

ORION Mobile Read (OMR) is a software application designed to manually and automatically read ORION endpoints on utility meter routes.

**NOTE:** Make sure all Windows® Updates on your PC (**Settings > Windows Update**) are completed *before* downloading OMR.

**Download:** Go to **BEACON® > Utility Settings > Downloads** to download OMR.

**Install OMR:** In the **Downloads** file on your PC, double-tap the installer .exe file to install OMR.

**Access:** Go to **Windows® Start**. Search **OMR** and select **ORION Mobile Read**. Sign in with your BEACON user ID and password.

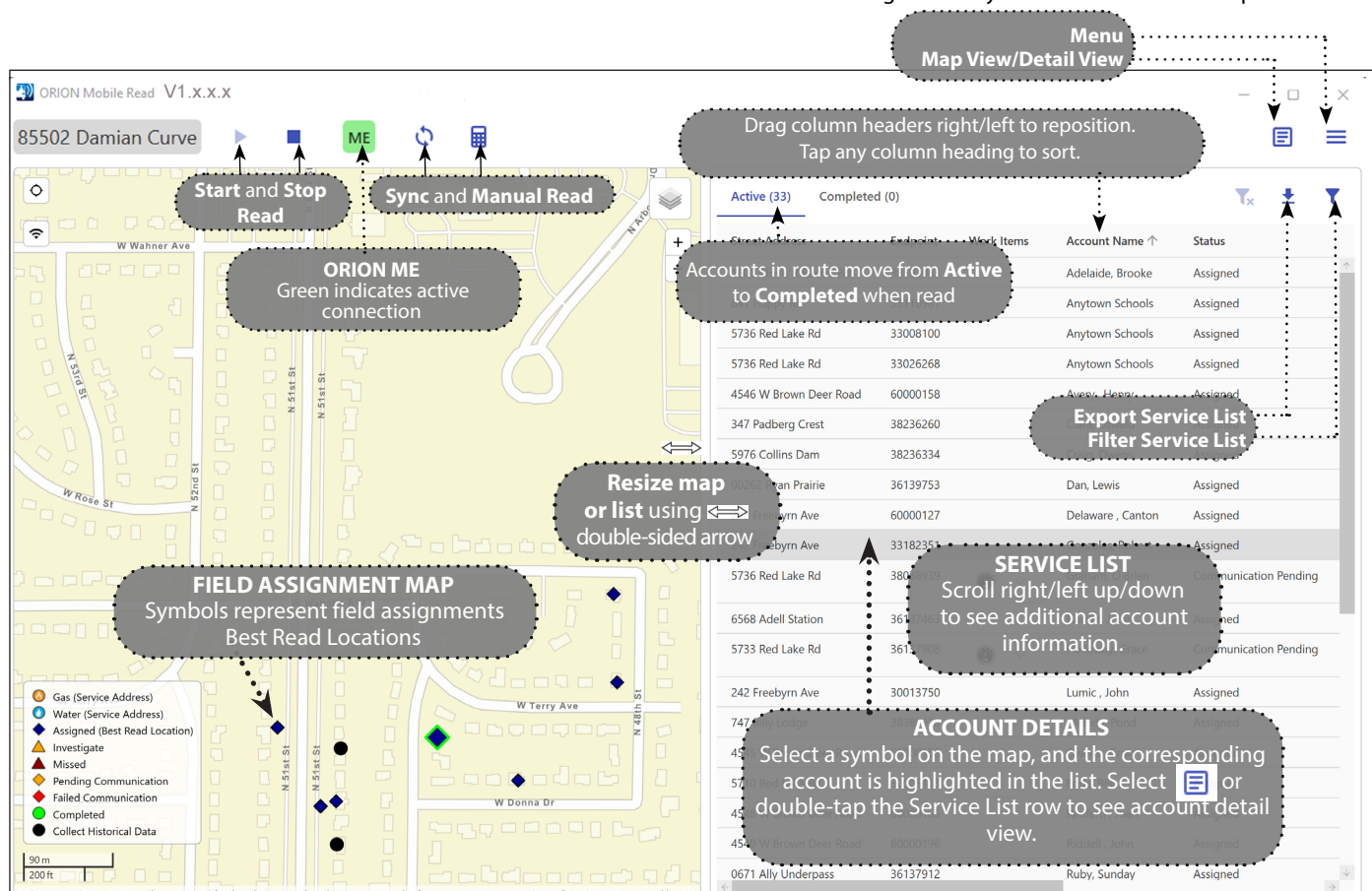







Figure 1: ORION Mobile Read

## WARNING

**The driver of the vehicle must not touch or refer to the display while the vehicle is in motion. Use of ORION® Mobile Read while the vehicle is in motion is potentially dangerous to you and others and is not authorized by Badger Meter, Inc.**




















1. Setup mobile reading equipment for the vehicle. Connect the ORION mobile transceiver and/or receiver to your Windows device and turn power on. See [“Device Setup” on page 5](#) to set up communication ports.
2. Log in to OMR on your PC with your BEACON user name and password.
3. Agree to the *Warning* message that opens (see warning message above). **OMR will close if you tap Cancel on the Warning message.**
4. Tap the menu symbol  and select Download Maps to make sure the default offline map has successfully downloaded.
5. Tap the sync symbol  to receive assignments from BEACON.
6. Tap  to start automated meter reading.
7. Drive slowly through the route area.
8. Tap  as needed to stop reading.
9. Tap the sync symbol  when work is complete. A warning message displays if you have *Investigate* and/or *Missed* items. Tap **OK** to transfer all items to BEACON.

## INTERNET/NETWORK CONNECTION


A network connection is required for **log in** and for **syncing completed assignments** with BEACON.  
A network connection is *not* required for **reading meters** or **collecting work assignments**.

**NOTE:** The Utility's offline map will automatically start to download once the user logs in. Check to make sure the offline map has successfully downloaded prior to working without an internet connection.

## OMR FUNCTIONS

Symbol	Function	Symbol	Function
	Start data collection		Menu
	Stop data collection. Stopping ends communication with connected ORION devices.		Follow my movement. When active, the map moves with the utility vehicle centered. GPS required. Tap the symbol to turn off follow my movement  .
	Tap symbol without "I" to sync with server. Tap symbol with "I" to send completed assignments to BEACON or to receive new assignments from BEACON.		Indicates the use of online map. Symbol with strikethrough  indicates use of offline map. Online option is disabled if there is no internet connection.
	Enter manual read		Export service list.
	Green = connected/communicating		Map base layer options. Tap  to see the Map options.
	Gray = reading session not started		Switch to Map View. Toggles with Detail View.
	Red = not connected/not communicating		Switch to Detail View. Toggles with Map View.
	Filter service list		Map zoom in/out

## MAP

1. Tap  to display the Map Base Layer Options ([Figure 2](#)).
2. Check or uncheck **Map Legend** in the Base Layer Options to turn the Map Legend ([Figure 3](#)) on or off.

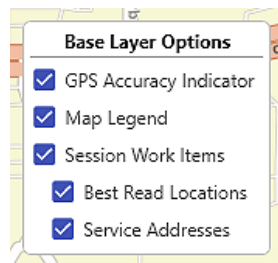


Figure 2: Map Base Layer Options

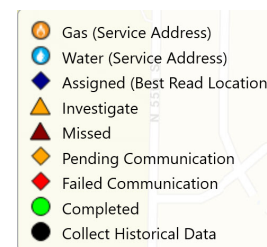



Figure 3: Map Legend

Map Legend Options	Description	Select Base Layer Option
Gas (Service Address)	Gas meter account	Service Address
Water (Service Address)	Water meter account	Service Address
Assigned (Best Read Locations)	Field assignment meter location. Displays when <b>Best Read Location</b> is selected in <i>Base Layer Options</i> .	Best Read Locations
Investigate (Best Read Locations)	Location for account that requires more information.	Best Read Locations
Missed (Best Read Locations)	Vehicle is within the reading zone but read is not captured. Symbol marks the read location. <i>Zone entry distance</i> 35 meters (115 feet); <i>Zone exit distance</i> 45 meters (147 feet)	Best Read Locations
Pending Communication (Best Read Locations)	Two-way communication initiated. Waiting for endpoint to respond.	Best Read Locations
Failed Communication (Best Read Locations)	Two-way communication with endpoint failed or timed out.	Best Read Locations
Completed (Best Read Locations)	Assignment moves from the <b>Active</b> to the <b>Completed</b> column when reading is captured.	Best Read Locations
Collect Historical Data (Best Read Locations)	Displays when a work item is assigned in BEACON for the account.	Best Read Locations

## Map Base Layer Options

1. Tap  to display the Map Base Layer Options ([Figure 2](#)).
2. Check or uncheck a Base Layer Option to change the visual displays on the map, as shown in [Figure 4](#), [Figure 5](#) and [Figure 6](#).

**IMPORTANT** Make sure **Best Read Locations** is checked to display *Missed Reads* and *Investigates* on the map!

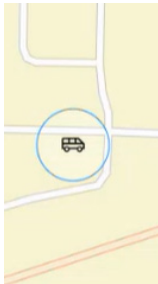


Figure 4: GPS Accuracy Indicator (blue circle around truck)

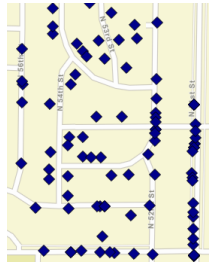


Figure 5: Best Read Locations on

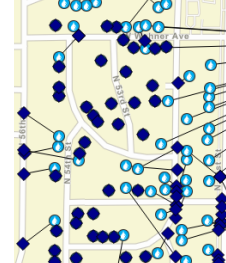



Figure 6: Best Read Locations with service addresses on

## OMR MENU

Tap  in the upper right corner of the screen to see the OMR menu ([Figure 7](#)).

Select Columns	Select column headers you want to display.
Reset Column Preferences	Resets column preferences to initial installation defaults.
Device Setup	Set COM ports for attached meter reading hardware. Also see <a href="#">"External GPS" on page 5</a> .
<a href="#">"Route File Management"</a>	Restore a previous route.
Download Maps	Search and install maps.
Logout	Log out of OMR.
Select Language	(Optional) Select Spanish or French.
About	Displays user name, utility, version and other information.

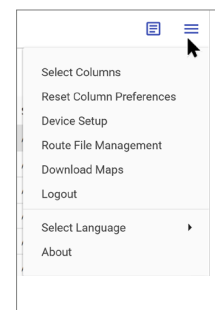



Figure 7: OMR menu

## ASSIGNMENTS

- Collect Firmware Version
- Collect Extended Status
- Collect Historical Interval Reads

Collect one assignment at a time. Complete an assignment before starting another. Changes are auto-saved.

1. Drive to address.
2. Select the account from the assignment list (or map).
3. Tap  to show the account detail view.
4. Under **Available Controls**, tap the assignment and/or add a Note. See ["Notes" on page 5](#).

**NOTE:** When a work item is assigned in BEACON, OMR automatically starts collecting the work item after the reading is collected. The **Status** column shows *COMMUNICATION PENDING* which displays until the collection is complete. No action is needed by the meter reader.

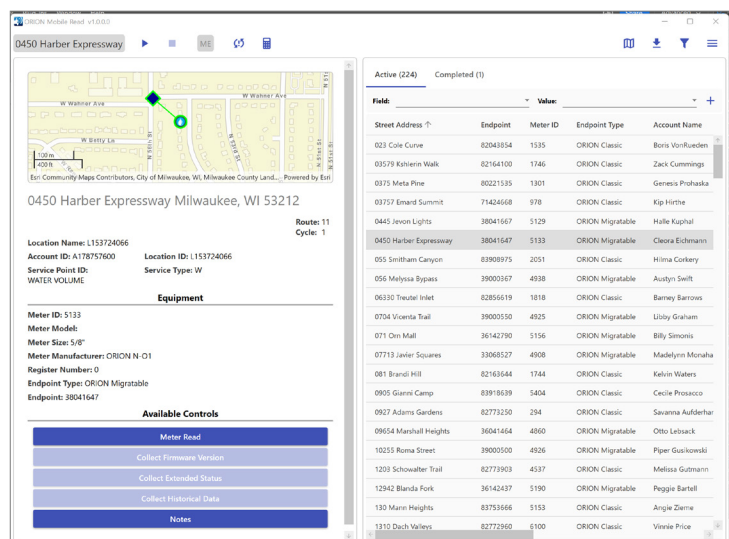



Figure 8: Account details: assignments

## MANUAL READ

1. Drive to address.
2. Select account from the work list (or map).
3. Tap  to open the meter reading keypad.
4. Enter the meter reading\* on the keypad.  
\*Type in the reading on the keypad based on how billing resolution is setup in BEACON. BEACON will pass the numbers exactly as you enter them.
5. If the reading is high or low, enter the meter reading again to confirm.
6. Tap **Submit/Complete**.

The account automatically moves to the **Completed** list.

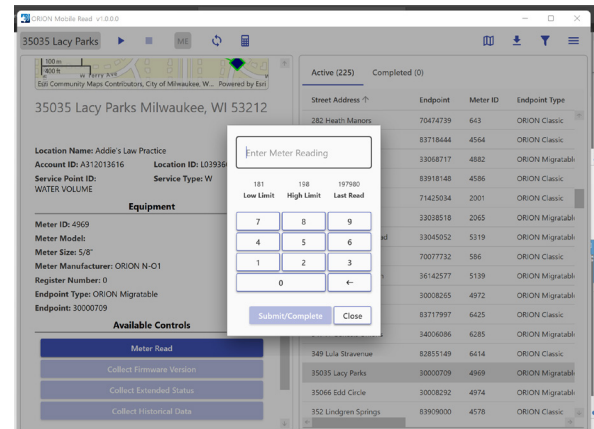




Figure 9: Manual read

## Clear Manual Read

1. Tap Detail View , and open the account from the **Completed** list.
2. Find the Meter Read on the left side of the screen and tap the **Delete**  symbol.
3. In the pop-up window, select **Clear** to delete the reading.  
The account returns to the **Active** list.

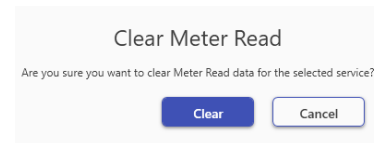



Figure 10: Select Clear to delete the reading

## ROUTE FILE MANAGEMENT

1. Select the menu symbol  at the top right corner of the screen.
2. From the menu, choose **Route File Management**.
3. Locate the route you need and select the **Restore** button for the route.
4. Tap **Close**. The route you selected is restored.

## Clear Collected Data

If you receive the wrong route, use **Clear Collected Data** to remove the current route before you receive and sync the correct route.

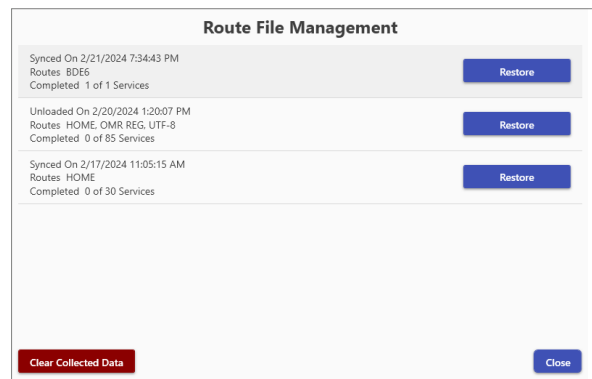



Figure 11: Previous routes

## NOTES

Add a *Trouble Code*, *Reader Code*, or *Comments*, to any account listed in **Active** or **Completed** status.

1. Select the account from the assignment list (or map).
2. Tap  to show the account details.
3. Under **Available Controls**, tap **Notes** to expand the Notes section.
4. Select a code and/or add a comment.

Any Notes, Codes and Comments you add are auto-saved.

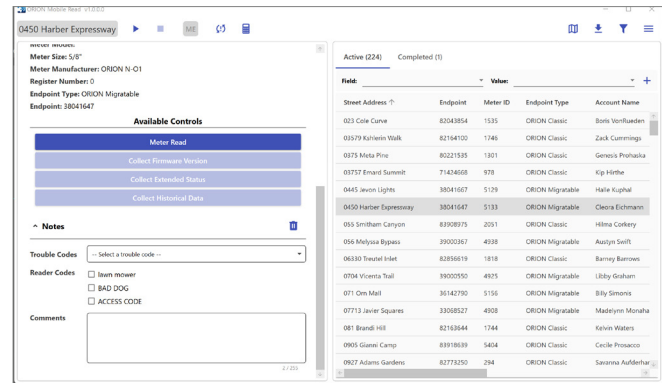





Figure 12: Notes: Trouble Codes, Reader Codes, Comments

## DEVICE SETUP

1. Select the menu symbol  and choose **Device Setup**.
2. Tap the **Device** and **Serial Port** drop-down menus to set up the communication ports for any connected devices. Make sure device power is on.
3. Tap the plus symbol  to add a device.

### External GPS

4. Connect an external GPS to your Windows device and turn power on.
5. To setup the external GPS, select **External GPS** from the **Device** drop-down menu.
6. Select the **Serial Port**.
7. Select the gear symbol  and choose Advanced GPS Settings, as needed.
8. Tap **Save** to store your device settings.

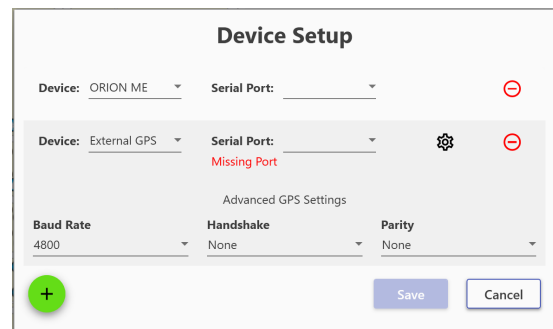




Figure 13: Device Setup

## TROUBLESHOOTING TIPS

Issue	Possible Cause	Solution
Cannot install OMR.	Go to <b>Settings &gt; System &gt; About</b> to check the Windows operating system (OS) on your device. OMR does not work with a Windows 32-bit OS (operating system).	Install OMR on a device with a Windows 64-bit OS.
Map does not show <i>Investigate, Missed, Pending Communication, Failed Communication</i>	<b>Best Read Locations</b> is not selected.	Turn on <b>Best Read Locations</b> in Map Base Layer Options. See <a href="#">Figure 5</a> .
Did not receive assignment to extract historical data.	There is no longer a second assignment for a profile read (historical data extraction) or other work item if there is also a read assignment. However, the account details page shows a message, for example: "Collect Historical Data (Required)."	When a work item is assigned in BEACON, OMR automatically starts collecting the work item after the reading is collected. The <b>Status</b> column shows <i>COMMUNICATION PENDING</i> which displays until the collection is complete. No action is needed by the meter reader.  Make sure to check <b>Status</b> under <b>Select Columns</b> so that the <b>Status</b> column displays. Refer to <a href="#">"OMR Menu" on page 3</a> .
"Failed communications"	Driving too fast may result in a "failed communications" status if OMR is unable to complete a work assignment.	Drive back to the work assignment site and start the work item manually.  1. Select the account in the COMPLETED status column. 2. Tap  to see the account details. 3. Select the work item.
Assignments do not load and error message is received when you tap data sync button.	Check your Windows user profile to see if it has an apostrophe.	Remove apostrophe from Windows user profile and retry.
You want to perform an ad hoc (not assigned in BEACON) work item but assignment is already in the COMPLETED status column.	When OMR gets a read, it moves the assignment into the COMPLETED status column but you can still request a work item.	1. Select the account in the COMPLETED status column. 2. Tap  to see the account details. 3. Select the work item.

## TECHNICAL SUPPORT

For additional help, contact Badger Meter Technical Support (800-616-3837).

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