

SCREEN OUT

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Laptop Screen Blanker

# Installation and Users Manual

LAPTOP SCREEN BLANKER

# Screen Out

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© Mobile Desk / Mobile Office Solutions  
P.O. box 96  
Cincinnati, Ohio 45103

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# Getting Started

**T**hank you for purchasing a Screen Out system. Although Foster Products/Mobile Desk have attempted to make sure all of the information contained within this manual is accurate, please be aware that any part of it is subject to change without notice.

## What's included

Everything required for successful installation is included in the box; the Screen Out package includes the following components:

- Screen Out Module
- Mounting Hardware
- OBD-II Interface Cable
- Bluetooth Dongle
- Installation Software



Screen Out Module



OBD-II Interface Cable



Bluetooth Dongle



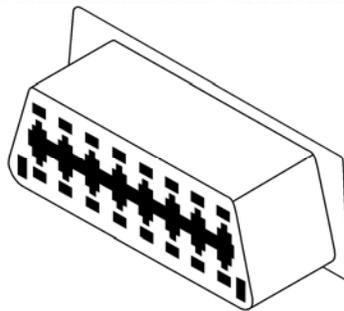
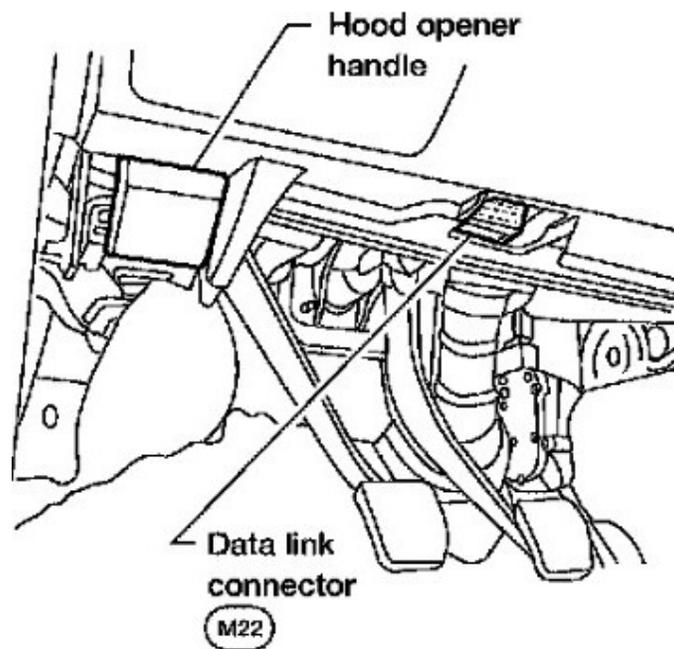
Mounting Hardware



Installation CD

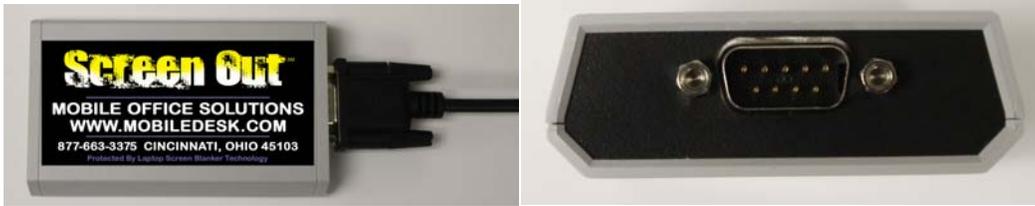
## Preparing for installation

Before installation of the Screen Out module in the vehicle, ensure the vehicle is turned off and in park. Locate the vehicles OBD-II port, which will be located within three feet of the driver and will not require any tools to access.



## Connecting the Screen Out Module

Using the OBD-II cable connect the 9-pin connector to the Screen Out module and fasten it in place by tightening the fastening screws until snug.



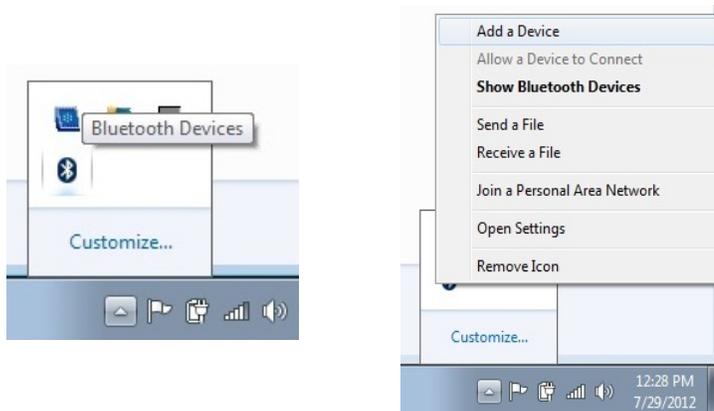
Connect the other side of the OBD-II cable to the vehicles OBD port. There is power on the vehicles port at all times, therefore as soon as the cable is connected, the lights on the screen out module will turn on and alternate colors from red, green and blue for about two seconds, then go to a short red flash about once every five seconds. This is normal and indicates the module has completed its power up process and is in low power mode awaiting connection. **Do not at this point mount the Screen Out module under the vehicles dash.**

## Pairing the Screen Out Module

The Screen Out module communicates to the host computer via a Bluetooth connection. Ensure the computer being used has a Bluetooth radio. There is no need to put the Screen Out module in pairing mode, once the module is paired with a computer it will automatically reconnect to that computer.

Note, in this example, we are using Microsoft Windows 7 Bluetooth interface; you should consult the documentation for your operating system and Bluetooth radio.

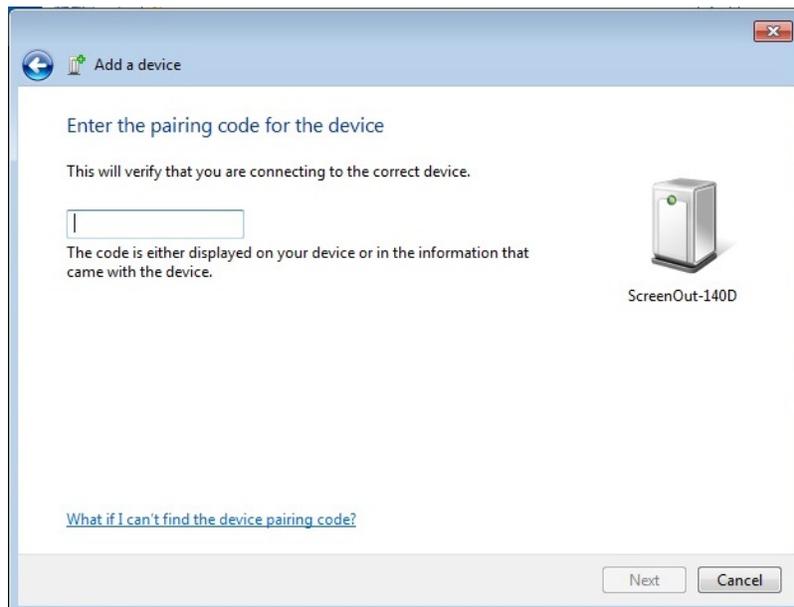
Use the computers Bluetooth software, to scan and add a new Bluetooth device.



The host computer will now begin to scan for new Bluetooth device, when it finds the Screen Out module, select it and click next. Note, the Screen Out module will be named ScreenOut-XXXX, where XXXX is the last four digits of the units MAC address.



Once the Screen Out module has been found, a device pairing code will need to be entered in order to complete the pairing process. Select “Enter the Devices pairing code” and click Next to complete the process.



Enter the devices pairing code, by default the code is 2040.

Now the Screen Out module should be successfully paired to the computer.



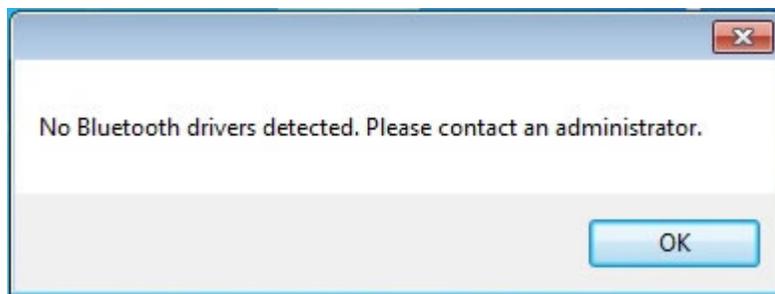
Click “Close” and begin with the Screen Out application installation.

## Screen Out Application Installation

*There are two types of installations, a “Push” installation and a “Single” install.*

If the software is installed on a computer that does not contain a Bluetooth radio, the following message will appear when the computer starts up.

Once a Bluetooth radio is detected, you will no longer receive this message. From that point forward if the Bluetooth radio disappears, or becomes disabled, the screen will be blanked.



It is assumed an administrator will perform the application installation and has the following knowledge of the Windows operating system.

- Installing and uninstalling applications.
- Editing and saving text files.
- Move, Copy and Paste of files.
- Turning on and off hidden files, System and folders.
- Navigating the Windows directory structure.
- Adding exceptions to your Anti-Virus Software.
- Email Settings.

Once the application is installed, the installation folder will be a hidden system folder, and will only be visible by turning on hidden system files.

Due to the nature of the Screen Out application some antivirus programs may consider it harmful; therefore, an exception should be made for the application. Please consult the documentation for your specific antivirus software for adding an exception.

#### Single Install

A single install is where the application is installed on a single machine in which it will be used. This is typical if only installing the application on one machine.

To install the Screen Out application, you must have administrative privileges.

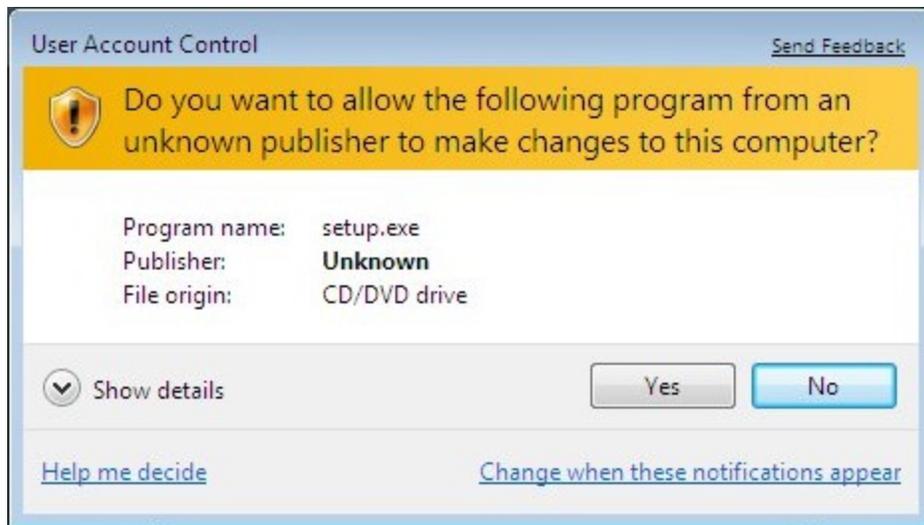
Install the screen out application here.

Insert the installation CD in to your CD-Rom drive, and follow the instruction in the auto run window.

If the auto run feature does not start.

1. Click Start and Run.
2. In the Run Window, type `x:\ ScreenOut v1.00.00.00 Install.exe` where x is the letter of your CD Rom drive. For example, if your CD-Rom drive has the letter “D”, you would type `D:\ ScreenOut v1.00.00.00 Install.exe`.

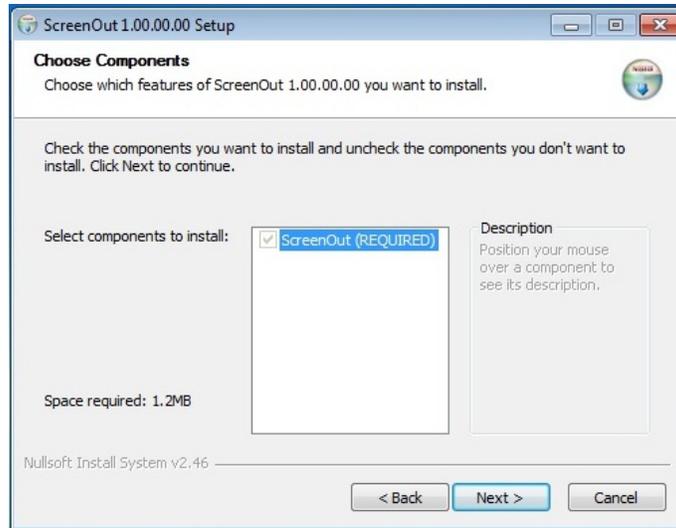
Depending on your settings for the UAC (User Account Control) you may receive a warning, indicating the installation process is requesting to make changes to your computer. Click YES to proceed with the installation.



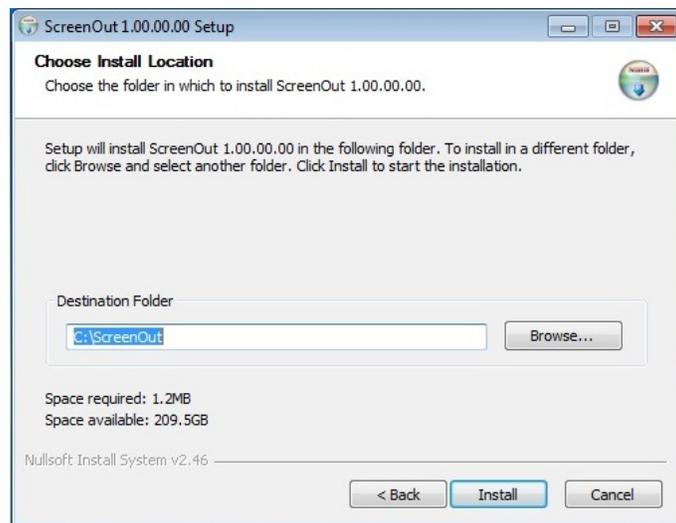
Once the installation program starts, just follow the onscreen instructions to complete the process.



At the welcome screen, click NEXT to continue.



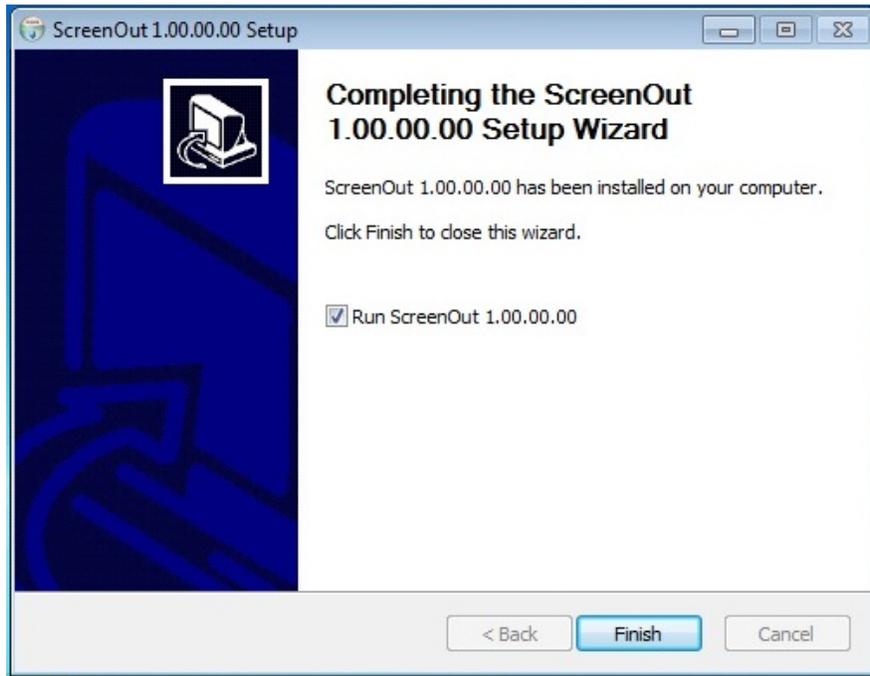
Choose the desired components to the Screen Out program to install, currently there is only one component and it is required. Click NEXT to continue



Select a destination folder for the Screen Out application, the default folder is located on the root of the C: drive (Recommended), however, if you wish to change the installation folder you may do so here. Please note the application must be installed in a location that is not under any permission controls.

For example, do not install the program in the following locations:

- C:\Program Files
- C:\Program Files (x86)
- C:\Users
- C:\Windows



Once the installation program has completed, you will be given the option to run the Screen Out application.

Note: The Screen Out application will start automatically when the system is started regardless.

#### Push Installation

A “Push” installation will allow deployment from a single location to multiple computers at one time.

To install the Screen Out program using a Push installation, is Silent ScreenOut v1.00.00.00 Install.exe, this is the same install process as the manual install however there are no prompts and will use all default values. Use this file for unattended installations.

The installation directory will be on the root drive, typically C:\ScreenOut

All settings can be changes after installation, see Changing Settings section.

## Using Screen Out Application

The Screen Out application is automatically executed and runs during computer start up. It is designed so the processes cannot be stopped. The application continually runs in the background and does not interfere with any other running applications.

When the computer is started and a user logs in, the Screen Out application will try to connect to the last know Screen Out modules it was connected to. If the application cannot find the last connected module, it will continue to look for other paired modules.

This will allow one computer to be paired with multiple Screen Out modules. This is useful for when one person has several vehicles they may use.

Once the Screen Out module has been paired with a computer, when that computer is on and within range of the module, the computer will automatically connect to the module and start communicating.

When the vehicle starts moving and exceeds the speed threshold set in the settings, the screen will be blanked and the mouse and keyboard will not function until the vehicle falls below the threshold.

When the screen is blanked all currently running application will continue to run without interruption.

If the Bluetooth radio is turned off or disabled in attempt to defeat the Screen Out application, the screen will be blanked and an email will be sent based on the setting defined until the radio is turned back on.

Note: The Screen Out application always tries to connect with the last module to which it was successfully connected to first. If it cannot find the last module in which it was successfully connected, the application will search for other module it is paired with. Therefore, if the application is paired with other Screen out modules in other vehicles, it may take a few minutes for the application to connect with the new module. The more Screen Out modules the application is paired with, the longer it will take.

## Changing Settings

The Screen Out application comes with default settings already in place; however, it may be necessary to change these settings.

There are two ways to change the settings. The first way is a graphical method by right clicking on the Screen Out icon in the System tray. The other way is by using a settings file.

### Graphical Settings Page

To access the graphical settings page, locate the Screen Out icon in the system tray. The system tray is usually in the lower right hand corner of your screen by the clock. Note, you may need to expand your system tray by clicking on the up arrow by the icons.



The only option for Screen out is Settings



You must enter the Administrative password. This is NOT the Administrator user account password. Instead Screen Out has its own admin password set by the Administrator. This password is changeable using the settings file method of changing settings.

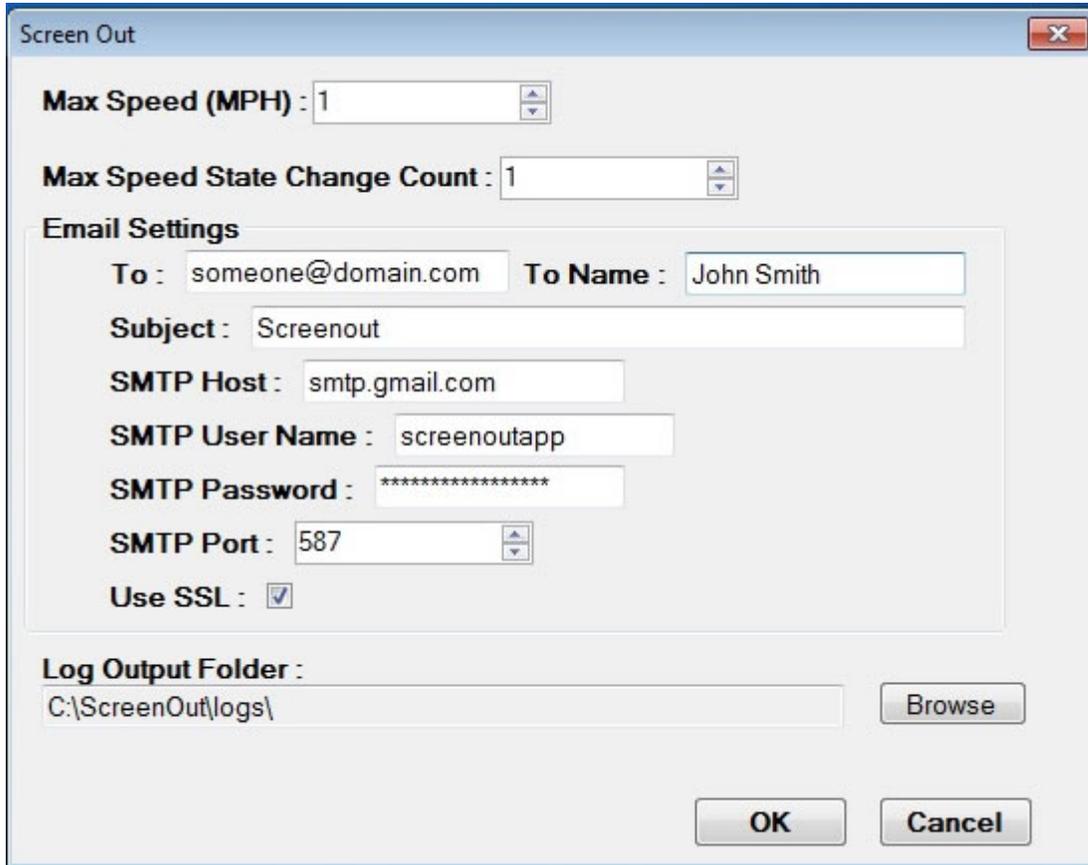
Note, the password is case sensitive.



Once the correct password is entered, the Screen Out settings page will be displayed.

All of these settings plus a few more are changeable using the back end setting.

All of the functions in the settings page are described below.



The screenshot shows a Windows-style dialog box titled "Screen Out". It contains several configuration fields:

- Max Speed (MPH):** A spin box set to 1.
- Max Speed State Change Count:** A spin box set to 1.
- Email Settings:** A sub-dialog containing:
  - To:** someone@domain.com
  - To Name:** John Smith
  - Subject:** Screenout
  - SMTP Host:** smtp.gmail.com
  - SMTP User Name:** screenoutapp
  - SMTP Password:** masked with asterisks
  - SMTP Port:** 587
  - Use SSL:** checked
- Log Output Folder:** C:\ScreenOut\logs\, with a "Browse" button.

At the bottom are "OK" and "Cancel" buttons.

**Max Speed (MPH):**

This is the speed threshold in which the vehicle must be traveling to trigger the Screen Out system.

**Max Speed Change Count:**

Number of speed readings in which the vehicle must be equal to or exceeding the speed threshold to blank the screen. Also once the screen is blanked the vehicle must be below the Max Speed for this number or readings. The frequency in which the readings are taken is changeable through the settings file method.

**Email Settings:**

The Screen Out system works by communicating to the Screen Out module via Bluetooth. If the system is trying to be defeated by disabling the Bluetooth, an email will be sent to a specified email address with the time, date, computer name and user name of the machine in which it was connected.

To:

This is the email address of the person who should receive the email, telling that the Bluetooth module has been disabled.

To Name:

The person's name who will be receiving the emails sent from the Screen out application.

Subject

This is the subject line of the email being sent by the Screen Out application.

SMTP Host

This is the address for the SMTP host for your email server.

SMTP User Name

This is the user name used to log in to your SMTP server.

SMTP Password

This is the password used with your user name to log in to your SMTP server.

SMTP Port

This is the port in which your SMTP server is configured to work.

Use SSL

If your SMTP server is configured to use SSL (Secure Sockets Layer) make sure this box is checked.

Log Output Folder:

This is the folder where the Screen Out log files will be stored. The maximum log file size is changeable through the settings file method.

Once all the settings are correct, click OK to save the settings. If the Screen Out application is currently connected to a module, it will disconnect and reconnect to apply the new settings.

Using a Settings File

All of the previously defined setting may be changed using the Settings file method, and for some settings, this is the only way they may be changed.

To update the application using the Settings file method, create a text file named *Settings.cfg*, the Settings file may contain all of the following settings or just the settings you wish to update.

The Settings file should be constructed as follows:

```
[Settings]
MaxSpeedMPH = 1
MaxSpeedStateChangeCount = 1
MaxLogFileSizeBytes = 5242880
TimeBetweenSpeedChecks = 1000
```

```
EmailTemplate = EmailTemplate.html
EmailFrom = screenoutapp@gmail.com
EmailFromName = ScreenOut
EmailTo = someone@domain.com
EmailToName = John Smith
EmailSubject = Screenout
EmailSMTPHost = smtp.gmail.com
EmailSMTPUserName = screenoutapp
EmailSMTPPassword = mySMTPpassword
EmailSMTPPort = 587
EmailUsingSSL = True
AdminPassword = myadminpassword
NumberOfDaysNotConnected = 7
EmailTemplateNotConnected = EmailTemplateNoConnect.html
EmailTemplatePowerCheck = EmailTemplatePowerCheck.html
```

Most of the settings have been defined in the Graphical Settings section; however, there are a few settings that may only be changed through the Settings file. These settings include:

#### MaxLogFileSizeBytes

This is the maximum size of the log file in bytes. Once the maximum size of the log file is reached, a new log file will be created.

For example, when log file SpeedOut-000001.log reaches the maximum size, a new file SpeedOut-000002.log will be created.

#### TimeBetweenSpeedChecks

This setting defines the frequency in milliseconds in which the application requests the current speed from the Screen Out module.

#### EmailTemplate

This setting defines an HTML file used as a template for the email being sent when the Bluetooth module is disabled.

#### AdminPassword

This setting defines the password used to gain access to the graphical version of the settings. The Admin Password is case sensitive and may be alphanumeric. Do not use any special characters.

#### NumberOfDaysNotConnected

This setting defines the maximum number of day the software is allowed to run without connecting to a Screen Out module. Once the maximum number of days has been reached an email will be sent using the template of EmailTemplateNotConnected.

#### EmailTemplateNotConnected

This setting defines an HTML file used as a template for the email being sent when the maximum number of days without a connection has been reached.

EmailTemplatePowerCheck

This setting defines an HTML file used as a template for the email being sent when a power failure in the module has been detected.

Updating the System with a Settings file

Once the Settings file is created, just copy the file to the Screen Out folder. The application will read the file and update the settings. If the Screen Out application is currently connected to a module, it will disconnect and reconnect to apply the new settings.

Once the file has been read and the settings have been updated the settings file will be deleted. All of the current settings are stored in an encrypted format. Therefore, if the admin password has been lost or forgotten then it must be changed using the Settings file.

## Using an Email Template

It is possible to customize the email sent from the Screen Out application by creating an HTML template file used when sending an email.

You may use the following variables in the HTML template:

{USERNAME} Contains the user account the user is logged in to on the local machine.

{LASTSN} Contains the serial number of the Screen Out module the application was last connected to.

{TIMESTAMP} Contains the time and date the Bluetooth module was disabled.

{DAYSLASTCONNECTED} Contains the number of days the host computer has gone without connecting to a Screen Out module

## Changing the Screen out Image

The Screen Out application has a built in Screen Out image that will be used when the screen is disabled. However, it is possible to use a custom image for disabling the screen. The file should be called Screenout.jpg and placed in the Screen Out folder. By default the location is C:\ScreenOut

## Changing the Bluetooth Disabled image

The Screen Out application will use the same image to disable the screen as the Screen Out image when the Bluetooth module has been disabled. However, it is possible to use a custom image for disabling the screen because of disabling the Bluetooth module. The file should be called ScreenoutBD.jpg and placed in the Screen Out folder. By default the location is C:\ScreenOut

## Troubleshooting

During normal operation, the color of the LED on the side of the unit has the following meanings:

- Green: Unit is communicating with the PC
- Blue: The Bluetooth is connected
- Red: Short Red Pulse every 5-6 seconds, the unit is in low power mode. Otherwise unit has an error.

Problem	Lights	Possible Solution
Cannot pair module	None	<ul style="list-style-type: none"> <li>• Ensure the OBD-II cable is plugged in to the vehicle and in to the module</li> <li>• Ensure vehicle's battery is 12 volts or higher</li> </ul>
	Blue	<ul style="list-style-type: none"> <li>• Unit is already connected to another computer</li> </ul>
Computer wont connect	Short Red Pulse	<ul style="list-style-type: none"> <li>• Ensure laptop is within 10 feet of the module</li> <li>• Ensure vehicle's battery is 12 volts or higher</li> </ul>
	Blue	<ul style="list-style-type: none"> <li>• Unit is already connected to another computer</li> </ul>

## Known Issues

1. If the unit will pair but not connect:
2. Unpair the device (Remove it from Bluetooth devices)
3. Bring up the services console (Start -> Run -> services.msc)
4. Locate the "Bluetooth Support Services"
5. Right click on the service and choose "Properties"
6. Click on "Log On" tab
7. Check "Local System Account" radio button.
8. Click "OK"
9. Right click on the service in the list again and choose "Restart"
10. Pair the ScreenOut BT module again.

## Minimum Computer Operating System Requirements

Win 7: Service Pack 1+ Microsoft Dot Net framework 4.0 SP1

XP: Service Pack 2 + Microsoft Dot Net framework 4.0 SP1

Vista: Service Pack 2 +Microsoft Dot Net framework 4.0 SP1