

Clock Installation

BEFORE INSTALLING THIS PRODUCT, PLEASE CAREFULLY AND COMPLETELY READ THESE INSTRUCTIONS. IF YOU HAVE ANY QUESTIONS ABOUT THE INSTALLATION OF THIS PRODUCT, EMAIL YOUR CONCERNS TO ACK@ACKSFAQ.COM . WE ARE NOT RESPONSIBLE FOR VEHICLE MODIFICATIONS OR EQUIPMENT FAILURES THAT AFFECT THE OPERATION OF THIS PRODUCT.

NOTE: when you install the unit into the dash, make sure that the temperature probe is standing vertical or at a right angle to the clock board so that the heat from the clock board does not affect the probe's temperature sensing.

Install the clock on your dash by using the fresh air vent mount or by clearancing a hole in the center of the dash using the enclosed template where the factory clock would go.

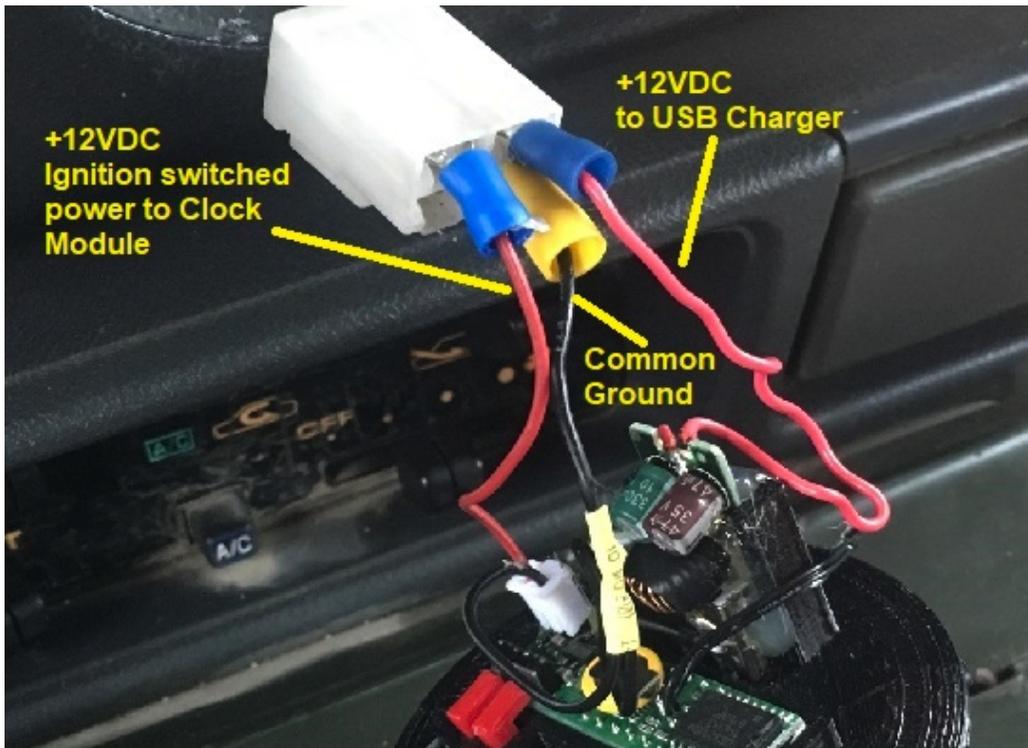
Once you have determined where you are going to mount the clock, make sure that there is a path for the wiring to travel to the harness. It may be necessary to drill a hole in the ductwork for the wiring.

Wiring - Stock clock location

Ack's Samurai Dash Clock comes perwired to install in the Factory clock location in the center of the dashboard. There is a wiring harness connector located on the backside of the dash at that location. It has connectors for switched 12VDC for powering the clock.

If you are using the center area on the dash to mount your clock, use the template (found on the last page of this document) to cut a hole in the center mount location.

This is what the mounting hole looks like once you make an opening for the clock:



The picture, above, shows how to connect the clock module to the existing clock module plug.

Positive power for the clock module is connected to Switched Ignition (upper left socket with the connector's snap-lock pointing down).

Positive power for the USB charger is connected to the always-hot socket on the upper right of the connector.

Common ground for both the clock and the USB charger is connected to the lower right socket.

The color coding for the Clock harness wires are as follows:

- Constant 12 VDC = White wire
- Ignition-switched 12 VDC – White/Black wire
- Common Ground – Black wire

Installing the clock wiring in an air vent hole

The difference between this installation and the above installation process is that you must fish out the clock connector down to the bottom of the dashboard so that you can connect the clock wiring to the harness.

You will also need to drill a hole in the side of the vent plenum for the wiring to connect to the clock.

The simplest method for doing this installation is to make three 6 to 10-inch extension wires with a 1/4-inch spade and socket connector on either end of the three wires.

Connect the wires to the clock module wires. Try using different colored wires to simplify the wiring process. Feed the wires through the hole that you made in the vent plenum.

Connect the wires to the appropriate sockets in the clock module

connector in the dash.

Suitable splice joints and connectorized wires are included with this kit for this process.

Mounting the clock

Clean the attaching surface of all dirt, then attach the wired **and tested** clock with a bead of hot glue from a hot glue gun applied to the edge of the mounting hole, then pressing the clock into place.

Hot glue is recommended as you can easily remove the clock with denatured alcohol applied using a soaked "Q-tip" around the edge of the clock to release the hot glue adhesion.

How to set Ack's Samurai Dash Clock.

Preparation

Before setting the clock, you should have a voltmeter or a multimeter set to Volts DC and a Centigrade/Celcius thermometer available in order to properly calibrate temperature and Voltage DC reading made by the clock module.

Determine the Centigrade/Celcius temperature in the area and write the temperature down.

Do the same with the meter at the battery terminals then write the voltage value down.

Connect the clock to 12 volts dc by inserting the power harness onto the two power pins so that the red wire connects to the pin in the corner. It has a tiny "+" printed on corner of the circuit board next to that pin. **DO NOT HOOK THE POWER CABLE UP BACKWARDS!**

Start the cycling display (if it is not already cycling) by pressing the right button.

Write down the temperature and voltage values displayed then compare them to the actual temperature and voltage you have previously written down. The positive or negative difference between these values are what you will enter later in the setup process described below.

Setting the clock

The following are the steps - in order - for setting the clock module:

The left button selects and ends a particular mode. The right button selects the setting.

The order of using the left button is as follows:

Set minutes

Press left button to enter the Set Minutes mode. Press the right button to select the minutes.

Set hours

Press left button to enter the Set Hour mode. Press the right button to select the hours.

Set day

Press left button to enter the Set Day mode. Press right button to select the day.

Set month

Press left button to enter the Set Month mode. Press right button to select the month

Set year

Press left button to enter Set Year mode. Press right button to select the year

Set Voltage function

Press the left button to enter the voltage calibration function. The display will flash and show the currently programmed error offset value - 0.0U. The display cannot generate the "V" (Volts) character so the letter "U" is used. Pressing the right button will cycle through a series of correction values from -0.5 volts to +0.5 volts starting with 0.0. Use the voltage offset value that you measured at the beginning of these instructions to set the error correction value. Press the right button until the value you obtained (or one closest to it) is displayed.

Set Temperature function (Temperature is displayed in degrees Centigrade)

Press the left button to enter the temperature calibration function. The display will flash "Ac:_0". Pressing the right button will display values between 0 to 5 or -1 to -5 indicating an offset between actual temperature and displayed temperature. Use the offset value obtained at the beginning of these instructions to enter the correct temperature offset value.

Set the display time-temperature-voltage display order function.

Press the left button. "dd: - 0" will appear. The number value

indicates the order the time/date, temperature and voltage will (or will not) display. Valid values include:

"0" Time, Temperature and Volts

"1" Time and Volts

"2" Time and Temperature

"3" Temperature and volts

Set the display delay value function

Press the left button. "dF: _ 0" will display. The number will cycle from 1 to 9 indicating the number of seconds display a value before cycling to the next value

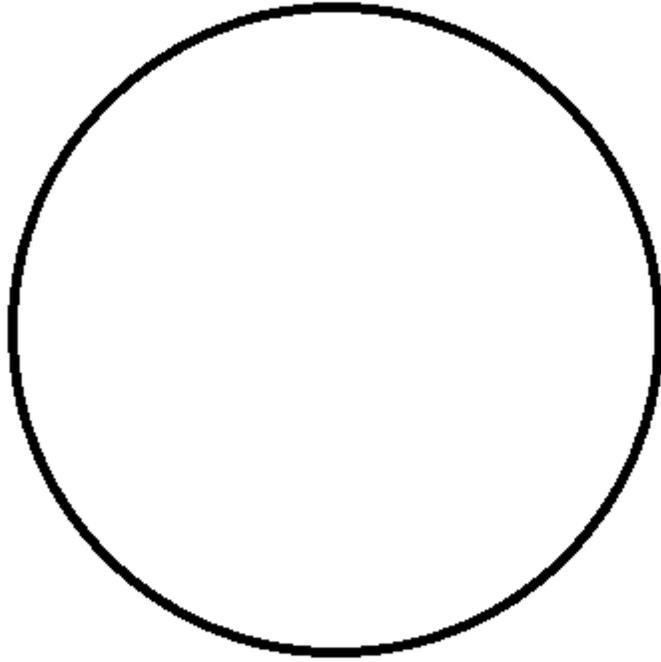
Set the display brightness function **This does not not actually seem to affect display brightness. You can press the left button twice to skip this setting.**

Set the Display Brightness

This setting actually causes the display to appear either be bright or slightly dimmer.

Press the left button. "AL: _0" will appear. This is the bright setting. Press the right button and the brightness setting will change to "AL _1" - the low light setting.

Center hole template



Center dash mount hole template