



WSO-11 Installation Guide

Overview

Read and understand all instructions in their entirety before installing the WSO-11.

DANGER

Always install fault indicators and sensors in accordance with normal safe operating procedures. These instructions are not intended to replace or supersede existing safety or operating requirements. Only trained qualified personnel with knowledge of high-voltage safety should install or operate fault indicators and sensors.

Radio Activation

CAUTION

Do not handle or grasp the WSO-11 by the integral antenna; doing so can damage the antenna or the antenna seal. Do not perform radio activation while the WSO-11 is installed on an energized line.

- Step 1. Remove the shorting bar from the CRSRTT magnet tool.
- Step 2. Hold the exposed magnet over the **ACTIVATE** label (see *Figure 1*) on the WSO-11 for a minimum of ten seconds.

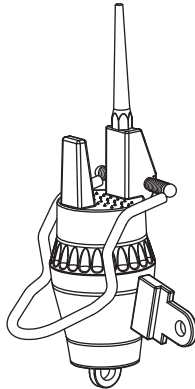


Figure 1 WSO-11 Radio Activation

- Step 3. Remove the magnet tool; the unit will change the state of the flag display to indicate proper application of the magnet tool. A tripped display (red flag visible) indicates radio activation. A reset display (red flag not visible) indicates deactivation of the radio.

The final state of the display, five seconds after the removal of the magnet tool, indicates the state of the radio. The flag may change state twice (if necessary) to indicate proper application of the magnet tool and the state of the radio.

- Step 4. Replace the shorting bar on the magnet tool for storage.

Mounting

Install the WSO-11 on overhead distribution conductors with a 0.162-inch to 1.50-inch cable diameter. The WSO-11 is rated up to 34.5 kV (L-L). In AutoRANGE mode, 5 A or greater continuous load current is required to arm and reset the device. See the *WSO-11 Instruction Manual* for more details on operating modes and requirements.

To ensure optimal WSO-11 function, install the WSO-11 with spacings according to *Figure 2*.

⚠ CAUTION

Do not attempt to slide the WSO-11 along the conductor to move its position. To reposition the WSO-11, remove the sensor from the line and reinstall it at the correct location.

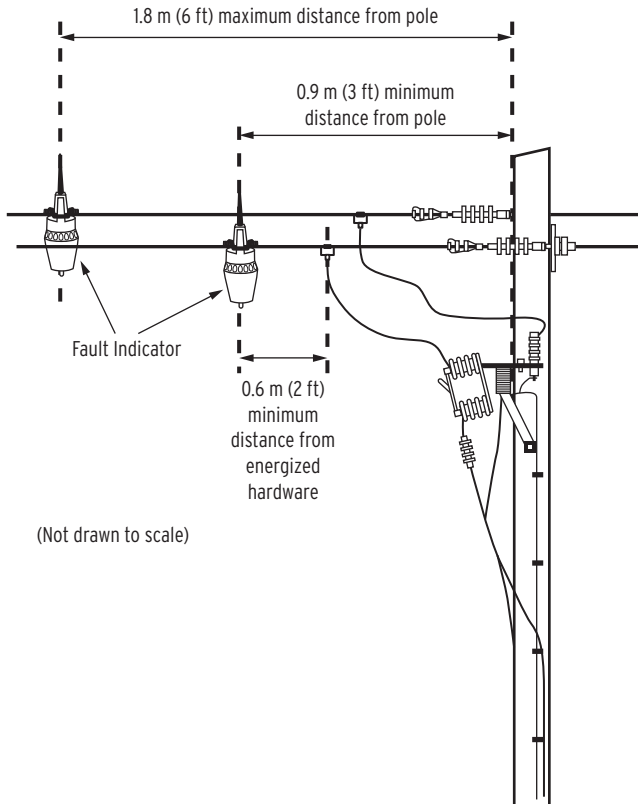


Figure 2 WSO-11 Spacing Requirements

Installation

- Step 1. Grasp the hookeye on the face of the wireless sensor with a hot stick.
- Step 2. Position the WSO-11 so that the end of its spring clamp fits behind the conductor (see *Figure 3*).

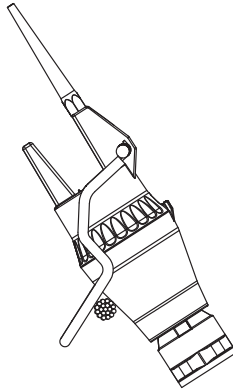


Figure 3 WSO-11 Installation Step 2

- Step 3. Apply force on the spring-loaded clamp by pulling downward on the WSO-11 (see *Figure 4*).

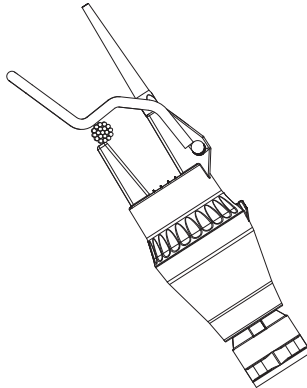


Figure 4 WSO-11 Installation Step 3

- Step 4. Slide the WSO-11 onto the conductor. Position the conductor between the conductor stop and the spring clamp.
- Step 5. Release the hot stick from the WSO-11 hookeye.
- Step 6. Position the unit so that the hookeye points towards the ground (see *Figure 5*).

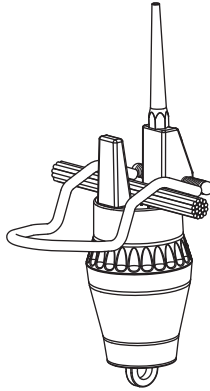


Figure 5 Final WSO-11 Position

The WSO-11 generates an exception deployment packet after it joins the On-Ramp Wireless RPMA[®] (Random Phase Multiple Access) Network. It generates an exception restoration packet (by default) when it arms for fault detection. In addition to the exception packets, the unit resets the mechanical flag display (red flag not visible) to indicate the device has joined the network, is armed, and is ready to detect events.

Regulatory Compliance

The radio module has been designed to meet the following standard: FCC-CFR Part 15.247 Radio Frequency Devices, Subparts A-General and B-Unintentional Radiators (testing is done at a module level for Modular Approval).

FCC ID: XTE-ULPENODE120 or XTE-ULPD100

IC: 8655A-ULPENODE120 or 8655A-ULPD100

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

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