Apogee installation guide

Congratulations on your new Apogee intelligent device controller. This guide is intended to quickly guide you through the steps required to install the system.

What's what
There are 6 wires coming out of the Apogee module and here's what they are:
- One red 10 AWG and one black 16 AWG cable to connect to the battery
- An 18 AWG yellow wire that is used to sense the vehicle's ignition on/off state
- Two black cable with heat shrink sleeving (one black and one red) with small black bulbs on the end. These are ambient temperature probes
- A USB cable with a dongle plugged into the USB socket (control unit): no dongle (satellite unit)
- USB socket can provide power for USB devices using the optional USB Y cable. This socket is also used to update firmware in the field

Step 1. Find a suitable location to mount the module. Since the module is waterproof you are free to locate it just about anywhere you like, but it can't be more than 2.5 feet from the battery. If you need to locate the Apogee module more than 2.5 feet from the battery it's ok to splice in additional 8 AWG wire up to a total of 6 feet

Please note that if you decide to install the module where it is exposed to water, cover the terminals with dielectric silicone grease or silicon putty. (Macks earplugs) We also recommend that in high water environments that the module be mounted with the terminal strip facing down so that water has a tendency to fall away rather than pool

Note: the junction of the Bluetooth radio and the USB socket is not waterproof and should be located in a dry place. If this isn't possible, please seal the junction of the BT radio/USB socket with silicon sealant or similar

Step 2. Connect up the red power lead to the battery. The black lead can be connected to the battery negative terminal or any good vehicle ground. Make sure you don't reverse polarity as this may cause irreparable damage to the module

Step 3. Run the temperature probes out to a locations that are both shielded from direct sunlight and away from sources of vehicle heat…unless you want to use probes to measure powertrain temperatures up to 300 degrees F

Step 4. Connect the yellow power sense wire to a convenient circuit that is energized when the vehicle ignition is switched on. Typically this will be a tail light wire. Please use the included Scotchlok connector or similar for this purpose. Note: the system won't turn on unless +12V is being sensed by this lead. Do not connect this wire to CANbus data lines

IMPORTANT: Please discharge any static electricity before sliding a device wire into the terminal block by touching both your finger and the wire being connected to a metal part on the bike. This is very important as ESD can damage your module.

Step 5. Connect up the powered/controlled devices to the large terminals labeled 6 through 1

In order to minimize loads on the host vehicle, the system starts up circuits sequentially (1-6) with a short delay between each

Step 6. Connect 20-24 AWG wires to the smaller terminals adjacent to the output connections as required

Here's a breakdown of what each terminal does, starting from left to right:

Analog in: this is one of 6 relay inputs on the Apogee. Unlike the other 5 this one allow you to set a voltage threshold for activation. See the owners manual for information on programming this functionality

CAN FD: These terminals are used to connect up to 8 Apogee modules together for a total of 48 circuits using optional CAN interconnect cables. Attach the initiation cable to the control unit and the termination cable to the final unit. Use the intermediate cable to connect the units between the control and last satellite unit

CAN HI and LO: These terminals are used to monitor host vehicle CAN activity using optional vehicle-specific CAN interconnect adapters. See the owners manual for information on programming host vehicle CAN address information

Relay inputs 5 through 1: use these inputs to sense 12V from existing vehicle circuits. See the owners manual for configuration instructions

Step 7. Download the appropriate smart phone application from the iTunes store or the Android Play Store. Please see our website for the current links

Step 8. Connect your phone to the module via a Bluetooth wireless connection.

To connect via Bluetooth, make sure Bluetooth is enabled on your phone and launch the Apogee application. It is necessary to tell your module that it's ok to talk to your phone. To do this tap the units of measure button on the opening page and then the NBB select button on next page. Select the module or modules that you want to connect, name the module(s) and press the connect yes button. It takes a few seconds, but once connected you will have full access to all Apogee functionality. Note: please use the optional USB Y cable to directly power USB devices from the NBB module

Note: for both Android and iOS devices it's essential to enable Location Services

Note: Remember that in order to save programming information to the Apogee module your phone must be connected to the module via Bluetooth. Settings are saved when the ignition is turned off. Killing the app before turning the ignition off will cause setting changes to be lost

Step 9. go to www.neutrinoblackbox.com/support and read/download the Apogee owner's manual, where complete system operation is explained in detail

Congratulations. You are now ready to begin using the Apogee power distribution and control system.

Warranty: 1 year against defects in material or workmanship

More questions? Please call us at 707-583-7743 or email us at service@arborealsystems.com