

Mazda MX-5 PRHT roof controller RFC2-NC installation guide, operation manual, and configuration software.



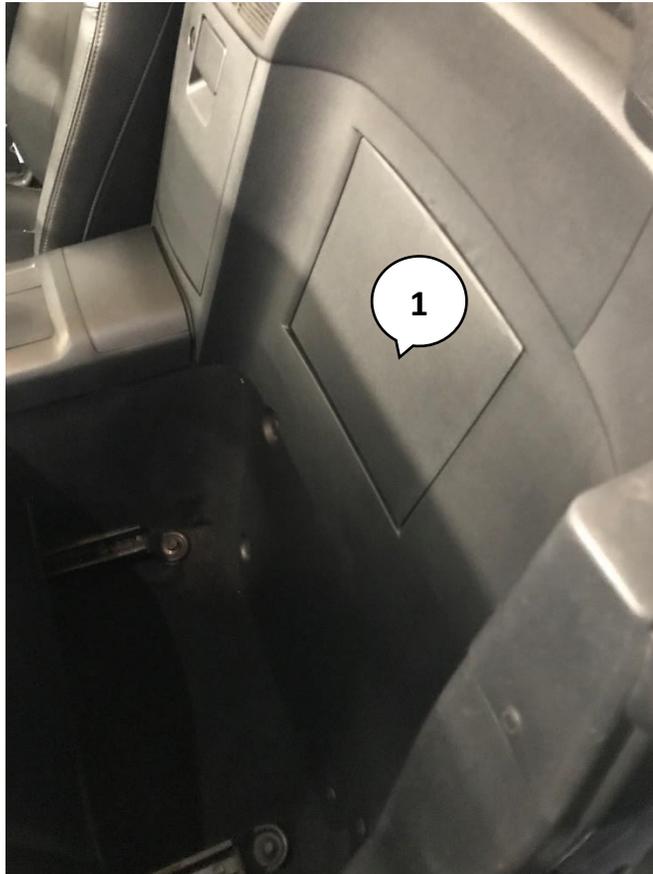
Overview:

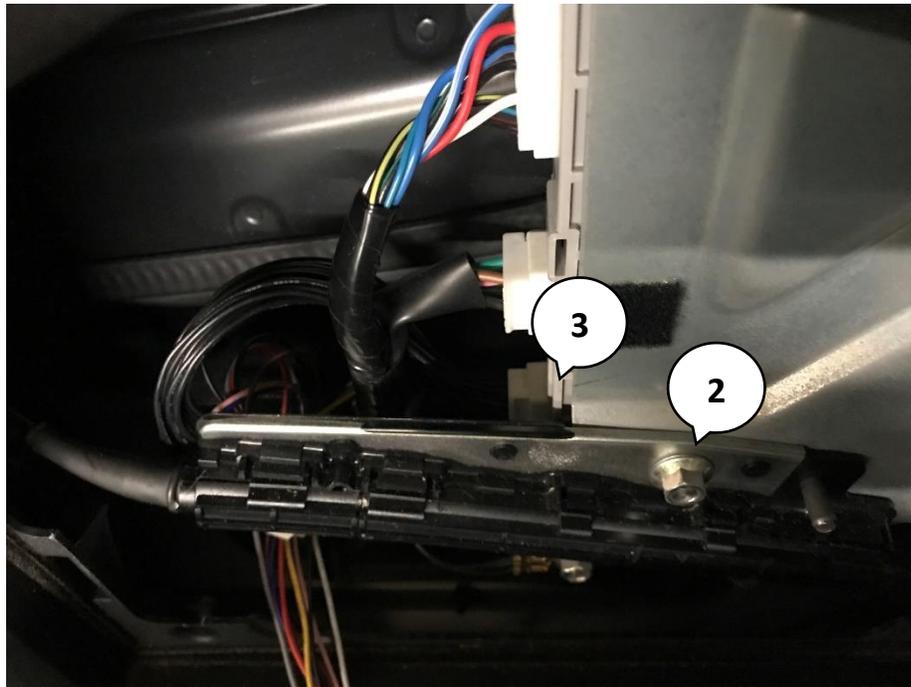
The RFC2-NC controller allows the user to operate the roof mechanism with one-touch of the roof control buttons at selectable speeds up to 30 mph as well as when driving in reverse

Hardware Installation:

Tools required: 10 mm socket or ratcheting box wrench. Portable light. Small flat screwdriver.

1. Fully open the convertible top. Lower the windows. Disconnect the negative battery terminal.
2. Move the left seat all the way forward and tilt the back fully forward.
3. Remove the plastic cover (1).





4. Use a 10mm socket or ratcheting box wrench to remove the nut (2), and then flip the metal holder down.
5. Remove the leftmost white plug (3). It is locked into place with latching mechanisms. Push down on the tabs in the middle while pulling the plug and NOT the harness. If necessary, inspect the corresponding plugs on the module harness for a visualization of the latching mechanism.
6. Insert the plug into the matching socket on the RFC2 wiring harness. Make sure that they latch securely into place.
7. Insert the RFC2 harness plugs into the socket on the car convertible top controller. Again, assure that plug latch securely into place.
8. Plug the RFC2 plug into the RFC2 module socket.
9. Reconnect battery and turn the ignition fully on. The LED should be now blinking Red (appears as solid red), indicating a successful installation. Check operation using Roof control buttons.
10. Mount RFC2 module using attached Velcro pad and hide harness under the roof control module.



11. Turn the ignition back off, re-assemble everything, and configure the module according to our Operation and Programming manual if not configured prior to installation.
12. We recommend leaving the USB cable connected to the module and then running it to an accessible area. This allows easy laptop connection for future updates and configuration changes.

Operation:

3 configurations can be implemented:

1. – **“One touch normal”** fully opens the roof when button pressed a half-second (or until the roof starts moving). The roof fully closes when “close” button pressed for a half-second.
2. – **“Disable one-touch”** operates the roof in the factory-default mode with all of its limitations.
3. – **“Valet mode”** disables all roof operations.

The desired operational speed limit can be set using the “Speed limit” dialog box; up to a maximum of 30 mph.

If check box “Auto” is selected, automatic roof lowering will start with opening the top latch.

When operating with one-touch, roof movement can be paused by clicking switch in the opposite direction.

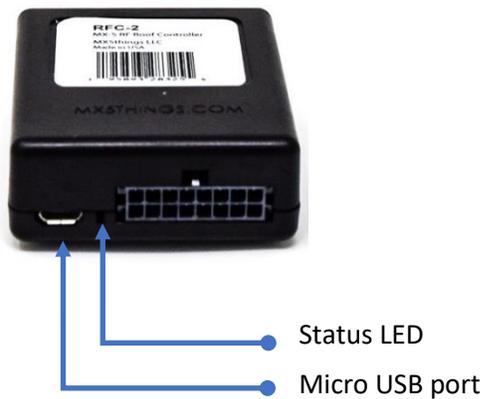
Module Configuration:

To change module configuration, use the Windows software. Configuration can be done before installing the module in the car or after the module is installed when the car power is off.

For normal operation, the USB cable **must** be unplugged from the computer. The Micro USB end can remain connected with the module. The cable can then be routed so that the USB A connector is available for easy access to make future configuration changes.

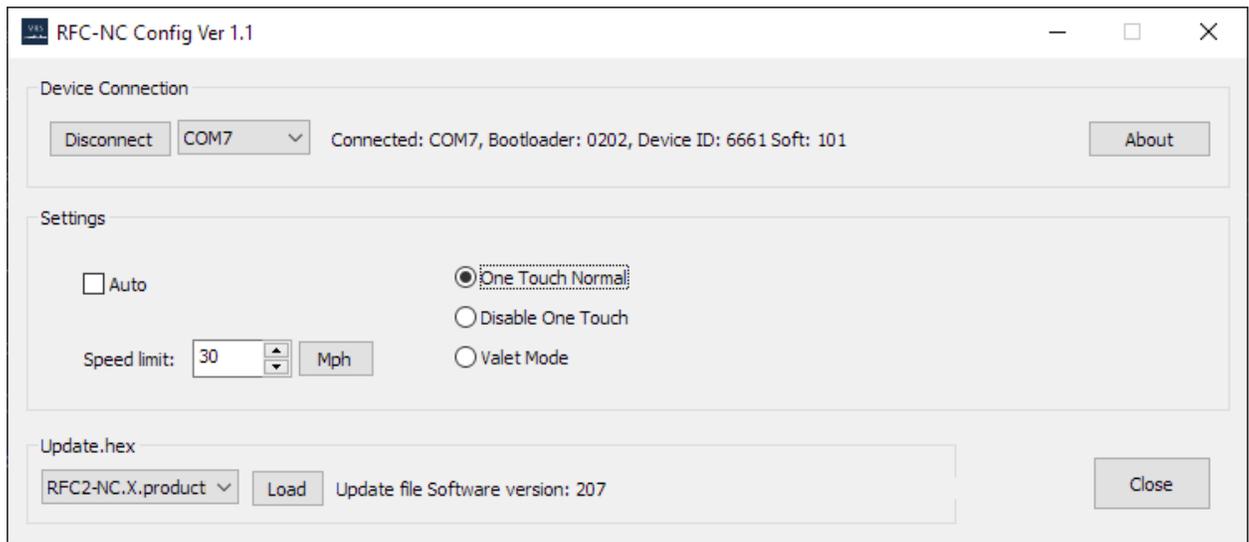
The Status LED will be on if CAN bus communication with the car is active. The module goes to sleep 2-5 minutes after the car power turns off and the LED will turn off.

Figure 1



Configuration software

1. Download latest configuration software and firmware from [support page](#) and unzip it to desired location.
2. With car power off, connect the RFC2 module to a Windows PC via the Micro-USB cable. The module status LED will be solid Red.
3. Start the RFC_NC_config.exe application.
4. Select COM port (it will be new COM port number, after connecting cable).
5. Click on the “Connect” button.
6. After successful connection, the current software version is displayed next to the Connect button.



7. To update firmware, select the latest firmware from the Update.hex drop-down box. Click on the “Load” button. If the update is not necessary, skip to Step 10.
8. The upgrade process starts automatically and displays a progress bar.
9. After uploading completes, the device reconnects.
10. You can now select desired configuration. Configuration save to the module immediately.
11. Disconnect the USB cable from the computer.
12. Test to confirm selected roof operation.