



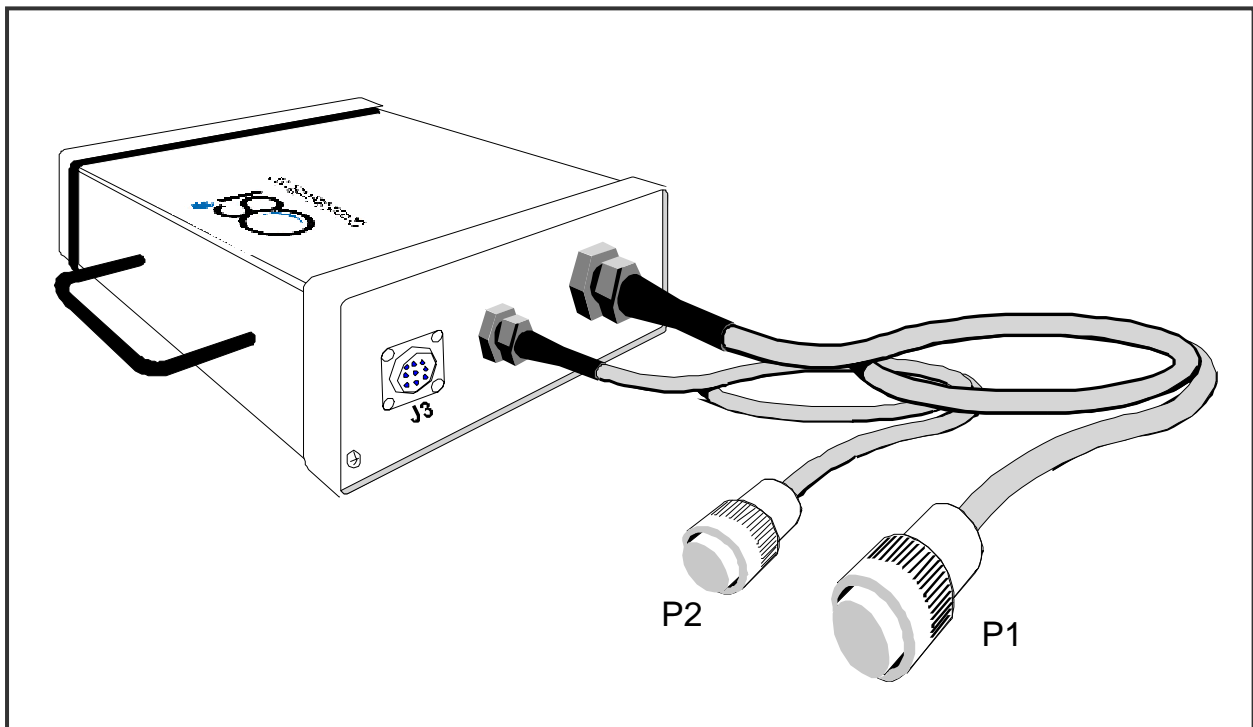
TST-800 Series ORG Field Test Kit

July 2000

1.0 INTRODUCTION

The OSi Model TST-800 Series Field Test Set is designed to provide verification of the calibration of ORG-115, -715, and -815 Optical Precipitation Sensors. The Test Set may be used during initial installation as well as during scheduled maintenance periods. Its main purpose is to provide a means to monitor the calibration of the ORG.

As shown in Figure 1, the TST-800 consists of a metal housing which contains the electronic circuitry and jacks/cables used to connect to the ORG under test. It will work with both the older ORG versions that have a separate test connector as well as the new ORGs.



TST-800 Field Test Kit

SPECIFICATIONS

Accuracy:	$\pm 2\%$
Carrier Frequency:	46 KHz \pm 500 Hz
Modulation Frequency:	50 Hz \pm 2 Hz
Power:	12 VDC from ORG under test
Physical -	
Size:	18 cm X 14 cm X 6 cm
Weight:	1 Kg
Temperature -	
Operating:	20 \pm 5°C
Relative Humidity:	50 \pm 20 %

OPERATION

It is recommended that the following procedure be performed at time of installation and once every 12 months thereafter:

1. Install the ORG per the instructions in the User's Guide.
2. Apply power and let the sensor warm up for at least 10 minutes
3. Follow the procedure in the User's Guide to verify that the ORG is operating and the user's data acquisition equipment is working correctly.
4. If the ORG has been operating outdoors, thoroughly clean both lenses with glass cleaner and a soft cloth.
5. Turn power to the ORG to **OFF**.
6. Connect the TST-800 to the ORG as follows:
 - a. Disconnect main connector from ORG
 - b. Connect main ORG cable connector into J3 of the Test Set
 - c. Connect P1 of the Test Set into the ORG main connector
 - d. Ignore the 6-pin Test Set cable - it is used for older configuration ORGs
7. Turn power to the ORG to **ON** and wait 10 minutes for the ORG to stabilize.
8. Read the user supplied output device (DVM, data logger, etc) and record the indicated voltage or equivalent rain rate. If this is the first data set taken, record the value as the calibration baseline. Future readings will be compared to this baseline number.
9. If the number is not within 10% of the baseline, contact OSi about returning the ORG for a factory calibration.
10. Turn power to the ORG to **OFF**.
11. Disconnect the TST-800 Test Set and reconnect the test connector or main connector.
12. Turn power to the ORG to **ON**.