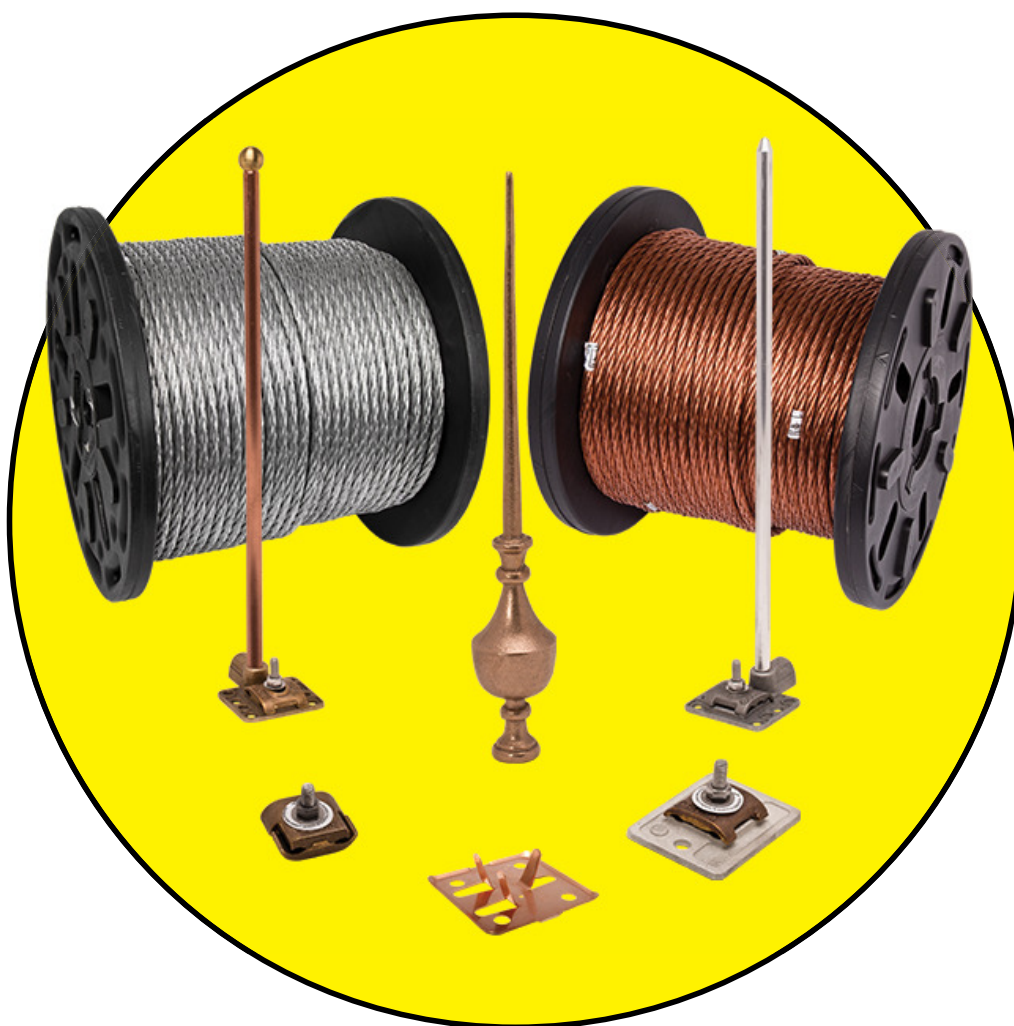
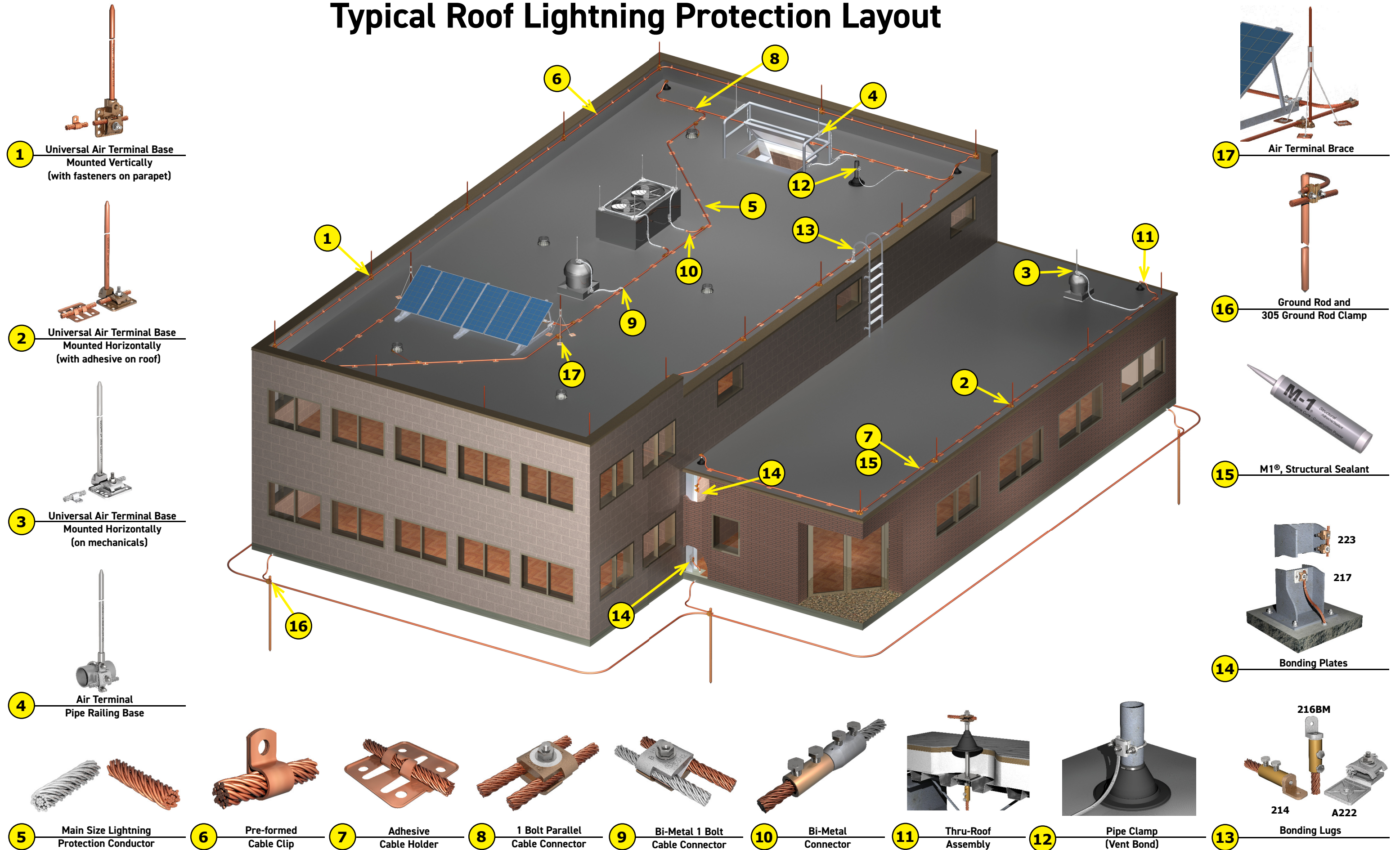


Lightning Protection Equipment



Manufacturing • Engineering Services • Training

Typical Roof Lightning Protection Layout



1 Universal Air Terminal Base Mounted Vertically (with fasteners on parapet)

2 Universal Air Terminal Base Mounted Horizontally (with adhesive on roof)

3 Universal Air Terminal Base Mounted Horizontally (on mechanicals)

4 Air Terminal Pipe Railing Base

5 Main Size Lightning Protection Conductor

6 Pre-formed Cable Clip

7 Adhesive Cable Holder

8 1 Bolt Parallel Cable Connector

9 Bi-Metal 1 Bolt Cable Connector

10 Bi-Metal Connector

11 Thru-Roof Assembly

12 Pipe Clamp (Vent Bond)

13 Bonding Lugs

17 Air Terminal Brace

16 Ground Rod and 305 Ground Rod Clamp

15 M1®, Structural Sealant

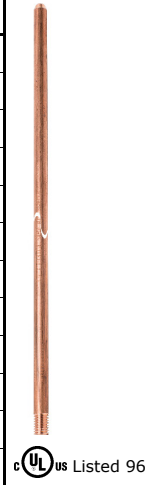
14 Bonding Plates

214 **216BM** **A222**

Lightning Protection Equipment

1 thru 4 - Copper Air Terminals

Part No.	Diameter	Length	Class
3812CUAT	3/8"	12"	I
3824CUAT	3/8"	24"	I
3836CUAT	3/8"	36"	I
3848CUAT	3/8"	48"	I
1212CUAT	1/2"	12"	II
1224CUAT	1/2"	24"	II
1236CUAT	1/2"	36"	II
1248CUAT	1/2"	48"	II
5812CUAT	5/8"	12"	II
5824CUAT	5/8"	24"	II
5836CUAT	5/8"	36"	II
5848CUAT	5/8"	48"	II



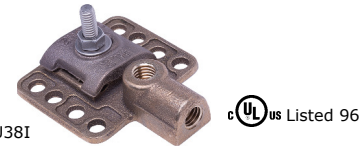
- For nickel or tin plated air terminals add suffix N for nickel and suffix T for tin.
- Other air terminal sizes available. Please contact factory.

1 thru 4 - Aluminum Air Terminals

Part No.	Diameter	Length	Class
1212ALAT	1/2"	12"	I
1224ALAT	1/2"	24"	I
1236ALAT	1/2"	36"	I
1248ALAT	1/2"	48"	I
5812ALAT	5/8"	12"	II
5824ALAT	5/8"	24"	II
5836ALAT	5/8"	36"	II
5848ALAT	5/8"	48"	II



- Other air terminal sizes available. Please contact factory.



1 thru 3 - Air Terminal Bases

Part No.	Material	Internally Threaded Hub Diameter
CUBU38I	Copper	3/8"
CUBU12I	Copper	1/2"
CUBU58I	Copper	5/8"
AUBU12I	Aluminum	1/2"
AUBU58I	Aluminum	5/8"

- Add prefix T for electro-tin plated copper base.
- Accepts #14 bonding conductor up thru Class II main lightning conductor.



4 - Pipe Railing Bases

Part No.	Material	Air Terminal Diameter
CPRB1.5/2AT38*	ETPB**	3/8"
CPRB1.5/2AT12*	ETPB**	1/2"
CPRB1.5/2AT58*	ETPB**	5/8"
APRB1.5/2AT12*	Aluminum	1/2"
APRB1.5/2AT58*	Aluminum	5/8"

- * Nominal pipe size range 1.25" - 2"
- ** Electro Tin Plated Bronze
- Fits all main size conductors up to 9/16" diameter.
- Other sizes available. Please contact factory.



5 - Class I - Copper Conductors

Part No.	No. of Strands	Strand Size	Reel/Coil Size
29-50COIL	29	16 AWG	50'
29-100	29	16 AWG	100'
29-250	29	16 AWG	250'

- Approximate diameter 3/8" and 72,500 x-sectional area.
- Electro Tin Plated conductors also available.



5 - Class II - Copper Conductors

Part No.	No. of Strands	Strand Size	Reel/Coil Size
28-50COIL	28	14 AWG	50'
28-100	28	14 AWG	100'
28-250	28	14 AWG	250'

- Approximate diameter is 1/2" and 115,000 x-sectional area.
- Electro Tin Plated conductor also available.



5 - Class I - Aluminum Conductors

Part No.	No. of Strands	Strand Size	Reel/Coil Size
A24-50COIL	24	14 AWG	50'
A24-100	24	14 AWG	100'
A24-250	24	14 AWG	250'

- Approximate diameter is 7/16" and 98,600 x-sectional area.

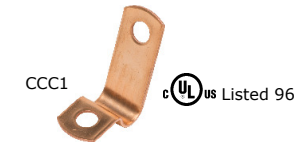


5 - Class II - Aluminum Conductors

Part No.	No. of Strands	Strand Size	Reel/Coil Size
A37R-50COIL	37	13 AWG	50'
A37R-100	37	13 AWG	100'
A37R-250	37	13 AWG	250'

- Approximate diameter is 19/32" and 192,000 x-sectional area.

Lightning Protection Equipment



6 - Cable Clips

Part No.	Material	Fits Lightning Conductors
ACC2	Aluminum	A28 & A24
ACC4	Aluminum	A37R
CCC1	Copper	#14
CCC2	Copper	29 & 32
CCC3	Copper	28 & 24

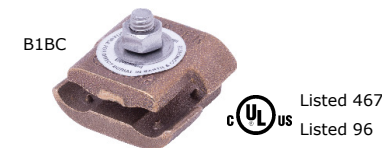
- Electro Tin Plated clips also available.



7 - Cable Holders

Part No.	Material
262	Copper
A262	Aluminum

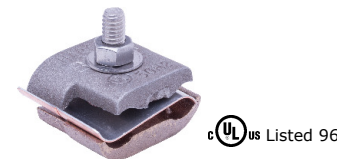
- For use with all cables thru 4/0 or up to 9/16" diameter.
- Electro Tin Plated copper holders also available.



8 - 1 Bolt Parallel Connectors

Part No.	Material	Class
B1BC	Copper	II
A1BC	Aluminum	II
TB1BC	ETPB*	II

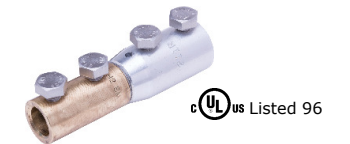
- * Electro Tin Plated Bronze
- Accepts all main size conductors up to 5/8" diameter.



9 - Bi-Metal 1 Bolt Parallel Connector

Part No.	Material	Class
BM1BC	Bi-Metal	II

- 2" x 1-1/2" bi-metal connector allows splicing of aluminum conductors to copper conductors.



10 - Bi-Metal Connector

Part No.	Material	Class
211R	Bi-Metal	II

- Brass side accepts all main size conductors up to 17/32" diameter.
- Aluminum side accepts all main size conductors up to 19/32" diameter.

11 - Thru-Roof Assemblies

Part No.	Description	Riser Length
SSTRCC15812	Vertical, Stainless Steel	12"
SSTRCC15824	Vertical, Stainless Steel	24"
SSTRACBM15812	Vertical, Stainless Steel, Bi-Metal	12"
SSTRACBM15824	Vertical, Stainless Steel, Bi-Metal	24"

- Other sizes available. Please contact factory.

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12 - Pipe Clamps

Part No.	Material
CPC*	Copper
APC*	Aluminum

- Conductor range #6 Solid thru 250 MCM.
- Pipe outside diameter range .375" to 6.63".
- * 6 clamps fit these pipe sizes.



13 - Bonding Lugs

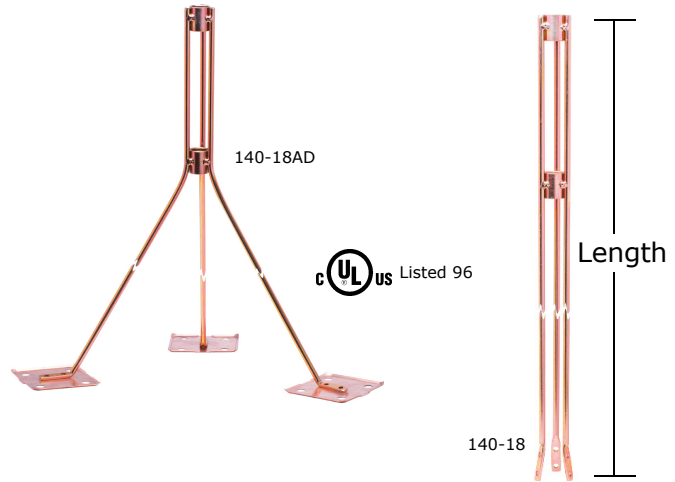
Part No.	Material
214	Copper
A214	Aluminum
216BM	Bi-Metal
222	Copper
A222	Aluminum

Lightning Protection Equipment



14 - Bonding Plate

Part No.	Material	Class
217	ETPB*	II
223	Copper	II
CFBP	Copper	II
AFBP	Aluminum	II
TCFBP	*ETPB	II



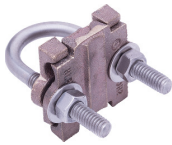
- * Electro Tin Plated Bronze
- 217 and 223 accepts all main size conductors up to 9/16" diameter.
 - 217 and 223 offer 8 square inches of bonding surface.
 - FBP series offers over 4 square inches of bonding surface.
 - Accommodates all main size conductors up to 500 MCM or 9/16" in diameter.

15 - M-1® Structural Sealant

Part No.	Color
M1-100Z-B	Black
M1-100Z-G	Gray
M1-100Z-L	Limestone
M1-100Z-W	White



- 10.1 fluid oz. cartridge.
- Application coverage (per tube) is approximately 40 cable holders or 40 bases.
- For use on metal, masonry and wood. Not for use on TPO or hypolon roofs.
- Install on clean surfaces in temperatures not below 30°F.



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16 - Ground Rod Clamp

Part No.	Ground Rod Size	Conductor Range
305	Up thru 1"	#6 AWG - 500 MCM

- Stainless Steel "U" bolt for strength and corrosion resistance.
- Provides over 1-1/2" of contact between the ground electrode and conductors.
- Accommodates two horizontal conductors thru 250 MCM.
- Accommodates one vertical conductor up to 500 MCM.

17 - Air Terminal Braces

Part No.	Adhesive Feet CU / AL	Type	Standard Lengths	Max. Air Terminal Supported
140-18	-----	Screw Hole	18"	24"
140-18AD	Copper	Adhesive Feet	18"	24"
A140-18AD	Aluminum	Adhesive Feet	18"	24"
140-24	-----	Screw Hole	24"	36"
140-24AD	Copper	Adhesive Feet	24"	36"
A140-24AD	Aluminum	Adhesive Feet	24"	36"
140-36	-----	Screw Hole	36"	60"
140-36AD	Copper	Adhesive Feet	36"	60"
A140-36AD	Aluminum	Adhesive Feet	36"	60"
140-48	-----	Screw Hole	48"	72"
140-48AD	Copper	Adhesive Feet	48"	72"
A140-48AD	Aluminum	Adhesive Feet	48"	72"

- Galvanized steel tripod braces are used for the support of air terminals that exceed 24" in length.
- Constructed of 1/4" steel rod with welded joints and a zinc/ultraseal plating.
- Braces available with 3/16" holes for anchoring with screws or nails or with adhesive feet when mounting to roofing membranes or similar surfaces where penetrations cannot be made.
- Lengths given are prior to installation.

Lightning Protection Installation Training



16 - Copper Clad Steel Ground Rods

Part No.	Size	UL Mark
1210	1/2" x 10'	Yes
588	5/8" x 8'	Yes
5810	5/8" x 10'	Yes
3410	3/4" x 10'	Yes
110	1" x 10'	Yes



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