

# Mobile Access Portal Update Tool User Guide

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# Introduction

The Mobile Access Portal (MAP) Update Tool is a software application that you can use to apply major software updates to a range of MAP devices. A list of currently supported devices and version numbers is provided in Table 1. To update a MAP device using the MAP Update Tool, you must also install an Upgrade File that matches the MAP device that you are updating. The file name of the Upgrade File indicates the version number to which it updates the MAP device.

- **Important:** Do not use the MAP Update Tool as a recovery tool for failed units. If you are unable to log in to the MAP, then see [Related documentation](#) for troubleshooting documentation.

**Table 1: Supported products and versions**

Device	From version	Alternative
Mobile Access Portal (MAP) Gateway TL-MAP1810-0Px, TL-MAP-1810-0Sx, YK-MAP1810-0P, YK-MAP1810-0S	3.0.0.171 and above	Perform all other updates within the MAP Gateway interface itself. Refer to <i>Quick Update Instructions</i> for instructions on how to update within the MAP Gateway interface.

- ① **Note:** See [Identifying the software version](#) for information on how to identify the current MAP version.

You must run the MAP Update Tool on a computer that is connected to the MAP device through a USB cable. See [Choosing a USB cable](#) for details on the type of USB cable to use.

## Related documentation

Use the following table to find information that is related to the content in this document:

**Table 2: Related Documentation**

For More Information on	Refer to
Initial setup of a Mobile Access Portal Gateway, and how to perform a factory reset	<i>Mobile Access Portal Gateway Installation Instructions (Part No. 24-10737-8)</i>
The default Wi-Fi passphrase, and administrator user name and password for the Mobile Access Portal Gateway	<i>Mobile Access Portal Gateway Quick Start Guide (Part number is region specific)</i> Supplied with the Mobile Access Portal Gateway device.
How to use and troubleshoot the Mobile Access Portal Gateway	<i>Mobile Access Portal Gateway User's Guide (LIT-12011999)</i>
How to update the Mobile Access Portal Gateway through the web interface	<i>Quick Update Instructions (Available on the Mobile Access Portal - MAP Gateway SharePoint site)</i>

## Identifying the software version

To identify the version number in a MAP, log in to the web interface. For most versions of the MAP the current version is shown next to **SW Version**, underneath the Johnson Controls logo on each page. If the current version is not listed, then click **Settings > About**. The current version is shown next to **Software Version**. After you update, verify that the version number displayed in the MAP web interface matches the file name of the Upgrade File.

# Required equipment

## Supported operating systems

You can run the MAP Update Tool on the following operating systems:

- Microsoft® Windows® 7 (64-bit)
- Microsoft Windows 10 (64-bit)

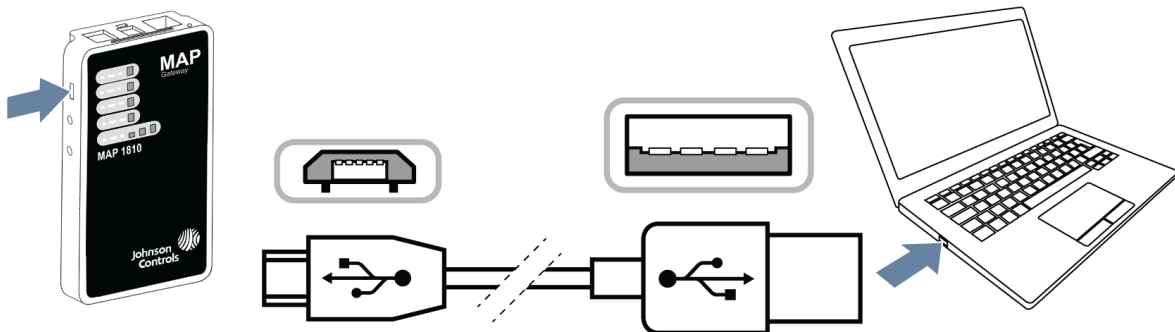
You can access the MAP web interface using the following operating systems and web browsers:

- Computer: Windows Internet Explorer® 10 and Internet Explorer 11, Apple® Safari® 6.1 and later, and Google® Chrome™
- Handheld Device: The handheld device must be running either Internet Explorer Mobile for Windows Mobile version 5 or version 6 operating system (OS); Apple® iPhone® and iPod touch® iOS version 7.0 or greater; Android™ 4.0.3, 4.0.4, and 4.1+, or Google Chrome. Other web browsers may display the UI, but the functionality is not guaranteed.

## Choosing a USB cable

Use a USB 2.0 Micro-B to USB Type-A cable to connect the MAP to the computer. Both ends of the cable need to be the male versions of these connections, as shown in Figure 1.

**Figure 1: USB 2.0 Micro-B to USB Type-A cable connection required between MAP and a computer**



The required cable is not supplied with the MAP, but is widely available. The cable is commonly used to connect mobile phones to computers for the transfer of data, such as image and audio files.

- ① **Note:** Some versions of the USB 2.0 Micro-B to USB Type-A cable only supply power, and lack the required capability to transfer data. If the MAP Update Tool cannot connect to the MAP, try a different cable.

## Accessing the MAP device

Both the computer and MAP must remain stationary during the update process. This reduces the risk of dislodging the cables and interrupting the update.

Remove a fixed MAP device from its installation site before updating. For details on how to remove a MAP device, refer to the *Mobile Access Gateway Installation Instructions (Part No. 24-10737-8)*.

- **Important:** If it is not possible to remove a fixed installation MAP device, ensure that the USB cable is of sufficient length to create a connection to the MAP device, while keeping the computer in a safe, stable location during the update process.

The MAP receives power through the USB connection during the update process. Before you start the update process, disconnect any other sources of power to the MAP device. Reconnect them only after verifying that the update is successful.

- **Important:** If the MAP is powered using an external power supply, apply and remove power only by connecting and disconnecting the power cord from the 100-240 VAC outlet. Applying or removing power by connecting or disconnecting the 15 VDC connector can damage the MAP.

## Downloading the MAP Update Tool application and Upgrade File

The location where you download the MAP Update Tool software and Upgrade File depends on the device being updated, and your relationship with Johnson Controls. The possible locations are listed below.

- **Johnson Controls Systems Branch:** The MAP Update Tool software and Upgrade File are available from the Technical Support and Upgrade section of the MAP SharePoint Site: [https://my.jci.com/sites/BE/NABAS/Pages/Metasys\\_System\\_Extended\\_Architecture/multi-touch-gateway.aspx](https://my.jci.com/sites/BE/NABAS/Pages/Metasys_System_Extended_Architecture/multi-touch-gateway.aspx).
- **Metasys Authorized Building Controls Specialist (ABCS):** The MAP Update Tool software and Upgrade File are available on the ABCS Exchange site under **Metasys > Technical Support > Software Patches**.
- **Johnson Controls Authorized Building Controls Specialist (ABCS):** The MAP Update Tool software and Upgrade File are available by logging in to the HVAC Navigator FX Community site: [https://www.hvacnavigator.com/HN\\_CommunityChatterPage?id=0F9G0000000Po44KAC](https://www.hvacnavigator.com/HN_CommunityChatterPage?id=0F9G0000000Po44KAC).

## Installing the MAP Update Tool

1. If a version of the MAP Update Tool is installed on the computer, first uninstall the MAP Update Tool. For more information, see [Uninstalling the MAP Update Tool](#).
2. Download the installation file from the appropriate location mentioned in the previous section.
3. Launch the *mutsetup-X.Y.Z.exe* install application. X, Y, and Z are non-negative numbers that indicate the MAP Update Tool software version.
4. In the MAP Update Tool setup window, click **Next**.
5. Review the license agreement, and, if you accept the terms, click **I Agree**.
6. To change the installation folder from the default location, complete the following steps:
  - a. Click **Browse**.
  - b. Navigate to a folder on the computer.
  - c. Click **OK** to choose the currently selected folder.
7. Click **Install** to start the installation.
8. When the installation is completed, click **Finish** to exit the installer.

After you install the MAP Update Tool, install an Upgrade File for the target MAP device. See [Installing an Upgrade File](#). If you reinstall the MAP Update Tool, you must also reinstall an Upgrade File.

## Installing an Upgrade File

Install an Upgrade File that matches both the MAP device that you are updating, and the version number to which you are updating.

1. Download the setup application from the appropriate location mentioned in [Downloading the MAP Update Tool application and Upgrade File](#).
2. Launch the setup application, for example *mapsetup-5.0.0.xxx.exe*.
3. In the Update Package Setup window, click **Next**.
4. Review the license agreement, and, if you accept the terms, click **I Agree**.
5. When the installation is completed, click **Finish** to exit the installer.

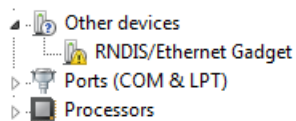
After you install both the MAP Update Tool and an Upgrade File, the installation is complete. If you install the MAP Update Tool on a computer running the Windows 7 operating system, follow the steps outlined in [Enabling the USB driver in Windows 7](#) and [Setting the USB/RNDIS server address](#). If you install the MAP Update Tool on a computer running the Windows 10 operating system, follow the steps outlined in [Verifying the MAP device driver in Windows 10](#) to determine if the correct driver is installed for the MAP device, and then proceed to [Setting the USB/RNDIS server address](#).

## Enabling the USB driver in Windows 7

If you connect the MAP device to a computer that runs Windows 7 and the notification *Device driver software was not successfully installed* appears, or the MAP Update Tool cannot connect to the MAP device, follow the steps in this section to manually select the USB driver. You only need to select the USB driver the first time that you connect a MAP device to the computer.

1. Use the USB cable to connect the computer to the MAP device. See [Choosing a USB cable](#).
2. Open **Device Manager** on the computer.
3. Click to expand the **Other devices** section of the tree view.

**Figure 2: Other devices section of the Device Manager tree**



4. Under **Other devices**, right-click the **Unknown Device** or **RNDIS/Ethernet Gadget Device** entry, and select **Update Driver Software**.  
**Note:** If you cannot identify the MAP device in the Device Manager, see [Enabling the USB driver through Devices and Printers](#) for alternative steps.
5. In the **Update Driver Software** window, select **Browse my computer for driver software**.
6. Select **Let me pick from a list of device drivers on my computer**.
7. From the list of **Common hardware types**, select **Network adapters** and click **Next**.



8. In the **Manufacturer** list, select **Microsoft Corporation**.
9. In the **Network Adapter** list, select **Remote NDIS Compatible Device**, and then click **Next**. If you see an **Update Driver Warning**, click **Yes** to continue installation.
10. Click **Close**.

The device entry is now listed in the **Network adapters** section of the **Device Manager** tree view. To configure the network adapter settings, see [Setting the USB/RNDIS server address](#).

## Enabling the USB driver through Devices and Printers

The following steps are an alternative to Step 1 to Step 4 in [Enabling the USB driver in Windows 7](#).

1. To open Control Panel, complete the following steps:
  - a. Press the Windows logo key+R.
  - b. In the **Open** field of the **Run** window, enter `control panel`, and then click **OK**.
2. Click **Devices and Printers**.
3. In the **Unspecified** section, right-click **RNDIS/Ethernet Gadget**, and then click **Properties**.

**Figure 3: RNDIS/Ethernet Gadget shown in Devices and Printers**



4. Click the **Hardware** tab.
5. Click **Properties**.
6. In the new window, click the **Driver** tab, and then click **Update Driver**.
7. Return to [Enabling the USB driver in Windows 7](#) and complete Step 5 onwards.

## Enabling the USB driver in Windows 10

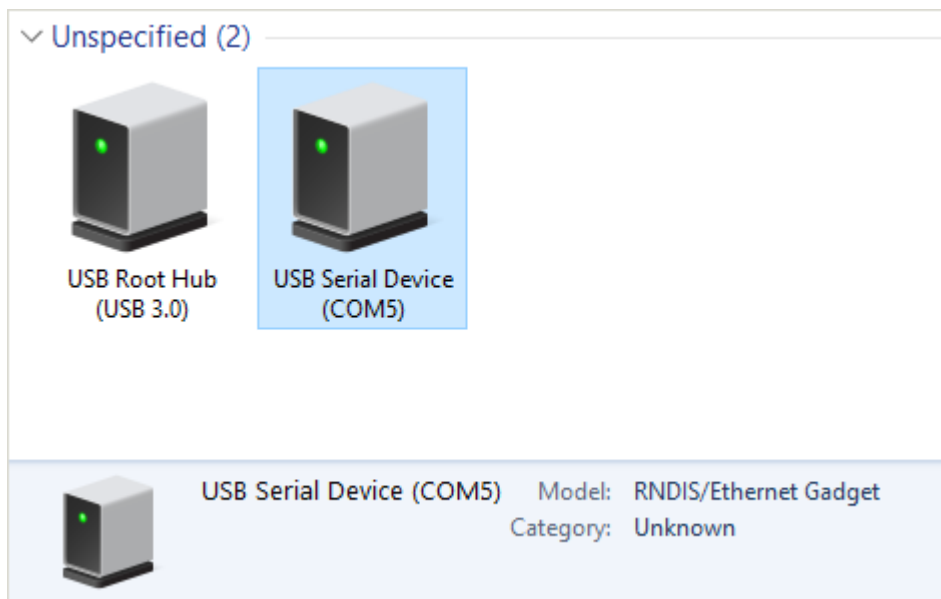
If you connect the MAP device to a computer that runs Windows 10, the operating system may not select the correct driver. See [Verifying the MAP device driver in Windows 10](#) and complete the steps to determine if the correct driver is in use. If the correct driver is not in use, manually install the correct driver.

### Verifying the MAP device driver in Windows 10

1. Use the USB cable to connect the MAP device to the computer. See [Choosing a USB cable](#).
2. To open Control Panel, complete the following steps:

- a. Press the Windows logo key+R.
  - b. In the **Open** field of the **Run** window, enter `control panel`, and then click **OK**.
3. Click either **Devices and Printers** or **View Devices and Printers**.
  4. Identify how the MAP device is listed:
    - If the MAP device is listed in the **Devices** section as a **USB Ethernet/RNDIS Gadget** then the correct driver is in use, and you can proceed to [Setting the USB/RNDIS server address](#).
    - If the MAP device is listed in the **Unspecified** section as a **USB Serial Device**, or displays a **COM** number as shown in the following figure, proceed to [Downloading driver files for the MAP device](#).

**Figure 4: MAP device with incorrect driver as shown in Devices and Printers**



## Downloading driver files for the MAP device

1. Launch a web browser and navigate to <http://www.catalog.update.microsoft.com>. In the **Search** field, enter `usb ethernet/rndis gadget`, and then click **Search**.
2. In the search results, identify the `Acer Incorporated - Other hardware - USB Ethernet/RNDIS Gadget` listing as shown in the following figure, and then click **Download**.

**Figure 5: Driver listed in search results**

<a href="#">Acer Incorporated. - Other hardware - USB Ethernet/RNDIS Gadget</a>	Windows 7, Windows 8, Windows 8.1 and later drivers	Drivers (Other Hardware)	1/13/2010	1.0.0.0	21 KB	<a href="#">Download</a>
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3. In the **Download** window, click the link to start the download and save the file to your computer.
4. Browse to the location of the downloaded file.

5. Double click the *.cab* file.
6. Select all of the files within the compressed *.cab* file, right-click, and then click **Extract**.
7. Select a folder into which to extract the files, and then click **Extract**.
8. For each file, a **File Download** window appears. In each window, click **Save**.
9. To configure the MAP device to use this driver, complete the steps in [Installing the MAP device driver in Windows 10](#).

## Installing the MAP device driver in Windows 10

1. In the **Control Panel** window, click **Devices and Printers**.
2. Right-click the MAP device listed as **USB Serial Device (COMX)**, and then click **Properties**.
3. Click the **Hardware** tab, and then click **Properties**
4. Click the **Driver** tab, and then click **Update Driver**.
5. Click **Browse my computer for driver software**.
6. Click **Browse**, browse to the location of the driver files that you extracted, select the folder that contains the files, and then click **OK**.
7. Click **Next**.

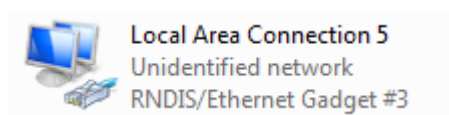
The correct drivers install and the MAP device is recognized as a network adapter. Proceed to [Setting the USB/RNDIS server address](#).

## Setting the USB/RNDIS server address

The MAP Update Tool connects to the MAP device through a network connection, and uses a specific IP address.

- ① **Note:** If you adjust the following network settings, you only affect the USB connection to the MAP. You do not need to reverse the changes, and the changes do not affect the Wi-Fi connection to the MAP device, or any other network connection.
1. Use the USB cable to connect the MAP device to the computer. See [Choosing a USB cable](#).
2. Right-click the network icon in the system tray.
3. Depending on your operating system, click either **Open Network and Sharing Center** or **Open Network Internet settings**.
4. Depending on your operating system, click either **Change adapter settings** or **Change adapter options**.
5. Right-click the connection for the RNDIS Gadget, and then click **Properties**.

**Figure 6: RNDIS/Ethernet Gadget connection in Windows 7**



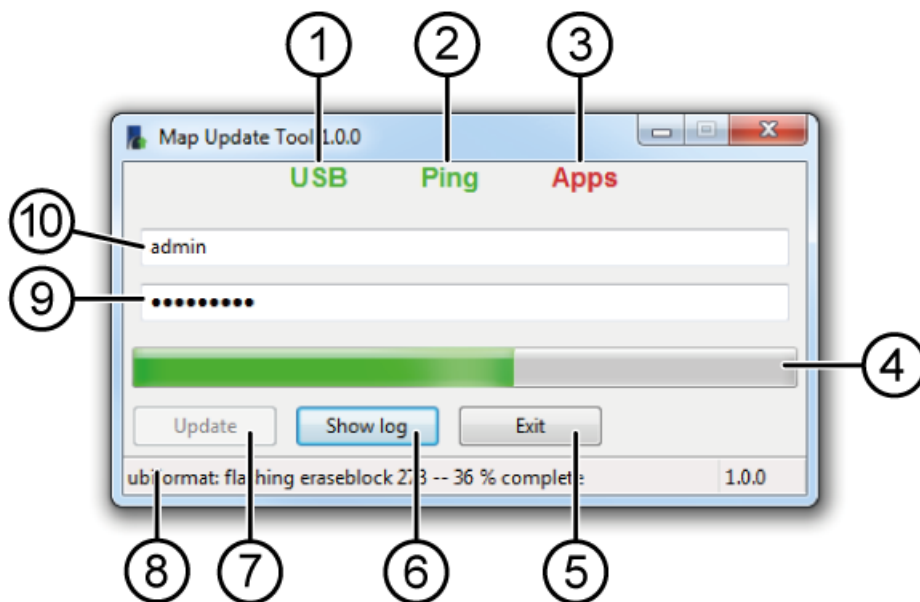
6. Clear the **Internet Protocol Version 6 (TCP/IPv6)** check box.

7. Select **Internet Protocol Version 4 (TCP/IPv4)**, and then click **Properties**.
8. Select **Use the following IP Address**.
9. In the **IP Address** field, enter **169.254.1.1**.
10. In the **Subnet Mask** field, enter **255.255.0.0**.
11. Click **OK**.
12. Click **Close**.

## MAP Update Tool features

The main features of the MAP Update Tool application window are described below.

**Figure 7: MAP Update Tool application screen**



Label	Feature	Purpose
1	USB indicator	Indicates with green colored text that a connection has been established between the computer and the MAP, and that data can be transmitted.
2	Ping indicator	Indicates with green colored text that the MAP is responding to messages from the computer.
3	Apps indicator	Indicates with green colored text that the computer can detect the application running on the MAP.
4	Progress bar	Indicates the progress of the update.
5	Exit button	Closes the application.
6	Show Log button / Hide Log button	Shows or hides an additional window that displays the update log file.
7	Update button	Starts or resumes an update.
8	Status message	Displays messages relating to the progress of the update.

Label	Feature	Purpose
9	Account password	Specifies the password for an admin or technician account that will be used to access the MAP.
10	Account user name	Specifies the user name for an admin or technician account that will be used to access the MAP.

## Updating the MAP device

If you start updating a MAP device, you must complete the update process. If you do not complete the update process, the MAP device is temporarily inoperable, and you must restart the update.

- ▶ **Important:** The update takes approximately 10 minutes to complete. If you are using a laptop, keep it attached to a main power supply. Alternatively, ensure that the laptop has sufficient battery to complete the update process.
1. Connect the computer to the MAP using a USB cable (see [Choosing a USB cable](#)), and wait until the Fault LED on the MAP device stops flashing.
  2. Log in to the MAP web portal to verify that the MAP is functional before performing a software update with the MAP Update Tool. If you cannot log in, follow the troubleshooting section of the corresponding documentation listed in Table 2. An example troubleshooting step is to perform a factory reset of the MAP, and then use the default credentials provided on the *Quick Start Guide* that came in the box with the device.
  3. Close all active browser connections to the MAP.
  4. On the computer's Desktop, double click the MAP Update Tool icon. The MAP Update Tool starts, and the **USB**, **Ping**, and **App** indicators turn green. If the indicators do not turn green, see [Troubleshooting](#) for potential solutions.
    - ⓘ **Note:** If you are starting the application for the first time, it may take several minutes for the application window to appear, and for the indicators to turn green.

**Figure 8: MAP Update Tool icon**



5. Enter the user name and password of an admin or technician account on the MAP device.
  - a. If this is your first time connecting to the MAP, or it is reset to factory settings, enter the default admin user name and password. Details for the default admin account are supplied on the *Quick Start Guide* that came in the box with the device.
6. Click **Update** to begin the update process. If this is your first time connecting to the device, or it has been reset to factory settings, complete the following steps:
  - a. Enter a new admin password and Wi-Fi passphrase.
    - ⓘ **Note:** If the update process fails, the password and Wi-Fi passphrase is still updated.
  - b. Click **OK** to continue the update.

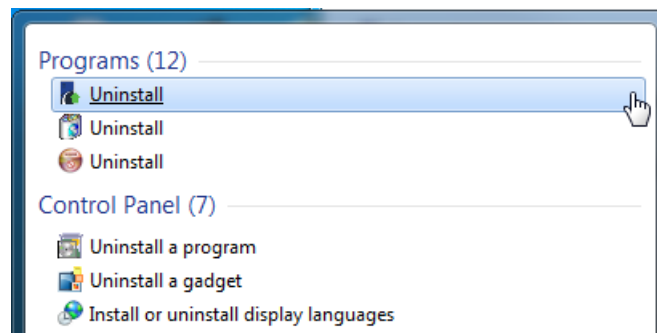
① **Note:** During the update process, the **USB, Ping,** and **Apps** indicators cycle through the colors red, yellow, and green multiple times. The sequence of colors indicates that the MAP is restarting. To indicate progress, notification messages appear at the bottom of the MAP Update Tool window. If any error messages appear, see [Troubleshooting](#) for help on how to resolve them.

7. After the update completes successfully, the notification `Update complete` is displayed in the status area, and a notification dialog box appears. Click **OK**.
8. Click **Exit** to close the MAP Update Tool application, or repeat Step 3 to Step 7 to update another MAP device.

## Uninstalling the MAP Update Tool

1. Click the Windows Start button.
2. In the search field, type `uninstall`.
3. In the **Programs** section, click the MAP Update Tool icon. If the MAP Update Tool icon is not displayed, complete the following steps:
  - a. In the Start Menu search results, click the **Programs** heading.
  - b. In the **Start Menu Search Results in Programs** window, double click the MAP Update Tool icon.

**Figure 9: Start menu search result**



4. In the MAP Update Tool Uninstall window, click **Next**.
5. Click **Finish**.

## Troubleshooting

Consult the table below if the indicators remain yellow or red for an extended period of time, or the MAP Update Tool displays an error message.

**Table 3: Possible issues and how to resolve them**

<b>Issue</b>	<b>Possible cause</b>	<b>Resolution</b>
The MAP Update Tool does not start.	The MAP Update Tool is blocked from using the IP address <i>127.0.0.1</i>	Start the MAP Update Tool with administrative privileges. Shut down any application that is using the IP address <i>127.0.0.1</i> , for example a local web server.
The message <code>No upgrade files are present</code> appears.	No Upgrade File is installed.	For information on where to download an Upgrade File, see <a href="#">Downloading the MAP Update Tool application and Upgrade File</a> . For information on installing an Upgrade File, see <a href="#">Installing an Upgrade File</a> .
The <b>USB</b> indicator is red.	The USB cable is not transmitting data.	Ensure that both ends of the USB cable are firmly inserted. Try using a different USB cable.
	The USB driver is not enabled.	To enable the USB driver, see either <a href="#">Enabling the USB driver in Windows 7</a> or <a href="#">Enabling the USB driver in Windows 10</a> .
The <b>USB</b> indicator is green, but the <b>Ping</b> indicator is red.	A Virtual Private Network (VPN) software application is blocking the connection.	Disable any VPN software, for example Cisco AnyConnect, during the update process.
The <b>USB</b> indicator remains yellow.	RNDIS settings are incorrect.	To configure the RNDIS settings, see <a href="#">Setting the USB/RNDIS server address</a> .
The update process started, but the <b>USB</b> and <b>Ping</b> indicators became red before completion.	The USB cable was disconnected during the update.	Reconnect the USB cable. In the MAP Update Tool, clear the password field, re-enter the password, and then click <b>Update</b> to resume the update process.
The computer shut down during the update.	The computer entered sleep mode or lost power.	Connect the computer to main power if required and restart. Start the MAP Update Tool and click <b>Update</b> to resume the update process.

**Table 3: Possible issues and how to resolve them**

Issue	Possible cause	Resolution
The error message <code>Missing Backup</code> appears.	An update was interrupted, and you have restarted the process using a new computer.	<p>On the <b>Missing Backup</b> warning choose <b>Cancel</b>. Reconnect the MAP device to the original computer, start the MAP Update Tool, and click <b>Update</b>. The update process will resume and user data will be retained.</p> <p>Alternatively, you can copy the .bak file from the original computer to a different computer that has the MAP Update Tool installed. The correct location for the .bak file on both computers is <i>[MAP Update Tool install location]\tftp\</i>. For example, the default location is <i>C:\Users\[user]\AppData\Local\MAP_Update_Tool\tftp\</i></p>
The error message <code>Upload failed: Check the file name and version</code> appears.	The MAP version is below the minimum that you can update using the MAP Update Tool.	Update the MAP device to the minimum version required. See Table 1 for alternative methods of updating the MAP device and minimum supported versions.
The error message <code>device model not found</code> appears.	The MAP Update Tool installer is corrupted.	Uninstall the MAP Update Tool, and then download the latest installer. To verify that you have the correct installer, right-click on <code>mutsetup-X.Y.Z.exe</code> , and select <b>Properties</b> . Select the <b>Digital Signature</b> tab. In the <b>Signature list</b> , identify the <b>Timestamp</b> . A known corrupt version has a timestamp of December 2018.
The MAP device is unresponsive (bricked) after the device is updated.	The update process failed to complete successfully.	Repeat the update process. The MAP Update Tool resumes the update, and the MAP device is recovered.
	The power supply has not been reconnected.	If an external power supply is used with the MAP device, check that the power has been reconnected.



**Table 3: Possible issues and how to resolve them**

<b>Issue</b>	<b>Possible cause</b>	<b>Resolution</b>
You cannot log in to the web interface after the device is updated.	A new Wi-Fi passphrase and admin password were set during the update process, and you are using the default settings.	Enter the new Wi-Fi pass phrase and admin password created during the update process.  If access cannot be gained, the device may require a factory reset.

## Software terms

Use of the software that is in (or constitutes) this product, or access to the cloud, or hosted services applicable to this product, if any, is subject to applicable terms set forth at [www.johnsoncontrols.com/techterms](http://www.johnsoncontrols.com/techterms). Your use of this product constitutes an agreement to such terms. If you do not agree to be bound by such terms, you may return the unused product to your place of purchase.

