ERITECH®

System 2000

Lightning Protection Products

ERICO®

ERICO® Facility Electrical Protection

The Company

ERICO® was formed in 1903 as the Electric Railway Improvement Company. In 1938 ERICO developed the CADWELD® exothermic welding process which has found industry wide acceptance as the ultimate electrical connection. During the 1970s, ERICO pioneered the development and standardization of the copper bonded steel grounding electrode. Since that time, ERICO's dominance as the world's leading supplier of grounding products has seen its expansion into many related industries. Most recently, ERICO acquired Global Lightning Technologies (Australia), Sudafix (UK) and AC Lightning Security Inc. (USA), all leading manufacturers of lightning and surge protection products. The synergy of these mergers has positioned ERICO as the largest global supplier of lightning protection solutions and products under the trade names:

- ERITECH® lightning protection systems
- ERITECH® grounding products
- CADWELD® welded electrical connections
- CRITEC® surge protection devices

Facility Electrical Protection Products

Lightning protection, grounding, equipotential bonding and surge protection are all interdependent disciplines and the focus of our Facility Electrical Protection product offering. Reliable protection of structures, industrial and commercial operations and personnel demands a systematic and comprehensive approach to minimizing threats caused by transients. For instance, no air terminal can safely capture and arrest the lightning energy without a dependable route to ground. Equally, even the most expensive Surge Protection Device (SPD) will not provide optimum protection if a low impedance electrical connection to the ground is not provided. The solution does not stop here - a low impedance ground system may create hazards to equipment and personnel alike if equipotential bonding practices are not followed. These interdependent disciplines are best applied when looking at a total facility rather than an individual piece of equipment or portion of the facility. Our team of qualified applications engineers is here to help you with such problems.

Noting that there is no single technology that can eliminate the harmful effects of lightning or induced surge transients, ERICO Inc. has developed its generic Six Point Plan of Protection. The concept behind this plan is to prompt the user to consider a holistic and coordinated approach to lightning protection, that embraces all aspects of potential damage. This ranges from the more obvious direct strike to the more subtle mechanisms of differential earth potential rises and voltage induction at service entry points. The six interdependent disciplines that form the protection plan are:

1. Capture the lightning strike.
2. Safely convey this energy to ground.
3. Dissipate energy into the grounding system.
4. Bond all ground points together.
5. Protect incoming AC power feeders.
6. Protect low voltage data/telecommunications circuits.

ERITECH Lightning Protection Systems

This catalog details ERICO's ERITECH range of lightning protection products to meet the needs of points 1 and 2 of the Six Point Plan. For more information on the range of products designed to cover points 3 through 6, please request a copy of the ERITECH Grounding, CADWELD electrical connections, or CRITEC surge protection product catalogs.

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For a complete listing of ERITECH® grounding products, bonding braids, insulators or other electrical grounding accessories refer to the ERITECH Grounding Products and Systems Catalog (G281C).

Six Point Plan of Protection

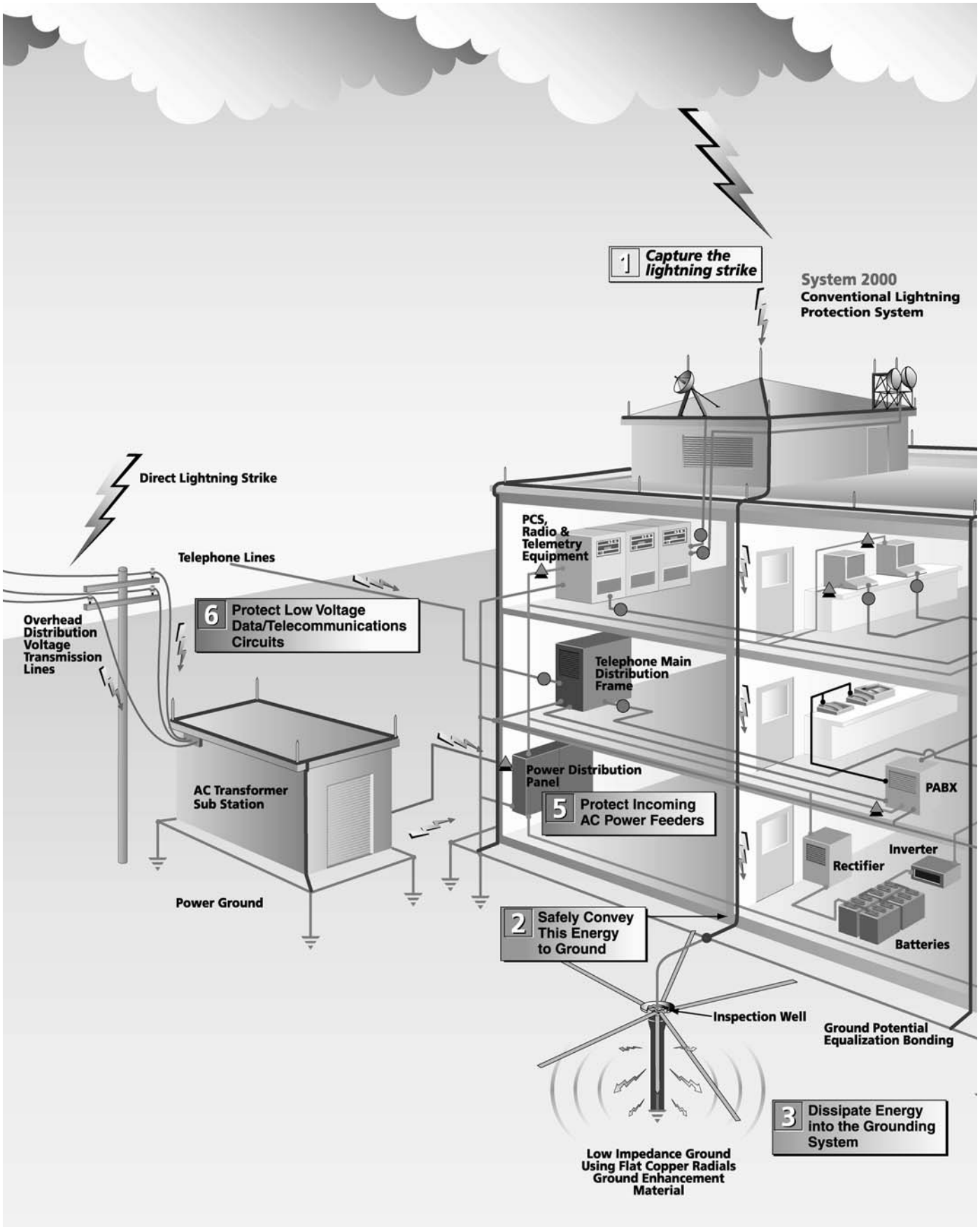
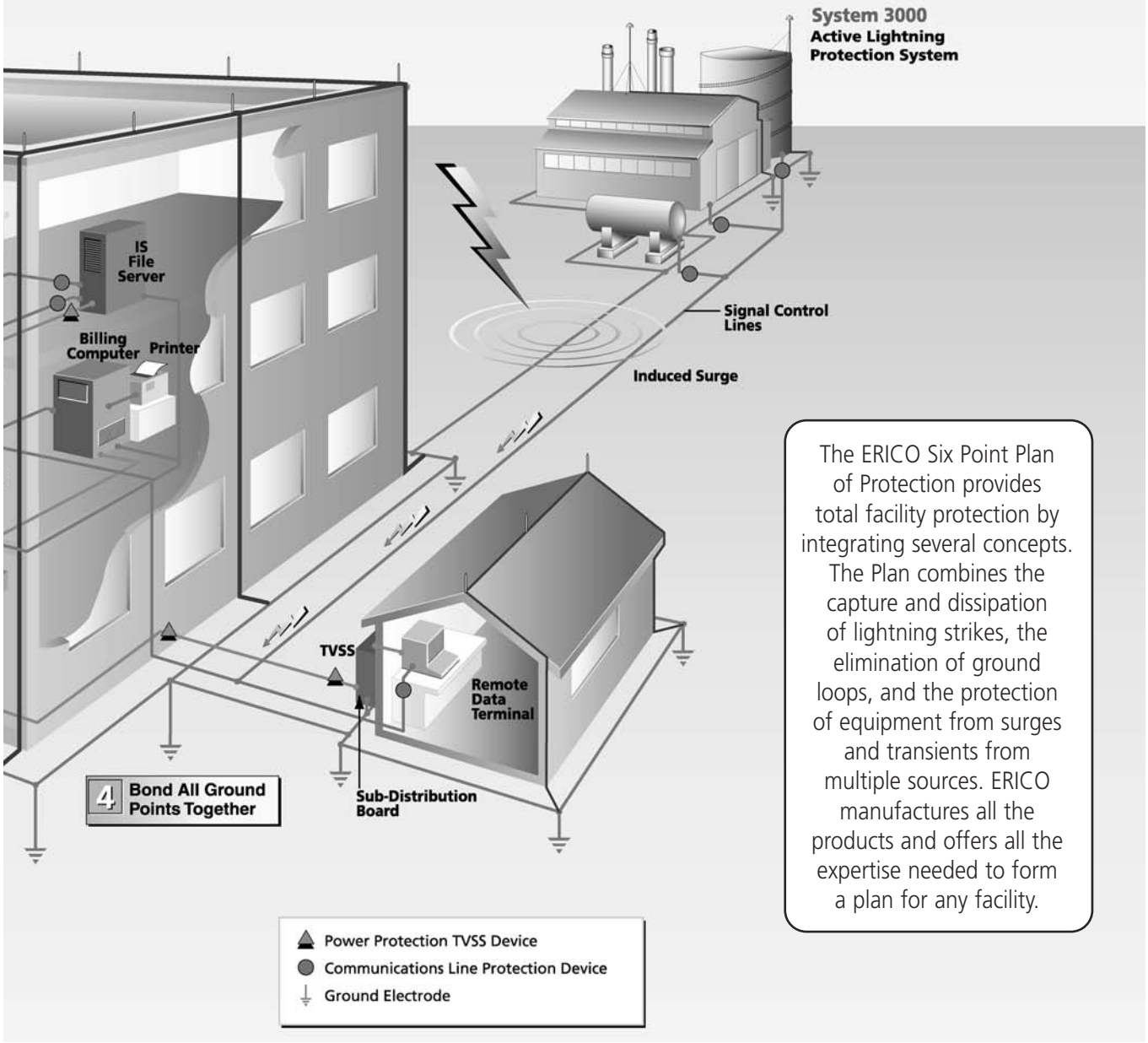


Figure 1.

Six Point Plan of Protection

The ERICO® Six Point Plan of Protection

1. **Capture the lightning strike.** Capture the lightning strike to a known and preferred attachment point using a purpose-designed air terminal system.
2. **Safely convey this energy to ground.** Conduct the energy to the ground safely via a purpose-designed downconductor.
3. **Dissipate energy into the grounding system.** Dissipate energy into a low impedance grounding system.
4. **Bond all ground points together.** Bond all ground points to eliminate ground loops and create an equipotential plane.
5. **Protect incoming AC power feeders.** Protect equipment from surges and transients on incoming power lines to prevent equipment damage and costly operational downtime.
6. **Protect low voltage data/telecommunications circuits.** Protect equipment from surges and transients on incoming telecommunications and signal lines to prevent equipment damage and costly operational downtime.



The ERICO Six Point Plan of Protection provides total facility protection by integrating several concepts. The Plan combines the capture and dissipation of lightning strikes, the elimination of ground loops, and the protection of equipment from surges and transients from multiple sources. ERICO manufactures all the products and offers all the expertise needed to form a plan for any facility.

The Need for Lightning Protection

There is no known method of preventing the occurrence of a lightning discharge. The purpose of a lightning protection system, therefore, is to control the passage of a discharge in such a manner that prevents personal injury or property damage.

The need to provide protection should be assessed in the early stages of the structure design. Although no strict rules can be given, it is possible to use broad guidelines to arrive at the degree of protection required.

Critical factors to be considered:

1. What is the risk to personnel?
2. What is the risk of equipment or structural damage?
3. What are the consequential problems of such failure?
4. Is the equipment associated with an essential/public service?
5. Is there likely to be substantial revenue loss in the time taken to restore services?
6. Is the structure of historical importance?
7. What are the legal implications of providing inadequate protection?
8. Can the passage of a discharge in a structure or a building give rise to side flashing or simple sparks in an explosive or flammable environment? i.e: The extraction and storage of gas or oil, storage and manufacture of explosives, etc.
9. Can side flashing between metallic structures (as in a ship) cause damage to essential electronics?
10. Will the discharge give rise to corona phenomena causing disastrous surges on the phase wires of electric lines or breakdown in transformer stations?

The assessment of these factors is one of judgement in comparing risks, economics and aesthetics. Such assessment is not always simple.

Lightning is an unknown phenomenon

It is possible to estimate the number of ground strikes expected per square kilometer per year and statistically determine the risk of a building being struck. While still useful in modern lightning protection techniques, such statistical calculations should, however, be viewed with caution. As an example, it can be shown that a building in a low intensity area should be struck only once in 20 years. However, it is possible to receive several strikes in one storm and then no more for 30 years.

The random nature of lightning means the role of statistics is quite important in determining the need for protection. The answers, however, to the previous 10 questions are equally important in the assessment of the need for lightning protection.

Particularly at risk:

Installations where lightning protection is highly desirable are summarized as follows:

- Power stations
- Sub-stations and transformer stations
- Oil and gas storage and refinery
- Drilling rigs
- Grain storage
- Explosives factories and storage areas
- Flammable liquid or chemical storage
- Factories such as chemical, textile, rubber, sugar, glass, paint, etc.
- Mining areas
- Television, radio and telecommunications stations
- High rise buildings - commercial and apartment complexes
- Hospitals
- Transport - airports, shipping, rail etc.
- Universities, education facilities
- Historic structures
- Churches, Mosques, etc.
- Military installations
- Golf courses, race courses, sports stadiums, etc.
- Farms and food storage areas
- Buildings containing computers and electronics

In a world of increasingly complex and sophisticated buildings and equipment, lightning is a constant risk. A single direct strike can result in physical damage to buildings and catastrophic failure of sensitive electronic equipment. It can start fires, cause major breakdowns to electrical, telephone and computer installations, and simultaneously cause substantial loss of revenue.

Storm development and natural ionization

A thunderstorm commences with the development of a cumulonimbus thunder cloud. The cloud is typically formed by rapidly rising humid air which becomes electrified due to convection and precipitation effects. This is accompanied by wind speeds of up to 125 miles/hr.

The end result is the separation of positive and negative charges (see Figure 2). In approximately 90% of cases, the lower part of the thundercloud is comprised of a thin, concentrated layer of negative charge, and the upper part comprises a more diffuse positively charged region. The cloud base is typically 1 to 4 miles above the ground and the cloud depth is typically 4 to 8 miles.

As a result of the cloud electrification, a quasi-static electric field is established between the cloud and ground. Pointed ground objects subjected to this ambient electric field emit varying amounts of point discharge or "corona", and the resulting positive or negative ions drift upwards to form a low density "space charge" which extends from ground to cloud. This space charge reduces the electric field observed at ground level, typically from 50 - 60 kV/m at heights of 1640 ft. to 2-15 kV/m at the ground.

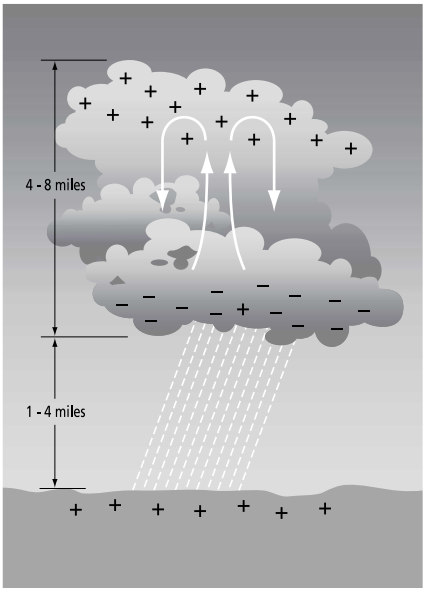


Figure 2. Typical positive and negative charge distribution in the cumulonimbus cloud.

The Lightning Discharge

Within the confines of the cloud, static electricity builds to an extent where one or more neutralizing discharges or flashes occur. These flashes can be in the form of an inter-cloud (cloud-to-cloud), intra-cloud (within cloud) or cloud-to-ground flash.

The dramatic cloud-to-ground flash is of most concern. This dynamic phase of lightning commences in the form of a luminescent downward leader from the base of the cloud, which proceeds in a series of steps and branches toward the ground. The protrusion of ground objects into an ambient electric field (such as that created by a lightning downward leader) increases the electric field at the tip of the object, as shown in Figures 3 and 4. As the downleader approaches, it causes the electric field around points on the surface of the earth to increase rapidly, leading to the initiation of small upward streamers from the elevated points. Under the right conditions, these upward streamers thermalize and become competing upward leaders which propagate toward the approaching downleader, as shown in Figure 5.

The ability of one ground point to develop an upward intercepting leader before other nearby competing points means that it can become the preferred strike point to successfully complete an ionized path between cloud and ground, as shown in Figure 6.

The diagrams below illustrate the varying degrees of electric field intensification created by grounded objects subjected to an ambient electric field (in this case, that of the lightning downward leader).

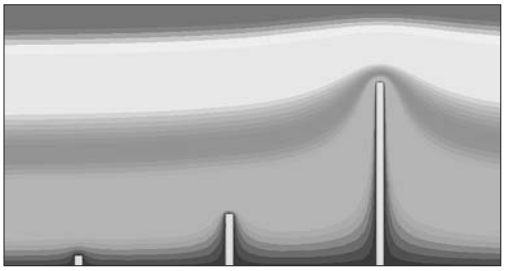


Figure 3. Field intensification, portrayed with lines of equal voltage (equipotential lines), is a function of the height of the object as well as its degree of "sharpness".

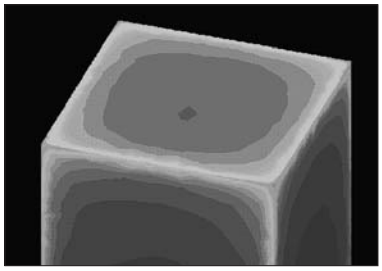


Figure 4. Electric field plot of a real structure in an ambient field, showing that the intensification is high at the corners, moderate on the horizontal and upper vertical edges and very low on flat horizontal and vertical surfaces.

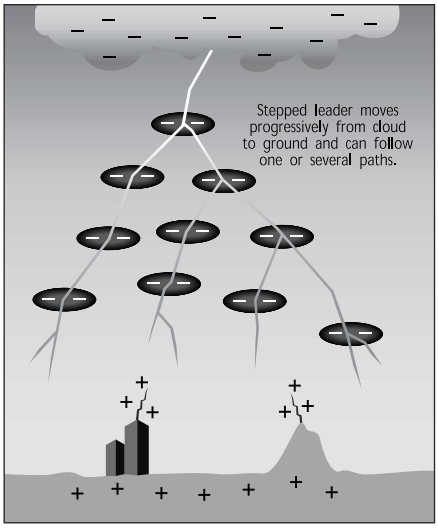


Figure 5. Electric field due to downleader increases to the point of initiation of an upward leader.

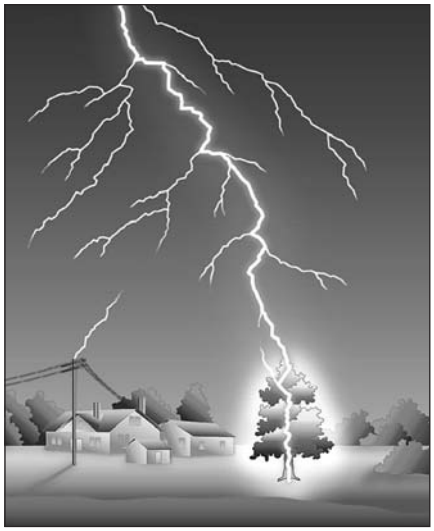


Figure 6. Upward leaders propagate toward downward leader to complete the ionized path between cloud and ground.

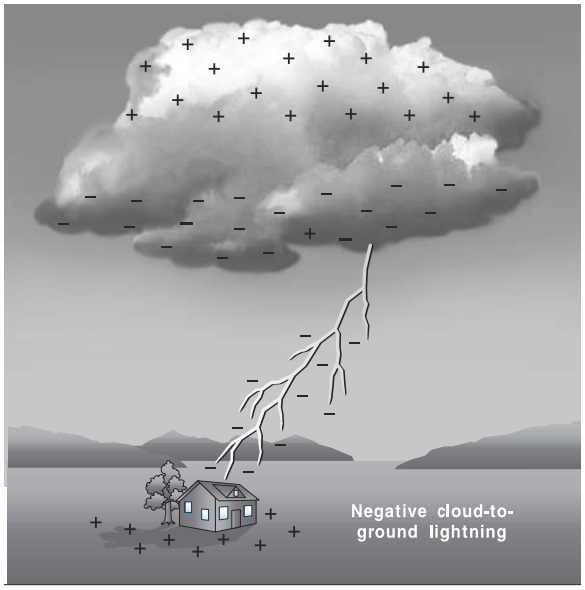


Figure 7. Negative cloud-to-ground lightning.

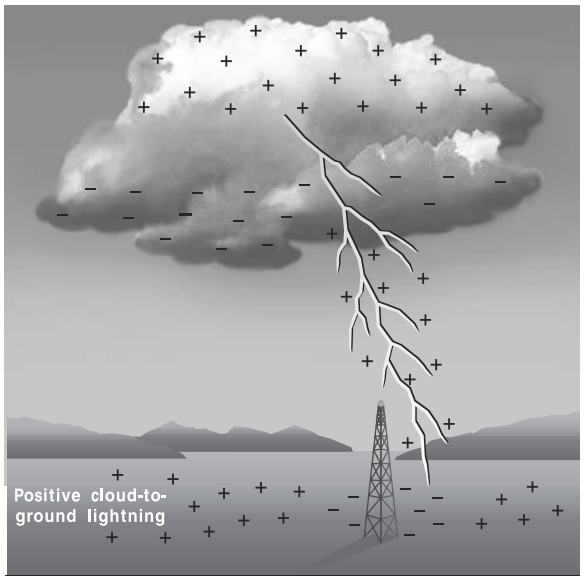


Figure 8. Positive cloud-to-ground lightning. Negative and positive cloud-to-ground lightning typically occurs to an approximate ratio of 90:10.

Typically, 90% of cloud-to-ground flashes transfer negative charge (negative lightning), as shown in Figure 7. Such a flash consists of a sequence of one or more high amplitude, short duration current impulses or strokes. The subsequent strokes are sometimes called restrikes.

A small proportion of flashes transfer positive charge to ground (positive lightning), as shown in Figure 8. Typically 10% of lightning flashes are positive, although this can vary with latitude and season. The parameters for positive lightning differ considerably from their negative counterparts. Some of the main differences are that the:

- restrike phenomenon is absent (no subsequent strokes)
- peak current is higher (~ 2 x)
- maximum rate of rise of current is less (~ 0.1 x)
- total rise time is longer (~ 4 x)
- stroke duration is longer (~ 4 x)
- action integral (energy content) is higher (~ 10 x)

In summary, the main lightning discharge is characterized by a rapidly rising current (averaging about 30,000 Amps) with maximum values exceeding 200,000 Amps. This whole process is extremely rapid, typically occurring within milliseconds. The average energy released in a single discharge may be 55 kW hours. The danger lies in the extremely high rate of current rise (up to 10^{10} Amps per second) which can generate very high voltages, and also from the continuing current following the peak.

Without proper intervention to capture and control the passage of this lightning energy to ground, cloud-to-ground lightning can be catastrophic.

Capturing the lightning discharge

In general, the highest point of a facility is the most vulnerable to a direct lightning strike. Lightning rods or air terminals are needed to capture the strike to a preferred point, and to safely conduct the energy to ground to minimize the risk of damage. The number of terminals required, and their placement, is determined by the chosen lightning protection design method.

The placement of air terminals, whether conventional or active, is a critical part of the lightning protection design process. Since the 1750's the most popular methods of lightning protection have involved sharp vertical rods (Franklin), horizontal and vertical conductors (Faraday Cage or Mesh) or a combination of both. Only if air terminals are placed in the optimum location on the structure is it possible to achieve an efficient and reliable lightning protection system. Historically, a number of methods have been employed, some of which are still in common use, such as the Cone of Protection (Protective Angle), Mesh and Rolling Sphere methods.

Rolling Sphere Method

The Rolling Sphere Method is undoubtedly the most common recommended method in codes of practice. It is based on the Electrogeometric Model which relates the "striking distance" to the peak current delivered by the lightning strike. To apply this technique, an imaginary sphere, typically 150 ft. in radius (the striking distance), is rolled over the structure. All structure surface points that contact the sphere are deemed to require protection, while unaffected areas are deemed to be protected, as shown in Figure 9.

It is claimed that the main advantage of the Rolling Sphere Method is its simplicity. This is true but only for simple structures. It is difficult to apply it to complex structures as it requires 3D numerical modeling software. The fundamental issue with this model is that it assigns an equal leader initiation ability to all contact points of the sphere on the structure, for example: the striking distance is assumed to be a constant value.

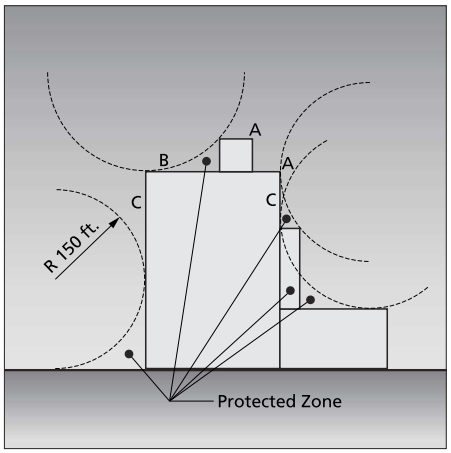


Figure 9. Rolling Sphere method detailing points A, B, C.

Corners or objects on elevated structures, which may include antennae, satellite dishes or advertising signs, create high levels of field intensification and are more likely to launch an upward leader than flat horizontal surfaces.

The NFPA®780 standard recommends a series of additional "design rules" to address the protection of these vulnerable locations.

A lightning protection installation consists of three essential components.

1. The Air Terminal

The primary function of an air terminal, or air termination system, is to capture the lightning strike to a preferred point, so that the discharge current can be safely directed via the down conductor(s) to the grounding system.

2. The Downconductor

The function of a downconductor is to provide a low impedance path from the air termination to the ground system so that the lightning current can be safely conducted to earth, without the development of excessively large voltages.

In order to reduce the possibility of dangerous sparking (side-flashing), the downconductor route(s) should be as direct as possible with no sharp bends or stress points where the inductance, and hence impedance, is increased under impulse conditions.

3. The Grounding System

The grounding system must have a low impedance to safely disperse the energy of the lightning strike. Since the lightning discharge consists of high frequency components, we are particularly concerned with the impedance, as well as low resistance grounding.

Grounding systems are highly variable from site to site due to geographical considerations. The grounding grid should minimize the ground voltage potential rise and minimize the risk of injury to personnel or damage to equipment.

Summary

It is important to realize that inefficiency in the design of any one of the above components represents an inefficiency in the protection system as a whole. Each of these components must be considered independently and finally integrated together to form the complete lightning protection system. Indeed, without such integration, there is limited protection.

General Installation Notes

1. The design layout and installation details shown hereon shall meet the requirements of National Fire Protection Association (NFPA®) #780 current edition.

2. Connection to ground rod or ground loop conductor shall be made at a point not less than 18" below grade, ground rods shall not be less than 8' long and extend at least 10' into the earth.

3. Air terminals shall be placed at all unprotected outside corners and located intermediately on 20'-0" maximum spacing around the roof perimeter or ridge and within 2'-0" of outside edge.

4. Midroof areas are to be provided with air terminals spaced either at 50' center or, of sufficient quantity and height, to ensure the entire roof area is covered by a "zone-of-protection" as afforded by a 150' radius sphere, per NFPA #780.

5. Grounded metal bodies located about the structure such as: soil pipe vents, roof drains, exhaust fans, air handling units, any miscellaneous equipment with electrical services, etc. shall be interconnected to the lightning conductor system, if within the "bonding distance" established by NFPA #780.

6. Bond all metallic pipes including water, fire, gas, sewer, storm, etc. which enter the structure, within 12' of grade, to the nearest downlead, ground rod, or ground loop.

7. All reinforcing, structural, framing, and miscellaneous steel shall be made electrically continuous throughout construction by welding, clipping, bolting, or other approved methods.

8. Telephone and/or electric service entrance grounds shall be interconnected to one lightning protection ground or water pipe.

9. All areas which have not been provided with lightning protection components are protected from higher roofs or structures. These areas fall within a "zone-of-protection" as established by the current edition of the NFPA #780 document for protection against lightning.

10. The lightning protection system shall be installed in a neat and inconspicuous manner so that all components will blend with the appearance of the building.

11. No bend of a conductor shall form a final included angle of less than 90 degrees nor shall have a radius of bend of less than 8".

12. Conductors shall interconnect all air terminals and shall form a two-way path from each air terminal horizontally or downward to connections with ground terminals, with the exception of vertical roof members, upper roof to lower roof transitions, or lower roof "dead ends".

13. All lightning protection conductors shall be fastened not more than 3'-0" maximum spacing.

14. All adhesive type fittings shall be set in place with an application of compatible adhesive compound before roof gravel is applied.

15. Actual jobsite conditions may necessitate slight alterations in air terminal and ground rod locations.

16. Bare copper lightning protection materials shall not be installed on aluminum roof or siding or other aluminum surfaces and vice versa, aluminum lightning protection materials shall not be installed on copper roofing or copper siding or other copper surfaces.

17. Surge suppressor shall be provided on electric and telephone service entrances and on radio and television antenna lead-ins.

18. Seal ends of conduit moisture tight with duct seal or lead wedge. All conduit, conduit fasteners, and miscellaneous accessories shall be furnished and installed by the electrical contractor.

19. The design layout and installation details shown hereon shall meet the requirements of Underwriter's Laboratories UL® Standard 96A for Master Labeled lightning protection systems. When desired, the actual Master Label will be delivered upon completion of installation.

20. The lightning protection installation shall comply in all respects to Lightning Protection Institute Standard 175. The installation shall be made by or under the supervision of an L.P.I. Certified Master Installer.

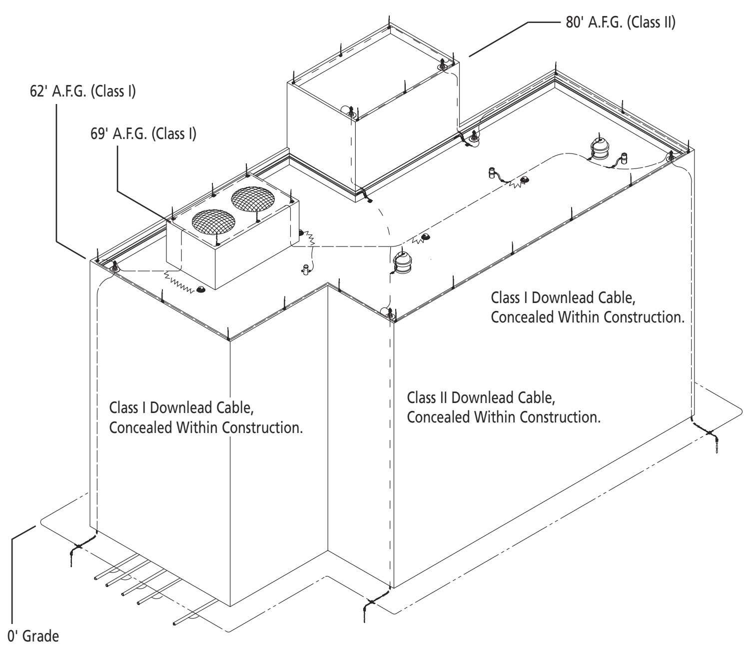
21. Metal bodies of inductance located about the roof such as metal flashing, gravel stops, roof drains, soil pipe vents, insulation vents, louvers, and door frames situated within 6'-0" of a lightning conductor or bonded metal body shall be interconnected to the lightning conductor system.

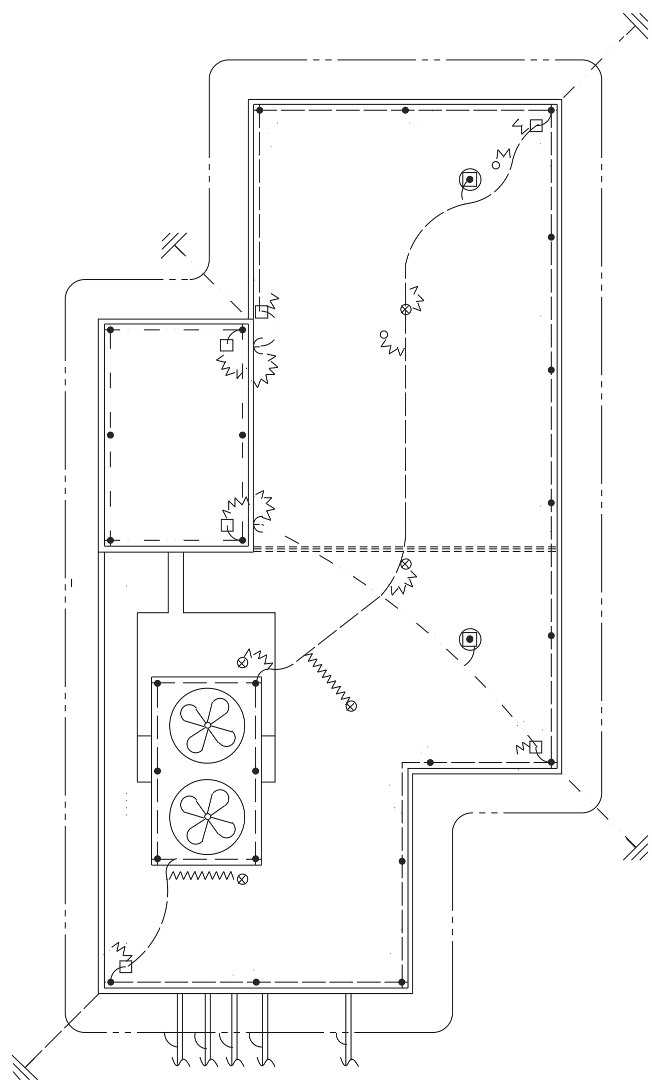
Legend

•	Air Terminal Location		No. LPC126 Copper Ground Loop Conductor (Min. Class II Cable)
□	Thru-Roof Connection Location		No. LPA141 Aluminum Secondary Bonding (#4 AWG)
	Thru-Wall Connection Location		Exhaust Fan
	Ground Rod Location		Misc. Mechanical Equipment
	Thru-Roof Cable to Steel Connection	○	Vent Thru-Roof
	No. LPC120 Copper Cable (#2 AWG)	⊗	Roof Drain
	No. LPC126 Copper Cable (Min. Class II Cable)	A.F.G.	Above Finished Grade
	No. LPC151 Copper Secondary Bonding Wire (#6 AWG)		

Note: The lightning protection materials to be used for this type of installation may be aluminum or copper, within the allowances of NFPA® code 780. Some of the criteria for choosing one type of material over another are as follows:

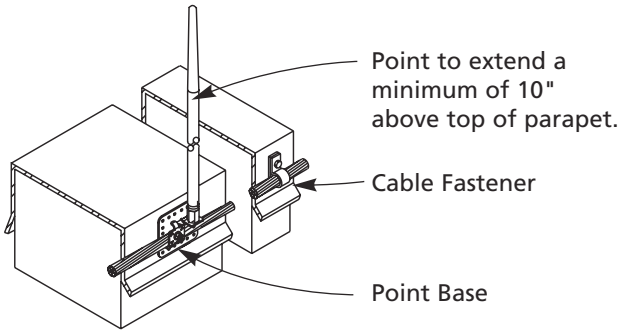
1. Matching of materials to which lightning protection components are to be installed for compatibility; aluminum on aluminum, copper on copper, etc.
2. Location of materials (i.e. within concrete, below grade, etc.)
3. Lightning protection components to match existing lightning protection materials.
4. Personal preferences of owner, architect, engineer, etc.



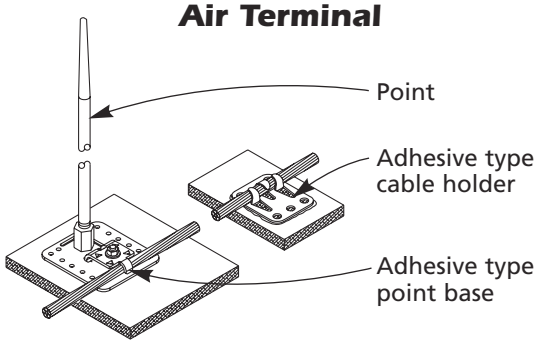


Typical Installation Drawings

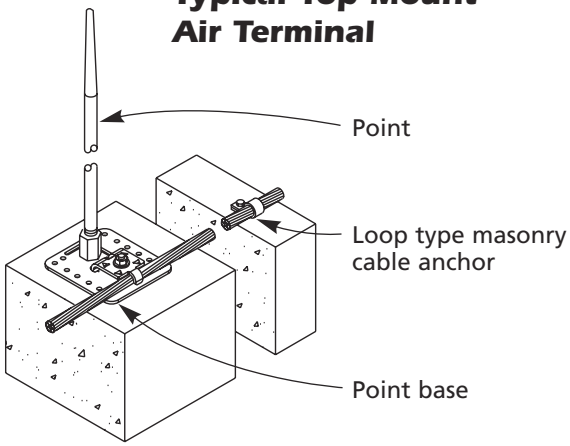
Typical Parapet Air Terminal



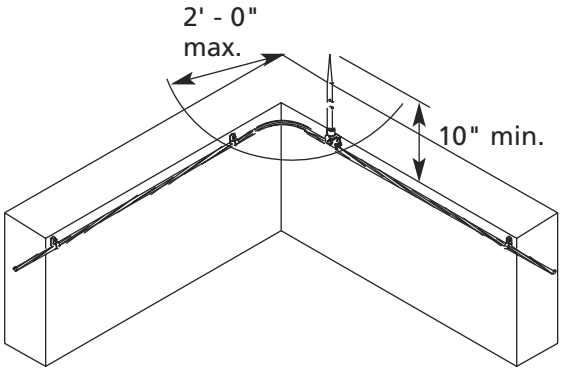
Typical Mid-Roof Air Terminal



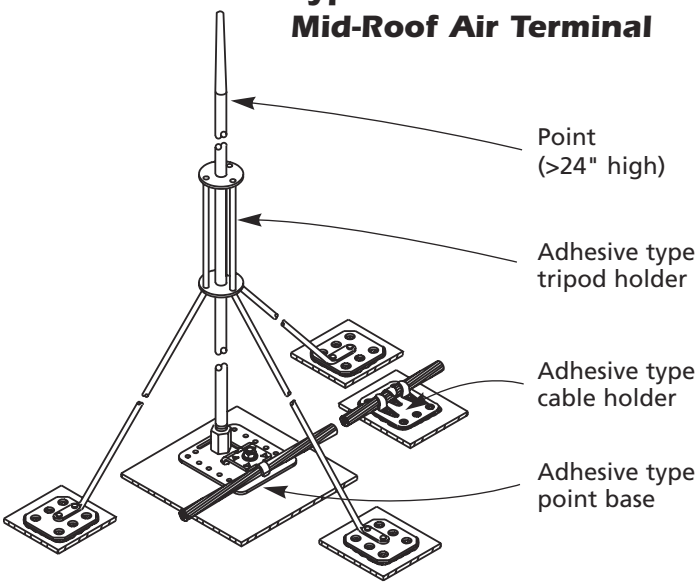
Typical Top Mount Air Terminal



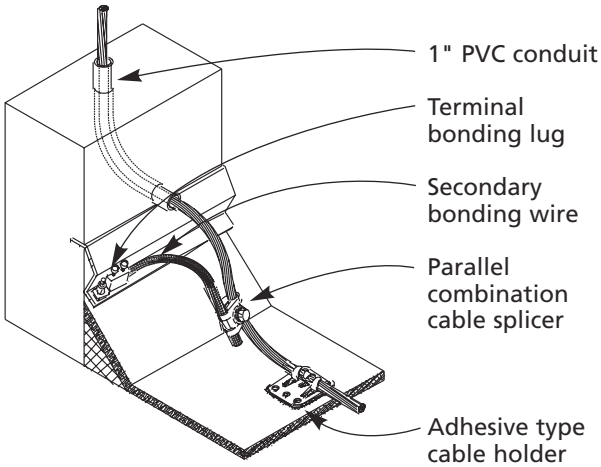
Typical Air Terminal Placement at Outside Corners



Typical Tri-Pod Mid-Roof Air Terminal

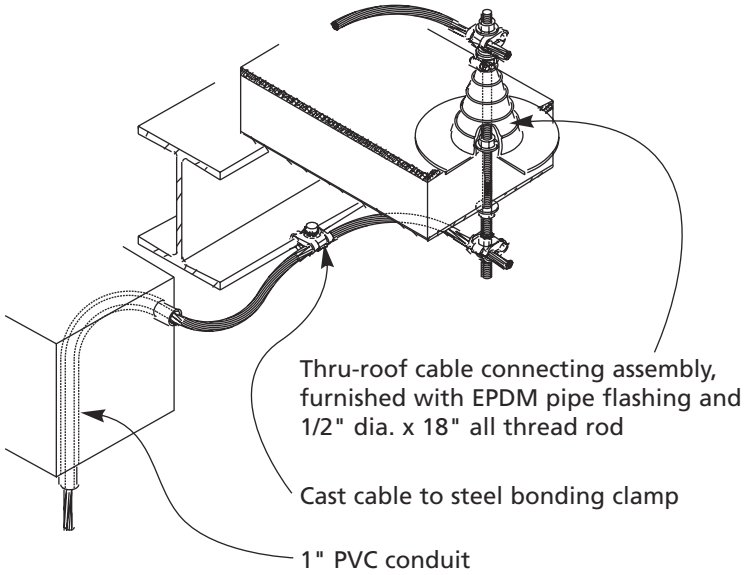


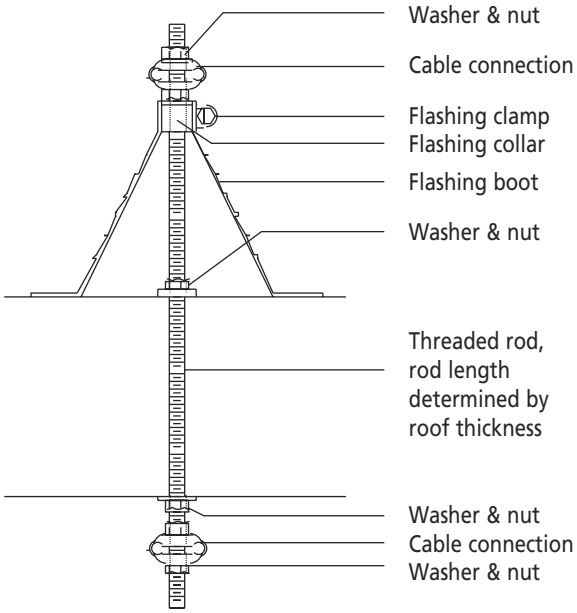
Typical Concealed Downlead to Lower Roof



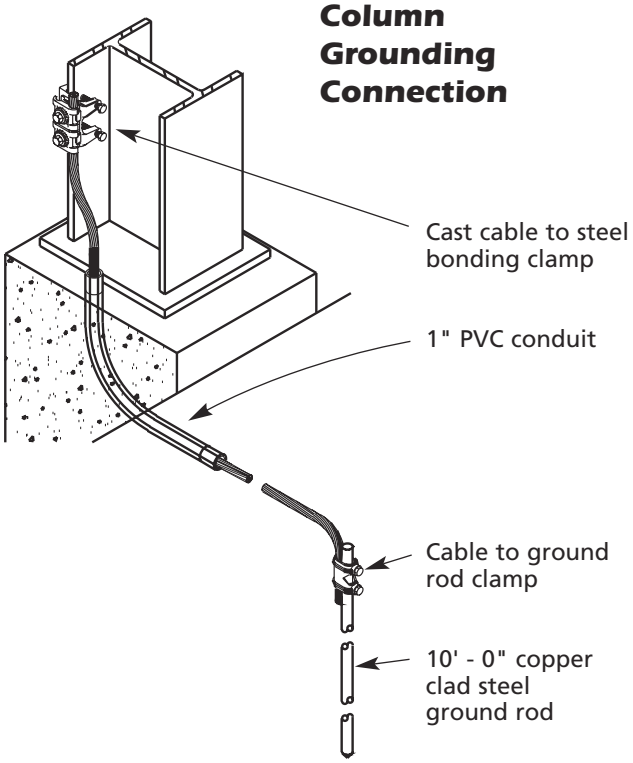
Typical Installation Drawings

Typical Thru-Roof Connection

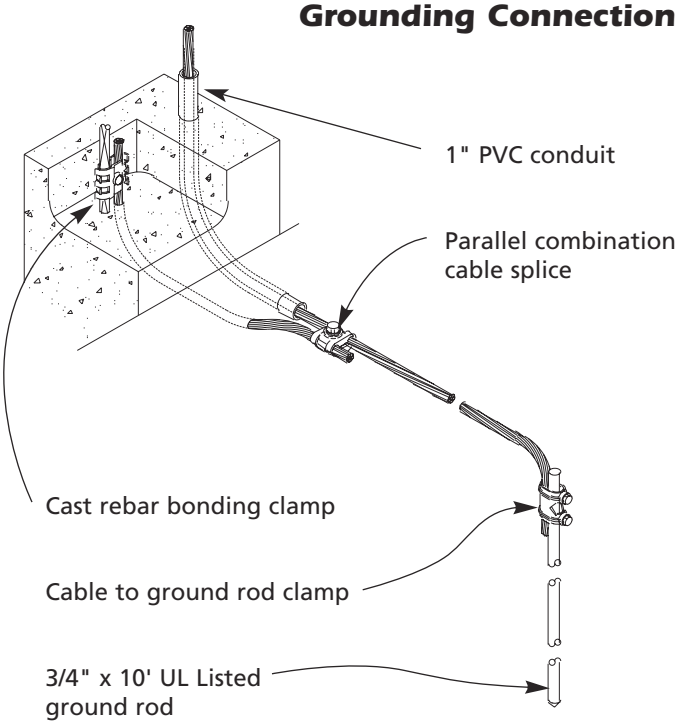




Typical Steel Column Grounding Connection

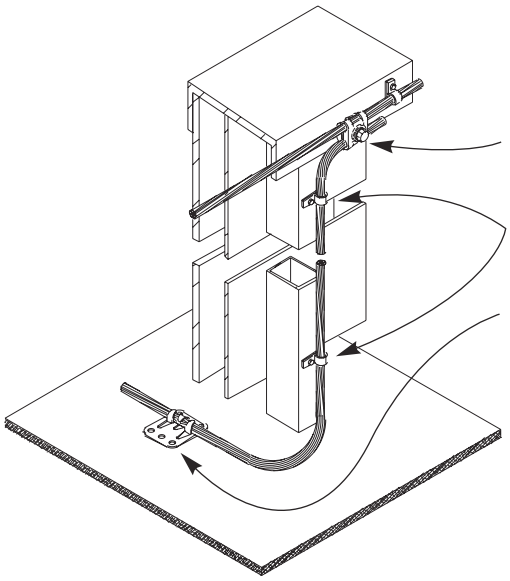


Typical Concealed Download to Grounding Connection

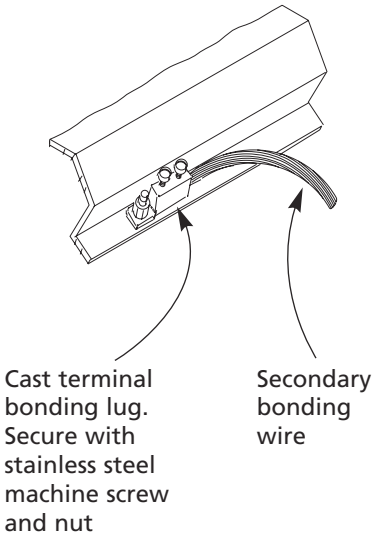


Typical Installation Drawings

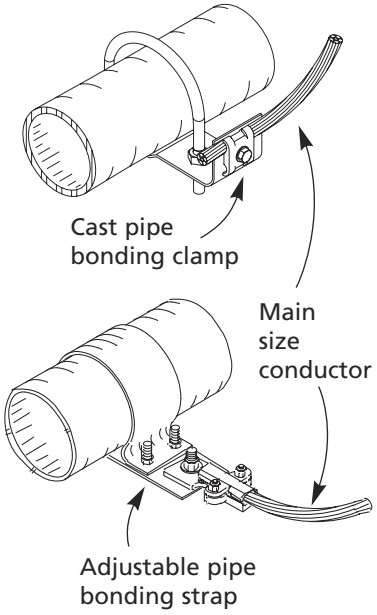
Typical Exposed Downlead to Lower Roof at Screenwall



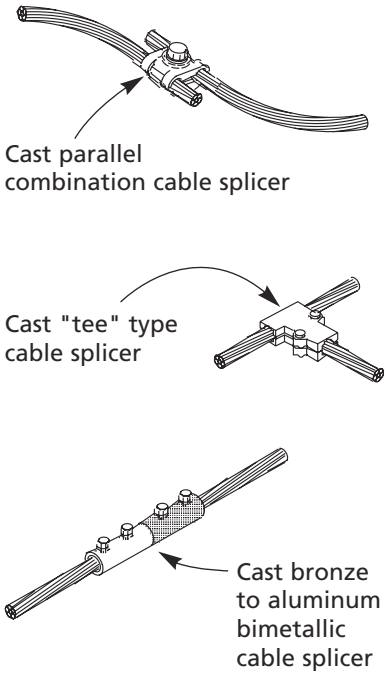
Typical Flashing Bond



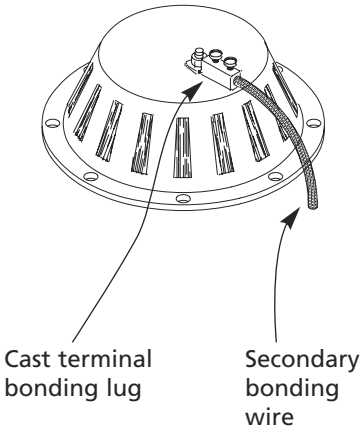
Typical Metallic Water Pipe Bonding Clamp



Typical Cable Splicers



Typical Roof Drain Bond



General Specification

Short Form:

The contractor shall furnish all labor, materials, equipment and services to provide a complete lightning protection system for the building(s) included on this contract. The system(s) shall include roof-mounted air terminals, interconnecting conductors, downlead conductors to ground and proper ground terminations as provided by ERITECH® Lightning Protection/Grounding Products from ERICO® Inc. phone: (800) 677-9089, e-mail: application_eng@erico.com. This system will comply with National Fire Protection Association (NFPA®), Lightning Protection Standard No. 780. Upon completion of the installation, the contractor shall deliver to the owner the Master Label of Underwriters' Laboratories, Inc. (UL®) and the L.P.I. Certified System registration. Any components or methods not found in accordance with this specification shall be repaired or replaced without cost to the owner before final payment is approved.

Long Form:

1.1 General:

A. The Contractor shall provide and install a complete Lightning Protection System for all of the building(s) included in this project. This specification addresses the requirements of Lightning Protection Systems for buildings only.

B. Compliance Requirements

1. System Design: NFPA 780, latest edition.
2. Component Design: UL 96 Standard, latest edition.
3. Certification: Lightning Protection Institute Certified System and Underwriters' Laboratories 96A Master Label.

C. Submittals

1. Complete Shop Drawings
   a) Layout
   b) Details
2. Catalog Data with complete description of material components.

1.2 Product:

A. Manufacturer: ERITECH Lightning Protection/ Grounding Products from ERICO Inc. phone: (800) 677-9089. E-mail: application_eng@erico.com

B. Prior approved manufacturer, who is a Lightning Protection Institute Member in good standing.

C. Materials are to be listed and labeled in accordance with Underwriters' Laboratories (UL) 96A requirements.

1.3 System Design:

A. System to be designed by a L.P.I. Certified Master Installer/Designer.

B. System to consist of groundings, down conductors, air terminals, interconnecting conductors and bonding, designed to appear as a part of the building.

1. Steel framing (minimum 3/16 in. thick) may be used for the lightning protection component if electrically continuous, or made so.
2. Cable system to be utilized if building construction is not structural steel columns.

C. Design to be complete per current NFPA 780 requirements.

1. Class I materials required for structure 75 ft. and less in height.
2. Class II materials required if structure is over 75 ft. in height.
3. Aluminum Lightning Protection materials are not to be embedded in concrete or masonry or installed on or below copper surfaces.
4. Copper Lightning Protection materials are not to be installed on aluminum surfaces.
5. Grounding shall be suitable for the soil conditions per NFPA 780, this may include:
   a) Ground rods only for buildings less than 60 ft. high
   b) Ground plates only for buildings less than 60 ft. high, in rocky soil.
   c) Ground loop only (full size cable) for any height building, buried 18 in. deep.
   d) Ground loop combined with rods or plates for any height building, buried 1 ft. deep.
6. Strike termination devices (air terminals) required as follows, unless the area in question is located under a zone of protection.
   a) Minimum 10 in. projection above the object protected.
   b) Maximum 20 ft. spacing on roof ridges or edges.
   c) Maximum 24 in. distance from ridge ends or roof edges & outside corners.

d) Penthouses, Protrusions and Mechanical roof top equipment, same guidelines as noted above:

1) Strike termination devices not needed if metal thickness is 3/16 in. thick or more.

2) A conductor interconnecting the strike termination devices is necessary on metal less than 3/16 in. thick. The interconnecting conductor may be the continuous metal equipment housing or a cable conductor.

e) Strike termination devices required on eaves of sloping roofs, when the eave is over 50 ft. in height.

f) Mid-roof areas are to be provided with Strike termination devices at either 50 ft. spacing or provided with Strike termination devices of sufficient quantity & height, to ensure the entire roof area is covered by a "zone of protection" as afforded by a 150 ft. radius sphere (per NFPA® 780).

g) Strike termination safety devices to be provided in mid-roof areas and high traffic areas. Material to be the same as, or an alloy of, the point and base and to be one of the following:

1) 1-5/8 in. diameter Safety Cap, as approved by Cal-OSHA

2) Safety tipped point

7. Bonding is required in strict accordance with NFPA 780.

a) Ground level potential equalization; below the 12 ft. elevation of the structure all grounded media to be interconnected.

b) Ground loop required for structures over 60 ft. in height.

c) Roof levels over 60 ft. to include interconnection of all grounded media within 12 ft. of the main roof level.

d) Intermediate levels:

1) Steel-framed structures – Intermediate Loops not required.

2) Reinforced concrete – Intermediate Loop at 200 ft. (vertical height) intervals required connecting all grounded systems.

3) Other structures – Intermediate Loops at intervals, connecting all grounded media at that height.

4) Lightning Surge Suppressors to be provided on electrical and communication service entrances and on communication antenna lead-ins.

1.4 Installation:

A. L.P.I. Certified Master Installer or Underwriters' Laboratories (UL®) Listed Installer or under supervision thereof.

B. Complete per requirements of NFPA 780.

C. Neat and inconspicuous manner.

D. All mounting & penetration of roof surface shall be coordinated with roofing contractor to assure maximum roofing guarantee

E. All through-roof penetration flashings to be furnished, sealed and guaranteed by the roofing contractor.

F. Fasteners:

1. At 3 ft. centers, maximum, on exposed conductor runs.

2. As necessary to maintain position and hold permanently in place on concealed runs of conductor.

1.5 Final Acceptance:

A. Procurement of L.P.I. Certification includes jobsite verification and completion of:

1. Witness of Grounding System & Grade bonding (Stage I)

2. Inspection of concealed equipment between roof & grade (Stage II)

3. Final inspection of exposed equipment on roof (Stage III)

B. Procurement of Underwriters' Laboratories Master Label indicating completion of;

1. Show owner or his representative the type and manner of placing groundings and receiving his record of review.

2. Completion of application form and submission to Underwriters' Laboratories for issuance of certification.

C. Installation of Installer's Nameplate at location designated on UL application form.

D. Any components or methods found to be not in accordance with this specification shall be repaired or replaced without cost to the owner.

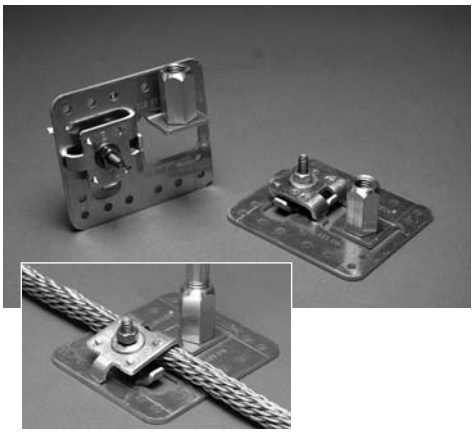
1.6 Special consideration:

If this contract includes the construction of a building or buildings that are physically connected to an existing building or are additions to existing structures, then the Lightning Protection System(s) for the new construction shall comply with the standards stated above. The delivery of the L.P.I. Certification and the Underwriters' Laboratories Master Label shall not be required. In place of this certification or label the procedures of each program shall be followed to deliver partial or qualified certification outlined by either organization.

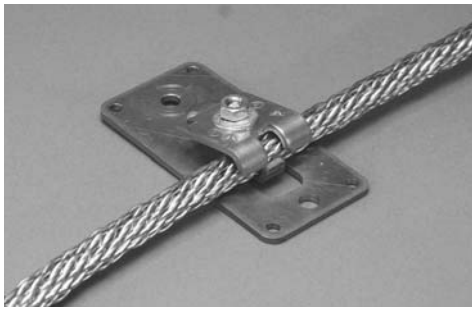
ERICO® introduces a range of new parts unique to the lightning protection industry. Featured within this catalogue is a series of new stamped products which offer a number of improvements over cast products, traditionally used within the industry.

Features and Benefits

- Stamped from either high quality copper alloy or aluminium, resulting in high strength and improved corrosion resistance
- The stampings are designed with a "spring-like" property that ensure reliable connections over extended periods of time.
- Precise dimensions for product consistency
- Stamped parts designed to meet the requirements of UL96 for both Class I and II applications. Products exceed the strength and pull-out requirements of this standard.
- Unique "cut-out" design for the air terminal supports, making the part adjustable for any roof type.
- Clamps are available in copper alloy or aluminium; tin plated and bi-metallic variants are also available for all-purpose applications.
- Stamped designs are suitable for use with Class I up to 4/0 cable sizes.
- Universal designs, resulting in a lower number of different parts required on the job site.

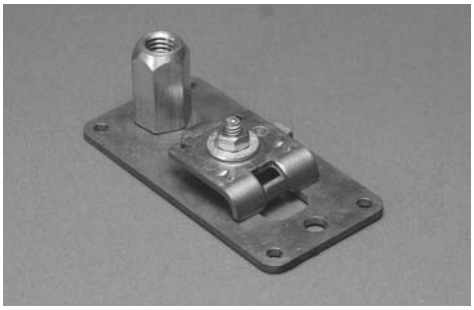


New Universal Air Terminal Base features a field adjustable tape that enables the base to be mounted off any sloped surface, and eliminates the need for swivel adaptors.



New Bonding Plate provides precise dimensions and flat bonding surface ensure a high quality electrical bond. Features a bi-metallic version allowing an option to easily bond a copper conductor to aluminium or bi-metallic surface.

New cable splice features "spring like" properties and well defined protrusions to prevent loosening over time, and ensure high cable pullout strength.



New Air Terminal base features precise dimensions for attaching air terminal direct to bonding surface, also the product is well suited when attaching to narrow surfaces.

PRIMARY COPPER CONDUCTORS*

PART #	CONDUCTOR TYPE	# OF STRANDS	WIRE SIZE GAUGE	WEIGHT PER 1000 FEET	CIRCULAR MILS	EXCEEDS REQ'MENT	STANDARD LENGTHS ON REEL
LPC120	SMOOTH WEAVE	29	17	192 Lbs.	59,450	CLASS I	250'/500'
LPC121	SMOOTH WEAVE	30	17	202 Lbs.	61,500	CLASS I	250'/500'
LPC122	SMOOTH WEAVE	32	17	220 Lbs.	65,600	CLASS I	250'/500'
LPC123	SMOOTH WEAVE	36	17	240 Lbs.	73,800	CLASS I	250'/500'
LPC124	SMOOTH WEAVE	40	17	270 Lbs.	82,000	CLASS I	250'/500'
LPC128	SMOOTH WEAVE	24	14	340 Lbs.	98,640	CLASS I	250'/500'
LPC120L	TINNED SM WEAVE	29	17	192 Lbs.	59,450	CLASS I	250'/500'
LPC122L	TINNED SM WEAVE	32	17	220 Lbs.	65,600	CLASS I	250'/500'
LPC125	ROPELAY	24	14	340 Lbs.	98,600	CLASS I	250'
LPC126	SMOOTH WEAVE	28	14	380 Lbs.	115,080	CLASS II	250'/500'
LPC127	ROPELAY	32	14	440 Lbs.	131,520	CLASS II	250'/500'
LPC126L	TINNED SM WEAVE	28	14	380 Lbs.	115,080	CLASS II	250'
LPC136	CONC. STRAND	37	13-1/2	520 Lbs.	167,800	CLASS II	250'
LPC137	CONC. STRAND	37	12-1/2	653 Lbs.	211,600	CLASS II	250'
LPC138	CONC. STRAND	37	12	772 Lbs.	250,000		250'
LPC139	CONC. STRAND	37	11	1,555 Lbs.	500,000		250'

* Conductors manufactured to UL® requirements. Contact ERICO® for other lengths.

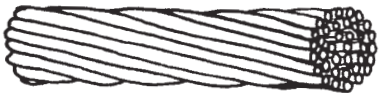
PRIMARY ALUMINUM CONDUCTORS*

PART #	CONDUCTOR TYPE	# OF STRANDS	WIRE SIZE GAUGE	WEIGHT PER 1000 FEET	CIRCULAR MILS	EXCEEDS REQ'MENT	STANDARD LENGTH ON ROLL
LPA100	SMOOTH WEAVE	24	14	102 Lbs.	98,640	CLASS I	250'/500'
LPA101	SMOOTH WEAVE	26	14	109 Lbs.	106,860	CLASS I	500'
LPA102	SMOOTH WEAVE	28	14	115 Lbs.	115,080	CLASS I	500'
LPA105	CONC. STRAND	37	12-1/2	204 Lbs.	211,000	CLASS II	250'/500'

* Conductors manufactured to UL requirements. Contact ERICO for other lengths.

Smooth Weave

Ropelay



Conc. Strand

SECONDARY COPPER CONDUCTORS

PART #	CONDUCTOR TYPE	# OF STRANDS	WIRE SIZE GAUGE	WEIGHT PER 1000 FEET	CIRCULAR MILS
LPC150	SMOOTH WEAVE	14	17	92 Lbs.	28,700
LPC150L	TINNED SM WEAVE	14	17	93 Lbs.	28,700
LPC152	CONC. STRAND	10	14	130 Lbs.	41,100
LPC152L	TINNED CONC. STR.	10	14	130 Lbs.	41,100
LPC151	SOFT SOLID	1	6	80 Lbs.	26,240
LPC153	SOFT SOLID	1	4	127 Lbs.	41,740
LPC154	SOFT SOLID	1	2	204 Lbs.	66,360
LPC154L	TINNED SOFT SOLID	1	2	204 Lbs.	66,360

Conc. Strand

Smooth Weave

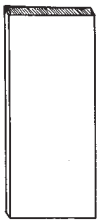
Soft Solid

SECONDARY ALUMINUM CONDUCTORS

PART #	CONDUCTOR TYPE	# OF STRANDS	WIRE SIZE GAUGE	WEIGHT PER 1000 FEET	CIRCULAR MILS
LPA140	SMOOTH WEAVE	10	14	42 Lbs.	41,100
LPA142	SMOOTH WEAVE	16	14	66 Lbs.	65,760
LPA141	SOFT SOLID	1	4	40 Lbs.	41,740
LPA143	SOFT SOLID	1	2	60 LbS.	66,360

SOLID COPPER & ALUMINUM STRIPS AND BARS

PART #	MATERIAL TYPE	WIDTH	THICKNESS	WEIGHT PER 1000 FEET	CABLE SIZE EQUIVALENT	APPLICATION
LPC171L	SOFT TINNED CU	1-1/4″	0.064″	319 Lbs.		CLASS I
LPC171	SOFT COPPER	1-1/4″	0.051″	197 Lbs.		CLASS I
LPC172	SOFT COPPER	3/4″	1/8″	362 Lbs.		CLASS II
LPC173	HARD COPPER	3/4″	1/8″	363 Lbs.		BUS BAR
LPC174	HARD COPPER	1″	1/8″	484 Lbs.	#1/0 AWG	GROUND BAR
LPC175	HARD COPPER	3/4″	1/4″	727 Lbs.	#4/0 AWG	GROUND BAR
LPC176	HARD COPPER	1″	1/4″	969 Lbs.		GROUND BAR
LPA162	SFT ALUMINUM	1-1/4″	0.080″	118 Lbs.	#1/0 AWG	CLASS I
LPA163	SFT ALUMINUM	1″	3/16″	225 Lbs.	#4/0 AWG	CLASS II



Must specify length requirements.

EXTRA FLEXIBLE COPPER BRAIDED BONDING CABLE

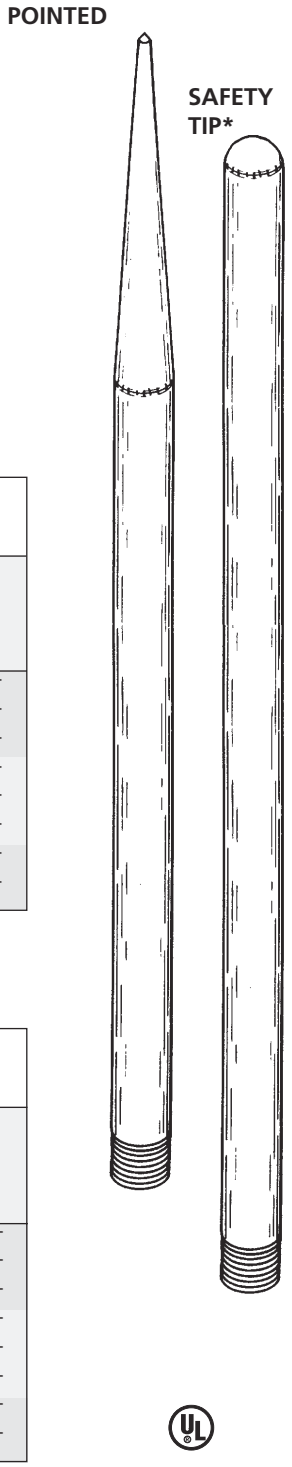
PART # TINNED	PART # COPPER	WIDTH	THICKNESS	MM^2	LBS./M
557310	557110	30 mm	3.0 mm	60	1.31
557250	557050	20 mm	1.5 mm	20	0.42
557240	557040	15 mm	1.5 mm	16	0.32

Standard 80 foot coils.

For a complete listing of ERITECH® grounding products, bonding braids, insulators or other electrical grounding accessories refer to the ERITECH Grounding Products and Systems Catalog (G281C).

3/8" POINTS

COPPER (Class I)					
LENGTH	NICKEL PLATED POINTED	BARE POINTED	NICKEL PLATED SAFETY TIP*	BARE SAFETY TIP*	TINNED SAFETY TIP*
10"	LPC201	LPC201B	LPC201ST	LPC201BST	LPC201LST
12"	LPC202	LPC202B	LPC202ST	LPC202BST	LPC202LST
15"	LPC203	LPC203B	LPC203ST	LPC203BST	LPC203LST
18"	LPC204	LPC204B	LPC204ST	LPC204BST	LPC204LST
24"	LPC205	LPC205B	LPC205ST	LPC205BST	LPC205LST
30"	LPC206	LPC206B	LPC206ST	LPC206BST	LPC206LST
36"	LPC207	LPC207B	LPC207ST	LPC207BST	LPC207LST
48"	LPC208	LPC208B	LPC208ST	LPC208BST	LPC208LST



1/2" POINTS

COPPER (Class II)						ALUMINUM (Class I)	
LENGTH	NICKEL PLATED POINTED	BARE POINTED	NICKEL PLATED SAFETY TIP*	BARE SAFETY TIP*	TINNED SAFETY TIP*	POINTED	SAFETY TIP*
10"	LPC221	LPC221B	LPC221ST	LPC221BST	LPC221LST	LPA221	LPA221ST
12"	LPC222	LPC222B	LPC222ST	LPC222BST	LPC222LST	LPA222	LPA222ST
15"	LPC223	LPC223B	LPC223ST	LPC223BST	LPC223LST	LPA223	LPA223ST
18"	LPC224	LPC224B	LPC224ST	LPC224BST	LPC224LST	LPA224	LPA224ST
24"	LPC225	LPC225B	LPC225ST	LPC225BST	LPC225LST	LPA225	LPA225ST
30"	LPC226	LPC226B	LPC226ST	LPC226BST	LPC226LST	LPA226	LPA226ST
36"	LPC227	LPC227B	LPC227ST	LPC227BST	LPC227LST	LPA227	LPA227ST
48"	LPC228	LPC228B	LPC228ST	LPC228BST	LPC228LST	LPA228	LPA228ST

5/8" POINTS

COPPER (Class II)						ALUMINUM (Class II)	
LENGTH	NICKEL PLATED POINTED	BARE POINTED	NICKEL PLATED SAFETY TIP*	BARE SAFETY TIP*	TINNED SAFETY TIP*	POINTED	SAFETY TIP*
10"	LPC241	LPC241B	LPC241ST	LPC241BST	LPC241LST	LPA241	LPA241ST
12"	LPC242	LPC242B	LPC242ST	LPC242BST	LPC242LST	LPA242	LPA242ST
15"	LPC243	LPC243B	LPC243ST	LPC243BST	LPC243LST	LPA243	LPA243ST
18"	LPC244	LPC244B	LPC244ST	LPC244BST	LPC244LST	LPA244	LPA244ST
24"	LPC245	LPC245B	LPC245ST	LPC245BST	LPC245LST	LPA245	LPA245ST
30"	LPC246	LPC246B	LPC246ST	LPC246BST	LPC246LST	LPA246	LPA246ST
36"	LPC247	LPC247B	LPC247ST	LPC247BST	LPC247LST	LPA247	LPA247ST
48"	LPC248	LPC248B	LPC248ST	LPC248BST	LPC248LST	LPA248	LPA248ST

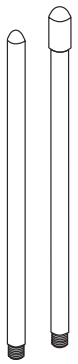
NOTE: -Points are manufactured to UL® Requirements

-Copper points also available as tinned (Please contact ERICO® for details)

* Recommended safety tip for safety, performance, and value.

5/8" DIAMETER POINTS

LENGTH	STAINLESS STEEL	COPPER-BONDED
12″	LPS242	LPCC242
24″	LPS245	LPCC245
48″	LPS248	LPCC248



TUBULAR COPPER POINTS (Class I)

LENGTH	3 IN² CONTACT PAD	NC THREADS
12″	LPC252	LPC262
15″	LPC253	LPC263
18″	LPC254	LPC264
24″	LPC255	LPC265
30″	LPC256	LPC266
36″	LPC257	LPC267
48″	LPC258	LPC268

Non-Standard

TUBULAR ALUMINUM POINTS (Class I)

LENGTH	3 IN² CONTACT PAD	NC THREADS
12″	LPA252	LPA262
15″	LPA253	LPA263
18″	LPA254	LPA264
24″	LPA255	LPA265
30″	LPA256	LPA266
36″	LPA257	LPA267
48″	LPA258	LPA268

EXTENSION RODS

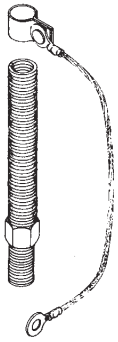
DIAMETER	COPPER	ALUMINUM	STAINLESS
3/8″	LPC271CTO		
1/2″	LPC272CTO	LPA272CTO	
5/8″	LPC273CTO	LPA273CTO	LPS273CTO

STANDARD N.C. THREAD EACH END
CTO - Length "Cut to Order"
Extension rods available up to 120"

SPRING POINT ADAPTER

COPPER		ALUMINUM	
1/2″	5/8″	1/2″	5/8″
LPC27512	LPC27558	LPA27512	LPA27558

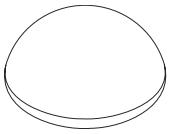
Can be used on 1/2" to 5/8" points, 10" to 24" in length.



SAFETY BALL AIR TERMINAL

DIAMETER	COPPER	ALUMINUM
3/8″	LPC27838	
1/2″	LPC27812	LPA27812
5/8″	LPC27858	LPA27858

For use with series 271, 272, and 273 Extension Rods



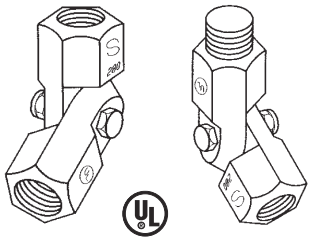
CAL OSHA Approved

NEW

ADJUSTABLE (SWIVEL) POINT ADAPTERS

MATERIAL CODE	CONN. TYPE	NUMERIC IDENTIFIER	CONNECTION TYPE CODE		
			SIZE	FEMALE	MALE
LPC COPPER	3/8 TO 3/8	281	3/8″	3F	3M
LPA ALUMINUM	3/8 TO 1/2	282	1/2″	2F	2M
LPS STAINLESS	1/2 TO 1/2	283	5/8″	5F	5M
	1/2 TO 5/8	284			
	5/8 TO 5/8	285			

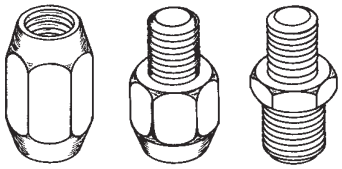
Example: LPC 282 3F 2M (Copper, 3/8″ Female to 1/2″ Male)



COUPLINGS AND ADAPTERS

MATERIAL CODE	CONN. TYPE	NUMERIC IDENTIFIER	CONNECTION TYPE CODE		
			SIZE	FEMALE	MALE
LPC COPPER	3/8 TO 3/8	291	3/8″	3F	3M
LPA ALUMINUM	3/8 TO 1/2	292	1/2″	2F	2M
LPS STAINLESS	1/2 TO 1/2	293	5/8″	5F	5M
	1/2 TO 5/8	294			
	5/8 TO 5/8	295			

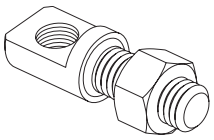
Example: LPC 291 3F 3M (Copper, 3/8″ Female to 3/8″ Male)



EXTENDABLE RIGHT-ANGLE ADAPTOR

THREAD SIZE	COPPER	ALUMINUM
3/8″	LPC29638	
1/2″	LPC29612	LPA29612
5/8″	LPC29658	LPA29658

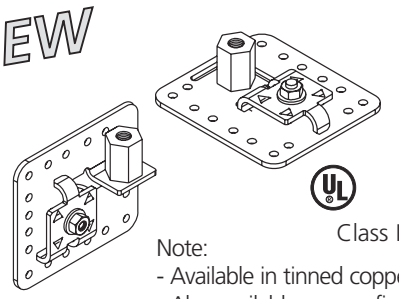
NEW



- Provides 2″ offset for vertical point when using any horizontal style point base.
- Suitable for modifying standard point bases such as the LP302 or LP372 for use in vertical point applications and provides 2″ clearance.
- Able to be extended to 3″ in length when used with LP291- LP295.

UNIVERSAL POINT BASE

Bronze or aluminum stamped adhesive point base for use on flat, vertical or sloping surface. Positive single bolt tension for multi-directional cable clamping. Four mounting holes for bolts or screws. Air terminal support tab is field adjustable for any angle as shown from 0-90°, eliminating the need for swivel adaptors.
-Field adjustable tool part number LPT302



Class I/II

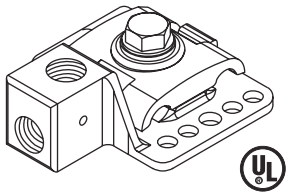
Note:
- Available in tinned copper (eg. LPC302L12, tinned copper, 1/2″ point)
- Also available pre-configured for vertical applications (eg. LPA30212V, aluminum 1/2″ point, factory set for vertical applications)

SERIES 302

Point Dia.	Copper	Aluminum
3/8″	LPC30238	-
1/2″	LPC30212	LPA30212
5/8″	LPC30258	LPA30258

VERTICAL/HORIZONTAL MOUNT POINT BASE

Bronze or aluminum cast adhesive point base for use on flat, vertical or gently sloping surface. Positive single bolt tension for multi-directional cable clamping. Four mounting holes for bolts or screws, or for use with hot pitch, roofing compound or commercial adhesive on built up roof surfaces or other locations when no penetration can be made. Available for all points 3/8″, 1/2″, and 5/8″ diameter.

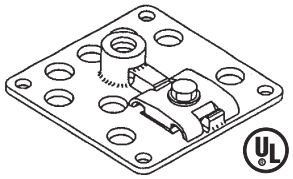


SERIES 305

Point Dia.	Copper	Aluminum
3/8″	LPC30538	-
1/2″	LPC30512	LPA30512
Vertical Mount Only		
5/8"	LPC30558V	LPA30558V
Horizontal Mount Only		
5/8"	LPC30558H	LPA30558H

HORIZONTAL MOUNT POINT BASE

Bronze or aluminum cast adhesive point base for use on flat or gently sloping surface when no penetration may be made for anchoring. Positive single bolt tension cable clamping. For use with hot pitch, roofing compound or commercial adhesive on built-up roof surfaces or other locations. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

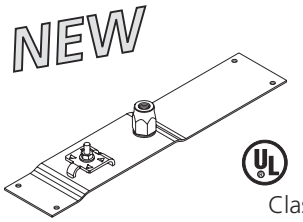


SERIES 309

Point Dia.	Copper	Aluminum
3/8″	LPC30938	-
1/2″	LPC30912	LPA30912
5/8″	LPC30958	LPA30958

RIDGE/SLOPING ROOF POINT BASE

Strap copper or aluminum point base for use on ridged roof, sloping or flat surfaces. Positive bolt tension cable clamping. Holes provided for optional nailing locations. Available for all points 3/8″, 1/2″ and 5/8″ diameter.



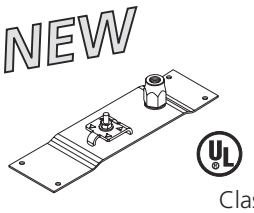
Class I

SERIES 312

Point Dia.	Copper	Aluminum
3/8″	LPC31238	-
1/2″	LPC31212	LPA31212
5/8″	LPC31258	LPA31258

RIDGE/SLOPING ROOF POINT BASE

Strap copper or aluminum point base for use on narrow surface or roof edge. Base 8″ long with holes for nails or screw anchors. Positive bolt tension cable clamping. Available for all points 3/8″, 1/2″ and 5/8″ diameter.



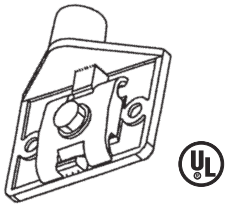
Class I

SERIES 315

Point Dia.	Copper	Aluminum
3/8″	LPC31538	-
1/2″	LPC31512	LPA31512
5/8″	LPC31558	LPA31558

VERTICAL MOUNT POINT BASE

Bronze or aluminum cast point base for use on vertical surface with horizontal or vertical run of cable. Positive bolt tension cable clamping. Two mounting holes for bolts or screws. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

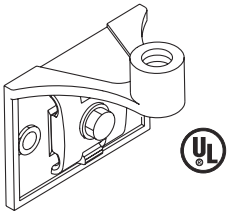


SERIES 318

Point Dia.	Copper	Aluminum
3/8″	LPC31838	-
1/2″	LPC31812	LPA31812
5/8″	LPC31858	LPA31858

VERTICAL MOUNT POINT BASE

Bronze or aluminum cast point base for use on vertical surface with horizontal or vertical run of cable. Point attachment offset 2″ from surface to clear overhang of wall cap or cover. Positive bolt tension cable clamping. Two mounting holes for bolts or screws. Available for all points 3/8″, 1/2″ and 5/8″ diameter.



SERIES 319

Point Dia.	Copper	Aluminum
3/8″	LPC31938	-
1/2″	LPC31912	LPA31912
5/8″	LPC31958	LPA31958

INLINE POINT BASE

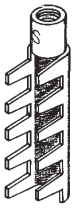
Bronze or aluminum straight in line point base of hexagon metal stock. Two set screws anchor cable tight in base. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

SERIES 321

Point Dia.	Copper	Aluminum
3/8″	LPC32138	-
1/2″	LPC32112	LPA32112
5/8″	LPC32158	LPA32158

INLINE POINT BASE

Bronze or aluminum cast straight in line point base. Compression type fingers crimp over cable for direct contact. Available for point size of 3/8″ diameter only.



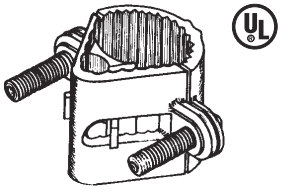
Class I

SERIES 323

Point Dia.	Copper
3/8″	LPC32338

PIPE MOUNT POINT BASE AND CABLE CLAMP SUPPORT

Bronze or aluminum cast pipe mount point for vertical pipe or cable pipe bond. When used as a point support it may be used with or without cable run on pipe or will allow point to stand off pipe to use type 321 point to cable connector.

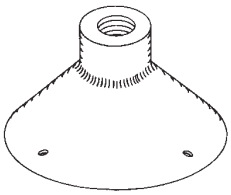


SERIES 330 (suit pipe O.D. 1.315 - 1.9″)

Copper	Aluminum	Tinned Copper
LPC330	LPA330	LPC330L

CONE ROOF POINT BASE

Bronze or aluminum cast point base for use on cone shaped metal surface. No cable connector. Use three bolts or screws for anchoring. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

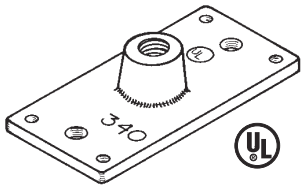


SERIES 339

Point Dia.	Copper	Aluminum
3/8″	LPC33938	-
1/2″	LPC33912	LPA33912
5/8″	LPC33958	LPA33958

HORIZONTAL BOND POINT BASE

Bronze or aluminum cast point base for mounting directly to horizontal structural steel surface. Eight square inches of surface contact. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

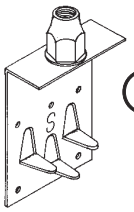


SERIES 340

Point Dia.	Copper	Aluminum
3/8″	LPC34038	-
1/2″	LPC34012	LPA34012
5/8″	LPC34058	LPA34058

VERTICAL POINT BASE

Strap copper or aluminum offset point base for use on concealed or exposed systems. Compression type fingers crimp over cable for direct contact. Holes provided for optional nailing location. Available for all points 3/8″, 1/2″ and 5/8″ diameter. We recommend auxiliary point support for point lengths over 15″.



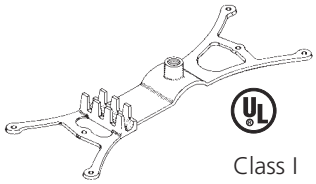
Class I

SERIES 343

Point Dia.	Copper	Aluminum
3/8″	LPC34338	-
1/2″	LPC34312	LPA34312
5/8″	LPC34358	LPA34358

RIDGE MOUNT POINT BASE

Bronze or aluminum cast point base for use on ridged roof, sloping or flat surfaces. May be easily formed. Compression type fingers crimp over cable for direct contact. Holes provided for nails or metal screws standard – may be drilled for masonry drive-in anchors. Available for all points 3/8″, 1/2″ and 5/8″ diameter.



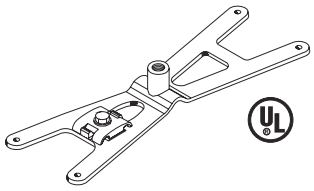
Class I

SERIES 344

Point Dia.	Copper	Aluminum
3/8″	LPC34438	-
1/2″	LPC34412	LPA34412
5/8″	LPC34458	LPA34458

RIDGE MOUNT POINT BASE

Bronze or aluminum cast point base for use on ridged roof, sloping or flat surfaces. May be easily formed. Positive bolt tension cable clamping. Holes provided for nails or metal screws standard – may be drilled for masonry drive-in anchors. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

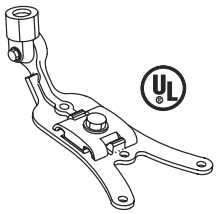


SERIES 345

Point Dia.	Copper	Aluminum
3/8″	LPC34538	-
1/2″	LPC34512	LPA34512
5/8″	LPC34558	LPA34558

SLOPED ROOF POINT BASE

Bronze or aluminum cast point base for use on ridged roof, sloping or flat surfaces. May be easily formed. Positive bolt tension cable clamping. Holes provided for nails or metal screws standard – may be drilled for masonry drive-in anchors. Available for all points 3/8″, 1/2″ and 5/8″ diameter.

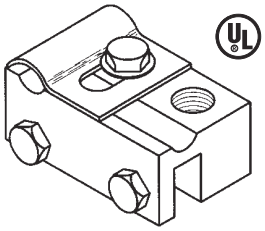


SERIES 347

Point Dia.	Copper	Aluminum
3/8″	LPC34738	-
1/2″	LPC34712	LPA34712
5/8″	LPC34758	LPA34758

STANDING SEAM POINT BASE

Bronze or aluminum cast point base for standing seam roofing systems. Bottom groove 1/2" wide by 3/4" deep to secure on seam with two set screws. Adjustable cable connector for conductor runs either parallel or perpendicular to the seam. Available for all points 3/8″, 1/2″ and 5/8″ diameter.



SERIES 348

Point Dia.	Copper	Aluminum
3/8″	LPC34838	—
1/2″	LPC34812	LPA34812
5/8″	LPC34858	LPA34858

PENETRATING BASE

Galvanized steel tripod braces for additional support of long air terminals. Constructed of 1/4″ mild steel with heavy section washer guides. All joints welded prior to galvanizing. Two mounting holes per leg furnished for installation. Available for all 1/2″ and 5/8″ diameter points.

SERIES 350 - SERIES 354

PART #	LENGTH	UP TO MAX. POINT SIZE
LPG35012	14″	1/2″ X 24″
LPG35058	14″	5/8″ X 24″
LPG35112	18″	1/2″ X 30″
LPG35158	18″	5/8″ X 30″
LPG35212	24″	1/2″ X 40″
LPG35258	24″	5/8″ X 40″
LPG35312	36″	1/2″ X 60″
LPG35358	36″	5/8″ X 60″
LPG35412	48″	1/2″ X 84″
LPG35458	48″	5/8″ X 84″

NON-PENETRATING BASE

Galvanized steel tripod braces for additional support of long air terminals on flat or gently sloping surface when no penetration may be made for anchoring. Constructed of 1/4″ mild steel with heavy section washer guides. All joints welded prior to galvanizing. For use with hot pitch, roofing compound or commercial adhesive on membrane surface or other locations. Available for all 1/2″ and 5/8″ diameter points.

SERIES 360 - SERIES 364

PART #	LENGTH	UP TO MAX. POINT SIZE
LPG36012	14″	1/2″ X 24″
LPG36058	14″	5/8″ X 24″
LPG36112	18″	1/2″ X 30″
LPG36158	18″	5/8″ X 30″
LPG36212	24″	1/2″ X 40″
LPG36258	24″	5/8″ X 40″
LPG36312	36″	1/2″ X 60″
LPG36358	36″	5/8″ X 60″
LPG36412	48″	1/2″ X 84″
LPG36458	48″	5/8″ X 84″

POINT BUSHING

Copper bushing to convert either a 1/2″ or 5/8″ female point base to accept a 3/8″ diameter point. Bushing fits neatly inside female point base.

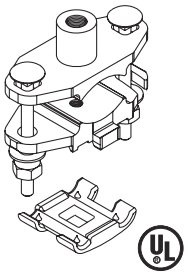
SERIES 370

PART #	OUTSIDE THREAD	INSIDE THREAD
LPC37012	1/2″	3/8″
LPC37058	5/8″	3/8″

PIPE MOUNT POINT BASE

Bronze or aluminum cast pipe mount point base with point coupling for horizontal pipe. Provided with cable clamp to support cable beneath pipe. Can be applied to vertical pipe with LP296 right angle point coupler.

NEW



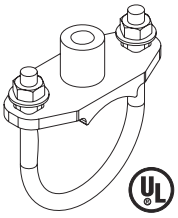
SERIES 371 (suit pipe OD 1.75″-2.5″)

POINT DIAMETER	COPPER	ALUMINUM	TINNED COPPER
3/8″	LPC37138	-	LPC371L38
1/2″	LPC37112	LPA37112	LPC371L12
5/8″	LPC37158	LPA37158	LPC371L58

PIPE MOUNT POINT BASE

Bronze or aluminum cast pipe mount point base with point coupling for horizontal pipe. Can be applied to vertical pipe with LP296 right angle point coupler.

NEW



SERIES 372 (suit pipe OD 1.75″-2.5″)

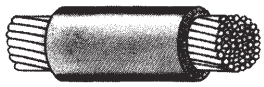
POINT DIAMETER	COPPER	ALUMINUM	TINNED COPPER
3/8″	LPC37238	-	LPC372L38
1/2″	LPC37212	LPA37212	LPC372L12
5/8″	LPC37258	LPA37258	LPC372L58

COPPER CABLES

PART #	CONDUCTOR TYPE	# OF STRANDS	WIRE SIZE GAUGE	WEIGHT PER 1000 FEET	CIRCULAR MILS	MEETS REQ'MENT
LPC401	SMOOTH WEAVE	28	14	380 Lbs.	115,080	CLASS II
LPC404	CONCENTRIC	19	0.1055"	653 Lbs.	211,600	CLASS II 4/0

LEAD COVERED COPPER CABLES With a continuous 1/16" pure lead sheath.

PART #	CONDUCTOR TYPE	# OF STRANDS	WIRE SIZE GAUGE	WEIGHT PER 1000 FEET	CIRCULAR MILS	MEETS REQ'MENT
LPLC401	CONCENTRIC	19	0.084"	1,380 Lbs.	115,080	CLASS II
LPLC404	CONCENTRIC	19	0.1055"	1,983 Lbs.	211,600	CLASS II 4/0



Note: All conductors listed on this page are manufactured to Underwriters' Laboratories requirements.

Note: Specialty copper cables are available on request to meet specific job requirements. Please call for pricing and availability.

BARE COPPER POINTS

Solid copper points made from high conductivity copper rod with tapered point and standard N. C. threads.

LEAD COVERED COPPER POINTS

Solid copper points made from high conductivity copper rod with a 1/16" thick lead sheath, tapered point and standard N. C. threads.

STAINLESS STEEL POINTS

Stainless steel points made from 316 grade stainless steel rod, with tapered point and standard N.C. threads.

Note: All points listed on this page are manufactured to Underwriters' Laboratories® requirements.

5/8" POINTS

LENGTH	COPPER BARE	LEAD-COVERED	STAINLESS STEEL
18"	LPC411	LPLC411	LPS411
24"	LPC412	LPLC412	LPS412
36"	LPC413	LPLC413	LPS413
48"	LPC414	LPLC414	LPS414
60"	LPC415	LPLC415	LPS415
72"	LPC416	LPLC416	LPS416
84"	LPC417	LPLC417	LPS417
96"	LPC418	LPLC418	LPS418

3/4" POINTS

LENGTH	COPPER BARE	LEAD-COVERED	STAINLESS STEEL
18"	LPC421	LPLC421	LPS421
24"	LPC422	LPLC422	LPS422
36"	LPC423	LPLC423	LPS423
48"	LPC424	LPLC424	LPS424
60"	LPC425	LPLC425	LPS425
72"	LPC426	LPLC426	LPS426
84"	LPC427	LPLC427	LPS427
96"	LPC428	LPLC428	LPS428

POINT BASES

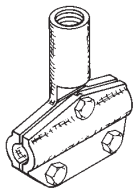
PART #	MATERIAL	POINT THREAD	STUD* LENGTH
SERIES 431			
LPC431	BARE BRASS	5/8″	–
LPLC431	LEAD COATED	5/8″	–
SERIES 433			
LPC433	BARE BRASS	5/8″	–
LPLC433	LEAD COATED	5/8″	–
SERIES 435			
LPC435SH	BARE BRASS	5/8″	7/8″
LPC435LG	BARE BRASS	5/8″	1-1/2″
LPLC435SH	LEAD COATED	5/8″	7/8″
LPLC435LG	LEAD COATED	5/8″	1-1/2″
SERIES 436			
LPC436SH	BARE BRASS	5/8″	7/8″
LPC436LG	BARE BRASS	5/8″	1-1/2″
LPLC436SH	LEAD COATED	5/8″	7/8″
LPLC436LG	LEAD COATED	5/8″	1-1/2″
SERIES 437			
LPC437SH	BARE BRASS	5/8″	7/8″
LPC437LG	BARE BRASS	5/8″	1-1/2″
LPLC437SH	LEAD COATED	5/8″	7/8″
LPLC437LG	LEAD COATED	5/8″	1-1/2″

1/16" lead coating

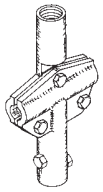
* Use 7/8″ stud w/drop-in (LPP48812 or LPS48812) or caulk-in (LPP48712) anchors.

* Use 1-1/2″ stud w/expansion shield (LPP48612) anchors.

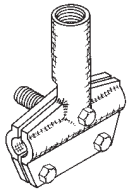
Note: Current standard requirements specify that side mounted points be anchored at two locations to the structure with the above provided stud counting as one. Refer to part numbers LP-C480, LP-LC480, LP-C492 or LP-LC492 for point holders to be used as the second required anchor.



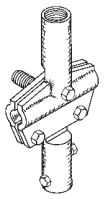
SERIES 431



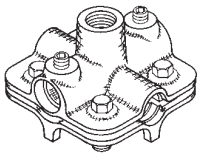
SERIES 433



SERIES 435



SERIES 436

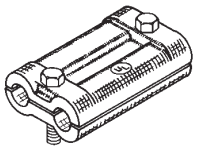


SERIES 437

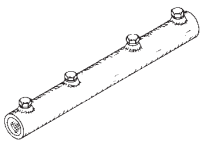
CABLE SPLICERS

PART #	MATERIAL
LPC441	COPPER
LPC443	COPPER
LPC446	COPPER
LPC448	COPPER
LPLC441	LEAD COATED
LPLC443	LEAD COATED
LPLC446	LEAD COATED
LPLC448	LEAD COATED

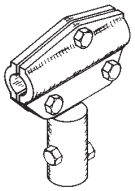
- 1/16" lead coating
- Suitable for cables from 2/0 to 4/0 in size



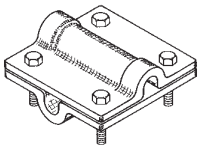
SERIES 441



SERIES 443



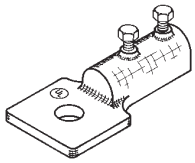
SERIES 446



SERIES 448

BONDING FITTINGS

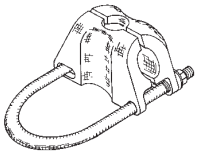
SERIES 451	MATERIAL	CONTACT AREA	FOR USE WITH CABLE No.
LPC451	BARE BRASS	3 IN^2	LPC401/LPC404
LPLC451	LEAD COATED	3 IN^2	LPLC401/LPLC404
LPS451	TYPE 316 SS	3 IN^2	LPC401/LPLC401 or LPC404/LPLC404



- Standard bolt hole size = 13/16”.
- 1/16" lead coating.

HANDRAIL TO POINT

SERIES 456	MATERIAL	Pipe Size (O.D.)
LPC456	COPPER	2" or 2.5"
LPS456	STAINLESS	2" or 2.5"

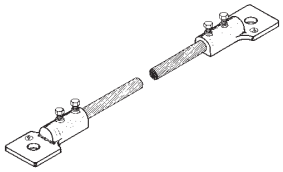


Suitable for 5/8” or greater point diameter.

SPECIAL BONDING ASSEMBLIES

SERIES 464

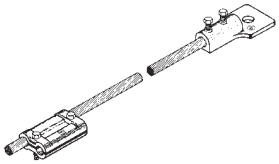
PART #	ASSEMBLY COMPONENTS	
	LUGS	LUG MATERIAL
LPC464	LPC451	BARE BRASS
LPLC464	LPLC451	LEAD COATED



Notes: Standard bolt hole size = 13/16”.
Standard cable length = 36”.
Standard cable size = 2/0.
For 4/0 cable size insert "40" following 464 in the part number.
eg. LPC46440 for copper lug, 4/0 cable size.

SERIES 465

PART #	ASSEMBLY COMPONENTS			
	LUG	LUG MATERIAL	CONNECTOR	CONNECTOR MATERIAL
LPC465	LPC451	BARE BRASS	LPC441	BARE BRASS
LPLC465	LPLC451	LEAD COATED	LPLC441	LEAD COATED

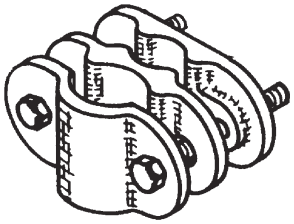


Notes: Standard bolt hole size = 13/16”.
Standard cable length = 36”.
Standard cable size = 2/0.
For 4/0 cable size insert "40" following 465 in the part number.
eg. LPC46540 for copper lug, 4/0 cable size.

SERIES 466

Cast bronze universal cable to rebar bonding clamp. Fits cable sizes through 250 MCM to reinforcing bars up through #9 (1.128").

PART #
LPC466

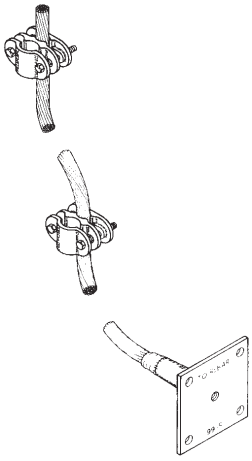


REBAR BONDS

SERIES 467

Embedded rebar connection assembly consists of 4" x 4" flush mount brass plate with 1/2" tapped hole connecting Part No. LPC401 and LPC404 bare copper cable to rebar bonding clamp(s). Three feet of cable provided per rebar clamp.

Note: Use this product in conjunction with Part No. LPC468, exposed downlead to flush plate connectors.



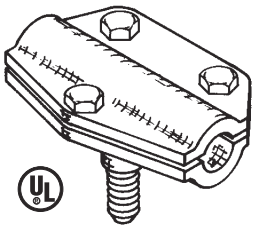
SERIES 467
For use with Part No. LPC401 and LPC404 bare copper cable

LPC467X1 For Bonding 1 Rebar
LPC467X2 For Bonding 2 Rebars

Notes: Standard cable size = 2/0
For 4/0 cable size insert "40" following 467 in the part number eg. LPC46740X2 for 4/0 cable, 2X clamp and 6 ft cable.

SERIES 468 – Bare Brass

Cast cable connector for connecting flush rebar plate to bare copper downlead cable.

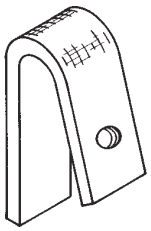


LPC468
Bare brass; connect Part No. LPC467 flush rebar to Part No. LPC401 and LPC404 bare copper downlead cable

LPLC468
Lead covered brass; connect Part No. LPC467 flush rebar to Part No. LPLC401 and LPC404 lead covered copper downlead cable

STEEL YOKE

SERIES 469

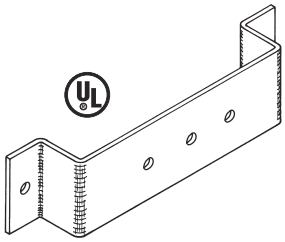


LP-S469
Stainless steel yoke for connections to iron bands. For use where lead covered copper cables extend over bands. Drilled and tapped for 1/2" threaded stud. Use with Series LPC481, LPC482 or LPC483.

NOTE: The above iron band yokes are designed to fit over a single 3/8" thick band.

GROUNDING BUSBAR
SERIES 475

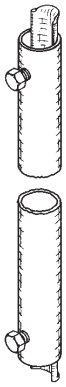
LPC475 used as a ground bus to connect bottom end of downlead to customer provided ground tail at column base. Standard holes provided for 1/2″ bolt size connections and anchors (two on the face and one on each wing). Room available to mount installer's nameplate and Underwriters' Laboratories Master Label Wing mounting holes 14″ on center.



LPC475
Solid copper ground bar 1/4″ x 4″ x 16″ with a 2-1/8″ offset.

DOWNLEAD PROTECTOR
SERIES 477

Copper tube protector for use where stranded cables are subject to displacement or damage. Protectors are 8 ft. long standard with set screw and wedge at each end to bond cable to tube.

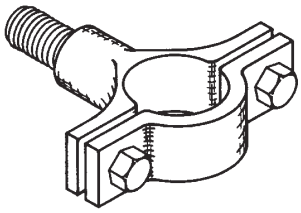


LPC477
for use with Part No. LPC401 copper cable.

LPC47740
for use with Part No. LPC47740 copper cable

PIPE FASTENERS
SERIES 478

Bare bronze, protector pipe fastener. Provided with 1/2″ diameter X 7/8″ long threaded stud for anchoring.

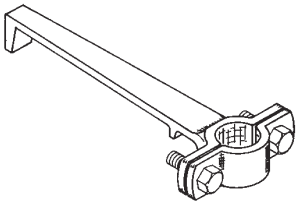


LPC478
for use with Part No. LPC477 tube protector

LPC47840
for use with Part No. LPC47740 tube protector

SERIES 479

Bare bronze, lay-in, protector pipe fastener. Mount in brick construction.



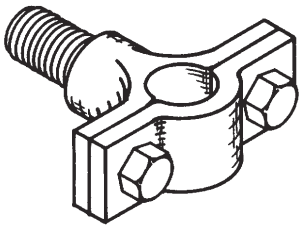
LPC479
for use with Part No. LPC477 tube protector

POINT AND CABLE FASTENERS
SERIES 480

Bare bronze 2-bolt cap type point fastener for use with bare copper points. Provided with 1/2″ threaded stud for anchoring.

Lead covered bronze 2-bolt cap type point fastener for use with lead covered copper or stainless steel points. Provided with 1/2″ threaded stud for anchoring.

* For stud length 7/8″ specify "SH"
For stud length 1-1/2″ specify "LG"



Bare Bronze

LPC48058*
for 5/8″ diameter bare copper point

LPC48034*
for 3/4″ diameter bare copper point

Lead Covered Bronze

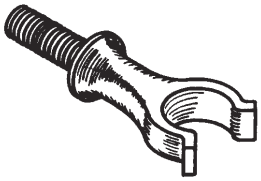
LPLC48058* for 5/8″ diameter points or LPLC401 and LPLC404 lead covered cable

LPLC48034* for 3/4″ diameter points

CABLE FASTENERS
SERIES 481

Pinch type cable fastener. Provided with 1/2″ threaded stud for anchoring.

* For stud length 7/8″ specify "SH"
For stud length 1-1/2″ specify "LG"

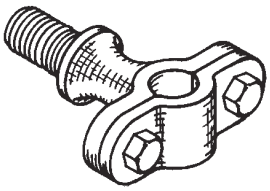


Bare Bronze
LPC481*
Bare bronze; use with Part No. LPC401 bare copper cable

SERIES 482

2-bolt cap type cable fastener. Provided with 1/2″ threaded stud for anchoring.

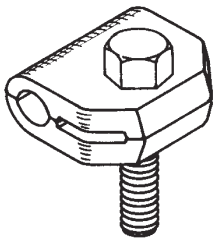
* For stud length 7/8″ specify "SH"
For stud length 1-1/2″ specify "LG"



Bare Bronze
LPC482*
Bare bronze; use with Part No. LPC401 bare copper cable

SERIES 483

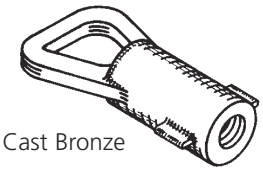
Bare bronze cable to metal surface fastener. Provided with 1/2″ x 2″ silicon bronze mounting bolt. May be used with Part No. LPS469 iron band yoke.



Bare Bronze
LPC483
Bare bronze cable to metal surface fastener

CONCRETE INSERT
SERIES 484

Insert for placement in concrete during construction. Use with standard length stud 7/8″



Cast Bronze

LPC48412
Cast bronze; provided with 1/2"-13 internal thread

BRASS INSERT PLUG
SERIES 485

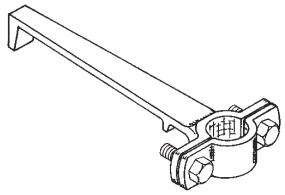
Provided with 1/4-20 centered thread and screw driver slot. Allows for mounting LPC484 inserts to forms and offers means of removal.

LPC48512 for 1/2"-13 inserts

POINT AND CABLE INSERTS

SERIES 492

Lay-in point holder. Series LPC992 for use with bare copper points. Series LPLC492 for use with lead covered, or stainless steel points. Lay-in brick construction.



Bare Bronze
LPC49258
Bare bronze; for 5/8" outside diameter points

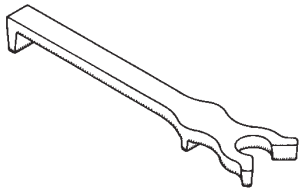
LPC49234
Bare bronze; for 3/4" outside diameter points

Lead Covered Bronze
LPLC49258
Lead covered bronze; for 5/8" outside diameter points or LPLC401 and LPLC404 lead covered cable

LPLC49234
Lead covered bronze; for 3/4" outside diameter points

SERIES 494

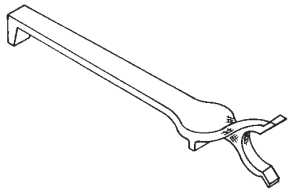
Lay-in pinch type cable holder. Lay-in brick construction.



Bare Bronze
LPC494
Bare bronze, for use with Part No. LPC401 bare copper cable

SERIES 495

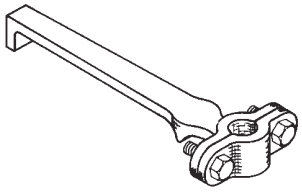
Lay-in horizontal cable for brick construction.



Bare Bronze
LPC495
Bare bronze, for use with Part No. LPC401 bare copper cable

SERIES 496

2-bolt cap type, lay-in cable holder. Lay-in brick construction.

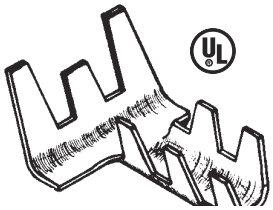


Bare Bronze
LPC496
Bare bronze; for use with Part No. LPC401 bare copper cable

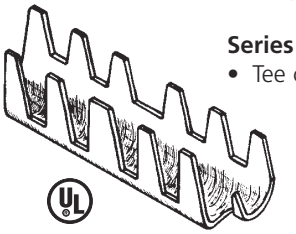
CABLE SPLICERS

SERIES 501, 503 & 505

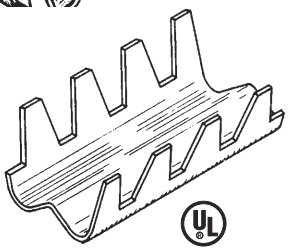
Copper or aluminum splicer with compression type fingers to crimp over cable. Made from 14 gauge copper or 10 gauge aluminum sheet stock. For use with all full size cables on Class I structures.



Series 501
- Tee cable splicer



Series 503
- Butt end straight cable splicer



Series 505
- Parallel cable splicer

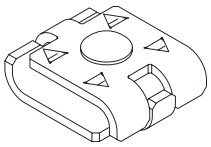
Series 501
LPC501 for copper
LPA501 for aluminum

Series 503
LPC503 for copper
LPA503 for aluminum

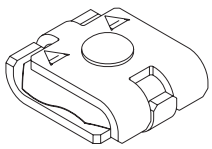
Series 505
LPC505 for copper
LPA505 for aluminum

SERIES 502

Stamped bronze or aluminum universal parallel cable splicer. May be used with any combination of full size cables and/or miniature bonding wire or cables. Positive single bolt tension grip on cables or wire. Total contact length 1-1/2"



LP502



LPC502A

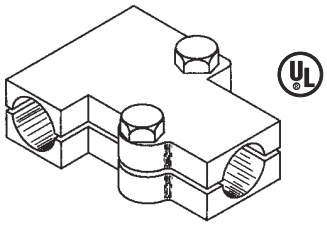
NEW

Class I/II

Series 502
LPC502 for copper
LPA502 for aluminum
LPC502A for bi-metallic
LPC502L for tinned copper

SERIES 510

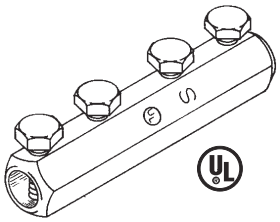
Cast bronze or aluminum tee cable splicer with positive bolt tension grip on cables. For use with all full size cables.



Series 510
LPC510 for copper
LPA510 for aluminum

SERIES 513

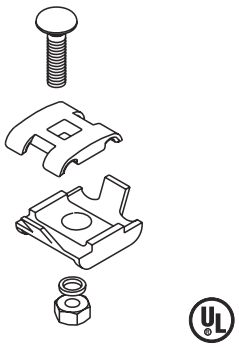
Cast bronze or aluminum cable splicer. For use with all cable sizes. Butt End straight cable splicer with two set screws for pressure on each cable.



Series 513
LPC513 for copper
LPA513 for aluminum

SERIES 516

Cast bronze or aluminum universal parallel cable splicer. May be used with any combination of full size cables and/or miniature bonding wire or cables. Positive single bolt tension grip on cables or wire. Total contact length 1-1/2".

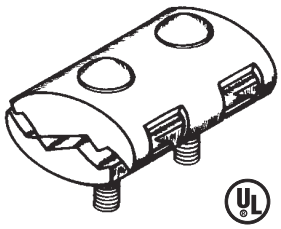


Series 516

Series 516
LPC516 for copper
LPA516 for aluminum

SERIES 517

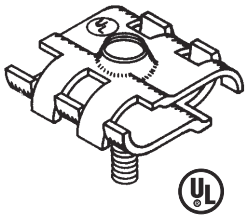
Cast bronze or aluminum universal parallel cable splicer. May be used with any combination of full size cables and/or miniature bonding wire or cables. Positive two bolt tension grip on cables or wire. Total contact length 2".



Series 517
LPC517 for copper
LPA517 for aluminum

SERIES 527 & 528

Cast bronze or aluminum universal parallel cable splicer. May be used with any combination of full size cables and/or miniature bonding wires or cables. Positive single or double bolt tension grip on cables or wires. Total contact length 2" or 4".

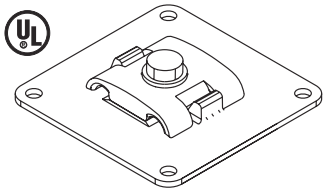


Series 527 (contact length 2")
LPC527 for copper cables and reinforcing steel bonding
LPA527 for aluminum cables

Series 528 (contact length 4")
LPC528 for copper cables and reinforcing steel bonding
LPA528 for aluminum cables

BONDING PLATES
SERIES 532

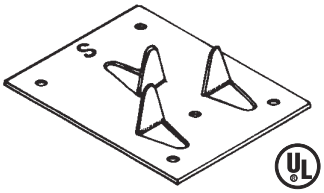
Cast bronze or aluminum flat metal bonding plate with 8 square inches of contact surface. Two set screws for pressure on cable. For use with all full size cables.



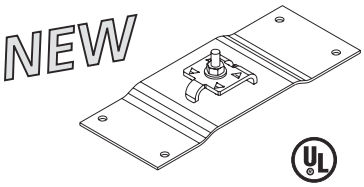
Series 532
LPC532 for copper cables to compatible metal surface
LPC532L for copper cables to dissimilar metal surface
LPA532 for aluminum cables to compatible metal surface

SERIES 533, 534 & 535

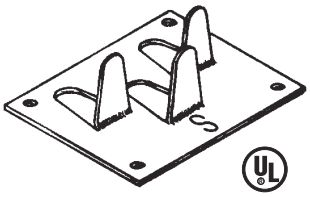
Copper or aluminum flat or curved metal bonding plate. For use with all cable sizes



Series 533
Compression type fingers crimp over cable for direct contact. 8 square inches of contact surface. Class I installations only.



Series 534
Double bolt tension grip on cable. 8 square inches of contact surface. Class I or II installations.



Series 535
Compression type fingers crimp over cable for direct contact. 4 square inches of contact surface. Class I installations only.

Series 533
LPC533 for copper cables to compatible metal surface
LPC533L for copper cables to dissimilar metal surface
LPA533 for aluminum cables to compatible metal surface

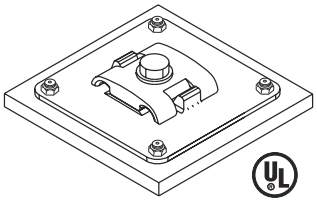
Series 534
LPC534 for copper cables to compatible metal surface
LPC534L for copper cables to dissimilar metal surface
LPA534 for aluminum cables to compatible metal surface

Series 535
LPC535 for copper cables to compatible metal surface
LPC535L for copper cables to dissimilar metal surface
LPA535 for aluminum cables to compatible metal surface

BONDING PLATES

SERIES 536

Cast bronze or aluminum flat metal bonding plate Part Nos. LPC532 or LPA532 with mild steel welding plate 1/4" x 4" x 4" for attachment to steel columns or beams when no holes may be made in steel member. Steel plate to be electrically welded to steel column or beam. Furnished with four set screws to attach bonding plate to welding plate.

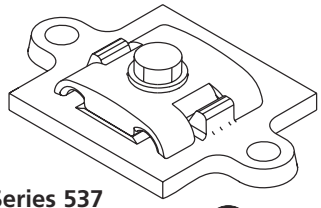


Series 536

Series 536
LPC536 for use with copper cables
LPA536 for use with aluminum cables

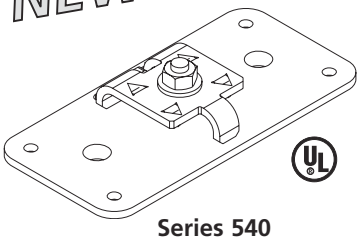
SERIES 537 & 540

Bronze or aluminum flat metal bonding plate. Single bolt tension grip on cable. For use with all full size cables.



Series 537
3 square inches
of contact surface.

NEW



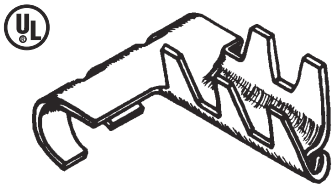
Series 540
8 square inches
of contact surface.

Series 537
LPC537 for copper cables to compatible metal surface
LPC537L for copper cables to dissimilar metal surface
LPA537 for aluminum cables to compatible metal surface

Series 540
LPC540 for copper cables to compatible metal surface
LPC540L for copper cables to dissimilar metal surface
LPA540 for aluminum cables to compatible metal surface
LPC540A for copper cables to aluminum or compatible metal surface

SERIES 544

Copper or aluminum gutter clamp with compression fingers to crimp over gutter edge and cable. For use with all full size cables.



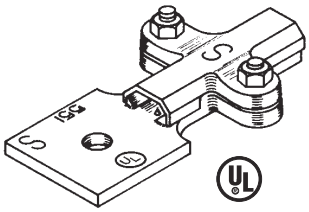
Series 544
LPC544 for copper cables to compatible metal surface
LPC544L for copper cables to dissimilar metal surface
LPA544 for aluminum cables to compatible metal surface

TERMINAL BONDING LUG

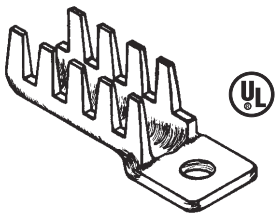
SERIES 551 & 552

Cast bronze or aluminum terminal bonding lug. Available for bolt sizes 3/8", and 1/2" diameter. For use with all full size cable.

BOLT DIA.	CABLE TYPE TO SURFACE TYPE	PART NO. SERIES 551	PART NO. SERIES 552
3/8" 1/2"	copper to copper copper to copper	LPC55138 LPC55112	LPC55238 LPC55212
3/8" 1/2"	copper to dissimilar copper to dissimilar	LPC551L38 LPC551L12	LPC552L38 LPC552L12
3/8" 1/2"	aluminum to aluminum aluminum to aluminum	LPA55138 LPA55112	LPA55238 LPA55212



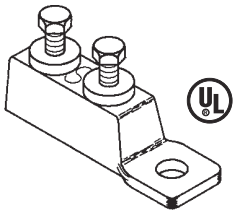
Series 551
Bolt tension grip on cable
for Class I or II installations



Series 552
Compression type fingers to crimp over cable for Class I installations only

SERIES 555

Cast bronze or aluminum terminal bonding lug with set screw pressure on miniature cables and wires. Lug hole for 1/4" diameter bolt. For use with all miniature bonding cables and wires.



Series 555
LPC555 for copper miniature cables and wires
LPC555L (tinned) for copper miniature cables and wires
LPA555 for aluminum miniature cables and wires

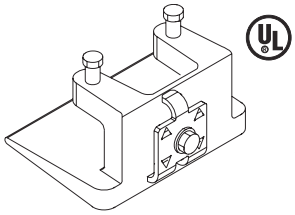
BEAM/PURLIN FLANGE BONDING CLAMPS

SERIES 557 & 559

Cast bronze or aluminum universal cable to beam flange or purlin flange bonding clamp. Requires no holes in heavy steel member. For use with all full size cables and bonding cables and wires.

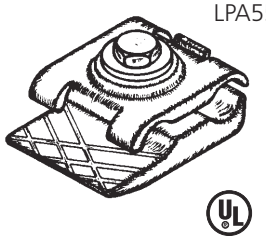
Series 557
LPC557 for copper cables and wires
LPA557 for aluminum cables and wires

Series 559
LPC559 for copper cables and wires
LPA559 for aluminum cables and wires



NEW

Series 557
Gives 8 square inches of bolt tension contact. Draws tight on member thickness up to 1"



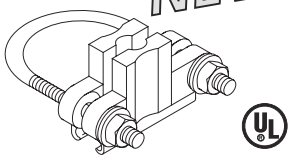
Series 559
Provides bolt tension contact. Draws tight on member thickness up to 5/8"

PIPE/REBAR GROUNDING CLAMPS

SERIES 570

Cast bronze or aluminum pipe or rebar grounding clamp. For use with all full size cables. Suitable for pipe or rebar up to O.D. 1-1/4".

NEW



Series 570

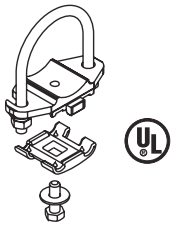
LPC570	Copper
LPC570L	Tinned Copper
LPA570	Aluminum

PIPE GROUNDING CLAMPS

SERIES 571

NEW

Cast bronze or aluminum pipe grounding clamp. For use with all full size cables. Suitable for pipe size 1.75" to 2.5" O.D.



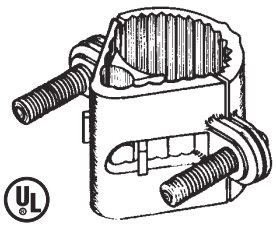
Series 571

LPC571	Copper
LPC571L	Tinned Copper
LPA571	Aluminum

PIPE GROUNDING CLAMPS

SERIES 580

Cast bronze or aluminum pipe grounding clamp. For use with all full size cables, miniature cables and bonding wires. Suitable for pipe size 1/2" thru 1" inside pipe size (O.D. range 0.750" to 1.315"). For pipe sizes greater than 1.315" O.D. refer to Series 330, 331 or 596.



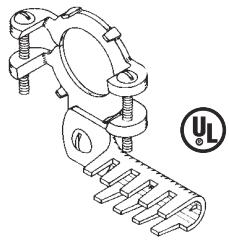
Series 580

LPC580	Copper
LPC580L	Tinned Copper
LPA580	Aluminum

WATER SYSTEM BONDING CLAMPS

SERIES 583

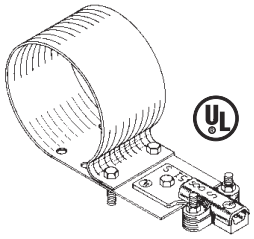
Cast bronze sill cock water system bonding clamp with adjusting screws of various flange sizes. Fits behind flange of sill cock with hammer down ears for positive contact. Lug accepts all full size cables. Lug is plated for use with copper or aluminum cables.



Series 583
LPC583 for copper cables and wires

PIPE CLAMPS
SERIES 588 & 590

Strap copper or aluminum pipe bonding clamp. Suitable for pipe sizes from 6.625″ to 10.750″ O.D. Other sizes available upon request. For use with all full size cables.

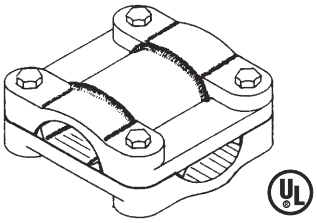


Series 588 (O.D. range 6.625 to 8.625)
LPC588 for copper cables
LPA588 for aluminum cables

Series 590 (O.D. range 8.625 to 10.750)
LPC590 for copper cables
LPA590 for aluminum cables

CROSS-RUN or 4-WAY CABLE CONNECTOR
SERIES 595

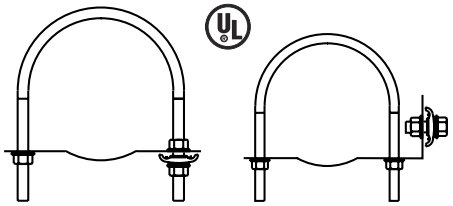
Cast bronze or aluminum cross-run or 4-way cable connector. Four bolts for positive bolt tension grip on cables. For use with all full size cables.



Series 595
LPC595 for copper cables
LPA595 for aluminum cables

PIPE CLAMPS
SERIES 596

Copper or aluminum pipe bonding clamp, made of stainless steel u-bolt with tinned copper strap. Suitable for pipe sizes from 2″ to 6-1/2″ O.D. Can be used with all cable sizes and incorporated with Series 321 for point mounting. For pipe sizes greater than 6-1/2″ O.D. refer to Series 588 and 590.



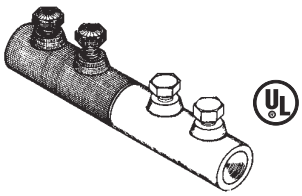
Series 596

COPPER	ALUMINUM	PIPE RANGE O.D.
LPC5962	LPA5962	2" - 2-5/8"
LPC5963	LPA5963	2-5/8" - 3-5/8"
LPC5964	LPA5964	4" - 4-1/2"
LPC5966	LPA5966	4-1/2" - 6-1/2"

Suitable for Class I and Class II cable sizes.

BI-METALLIC CONNECTOR
SERIES 598

Machined aluminum bi-metallic connector for making connections between copper and aluminum cables in straight run. Two-bolt tension grip on each cable end. For use with all full size cables. For cables sizes up to 4/0.



Series 598
LPA598 for aluminum to copper cables

CONCEALED POINTS

SERIES 601 thru 609

Solid copper or aluminum concealed points, made in one continuous length of point and threaded section. Points are made from bare copper or aluminum rod with highly polished finish. Rod ends threaded standard N.C. and supplied with two compatible nuts and washers. Concealed points will adapt to most bases Series 300 and Part No. 610.

LENGTH*	DIA.	MATERIAL	PART NO.
18"	3/8"	copper	LPC601
18"	1/2"	copper	LPC604
18"	1/2"	aluminum	LPA604
18"	5/8"	copper	LPC607
18"	5/8"	aluminum	LPA607
24"	3/8"	copper	LPC602
24"	1/2"	copper	LPC605
24"	1/2"	aluminum	LPA605
24"	5/8"	copper	LPC608
24"	5/8"	aluminum	LPA608
32"	3/8"	copper	LPC603
32"	1/2"	copper	LPC606
32"	1/2"	aluminum	LPA606
32"	5/8"	copper	LPC609
32"	5/8"	aluminum	LPA609

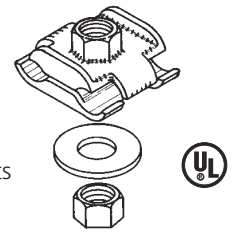
* 18″ (10″ point length, 8″ threaded length)
24″ (12″ point length, 12″ threaded length)
32″ (18″ point length, 14″ threaded length)

Note: Contact ERICO for points with other specifications

CONCEALED POINT BASE ASSEMBLIES

SERIES 610

Bronze or aluminum cast concealed point base assemblies. Positive bolt tension cable clamping for cables or wires, accepts one or two of any combination of full size and/or miniature bonding wires or cables in a parallel manner. Furnished with washer and standard N.C. nut for secure connections. See Part No.'s LPC601 thru LPA609 for application.

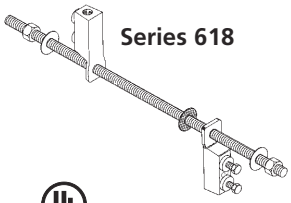


Series 610

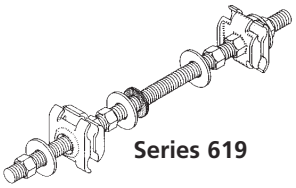
POINT DIA.	COPPER	ALUMINUM
3/8"	LPC61038	—
1/2"	LPC61012	LPA61012
5/8"	LPC61058	LPA61058

THRU-WALL CONNECTION ASSEMBLIES

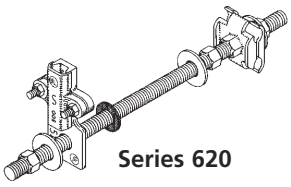
PART #	MATERIALS	INSIDE CONNECTOR	OUTSIDE CONNECTOR	ROD DIAMETER	ROD LENGTH
LPC618	Cu - Cu	LPC555	LPC555	5/16"	12"
LPC618A	Cu - Al	LPC555	LPA555	5/16"	12"
LPA618	Al - Al	LPA555	LPA555	5/16"	12"
LPC619	Cu - Cu	LPC61012	LPC61012	1/2"	12"
LPC619A	Cu - Al	LPC61012	LPA61012	1/2"	12"
LPA619	Al - Al	LPA61012	LPA61012	1/2"	12"
LPC620	Cu - Cu	LPC61012	LPC55112	1/2"	12"
LPC620A	Cu - Al	LPC61012	LPA55112	1/2"	12"
LPA620	Al - Al	LPA61012	LPA55112	1/2"	12"
LPC621	Cu - Cu	LPC55112	LPC55112	1/2"	12"
LPC621A	Cu - Al	LPC55112	LPA55112	1/2"	12"
LPA621	Al - Al	LPA55112	LPA55112	1/2"	12"
LPC622	Cu - Cu	LPC55112	LPC55112	1/2"	6"
LPC622A	Cu - Al	LPC55112	LPA55112	1/2"	6"
LPA622	Al - Al	LPA55112	LPA55112	1/2"	6"



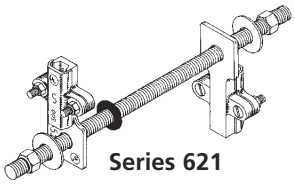
Series 618



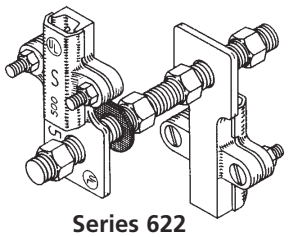
Series 619



Series 620



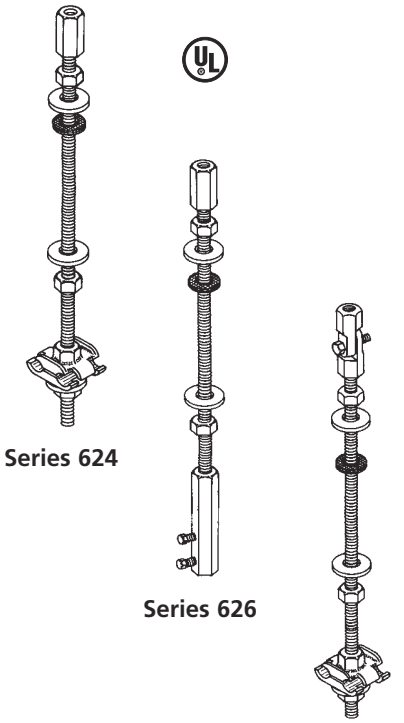
Series 621



Series 622

THRU-ROOF POINT ADAPTER ASSEMBLIES

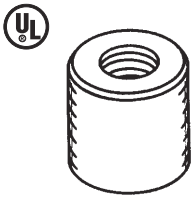
PART #	MATERIALS	TOP CONNECTOR	BOTTOM CONNECTOR	ROD DIAMETER	ROD LENGTH	POINT DIAMETER
LPC62438	Cu - Cu	LPC2932F3F	LPC61012	1/2"	12"	3/8"
LPC62412	Cu - Cu	LPC2932F2F	LPC61012	1/2"	12"	1/2"
LPC62458	Cu - Cu	LPC2952F5F	LPC61012	1/2"	12"	5/8"
LPC624A12	Cu - Al	LPA2932F2F	LPC61012	1/2"	12"	1/2"
LPC624A58	Cu - Al	LPA2952F5F	LPC61012	1/2"	12"	5/8"
LPA62412	Al - Al	LPA2932F2F	LPA61012	1/2"	12"	1/2"
LPA62458	Al - Al	LPA2952F5F	LPA61012	1/2"	12"	5/8"
LPC62638	Cu - Cu	LPC2932F3F	LPC32112	1/2"	12"	3/8"
LPC62612	Cu - Cu	LPC2932F2F	LPC32112	1/2"	12"	1/2"
LPC62658	Cu - Cu	LPC2952F5F	LPC32112	1/2"	12"	5/8"
LPC626A12	Cu - Al	LPA2932F2F	LPC32112	1/2"	12"	1/2"
LPC626A58	Cu - Al	LPA2952F5F	LPC32112	1/2"	12"	5/8"
LPA62612	Al - Al	LPA2932F2F	LPA32112	1/2"	12"	1/2"
LPA62658	Al - Al	LPA2952F5F	LPA32112	1/2"	12"	5/8"
LPC62838	Cu - Cu	LPC2812F3F	LPC61012	1/2"	12"	3/8"
LPC62812	Cu - Cu	LPC2812F2F	LPC61012	1/2"	12"	1/2"
LPC62858	Cu - Cu	LPC2812F5F	LPC61012	1/2"	12"	5/8"
LPC628A12	Cu - Al	LPA2812F2F	LPC61012	1/2"	12"	1/2"
LPC628A58	Cu - Al	LPA2812F5F	LPC61012	1/2"	12"	5/8"
LPA62812	Al - Al	LPA2812F2F	LPA61012	1/2"	12"	1/2"
LPA62858	Al - Al	LPA2812F5F	LPA61012	1/2"	12"	5/8"



NOTE: Contact ERICO for thru-roof assemblies with other specifications.

FLASHING ADAPTER
SERIES 635

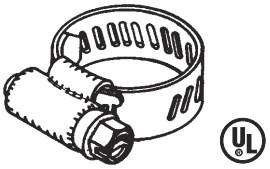
Flashing adapter for use in providing weather tight seal between threaded rod and Part No. LPP634 pipe flashing. Diameter of 1" by 1" high. Available in brass or aluminum with standard N.C. internal threads. Use in conjunction with Part No. LPP636.



ROD DIA.	COPPER	ALUMINUM
3/8"	LPC63538	—
1/2"	LPC63512	LPA63512
5/8"	LPC63558	LPA63558

PIPE FLASHING CLAMP
SERIES 636

Pipe flashing clamp for use with Part No. LPP634. Constructed of stainless steel material. Adjustable to accommodate 1" diameter as required for flashing. Use in conjunction with Part No. 635 series.

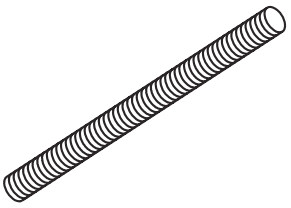


Series 636
LPP636 pipe flashing clamp

ALL THREAD ROD

SERIES 661

Stainless steel all thread solid rod. **Available in lengths from a few inches to 12'** for thru-roof or wall rods. Use of 5/16" rod is for miniature bonding only. All threads-5/16", 3/8", 1/2", or 5/8" - N.C. standard.

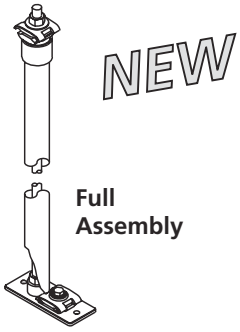


Series 661
LPS660CTO 5/16" stainless steel
LPS661CTO 3/8" stainless steel
LPS662CTO 1/2" stainless steel
LPS663CTO 5/8" stainless steel
LPC661CTO 3/8" copper
LPC662CTO 1/2" copper
LPC663CTO 5/8" copper

THRU-ROOF ASSEMBLIES

SERIES 664

Thru-roof cable connecting assemblies for copper to copper or aluminum to aluminum or copper concealed system to aluminum above deck. The top end is finished with a universal parallel cable connection. Lower end finished with flat mount rod and cable holder. Threaded rod is stainless steel 1/2" housed in UV stabilized PVC 1" SCH40 1.315" OD tube or cap.



Full Assembly

Connector

Series 664 Full Assembly

CONNECTION	18" length	24" length
COPPER	LPC66418	LPC66424
ALUMINUM	LPA66418	LPA66424
BI-METALLIC*	LPC664A18	LPC664A24

NOTE: Identify roof manufacturer for proper EPDM pipe flashing.

Series 664 Connector

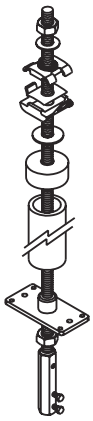
LPC664A*	copper to aluminum top
LPC664BI	copper to bi-metallic top
LPC664L	copper to tinned copper top

*** Copper base, aluminum top**

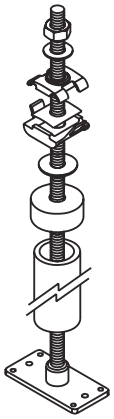
THRU-ROOF ASSEMBLIES (cont.)

SERIES 665

Thru-roof cable connecting assemblies for copper to copper or copper concealed system to aluminum above deck. The top end is finished with a universal parallel cable connection. Lower end is finished with an option for either an 8 square inch flat surface or an additional straight inline cable to rod coupler. Threaded rod is 1/2" dia. stainless steel housed in UV stabilized PVC 1-1/2" SCH40 tube in either 18" or 24" lengths.



Series 665



Series 665NC

Series 665, 665NC & 665 Bi-Metallic

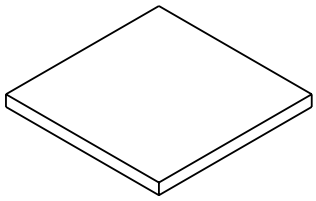
CONNECTION	18"	24"
Copper	LPC66518	LPC66524
Copper, no coupler	LPC66518NC	LPC66524NC
Bi-Metallic*	LPC66518BI	LPC66524BI
Bi-Metallic, no coupler	LPC66518NCBI	LPC66524NCBI

*** Copper base, aluminum top**

NOTE: Identify roof manufacturer for proper EPDM pipe flashing.

WELDING PLATE
SERIES 667

Mild steel welding plate 1/4″ x 4″ x 4″ for attachment to steel columns or beams when no holes may be made in steel member. Steel plate to be welded to steel column or beam. Provided with four 1/4-20 x 3/8″ screws for mounting 532 series bonding plates or 306, 307, and 308 series point bases.

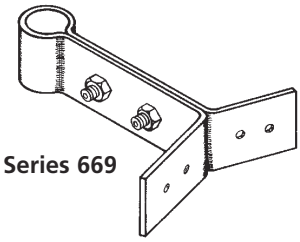


Series 667
LPP667 mild steel welding plate

NOTE: Similar steel welding plate can be provided for 540 series bonding plate and 340 series point bases. Specify Part No. LPP667X540 to receive steel plate with the proper mounting hole pattern. Similar steel welding plate can also be provided for connecting to large diameter weldable metal piping. Use in conjunction with 551 series terminal bonding lug. Specify Part No. LPP667X551 to receive steel plate with proper mounting hole pattern.

STRAP TYPE POINT OR CABLE HOLDER
SERIES 669 & 670

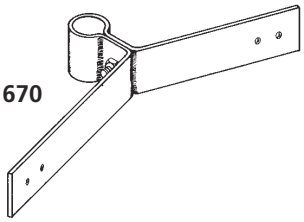
Copper or aluminum strap type point or cable holder. Made of heavy tinned copper or bare aluminum strap formed to draw tight under bolt tension. Will hold solid rod points or full size cables offset from flat or curved mounting surface. Available in various offset distances.



Series 669

Series 669
- Stand-off holder
- Offset distance 4″ standard
- 2″ long wings for attachment

LPC669 for copper points or cables
LPA669 for aluminum points or cables



Series 670

Series 670
- Offset distance 1″ standard
- 6″ long wings for attachment

LPC670 for copper points or cables
LPA670 for aluminum points or cables

STRAP TYPE POINT OR CABLE TO PIPE HOLDER
SERIES 671 - 679

Copper or aluminum strap type point or cable to pipe holder. Made of heavy tinned copper or bare aluminum strap formed to draw tight under bolt tension to hold solid rod points or full size cables close to pipe. Available in standard pipe sizes 1-1/2″, 2″, 3″, and 4″. Other sizes available upon request.

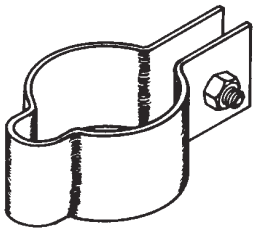
Series 671-674

PIPE SIZE	COPPER	ALUMINUM
1-1/2″ inside (1.900″ O.D.)	LPC671	LPA671
2″ inside (2.375″ O.D.)	LPC672	LPA672
3″ inside (3.500″ O.D.)	LPC673	LPA673
4″ inside (4.500″ O.D.)	LPC674	LPA674

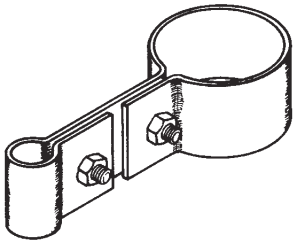
Series 675-679*

PIPE SIZE	COPPER	ALUMINUM
1-1/2″ inside (1.900″ O.D.)	LPC675	LPA675
2″ inside (2.375″ O.D.)	LPC676	LPA676
3″ inside (3.500″ O.D.)	LPC677	LPA677
4″ inside (4.500″ O.D.)	LPC678	LPA678

* Stand-off fastener, offset distance 2-1/2″ standard (other distances available)



Series 671-674



Series 675-679

GROUNDING RECEPTACLES

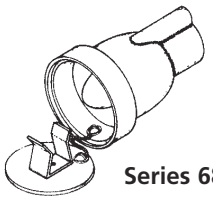
SERIES 680

Cast bronze aircraft type static grounding receptacle with standard pin connection and chain retained cover plate. Install flush with finish floor surface. Designed to couple directly to 3/4″ section type ground rod or 3/4″ extension rod.

SERIES 681

Cast bronze aircraft type static grounding receptacle for mounting on a vertical surface. Furnished with standard pin connection, chain retained cover plate and spring clip to secure cover plate when installed on a vertical surface. Install flush with finished wall surface. Designed to couple directly to 3/4″ support rod.

Series 680



Series 681

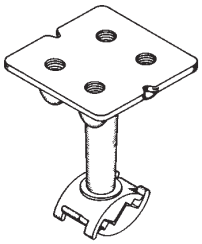
Series 680
LPC680 cast bronze aircraft type static grounding receptacle

Series 681
LPC681 cast bronze aircraft type static grounding receptacle

GROUNDING PLATE

SERIES 682

Cast bronze grounding plate for equipment, machinery, or structure grounding points. May be installed flush in concrete floor or wall. Face measures 3-1/4″ square with four holes for 1/2″ bolts on 1-3/4″ center. Cable connection under bolt tension. For all standard cables.



Series 682
LPC682 cast bronze grounding plate

EXTENSION ROD

SERIES 684

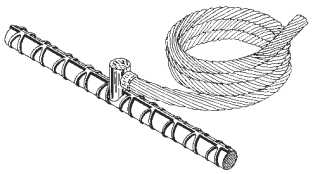
Copperclad steel extension rod for use with Part No. LPC680 receptacle. Use to hold receptacle at proper elevation for concrete pour. Made of 3/4″ rod 24″ long with threaded end.

Series 684
LPCC684 copperclad steel extension rod

BONDING ASSEMBLY

SERIES 691 - 693

Prefabricated cable to reinforcing bar bonding assemblies. Catalog numbered assembly includes 18″ of #4 reinforcing bar with an exothermic weld to 5 ft. of copper cable. Wire tie or weld bar to construction steel before pouring concrete and route cable tail to down lead or ground lead location.

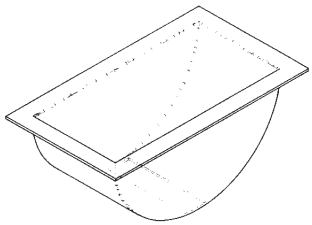


Series 691-693
LPP691 bar with LPC122 copper cable (for Class I systems)
LPP692 bar with LPC126 copper cable (for Class II systems)
LPP693 bar with LPC137 copper cable (4/0)

CONCRETE FORM

SERIES 736

Plastic form for making 3″ x 6″ x 2-1/2″ deep depression in concrete pour around loop in aircraft tie-downs, for use with Part No. LPCC730 and LPCC731.

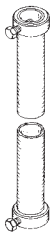


Series 736
LPP736 plastic concrete pour form

CABLE PROTECTORS

SERIES 742

Copper tube protector for cables through 5/8″ diameter. For use where stranded cables are subject to displacement or damage. Protector 3/4″ O.D. copper tube 7′ long with set screw collar each end to bond cable to tube. Secure with Part No. LPC807 or LPC808 Fasteners.



Series 742
LPC742 copper tube protector for cables through 5/8″ diameter

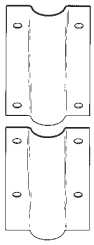
SERIES 743

Polyvinylchloride Protector for cables through 5/8″ diameter. For use where stranded cables are subject to displacement or damage. Protector 1″ O.D. PVC Pipe, 10′ long. Secure with Part No. LPC807 or LPC808 Fasteners.

Series 743
LPP743 polyvinylchloride protector for cables through 5/8″ diameter

SERIES 745

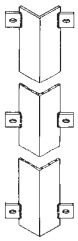
Galvanized sheet steel protector for cables through 3/4″ diameter. For use where stranded cables are subject to displacement or damage. Protector 3″ wide galvanized steel 8′ long with eight mounting holes for 1/4″ fasteners.



Series 745
LPP745 galvanized sheet steel protector for cables through 3/4″ diameter

SERIES 746

Heavy duty galvanized angle iron protector for cables through 3/4″ diameter. Regularly used on loading docks or areas where machine traffic is heavy. Protector fabricated from 2″ x 2″ x 3/16″ angle iron 7′ long. Six anchor tabs welded to angle before galvanizing, each has mounting hole for 1/4″ fastener. Each end to be made electrically continuous with conductor.

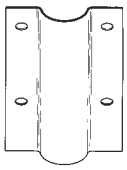


Series 746
LPP746 heavy duty galvanized angle iron protector for cables through 3/4″ diameter

For a complete listing of ERITECH® grounding products, bonding braids, insulators or other electrical grounding accessories refer to the ERITECH Grounding Products and Systems Catalog (G281C).

SERIES 747

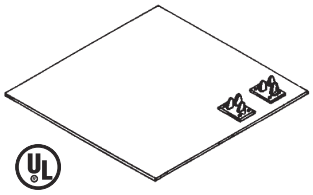
PVC protector for cables of all sizes up to 1″ or 2″. For use where stranded cables are subject to displacement or damage. Two sizes available in 8′ lengths. Each section able to overlap for longer lengths.



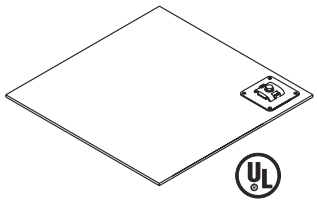
Series 747
LPP74718 1″x 8′ PVC
LPP74728 2″x 8′ PVC

GROUND PLATE
SERIES 750 - 755

Copper ground plate made from 20 AWG thick high conductivity copper sheet.



Series 750-752
Two cable attachments LPC535L securely fastened to plate.



Series 753-755
Cable attachment LPC532L securely fastened to plate.

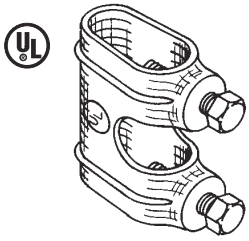
12″ wide by 24″ long (2 Square Feet)
LPC750 two cable attachments
LPC753 single cable attachment

18″ wide by 18″ long (2-1/3 Square Feet)
LPC751 two cable attachments
LPC754 single cable attachment

36″ wide by 36″ long (9 Square Feet)
LPC752 two cable attachments
LPC755 single cable attachment

GROUND ROD CLAMPS
SERIES 791 - 793

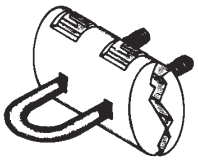
Ground rod to cable clamps of high conductivity red bronze. Three inch direct contact along axis of cable and rod. Two 5/16″ bolts for positive contact.



791-793 Series
LPC791 for 1/2″ ground rod to cables through 1/2″ diameter
LPC792 for 5/8″ ground rod to cables through 5/8″ diameter
LPC793 for 3/4″ ground rod to cables through 3/4″ diameter

U-BOLT GROUND ROD CLAMP
SERIES 795

U-Bolt ground rod clamp for high conductivity red bronze with high strength stainless steel u-bolt. Three inch contact between clamp and cable.

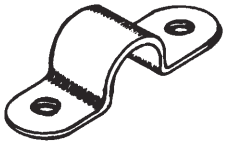


795 Series
LPC795 for 1/2″, 5/8″, or 3/4″, and 1″ ground rods to all cables through 3/4″ diameter

COPPER AND ALUMINUM CABLE STRAPS, ONE AND TWO HOLE

NOTE: (Part numbers 807 and 808 are conduit, protector and pipe fasteners.)

Series 801, 803, 805, 807
Copper Strap, One Hole



Series 802, 804, 806, 808
Copper Strap, Two Hole

Cable Strap - Copper, One Hole
LPC801 3/8″ secured with nails
LPC803 1/2″ secured with nails or screws
LPC805 5/8″ secured with screws or 1/4″ fasteners
LPC807 1-1/4″ secured with screws or 1/4″ fasteners

Cable Strap - Aluminum, One Hole
LPA803 1/2″ secured with nails or screws
LPA805 5/8″ secured with screws or 1/4″ fasteners
LPA807 1-1/4″ secured with screws or 1/4″ fasteners

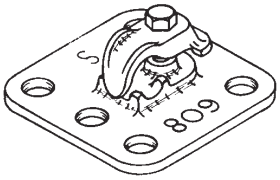
Cable Strap - Copper, Two Hole
LPC802 3/8″ secured with nails
LPC804 1/2″ secured with nails or screws
LPC806 5/8″ secured with screws or 1/4″ fasteners
LPC808 1-1/4″ secured with screws or 1/4″ fasteners

Cable Strap - Aluminum, Two Hole
LPA804 1/2″ secured with nails or screws
LPA806 5/8″ secured with screws or 1/4″ fasteners
LPA808 1-1/4″ secured with screws or 1/4″ fasteners

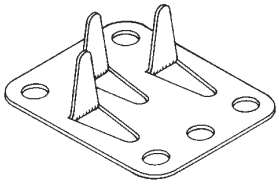
CABLE HOLDERS

SERIES 809 & 810

Flat cable holder for use with hot pitch, roofing compound or commercial adhesive on built-up roof surfaces or other location where holes cannot be made for anchoring cable.



Series 809
Cast bronze or aluminum. Bolt tension cable clip.



Series 810
Copper or aluminum. Compression type fingers crimped over cable.

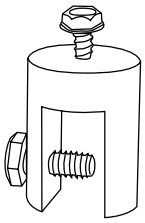
Series 809
LPC809 for copper cables
LPA809 for aluminum cables

Series 810
LPC810 for copper cables
LPA810 for aluminum cables

STANDING-SEAM – NO PENETRATION

SERIES 814

Brass or aluminum cable holder for standing seam roofing systems. Bottom groove machined 1/2" wide and 3/4" deep to secure on seam with set screw. Cable fastener adjusts for either parallel or perpendicular cable runs. For use with LP801, 803, 805, and 807.

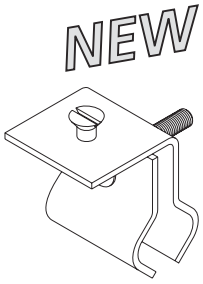


Series 814
LPC814 for copper cable saddle
LPA814 for aluminum cable saddle

STANDING-SEAM – NO PENETRATION

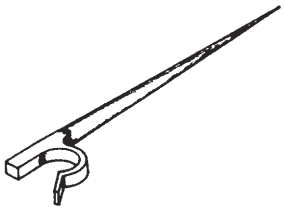
SERIES 815

Stainless steel cable holder for standing seam roofing systems. Groove is variable up to 1″ wide for rectangular seams or beams, also suitable mounting to seams with rounded or boxed ridge up to 1-1/2″ wide. Cable fastener adjusts for either parallel or perpendicular cable runs. For use with LP801, 803, 805, 807 or air terminal bases.



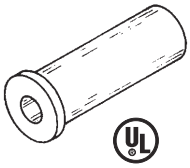
Series 815
LPS815 for all cables

TREE
SERIES 823



Series 823
LPC823 heavy duty bronze cast tree drive anchor for main or miniature cable. Drive anchor then pinch cable holder.

RUBBER EXPANSION ANCHOR



A928Q001 #1/4-20 x 5/8″
A928Q002 #10-32 x 9/16″
A928Q003 #10-32 x 3/4″
A928Q004 #1/4-20 x 1″
A928Q005 #10-24 x 3/4″

SLATING NAIL

A931A001 copper ring shank slating nail, 1-1/2″ long

A931A002 stainless steel ring shank, 1-1/2″ long

SLATING NAIL

A931A003 copper ring shank slating nail, 1-3/4″ long

A931A004 large aluminum nail, 6d

A931A005 large galvanized nail, 6d

A931A006 stainless steel ring shank nail, 2-1/2″ long

WOOD SCREW

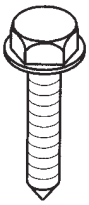
A927P021 brass wood screw, #10 x 1-1/2″

A927P020 stainless steel wood screw, #10 x 1-1/2″

LAG SCREWS
SERIES 844

LPG844 galvanized steel lag screw, 1/4″ x 2″

SHEET METAL SCREW



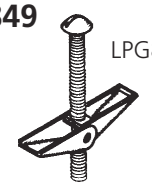
A927P022 stainless steel hex pan-head sheet metal screw #10 x 5/8″

A927P023 stainless steel hex pan-head self-drilling tek screw #10 x 5/8″

A927P025 stainless steel hex pan-head sheet metal screw #10 x 1″

A927P024 stainless steel hex pan-head self-drilling tek screw #10 x 1″

TOGGLE BOLT
SERIES 848 & 849



LPG848 galvanized steel toggle bolt, 1/4″ x 3″

LPG849 galvanized steel toggle bolt, 1/4″ x 4″

EXTENSION ANCHOR

A930W005 lead extension anchor, 1/4-20

A930W006 lead extension anchor, 5/16-18

A930W007 lead extension anchor, 3/8-16

A930W008 lead extension anchor, 1/2-13

PLUG ANCHOR

A930W013 plastic plug anchor for #10 screw

CAULK-IN ANCHOR

Provided with 1/2-13 internal thread. Mounts in drilled hole 7/8″ diameter x 1-1/2″ depth. Use standard length stud 7/8″.

A930W010 Caulk-in anchor

DRIVE-IN ANCHOR

A930W004 one-piece lead drive-In anchor with stainless steel nail, 1/4″ x 1-1/4″

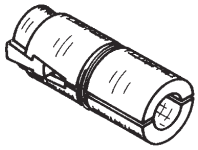
CABLE CLAMP
SERIES 858

Cast Bronze or Aluminum cable clamp for fastening to flat metal objects such as I-beams, angle irons, channel irons, etc. Positive bolt tension draws tight on steel member. For use with all full size cables, miniature cables, and bonding wires.

LPC858 for copper cables and wires
LPC858L tinned for copper cables and wires
LPA858 for aluminum cables and wires

EXPANSION SHIELD ANCHOR

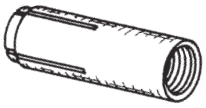
Provided with 1/2-13 internal thread. Mounts in drilled hole 7/8″ diameter x 1-3/4″ depth. Use extra length stud products 1-1/2 Long. Preferred anchoring method for brick chimney.



A930W009 Expansion shield anchor

DROP-IN ANCHOR

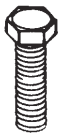
Provided with 1/2"-13 internal thread. Use standard length stud 7/8″.



A930W011
Plain steel; mounts in drilled hole 5/8″ diameter x 2″ depth.
A930W012
Stainless steel; mounts in drilled hole 7/8″ diameter x 2″ depth.

MACHINE SCREWS

Bronze and stainless steel hex head machine screws. Stainless Steel may be used with bronze or aluminum components.



BRONZE

LENGTH	1/4”-20	5/16”-18	3/8”-16	1/2”-13
1/2"	A927F176	—	—	—
3/4"	A927F178	A927F186	A927F192	—
1"	A927F180	A927F188	A927F194	A927F198
1-1/4"	A927F182	—	—	—
1-1/2"	A927F184	A927F190	A927F196	A927F200
2"	—	—	—	A927F202

STAINLESS STEEL

LENGTH	1/4”-20	5/16”-18	3/8”-16	1/2”-13
1/2"	A927F177	—	—	—
3/4"	A927F179	A927F187	A927F193	—
1"	A927F181	A927F189	A927F195	A927F199
1-1/4"	A927F183	—	—	—
1-1/2"	A927F185	A927F191	A927F197	A927F201
2"	—	—	—	A927F203

REGULAR FLAT WASHERS BRONZE AND STAINLESS STEEL

BRONZE

	FLAT	SPLIT LOCK
1/4"	A929A094	A929B023
5/16"	A929A096	A929B034
3/8"	A929A098	A929B017
1/2"	A929A100	A929B018
5/8"	A929A102	A929B009
3/4	A929A104	

SPLIT LOCK-WASHER, MEDIUM SECTION BRONZE AND STAINLESS STEEL

SERIES 874X - 879X

STAINLESS STEEL

	FLAT	SPLIT LOCK
1/4"	A929A095	A929B038
5/16"	A929A097	A929B024
3/8"	A929A099	A929B025
1/2"	A929A101	A929B026
5/8"	A929A103	A929B036
3/4	A929A105	A929B040

BRONZE AND STAINLESS STEEL STANDARD HEXAGON MACHINE SCREW NUTS

SERIES 880 - 885

	BRONZE	STAINLESS
1/4"-20	A928K015	A928K011
5/16"-18	A928K016	A928K017
3/8"-16	A928K018	A928K019
1/2"-13	A928K020	A928K021
5/8"-11	A928K022	A928K023
3/4"10	A928K024	A928K025

LEAD AND NEOPRENE SEALING WASHERS

SERIES 886 - 897

SIZE	LEAD	NEOPRENE
#10 Screw	A929G001	A929H001
1/4" Bolt	A929G002	A929H002
5/16" Bolt	A929G003	A929H003
3/8" Bolt	A929G004	A929H004
1/2" Bolt	A929G005	A929H005
5/8" Bolt	A929G006	A929H006

ADHESIVES

SERIES 899

NEW

A fast drying waterproof synthetic rubber and resin-based adhesive. For example, the 30 oz. cartridge will adhere 20- Part No. 302 adhesive bases, or 40- No. 810 adhesive cable holders to built-up surface. For metal roofs, which cannot be penetrated, will adhere 30- Part No. 302, or 60- Part No. 810 cable holders. Do not apply at temperatures below 10° F. The M-1® Structural Sealant is available in a 16 pack of 10.3 oz cartridges, and bonds aggressively to EPDM, PVC, BUR, coal tar, SBS mod bit, granulated APP, many types of coated metal, metal flashing details and FRP. The M-1 adhesive develops 300 lbs. per square inch of shear strength on metal, masonry or wood.

LPP899LN
30 oz. Liquid Nails™

LPP899GY (Grey)
10.3 oz. M-1® Structural Sealant

LPP899WH (White)
10.3 oz. M-1 Structural Sealant

LPP899BK (Black)
10.3 oz. M-1 Structural Sealant

Liquid Nails is a trademark of Glidden Company
M-1 is a registered trademark of Chem Link, Inc

SERIES 899R

A fast drying adhesive cement for rubber membrane roofing. Apply only at temperatures above 40° F. One gallon will adhere 30- No. 309 adhesive bases or 60 No. 809 or No. 810 cable holders to a smooth rubber surface.*

NOTE: Rubber adhesive cement pourable sealer must match the rubber roof membrane. Specify the type of roofing system being used.

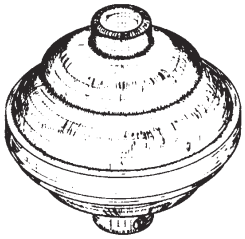
PART NO.	ROOFING SYSTEM
LPP899RAS	Ace Silicon
LPP899RCL	Carlisle
LPP899RFS	Firestone®
LPP899RGF	Genflex®

Firestone is a registered trademark of Bridgestone/Firestone, Inc.
Genflex is a registered trademark of Omnova Solutions, Inc.

*Improper selection of adhesive on roofing can cause serious deterioration to the roofing. Always verify compatibility of adhesive with roofing contractor and/or manufacturer.

ORNAMENTAL BALLS
SERIES 930 & 931

Plastic ornamental balls for use on all standard 1/2″ and 5/8″ diameter points. Constructed of molded polystyrene plastics. Colors tend to fade after a period of time.

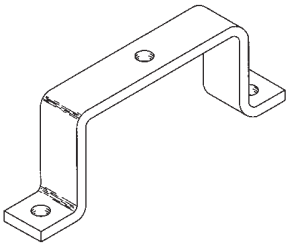


Series 930 Color: White
LPP93012 for 1/2" points
LPP93058 for 5/8" points

Series 931 Color: Red
LPP93112 for 1/2" points
LPP93158 for 5/8" points

SPACER BRACKET
SERIES 965

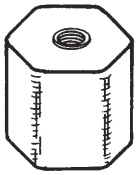
Solid galvanized steel spacer bracket for mounting insulators and bus bar. Constructed of 1″ x 1/4″ mild steel galvanized after construction, provided with 3/8″ hole for mounting insulator. Standard configuration will set bottom of insulator or bus bar 2-1/2″ off surface.



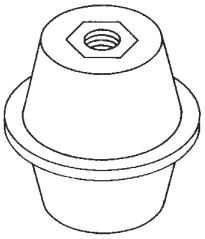
Series 965
LPP965 1" x 1/4" x 2-1/2"
one hole at 5-3/4" O.C.

FRP MOLDED STAND-OFF INSULATORS WITH THREADED ALUMINUM INSERTS

PART NO.	WIDTH	HEIGHT	BOLT SIZE
B546A07	1" Hex stock	1"	1/4-20
559620	2" Diameter	1-1/2"	1/4-20
B546A02	2" Diameter	1-1/2"	3/8-16
B546A01	2" Diameter	2"	1/2-16



B546A07



559620, B546A02, B546A01

For a complete listing of ERITECH® grounding products, bonding braids, insulators or other electrical grounding accessories refer to the ERITECH Grounding Products and Systems Catalog (G281C).

ERICO® Facility Electrical Protection Literature

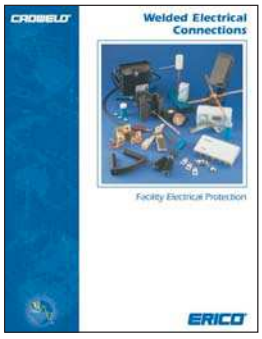
ERITECH® Lightning Protection Catalogs

ERITECH® System 2000 Lightning Protection Products catalog highlights products used in conventional lightning protection. Products detailed include conductors, ground rods and plates, clamps, splices, points and accessories.

ERITECH® System 3000 Lightning Protection Products catalog details the active lightning protection process. Information on air terminals, downconductors and design software is included.

ERITECH® Grounding Products Catalog

Details ERICO's extensive offering of ground rods and accessories, ground mesh and mats, signal reference grids, ground bars, ground receptacles, transient earth clamps, ground enhancement materials, and other grounding materials.



CADWELD® Welded Electrical Connections Catalog

Covers the range of hardware required to make a CADWELD connection as well as detailed ordering information for molds, weld materials, fence and gate jumpers and the smokeless CADWELD® EXOLON process.

CRITEC® Surge Protection Products Catalog

Details the extensive range of CRITEC Surge Protection Devices for industries such as commercial & industrial, process control & automation and telecommunications. It includes information on AC protection products, data control and signal protection products, as well as point-of-use protection products.

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