw, One (1) Flanged Spade Terminal	PKG	50	PKG	10	500	50	Yes	13
20044	20044	**12" PigTail:** Ring Terminal, captive GSC Ground Screw - Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	16
With GSH Ground Screw										
20003	20003	**8" PigTail (14 AWG):** One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	50	PKG	10	500	50	Yes	16
20004*	20004	**8" PigTail:** One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	50	PKG	10	500	50	Yes	13
20019	20019	**10" PigTail:** One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	50	PKG	10	500	50	Yes	15
20025	20025	**12" PigTail:** One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	50	PKG	10	500	50	Yes	17
20029*	20029	**8" PigTail:** Ring Terminal, captive GSH Ground Screw - Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	12
20034	20034	**10" PigTail:** Ring Terminal, captive GSH Ground Screw - Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	14
20043	20043	**12" PigTail:** Ring Terminal, captive GSH Ground Screw - Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	16

*Contractor preferred

EPCO Ground Bonding PigTails are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

GROUND BONDING

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GROUND BONDING   47

REFERENCE GUIDE – INSULATED STRANDED WIRE PIGTAILS (12 AWG AND 14 AWG)

PART NUMBERS

20007: 7-Inch (14 AWG) 20008: 8-Inch* 20082: 10-Inch 20084: 12-Inch	**PigTail:** One (1) Flanged Spade Terminal - Stripped 5/8".
20040: 8-Inch (14 AWG) 20041: 8-Inch 20020: 10-Inch 20026: 12-Inch	**PigTail:** One (1) Flanged Spade Terminal and a captive GSC Ground Screw.
20003: 8-Inch (14 AWG) 20004: 8-Inch* 20019: 10-Inch 20025: 12-Inch	**PigTail:** One (1) Flanged Spade Terminal and a captive GSH Ground Screw.
20029: 8-Inch* 20034: 10-Inch 20043: 12-Inch	**PigTail:** Ring Terminal and a captive GSH Ground Screw - Stripped 5/8".
20036: 8-Inch 20035: 10-Inch 20044: 12-Inch	**PigTail:** Ring Terminal and a captive GSC Ground Screw - Stripped 5/8".

SINGLE AND DUAL-GANG GROUND BONDING PIGTAILS (12 AWG)

- Labor and Time Savings!
- UL Listed.
- Matched Flanged Spade and Ring Terminals ensure a safe, reliable ground connection.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(A) and (B) and 250.8.

Reprinted from the 2011 National Electrical Code: Article 250.148 – Continuity and Attachment of Equipment Grounding Conductors to Boxes: Where circuit conductors are spliced within a box, or terminated on equipment within, or supported by a box, any equipment grounding conductor(s) associated with those circuit conductors shall be connected within the box or to the box with devices suitable for the use in accordance with 250.148(A) through (E).

PowerTails with One (1) Flanged Terminal Part Numbers: 20065 (Black) and 20062 (White)

Dual-Gang Grounding PigTails Part Numbers: 20074 or 20075
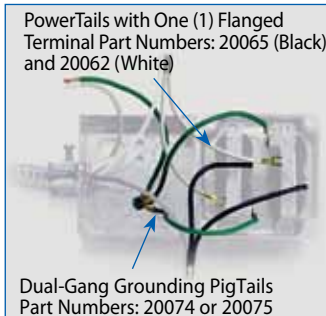
Part Number: 20074

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
20067	20067	**Single-Gang PigTail:** One (1) 8" Solid Wire Incoming Lead - Stripped 1", One (1) 8" Stranded Wire Conductor with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	9
20068	20068	**Single-Gang PigTail:** One (1) 8" Stranded Wire Incoming Lead - Stripped 5/8", One (1) 8" Stranded Wire Conductor with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	9
20070*	20070	**Dual-Gang PigTail:** Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	10
20074*	20074	**Dual-Gang PigTail:** One (1) 8" Solid Wire Incoming Lead - Stripped 1",Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	11
20075	20075	**Dual-Gang PigTail:** One (1) 8" Stranded Wire Incoming Lead - Stripped 5/8", Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	13

EPCO Ground Bonding PigTails are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

REFERENCE GUIDE – SINGLE AND DUAL-GANG GROUND BONDING PIGTAILS (12 AWG)

PART NUMBERS

20067: 8-Inch **Single-Gang PigTail:** One (1) 8" Solid Wire Incoming Lead - Stripped 1", One (1) 8" Stranded Wire Conductor with One (1) Flanged Spade Terminal and a captive GSH Ground Screw.

(UL 1015)

(THHN)

20068: 8-Inch **Single-Gang PigTail:** One (1) 8" Solid Wire Incoming Lead - Stripped 5/8", One (1) 8" Stranded Wire Conductor with One (1) Flanged Spade Terminal and a captive GSH Ground Screw.

(THHN)

(UL 1015)

20070: 8-Inch* **Dual-Gang PigTail:** Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal and a captive GSH Ground Screw.

(UL 1015)

20074: 8-Inch* **Dual-Gang PigTail:** One (1) 8" Solid Wire Incoming Lead - Stripped 1", Two (2) 8" Stranded Wire Conductors with Two (2) Flanged Spade Terminals and a captive GSH Ground Screw.

(THHN)

(UL 1015)

20075: 8-Inch **Dual-Gang PigTail:** One (1) 8" Stranded Wire Incoming Lead - Stripped 5/8", Two (2) 8" Stranded Wire Conductors with Two (2) Flanged Spade Terminals and a captive GSH Ground Screw.

(UL 1015)

(THHN)
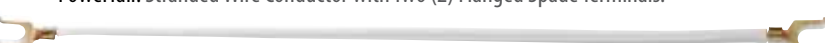
POWERTAILS® DEVICE WIRING CONDUCTORS (12 AWG)

- Labor Savings Tool! Used by Contractors that wire Commercial and Industrial buildings when using single and/or multi-gang metal boxes.
- Provides installation speed and a reliable connection when bringing power to multiple devices. Perfect for pre-wiring devices in Contractor's shop or on the job site.
- 8" Length Black and White leads feature a factory crimped Flanged Spade Terminal that slips under the terminal screw on the device.
- Manufactured using flexible 12 AWG stranded wire to easily push into the junction box.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(A) and (B).
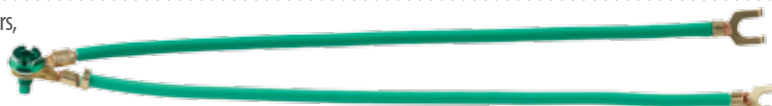
Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
20062	20062	8" PowerTail: White, Stranded Wire Conductor with One (1) Flanged Spade Terminal – Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	8
20063	20063	8" PowerTail: White, Stranded Wire Conductor with Two (2) Flanged Spade Terminals	PKG	50	PKG	10	500	50	Yes	9
20064	20064	8" PowerTail: Black, Stranded Wire Conductor with Two (2) Flanged Spade Terminals	PKG	50	PKG	10	500	50	Yes	8
20065	20065	8" PowerTail: Black, Stranded Wire Conductor with One (1) Flanged Spade Terminal – Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	9

REFERENCE GUIDE – POWERTAILS DEVICE WIRING CONDUCTORS (12 AWG)

PART NUMBERS

20062: White
20065: Black **PowerTail:** Stranded Wire Conductor with One (1) Flanged Spade Terminal – Stripped 5/8".

(THHN)

20063: White
20064: Black **PowerTail:** Stranded Wire Conductor with Two (2) Flanged Spade Terminals.

(UL 1015)

EPCO PowerTails are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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GROUND BONDING   49

GROUND BONDING

SINGLE AND DUAL-GANG GROUND BONDING PIGTAILS – APPLICATION EXAMPLES

SINGLE-GANG SOLID WIRE: P/N 20067

The ground screw is screwed into and bonds the metal junction box. The single stranded wire grounding conductor with the flanged spade terminal from this same PigTail grounds the receptacle. The solid wire grounding conductor on the PigTail will ground the receptacle. The solid wire grounding conductor on the PigTail connects to the MC Cable and bonds back to the service panel.

SINGLE-GANG STRANDED WIRE: P/N 20068

The ground screw is screwed into and "grounds" the metal junction box. The single stranded wire grounding conductor with the flanged spade terminal from this PigTail grounds the receptacle. The stranded wire grounding conductor on the PigTail connects (by wire nut) the incoming ground conductor in the MC Cable and bonds back to the service panel.

DUAL-GANG STRANDED WIRE: P/N 20070

The ground screw is screwed into the 10/32 tapped grounding hole opening in the metal junction box, bonding the junction box to the conduit system and grounded back to the service panel. The two (2) stranded wire ground PigTails with the flanged spade terminals would then connect to the grounding screw of the receptacles or switches to be wired.

DUAL-GANG SOLID WIRE: P/N 20074

The ground screw is screwed into and bonds the metal junction box. The two (2) stranded wire grounding conductors with the flanged spade terminals from this PigTail grounds each receptacle. The solid wire conductor on the PigTail connects by wire nut to the incoming ground conductor in the conduit and bonds back to the service panel.

DUAL-GANG STRANDED WIRE: P/N 20075

The ground screw is screwed into and "grounds" the metal junction box and is bonded back to the service-grounded panel. Two (2) stranded wire grounding conductors with flanged spade terminals from this PigTail ground each receptacle. The stranded wire grounding conductor on the PigTail connects by wire nut to the ground conductor from the incoming cable.

GROUND BONDING

GROUND SCREWS

Our Ground Screws and Ground Clip are manufactured in compliance with the Restriction of Hazardous Substances (RoHS) European Directive. These Green Ground Screws (#10-32 x .375") meet the requirements of the 2011 National Electrical Code: Article 250.8.

GSC – Cutting Point Screw – Combination hex head, slotted, phillips and square drive screw for use in metal boxes when holes have not been pre-tapped.

GSH – Hex Head Screw – Combination slotted, phillips and square drive tapered point screw used to simplify wiring installations when pre-tapped holes exist in metal boxes.

Note: *Beginning July 1, 2006, Directive 2002/95/EC, of the European Union (EU), restricts the use of certain hazardous substances in electrical and electronic equipment. Those substances are Lead, Mercury, Cadmium, Hexavalent Chromium, PBBs.*

GSC Ground Screw-
Cutting Point Screw

GSH Ground Screw-
Hex Head Screw

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
GSC	10053	**GSC:** Slotted, #2 Phillips, Hex Head with Cutting Point - Green	PKG	100	PKG	10	1000	100	Yes	1
GSCT	30053	**GSC:** Slotted, #2 Phillips, Hex Head with Cutting Point - Green	PKG	250	PKG	10	2500	250	Yes	2
20053	20053	**GSC:** Bulk	C	1000	BN	0	0	1000	Yes	10
GSH	10051	**GSH:** Slotted, #2 Phillips, Hex Head, #2 Robertson with Tapered Die Point - Green	PKG	100	PKG	10	1000	100	Yes	1
GSHT	30051	**GSH:** Slotted, #2 Phillips, Hex Head, #2 Robertson with Tapered Die Point - Green	PKG	250	PKG	10	2500	250	Yes	2
20051	20051	**GSH:** Bulk	C	1000	BN	0	0	1000	Yes	10

Note: *Ground Screws listed above are used in our Ground Bonding PigTails.*

GROUND CLIPS

- Excellent time and labor saving alternative to using Ground Screws.
- Meets the requirements of the 2011 National Electrical Code: Article 250.8.

Our Ground Clips are specifically designed for termination of the grounding conductor and should be used when a 10-32 hole is not pre-drilled or tapped into a metallic junction box.

Since ground clips are forced onto the outside edge of the junction box, we recommend using a "new" ground clip instead of re-using the old ground clip. Ground clips should never be forced onto the round portion of a plaster ring or a poor electrical connection will result.

INSTALLATION PROCEDURE

The correct way to install a ground clip is to feed the grounding conductor into the ground clip with the shorter part of the ground clip placed inside the junction box.

Then use the flat blade of a screwdriver to force the ground clip onto the junction box to ensure a good electrical connection. See illustration.
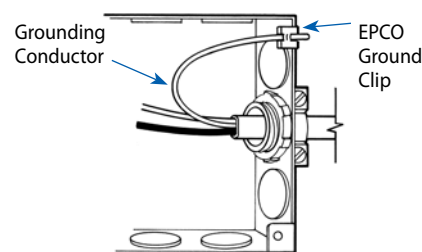
Grounding Conductor

EPCO Ground Clip

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
GC	10052	**Ground Clip:** for 14 AWG -12 AWG Solid Wire	BG	100	BG	10	1000	100	Yes	1
GCT	30052	**Ground Clip:** for 14 AWG -12 AWG Solid Wire	PKG	250	PKG	10	2500	250	Yes	2
20052	20052	**GC:** Bulk	C	1000	BN	0	0	1000	Yes	10

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

GROUND BONDING

SPLICE KITS/
HEAT SHRINK TUBING

- **SPLICE KITS**
- **HEAT SHRINK TUBING**

SPLICE KITS

Our Splice Kits provide a permanent water resistant seal that eliminates expensive crimping tools when splicing aluminum or copper conductors. These splice kits are specifically intended for direct burial applications and designed to eliminate any cable deterioration and other problems that can lead to open circuits and cable failure.

Our Splice Kits are labor savings solutions that meet or exceed the Electrical Contractors requirements and can easily encapsulate 18 AWG to 1/0 AWG multi-conductor wire splices as well as single service conductors up to 250 MCM. Heating the heat shrink tubing over the mechanical connector melts the adhesive to the cable, sealing the splice from moisture and provide insulation and protection. Only a standard screwdriver is required to terminate the wire into the mechanical connector.

Our kits are available in five (5) kit types and include the tubing, sealant and mechanical connectors to ensure a safe and reliable splice.

SPLICE KIT COMMONALITIES

- UL Listed.
- Meets the requirements of the 2011 National Electrical Code: Article 110.14(B).
- Eliminates epoxies, tapes or separate mastics.
- Creates a waterproof splice.
- 600 Volt maximum, 105°C rating.

Note: Our Heat Shrink Torch is always recommended for use with all EPCO Splice Kits. A torch used for sweating copper tubing will not work and could burn a hole in the shrink tubing!

SPLICE KITS AWG CHART

Copper Butt Splice Kits	AWG	
	14	
BSK1	13	
	12	
BSK1	11	
	10	
BSK2	9	
	8	8
		7
BS2		6
		5
BSK3		4
		3
BSK4		2

| Dual Rated Butt Splice Kits	Logical AWG Number	AWG (and "Aught" */0 Equivalent)	MCM or kcmil
	8	8	17
	7	7	21
DRBSK	6	6	26
	5	5	33
	4	4	42
	2	2	66
DRBSK1	1	1	84
	0	1/0	106
	-1	2/0	133
	-2	3/0	168
DRBSK3	-3	4/0	212
	-3.7	4.7/0	250

UF CABLE SPLICE KIT – FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Labor Savings! Obsoletes messy, two part Splice Kits.
- Accommodates UF Cables sizes: 14/3 without ground minimum, 8/3 without ground maximum.
- 600 Volts maximum, 105°C (221°F) temperature rating.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

The UF Cable Splice Kit includes one (1) 4-position mechanical connector and one piece of heat shrink tubing to splice and insulate 14 AWG to 8 AWG UF Cable.

By using Thick Wall Heat Shrink Tubing with sealant and the mechanical connector, the repair of UF Cable is a quick, easy and reliable process. No epoxies, tape or separate mastics are required.
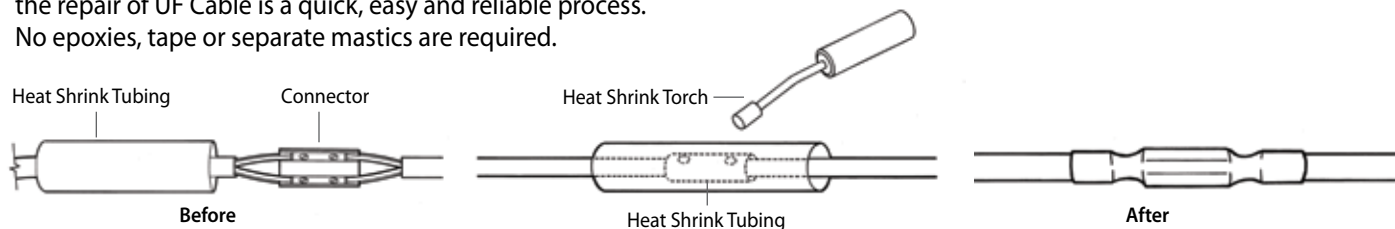
Heat Shrink Tubing   Connector   Heat Shrink Torch

Before   Heat Shrink Tubing   **After**

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
UFC2B	10711	**UF Cable Splice Kit – for Direct Burial:** Accommodates Cable Sizes – 14/3 without Ground (minimum), 8/3 without Ground (maximum)	EA	1	BG	24	24	1	No	6

COPPER BUTT SPLICE KITS

- UL Listed. File Number: E103228.
- Labor Savings! Designed to simplify splicing discreet copper conductors.
- Sizes: 14 AWG to 2 AWG.
- BSK series is rated for 600 Volts maximum, 105°C (221°F) temperature rating.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

BSK Splice Kits include a mechanical butt splice connector and an 8-inch piece of thick wall heat shrink tubing to create a fully insulated butt splice.

The BS Splice Kits use the same mechanical butt splice connector independent of the heat shrink tubing in bulk quantities. These kits are approximately 1/3 the cost of the equivalent Dual Rated Butt Splice Kits.

Heat Shrink Torch

Before   **After**

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
BS1	10713	**Bulk Packaged Butt Splice Connectors:** 8 AWG to 14 AWG	BG	100	BG	0	0	1	No	8
BS2	10707	**Bulk Packaged Butt Splice Connectors:** 2 AWG to 8 AWG	BG	100	BG	0	0	1	No	19
BSK1	10705	**Butt Splice Kit:** 14 AWG to 8 AWG Assembled	EA	1	BG	24	24	1	No	2
BSK2	10706	**Butt Splice Kit:** 14 AWG to 8 AWG Assembled	EA	1	BG	24	24	1	No	2
BSK3	10708	**Butt Splice Kit:** 8 AWG to 2 AWG Assembled	EA	1	BG	24	24	1	No	2
BSK4	10709	**Butt Splice Kit:** 8 AWG to 2 AWG Assembled	EA	1	BG	24	24	1	No	2

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54   SPLICE KITS/HEAT SHRINK TUBING

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SPLICE KITS/ HEAT SHRINK TUBING

SELF SEALING UF SPLICE KIT – FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Labor Savings! Simplifies the assembly of a moisture resistant splice.
- Protects electrical connections and allows for re-entry if needed.
- Eliminates use of epoxies, tape or mastics.
- 600 Volts maximum, 105°C (221°F) temperature rating.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

The uniquely designed interference fit cover enables direct burial of UF Cable to be a quick and reliable process. The kit includes a mechanical connector, silicone lubricant and the interference fit covers. Accommodates 14 AWG to 8 AWG wire sizes.

Before

After

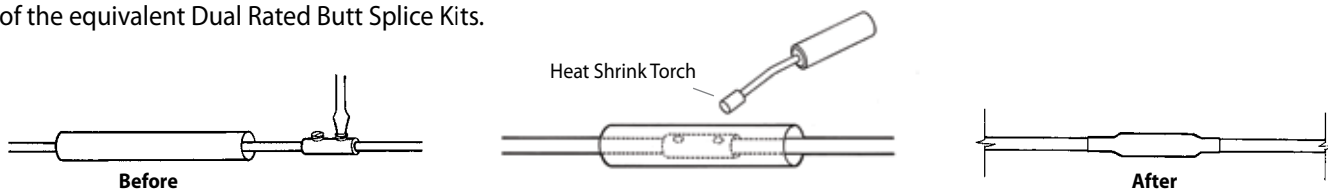| Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
UFC3/4	10703	**Self Sealing UF Splice Kit – for Direct Burial:** Accommodates Cable Sizes – 14/3 without Ground (minimum), 8/3 with Ground (maximum)	EA	1	BG	24	24	1	No	10

DUAL RATED BUTT SPLICE KITS – FOR DIRECT BURIAL

- Eliminates expensive crimping tools when splicing aluminum or copper conductors for direct burial.
- UL Listed components.
- 600 Volts maximum, 105°C (221°F) temperature rating.
- For use with aluminum and copper conductors.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

The kits include a pair of thick wall heat shrink tubing (2 pieces) and one (1) mechanical connector. Popular splicing applications include repair and/or extending type USE Cable.
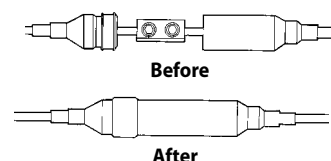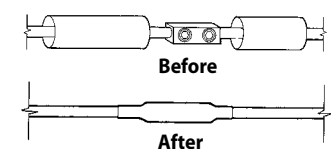
Before

After

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
DRBSK	11499	**Dual Rated Butt Splice Kit:** 8 AWG to 4 AWG Assembled	EA	1	BG	24	24	1	No	10
DRBSK1	11500	**Dual Rated Butt Splice Kit:** 2 AWG to 1/0 AWG Assembled	EA	1	BG	24	24	1	No	1
DRBSK3	11501	**Dual Rated Butt Splice Kit:** 2/0 AWG to 250 MCM Assembled	EA	1	BG	24	24	1	No	10

UF STRETCHER KIT – FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Labor Savings! Includes one 11.5" mechanical connector that eliminates the need to use two (2) UF Cable Splice Kits (P/N: UFC2B) and a short piece of cable when repairing a longer section of damaged UF Cable.
- 600 Volts maximum, 105°C (221°F) temperature rating.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

Simplify UF Cable repairs after a trencher or backhoe has damaged or destroyed a 7" to 10" section of UF Cable. Utilize our Thick Wall Heat Shrink Tubing with sealant to make a quick and reliable repair. Eliminates epoxies, tapes or separate mastics and creates a waterproof splice. The kit includes one (1) 4-position 11.5" connector and one (1) piece of heat shrink tubing. Designed to splice and insulate 14 AWG to 8 AWG UF Cable.
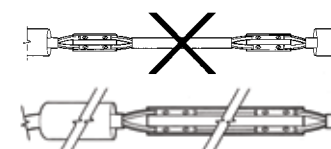
Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
UFS2	10714	**UF Stretcher Kit – for Direct Burial:** Accommodates Cable Sizes – 14/3 without Ground (minimum), 8/3 without Ground (maximum)	EA	1	BG	12	12	1	No	12

SPLICE KITS/ HEAT SHRINK TUBING

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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SPLICE KITS/HEAT SHRINK TUBING   55

HEAT SHRINK TUBING

Our Thick Wall Heat Shrink Tubing for direct burial applications is made from cross-linked polyolefin. This tough, versatile tubing can be used for insulation, harnessing, strain relief, and identification purposes for residential, commercial and industrial applications.

Heat Shrink Tubing is designed and tested to meet the most demanding requirements of IEEE, UL, CSA and ANSI as well as many other international standards for performance and long-term reliability.

BENEFITS

- For direct burial applications; withstands severe mechanical requirements.
- Seals, protects and insulates electrical connections and terminations; provides excellent mechanical protection.
- Superior jacket tear resistance and elastomer characteristic allows better conformance over irregular contours without splitting or cracking.
- Accommodates most applications Contractors will encounter.
- Excellent sealing efficiency ensuring no moisture ingress as the hot melt adhesive enables fill encapsulation of cables and connectors.
- Provides maximum reliability protecting splices and terminations.
- High impact, abrasion, corrosion and chemical resistance.
- Provides a moisture and soil resistant seal.
- Rated for 600 Volts, 90°C continuous use.
- Standard Shrink Ratio: 3:1
- Shrink temperature: 120°C

TYPICAL APPLICATIONS

- Splice covers for repair of electrical cables and splice connections.
- Insulation cover or jacket repair on low voltage cables.
- Strain relief and environmental protection.
- HVAC systems for pipes and ducts.

Note: We recommend always using our Heat Shrink Torch for shrinking Thick Wall Heat Shrink Tubing. A torch used for sweating copper tubing will not work and could burn a hole in the shrink tubing!

HEAT SHRINK TUBING

THICK WALL HEAT SHRINK TUBING – FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Meets the requirements of the 2011 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).
- Installs and shrinks easily for labor savings. Most effective when insulating over large transitions.
- 3:1 Shrink ratio enables wider cable range and fewer tubing sizes.
- Excellent abrasion, corrosion and environmental resistance properties.
- UV and fungi resistant.

Thick Wall Heat Shrink Tubing (HST) is used to dielectrically insulate and encapsulate electrical connections. The HST internal coating has an adhesive and sealant that melts when the tubing is heated to provide a moisture and soil resistant seal. The standard color is black.
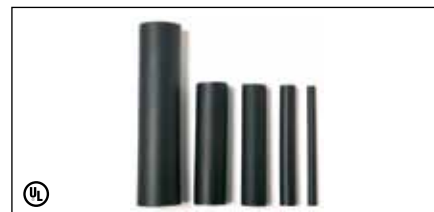

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
HST1410	10170	**Heat Shrink Tubing:** Conductor Size – 14 AWG to 10 AWG, Shrink Range – .36-Inch to .12-Inch; Includes Six (6) 8-Inch Pieces per Package	BG	6	BG	12	72	6	Yes	5
HST84	10171	**Heat Shrink Tubing:** Conductor Size – 6 AWG to 2 AWG, Shrink Range – .75-Inch to .24-Inch; Includes Six (6) 8-Inch Pieces per Package	BG	6	BG	12	72	6	Yes	7
HST23/0	10172	**Heat Shrink Tubing:** Conductor Size – 1/0 AWG to 3/0 AWG, Shrink Range – 1.10-Inch to .35-Inch; Includes Six (6) 8-Inch Pieces per Package	BG	6	BG	12	72	6	Yes	9
HST2/0300	10173	**Heat Shrink Tubing:** Conductor Size – 2/0 AWG to 350 MCM, Shrink Range – 1.50-Inch to .47-Inch; Includes Four (4) 8-Inch Pieces per Package	BG	6	BG	12	72	6	Yes	10
HST300650	10174	**Heat Shrink Tubing:** Conductor Size – 250 MCM to 500 MCM, Shrink Range – 2.0-Inch to .63-Inch; Includes Three (3) 12-Inch Pieces per Package	BG	6	BG	12	72	6	Yes	13
HST14650	10175	**Heat Shrink Tubing Multi–Pak:** 14 AWG to 500 MCM, Includes Five (5) 8-Inch Pieces per Package of Part Numbers HST1410, HST84, HST23/0, HST2/0300 and HST300650	BG	6	BG	12	72	6	Yes	9

BULK THICK WALL HEAT SHRINK TUBING – FOR DIRECT BURIAL

Our Bulk Heat Shrink Tubing is used for direct burial and is the same quality tubing as our popular packaged HST Thick Wall Tubing. Available in cut lengths from 2" up to 48".

Please specify the length by adding the correct length in inches to the end of the part number. Example: One (1) 13" piece of 14 AWG to 10 AWG tubing; E00-902-013.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Conductor Size: 1 AWG / 3/0 AWG										
E00-901-0__*	n/a	**Thick Wall Tubing**	EA	1	BG	0	0	1	No	1
E00-901-005	13911	**Thick Wall Tubing:** One (1) 5-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-006	13912	**Thick Wall Tubing:** One (1) 6-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-008	13913	**Thick Wall Tubing:** One (1) 8-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-009	13914	**Thick Wall Tubing:** One (1) 9-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-010	13915	**Thick Wall Tubing:** One (1) 10-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-012	13916	**Thick Wall Tubing:** One (1) 12-Inch Piece	EA	1	BG	0	0	1	Req	1
E00-901-024	13918	**Thick Wall Tubing:** One (1) 24-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-036	13919	**Thick Wall Tubing:** One (1) 36-Inch Piece	EA	1	BG	0	0	1	No	1
E00-901-048	13920	**Thick Wall Tubing:** One (1) 48-Inch Piece	EA	1	BG	0	0	1	No	1

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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SPLICE KITS/HEAT SHRINK TUBING 57

SPLICE KITS/
HEAT SHRINK TUBING

BULK THICK WALL HEAT SHRINK TUBING (CONTINUED)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Conductor Size: 14 AWG / 10 AWG										
E00-902-0__*	n/a	**Thick Wall Tubing**	EA	1	BG	0	0	1	No	1
E00-902-006	13925	**Thick Wall Tubing:** One (1) 6-Inch Piece	EA	1	BG	0	0	1	No	1
E00-902-008	13926	**Thick Wall Tubing:** One (1) 8-Inch Piece	EA	1	BG	0	0	1	No	1
E00-902-009	13927	**Thick Wall Tubing:** One (1) 9-Inch Piece	EA	1	BG	0	0	1	No	1
E00-902-012	13928	**Thick Wall Tubing:** One (1) 12-Inch Piece	EA	1	BG	0	0	1	No	1
E00-902-024	13929	**Thick Wall Tubing:** One (1) 24-Inch Piece	EA	1	BG	0	0	1	No	1
E00-902-048	13931	**Thick Wall Tubing:** One (1) 48-Inch Piece	EA	1	BG	0	0	1	No	1
Conductor Size: 6 AWG / 2 AWG										
E00-903-0__*	n/a	**Thick Wall Tubing**	EA	1	BG	0	0	1	No	1
E00-903-006	13937	**Thick Wall Tubing:** One (1) 6-Inch Piece	EA	1	BG	0	0	1	No	1
E00-903-008	13938	**Thick Wall Tubing:** One (1) 8-Inch Piece	EA	1	BG	0	0	1	No	1
E00-903-009	13939	**Thick Wall Tubing:** One (1) 9-Inch Piece	EA	1	BG	0	0	1	No	1
E00-903-010	13940	**Thick Wall Tubing:** One (1) 10-Inch Piece	EA	1	BG	0	0	1	No	1
E00-903-012	13941	**Thick Wall Tubing:** One (1) 12-Inch Piece	EA	1	BG	0	0	1	No	1
E00-903-024	13943	**Thick Wall Tubing:** One (1) 24-Inch Piece	EA	1	BG	0	0	1	No	1
E00-903-048	13945	**Thick Wall Tubing:** One (1) 48-Inch Piece	EA	1	BG	0	0	1	No	1
Conductor Size: 2/0 AWG / 350 MCM										
E00-904-0__*	n/a	**Thick Wall Tubing**	EA	1	BG	0	0	1	No	1
E00-904-006	13949	**Thick Wall Tubing:** One (1) 6-Inch Piece	EA	1	BG	0	0	1	No	1
E00-904-008	13950	**Thick Wall Tubing:** One (1) 8-Inch Piece	EA	1	BG	0	0	1	No	1
E00-904-009	13951	**Thick Wall Tubing:** One (1) 9-Inch Piece	EA	1	BG	0	0	1	No	1
E00-904-012	13952	**Thick Wall Tubing:** One (1) 12-Inch Piece	EA	1	BG	0	0	1	No	1
E00-904-024	13953	**Thick Wall Tubing:** One (1) 24-Inch Piece	EA	1	BG	0	0	1	No	1
E00-904-030	13954	**Thick Wall Tubing:** One (1) 30-Inch Piece	EA	1	BG	0	0	1	No	1
E00-904-048	13955	**Thick Wall Tubing:** One (1) 48-Inch Piece	EA	1	BG	0	0	1	No	1
Conductor Size: 250 MCM / 500 MCM										
E00-905-0__*	n/a	**Thick Wall Tubing**	EA	1	BG	0	0	1	No	1
E00-905-006	13957	**Thick Wall Tubing:** One (1) 6-Inch Piece	EA	1	BG	0	0	1	No	1
E00-905-008	13958	**Thick Wall Tubing:** One (1) 8-Inch Piece	EA	1	BG	0	0	1	No	1
E00-905-009	13959	**Thick Wall Tubing:** One (1) 9-Inch Piece	EA	1	BG	0	0	1	No	1
E00-905-012	13960	**Thick Wall Tubing:** One (1) 12-Inch Piece	EA	1	BG	0	0	1	No	1
E00-905-024	13963	**Thick Wall Tubing:** One (1) 24-Inch Plece	EA	1	BG	0	0	1	No	1
E00-905-048	13965	**Thick Wall Tubing:** One (1) 48-Inch Piece	EA	1	BG	0	0	1	No	1

HEAT SHRINK TORCH

Recommended for shrinking Thick Wall Heat Shrink Tubing and for use with all our Splice Kits. The trigger-start ignition starts fast and easy. Features a fully adjustable regulator valve and air inlet port for adjustable flame settings.
Connects directly to a standard 14.1 propane tank (not included).

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
HST-T1	12200	**Heat Shrink Torch**	EA	1	BX	20	20	1	No	22

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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Refer to the table shown below to select the Heat Shrink Tubing size which will shrink to fit snugly over the component to be covered. If recovery is restricted the resulting wall thickness will be less than specified.

DIMENSIONS
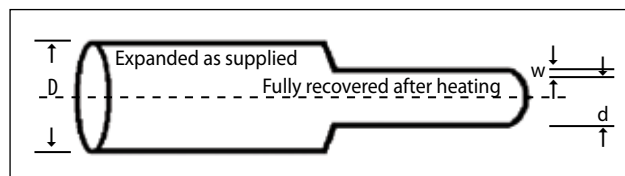
Part Number	Expanded Internal Diameter (MIN) D		Recovered Internal Diameter (MAX) d		Wall Thickness (NOM) W		Application Range for General Use		600 / 1000 V Single Conductor Size
	Inches	MM	Inches	MM	Inches	MM	Inches	MM	AWG / MCM
HST1410	0.35	8.9	0.12	3.0	0.7	1.8	.15 - .3	3.5 - 8	#14 - #10
HST84	0.75	19.1	0.24	6.1	0.12	3.0	.25 - .65	6.5 - 16.5	#6 - #2
HST23/0	1.10	27.9	0.35	8.9	0.12	3.0	.4 - .95	10 / 24	#1 - 3/0
HST2/0300	1.50	38.1	0.47	11.9	0.14	3.6	.5 - 1.4	13 - 35	2/0 - 350
HST300650	2.0	50.8	0.63	16	0.14	3.6	.7 - 1.75	17.5 - 44	250 - 500

SPECIFICATIONS

Property	Typical Performance
Physical	
Tensile Strength	2100 psi (14.5 MPa)
Specific Gravity	1.1
Heat Shock (4 hrs at 225°C (437°F))	No cracking or flowing
Low Temperature Flexibility (4 hrs at -55°C (-67°F))	No cracking
Electrical	
Dielectric Strength	500 V/Mil (20kV/mm)
Dielectric Voltage Withstand (2500 V, 60 Hz, 1 min)	No breakdown, 24kV-1 min, 15kV-4 hrs
Volume Resistivity	10^{16} ohm-cm
Chemical	
Fluid Resistance	Good to Excellent
Copper Corrosion	No corrosion
Water Absorption	0.1%
Fungus Resistance	No growth
Adhesive	
Adhesive softening point	92°C (197°C) +/- 5°C (41°F)
Adhesive Lap Shear	125 psi (0.875 MPa)
Adhesive Blocking (30°C (86°F))	No blocking
Water Penetration	No penetration after 236 hrs (min) of continuous immersion

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SPLICE KITS/HEAT SHRINK TUBING   59

PRODUCT ACCESSORIES

- **RESIDENTIAL**
- **COMMERCIAL**

RESIDENTIAL ACCESSORIES

Whether it's a large multi-family housing complex, town houses, or even a single family home, the benefits of using our Residential Products Accessories increases the Electrical Contractor's productivity, expedites the installation time — and meets the Electrical Contractor's budget and application needs.

We are an excellent source for the Contractor's residential product accessory needs. We use only quality components to ensure they operate as specified. All of our products in this section reduce the Electrical Contractor's time and labor costs when compared to other competitive offerings.

AIR CONDITIONER WHIPS

- Meets the requirements of the 2011 National Electrical Code: Articles 310.10(C)(H(2) and (4), Table 310.15(B)(2)(A), 356.10, 356.20, 440.6 and 440.31.
- Labor and Time Savings! Cost-effective Non-Metallic AC Whips save the Contractor time and money.
- Reducing washers included.
- Convenient packaging of ten (10) or twenty (20) AC Whips per Carton.
- UL Listed. File Number: E87199.

Designed to save the Contractor installation time and labor, our Air Conditioner Whips are typically used to connect the Central Air Conditioner Compressor to the AC disconnect box. Air Conditioner Whips include one (1) Straight and one (1) 90° Connector. Three (3) Conductors are included in 1/2" or 3/4" Non-Metallic Liquid Tight Conduit using either 8 or 10 AWG THHN Conductors.

We will also build "custom" Air Conditioner Whips to your specifications in any length using UL Listed components. Contact our Inside Sales Department *(800.336.1976 or sales@engproducts.com)* for more specific information.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	ShipWt (Lbs)
ACWNM1043-1RA	11202	**AC Whip**: 4-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Three (3) 10 AWG Stranded - Red, Black, Green	EA	1	BRL	20	20	1	No	47
ACWNM1063-1RA	11204	**AC Whip**: 6-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Three (3) 10 AWG Stranded - Red, Black, Green	EA	1	BRL	20	20	1	No	49
ACWNM843-1RA	11205	**AC Whip**: 4-FT, 3/4", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	20	20	1	No	49
ACWNM863-1RA	11208	**AC Whip**: 6-FT, 3/4", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	10	10	1	No	36
ACWNM843-1RA-1/2	11214	**AC Whip**: 4-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	20	20	1	No	49
ACWNM863-1RA-1/2	11213	**AC Whip**: 6-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	20	20	1	No	50

① Type: Straight, Screw-in **Material:** Liquid Tight PVC **Specify Size:** 1/2": P/N E00-045-000 3/4": P/N E00-043-000

② Type: 90°, Screw-in **Material:** Liquid Tight PVC **Specify Size:** 1/2": P/N E00-044-000 3/4": P/N E00-046-000

③ Type: Straight, Screw-in **Material:** Die Cast **Specify Size:** 1/2": P/N E00-011-000 3/4": P/N E00-021-000

④ Type: 90°, Screw-in **Material:** Die Cast **Specify Size:** 1/2": P/N E00-012-000 3/4": P/N E00-022-000

AC WHIP CONNECTOR REFERENCE GUIDE

Note: AC Connectors are available in bulk quantities. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more specific information.

EPCO AC Whips and AC Whip Connectors are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

PRODUCT ACCESSORIES

RESIDENTIAL ACCESSORIES

POWER/APPLIANCE CORDS

- UL Listed.
- Meets the requirements of the 2011 National Electrical Code: Articles 422.16(B)(1) and (2).

SPT Flat and SJT Round Power/Applliance Cords are used for typical applications such as installation of garbage disposals, dishwashers or similar appliances. These Power/Appliance Cords can also be used for repairs of appliances, power tools or other electrical equipment.

The cords are 16 AWG or 14 AWG 3 wire heavy-duty vinyl conductors. One end is pre-stripped at the factory, the other end has a straight or right angle grounded male plug.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SPT 16/3 Flat Cord										
PCR3	10178	**3-FT:** Right Angle Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	8
PCR4	10180	**4-FT:** Right Angle Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	8
PCR6	10181	**6-FT:** Right Angle Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	12
PCR8	10182	**8-FT:** Right Angle Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	13
PCS3	10179	**3-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	8
PCS4	10183	**4-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	8
PCS6	10184	**6-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	12
PCS8	10185	**8-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	13
PCS12	10169	**12-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	22
SJT 16/3 Round Cord										
PSS3	10186	**3-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	8
PSS4	10168	**4-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	8
PSS6	10187	**6-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	12
PSS8	10188	**8-FT:** Straight Plug, 13 AMP - Black	EA	1	BX	25	25	25	Yes	13
SPT 16/3 Round Cord										
RSS3	10219	**3-FT:** Straight Plug with Receptacle, 15 AMP - Black	EA	1	BX	25	25	25	Yes	12
SPT 14/3 Flat Cord										
10950	10950	**3-FT:** Straight Plug, 15 AMP - Beige	EA	1	BX	25	25	25	Yes	9
10953	10953	**6-FT:** Straight Plug, 15 AMP - Beige	EA	1	BX	25	25	25	Yes	17
10956	10956	**9-FT:** Straight Plug, 15 AMP - Beige	EA	1	BX	25	25	25	Yes	25

FLAT AND ROUND CORD STRAIN RELIEF CONNECTORS

- Compression type specifically designed for use with 14/2 or 12/2 AWG Romex® cable.
- Low profile design fits the smaller UF Cables as well as standard sizes.

Round Cord Strain Relief Connectors

Flat Cord Strain Relief Connectors

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Flat Cord Strain Relief Connectors										
15035	15035	**Flat Cord Strain Relief Connector - 1/2":** Accommodates 14/2 and 12/2 Romex Cable and our SPT 16/3 Flat Power/Appliance Cords	BG	12	BG	0	0	12	Yes	1
15040	15040	**Flat Cord Strain Relief Connector - 3/4":** Accommodates 14/3 and 10/2 Romex Cable and our SPT 16/3 Flat Power/Appliance Cords	BG	12	BG	0	0	12	Yes	1
Round Cord Strain Relief Connectors										
15042	15042	**Round Cord Strain Relief Connector - 1/2":** Accommodates our SPT 16/3 Round Power/Appliance Cords	BG	12	BG	0	0	12	Yes	1
15044	15044	**Round Cord Strain Relief Connector - 3/4":** Accommodates our SPT 16/3 Round Power/Appliance Cords	BG	12	BG	0	0	12	Yes	1

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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PRODUCT ACCESSORIES 63

PRODUCT ACCESSORIES

RESIDENTIAL ACCESSORIES RANGE AND DRYER CORDS

RANGE CORDS

- Meets Canadian Standards Association (CSA) Approval.
- Meets the requirements of the 2011 National Electrical Code: Articles 420.5, 422.16(B)(3)(4) and 422.33(A) and (B).
- Heavy-duty terminals ensure an excellent power quality connection.
- Right angle plug for fit-to-wall.
- Strain Relief protects Range Cord from damage.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
40000	40000	**Range Cord:** 4-FT, SRDT 6/2 and 8/1, 3 Wire, 50 AMP - Gray	EA	1	BX	16	16	1	No	27
40001	40001	**Range Cord:** 6-FT, SRDT 6/2 and 8/1, 3 Wire, 50 AMP - Gray	EA	1	BX	16	16	1	No	35
40010	40010	**Range Cord:** 4-FT, SRDT 6/2 and 8/2, 4 Wire, 50 AMP - Black	EA	1	BX	12	12	1	No	33
40011	40011	**Range Cord:** 6-FT, SRDT 6/2 and 8/2, 4 Wire, 50 AMP - Black	EA	1	BX	12	12	1	No	38

DRYER CORDS

- Meets Canadian Standards Association (CSA) Approval.
- Meets the requirements of the 2011 National Electrical Code: Articles 420.5, 422.16(B)(3)(4) and 422.33(A) and (B).
- Heavy-duty terminals ensure an excellent power quality connection.
- Right angle plug for fit-to-wall.
- Strain Relief protects Dryer Cord from damage.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
40020	40020	**Dryer Cord:** 4-FT, SRDT 10/3, 3 Wire, 30 AMP - Gray	EA	1	BX	32	32	1	No	35
40021	40021	**Dryer Cord:** 6-FT, SRDT 10/3, 3 Wire, 30 AMP - Gray	EA	1	BX	32	32	1	No	51
40030	40030	**Dryer Cord:** 4-FT, SRDT 10/4, 4 Wire, 30 AMP - Black	EA	1	BX	16	16	1	No	27
40031	40031	**Dryer Cord:** 6-FT, SRDT 10/4, 4 Wire, 30 AMP - Black	EA	1	BX	16	16	1	No	35

WALL PLATE INSULATION GASKET

Energy saving gasket prevents heat and cold loss through outlets and switches that are located on outside walls.

- Easy to install. Only a screwdriver is required.
- Flame retardant closed cell polyethylene insulating foam.
- One-piece design fits toggle, duplex receptacle or Decora style wall plates.
- Fits duplex receptacles and multi-gang boxes.

Note: Each gasket is perforated.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
10938	10938	**Wall Plate Insulation Gasket**	BG	100	BG	0	0	100	Yes	2

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; Unit Qty: Number of pieces in each Unit; Unit Pkg: Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); Units/Case: Unit packages contained in the Case; TL Case Qty: The total number of items in each Master Case; Min Order Qty: The smallest Unit that can be ordered; MM Req: Must order multiples of the Unit in the stated quantities; Ship Wt (Lbs): Total weight of the units per Carton

PRODUCT ACCESSORIES

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COMMERCIAL ACCESSORIES

Whether from plan and specification, design/build or negotiated, our Commercial Product Accessories represent the highest level of product quality and value that solves the Electrical Contractors problems quickly and easily. This product quality and value is realized in the form of increased productivity and expedited installation times at a price that meets the Electrical Contractor's budgetary requirements and application needs.

Be it a small retrofit project or a new "ground up" construction project, you'll want the most dependable and reliable electrical product accessories working for you. All of our products are manufactured with unmatched workmanship and shipped on-time.

DUCT SEAL COMPOUND

Our Duct Seal Compound is used to seal around junction boxes, flashings, service mast and cable entries. Duct Seal Compound is available in individual 1 lb. bricks, five (5) 1 lb. bricks in one (1) package, or a 5 lb. brick. Each Duct Seal package is individually wrapped in release paper to simplify handling and repackaging.

- Asbestos-free compound
- Odorless, non-sticky.
- Temperature tolerance: -40˚C (-40˚F) to 82˚C (180˚F).
- Can be painted immediately.
- Excellent adhesive properties for use on wood, glass, aluminum and steel.
- Meets the requirements of the 2011 National Electrical Code: Article 230.8.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
EPD1	10101	**Duct Seal:** 1 Lb. Slug	LB	1	BX	50	50	1	No	50
EPD5	10102	**Duct Seal:** Package of Five (5) 1 Lb. Slugs	LB	5	BX	10	10	5	Yes	50
EPD5B	10105	**Duct Seal:** 5 Lb. Brick	LB	5	BX	10	10	5	No	50

EPCO Duct Seal Compound is Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

TIE WIRE

Supports a variety of uses on the job site including bundling, supporting and hanging cable conduit and suspended fixtures. Available in 16 AWG Black Annealed or Galvanized rolls. Also available in 18 AWG Galvanized 30" pre-cut lengths.

Tie Wire: 18 AWG Galvanized Straight Wire
Carbon: C1008 Soft Annealed
Yield: LB/FT = .0104 (104 feet per pound)
Size: .047" Diameter (plus/minus .001")
Tensile/Breaking Strength: 75 lb. max. PSI; 105-135 lbs.
ASTM: Zinc Coating; Meets A641 that requires no minimum ounces of zinc per square foot of surface area.
**Federal Specification:** QQ-W-461

Tie Wire: 16 AWG Black and Galvanized Coiled Wire
Carbon: C1008 Soft Annealed
Yield: LB/FT = .0104 (104 feet per pound)
Size: .0625" Diameter (plus/minus .001")
Tensile/Breaking Strength: 45-60,000 PSI
ASTM: Zinc Coating; Meets A641 that requires no minimum ounces of zinc per square foot of surface area.
Federal Specification: QQ-W-461

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
TY16	10150	**16 AWG Black Tie Wire:** 350' per Roll	EA	1	BX	20	20	20	Yes	70
TY16G	10152	**16 AWG Galvanized Tie Wire:** 350' per Roll	EA	1	BX	20	20	20	Yes	70
TY18G	10151	**18 AWG Galvanized Tie Wire:** 30" Length	EA	1	BX	1750	1750	1750	Yes	25
TY18G-50B	12000	**18 AWG Galvanized Tie Wire:** 30" Length, 50 per Bundle	EA	1	BX	35	35	1	No	25

FIXTURE HANGERS

These labor saving Fixture Hangers are available in Side Mount or Top Mount styles and can be used with our Chain and S-Hook products. Top Mount Hangers are used with mounting holes located on top of a troffer type lighting fixture. Side Mount Hangers are used with mounting holes located on the side of a troffer type lighting fixture. Both Fixture Hanger styles are plated for durability and precisely bent to simplify installation and ensure a secure fit.
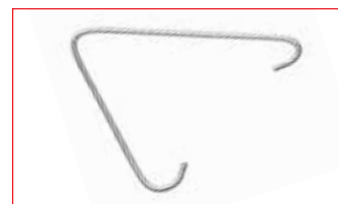
Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SMH	10726	**11 AWG Plated Fixture Hangers:** Side Mount	BX	100	BX	0	0	100	Yes	5
TMH	10725	**10 AWG Plated Fixture Hangers:** Top Mount	BX	100	BX	0	0	100	Yes	7

EPCO Fixture Hangers are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

66 PRODUCT ACCESSORIES

Engineered Products Co. | P 800.336.1976 | F 800.336.2801 | www.engproducts.com
Specifications subject to change without prior notice.

COMMERCIAL ACCESSORIES

SINGLE AND DOUBLE LOOP CHAIN

Double Loop Chain and Single Loop Jack Chain is used to support suspended light fixtures and is often required by code in many cities. We package the chain in convenient 50 and 100-foot boxes.

Single Loop Jack Chain

Double Loop Jack Chain

CHAIN LOAD LIMITS

Trade Size	Wire Gauge	Wire Diameter Inches	Length Per 100 Link Inches	Weight Per 100 Feet Pounds	Working Load Limit Pounds	Break Test Load Pounds
Double Loop Chain						
3	14	.080	110	6	90 LBS/FT	360 LBS/FT
2	13	.091	133	8	115 LBS/FT	460 LBS/FT
1	12	.105	171	10	155 LBS/FT	620 LBS/FT
Single Loop Jack Chain						
14	14	.080	63	5.0	16 LBS/FT	65 LBS/FT
12	13	.105	75	8.5	29 LBS/FT	115 LBS/FT
10	12	.135	95	14.7	43 LBS/FT	170 LBS/FT

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Double Loop Chain										
DL1B/100B	10207	**12 AWG Bright Double Loop Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	50
DL2B/100B	10209	**13 AWG Bright Double Loop Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	40
DL3B/100B	10211	**14 AWG Bright Double Loop Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	30
Single Loop Jack Chain										
JC10B/100B	10201	**10 AWG Bright Jack Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	80
JC12B/100	11703	**12 AWG Bright Jack Chain:** 100-FT Spool	FT	100	BX	5	500	100	Yes	45
JC12B/100B	10203	**12 AWG Bright Jack Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	45
JC14B/100B	10205	**14 AWG Bright Jack Chain:** 100-FT per Carton	FT	100	BX	5	500	100	Yes	30

EPCO Loop Chain is Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

S-HOOKS

S-Hooks are used with Jack Chain and Double Loop Chain to support suspended light fixtures. All S-Hooks are plated for lasting durability. Two (2) sizes are available ranging from 1.125" length 12 AWG wire to 1.25" length 10 AWG wire.

S-HOOK LOAD LIMITS

Trade Size	Wire Gauge	Wire Diameter Inches	Length	Working Load Limit Pounds	Minimum Strength
SH10	10	.135	1.25"	48 LBS/FT	190 LBS/FT
SH12	12	.105	1.125"	32 LBS/FT	97 LBS/FT

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SH10	10251	**10 AWG Plated S-Hooks:** 1.25" Length	BG	100	BG	10	1000	100	Yes	11
SH12	10252	**12 AWG Plated S-Hooks:** 1.125" Length	BG	100	BG	10	1000	100	Yes	10

EPCO S-Hooks are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; **Unit Qty:** Number of pieces in each Unit; **Unit Pkg:** Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); **Units/Case:** Unit packages contained in the Case; **TL Case Qty:** The total number of items in each Master Case; **Min Order Qty:** The smallest Unit that can be ordered; **MM Req:** Must order multiples of the Unit in the stated quantities; **Ship Wt (Lbs):** Total weight of the units per Carton

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PRODUCT ACCESSORIES

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GENERAL TERMS & CONDITIONS

CUSTOMER AND TECHNICAL SUPPORT

Business Hours: 8:00 AM to 5:00 PM Central Time, Monday through Friday.

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- E-mail: sales@engproducts.com
- Mail: 5401 Smetana Drive, Minnetonka, Minnesota 55343
- Website: engproducts.com

MINIMUM ORDER

The minimum merchandise order is $50.00 for existing Customers, excluding any freight charges. Any merchandise order for less than $50.00 will be billed at this minimum amount, plus applicable freight charges.

Most orders placed before 12:00 PM Eastern Time for any of our Standard Catalog Products ship the same business day. Most orders placed after 12:00 PM Eastern Time will ship the next business day.

NEW CUSTOMERS

Engineered Products Company (EPCO) requires an initial purchase of $1,000.00. A "minimum" of 5 line items must also be included on this sales order from any or all of the following product categories:

- Lighting
- Grounding Bonding
- Splicing Kits and Heat Shrink Tubing
- Residential Accessories
- Commercial Accessories

Note: To maintain open account with Engineered Products Company, we require all customers must make annual purchases of $1,500 or more.

FREIGHT TERMS

F.O.B. Shipping Point. Full freight is allowed and will be prepaid by Engineered Products Company on any single order valued at a minimum of $1,000.00. The freight shipment will be via OUR ROUTING to the Distributor's Warehouse on sales orders for Standard Catalog Products exceeding $1,000.00 net billing.

For Product shipments to Hawaii and Alaska, freight will be prepaid and allowed based on the above qualifications only to the United States West Coast point of embarkation. For shipments to Puerto Rico and the Caribbean, freight will be prepaid and allowed based on the above qualifications to Miami, Florida.

For all freight shipments not directed to the Distributor's warehouse, EPCO will add a flat rate surcharge of $95.00 for delivery to the following locations:

- Construction sites, fairs and or carnivals, military bases, mine sites, prisons, etc.
- Commercial establishments, churches, schools, or other sites not open to the "walk in" public during normal business hours
- Limited Access for Pickup or Delivery Service

The following surcharges are also applicable for "arrival notification" services:

- $38.00 to Call For Appointment
- $38.00 to Call Consignee Before Delivery
- $88.00 for Inside Delivery or Pickup
- $86.00 for Lift Gate Service
- $91.00 for Residential Delivery or Pickup

The above surcharges are applicable to freight shipments less than 500 lbs. Freight shipments over 500 lbs. will cost more!

PRODUCT WARRANTY

EPCO warrants that the products described herein, will be furnished free from defects in material and workmanship for 1 year. Any exceptions will be indicated on the product or packaging.

EPCO's sole obligation for any breach of warranty under the terms herein shall be, at our option, to repair or provide replacement for the Product to which such warranty is breached, or to return all payments made with respect to such Product. Any Product(s) which are deemed to be defective must be specified by the Purchaser in a written notice to Engineered Products Company's Warranty Department within 1 year after receipt of such goods. Under no circumstances will Engineered Products Company be liable for loss of profits or incidental, indirect, consequential or special damages of any kind beyond the replacement cost of the defective merchandise.

Engineered Products Company shall not be liable for any losses arising from governmental action, an act of God, or the result of war, riot, strikes, civil commotion, sovereign conduct, or the act or conduct of any person or persons not party to or associated with Engineered Products Company.

GUARANTEED SALES POLICY

EPCO guarantees the sale of its Standard Catalog Products from authorized distributors to their customers. If an authorized distributor is not satisfied with their sales movement of our Standard Catalog Product(s), the distributor may request an Return Materials Authorization (RMA) Form from either their Engineered Products Company's Sales Representative or by contacting our Inside Sales Department.

If the Product(s) is in the "original" unopened package(s) and is less than 12 months old, upon receipt, 100% credit will be issued. Freight must be prepaid by the customer. If the Product(s) is older than 1 year, but less than 2 years old, 100% credit will be issued with a corresponding order of equal or greater value. If the Product(s) being returned is older than 2 years old, 100% credit will be issued with a corresponding order of at least two times the value.

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