

SMA Lightning Arrestor

BEFORE YOU START!

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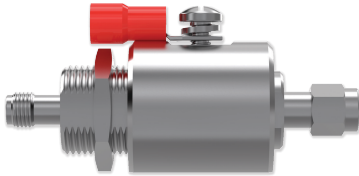


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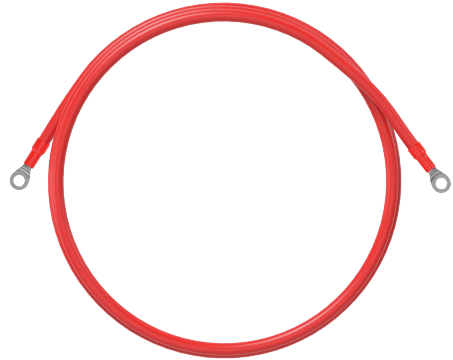
Designed by WAVEFORM in the USA

What's In The Box

- A** SMA-Male to SMA-Female
Lightning Arrester



- C** 1.5m (5ft) Copper Ground
Wire Jumper

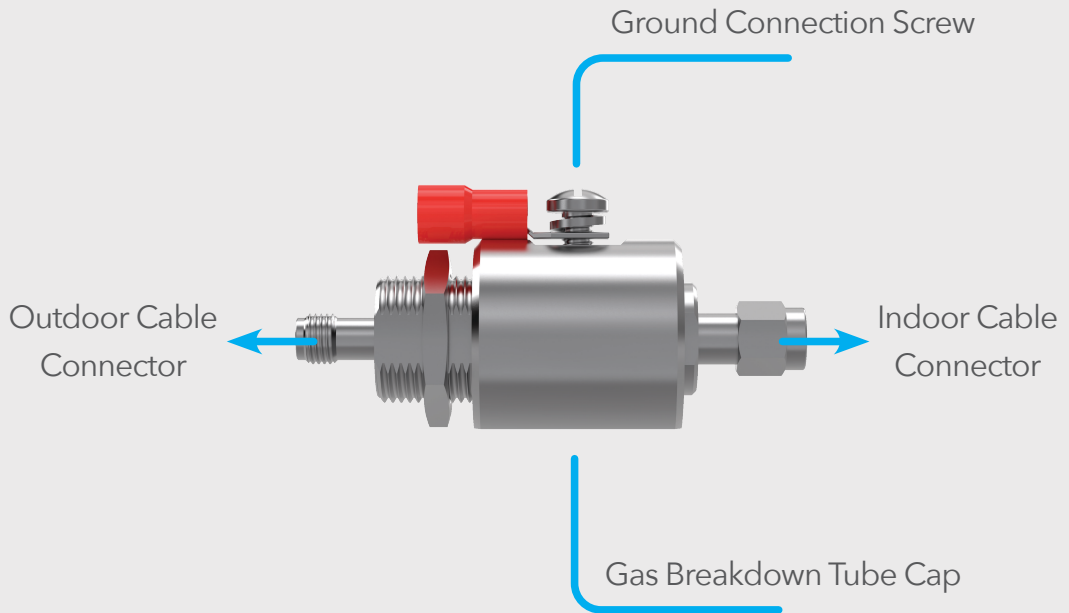


- B** 15cm (6in) Silicone
Weatherproofing Tape



The Lightning Arrester

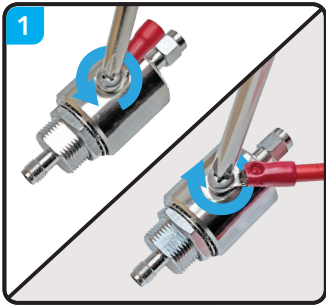
The lightning arrester **consists of four major parts**; the indoor cable connector, the outdoor cable connector, the ground connector, and the gas breakdown tube.



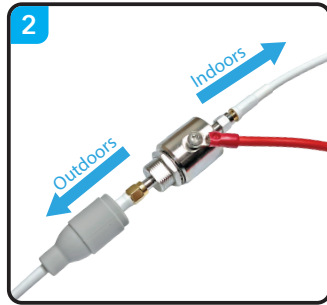
Step 1. Installing Your Lightning Arrester

Use a **phillips-head screwdriver** to install your lightning arrester into your cable path and remove the spare cable crimp (if necessary).

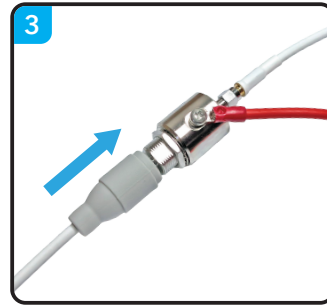
A Outdoors



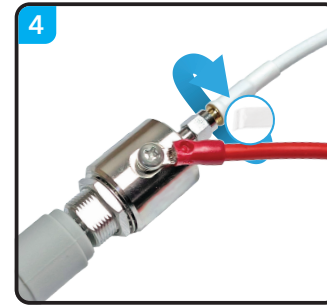
1. Unfasten the bolt to **remove the spare cable crimp**, then fasten the bolt to **secure the included ground wire**.



2. **Connect your SMA cables** onto your lightning arrester.



3. *For Waveform antennas or cables, slide the cable boot over the outdoor connection.*



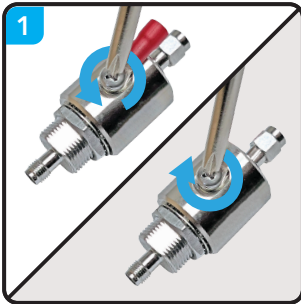
4. Follow the guidelines listed to the right to **wrap the silicone tape** around the indoor connection.

How to Wrap Silicone Tape

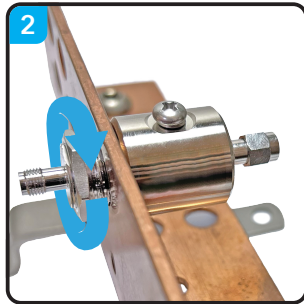
1. Fully remove its plastic backing then **stretch the tape** until you've doubled its length - this activates its self-fusing properties.
2. Stretch the tape as you **overlap each wrap** by about 5.0 mm (0.2 in).
Tip: Hold the corner of the tape to keep it from slipping.
3. Once fully wrapped, **tightly squeeze the tape for 30 seconds** to give it time to fuse.

Other Important Info - When installing the lightning arrester outside, it should be installed as close as possible to the cable's point of entry for the building, but **not near combustible materials**.

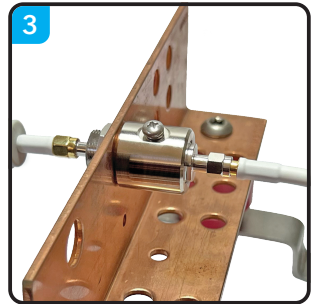
B Indoors For Ground Bars (Not Included)



1
Unfasten the bolt, remove the spare cable crimp, then refasten the bolt in place.



2
Secure your lightning arrester into your ground bar with its nut and lock washer.



3
Connect your SMA cables onto your lightning arrester.

Step 2. Choosing An Electrical Ground

In the U.S., the National Electric Code (NEC) **requires grounding outdoor electrical equipment**, especially antenna masts, to a suitable electrical ground since their metal components are a prime target for lightning strikes.

To ensure proper function, you'll need to ground the lightning arrester and connected equipment to a suitable electrical ground using a **10 AWG (12 SWG) or lower gauge (thicker) ground wire** (not included), available at most hardware stores. Stranded core ground wires are recommended for their flexibility.

Suitable electrical grounds include:

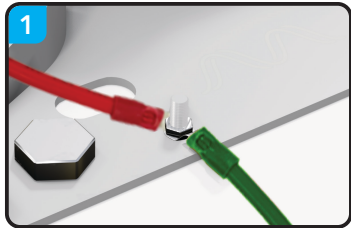
- ▶ **A ground rod.** A ground rod is typically installed 2 ft (0.6 m) or more outside a building, and is basically a simple metal rod buried at least 8 ft into the ground, with just a foot or so visible above ground.
- ▶ **A metal electrical service panel.** This panel is typically connected to the grounding rod of the building.
- ▶ **A metal electrical raceway or conduit.** Conduit and raceway are typically grounded, so you can simply attach a strap to existing electrical conduit or raceway.
- ▶ **A water pipe.** This is acceptable, but only within 5 ft (1.5 m) of the water pipe's entrance to the building, and if the pipe is metal and in direct earth contact for at least 10 ft before entering the building. You shouldn't attach a ground wire to a water valve.
- ▶ **A metal frame or structure on the building.** If none of the options above are feasible and as long as the building is grounded, connect to the metal on the building.

Additional examples of suitable electrical grounds can be found at waveform.com/grounding

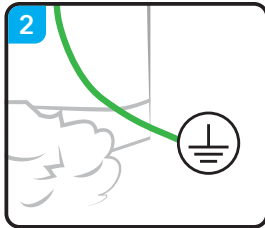
Step 3. Connecting To An Electrical Ground

Grounding your system is relatively simple - Connect your ground wire to your equipment and again to the electrical ground you chose in Step 2. Try not to create any sharp bends in the grounding wire.

A Outdoors For Pole Mounts



1 Attach the lightning arrester's ground wire and a 10 AWG or thicker ground wire to the pole's grounding bolt and secure them with a nut.

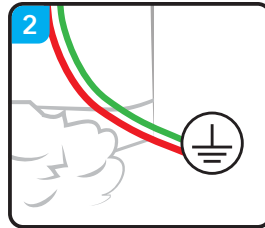


2 Connect that second ground wire to your electrical ground.

B Outdoors For Wall-Mounted FlexMounts



1 Fasten the remaining screw to attach a 10 AWG or thicker ground wire to the integrated FlexMount ground wire.

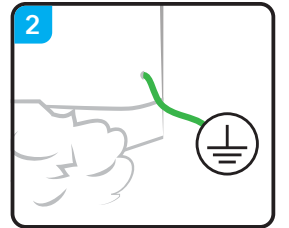


2 Connect that ground wire and the lightning arrester's ground wire to your electrical ground.

C Indoors For Ground Bars



1 Connect a 10 AWG (12 SWG) or thicker ground wire to your ground bar.



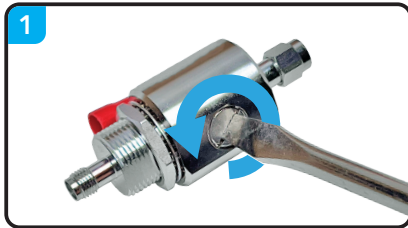
2 Connect that ground wire to your electrical ground.

Tips

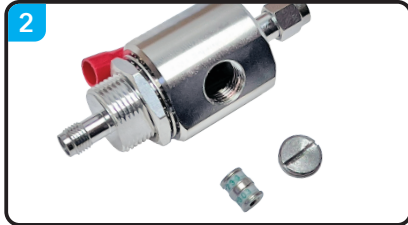
- If your mast or ground bar is painted, **scrape off any paint** where the grounding cable attaches.
- If you're unsure about your grounding setup, **reach out to an electrical contractor**.
- **Expanded instructions** on grounding can be found at [waveform.com/grounding](https://www.waveform.com/grounding)

Restoring Your Lighting Arrestor

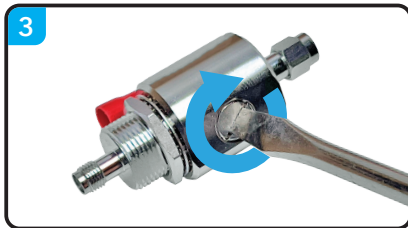
In the event of a lightning strike, use a **flat-head screwdriver** to replace your lightning arrestor's gas breakdown tube and restore it's functionality.



Use a flat-head screwdriver to **unfasten the cap**.



Replace the **gas breakdown tube** with one of an equal gauge.



Align the gas breakdown with the recess in the cap, then **fasten the cap**.

Need help? We're ready and waiting.

Your SMA Lightning Arrestor is designed, sold, and supported by Waveform and our team of Signal Specialists.

One of the benefits of buying from Waveform is our **lifetime technical support**. We can walk you through troubleshooting and fine-tuning your installation for best results.

Simply **scan this QR code** or visit setup.wf/ **LSP** to **connect with our team** of dedicated Signal Specialists, watch our **setup videos**, and more!



v2.0.0



Designed by Waveform in the USA



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