

Lightning Dissipation Spur Kits

A Lightning Dissipation System, with the economy of a lightning rod

Purpose

- Shields structure by reducing the electric potential of the tower or structure.
- Divert the electrostatic energy away from critical equipment and toward a safe path to earth.

Features

- Exceptional electrical dissipation characteristics
- No antenna and beacon interference
- 180 mph survival wind speed
- Low cost, replaceable dissipating tips

Lightning is the leading cause of weather-related damage to broadcast equipment. With average lightning currents of 20 to 30 kiloamps and heat energy in excess of 20,000°C, the need for improved lightning protection is evident.



The Lightning Spur is a very efficient hybrid lightning dissipater. When operating as a shield it reduces the potential between the tower and storm cell by transferring electrical charge to the adjacent ionizing air molecules. This transference represents dissipation or the controlled leakage of the charge, thus reducing the probability of a lightning strike.

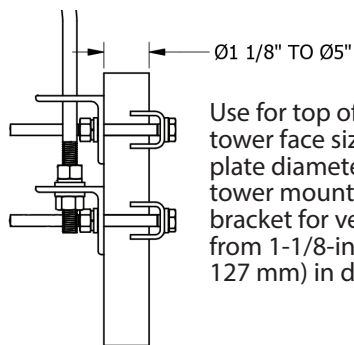
If the electric charge accumulation rate far exceeds the dissipation rate the Lightning Spur will divert a lightning strike away from the protected equipment and toward a safe, predetermined path to earth. Lightning strikes can cause various types of damage. Large peak voltages damage transmission lines and voltage sensitive devices. Lightning's electrical currents often result in an energy transfer and heat. The heat energy can literally melt electrically conductive components including transmitting antennas.

Sudden increase in temperature of non-conductive materials can result in significant structural damage. Lightning damage to the guy wire insulator or to the concrete guy wire anchor could result in tower failure. The addition of ERI Lightning Spurs offers increased protection for antennas and towers.

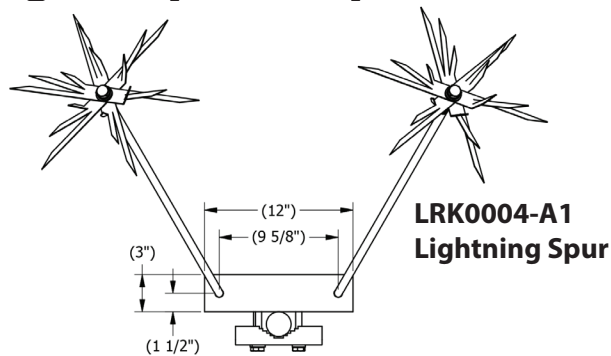
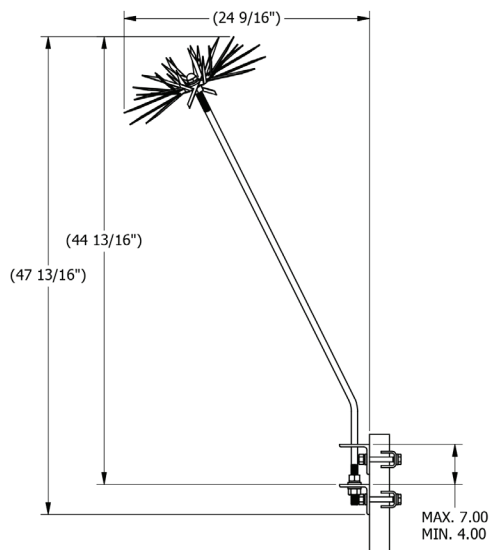
Lightning Spur Specifications

Model	Dissipation at 350 kV/m	Weight				EPA			
		No Ice		1/2-inch Ice		No Ice		1/2-inch Ice	
		lbf	kg	lbf	kg	ft ²	m ²	ft ²	m ²
LRK0004-A3	1100-mA	100-lbf	45.4-kg	180-lbf	81.6-kg	4.4-ft ²	0.41-m ²	8.0-ft ²	0.74-m ²
LRK0004-A1	370-mA	30-lbf	13.6-kg	55-lbf	24.9-kg	1.8-ft ²	0.17-m ²	3.0-ft ²	0.28-m ²
LRK0008-A3	1100-mA	110-lbf	49.9-kg	200-lbf	90.7-kg	5.2-ft ²	0.48-m ²	10.0-ft ²	0.93-m ²
LRK0008-A1	370-mA	35-lbf	15.9-kg	60-lbf	27.2-kg	2.1-ft ²	0.20-m ²	3.5-ft ²	0.33-m ²
LRK0005-C2	920-mA	60-lbf	27.2-kg	110-lbf	49.9-kg	3.1-ft ²	0.29-m ²	5.5-ft ²	0.51-m ²
LRK0005-C1	370-mA	40-lbf	18.1-kg	80-lbf	36.3-kg	1.6-ft ²	0.15-m ²	2.9-ft ²	0.27-m ²
LRK000A-HW-3	1100-mA	85-lbf	38.6-kg	150-lbf	68.0-kg	13.2-ft ²	1.23-m ²	24.0-ft ²	2.23-m ²
LRK000A-HW-2	920-mA	55-lbf	24.9-kg	100-lbf	45.4-kg	2.5-ft ²	0.23-m ²	5.0-ft ²	0.46-m ²
A-H-3	1100-mA	80-lbf	36.3-kg	145-lbf	65.8-kg	12.2-ft ²	1.13-m ²	23.0-ft ²	2.14-m ²
A-H-1	370-mA	50-lbf	22.7-kg	45-lbf	20.4-kg	4.0-ft ²	0.37-m ²	8.0-ft ²	0.74-m ²
A-J-3	1100-mA	75-lbf	34.0-kg	140-lbf	63.5-kg	12.0-ft ²	1.12-m ²	22.0-ft ²	2.04-m ²
A-J-1	370-mA	26-lbf	11.8-kg	48-lbf	21.8-kg	3.5-ft ²	0.33-m ²	7.0-ft ²	0.65-m ²

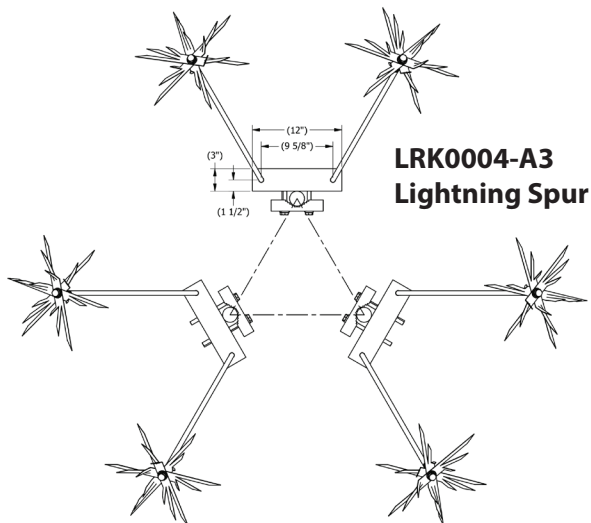
Lightning Dissipation Spur Kits



Use for top of tower leg mount when tower face size is larger than beacon plate diameter or any mid-level tower mount. Universal mounting bracket for vertical round members from 1-1/8-inches to 5-inches (29 to 127 mm) in diameter included.

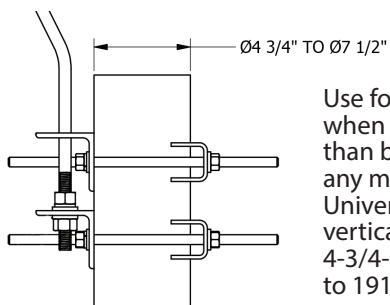


**LRK0004-A1
Lightning Spur**

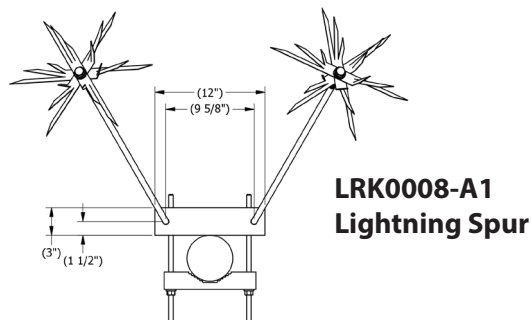
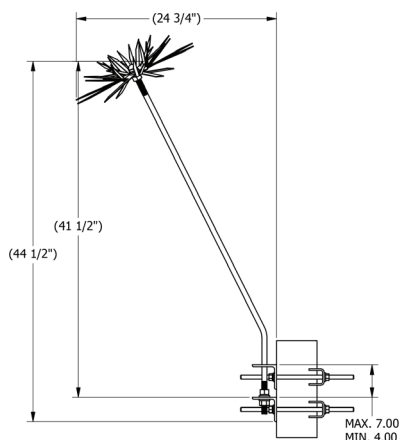


**LRK0004-A3
Lightning Spur**

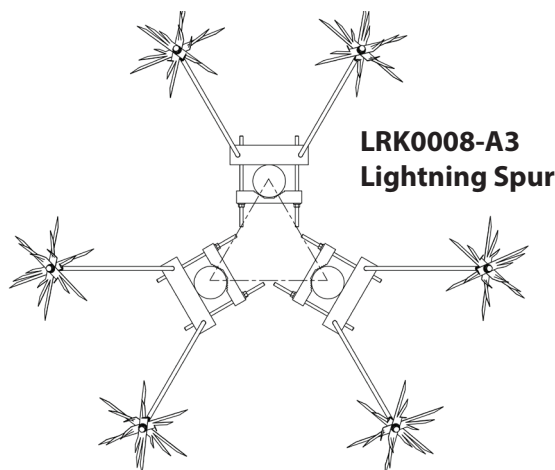
LRK0004-A1 and LRK0004-A3 Lightning Spur Kits



Use for top of tower leg mount when tower face size is larger than beacon plate diameter or any mid-level tower mount. Universal mounting bracket for vertical round members from 4-3/4-inches to 7-1/2-inches (121 to 191 mm) in diameter included.



**LRK0008-A1
Lightning Spur**

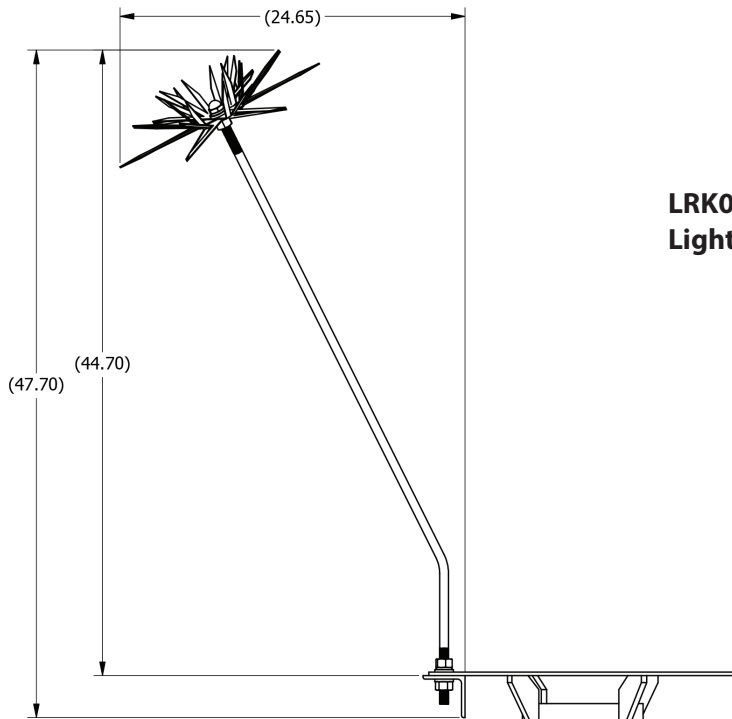


**LRK0008-A3
Lightning Spur**

LRK0008-A1 and LRK0008-A3 Lightning Spur Kits

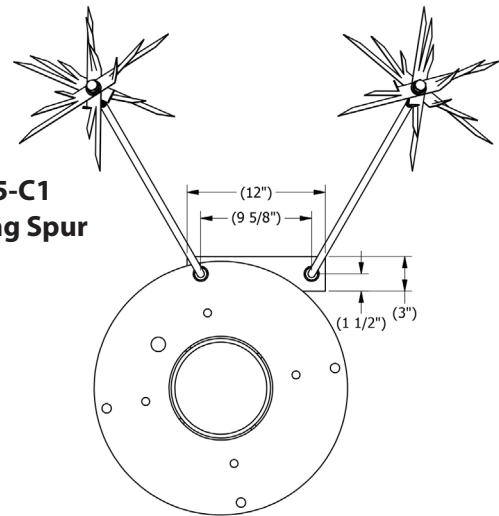
Lightning Dissipation Spur Kits

LRK0005-C1 and LRK0005-C2 Lightning Spur Kits

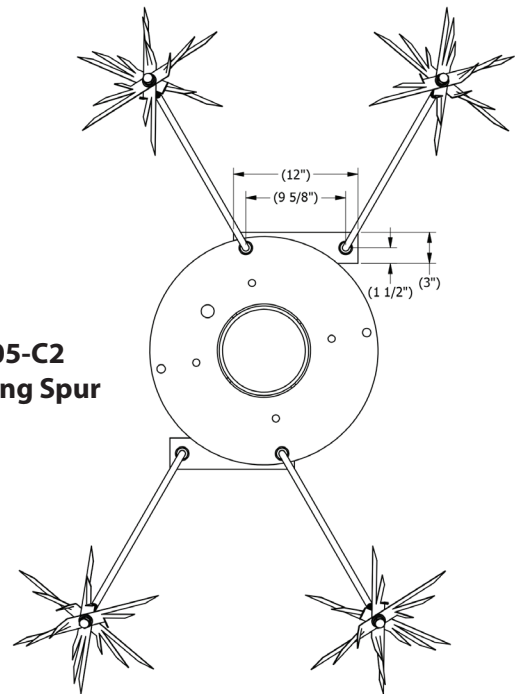


Mounts to any beacon plate with 11/16-inch (17 mm) or larger diameter bolt holes and will not interfere with beacon mounting or operation. Extended 5/8-inch bolt set and brackets are furnished. Use when the tower face is smaller than the beacon plate diameter or for monopoles with a beacon plate

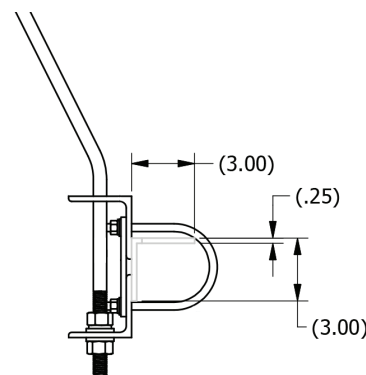
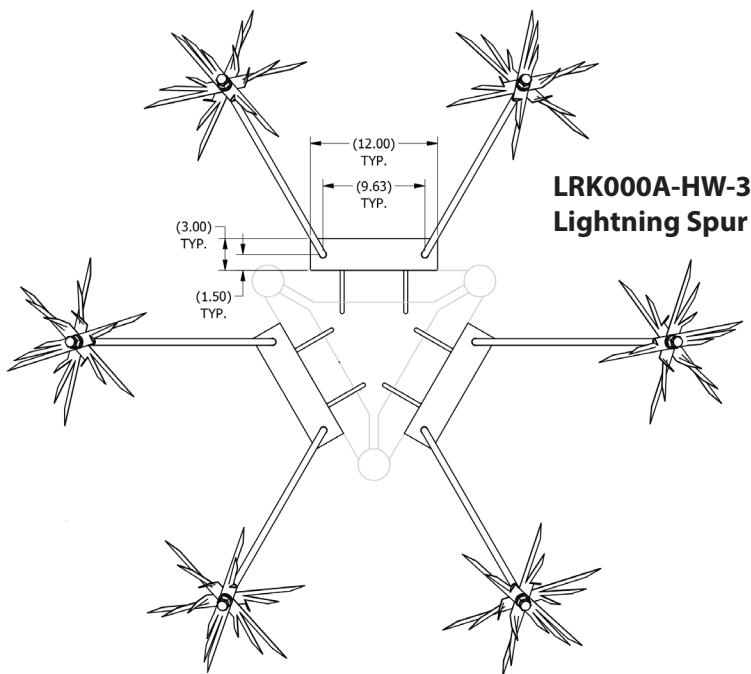
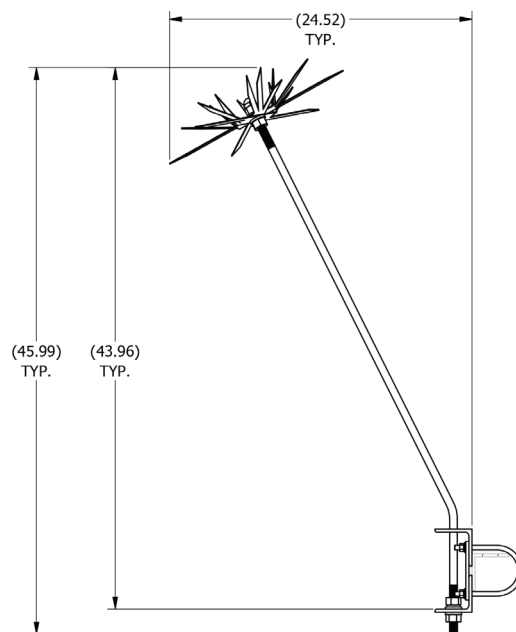
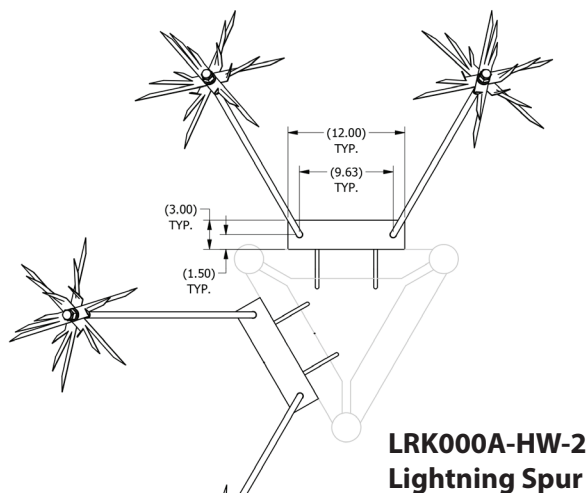
**LRK0005-C1
Lightning Spur**



**LRK0005-C2
Lightning Spur**



Lightning Dissipation Spur Kits



Mounts to 1-inch to 3-inch (25 to 76 mm) horizontal members. Mounting brackets and hardware are included. Use for face mounts on large face towers in addition to the LRK0004-A3 or LRK0008-A3 leg mount unit.

LRK0005-C1 and LRK0005-C3 Lightning Spur Kits

Accessories

- LRK0006 Lightning Dissipation Spur replacement blades:
 A1 or C1 requires two (2) kits.
 C2 requires four (4) kits.
 A3 requires six (6) kits.
- LRK0007-KIT Replacement hardware kit for one (1) Lightning Spur. Includes 4 each NU1011GA 5/8-inch 11 galvanized nuts, 4 each WF10GA 5/8-inch galvanized flat washers, 2 each WL10GA 5/8-inch galvanized lock washers, and 2 each WF12GA 3/4-inch galvanized flat washers

Lightning Dissipation Spur Kits

Standard Lightning Dissipation Spur Kits

Part Number	Description
LRK0004-A3	Top mount or mid-level mount, six (6) spurs. LRK0004-A3 kits mount to 1-1/8-inch to 5-inch (29 to 127 mm) diameter vertical members. Mounting brackets and hardware are included. Use for top of tower leg mount when tower face size is larger than beacon plate diameter or any mid-level tower mount. Universal mounting bracket for vertical round members from 1-1/8-inches to 5-inches (29 to 127 mm) in diameter included.
LRK0004-A1	Mid-level mount, single antenna mount, two (2) spurs. LRK0004-A1 kits mount to 1-1/8-inch to 5-inch (29 to 127 mm) diameter vertical members. Mounting brackets and hardware are included. Use for top of tower leg mount when tower face size is larger than beacon plate diameter or any mid-level tower mount. Universal mounting bracket for vertical round members from 1-1/8-inches to 5-inches (29 to 127 mm) in diameter included.
LRK0008-A3	Top mount or mid-level mount, six (6) spurs. LRK0008-A3 kits mount to 4-3/4-inch to 7-1/2-inch (121 to 191 mm) diameter vertical members. Mounting brackets and hardware are included. Use for top of tower leg mount when tower face size is larger than beacon plate diameter or any mid-level tower mount. Universal mounting bracket for vertical round members from 4-3/4-inches to 7-1/2-inches (121 to 191mm) in diameter included.
LRK0008-A1	Mid-level mount, single antenna mount, two (2) spurs. LRK0008-A1 kits mount to 4-3/4-inch to 7-1/2-inch (121 to 191 mm) diameter vertical members. Mounting brackets and hardware are included. Use for top of tower leg mount when tower face size is larger than beacon plate diameter or any mid-level tower mount. Universal mounting bracket for vertical round members from 4-3/4-inches to 7-1/2-inches (121 to 191 mm) in diameter included.
LRK0005-C2	Top mount, four (4) spurs. "C" kits mount to any beacon plate with 11/16-inch (17 mm) or larger diameter bolt holes and will not interfere with beacon mounting or operation. Extended 5/8-inch bolt set and brackets are furnished. Use when the tower face is smaller than the beacon plate diameter or for monopoles with a beacon plate.
LRK0005-C1	Top mount, two (2) spurs. "C" kits mount to any beacon plate with 11/16-inch (17mm) or larger diameter bolt holes and will not interfere with beacon mounting or operation. Extended 5/8-inch bolt set and brackets are furnished. Use when the tower face is smaller than the beacon plate diameter or for monopoles with a beacon plate.
LRK000A-HW-3	Top mount or mid-level mount, six (6) spurs. LRK000A-HW kits mount to 1-inch to 3-inch (25 to 76 mm) horizontal members. Mounting brackets and hardware are included. Use for face mounts on large face towers in addition to the LRK0004-A3 or LRK0008-A3 leg mount unit.
LRK000A-HW-2	Top mount or mid-level mount, four (4) spurs. LRK000A-HW kits mount to 1-inch to 3-inch (25 to 76 mm) horizontal members. Mounting brackets and hardware are included. Use for face mounts on large face towers in addition to the LRK0004-A3 or LRK0008-A3 leg mount unit.
A-H-3	Top mount or mid-level mount, six (6) spurs. "A-H" series kits mount to 1/4-inch to 7/8-inch (6 to 22 mm) horizontal or diagonal members. Mounting brackets and hardware are included. Two (2), 1-1/2-inch x 1.75-inch (38 mm x 44 mm) U-bolts are furnished with each kit. Use for face mounts on large face towers in addition to the LRK0004-A3 or LRK0008-A3 leg mount unit.

Lightning Dissipation Spur Kits

Standard Lightning Dissipation Spur Kits

Part Number	Description
A-H-1	Mid-level mount, single antenna mount, two (2) spurs. "A-H" series kits mount to 1/4-inch to 7/8-inch (6 to 22 mm) horizontal or diagonal members. Mounting brackets and hardware are included. Two (2), 1-1/2-inch x 1.75-inch (38 mm x 44 mm) Ubolts are furnished with each kit. Use for face mounts on large face towers in addition to the LRK0004-A3 or LRK0008-A3 leg mount unit.
A-J-3	Top mount or mid-level mount, six (6) spurs. "A-J" kits mount to 5-inch (127 mm) or larger vertical members using chain and J-bolts. Specify member diameter for proper fit. Use for monopoles which do not have a top beacon plate or top flange plate or any large tower legs which are greater than 5-inches in diameter.
A-J-1	Mid-level mount, single antenna mount, two (2) spurs. "A-J" kits mount to 5-inch (127 mm) or larger vertical members using chain and J-bolts. Specify member diameter for proper fit. Use for monopoles which do not have a top beacon plate or top flange plate or any large tower legs which are greater than 5-inches in diameter.