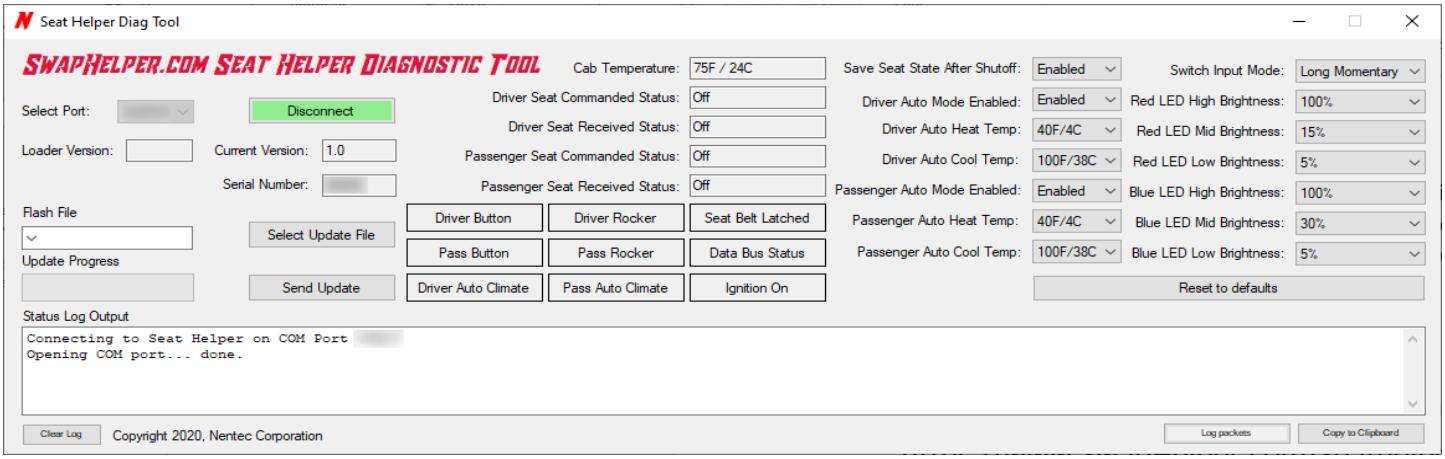
SwapHelper.com

Seat Helper

Firmware and Functionality Guide

For firmware Version 1.0

Please note, default settings shown below



Given the advanced functionality of the Seat Helper and our ability to provide field updates, this guide is included with each firmware release. A changelog is provided at the end of this guide to explain what has changed from version to version.

Basic operation:

When the Seat Helper module sees the ignition turn on via the Acc/Ignition input, the Seat Helper will turn on the Status LED (see the *Getting to know your Seat Helper* section of the instructions for location of the Status LED) to a dim blue color indicating it is awake. When the ignition turns off, the dim blue Status LED will turn off.

Windows diagnostic application:

To change any of the settings on the Seat Helper, you will need to connect via the included USB cable using a Windows based laptop and our diagnostic software. It can be downloaded at: https://www.SwapHelper.com/SeatHelper

There are many configuration options and diagnostic parameters in the software, which we will explain here.

Cab Temperature – the temperature detected by the Seat Helper. This temperature is used when the ignition is turned on to determine whether to automatically turn on heat or cool modes for the driver and/or passenger seats, depending on their respective configuration.

Seat Commanded Status – the status the Seat Helper is requesting of the seat.

Seat Received Status – the status the Seat Helper is receiving from the seat. If the Seat Helper does not see the seat go into the requested mode within a certain time period, the Seat Helper will command the seat off and go into error mode, which will blink the red and blue LED seat status outputs simultaneously for the respective seat three times to indicate an error, and then shut off. With the red and blue LEDs on simultaneously, it will create a pink or purple color, distinctly different than the normal red or blue. The box for commanded and received status in the diagnostic application will turn red for the respective seat while in error mode.

Button & Rocker indicators – These boxes will turn green when the respective input is connected to ground. These are mainly to assist from a diagnostic standpoint if not using the factory wired buttons.

Seat Belt Latched – this indicates if the seat belt is currently latched. If it is not, it will be grey, if it is, it will be green. If the circuit is open or shorted between the seat belt latch and the Seat Helper, it will turn red.

Data Bus Status – indicates whether the Seat Helper is communicating with the factory Ford seat modules. Red indicates an issue with the communication.

Ignition On – indicates whether the ignition is currently on.

Driver/Pass Auto Climate – these indicate whether the Seat Helper has automatically turned on climate mode when the ignition was turned on. This will only happen if Auto Mode is enabled, no buttons/rockers are pressed, the temperature is outside of auto heat/cool temperatures, and the seat has not saved a prior state using the Save State After Shutoff function. The temperature is only checked once after the ignition is turned on, and auto mode will be immediately

disengaged if a button/rocker is pressed and will not be reengaged until the ignition cycles.

Configurable Settings:

Switch Input Mode – there are four different input modes, Long Momentary, Cycle Momentary, Cycle Rocker and Static Rocker. The default is Long Momentary.

1. Long Momentary – Designed for momentary buttons, when the button is normally pressed it turns on high heat. Subsequent presses reduce heat to medium, low and back to off. If the button is pressed for more than a ¼ of a second, high cool mode is enabled. Subsequent presses reduce cool to medium, low, and back to off.
2. Cycle Momentary – Designed for momentary buttons, when the button is pressed it turns on high heat. Subsequent presses reduce heat to medium, low, and then to high, medium, and low cool, and finally to off.
3. Cycle Rocker – Designed for momentary rocker switches, when the rocker is pressed up while seat climate is off, it turns on low heat. Subsequent presses up increase heat from low to medium and then to high. Pressing down on the rocker will reduce the heat to medium, low, and finally off. If pressing down is continued, it will engage low, medium, and high cool modes. Pressing up while in a cool mode will reduce the cooling.
4. Static Rocker – Designed for static or latching rocker switches, when the rocker is pressed up while the seat climate is off, it turns on high heat. When the rocker switch is returned to the off position, the seat climate will shut off. When the rocker is pressed down while the seat climate is off, it turns on high cool. When the rocker switch is returned to the off position, the seat climate will shut off. Only high heat and cool are available with a static rocker. Auto Climate mode will still work properly in this mode.

Save State After Shutoff – this setting will allow you to retain the last seat climate setting when the ignition was turned off. For instance, if enabled and the driver seat was left in low cool mode and the passenger seat was in medium heat mode when the ignition was shut off, when the ignition is turned back on, the seats will automatically go back into these modes. Please note the saved state takes precedence over Auto Climate mode, so if you leave your seat in medium heat

mode, but the temperature detected when the ignition turns on is above the Auto Cool Temperature, the Seat Helper will disregard the Auto Cool request and put the seat back into medium heat mode.

Auto Mode Enable – this sets whether you want auto mode to turn on based on the configured temperatures. It is configurable independently for the driver and passenger seats.

Auto Heat Temp – if Auto Mode is enabled for the seat and the temperature is below this point, the Seat Helper will request high heat mode when the ignition is turned on. This setting can be configured independently for both the driver and passenger seats.

Auto Cool Temp – if Auto Mode is enabled for the seat and the temperature is above this point, the Seat Helper will request high cool mode when the ignition is turned on. This setting can be configured independently for both the driver and passenger seats.

Red/Blue LED High Brightness – this is the brightness (or duty cycle) of the LED output when in high heat (Red) or high cool (Blue).

Red/Blue LED Mid Brightness – this is the brightness (or duty cycle) of the LED output when in medium heat (Red) or medium cool (Blue).

Red/Blue LED Low Brightness – this is the brightness (or duty cycle) of the LED output when in low heat (Red) or low cool (Blue).

*The reason we allow the end user to configure the brightness is due to differences in LEDs. It allows you to adjust the brightness to get the maximum differentiation between modes. It is also updated in real time, so when you adjust it in the app, it will change immediately, allowing you to easily configure the best brightness for a particular mode.

Reset to defaults – this button will reset all the aforementioned configuration options back to their factory setting.

Flash mode:

When the Seat Helper is flashed using the Windows diagnostic app, the blue Status LED will turn on as brightly as possible until flashing is completed.

Changelog:

Version 1.0 – Initial release

Troubleshooting:

As mentioned in the instructions, it is recommended you visit our website and watch videos regarding the Seat Helper installation and use. The information can be found at:

https://www.SwapHelper.com/Seathelper

Still can't figure out your issue? Shoot us an e-mail for additional support:

Contact@SwapHelper.com