



Installation Manual V1.0

# GPS Cable and GPS Surge Protector Installation Guide



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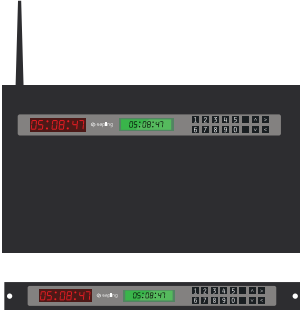
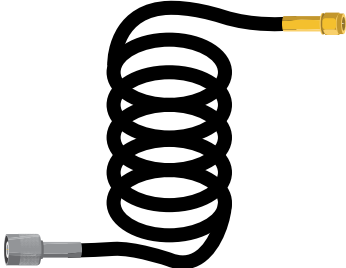

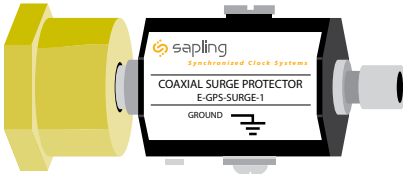
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## Parts Included in Kit

Sapling offers the option of a surge protector to customers who purchase a GPS antenna for their Sapling Master Clock. A surge protector/lightning arrester is a way to protect the Master Clock from being damaged by lightning strikes. It works by safely redirecting harmful electricity into the ground, and away from your master clock.

\*Parts that are included in this kit:

 <p>Sapling Master Clock</p>	 <p>Sapling GPS Cable</p>
 <p>Part # E-GPS-ANTENNA-1 GPS Dome Antenna</p>	 <p>Part # E-GPS-SURGE-1 Surge Protector</p>

## GPS Cable and GPS Surge Protector Installation

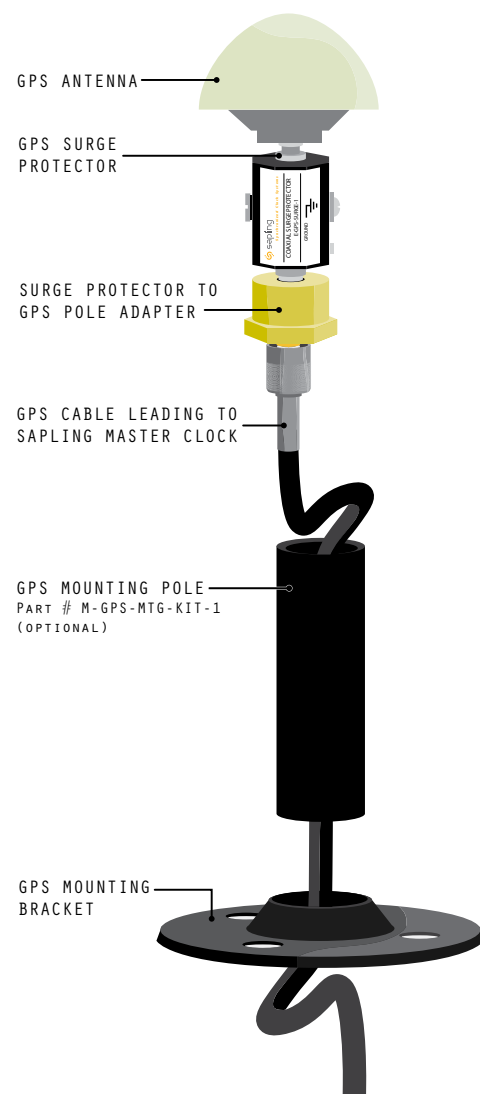
Next, check the location in which you plan to install the antenna. Be sure to place it in an area with a clear view of the sky, preferably on a roof, and is not being blocked by trees, tall buildings, cliffs or canyon walls.

Notice that the surge protector has a tag which reads "COAXIAL SURGE PROTECTOR" in the middle, and "GROUND" at the bottom.

**NOTE:** If a Sapling GPS antenna is already installed without a surge protector, then some of the system will have to be reinstalled.

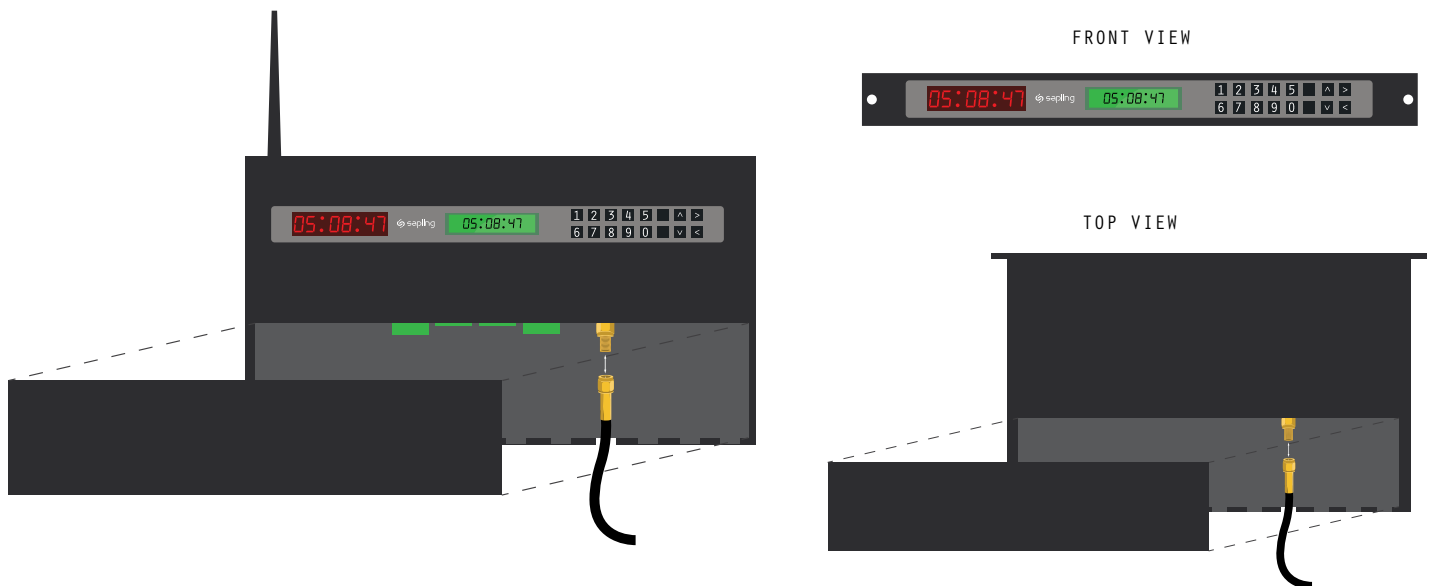
- 1) Set up GPS cable so that it reaches from the master clock to the intended installation position of the GPS antenna.
- 2) Attach the antenna to the PROTECTOR side of the surge protector.
- 3) Thread the GPS cable through the mounting bracket, followed by the mounting pole.
- 4) Screw/connect the end of the GPS cable to the COAXIAL side of the surge protector.

At this point, it should look like this: —————→



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- 7) Attach 8AWG grounding cable to the GROUND screw. Make sure that the grounding wire runs from the Surge Protector to the building's grounding system.
- 8) If you are using a metal mounting pole and bracket, attach 8AWG grounding cable to the mounting bracket.
- 9) Screw / connect the mounting pole to the mounting bracket.
- 10) Screw / connect the pole adapter on the surge protector to the mounting pole.
- 11) Attach the assembled GPS mount to the roof in the selected location.
- 12) Screw / connect the other end of the GPS cable to the Sapling Master Clock



- 13) Receiving the GPS signal for the first time might take up to one hour depending on the location, weather, antenna positioning and other factors.

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If the master clock is not acquiring a signal, then an LED above and to the left of the third digit will blink. However, this feature will only occur after the master clock has been programmed to use GPS as an input. This can be done through either the web interface (on your computer via Local Area Network) or you can program the master clock using the front buttons or keypad (depending on the model). For more information on how to program your Sapling Master Clock to accept a GPS signal, please refer to your master clock user manual.

