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Neptune® 360™
Mobile Users' Guide

Version 1.4.2



Neptune[®] 360[™]
Mobile Users' Guide
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Neptune[®] 360[™] Mobile Users' Guide
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Chapter 1: About Neptune® 360™ Mobile

Welcome to the Neptune® 360™ Mobile app. Using a cellular phone or tablet as your meter reading device makes the reading process fast and efficient without the burden of learning new hardware. You can use the app as soon as you install it.

The software has four major functions you can perform that are covered in this guide:

- RF Test.
- Data Logging.
- Meter Reading.
- Pressure Reading.

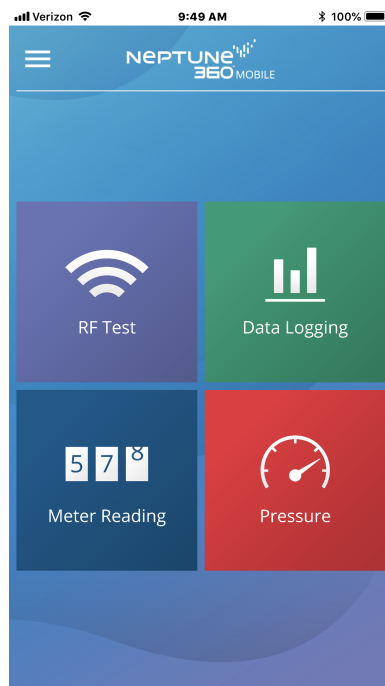


Figure 1 – Neptune® 360™ Mobile Main Screen

Supported Devices and Operating Systems

Neptune 360 Mobile supports Android™* and Apple® operating systems for both phones and tablets. Neptune has tested the mobile app on the following operating systems and performs additional testing as new versions of these operating systems are made available.

Android™ Operating Systems

- 5.1.X Lollipop.
- 6.0.X Marshmallow.
- 7.0.X.
- 7.1.X Nougat.
- 8.1.X Oreo.
- 9.0.X Pie.
- 10.0.X

Android™ Devices

We recommend using Neptune 360 Mobile on devices from the following (Original Equipment Manufacturers) OEMs:

- Samsung®.
- Nexus™.
- Motorola®.

iOS Operating Systems

- 10.3.1 and higher.
- 11.
- 12.
- 13.

iOS Devices

Neptune 360 Mobile supports the following iOS devices:

- iPhone®.
- iPad®.

*Android is a trademark of Google LLC.

Required Devices

Following are the devices required to use Neptune 360 Mobile.

- Mobile device – Android or iOS phone or tablet that runs one of the supported operating systems listed above.



The mobile device requires a minimum of 2 GB of RAM to run the software.

- Transceiver – Neptune 360 Mobile pairs with:
 - Neptune R900® Belt Clip Transceiver (R900® BCT).
 - MRX920™ v3 on Android.
 - MRX920™ v4 on Android and iOS devices.
- Probe reader (optional) – Neptune Advantage II, Neptune Pocket ProReader.



If you use an iOS device, you must pair it with the R900 BCT v3.

Required Credentials

Neptune 360 Mobile is linked to the Neptune 360 host software. Utility administrators must ensure that all mobile app users have an account established within the host system. Users can use their host system email address and password credentials to log in to the mobile app:

- Google Play™ for Android devices.
- Apple ID for iOS devices.

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This chapter includes the procedures to download and log in to Neptune[®] 360[™] Mobile, define the settings, and pair your device with a Meter Interface Unit (MIU).

Downloading the App

Complete the following steps to download the Neptune 360 Mobile app.

1. Open the Google Play[™] store (Android[™]*), or the App Store (Apple[®]) on your device.
2. Search for Neptune 360 Mobile.
3. Tap one of the following to install the app:
 - **Install**, for an Android device, and then go to step 4.
 - **Get**, for an iOS device. You can now open the app and log in.
4. On your Android device, review the app permissions, and then tap **Accept** to continue the download.

Logging In and Out of Neptune[®] 360[™] Mobile

Make sure you have downloaded and installed Neptune 360 Mobile from the Google Play store (for Android) or the App Store (for iPhone[®]). For the procedure steps, see "Downloading the App" above.

*Android is a trademark of Google LLC.

Logging In to Neptune® 360™ Mobile

Complete the following steps to log in to Neptune 360 Mobile.

1. Open the app.
The Login screen is displayed.

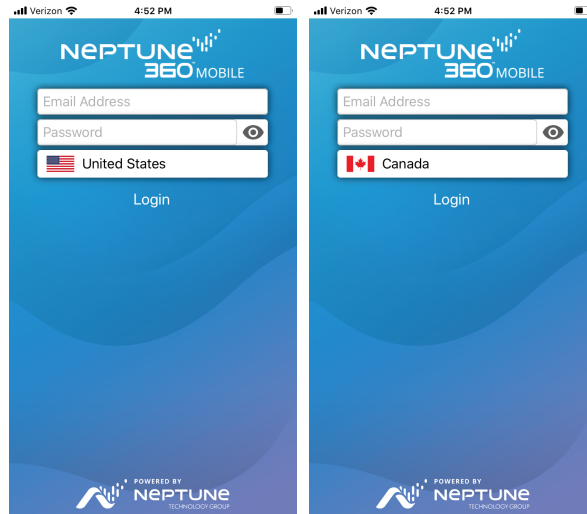


Figure 2 – Login Screen

2. To select a different default country than the one displayed, tap the country name to display the selections.
3. Tap the country you want as your default, and then tap OK.

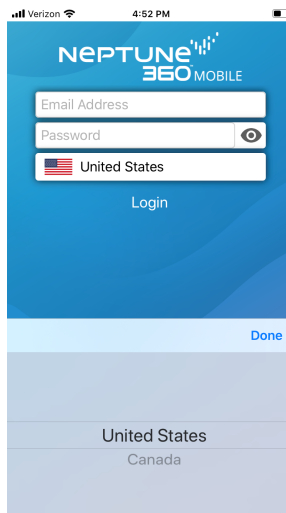


Figure 3 – Country Selection

4. In the **Email Address** field, type the email address you use for Neptune 360.
5. In the **Password** field, type the password you use for Neptune 360.
6. Tap **Login**.

The system displays the Select Site ID screen, if you have access to multiple utilities. Otherwise, the landing screen as shown in step 7 is displayed.



Figure 4 – Select Site ID Screen

7. Type the five-digit Site ID for your utility.

The app displays the Neptune 360 Mobile landing page and you can select the function you want.

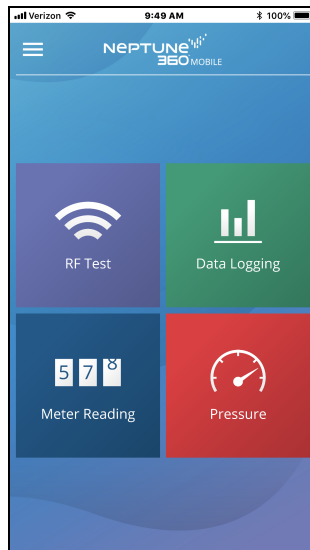


Figure 5 – Selecting a Function

Logging Out of Neptune® 360™ Mobile

You can log out of the app from any screen.

Complete the following steps to log out of Neptune 360 Mobile.

1. Tap the menu icon in the top left corner of the screen to display the menu options that slide to the right.

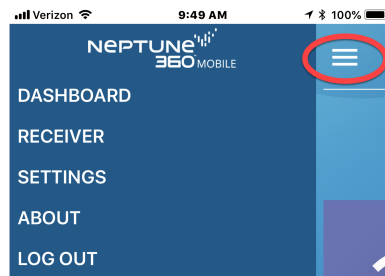


Figure 6 – Neptune® 360™ Menu Options

2. Tap **Log Out** to log out of the app.

Pairing a Receiver

Before reading meters, you must pair your device with a receiver. A typical receiver used is the R900® Belt Clip Transceiver. If you have not yet paired a receiver, the first time you select Meter Reading the system displays a reminder.

1. After logging in, tap **Meter Reading**, and then tap **OK** to clear the reminder message.
2. Pair one of the recommended transceivers with your device. See "Getting Started" on page 5, or "Pairing an MRX920™ " on the facing page.

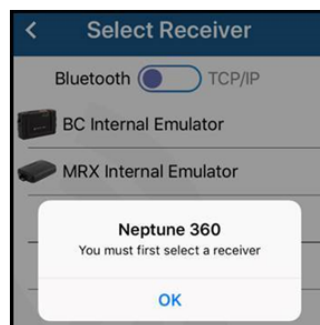


Figure 7 – Selecting a Receiver

Pairing an R900® Belt Clip Transceiver

Receivers that display in green text indicate that the receivers have been connected previously.

Complete the following steps to pair your device with the R900 Belt Clip Transceiver.

1. Turn on the R900 Belt Clip Transceiver and place it in **Normal Mode**. The LED color for Normal Mode is green. For more information about the R900 Belt Clip Transceiver, see the "*Neptune Handheld Systems Users' Manual*."
2. On your Android or iOS device, enable Bluetooth capability. For Android, verify that the **Location** permission for the app is enabled. This permission handles Bluetooth functionality and is here in your Android settings:
Settings > Apps > Application Manager > Neptune 360 Mobile.
3. Log in to Neptune 360 Mobile and tap the menu icon in the top left corner of the screen to display the menu options.

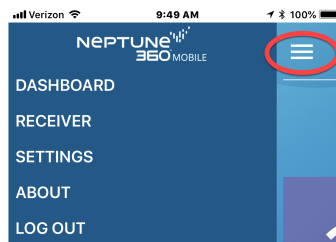


Figure 8 – Pairing a BCT

4. Tap **Receiver**.
5. Tap the serial number of the R900 BCT in the list to pair with it. If the R900 BCT does not appear in the list, tap **Refresh** toward the bottom of the screen, and then retry pairing.

After successfully pairing, the Neptune 360 Mobile dashboard is displayed and toward the bottom of the screen the connected R900 BCT displays in green text.

Pairing an MRX920™

Complete the following steps to pair your device with the MRX920.

1. Turn on the MRX920 and wait approximately one minute for the receiver to gain full power. See the "*MRX920™ Getting Started Guide*" for the steps to plug in the power cable and install the MRX920 antenna.
2. On your Android or iOS device, enable Bluetooth capability. For Android, verify that the **Location** permission for the app is enabled. This permission handles Bluetooth functionality and is here in your Android settings:
Settings > Apps > Application Manager > Neptune 360 Mobile.

3. Log in to Neptune 360 Mobile and tap the icon in the top left corner of the screen to display the menu options.

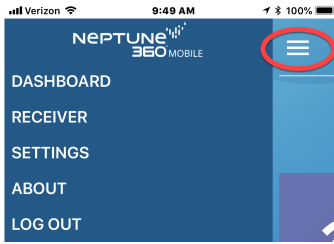


Figure 9 – Pairing an MRX920™

4. Tap **Receiver**.
5. Tap the serial number of the MRX920 to pair with it. If the MRX920 does not appear in the list, tap **Refresh** toward the bottom of the screen and then retry pairing.

After successfully pairing, the Neptune 360 Mobile dashboard is displayed and toward the bottom of the screen the connected MRX920 displays in green text.

Modifying Neptune® 360™ Mobile Settings

You can define the settings on your mobile device that are specific to the Neptune 360 Mobile app:

- **Miscellaneous** – define the font size for displaying Neptune 360 Mobile data.
- **Data Log** – define meter size and reverse flow options.
- **Pressure** – define low and high pressure limits.
- **Meter Reading** – define meter reading alerts.

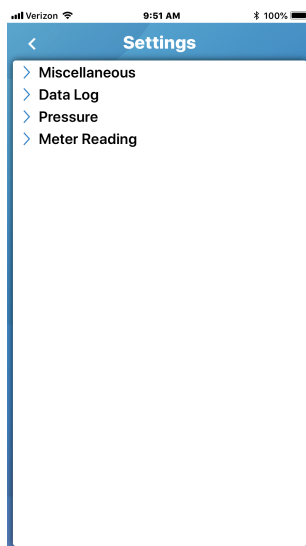


Figure 10 – Mobile Settings

Modifying Miscellaneous Settings

Miscellaneous settings allow you to set the font size for the Neptune 360 Mobile list displays.

Complete the following steps to modify the settings.

1. Tap the menu icon in the top left corner of the screen to display the dashboard.

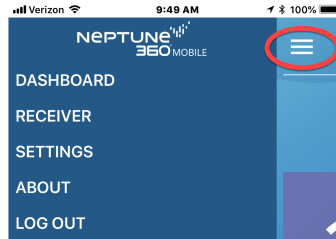


Figure 11 – Menu Icon

2. Tap **Settings**.
3. Tap **Miscellaneous**, and then tap **Default** to display the List View Font Size options at the bottom on the screen.

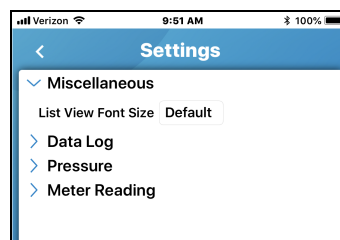


Figure 12 – Miscellaneous Settings

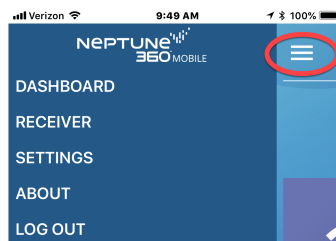
4. Select the font size you want, and then confirm your selection.

Modifying Data Log Settings

The Data Log settings enable you to reset the meter size, hide reverse flow meters, and reset the data log database.

Complete the following steps to modify the settings.

1. Tap the menu icon in the top left corner of the screen to display the menu options.



2. Tap **Settings**.

3. Tap **Data Log** to display the options.

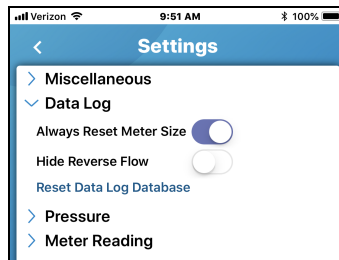


Figure 13 – Data Log Settings

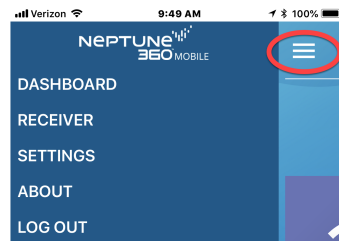
4. Slide the buttons to the right for the options you want to enable:
 - **Always Reset Meter Size** (enabled by default) – reset the meter size each time you capture a new data log session. See "Logging Data" on page 19
 - **Hide Reverse Flow** – hide meters experiencing reverse flow.
 - **Reset Data Log Database** – delete all data log information from your device.

Modifying the High or Low Pressure Settings

You can modify the high and low pressure warning limits.

Complete the following steps to modify the settings.

1. Tap the menu icon in the top left corner of the screen to display the dashboard.



2. Tap **Settings**.
3. Tap **Pressure** to display the options.

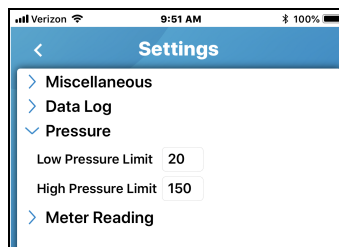


Figure 14 – Pressure Settings

4. Highlight the limit you want to modify and type the new limit.

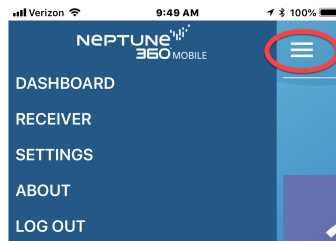
Meters below or above the limits you define are at risk for functioning at less than maximum capacity. The readings for meters below or above the limits display in **red**.

Modifying Meter Reading Settings

Meter reading settings allow you to enable a tone when your device reads a meter and enable real time readings. You can also reset the reading database.

Complete the following steps to modify the settings.

1. Tap the menu icon in the top left corner of the screen to display the dashboard.



2. Tap **Settings**.
3. Tap **Meter Reading** to display the options.

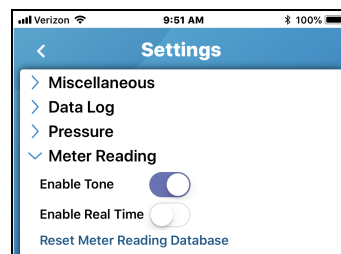


Figure 15 – Meter Reading Settings

4. Slide the buttons to the right for the options you want to enable:
 - **Enable Tone** – play a tone when the a reading is complete.
 - **Enable Real Time** – automatically unload readings to Neptune 360 based on a predefined interval (every 15 minutes).
 - **Reset Meter Reading Database** – delete all captured readings from your device.

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The RF Test feature allows you to verify that your device can receive readings from an R900[®] Meter Interface Unit (MIU) using a paired Belt Clip Transceiver or MRX920[™] MIU.

Receiving R900[®] Transmissions

Follow the steps to test receiving transmissions from any R900 MIU in the area.

1. In the app, tap **RF Test**.

The system displays the RF Test screen.



Figure 16 – RF Test Screen

2. Tap **Start** at the bottom of the screen to begin receiving R900 transmissions. After you tap Start, the text changes to Stop.

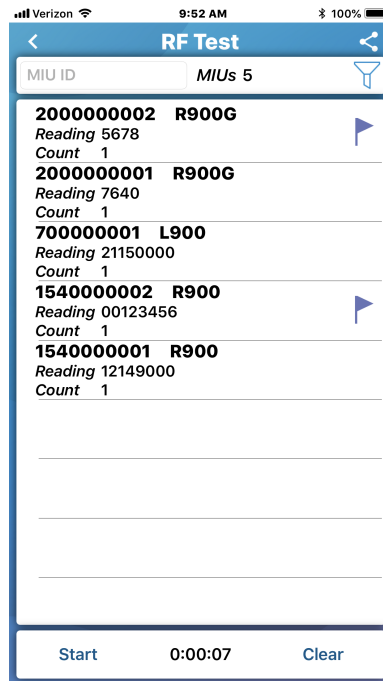


Figure 17 – RF Test Transmissions

3. To clear the screen of the MIU transmissions, tap **Clear**.



Unique MIUs display at the top of the screen to show how many unique MIUs have been "heard" since you last tapped Start. The count value for each MIU shows how many readings your device captured since transmission began. The latest reading is always displayed.

Searching for MIUs

You can search for a specific MIU and display the details.

1. In the **MIU ID** field, type a full or partial ID to display a list of matching MIUs.

The app displays the MIUs that match the part of the ID you typed.

Filtering MIUs

You can filter the list of MIU transmissions to organize the list by a certain flag or other criteria.

Complete the following steps to filter the MIUs.

1. Tap the filter icon in the top right corner of the screen to display the filter options.

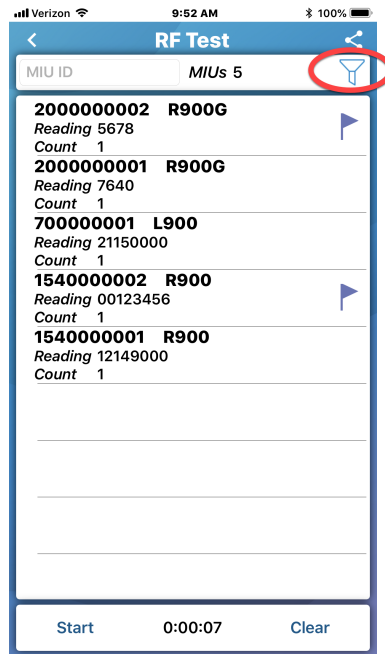


Figure 18 – Filtering the MIUs List

2. Select the desired filter options.

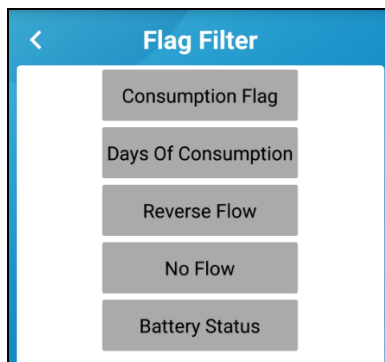


Figure 19 – Selecting Filters

Viewing Transmission Details

You can view details about a specific MIU. The details for any flagged MIU display in **red**.

1. Tap the MIU row for which you want to display details.

Sharing RF Test Readings

You can share RF Test readings with another user.

Complete the following steps to share RF test readings.

1. For Android™*, verify that the **Storage** permission for the app is enabled. This permission handles sharing and is here in your Android settings: Settings > Apps > Application Manager > Neptune 360 Mobile.
2. Tap the share icon in the top right corner of the screen.

The application displays the sharing options.

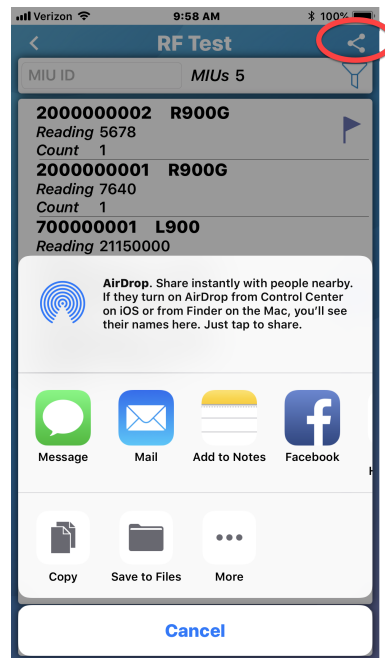


Figure 20 – RF Test Sharing Options

3. Tap the icon for the app to share readings.
The secondary app opens.
4. Type a note to accompany the readings, as appropriate.

*Android is a trademark of Google LLC.

The Data Logging feature allows you to retrieve up to 96 days of hourly reading consumption data from R900[®] Meter Interface Units (MIUs). You can display the data in graph or report format, which you can share with the homeowner as well as the utility office.

Meters using E-CODER[®] registers can capture and share flagged data such as continuous consumption, tamper, and reverse flow data.

Viewing a Past Data Log Session

You can view past data logging sessions and search for a data log for a specific MIU.

Complete the following steps to view a past data log session.

1. In the app, tap **Data Logging**.

The system displays a list of past logging sessions.

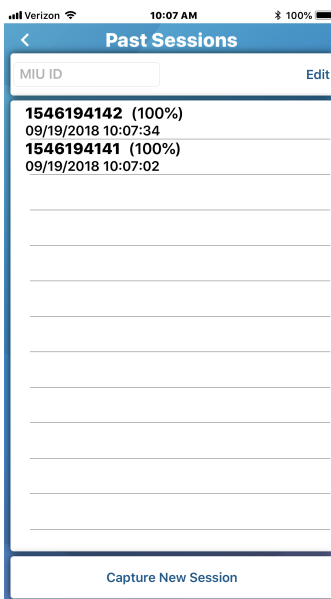


Figure 21 – Past Data Log Sessions

2. Tap a session.

The app displays the data log for that session. You can search for a data log of a specific MIU. See "Searching for MIUs" on page 16.

Deleting a Past Data Log Session

You can delete past data log sessions from your device.

1. Tap **Edit** in the top right of the screen.
2. Select the sessions you want to delete, and then click **Delete** in the bottom left corner of the screen. See the figure on the previous page.

Capturing a New Data Log Session

To start a new data log session, first verify that your device is paired to an R900[®] BCT or MRX920[™].

Complete the following steps to capture a new data log session.

1. Tap **Capture New Session**.

The system displays the Capture Settings screen.

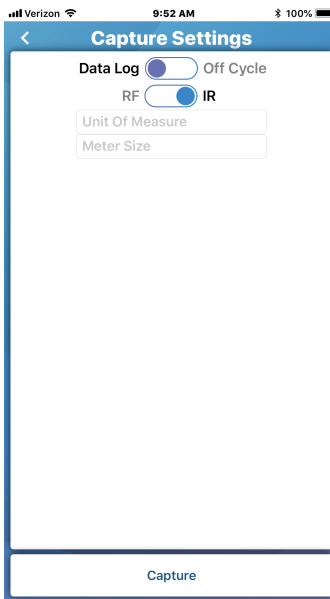


Figure 22 – Capture Settings Screen

2. Select the data log session type:
 - **Data Log**.
 - **Off Cycle** – facilitates the retrieval of off-cycle reads used for move in / move out readings and for other unique requests for a specific day's reading. For this option, you must specify the date and MIU ID.
3. Select the capture method:
 - **RF** – Radio Frequency.
 - **IR** – Infrared signal. If you select this option, skip step 4.

4. Do one of the following. If you selected:
 - IR, go to step 5.
 - RF, tap **MIU ID** and type the full or partial ID for the MIU.
5. Tap **Unit Of Measure** and select the desired unit of measure.
6. Tap **Meter Size** and scroll to select the size.

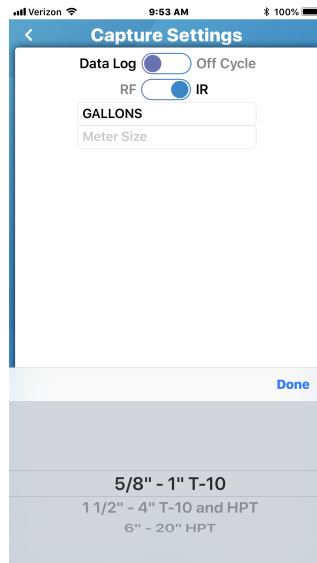


Figure 23 – Selecting the Meter Size

7. Tap **Capture** at the bottom of the screen to start the data log session.

After the system starts downloading data, it displays the data log.

Date	Reading	Consumption
09/19/2018	17692.6	45.7
09/18/2018	17646.9	183.7
09/17/2018	17463.2	26.2
09/16/2018	17437.0	153.1
09/15/2018	17283.9	208.8
09/14/2018	17075.1	178.5
09/13/2018	16896.6	176.9
09/12/2018	16719.7	100.2
09/11/2018	16619.5	186.3
09/10/2018		

Figure 24 – Data Log

Reviewing a Data Log in List View

Each row in the initial main data log screen shows the date, reading, and consumption. You can tap a row that contains a flag to expand it and display the details. To view a specific date, either scroll through the list or tap the date at the bottom of the screen.

Complete the following steps to review a data log list.

1. Tap a reading flag to see hour-by-hour readings.

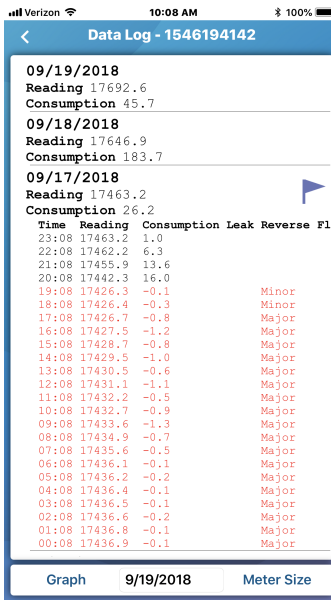


Figure 25 – Hour-by-Hour Data Log Readings

2. If you want to change the meter size and readings, tap **Meter Size** in the bottom right corner of the screen.

Viewing a Data Log as a Graph

You can view the data log in graph format.

Complete the following steps to display log data as a graph.

1. Press **Graph** in the bottom left corner of a data log.

The system displays the data as a graph.

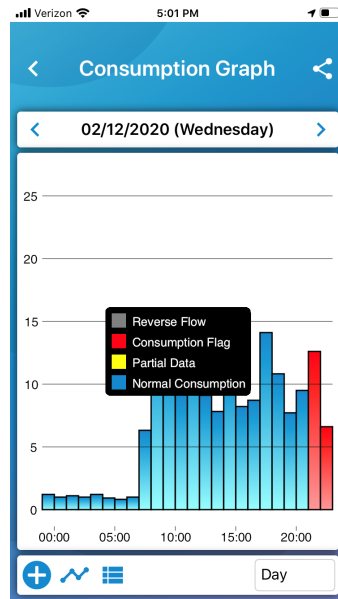


Figure 26 – Log Data as a Graph

2. Tap a bar on the graph to drill down to the reading details.
3. To change the view options of the graph, see the following table.

Table 1 – Graph View Options








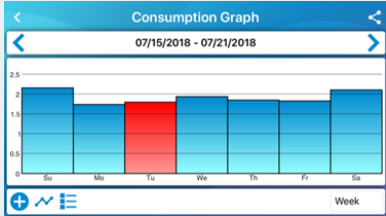
View Option	Description
	Move to the previous day's readings according to the interval in the bottom right corner of the screen.
	Move to the next day of the readings based on the interval in the bottom right corner of the screen.
Interval	<p>Tap the interval field in the bottom right corner of the screen to change the reading interval displayed in the graph. All intervals, except hourly intervals, are based on the most recent reading completed as of midnight:</p> <ul style="list-style-type: none"> • All – display all days in the current reading, up to 96 days. • Month – display the readings for the past 30 days. • Week – display the readings for the past 7 days.


Table 1 – Graph View Options (continued)

View Option	Description
	<ul style="list-style-type: none"> Day – display readings for the day or show the hourly consumption for the selected day. For an hourly reading, the app displays the consumption for the most recent 60-minute period.
	Collapse the consumption units on the y-axis of the graph.
	Expand the consumption units on the y-axis of the graph.
	Change the graph to an area chart.
	Change the graph to a bar chart.
	Display the labels for the graph colors: <div data-bbox="516 800 756 947" style="background-color: black; color: white; padding: 5px; margin: 10px 0;"> <ul style="list-style-type: none"> Reverse Flow Consumption Flag Partial Data Normal Consumption </div>
Landscape View	Turn your device sideways to display the graph in landscape view: <div data-bbox="516 1037 899 1251" style="border: 1px solid black; padding: 5px; margin: 10px 0;">  </div>

Sharing a Data Log

You can save the data log as a PDF file, and send it to another user.

Complete the following steps to share a data log.

1. For Android™*, verify that the **Storage** permission for the app is enabled. This permission handles sharing and is here in your Android settings: Settings > Apps > Application Manager > Neptune 360 Mobile.
2. Tap the share icon  in the top right corner of a data log.

The following screen appears.



Figure 27 – Selecting the Graph Format

3. Tap in the **Contents** field.
4. Select the format in which you want to send the graph data:
 - **Data & Graph.**
 - **Data Only.**
 - **Graph Only.**
5. In the **Data Grouping** field, select **Hourly** or **Daily** for the consumption interval data you want to include in the PDF.
6. Tap **Save** to save the PDF and select how to share it.

*Android is a trademark of Google LLC.

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This chapter defines how to read meters using the Neptune® 360™ Mobile app on your device.

Reading Meters

The Meter Reading feature allows you to capture readings for routes that have been imported into Neptune 360 for your utility. You can also manually key a reading for any account, or skip a reading and apply a skip code. After you capture or key readings, you can sync them to Neptune 360.



The app automatically syncs with Neptune 360 *only* if you have no readings in the database of the mobile app. If there are existing readings in the database of the app, it does not automatically sync when you access the Meter Reading feature.

Captured readings are displayed in order of the time they were captured. This feature supports probe reading using an Advantage II probe or Pocket ProReader and a Belt Clip Transceiver.

Following is a sample Meters screen that shows a metrics bar above the search bar that shows:

- Left number – number of routes included on the current Meters page.
- Center number – number of meters / total number of routes when the All filter is selected.

When you tap:

- The Missed filter, the number changes to display the number of missed readings / total number of meters.
 - Captured, the number changes to display meters with captured readings / total number of meters.
- Right number – reading completion percentage. Displays 100% when all readings are captured for the routes.

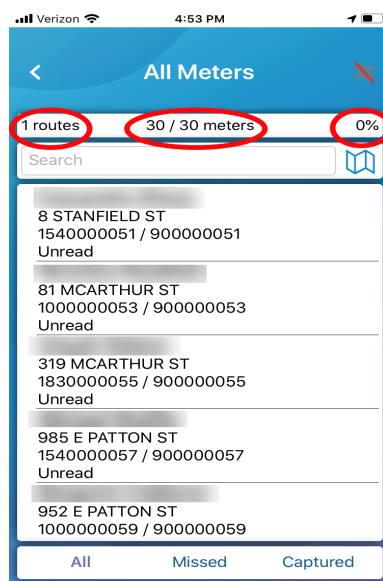


Figure 28 – Meters Screen

Route Management

If your account's role includes the Sync Unassigned Routes permission (assigned to you in the web application), you can see:

- Routes assigned to you from Route Management.
- Incomplete unassigned routes.

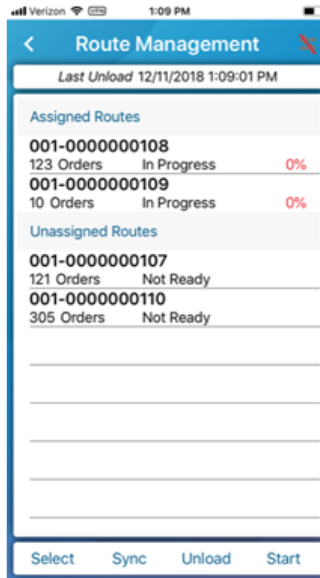


Figure 29 – Route Management Screen

If you tap an unassigned route and assign it to yourself, the route moves under the Assigned Routes header.

Selecting Meters to Read

Follow the steps in this procedure to select the meters to read.

1. On your device, tap **Meter Reading**.

The Route Management screen is displayed showing routes that have not been read.

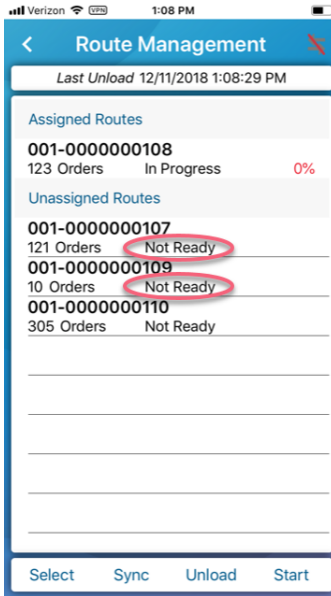


Figure 30 – Unread Routes



If your utility does not have any routes that are missing readings, the device displays, "No routes with missed orders are available." If in the past you selected a route to read and the current status of the route is In Progress, the app asks whether you want to sync again, since there could have been changes made to your routes within Neptune 360.

2. To assign yourself individual routes and move them to the Assigned Routes list (routes in the Not Ready state), tap each unassigned route, and then in the confirmation dialog box that displays, click **Yes** to sync the device and move the routes. The device:
 - Sends any captured readings to Neptune 360.
 - Removes completed captured readings.
 - Updates the status of the routes you selected to In Progress.

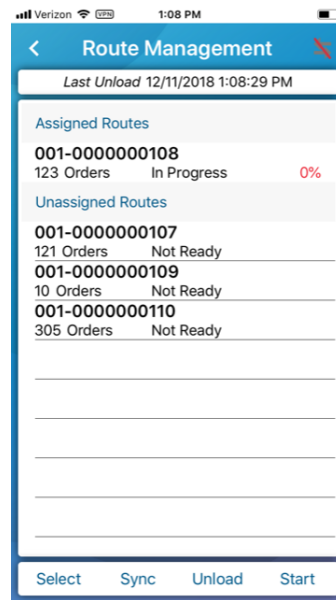


Figure 31 – Selected Routes

3. To view all meters and accounts within the selected routes on a single page, tap **Select**, and then tap **Work Routes** in the bottom left corner of the screen.

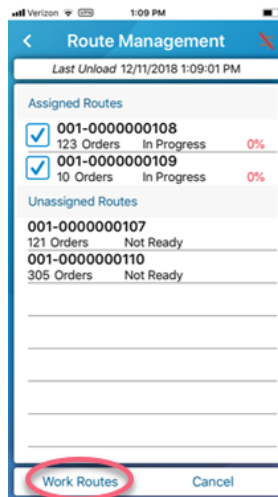


Figure 32 – Work Routes View

Unassigning Routes

If you assign yourself a route by accident, you can unassign the route so that another reader can pick it up. You must have permission to sync unassigned routes to unassign them.

1. On the Route Management screen, tap **Select** in the bottom right corner of the screen.
2. Select one or more routes assigned to you that you want to unassign, and then tap **Unassign**.

The system displays a confirmation message.

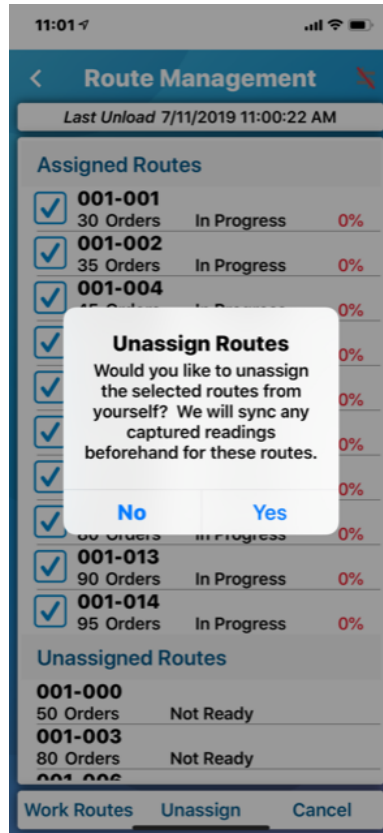


Figure 33 – Unassign Routes Confirmation

3. Tap **Yes** to confirm you want to unassign the routes.
The system syncs all captured readings for the routes you selected to unassign, and then unassigns the routes and places them in the Unassigned Routes list.

Starting the Reading Meter Function

When your device has routes in the In Progress state, you can start the reading process.

Starting the Reading Function for a Mobile Device

Complete the following steps to start the reading function to read meters using a mobile device.



This procedure applies only when you perform readings using a Belt Clip Transceiver or MRX920™. This procedure is not required when you manually enter readings.

1. Tap **Start** in the bottom right corner of the screen, or tap the icon in the top right corner of the screen.

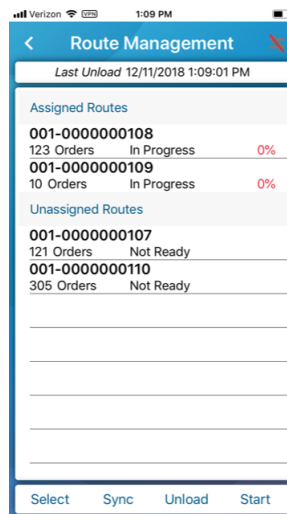


Figure 34 – Reading Meters

2. If mobile mapping is enabled for your utility and you are using an:
 - Android™* device, your location is already tracked because it is required when using Bluetooth.
 - iOS device, go to step 3.
3. Tap the desired location access option:
 - Only while using the app.
 - Always allow.
 - Don't allow.

*Android is a trademark of Google LLC.

The icon flashes to indicate that the connected receiver is listening for readings for the accounts in the routes. As the device captures readings the completion percent increases to 100%. Any sounds that your device produces means it is accepting readings.

Starting the Reading Function for a Probed Meter



The Advantage II and Pocket ProReader can read ProRead™ registers, E-CODER® (BASIC) registers, and Sensus ECR II and III TouchRead receptacles. The Sensus ECR III must be programmed with the same format used for the "6 wheel ECR II register."

Complete the following steps to start the reading function for probed meters.

1. Pair the Belt Clip Transceiver with your mobile device. For the step procedure, see "Pairing a Receiver" on page 8.
2. Tap **Start** in the bottom right corner of the screen, or tap the icon in the top right corner of the Neptune 360 Mobile screen.
3. Use the probe reader to read the meters.
The receiver sends the collected readings to Neptune 360 Mobile, which you can view.

Stopping the Reading Meter Function

You can stop the meter reading process at any time.

1. Tap **Stop** in the bottom right corner of the screen, or tap the icon in the top right corner of the screen.

Adding Comments and Comment Codes

You can enter free form comments for any meter reading that are specific to that reading, route, or account.

You can also apply predefined comments to any reading by selecting a comment code. An administrator creates these comments in the Neptune 360 web application and typically includes information that widely applies to meter reading cycles or routes.

Comments and comment codes are optional and you can view them in an export file generated in the Neptune 360 web application.



To see the most recent comment codes, you must sync the data between Neptune 360 Mobile and the web application. For more information, see "Syncing or Unloading Captured Readings" on page 37.

Adding a Comment

The Comments box is displayed by default on the Meter Detail screen and you can type up to 128 characters for the comment.

1. Tap in the **Comments** box, and then type a comment.



Figure 35 – Comments

Selecting a Comment Code

You can select from a list of comment codes created in the Neptune 360 web application to associate with the comments you enter.

1. Tap the **Comment Codes** field label to display the Code 1 and Code 2 fields.

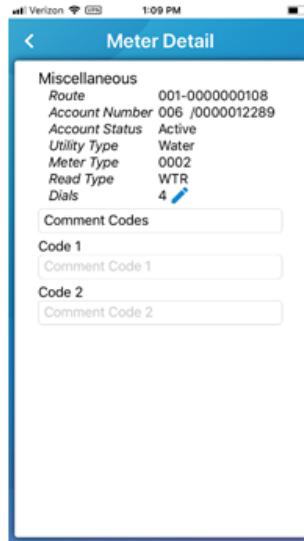


Figure 36 – Comment Code

2. In one or both fields, tap to display the codes, and then tap the codes you want to apply.
3. Tap the Code label to redisplay the **Comments** field. For more information about adding comments, see "Adding a Comment" on the previous page.

Syncing or Unloading Captured Readings

You can synchronize captured readings with the Neptune 360 web application on the Route Management screen.

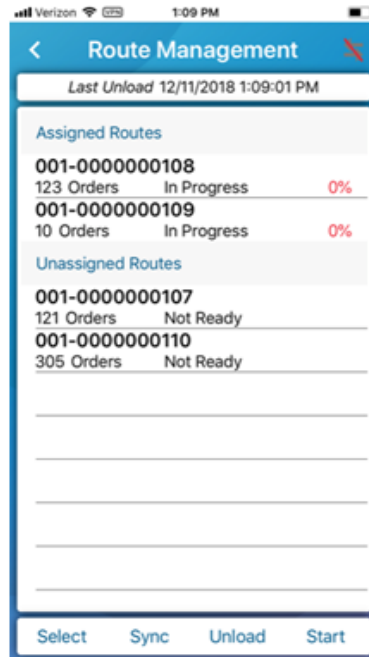


Figure 37 – Captured Readings

1. Tap one of the following:
 - **Sync** to send all captured readings on the device to Neptune 360 and *remove* them from the device.
 - **Unload** to send all captured readings to Neptune 360 and *retain* them on the device.

Viewing Meter Information

You can drill down to access meter information for any meter with the status **In Progress**. You can filter a list of meters to either show only missed readings or only captured readings.

Viewing Accounts within a Route

Make sure you select a route with the status In Progress.

Complete the following steps to view accounts within a route.

1. Tap the route for which you want to view the accounts. By default, this screen displays all accounts within the route.

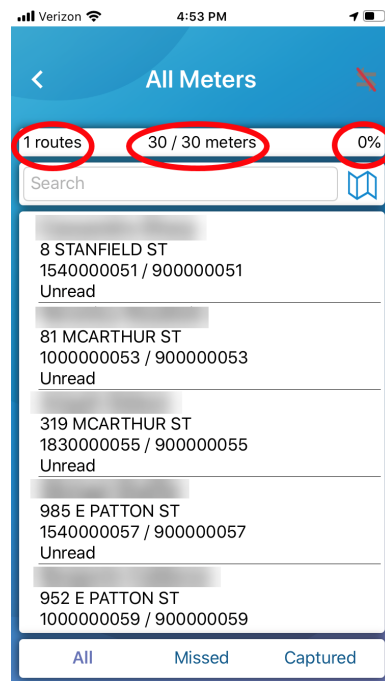


Figure 38 – Viewing Route Accounts

2. To search for a specific account / meter in the list, in the **Search** field, type any part of the following:
 - Account name.
 - Account number.
 - Address.
 - MIU ID.
 - Meter number.

Filtering the List of Accounts

You can filter the list of accounts to display only missed or only captured meters.

1. At the bottom of the Meters screen, tap one of the following:
 - **Missed** to display only meters not yet read within the route.
 - **Captured** to display only meters for which the device captured a reading.

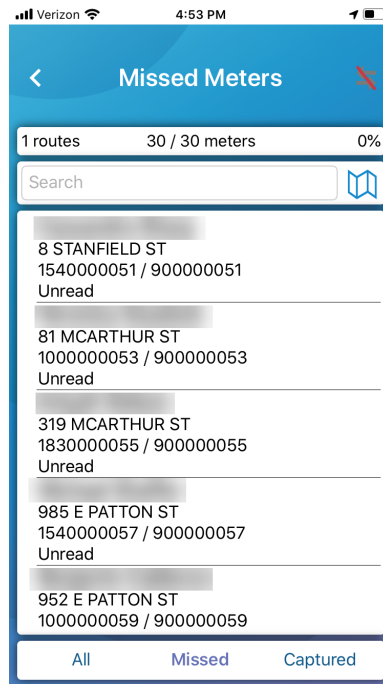


Figure 39 – Filtered Meters List

Viewing Meter Information

You can review the reading information for a specific account / meter.

Complete the following steps to view meter details.

1. In the list of accounts, tap any account to display meter information.

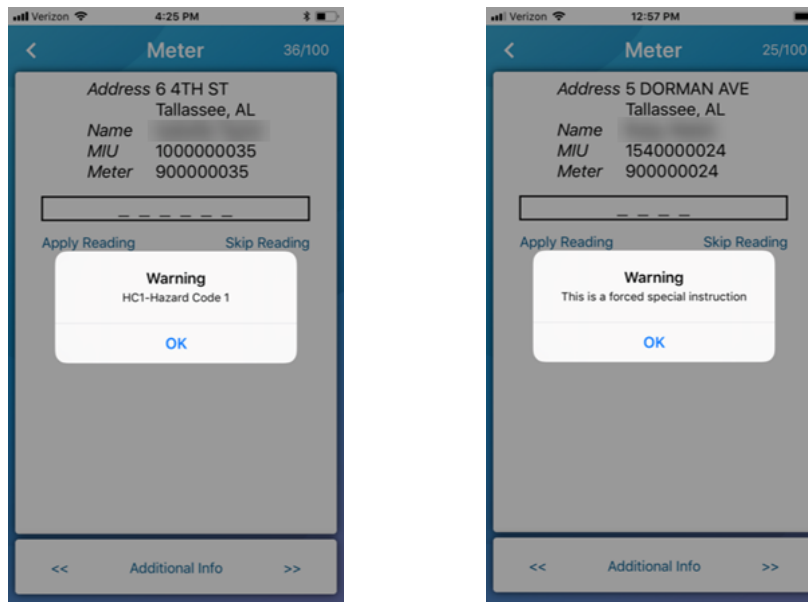


Figure 40 – Warning Messages

2. Tap **OK** in the pop-up warning message to dismiss it. The messages display only if they are set in the import file for a meter. Possible messages indicate the meter has:
 - A Hazard Code associated with it. See "Viewing Meter Details" on page 44 for more information.
 - Special Instructions associated with it. This indicates one or more special instructions are defined for the meter and the flag to force the special instructions is set to **Y**.

In the top right corner of the screen, the numbers indicate the placement of the current account within the total number of accounts in the route.

3. Tap the forward or back arrows at the bottom of the screen to display the next or previous account.

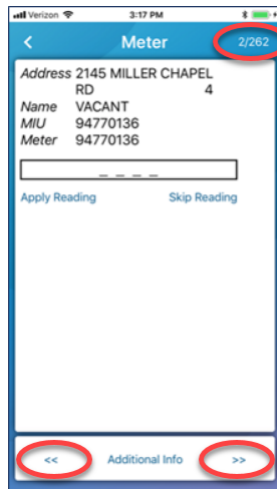


Figure 41 – Meter Screen Navigation

Entering a Manual Reading

On the meter screen, you can manually key a reading. Keyed readings appear in **red**.

Complete the following steps to enter a manual reading.

1. Tap the reading field.

The device's keyboard appears so you can enter the reading.

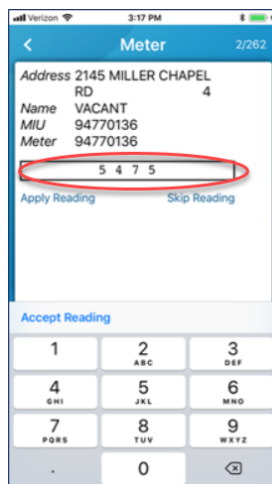


Figure 42 – Manually Entering a Reading

2. Type the reading, and then tap **Apply Reading**.
The app saves the reading and moves you to the next account in the route.

Skipping a Reading

You can skip a reading and apply a skip code to an account. Complete the following steps to skip a reading.

1. On the Meter screen, tap **Skip Reading**.

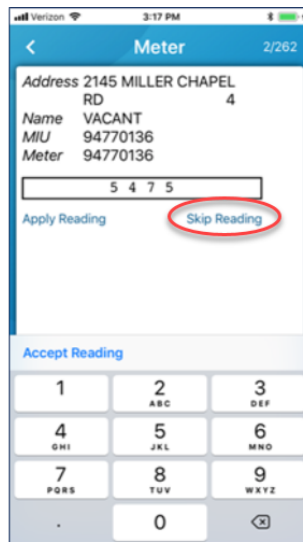


Figure 43 – Skipping a Reading

The system displays the Skip Reading screen.

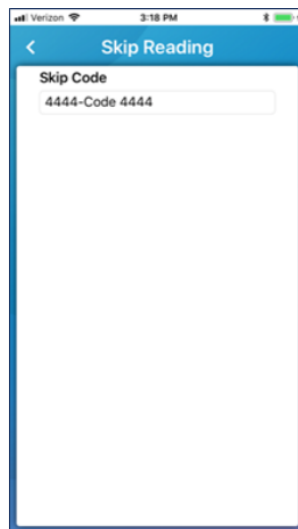


Figure 44 – Skip Reading Screen

2. Tap in the **Skip Code** field, and then select a code from the list.

The system displays the next account in your route.

Removing a Reading

You can remove a captured invalid meter reading and manually key in the correct reading. Invalid readings are any of these values:

- :::::
- UUUUUUUU
- ????????
- MMMMMMMM
- 117440513
- 117440514
- 117440515
- 117440516
- 117440517
- 117440518
- 117440519
- 134217727
- Any value that is more than eight decimals digits

1. In the Meters screen for an account, tap **Remove Reading** to remove the reading.

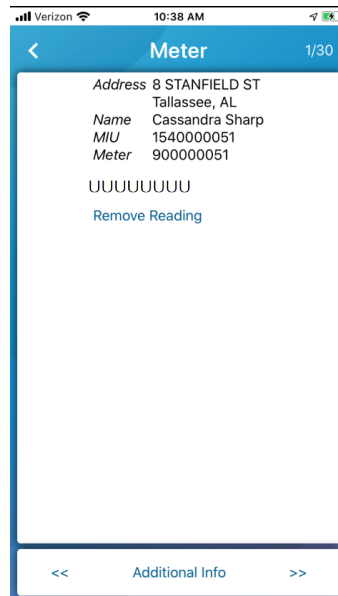


Figure 45 – Removing a Reading

The app redisplay the Meter screen with the reading entry box enabled.

2. Type the new reading into the entry box.

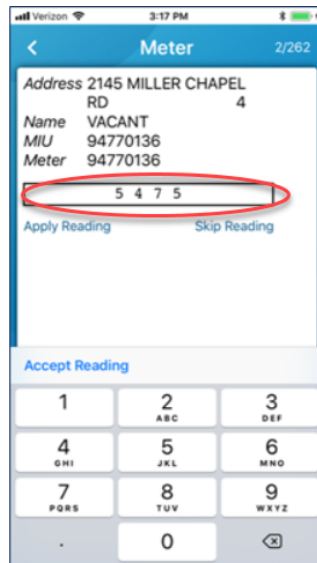


Figure 46 – Keying In a New Reading

Viewing Meter Details

The Meter Detail screen displays additional detail about the account, the meter, and the reading.

1. On the Meter screen, tap **Additional Info**.

The system displays the Meter Detail screen. All information is defined in the Neptune 360 software:

- Route – route number for the account / meter.
- Account Number – number for the account.
- Utility Type – type of utility for the meter reading.
- Meter Type – class of meter.
- Read Type – type of reading on the meter.
- Dials – number of dials on the meter.

- Codes – codes or instructions assigned to the meter including hazard codes, special instructions, meter location codes, read instruction codes, and meter condition codes. Codes are set in the import file that is uploaded into Neptune 360 and you cannot change them.
- Comment codes and associated comments a meter reader assigns.

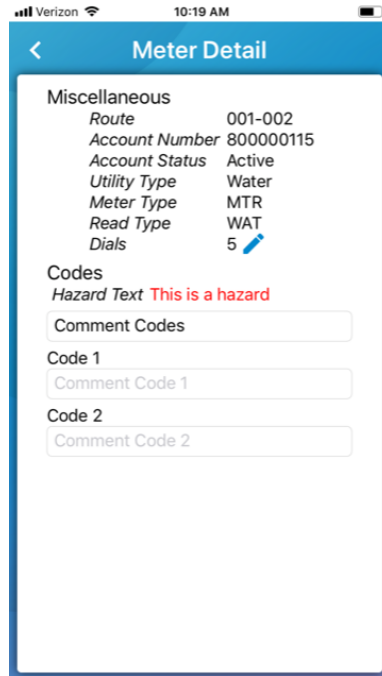


Figure 47 – Meter Detail Screen

Editing Dials

The number of meter dials is defined in the billing files imported into Neptune 360. You can change the number of meter dials your device reads. For example, a utility may be interested in reading only the first four dials.

1. On the Meter Detail screen, tap **Additional Info**.
2. Tap the pencil icon beside **Dials**.
3. Edit the number of dials you want to read for this meter.

Using the Map Function

For utilities that purchase Mobile Mapping (included with a Neptune 360 Advanced Subscription), the feature allows you to visually track meters and your meter reading progress. You must enable your device's location permission to enable the functions and track your movements on the map. You can:

- Locate meters, which show as pins on the map.
- Determine meter status based on the pin color.

- Toggle the map style between street and satellite.
- See your current location on the map and where you have been on your route.

Displaying the Map Style

You can toggle between a street map style and the satellite map style.

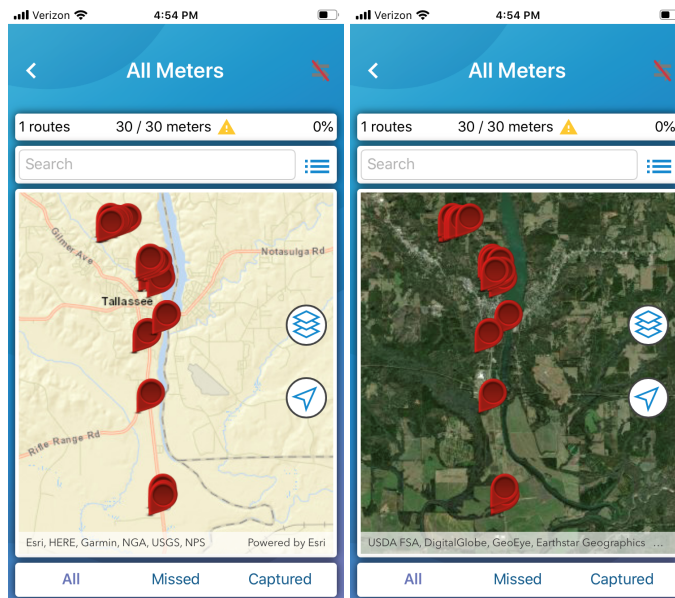



Figure 48 – Map Styles

1. After selecting a route, on the Meters screen tap the map icon in the top right corner of the screen.
The system displays the street map by default.
2. To display the satellite map, tap the map style icon .









Reading the Map

Both the street and satellite maps include icons that provide additional information about meters and routes on the map. The following table defines the data on the map view for all meters within the routes.

Table 2 – Map Icons

Icon	Description
	Toggles between the street and satellite map image.
	Map centering function around your device location is off when you zoom or pan the map display.

Table 2 – Map Icons (continued)

Icon	Description
	Device marker that shows your device location and points in the direction your device is moving. The system tracks and moves the icon in real time.
	Toggle that displays the travel trail behind your device marker.
	Toggle that hides the travel trail behind your device marker. You control the display of the travel trail by starting and stopping the meter reading function. See "Reading Meters" on page 27 for more information.
Pin icon (any color)	Indicates a meter location. A meter must have the latitude and longitude defined in your Neptune 360 import file. When you read a meter, the related pin changes color in real time based on the status.
 Green pin	You have read this meter.
 Green pin with flag	A reading with a flag that indicates one of the following: <ul style="list-style-type: none"> • Continuous consumption. • Intermittent consumption. • Major or minor reverse flow. • No flow. • Continuous consumption recorded for a minimum of 35 days.
 Red pin	You have not read this meter.
	If one or more meters within a route are missing latitude and longitude coordinates, the warning icon displays. When you tap it, the system displays "Some meters are missing coordinates and are not displayed on the map." The travel trail and meter status icons persist on screen for a maximum of 24 hours, or until you sync the readings with the web application. See "Syncing or Unloading Captured Readings" on page 37 for more information.
	Displays the list of meters in the selected route.

Displaying Pin Details

You can display the details for each meter pin on the map, regardless of the status (color) of the pin.

1. Tap the pin for which you want to display details.
The system adjusts the map to show the pin you tapped in the center of the map and displays the following:
 - Customer name.
 - Address .
 - MIU / meter ID.
 - Reading – if you have not captured a reading, the pin is red and the label is Unread. If applicable, an associated flag displays to the right of the reading.
2. Tap the space beside the reading to display the pin in the Meters screen.

Chapter 6: Reading and Logging Pressure

Pressure readings include the Meter Interface Unit (MIU) ID, the pressure graph, and the high and low limits for the pressure log. Like the meter readings, the system stores a maximum of 96 days of pressure readings.



A pressure monitor attached to an MIU is required to take pressure readings.

Capturing a Pressure Reading

To take a pressure reading, verify that your device is paired with an R900[®] BCT or MRX920[™].

To capture a pressure reading, follow these steps.

1. In the app, tap **Pressure**.

The following screen appears.



Figure 49 – Pressure Reading Screen

2. In the **MIU ID** field, type the ID number for an MIU.
3. Tap **Capture** to obtain the pressure reading for the MIU.

The app can wait up to 30 seconds to receive the pressure reading. The reading displays in the center of the gauge and the needle indicates the pressure range, which should be in the green zone.

Viewing Logged Pressure Readings

The pressure log displays the pressure data logged for an MIU. A pressure log displays the following information:

- MIU ID.
- Dates of the previous 96 days.
- Time the data was retrieved (in 24-hour format).
- High and low limits.

To log the pressure reading for an MIU, follow these steps.

1. In the app, tap **Pressure**.
2. Tap **Pressure Log** in the bottom right corner of the Pressure screen.

The system displays the following screen.

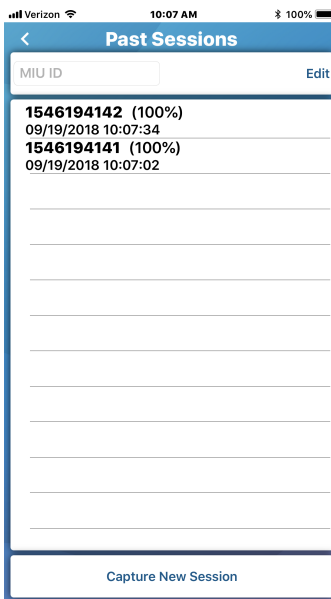


Figure 50 – Past Pressure Readings

3. Tap a past session to display the pressure log for the session.

- To search for the pressure log of a specific MIU, type the ID for the MIU in the **MIU ID** field.

The system displays the log.

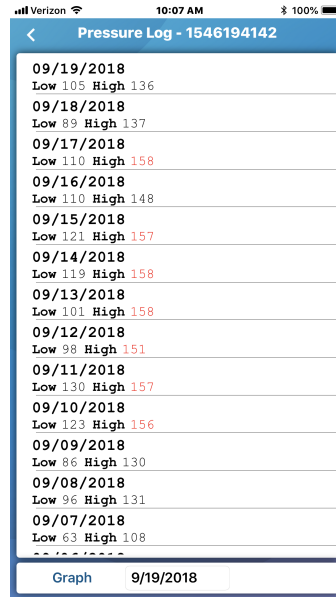


Figure 51 – Pressure Data Log

Deleting a Past Pressure Log Session

You can delete past pressure log sessions from the device.

To delete a past pressure log session, follow these steps.

- Tap **Edit** in the top right of the Past Sessions screen.
- Select the sessions you want to delete, and then tap **Delete** in the bottom left corner of the screen.

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B

BCT

Belt Clip Transceiver.

I

IR

Infrared.

M

MIU

Meter Interface Unit.

O

OEM

Original Equipment Manufacturer.

R

RF

Radio Frequency.

T

transceiver

Device that transmits and receives communications, in particular a combined radio transmitter and receiver.

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