



**Badger Meter**

## ORION® CE In-Home Display

### OVERVIEW

The ORION CE In Home Display (IHD) is the latest in remote water consumption display technology. Each IHD comes equipped with an internal ORION CE receiver that can be used to capture reading data and manage consumer water consumption patterns. The IHD can be factory or field programmed to detect a specific ORION CE endpoint. When set up, the IHD will receive and store up to 90 days of hourly interval reading data. End users can access the display and view hourly, daily or monthly usage data numerically or in 7-day graphical intervals. The IHD displays the time, date and temperature, allows users to easily convert units into gallons, cubic meters or cubic feet and displays various messages to notify the customer of alert conditions. With all the features built into the device, the IHD is a robust tool that provides end users the ability to take control and manage their water usage.

Each IHD comes with an intuitive user interface, a six-button display and two AA batteries. The IHD is available either factory programmed to a specific ORION CE endpoint, or unprogrammed for field programming with the ORION CE IHD handheld programming software and custom programming cable.

### APPLICATION

The IHD can be utilized with any water meter connected to an ORION CE endpoint. Once the IHD is programmed with the serial number of the appropriate endpoint the IHD will begin receiving data.

### LOCATING THE UNIT

The IHD should be located indoors, in proximity to the ORION CE endpoint that is going to be read. The IHD has a magnet built into the case to allow convenient location of the unit on a flat metal surface, and mounting holes on the back for wall mount. The ideal location would be in "line of sight" with the ORION CE endpoint. The IHD will automatically display an error message if the unit fails to detect a meter endpoint signal after several hours.

### OPERATION

The IHD has a six-button face with a 128 x 64 pixel monochrome display. The six buttons allow a user to view usage data, modify IHD settings, scroll through screens or view error messages. For more information on IHD operation, please refer to the ORION CE IHD User's Guide (IHD-UG-01).



### MOISTURE

The IHD is designed for use in a controlled indoor environment and is not suitable for submerged applications or in locations where the unit is subjected to condensation.

### ELECTRICAL

The IHD uses two replaceable AA alkaline batteries. Battery life will depend on usage, however, typical life should be approximately three to six months. The battery compartment is accessed through a sliding cover on the back of the unit. The ORION CE IHD may also be powered via an optional AC to DC adapter (66995-002).

### PROGRAMMING

The ORION CE endpoint serial number is programmed into the IHD either during the original manufacturing process or at a later time by the utility staff. Field programming can be accomplished using the available Trimble® Ranger™ handheld programming kit (64558-030) which consists of the IHD Programmer software CD, the custom ORION CE IHD programming cable and the ORION CE IHD Trimble Ranger Programming Guide.

The IHD can be reprogrammed to any ORION CE endpoint. The endpoint serial number is stored in non-volatile flash memory and will not be lost during battery replacement. The IHD firmware is upgradable via the handheld programming software and custom programming cable.

For more information on programming, refer to the ORION CE IHD Trimble Ranger Programming Guide (ORI-IOM-62).

## SPECIFICATIONS

### Power Source:

Two (2) AA alkaline replaceable batteries; 5V DC power source

### Reading:

Capable of reading both ORION CE narrowband and ORION CE FHSS endpoints

### Construction:

IHD is housed in a durable plastic casing

### Dimensions:

3.9"x 2.5"x 1.0"

### Weight:

Less than 1 lb.

### Environmental:

Intended for indoor use only

### Storage Temperature:

-4° F to +140° F (-20° C to +60° C)

### Temperature Sensor:

Internal temperature sensor that displays the temperature of the IHD location. Accuracy within +/- 3.8° F.

### Monochrome Display:

- 128 x 64 pixel with persistent display
- Three standard font sizes
- Displays Low Battery, Leak Detection and No Signal error messages
- Meter reading and interval consumption data displayed to the minimum electronic resolution of the meter's register
- Displays full reading value and underlines billing units of the utility vendor

### Buttons:

Menu, Scroll, Messages, Summary, Reading and Graph

### Mounting:

The IHD has an internal magnet for mounting on metal devices, or recessed slots on the back of the device for mounting on alternative surfaces.

### Messaging:

The IHD will automatically display an error message. The error message will remain displayed until the user exits the message screen.

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