

SmartSensor Advance

INSTALLATION QUICK START GUIDE

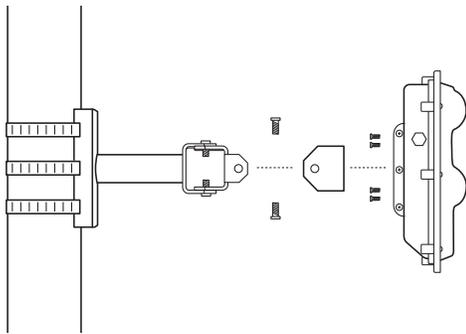


Note. The mounting location for your SmartSensor Advance sensor(s) should have been determined as part of the design process. If it hasn't been, consult the *SmartSensor Advance User Guide* for complete design and installation guidelines.

1 Choose a mounting height

The minimum recommended mounting height is 17 ft. (5.2 m) and the maximum is 40 ft. (12.2 m). Mount the sensor as high as possible to reduce the chance of same-lane occlusion.

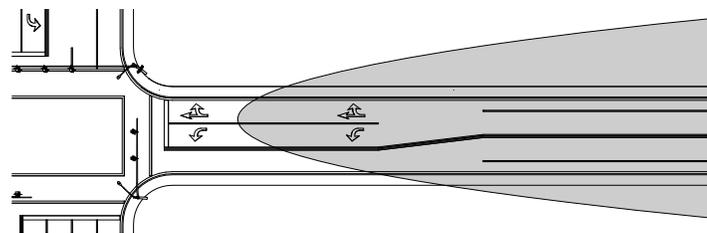
2 Mount the sensor



- 1 Prepare the sensor while still on the ground: remove the large bolts holding the end knuckle to the mount, then use the four small bolts and lock washers to attach the knuckle to the sensor backplate.
- 2 Once you're ready to mount the sensor on the pole, insert the mounting straps through the slots on the mount.
- 3 Position the mount on the pole in the spot you chose from the previous step.
- 4 Tighten the straps.
- 5 Attach the knuckle you prepared earlier to the mount using the large bolts (the cable connector should be pointed down). Don't tighten completely yet, as you still need to align the sensor to the roadway.

3 Align the sensor to the roadway

- 1 The target is the exact spot on the road that the sensor should be pointing at. Find the distance to the target by using the sensor's height and offset in the table at right.



		Height					
		17	20	25	30	35	40
Offset	0	40	45	55	60	70	75
	10	50	50	60	65	75	80
	20	55	55	65	75	80	90
	30	65	70	75	80	85	95
	40	80	90	90	95	95	100
	50	100	100	105	110	115	120

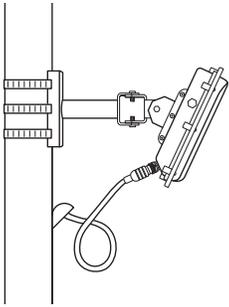
Distance to target in feet

- 2 Tilt the sensor down to aim its center at the target.
- 3 Roll the sensor so that the radar beam footprint lines up with the road, as shown at left.

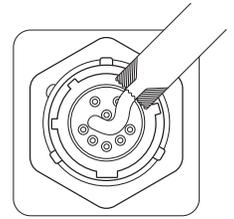
4 Ground the sensor

- 1 Connect a 12 AWG grounding wire to the grounding lug on the bottom of the sensor.
- 2 If the intersection is bonded, connect the other end of the grounding wire to the earth ground for the pole the sensor is on. If the intersection isn't bonded, run the grounding wire down the pole, alongside the cable, back to cabinet ground.

5 Attach the cable



- 1 Tear the tab off the silicon dielectric compound that came with the sensor.
- 2 Squeeze half of the compound on the connector at the base of the sensor.
- 3 Insert the cable connector into the sensor connector (be aware that it's keyed).
- 4 Twist the cable connector clockwise until you hear it click into place.
- 5 Run the cable through the pole. Leave a small amount of slack at the top; this reduces strain, allows you to create a drip loop, and gives you something to work with should you need to move the sensor's spot on the pole in the future.
- 6 If you're using a junction box, terminate the cable in it, then run a homerun cable from there to the cabinet. If you're not using a junction box, run the sensor cable to the cabinet. In either case, do not strip the insulation on the conductors when terminating the cable.



6 Install cabinet equipment

- 1 Put the Click 65x on a shelf or mount it to the side of the cabinet; connect the sensor cable(s) to the terminal block plug(s).
- 2 Make sure each switch by the sensor port is turned on and the LED is illuminated.
- 3 If your cabinet is SDLC compatible, connect a cable from the SDLC bus on the Click 65x to the controller. If your cabinet isn't SDLC compatible, connect from the sensor port RJ-11 jacks to contact closure cards to communicate with the controller.

7 Configure the Click 65x

The Click 65x is designed to be communicated with over Ethernet. Before you can connect it to your network, you need to set the static IP address, subnet mask and default gateway (these numbers should be determined by your IT personnel).

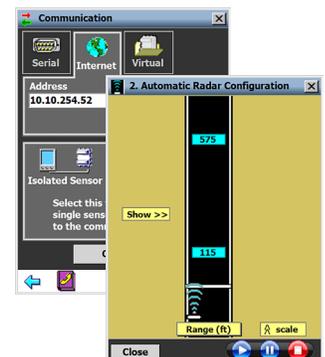
- 1 Use the arrow keys and screen on the faceplate to access the OLED menu.
- 2 On the main screen, navigate down to Network Setup and press the **Accept** (green check mark) button to open the networking screen (shown at right).
- 3 Set your desired IP address by following these steps: use the left and right arrow keys to highlight a number, then use the up and down arrow keys to change that number. Then move to the next number. Repeat until all the numbers are changed.
- 4 Press the right key again to navigate down to the subnet mask line.
- 5 Repeat steps 2 and 3 for the subnet mask and default gateway.
- 6 When you're done with all three, push the check mark button to confirm your changes.



After you're done, connect an Ethernet cable to the RJ-45 jack on the faceplate to connect your Click 65x to your network.

8 Check sensor operation in the SmartSensor Manager Advance software

- 1 Click **Communication** on the main screen and then click **Internet** at the top of the screen.
- 2 Under **Address** and **Port**, enter the IP address and port number of the Click 65x.
- 3 Click **Multi drop Network** and enter the sensor ID of the sensor you want to talk to.
- 4 On the main menu, click **Sensor Configuration**, then **2. Automatic Radar Configuration**. The screen that opens shows vehicle detections as moving blue bars, called trackers. If the trackers match traffic on the road, the sensor is working properly.



Note. For configuration instructions, see the *SmartSensor Advance User Guide*.