

PARKING LOGIX™ OPENSOURCE™ USER GUIDE



OpenSpace™ User Guide

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Chapter 1

INTRODUCTION

OpenSpace™ Overview

The OpenSpace™ Parking Solution is designed to alert passing motorists of available parking spaces in your (nearby) facility.

The system is comprised of wireless vehicle detection devices (sensor-enabled speed humps) which count vehicles as they enter and leave the facility, and a Variable Messaging Sign (OpenSpace VMS) to indicate to motorists how many parking spaces are currently available.

With a full range of features including user-friendly software, low power consumption, vandal resistance, and universal mounting brackets, the OpenSpace Parking Availability Indicator is the most simple, accurate and cost effective parking space counting system.

Components

- » OpenSpace Speed Humps
- » OpenSpace VMS – Variable Messaging Sign
- » OpenSpace Pro – Software pre-installed on Windows Tablet
- » Windows Tablet or Laptop – Uses the pre-loaded OpenSpace Pro application to control the sign remotely via Bluetooth
- » OpenSpace Repeater – Used to amplify the sensor signals when the humps are far from the sign
- » *(Optional)* Solar panel for VMS
- » *(Optional)* Solar panel(s) for Repeater(s)

About this User Guide

This guide describes how to configure and use the OpenSpace Pro application to manage your parking facility with OpenSpace. It is intended to be used by anyone responsible for running and managing a parking facility with OpenSpace. It contains information on the following:

- » Configuring the Sign
- » Managing the Sensor/Hardware Network
- » Generating Reports and Charts

Documentation Conventions

This document uses the following formatting conventions:

Format	Description
Bold Gray	Used in procedures to indicate menu commands, interface controls and dialog box options.
<i>Italics</i>	Used to place emphasis on certain words.
Monospace text	Is used for code samples and any information that the user enters.
<i>Italicized monospace text</i>	Used to indicate text that you should replace with your own. For example: In the Save As text box, enter c:\ <i>filename</i> . <i>ext</i> where <i>filename</i> . <i>ext</i> is the name of the file you want to save.
>	Used to indicate a sequence of commands (and sub commands) to be carried out in the displayed order. For example File > Exit means to open the File menu then choose the Exit command. This applies to menus from the main menu bar, context menus that appear when you right-click on the interface, and tiles in a tiled interface.



NOTE: Notes are used as reminders or to provide information of interest that supplements or emphasizes important points of the main text.



TIP: Tips are used to suggest alternative methods, workarounds and/or shortcuts that are not essential but that you may find useful in a given situation.



CAUTION: Cautions are used to advise users of specific actions that could result in a loss of data.



WARNING: Warnings are used to advise users of specific actions that could result in personal physical injury or damage to equipment.

Contacting Technical Support

If you have questions or comments regarding OpenSpace™, please feel free to contact our technical support center by phone: 1 (877) 727-5423, or by email: support@parkinglogix.com

Chapter 2

GETTING STARTED WITH OPENSOURCE™

Introduction to the OpenSpace Pro Application

OpenSpace includes the OpenSpace Pro application which allows you to configure and control the parking solution. Installed on the included tablet and/or laptop, it connects to the sign via Bluetooth and effectively acts as a remote control.

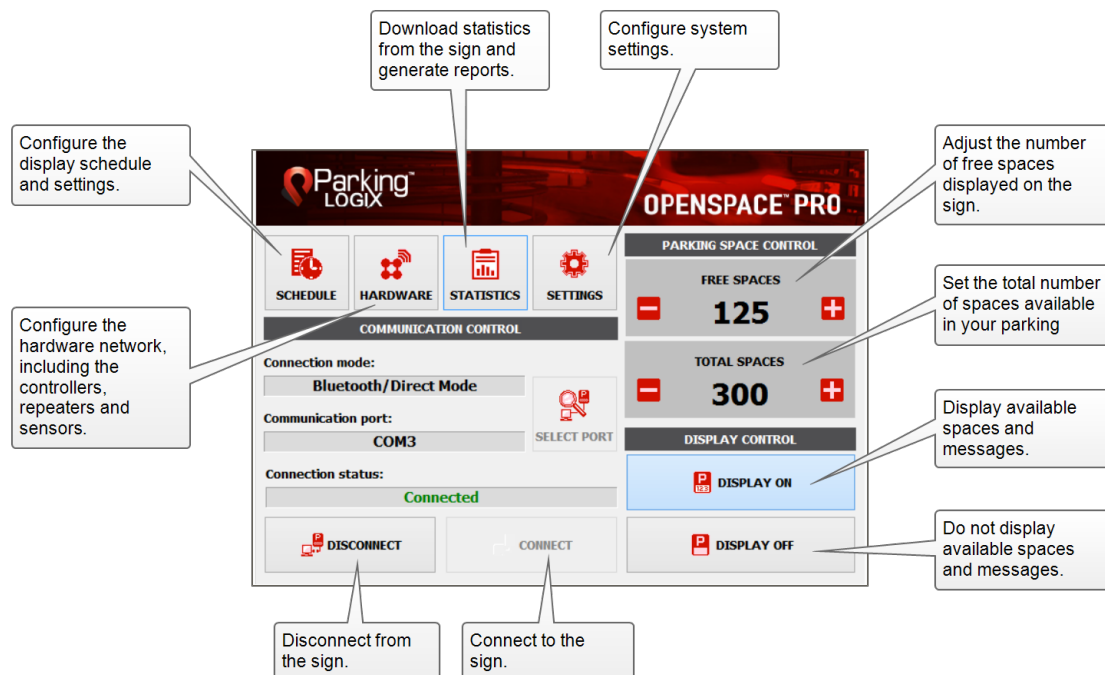
The interface of the OpenSpace Pro application is designed to allow you to complete many of your basic daily tasks from the main interface. Some of the typical tasks are as follows:

- » Setting the total number of spaces available in your parking facility.
- » Setting and adjusting the number of free spaces available.
- » Turning the sign display on and off.
- » Connecting to and disconnecting from the sign.

To launch OpenSpace Pro:

- » From the Windows desktop, click the OpenSpace Pro icon.

Once you launch OpenSpace Pro the application is displayed as follows:



Connecting to the OpenSpace VMS

Your OpenSpace Pro application should have been pre-configured with the necessary communication settings for your sign, sensors and any repeaters. You can connect to any of your signs or repeaters to control your OpenSpace installation.

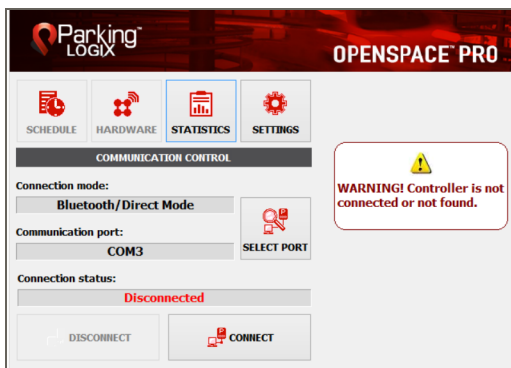


NOTE: If you have any difficulty connecting to the sign, please contact Technical Support. See *Contacting Technical Support* on page 9.

To connect OpenSpace Pro to the sign:

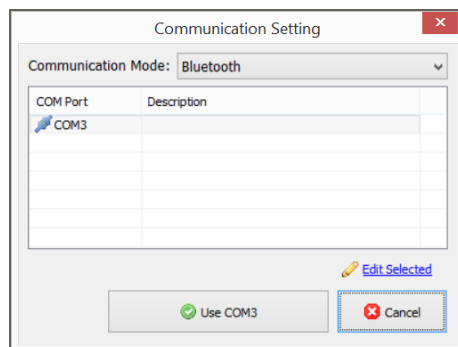
1. Launch the OpenSpace Pro application.

The application is displayed as follows:



2. If necessary, do the following to select the proper port for your sign or repeater.
 - A. Click the **Select Port** button.

The Communication Setting dialog is displayed.



- B. Set the **Communication Mode** to **Bluetooth**.
 - C. Select the COM Port assigned to your sign.
 - D. Click the **Use COMx** button, where x is the COM port assigned to your sign.
3. In the main interface click the **Connect** button.

You are now connected to the sign.

Setting the Number of Parking Spaces

Once you are connected to the sign you can begin to specify the necessary settings for your parking facility. The OpenSpace Pro application allows you to specify the total number of spaces that your parking facility contains and the number of available (free) spaces in your facility.

When setting the number of spaces, you may want to consider the following:

- » If you leave 2-5% of spaces free at all times it can reduce search times for the last customers and maximize customer service. You can do this by setting the Total Spaces counter to less than the actual total number spaces.
- » If you have nested areas for monthly or contract customers, we recommend that you omit those spaces from your count of total spaces.



TIP: You may wish to consider using additional OpenSpace Speed Humps at the entrance/exit of nested areas to provide you with an accurate count of available spaces in the rest of your facility.

- » If your facility occasionally runs a temporary valet service to increase capacity, then you can adjust the Total Spaces counter to reflect the change in capacity before you start the valet service and again once the service is finished.
- » OpenSpace does not currently differentiate between accessible and non-accessible spaces.
- » Despite its high level of accuracy, OpenSpace is not 100% accurate and you may need to reset the counter on occasion.
- » The system counts motorcycles as 1 space.

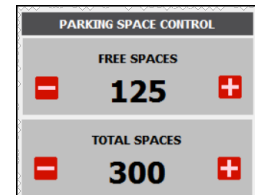
Use the Parking Space Control to set the number of parking spaces.

To specify the total number of spaces in your facility:

- » From the main interface, click the **Total Spaces** counter then enter the total number of spaces in your facility.

To specify the number of free spaces in your facility:

- » From the main interface, click the **Free Spaces** counter then enter the number of free spaces in your facility.



When you press enter the OpenSpace VMS sign changes to reflect the number of free spaces you specified.

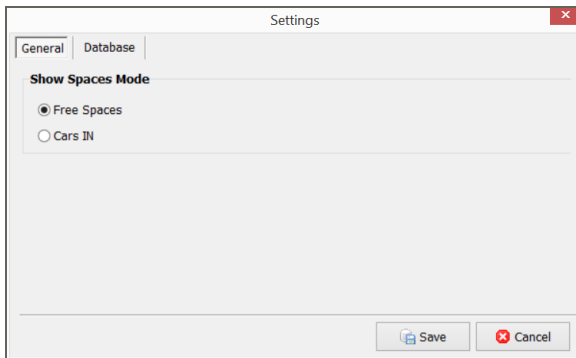
Specifying the number of Occupied Spaces

OpenSpace Pro also provides you with an alternative method of specifying the number of free spaces in your facility. You can put the software in Cars IN mode which will allow you to specify the number of spaces that are currently occupied in the facility. When you enter that value OpenSpace Pro calculates the number of free spaces available based on the total number of spaces and the number of occupied spaces. The sign will continue to display the number of free spaces.

To specify the number of occupied spaces:

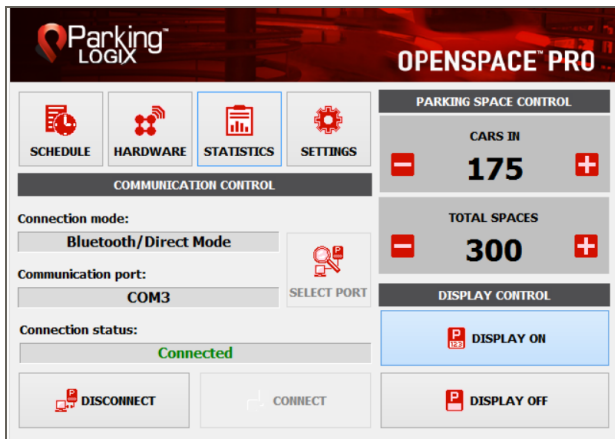
1. In the OpenSpace Pro main interface click the **Settings** button.

The Schedule dialog box is displayed.



- On the General tab, select the Cars IN, then click Save.

The OpenSpace Pro interface now displays a Cars IN counter instead of a Free Spaces counter.



- Click the Cars IN counter then enter the number of occupied spaces in your facility.

When you press enter the OpenSpace VMS sign changes to reflect the number of free spaces you specified.

Turning the Display On and Off

The OpenSpace VMS sign turns on as soon as you connect it to a power source, and remains on as long as it is connected to a power supply. However, you can turn the display of the sign on and off, for example to indicate that the facility is open or closed. For this you can use the Display Control section of the OpenSpace Pro interface.



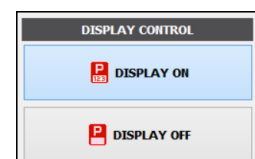
NOTE: The Display Control affects all of the signs in your network simultaneously. As a result, if you have more than one OpenSpace VMS sign, when you turn the display off, the display is turned off for all of your signs.

To turn the display on:

- » In the Display Control section click **Display On**.

To turn the display off:

- » In the Display Control section click **Display Off**.



Chapter 3

CONFIGURING OPENSOURCE™

About the Settings Dialog Box

The Settings dialog box allows you to configure some of the basic settings of the OpenSpace Pro software. It consists of two tabs: General and Database.

To access the Settings dialog box:

- » In the OpenSpace Pro main interface click the **Settings** button.
The Schedule dialog box is displayed.

General Tab

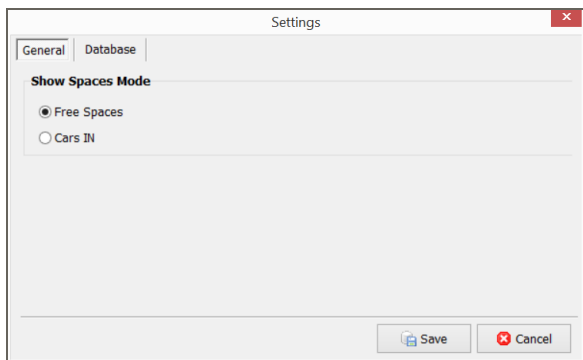


Figure 1: The General tab of the Settings dialog box

The General tab is displayed by default when you access the Settings dialog box. This tab allows you to specify the Show Spaces Mode of the OpenSpace Pro software. It contains the following options:

Option	Description
Free Spaces	The application displays and allows you to enter the number of Free Spaces in your facility.
Cars IN	The application displays and allows you to enter the number of occupied (Cars IN) spaces in your facility. note: This option does not affect the display of the OpenSpace VMS. It is used as an alternative method of calculating the Free Spaces available and the sign continues to display the Free Spaces available.

Database Tab

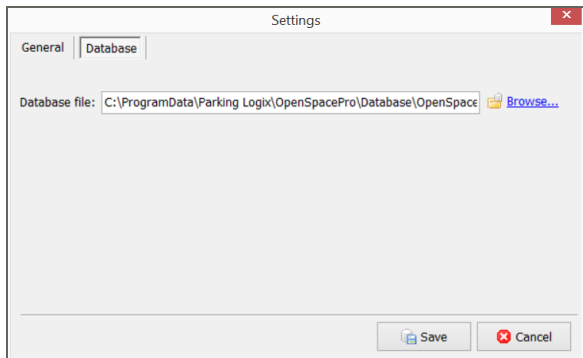


Figure 2: The Database tab of the Settings dialog box

The Database tab allows you to select the database file used to store the parking statistics. It contains the following parameters and controls:

Option	Description
Database file	Indicates the database file currently being used.
Browse	Allows you to select the database file to use.

Selecting a Database File

To select a database file:

1. Click the **Browse** link.
A File Open dialog is displayed.
2. Navigate to the location of the database file
3. Select the file then click **Open**.
The File Open dialog closes and the path to the selected file is displayed in the Database file parameter.
4. Click **Save**.

About the Schedule Dialog Box

The Schedule dialog box allows you to configure what your OpenSpace VMS sign displays and when it's displayed. This includes the following:

- » Designate space minimums
- » Schedule counter resets
- » Designate display messages
- » Manage the display schedule

Accessing the Schedule Dialog Box

To access the Schedule dialog box:

- » In the OpenSpace Pro main interface click the **Schedule** button.

The Schedule dialog box is displayed.

Day of the Week	Time ON	Time OFF
Mo,Tu,We,Th,Fr	07:00AM	11:00PM
Sa	07:00AM	11:59PM
Su	12:00AM	04:00AM
Su	10:00AM	09:00PM

This dialog box contains the following settings and controls:

Item	Description
Message to show when free spaces are less than or equal to:	Specifies a minimum value for the Free Spaces counter. You can then specify what the sign displays when the counter is equal to or less than this value.
Show "FULL" Message	Specifies that the sign displays "FULL" when the Free Spaces counter is equal to or less than the minimum value.
Show "x" Message	Specifies that the sign displays the minimum value when the Free Spaces counter is equal to or less than the minimum value.
Reset counter to Total Spaces when Parking is closed	Automatically resets the Free Spaces counter when the facility is closed. The count is set to equal the total number of spaces available in the facility.
Show "XXXX" Message when Parking is closed	Displays "XXXX" on the sign when the parking facility is closed. Otherwise, the display is turned off when the facility is closed.

Item	Description
Parking is Always Open	Specifies that the display should remain on at all times.
Scheduled Open Hours	Specifies that the display should remain on according to the defined schedule for the parking facility.
Day of the Week	Displays the days of the week covered by the schedule record.
Time ON	Displays the time at which the facility opens on the specified day(s).
Time OFF	Displays the time at which the facility closes on the specified day(s).
Add New Record	Launches the Schedule Record dialog to allow you to add a new record to the sign schedule.
Edit Selected	Launches the Schedule Record dialog to allow you to modify the selected schedule record.
Delete Selected	Deletes the selected schedule record.

Specifying when to Display the "Full" Message

By default your OpenSpace VMS sign displays a "Full" message once the number of free spaces reaches zero. You can, however, reserve spaces in your lot by having the sign display the "Full" message once it gets down to a set number of free spaces. For example: To reserve 25 spaces in your facility, you can configure the sign to display "Full" once there are only 25 free spaces available.



NOTE: This allows you to reserve spaces in your facility for monthly and contract customers. However, we recommend that, in this case, you inform these customers that they can park in the facility even if the sign says "Full".

To specify when to display the "Full" message:

1. From the main interface of OpenSpace Pro, click the **Schedule** button.

The Schedule dialog is displayed.

2. In the **Message to show when...** box, specify the number of spaces you want to reserve.
3. Select **Show "FULL" Message**.
4. When you are finished, click **Save**.

Managing the Display Schedule

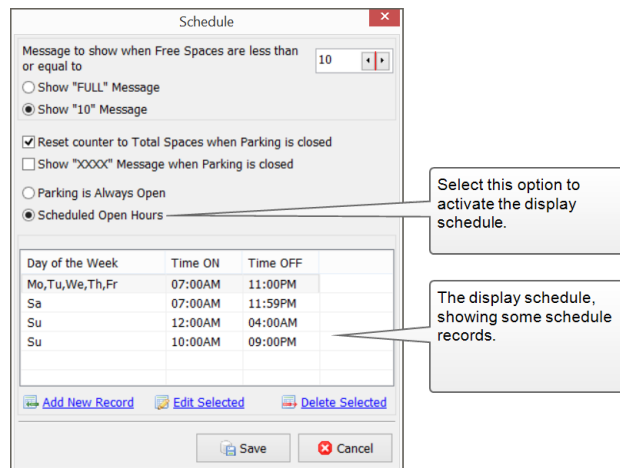
The display schedule is meant for facilities that open and close according to a set regular schedule. It allows you to configure the sign to only display the number of available spaces when the facility is open.

Managing the display schedule involves adding, modifying and removing records to create a schedule which reflects the opening hours of your parking facility.

To manage the display schedule:

1. From the OpenSpace Pro main interface, click **Schedule**.

The Schedule dialog box is displayed.



2. Select the **Scheduled Open Hours** option.
3. Add, modify and delete records as necessary to create the schedule.

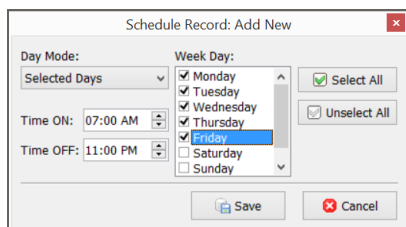
Adding Records to the Display Schedule

You can add records to the schedule to reflect a distinct set of opening and closing hours. For example, Mondays to Fridays from 6:00 am to 7:00 pm or Sundays from 12:00 pm to 6:00 pm.

You can create multiple records with multiple opening and closing times per day. However, each record can have only one opening time and one closing time.

To add records to the display schedule:

1. Click the **Add New Record** link.
The Schedule Record dialog box is displayed.



2. Modify the required settings.
3. When you are finished, click **Save**.

The Schedule Record dialog box closes and the new record is displayed in the Schedule dialog box.

Opening Hours Spanning Multiple Days

A typical example of having to create multiple records with multiple opening and closing times per day is when your opening hours span multiple days (e.g. opening past midnight). In this case, you need to create one record for the initial day, with a closing (Time OFF) time of 11:59 pm. Then create another record for the second day with an opening (Time ON) time of 12:00 am.

For example: if your facility opens on Saturday from 7:00 am to 4:00 am on Sunday and is then open on Sunday from 10:00 am to 9:00 pm, you need to create the following records.

Day of the Week	Time ON	Time OFF
Saturday	7:00 AM	11:59 PM
Sunday	12:00 AM	4:00 AM
Sunday	10:00 AM	9:00 PM

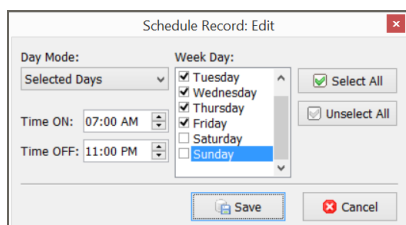
Modifying Records in the Display Schedule

You can modify the existing records in the schedule should you need to reflect a change in the schedule of the facility.

To modify records in the display schedule:

1. Select the record you want to modify then click the **Edit Selected** link.

The selected record is displayed in the Schedule Record dialog box.



2. Modify the required settings.
3. When you are finished, click **Save**.

The Schedule Record dialog box closes and the modified record is displayed in the Schedule dialog box.

Deleting Records from the Display Schedule

To delete records from the display schedule:

1. Select the record you want to delete then click the **Delete Selected** link.
2. When prompted, click **Yes** to confirm the deletion.

The selected record is removed from the schedule.

About the Schedule Record Dialog Box

Use the Schedule Record dialog box to create and modify the schedule records for your facility. Each record created defines an opening and closing time for your facility on the selected days.

It is possible to create multiple records and have multiple opening and closing times for any given day of the week. However, you are responsible for making sure that the times do not overlap. In the case of overlapping times the display will go on at the earliest time and go off at the latest time.

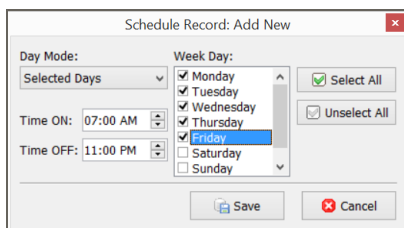


Figure 3: The Schedule Record dialog box

This dialog box contains the following settings and controls:

Item	Description
Day Mode	Provides several predefined Week Day selection options. You can select from the following: <ul style="list-style-type: none"> • Every day • Weekdays • Weekend • Selected Days
Time ON	Specifies the time at which the facility is scheduled to open on the selected day(s).
Time OFF	Specifies the time at which the facility is scheduled to close on the selected day(s).
Week Day	Specifies the day(s) of the week that the schedule applies to.
Select All	Selects all of the Week Day options.
Unselect All	Deselects all of the Week Day options.

Accessing the Schedule Record Dialog Box

You can access the Schedule Record dialog box from the Schedule dialog box only.

To access the Schedule Record dialog box:

In the Schedule dialog box, select **Schedule Open Hours**, then do one of the following:

- » Click **Add New Record**.
- » Select a schedule record then click **Edit Selected**.

About the Sensor Network Dialog Box

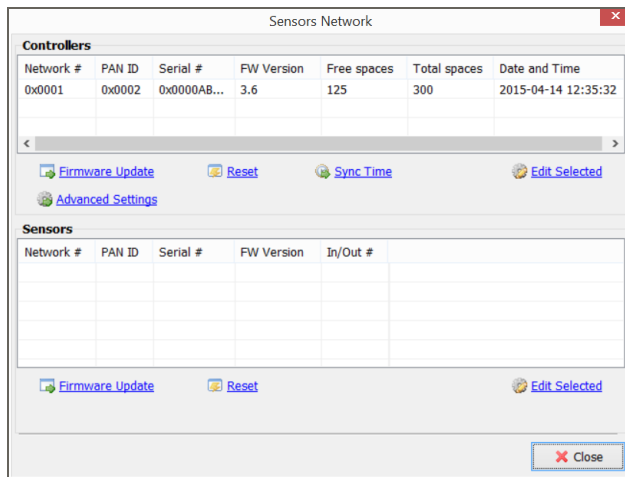
The Sensor Network dialog box allows you to view and configure the controllers (signs and repeaters) and sensors in your OpenSpace system or network. As your OpenSpace system comes pre-configured for your needs you should not need to use this unless directed to by one of our Technical Support agents.

Accessing the Sensor Network Dialog Box

To access the sensor network dialog box:

- » In the OpenSpace Pro main interface click the **Hardware** button.

The Sensor Network dialog box is displayed.



This dialog box contains the following commands and controls:

Item	Description
Controllers box	Lists any controllers (signs and repeaters) in your network.
Firmware Update	Allows you to update the firmware on the selected controller.
Reset	Restarts the selected controller.
Sync Time	Synchronizes the time on the selected controller with your current machine.
Edit Selected	Allows you to modify the Network and PAN ID of the selected controller.
Advanced Settings	Allows you to set and modify the server connection settings and Day-light Savings Time settings for the controller. These settings are only required in order to use OpenSpace with Web Director. You do not need to configure these settings for typical daily use.
Sensors box	Lists any sensors in your network.
Firmware Update	Allow you to update the firmware on the selected sensor.

Item	Description
Reset	Restarts the selected sensor.
Edit Selected	Allows you to modify the PAN ID of the selected sensor.

Chapter 4

STATISTICS AND REPORTING

About OpenSpace Reports and Charts

OpenSpace keeps statistics on the daily ingress and egress of vehicles in your facility. These statistics are stored in the controller located in the OpenSpace VMS. Using the OpenSpace Pro application, you can connect to any of the signs (or repeaters) in your installation and download those statistics in order to generate reports and charts that can aid in the management and planning for your parking facility.

Types of Reports and Charts

Each of the reports you can generate has an accompanying chart. The types of reports you can generate are as follows:

- » **Weekly Occupancy** - Represents the overall performance of your parking facility over the course of the week.
- » **Daily Occupancy** - Represents the overall performance of your parking facility over the course of a day.
- » **2-Day Occupancy Comparison** - Allows you to compare facility occupancy across two specific days.
- » **Weekly Turnover** - Allows you to see how many times your facility has achieved a "turn" over the course of the day.

A single "turn" refers to the event where a facility's ingress count achieves its total capacity.

- » **Weekly Ingress/Egress (Time)** - Allows you to see how many cars entered your facility over the course of a week, broken down by time slots. It represents a simple sum of cars entering (or exiting) the facility in the specified period of time.
- » **Weekly Ingress/Egress (Total)** - Allows you to see how many cars entered your facility over the course of a week, by sum for each day. The user should have the option of including or excluding weekend days as part of the report.
- » **Daily Ingress Comparison** - Allows you to see the performance of the facility compared between any 2 days.
- » **Daily Ingress / Egress (Total)** - Allows you to see the daily balance of cars in and out of your facility.

Downloading Statistics

In order to generate reports you need to first download the statistics from your OpenSpace VMS sign. As part of the process you will need to identify the location for which you are downloading the statistics. Make sure that you select the correct location, otherwise you may end up with corrupted statistical data.

The downloaded statistics are stored in a local database file on the machine (tablet, laptop or other computer) used to download the statistics.

To download the statistics from the sign:

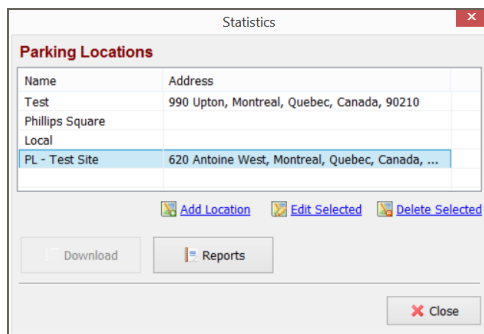
1. If you have not already done so, connect to the sign.



TIP: You can connect to any of the repeaters or signs in your installation to download statistics. However, to make sure that you have contiguous data for your reports, you should always download your statistics to the same machine (tablet, laptop or other computer).

2. Click the **Statistics** button.

The Statistics dialog is displayed.



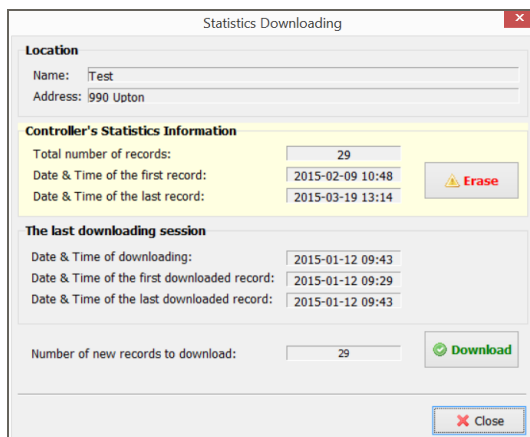
3. In the Parking Locations section, select the location that corresponds to the sign that you are connected to.



CAUTION: Make sure that you select the correct location, otherwise you may end up with corrupted statistical data.

4. Click the **Download** button.

The Statistics Downloading dialog box is displayed.



5. Click the **Download** button.

A progress bar is displayed while the statistics are downloaded and is closed once the download is complete. In the Statistics Downloading dialog box, the Last downloading session section is updated with the information from the current session.

6. If you wish to erase the statistics from the sign, do the following:
 - A. Click the **Erase** button.
 - B. When prompted, click **Yes** to confirm the erasure.
7. When you are finished, click **Close**.

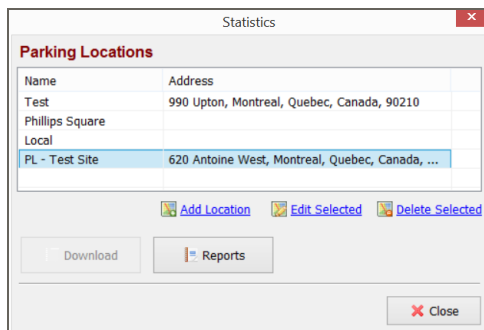
Erasing Statistics from the Sign

Should you need to, it is possible to erase the statistics from the sign without first having to first download them.

To erase the statistics from the sign:

1. If you have not already done so, connect to the sign.
2. Click the **Statistics** button.

The Statistics dialog is displayed.



3. In the Parking Locations section, select the location that corresponds to the sign that you are connected to.
4. Click the **Download** button.

The Statistics Downloading dialog box is displayed.

5. Click the **Erase** button.
6. When prompted, click **Yes** to confirm the erasure.
7. In the Downloading Statistics dialog box, click **Close**.
8. In the Statistics dialog box, click **Close**.

Managing the List of Parking Locations

The Parking Locations section of the Statistics dialog box reflects the fact that you can manage more than one parking location using the OpenSpace Pro application.

Each of the defined locations is stored in a local database file which allows you to differentiate parking statistics from different locations.

Adding New Locations to the List

We recommend that you add your location to the list the first time you connect to the OpenSpace VMS sign. This ensures that your location is stored in the local database file.

To add a new location:

1. Click the **Add Location** link.

The Location Properties dialog is displayed.

2. Specify the name and address information for the new location.

3. When you are finished, click **Save**.

The Location Properties dialog closes and the new location is added to the list.

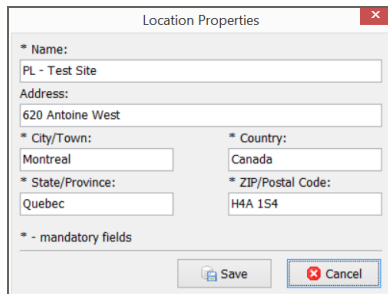
Editing Locations

Each location that is defined in the Parking Locations list is assigned a different ID in the database file. It is this ID which is used to associate these location with the relevant parking statistics. Therefore it is possible for you to modify the details of the parking location without fear of it being dissociated from your statistics.

To edit a location:

1. In the Parking Locations list, select the location you want to modify.
2. Click the **Edit Selected** link.

The Location Properties dialog is displayed.



The screenshot shows a 'Location Properties' dialog box with the following fields and values:

- Name:** PL - Test Site
- Address:** 620 Antoine West
- City/Town:** Montreal
- Country:** Canada
- State/Province:** Quebec
- ZIP/Postal Code:** H4A 1S4

At the bottom, there are 'Save' and 'Cancel' buttons. A note below the fields states: '* - mandatory fields'.

3. Make the necessary modifications.
4. When you are finished, click **Save**.

The Location Properties dialog closes and the updated location is displayed in the list.

Removing Locations

To remove a location:

1. In the Parking Locations list, select the location you want to remove.
2. Click the **Delete Selected** link.
3. When prompted, click **Yes** to confirm the removal.

The selected location is removed from the list.

About the Reports Dialog Box

Use the Reports dialog box to generate reports and charts based on the statistics downloaded from your OpenSpace VMS. This dialog box also allows you to do the following:

- » Print the generated dialogs and charts.
- » Export the dialogs and charts to different file formats (for example Excel, PDF, and JPEG).

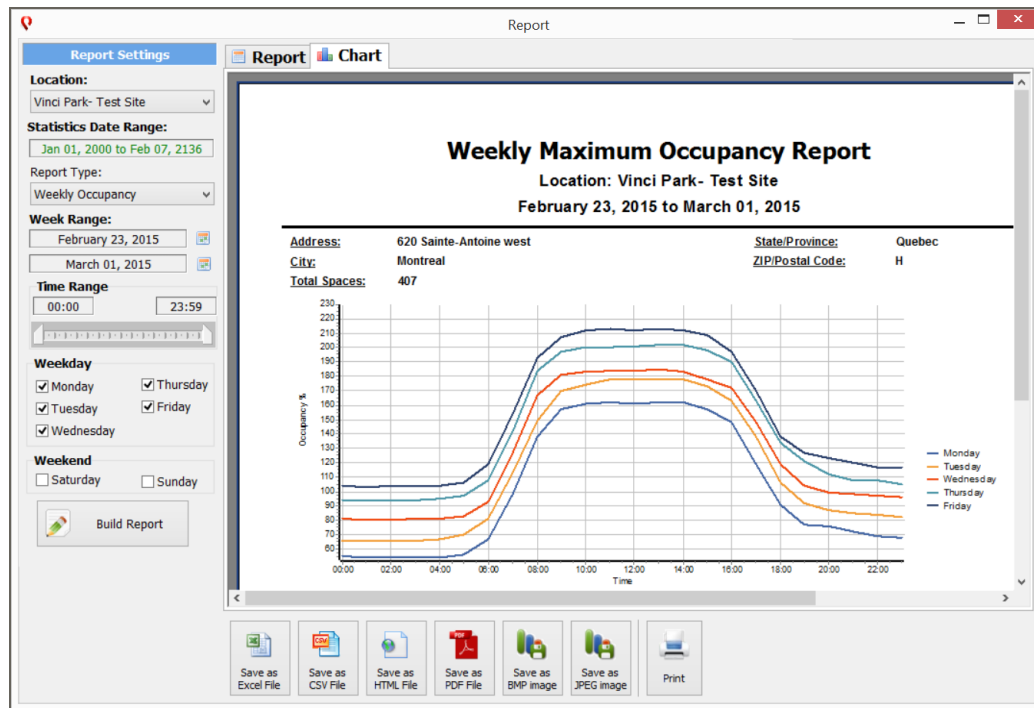


Figure 4: The Reports dialog box

The Reports dialog box contains the following settings and controls.

Item	Description
Location	Selects the location for which you want to generate the report.
Statistics Data Range	Displays the time period for which parking data is available.
Report Type	Selects the type of report you want to generate.
Week Range	Selects the weeks for which you want to generate the report. Used for the following reports: <ul style="list-style-type: none"> • Weekly Occupancy • Weekly Turnover • Weekly Ingress/Egress
Day	Selects the day for which you want to generate the report. Used for the following reports: <ul style="list-style-type: none"> • Daily Occupancy • Daily Ingress/Egress

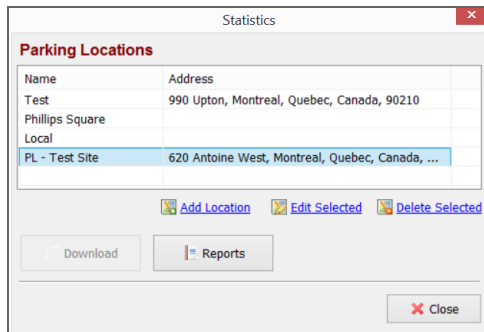
Item	Description
Two Days	<p>Selects the days for which you want to generate the report. Used for the following reports:</p> <ul style="list-style-type: none"> • Two-Day Occupancy • Two-Day Ingress/Egress
Time Range	<p>Specifies the time of day for which you want to generate the report. This allows you to, for example, focus the report on just the morning or afternoon rush hours.</p> <p>This setting is not used for the Weekly Turnover report.</p>
Weekday	<p>Specifies for which days of the week you want to generate the report. Used for the following reports:</p> <ul style="list-style-type: none"> • Weekly Occupancy • Weekly Turnover • Weekly Ingress/Egress
Weekend	<p>Specifies if to include the weekend days in your report. Used for the following reports:</p> <ul style="list-style-type: none"> • Weekly Occupancy • Weekly Turnover • Weekly Ingress/Egress
Build Report button	Generates the selected report using the specified settings.
Report tab	Displays the report in tabular format.
Chart tab	Displays the report in graphical format.
Save as Excel File button	Launches the Export to Excel dialog box to allow you to save the report or chart as an Excel spreadsheet.
Save as CSV File button	Launches the Export to CSV dialog box to allow you to save the report or chart as a comma separated values text file.
Save as HTML File button	Launches the Export to HTML table dialog box to allow you to save the report or chart as an html file.
Save as PDF File button	Launches the Export to PDF dialog box to allow you to save the report or chart as a PDF format file.
Save as BMP image button	Launches the Export Settings dialog box which allows you to save the report or chart as a BMP format image.
Save as JPEG image button	Launches the Export Settings dialog box which allows you to save the report or chart as a JPEG format image.
Print button	Launches the Print dialog box to allow you to print your report or chart.

Accessing the Reports Dialog Box

To access the Reports dialog box:

1. From the OpenSpace Pro interface, click the **Statistics** button.

The Statistics dialog box is displayed.



2. In the Parking Locations section, select the location you want to run reports for, then click the **Reports** button.

The Reports dialog box is displayed.

Generating Reports

You can use the Reports dialog box to generate reports and charts based on the statistics downloaded from your OpenSpace VMS.

The screenshot shows the 'Report Settings' dialog box with the following configuration:

- Location:** PL - Test Site
- Statistics Date Range:** Jan 01, 2000 to Feb 07, 2136
- Report Type:** Weekly Occupancy
- Week Range:** February 16, 2015 to February 22, 2015
- Time Range:** 00:00 to 23:59
- Weekday:** Monday, Tuesday, Wednesday, Thursday, Friday (checked)
- Weekend:** Saturday, Sunday (unchecked)

The 'Build Report' button is highlighted with a callout: 'Click Build Report to generate the report.'

The generated report is displayed in the 'Report' tab, titled 'Weekly Maximum Occupancy Report'. It includes the following information:

- Location:** PL - Test Site
- Address:** 620 Antoine West
- City:** Montreal
- Total Spaces:** 407

Time	Monday %	Tuesday %	Wednesday %	Thursday %	Friday %	MAX %
00:00	2	0	15	25	41	41
01:00	2	0	15	25	41	41
02:00	2	0	15	25	41	41
03:00	2	0	15	25	41	41
04:00	2	0	15	25	41	41
05:00	5	2	19	27	43	43
06:00	18	16	32	39	57	57

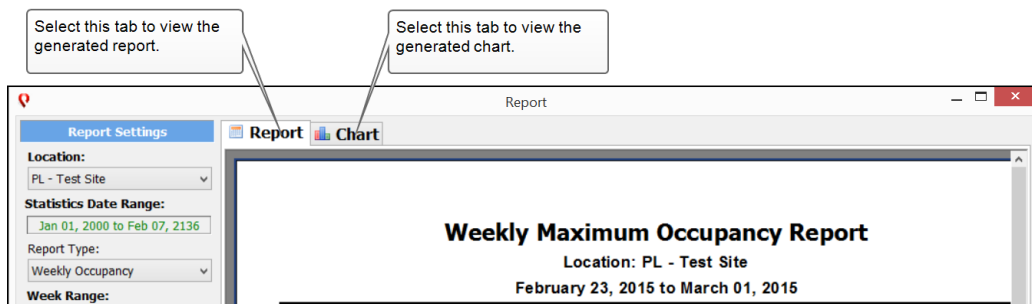
Callouts indicate: 'Select the location.', 'Select the type of report.', 'Select and modify any additional options or settings.', and 'The generated reports or charts are displayed here.'

To generate a report:

1. Click the **Location** list box, then select the location for which you want to generate the report from the drop down list.
2. Click the **Report Type** list box, then select the report you want to generate from the drop down list.
The available options may change depending on the type of report you select.
3. Select and modify any options as required.
For details on the available options, see *About the Reports Dialog Box* on page 32.
4. When you are finished, click **Build Report**.
The report and chart for the selected report type are generated.

Viewing Generated Reports and Charts

When you build a report, both the report and chart are generated simultaneously. However, you can only view or print one or the other at a time.



To view a generated report or chart:

- » Select the corresponding tab in the Reports dialog box.

Exporting Reports and Charts

OpenSpace Pro allows you to save the reports and charts that you generate in several different formats. The supported formats are as follows:

- » Excel spreadsheet
- » Comma Separated Values (CSV) text
- » HTML
- » PDF
- » BMP image
- » JPEG image



NOTE: When you build reports, both the report and chart are built simultaneously. However, when you export, only the currently selected tab (either Report or Chart) is exported.

To export a report:

1. Generate the report that you want to export.
2. Select the **Report** tab.
3. Click the **Save As...** button corresponding to the format you want to export the report to.
An Export... dialog box is displayed. The specific dialog depends on the format you selected.
4. Specify the required settings, then click **OK**.
The Save As dialog is displayed.
5. Specify the name and location of the export file.
6. When you are finished, click **Save**.

To export a chart:

1. Generate the report for the chart that you want to export.
2. Select the **Chart** tab.
3. Click the **Save As...** button corresponding to the format you want to export the chart to.
An Export... dialog box is displayed. The specific dialog depends on the format you selected.
4. Specify the required settings, then click **OK**.
The Save As dialog is displayed.
5. Specify the name and location of the export file.
6. When you are finished, click **Save**.

Printing Reports and Charts



NOTE: When you build reports, both the report and chart are built simultaneously. However, when you print, only the currently selected tab (either Report or Chart) is exported.

To print a report:

1. Generate the report that you want to print.
2. Select the **Report** tab.
3. Click the **Print** button.
The Print dialog box is displayed.
4. Modify any necessary settings, then click **OK**.
The report is sent to the printer.

To print a chart:

1. Generate the report that you want to print.
2. Select the **Chart** tab.
3. Click the **Print** button.
The Print dialog box is displayed.
4. Modify any necessary settings, then click **OK**.
The report is sent to the printer.

APPENDIX A

PREPARING YOUR BLUETOOTH CONNECTION

Prior to starting up the OpenSpace Pro software to connect to and manage your sign via Bluetooth, your PC must be set up to work with the supplied SENA Bluetooth adapter used to “pair” your PC to your OpenSpace VMS sign.

This section provides information about setting up your PC to work with the supplied SENA Bluetooth adapter.

Setting up Windows for the SENA Bluetooth Adapter

Supplied with all signs configured for Bluetooth communication, is a Parani-UD100-G03 SENA Bluetooth Class 1 USB Adapter with Stub Antenna, otherwise referred to as the SENA Bluetooth adapter or dongle.



Figure 5: SENA Bluetooth Adapter/Dongle



NOTE: We strongly recommend that you use the supplied SENA Bluetooth adapter. The integrated adapter that may have come pre-installed on your PC is typically a Class 2 model, which has less range than Class 1 models.

The following table compares the available Bluetooth power classes.

Class	Maximum Power	Operating Range
Class 1	100mW (20dBm)	100 meters (~330 feet)
Class 2	2.5mW (4dBm)	10 meters (~33 feet)
Class 3	1mW (0dBm)	1 meter (~3.3 feet)

To set up Windows with the SENA Bluetooth adapter:

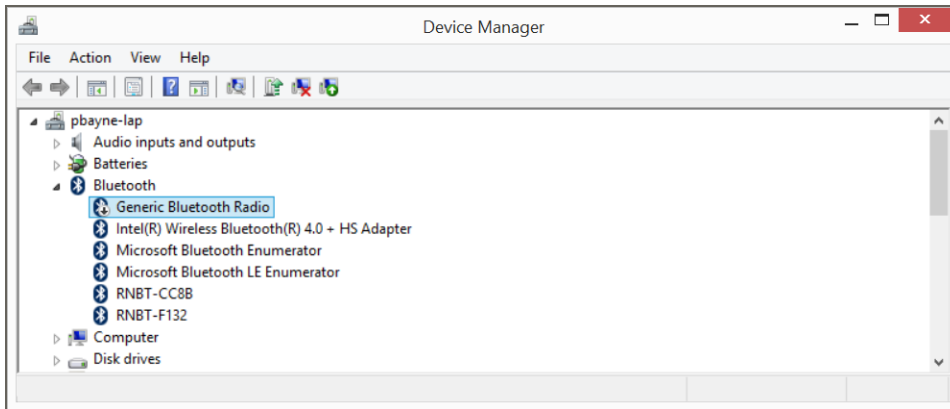
1. Plug the adapter into a USB port on your computer.



NOTE: You may require a USB OTG adapter (male micro USB to female USB) in order to use the SENA adapter with a tablet.

2. Open the Windows Device Manager.

As shown in the following image, when configured and installed by Windows, the SENA adapter should be represented as a Generic Bluetooth Radio or Generic Bluetooth Adapter in Windows Device Manager.



3. If the SENA adapter does not appear in the Windows Device Manager as shown in the preceding image, please contact our Technical Support Department for help in configuring your Bluetooth adapter. See *Contacting Technical Support* on page 1.

Disabling the Integrated Bluetooth Adapter

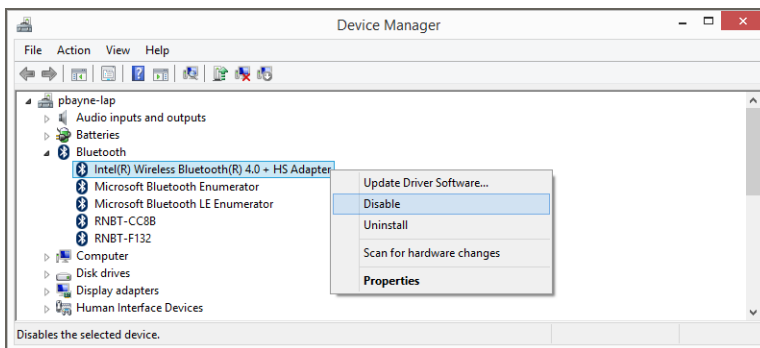
Some integrated adapters may conflict with the SENA adapter, thus we recommend that you disable the integrated adapter *before* you plug in the SENA adapter to connect to your radar sign. You can always re-enable the integrated adapter, after removing the SENA adapter from the USB port, to resume regular Class 2 or Class 3 Bluetooth operation with your PC's integrated adapter.



NOTE: The following procedures require you to have administrator rights on your computer. If you do not have administrator rights or are not comfortable doing these procedures yourself, please contact your IT department for assistance.

To disable the integrated Bluetooth adapter:

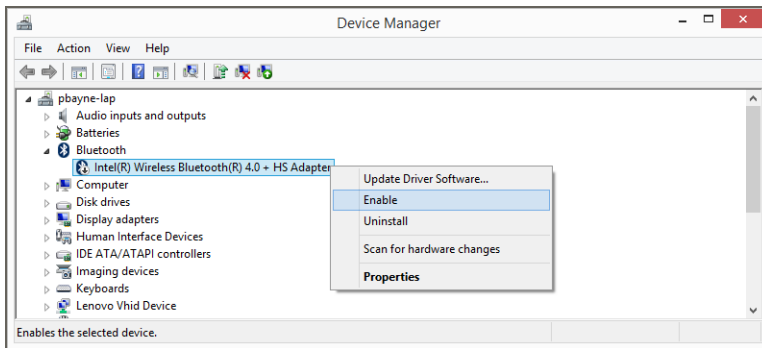
1. Start the **Windows Device Manager**.



2. In the Device Manager window navigate to, and expand the **Bluetooth** item.
3. Right-click on the displayed Bluetooth adapter then choose **Disable** from the menu.
4. When prompted, click **Yes** to confirm the disabling of the adapter.

To enable the integrated Bluetooth adapter:

1. In the Device Manager window navigate to, and expand the **Bluetooth** item.



2. Right-click on the displayed Bluetooth adapter then choose **Enable** from the menu.

Using Other Bluetooth Adapters

If you want to use Bluetooth adapters and software other than those supplied and recommended for use with your sign, refer to the appropriate documentation supplied with them.

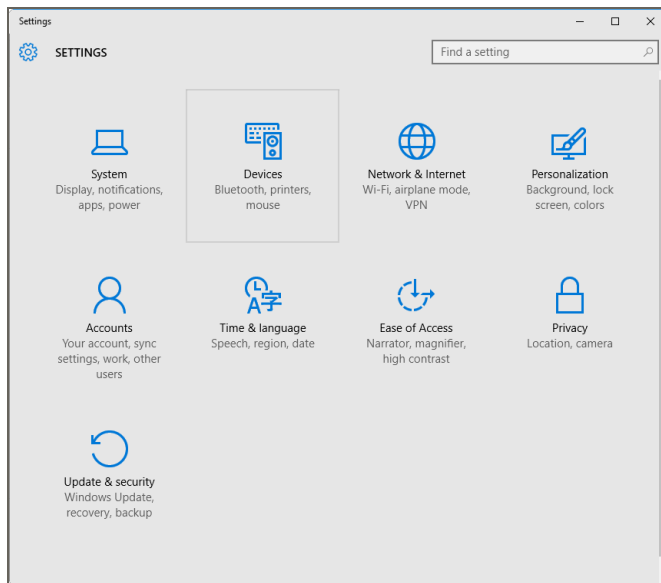
Pairing your PC to your Bluetooth Sign in Windows 10

Follow the steps below to pair and add your sign as a Bluetooth device using the Windows 10 Bluetooth Manager.

To pair your PC to your Bluetooth radar sign using Windows 10:

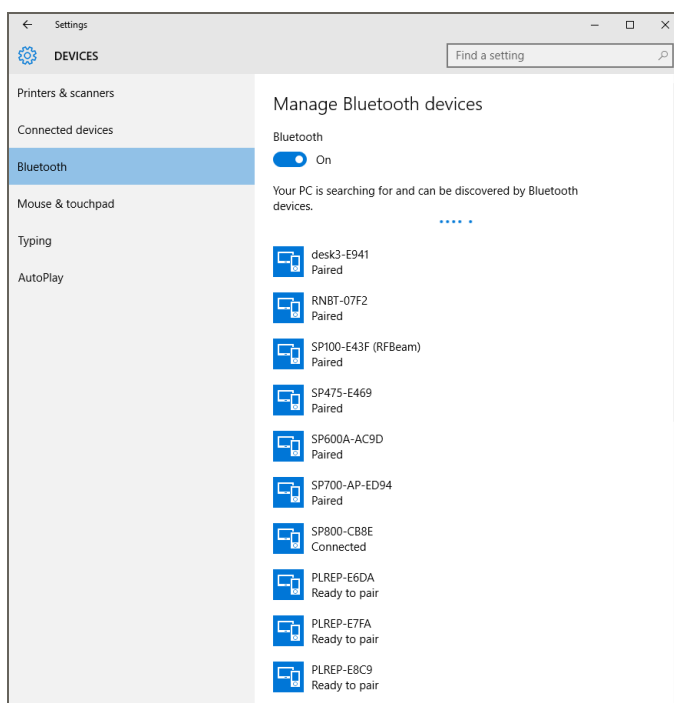
1. On the Windows taskbar click the Start button then click **Settings**.

The Settings panel is displayed.



2. Click **Devices**.

The Devices panel is displayed.



3. Select **Bluetooth**, then scroll through the Bluetooth devices listed on the right.

The device names typically reflect the type of sign (i.e. a SafePace 600 sign shows up as SP 600-xxxx). They will have a status of Ready to Pair.

4. Select the sign device in the list, then click the **Pair** button.
5. Do one of the following:
 - If you are prompted to enter the passcodes, enter **1234**, then click **Yes**.
 - If you are prompted to compare the passcodes, click **Yes**.

Windows starts to configure and install the device. Once installed, the device is connected and the device status changes to Connected, then Paired.



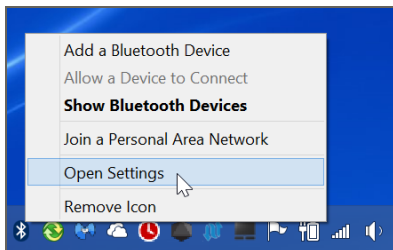
NOTE: After pairing your PC to your sign, you need to find out which COM port has been assigned to your sign. You will need to know this port number when initializing OpenSpace Pro to connect to and manage your sign.

Finding the Assigned COM Port in Windows 10

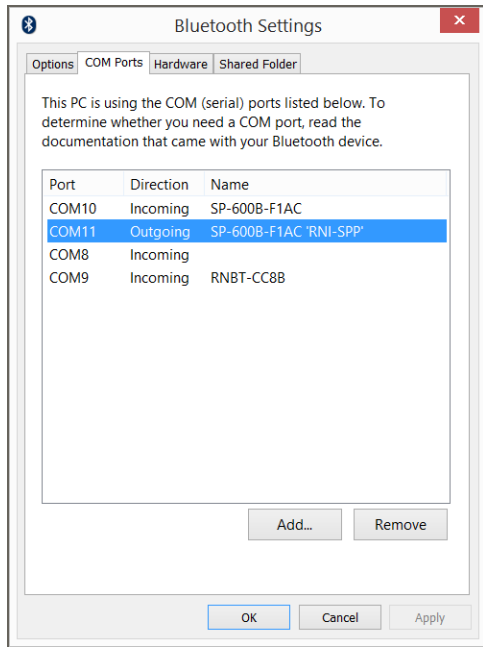
During the pairing process, Windows assigns a COM port to your sign. Use this COM port to configure OpenSpace Pro to connect to and manage your sign.

To find the COM port assigned to your sign in Windows 10:

1. Click the Bluetooth icon in the taskbar, then choose **Open Settings** from the context menu.



The Bluetooth Settings dialog box is displayed.



2. Select the **COM Ports** tab.

The COM ports tab lists the COM (serial) ports that Windows has configured for any connected Bluetooth devices. The COM port that you need to use in OpenSpace Pro is the port listed as Outgoing.

3. If your sign does not appear as a device in this list, repeat the Bluetooth pairing process.

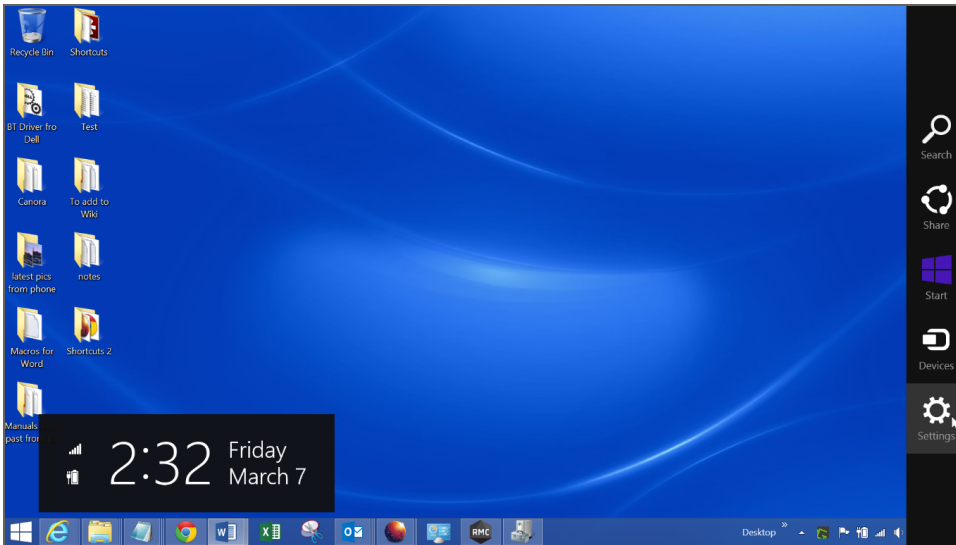
Pairing your PC to your Bluetooth Sign in Windows 8.1

Follow the steps below to pair and add your OpenSpace VMS sign as a Bluetooth device using the Windows 8.1 Bluetooth Manager.

To pair your PC to your Bluetooth radar sign using Windows 8.1:

1. Do one of the following:

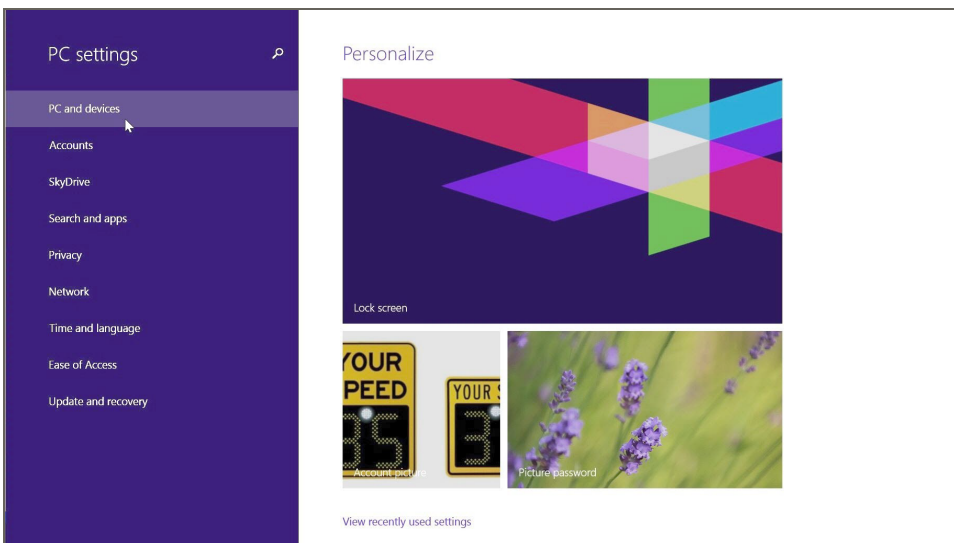
- If you're using a touchscreen, swipe in from the right edge of your screen, then tap **Settings**.
- If you're using a mouse, point to the upper-right corner of the screen, move the mouse pointer down, then click **Settings**.



The Settings panel is displayed.

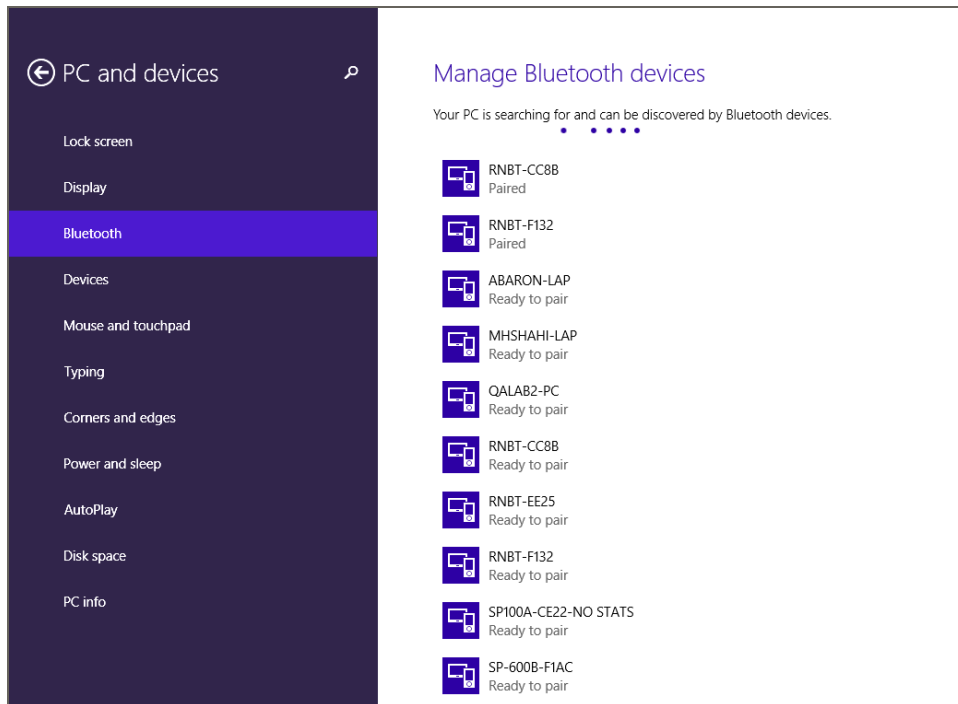
2. Click **Change PC Settings**.

The PC Settings panel is displayed.



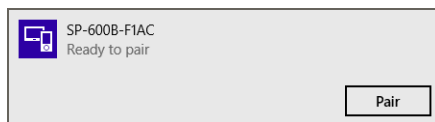
3. Click **PC and Devices**.

The PC and Devices panel is displayed.



4. Select **Bluetooth**, then scroll through the Bluetooth devices listed on the right.

The device names typically reflect the type of sign (i.e. A SafePace 600 sign shows up as SP 600-xxxx). They will have a status of 'Ready to Pair'.

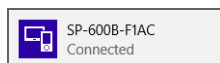


5. Select the sign device in the list, then click the **Pair** button.

6. Do one of the following:

- If you are prompted to enter the passcodes, enter **1234**, then click **Yes**.
- If you are prompted to compare the passcodes, click **Yes**.

Windows starts to configure and install the device. Once installed, the device is connected and the device status changes to Connected.



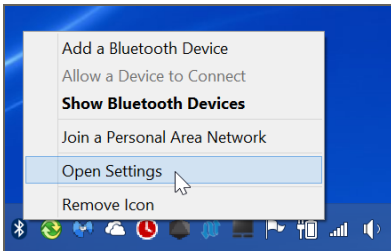
NOTE: After pairing your PC to your sign, you need to find out which COM port has been assigned to your sign. You will need to know this port number when initializing OpenSpace Pro to connect to and manage your sign.

Finding the assigned COM Port in Windows 8.1

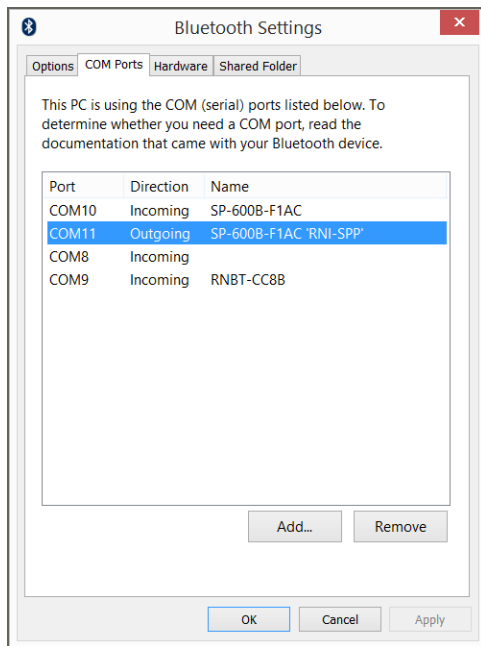
During the pairing process, Windows assigns a COM port to your sign. Use this COM port to configure OpenSpace Pro to connect to and manage your sign.

To find the COM port assigned to your sign in Windows 8.1:

1. Click the Bluetooth icon in the taskbar, then choose **Open Settings** from the context menu.



The Bluetooth Settings dialog box is displayed.



2. Select the **COM Ports** tab.

The COM ports tab lists the COM (serial) ports that Windows has configured for any connected Bluetooth devices. The COM port that you need to use in OpenSpace Pro is the port listed as Outgoing.

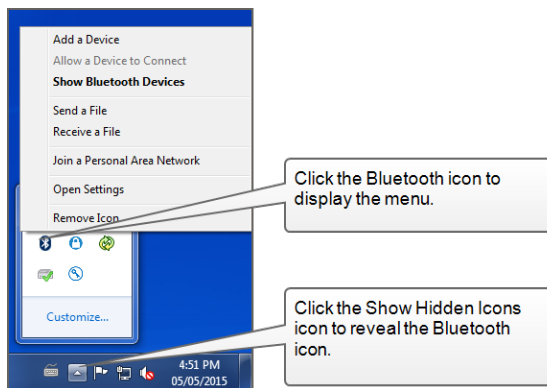
3. If your sign does not appear as a device in this list, repeat the Bluetooth pairing process.

Pairing your PC to your Bluetooth Sign in Windows 7

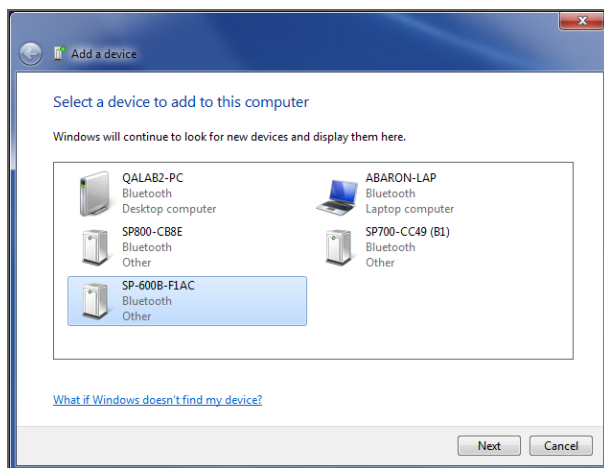
Adding and pairing a device in Windows 7 is a straightforward process. Use the following procedure to pair and add your sign as a Bluetooth device in Windows 7.

To pair your PC to your Bluetooth sign using Windows 7/Vista:

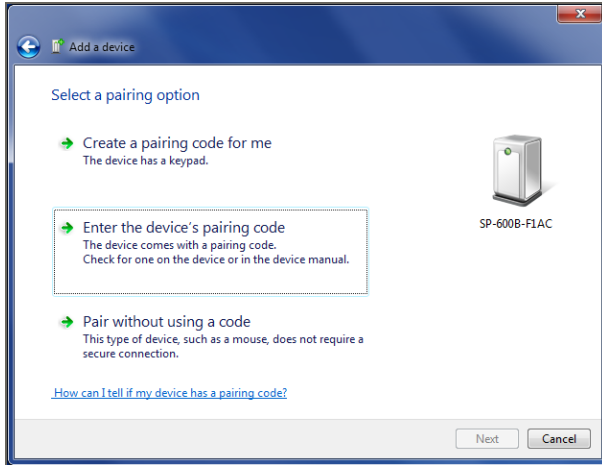
1. On the Windows taskbar, click the **Show hidden icons** icon to reveal the Bluetooth icon for your Bluetooth software.



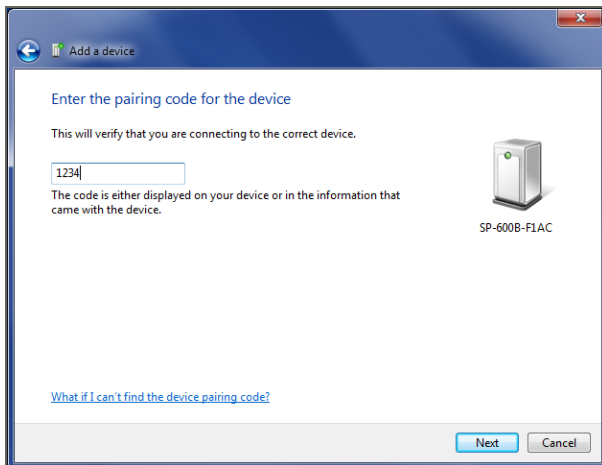
2. Click the **Bluetooth** icon then choose **Add a Device** from the context menu. The Add a device wizard is displayed.



3. Select your sign, then click **Next** to start the connection process. The device names typically reflect the type of sign (i.e. A SafePace 600 sign shows up as SP 600-xxxx).

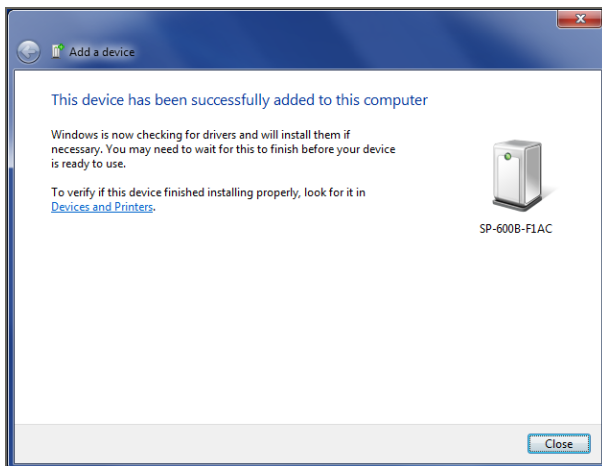


4. Select **Enter device's pairing code**, then click **Next**.



5. Enter the pairing code then click **Next**. The default pairing code for Parking Logix signs is **1234**.

When the pairing is complete, the Add a device wizard confirms that the device has been successfully added to the computer.





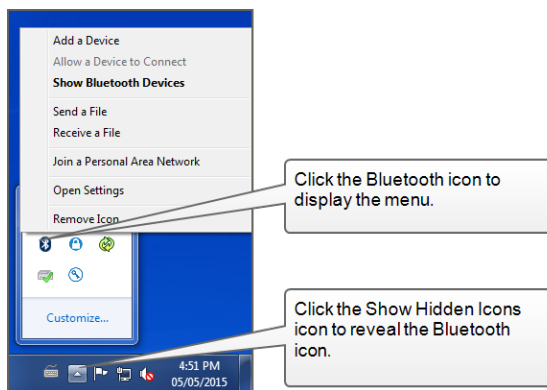
NOTE: After pairing your PC to your sign, you need to find out which COM port has been assigned to your sign. You will need to know this port number when initializing OpenSpace Pro to connect to and manage your sign.

Finding the assigned COM Port in Windows 7/Vista

When you pair your sign with your computer, Windows assigns a COM port to your sign. You need to use this COM port to configure OpenSpace Pro to connect to and manage your sign.

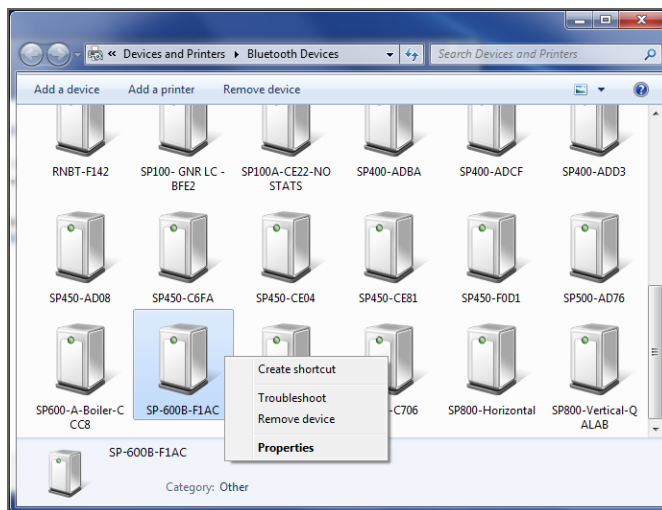
To find the COM port assigned to your sign in Windows 7:

1. On the Windows taskbar, click the **Show hidden icons** icon to reveal the Bluetooth icon for your Bluetooth software.



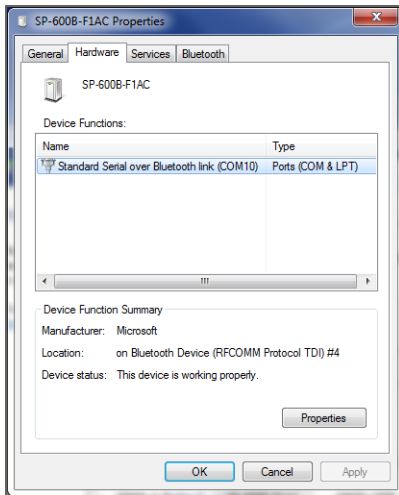
2. Click the **Bluetooth** icon then choose **Show Bluetooth Devices** from the menu.

The Bluetooth Devices window is displayed.



3. Right-click on the device you just added, then choose **Properties**.

The <devicename> Properties dialog is displayed.



4. Select the **Hardware** tab.
The COM port is displayed in the Device Functions section.

WARRANTY



Two Year Warranty

Two year warranty on parts and labor
excluding damage related to
vandalism, abuse, and/or theft

Subject to the following conditions, Parking Logix (“Parking Logix”) warrants that the OpenSpace VMS sign (the “Product”) is free from defects in materials and workmanship.

This limited warranty begins on the invoice date of your purchase of the Product and extends:

- » For TWO (2) calendar years on the sign,
- » For ONE (1) calendar year on the batteries.

This limited warranty extends only to the original purchaser of the Product when purchased either directly through Parking Logix or through an authorized Parking Logix distributor and is not assignable or transferable to any subsequent purchaser or end-user. Parking Logix’s obligation and liability under this warranty are expressly limited to repairing or replacing, at Parking Logix’s option, defective products. In no circumstances shall Parking Logix’s liability, whether in contract or tort, under any warranty, in negligence, or otherwise, exceed the amount of the purchase price of the product. Parking Logix shall not be liable for special, indirect, or consequential damages of any kind. This warranty does not cover damages resulting from normal wear and tear, incorrect installation or operation, use other than for the product’s intended purposes, vandalism, and extraordinary environmental circumstances. Parking Logix reserves the right to charge for these damages to the product at rates normally charged for repairing such products not covered under this warranty. Damages resulting from any physical changes or alterations made to the product other than by, or with the approval of, Parking Logix will render this warranty **VOID**. Using any parts or accessories not supplied or approved by Parking Logix, such as battery chargers, will further render the warranty **VOID**.

Parking Logix neither assumes, nor authorizes any person to assume for it, any other liability in connection with the sale of the Product, and there are no agreements or warranties collateral to or affecting this limited warranty.

THE LIMITED WARRANTY SET FORTH IN THIS AGREEMENT IS THE EXCLUSIVE AND SOLE WARRANTY APPLICABLE TO THIS PURCHASE. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED.

Parking Logix does not warrant that any of its products will meet or comply with the requirements of any applicable federal, state or local safety code, law, regulation or ordinance (“Applicable Safety Laws”). Buyer acknowledges that Parking Logix’s products are to be used only in accordance with the attached Conditional Terms of Use and any Applicable Safety Laws. Buyer agrees that there shall be no coverage or benefits of any kind under this limited warranty if it is determined by Parking Logix that the Product was not installed or used in accordance with the Conditional Terms of Use or Applicable Safety Laws, or if the Product has been altered in any way by anyone other

than Parking Logix, or if the Product has been subject to any misuse or accident. In addition, Buyer assumes and agrees to indemnify Parking Logix for all risk, liability or expense that results from any installation or use of the Product that is not in accordance with the Conditional Terms of Use or any Applicable Safety Laws.

Warranty Replacement Procedure

In order to submit a claim for the repair or replacement of the Product under this limited warranty, proceed as follows:

1. Contact Technical Support. **Do NOT** ship your defective product to Parking Logix prior to contacting Technical Support.
2. A Technical Support Agent will evaluate the Product to determine if it is defective. You may be required to do some troubleshooting as part of this evaluation.
3. If the Product is defective, then you will need to submit your contact information, and proof of purchase (including the date of purchase), in order to obtain repair or replacement parts.
4. The Technical Support Agent will provide you with a Return Materials Authorization number and instructions on how to have the defective parts repaired or replaced.