



Neptune® 360™
Mobile Users' Guide
Version 1.5.5



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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.

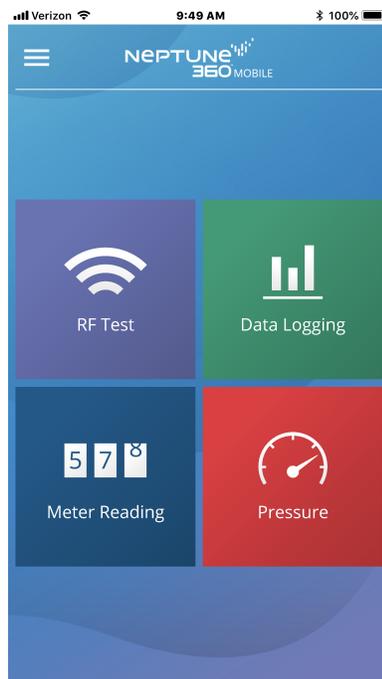


Figure 1 – Neptune® 360™ Mobile Main Screen

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.
- 11.0.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.
- 14.
- 15.

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 belt clip transceiver.
 - Mobile data collector v3 on Android.
 - Mobile data collector 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 a belt clip transceiver.

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.

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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 an endpoint.

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.

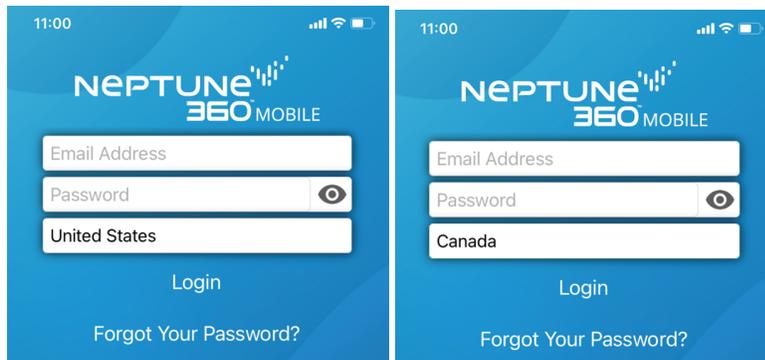


Figure 2 – Login Screen

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**.
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.

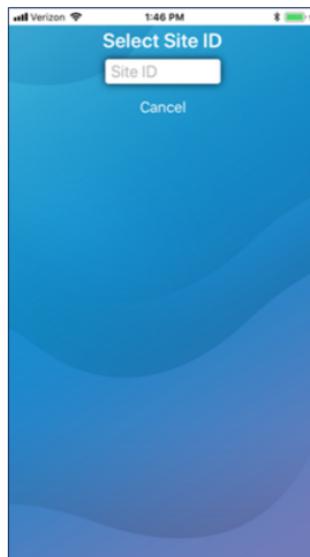


Figure 3 – Select Site ID Screen

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.

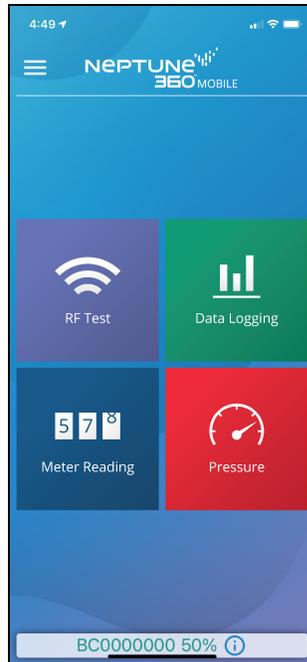


Figure 4 – Selecting a Function

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.



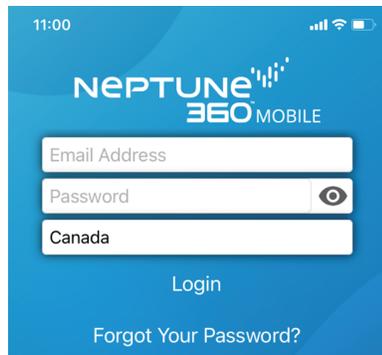
Figure 5 – Neptune® 360™ Menu Options

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

Resetting Your Password

You can reset a password from your device in the field, without having to call your administrator to reset it for you. You need a network connection to be able to send the reset password email and access the link in the email.

1. Open the app.
The Login screen is displayed.
2. Below the Login button, click **Forgot Your Password?**



2. Type the email address you use for Neptune 360.
3. Click **Send Password Reset**.
4. Click **OK** to acknowledge the sent email message.
5. Follow the prompts in the email to reset your password.

Unlocking Locked and Inactive Accounts

If you are locked out of your Neptune 360 account, the app displays a message indicating your account is locked. Reasons for a locked account include:

- Three or more faulty attempts at logging in to the system.
- Your account is currently inactive.
- An administrator has manually locked your account or set it to inactive.

1. Click **OK** to clear the locked account notification.
2. Contact the administrator for your utility to unlock your account.

Pairing a Receiver

Before reading meters, you must pair your device with a receiver. A typical receiver used is a 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 "Pairing a Belt Clip Transceiver" below, or "Pairing a Mobile Data Collector" on page 11.

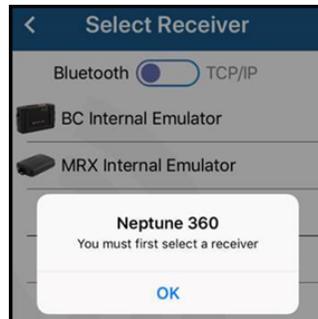


Figure 6 – Selecting a Receiver

Pairing a Belt Clip Transceiver

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

1. Turn on the belt clip transceiver and place it in **Normal Mode**. The LED color for Normal Mode is green. For more information about the 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 7 – Pairing a Belt Clip Transceiver

4. Tap **Receiver**.
5. Tap the serial number of the belt clip transceiver in the list to pair with it. If the belt clip transceiver 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 belt clip transceiver displays in green text.

Receiver Settings

After you pair a belt clip, on the home page you see the belt clip ID in green and an **Info** button you click to display the Receiver Info screen. The RF Mode field on this screen enables you to select the RF mode. You can choose between efficiency and performance, which improves or decreases RF performance and inversely decreases or increases battery life for the receiver.

- Performance Mode – increases the speed of processing readings, but can reduce battery life of the receiver.
- Efficiency Mode – reduces the speed of processing readings, but helps save the battery life of the receiver.
- Moderate Mode – default mode. Functions between the two other options in terms of processing speed and battery life.

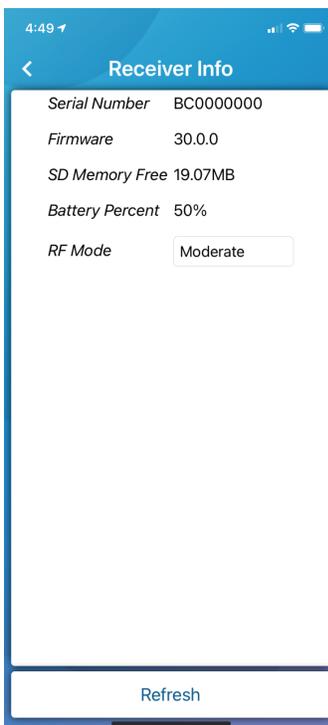


Figure 8 – Receiver Information

Pairing a Mobile Data Collector

Complete the following steps to pair your device with a mobile data collector.

1. Turn on the mobile data collector and wait approximately one minute for the receiver to gain full power. See the "*Mobile Data Collector Getting Started Guide*" for the steps to plug in the power cable and install the mobile data collector 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.

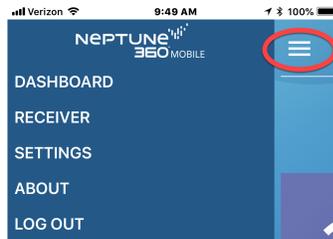


Figure 9 – Pairing a Mobile Data Collector

4. Tap **Receiver**.
5. Tap the serial number of the mobile data collector to pair with it. If the mobile data collector 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 mobile data collector displays in green text.

Modifying the Neptune® 360™ Settings

You can configure the Display Previous Readings setting for Neptune 360 Mobile when you first set up your web application system. You define this setting within Neptune 360. The setting has a Yes or No option:

- Display Previous Readings – displays the previous reading for each meter, using the Prev Read field from your import file.



If any of the Neptune 360 Mobile Settings are changed, users actively logged into Neptune 360 Mobile must log out and log back in to the application to receive the updated settings.

- Display High / Low Limits – displays the high limit and low limit for each meter, using the High Limit and Low Limit fields from your import file.
- Apply High / Low Limits – verifies captured readings against the high and low limits set for each meter.



If you manually enter a reading greater than or less than a meter's limits, the system prompts you to confirm whether the entered reading is correct. You do not need to enter the reading again. The system labels manually-entered readings outside the limits as Keyed High or Keyed Low. Confirmation prompts do not appear for radio or probed readings that are greater than or less than limits. However, the readings are still labeled as Radio High or Radio Low.

- Force Reading Reentry – requires meter readers to type the same reading again for verification, if manually-entered readings match the high or low thresholds.



You can only enable this reading if the Apply High / Low Limits setting is enabled.

Editing the Settings

Follow these steps to edit the Neptune 360 Mobile Settings within Neptune 360.

1. In the Settings page, select **Neptune 360 Mobile Settings**, and then click **Edit** to enable the settings.
2. Select **Yes** or **No** as the desired setting in each field.
3. Click **Save** to save the settings.

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.

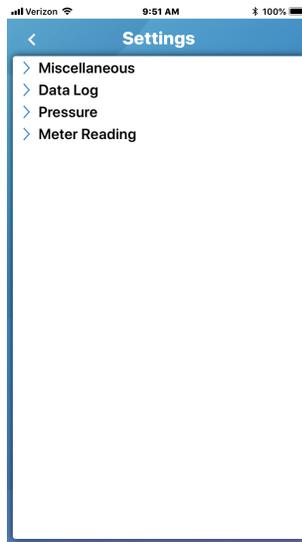


Figure 10 – Mobile Settings

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.

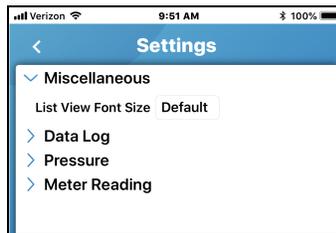


Figure 12 – Miscellaneous Settings

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.



Figure 13 – Menu Icon

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

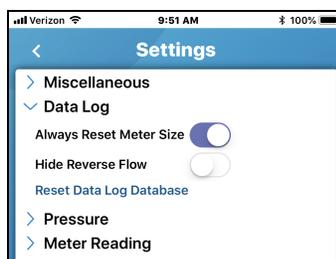


Figure 14 – Data Log Settings

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 21.
 - **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 Warning Limits

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.

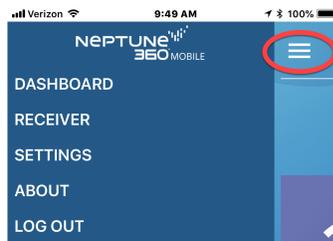


Figure 15 – Menu Icon

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



Figure 16 – 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.



Figure 17 – Menu Icon

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

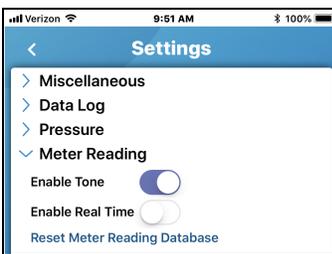


Figure 18 – Meter Reading Settings

4. Slide the buttons to the right for the options you want to enable:
 - **Enable Tone** – play a tone when a reading is captured.
 - **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.

The RF Test feature allows you to verify that your device can receive readings from an endpoint using a paired belt clip transceiver or mobile data collector.

Receiving Transmissions

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

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

The system displays the RF Test screen.



Figure 19 – RF Test Screen

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

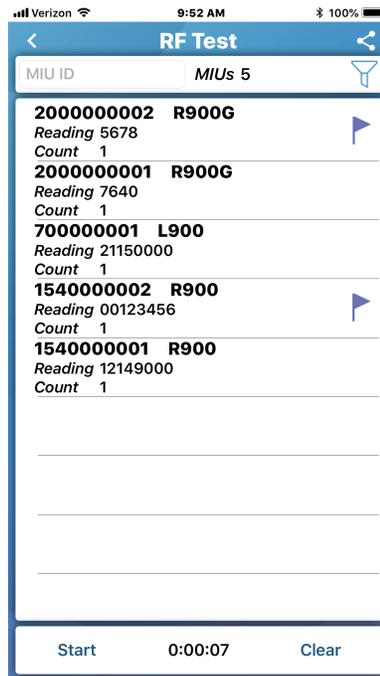


Figure 20 – RF Test Transmissions

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



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

Searching for Endpoints

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

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

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

Filtering Endpoints

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

Complete the following steps to filter the endpoints.

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



Figure 21 – Filtering the Endpoints List

2. Select the desired filter options.

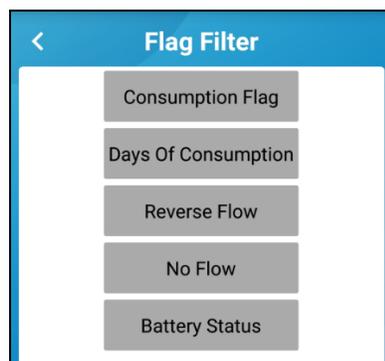


Figure 22 – Selecting Filters

Viewing Transmission Details

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

1. Tap the 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.

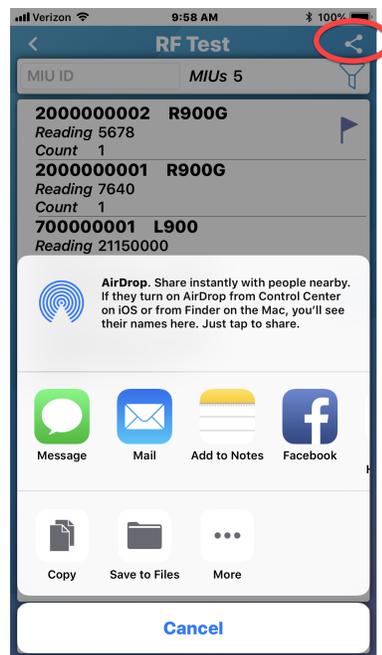


Figure 23 – RF Test Sharing Options

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 endpoints. 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 endpoint.

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.

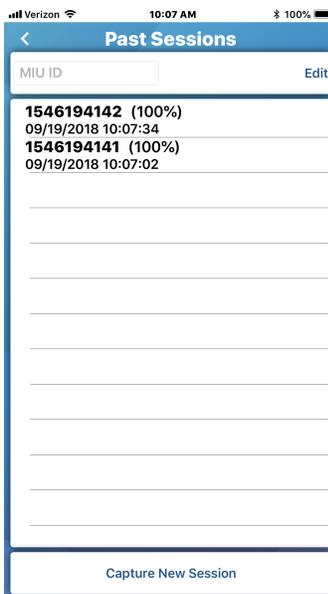


Figure 24 – Past Data Log Sessions

2. Tap a session.

The app displays the data log for that session. You can search for a data log of a specific endpoint. See "Searching for Endpoints" on page 18.

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 a belt clip transceiver or mobile data collector.

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

1. Tap **Capture New Session**.

The system displays the Capture Settings screen.

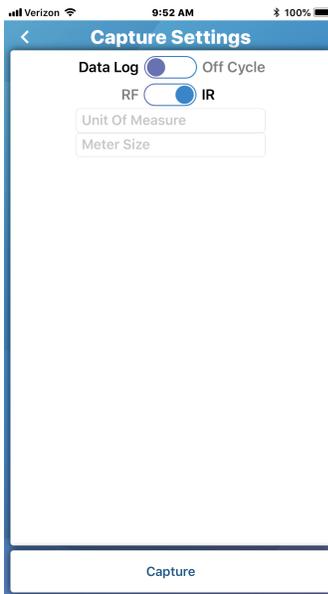


Figure 25 – Capture Settings Screen

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 endpoint.
5. Tap **Unit Of Measure** and select the desired unit of measure.
6. Tap **Meter Size** and scroll to select the size.

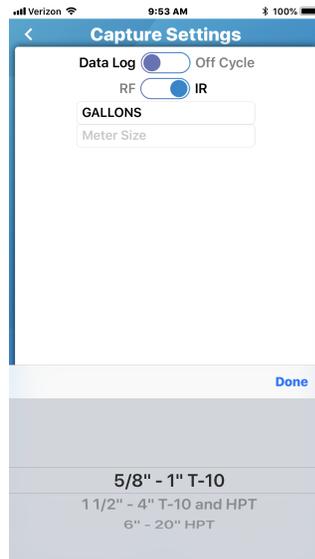


Figure 26 – Selecting the Meter Size

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.

The screenshot shows the 'Data Log - 1546194142' screen on a mobile device. At the top, there is a back arrow, the title 'Data Log - 1546194142', and status icons for Verizon, signal strength, time (10:08 AM), and battery (100%). The main content is a list of data log entries, each with a date, a 'Reading' value, and a 'Consumption' value. The entries are as follows:

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		

At the bottom of the screen, there is a 'Graph' button, a date selector set to '9/19/2018', and a 'Meter Size' dropdown menu.

Figure 27 – 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.

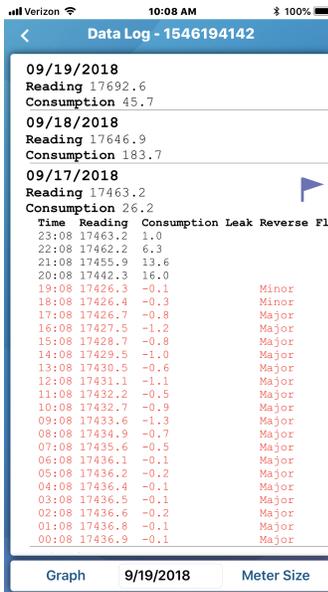


Figure 28 – Hour-by-Hour Data Log Readings

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.

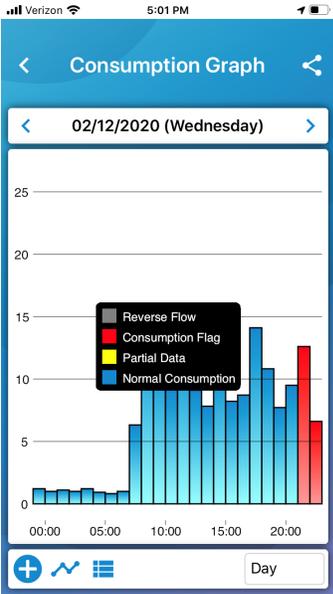


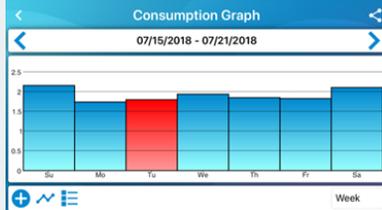
Figure 29 – Log Data as a Graph

- 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

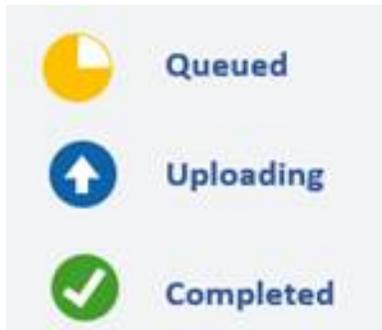
View Option	Description
<	Move to the previous day's readings according to the interval in the bottom right corner of the screen.
>	Move to the next day of the readings based on the interval in the bottom right corner of the screen.
Interval	Tap the interval field in the bottom right corner of the screen 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: <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="511 798 747 945" style="background-color: #333; color: white; padding: 5px; margin-top: 10px;"> <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="503 1039 885 1249" style="border: 1px solid #00aaff; padding: 5px; margin-top: 10px;">  </div>

Viewing Data Log Status

There are three statuses that the data log can display:



- Queued – the Data Log is loaded to be transmitted, but transmission is pending the user's access to cell service to push it to the Web app.
- Uploading – the Data Log transmission to the Web app is in progress.
- Completed – the Data Log has successfully transmitted to the Web app.

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.

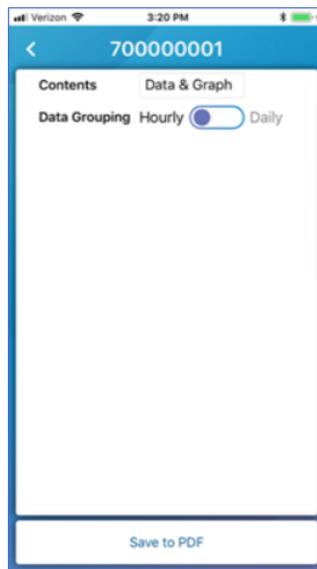


Figure 30 – Selecting the Graph Format

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.

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.

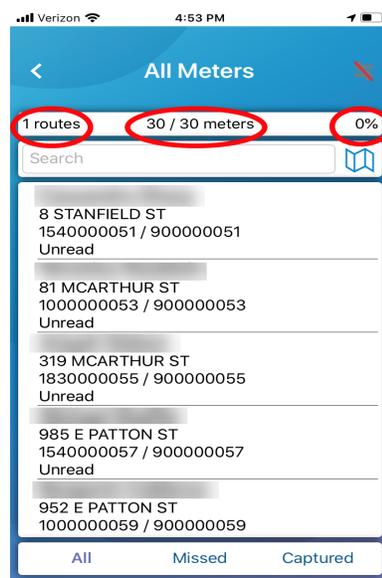


Figure 31 – Meters Screen

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.

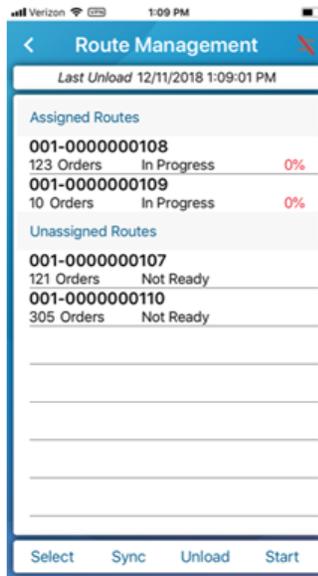


Figure 32 – Route Management Screen

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.

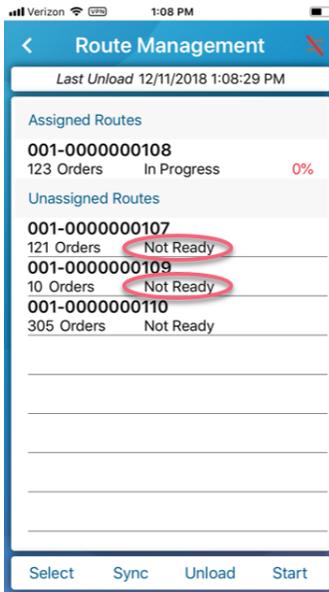


Figure 33 – Unread Routes



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.

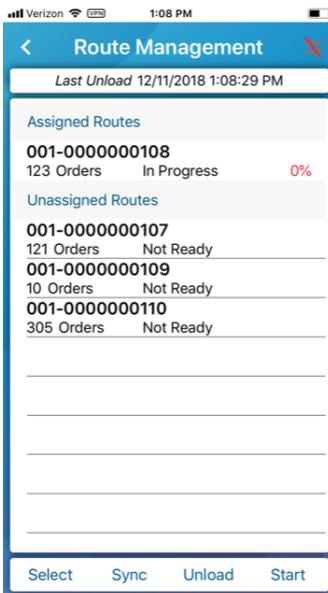


Figure 34 – Selected Routes

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.

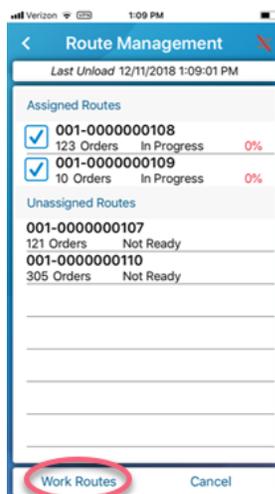


Figure 35 – Work Routes View

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.

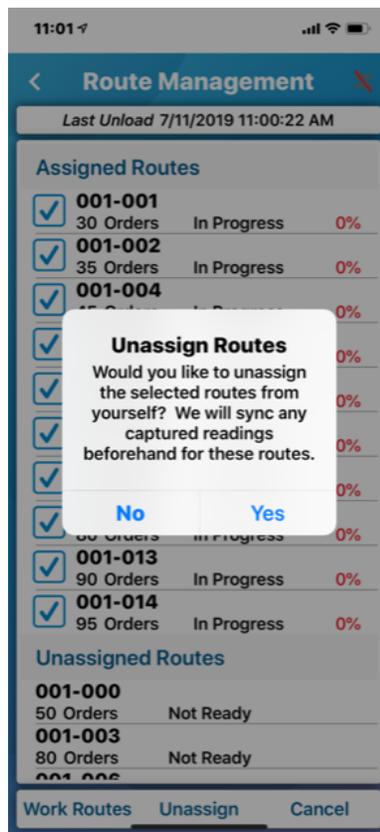


Figure 36 – Unassign Routes Confirmation

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 mobile data collector. 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.

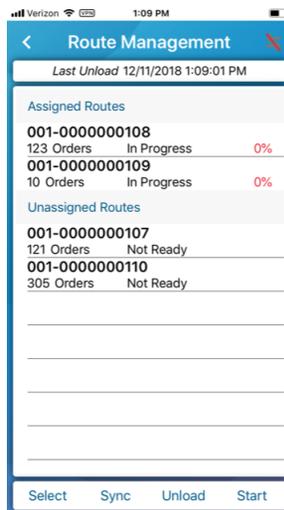


Figure 37 – Reading Meters

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 9.
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 39.

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 38 – 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.

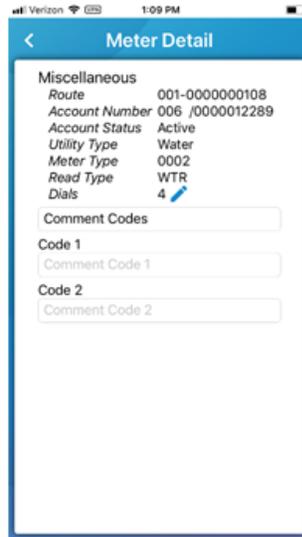


Figure 39 – Comment Code

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. If you have at least one reading captured, Neptune Mobile does not automatically sync with Neptune 360, so follow this procedure any time you want to sync your readings.



Neptune 360 Mobile must be connected to a network for syncing to occur.

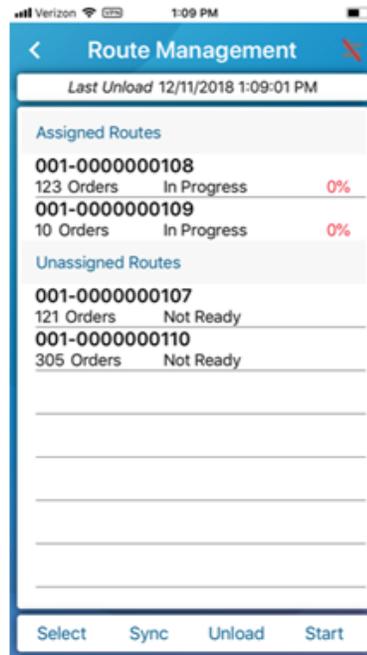


Figure 40 – Captured Readings

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.

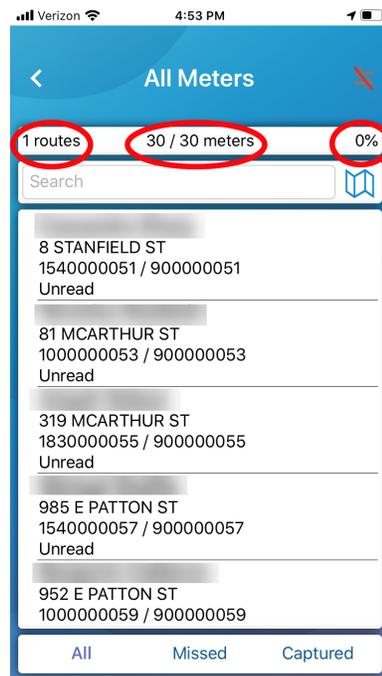


Figure 41 – Viewing Route Accounts

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.

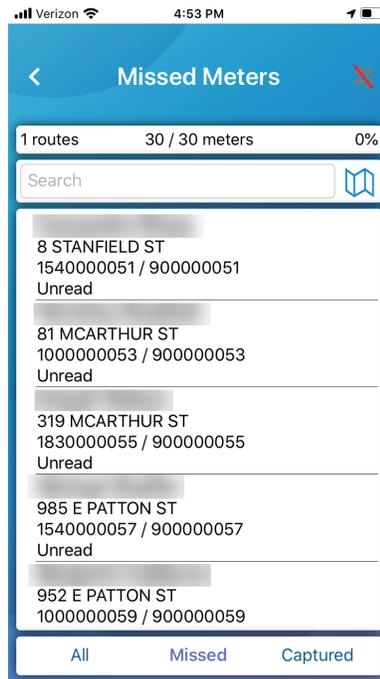


Figure 42 – Filtered Meters List

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.

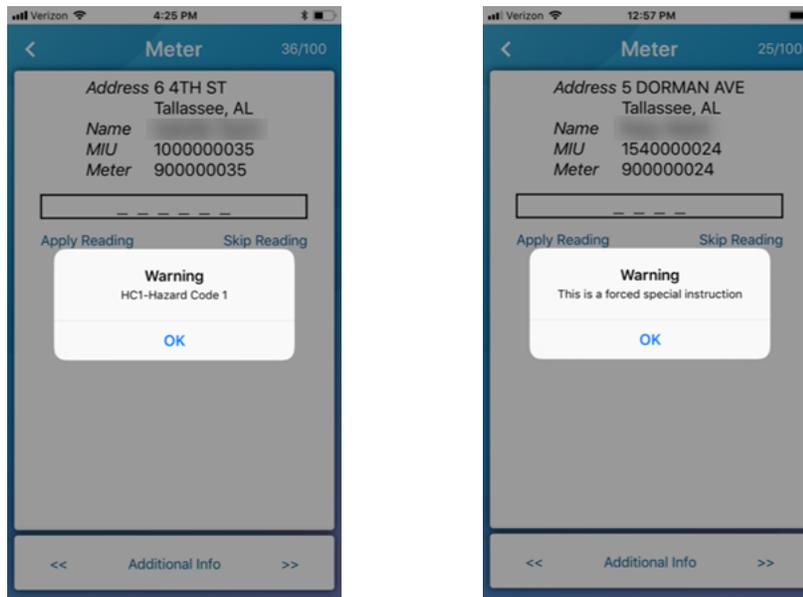


Figure 43 – Warning Messages

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 47 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.

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

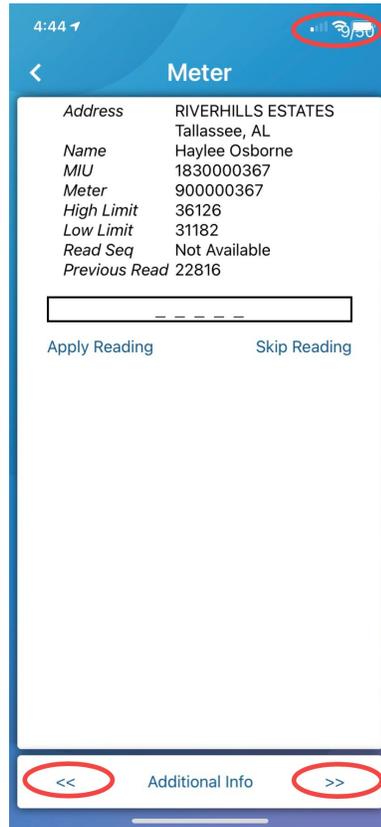


Figure 44 – Meter Screen Navigation

The following table defines the data that appears on the Meters screen.

Table 2 – Meter Screen Fields

Field	Description
Address	Physical address where the meter is located.
Name	Name on the account.
MIU	ID for the endpoint connected to the meter.
High Limit	Highest reading expected for the meter, as determined by the billing system.
Low Limit	Lowest reading expected for the meter, as determined by the billing system.
Read Seq.	Meter reading order, as determined by the billing system.
Previous Read	Recent previous reading for the meter.

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.

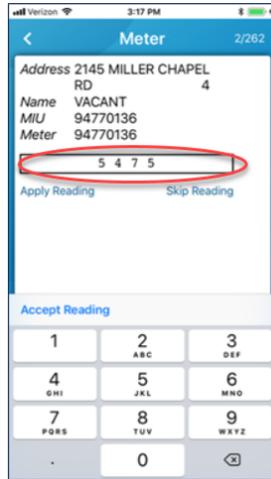


Figure 45 – Manually Entering a Reading

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**.

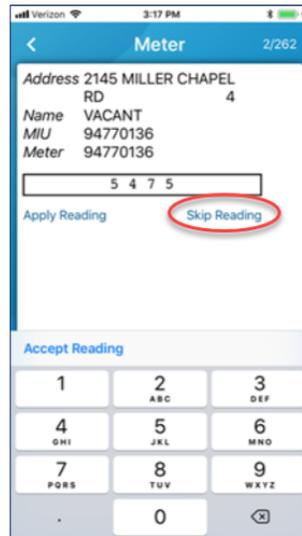


Figure 46 – Skipping a Reading

The system displays the Skip Reading screen.



Figure 47 – 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 digits

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

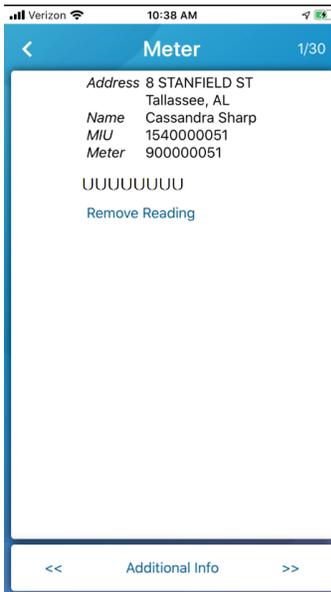


Figure 48 – Removing a Reading

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

2. Type the new reading into the entry box.

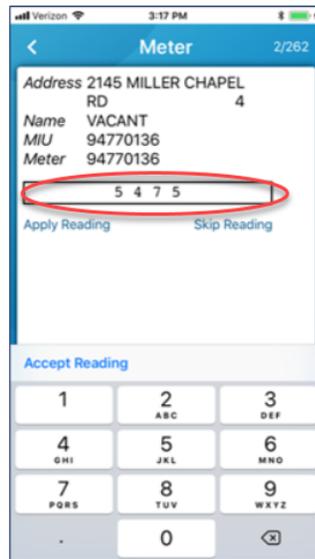


Figure 49 – Keying In a New Reading

Invalid Readings

Neptune 360 Mobile sounds a tone when your device acquires an invalid reading. On the Meters page, the text for the reading is in red instead of green. When you tap the meter with the invalid reading, the text for the reading on the individual meter page is also in red.



Be sure to enable the sound on your device to hear the tones when you receive an invalid 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.

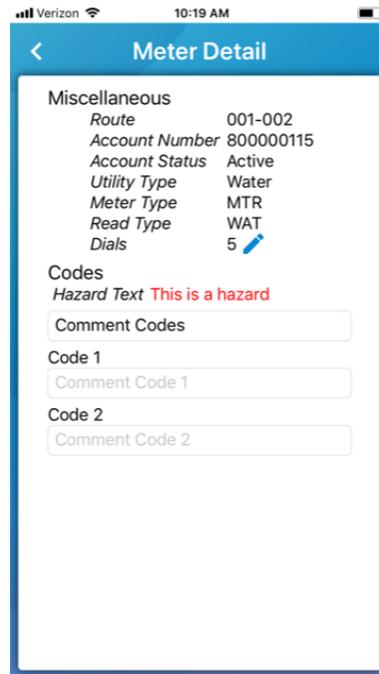


Figure 50 – Meter Detail Screen

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.

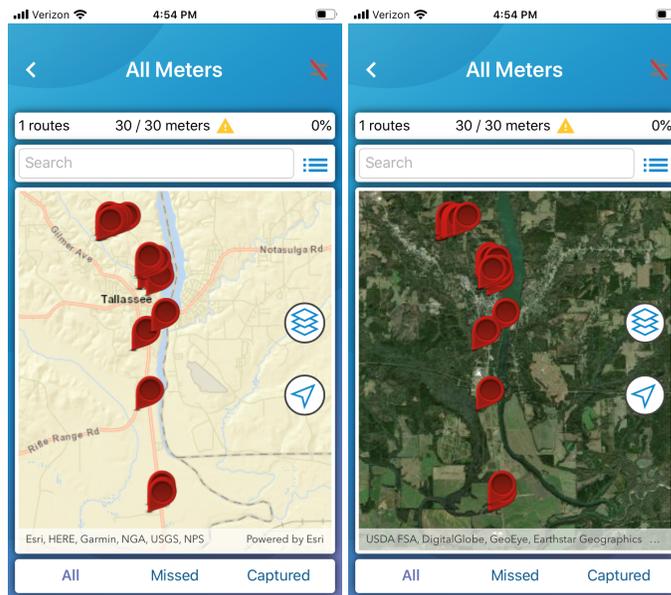


Figure 51 – Map Styles

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 3 – 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.
	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 29 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 39 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.
 - Endpoint / 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.

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Chapter 6: Reading and Logging Pressure

Pressure readings include the endpoint (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 endpoint is required to take pressure readings.

Capturing a Pressure Reading

To take a pressure reading, verify that your device is paired with a belt clip transceiver or mobile data collector.

To capture a pressure reading, follow these steps.

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

The following screen appears.



Figure 52 – Pressure Reading Screen

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

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 endpoint. A pressure log displays the following information:

- Endpoint 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 endpoint, 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.

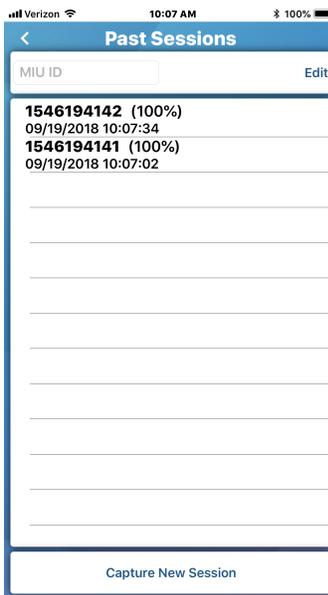


Figure 53 – Past Pressure Readings

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

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

The system displays the log.



Figure 54 – 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.

E

Endpoint

A piece of equipment that collects water usage readings, such as a meter.

I

IR

Infrared.

M

MIU

Meter Interface Unit, also called an endpoint.

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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