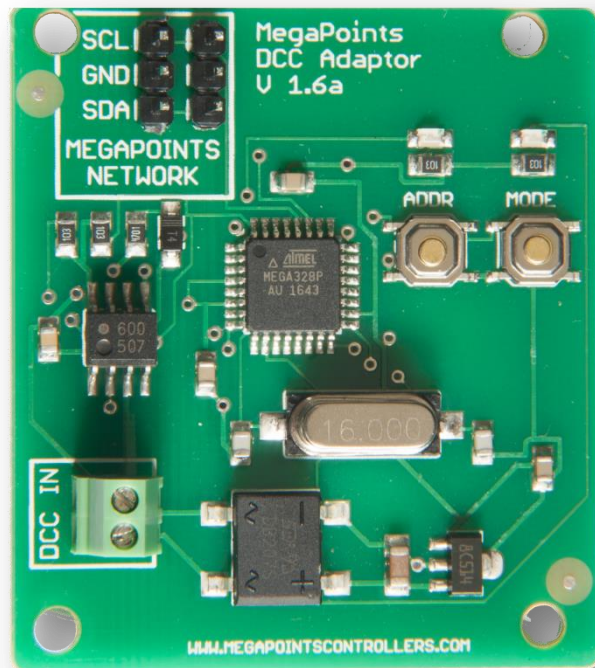


MegaPoints DCC Module

Covers board versions 1.6

Add DCC control to your MegaPoints network.



Revision 9 Sept 2019

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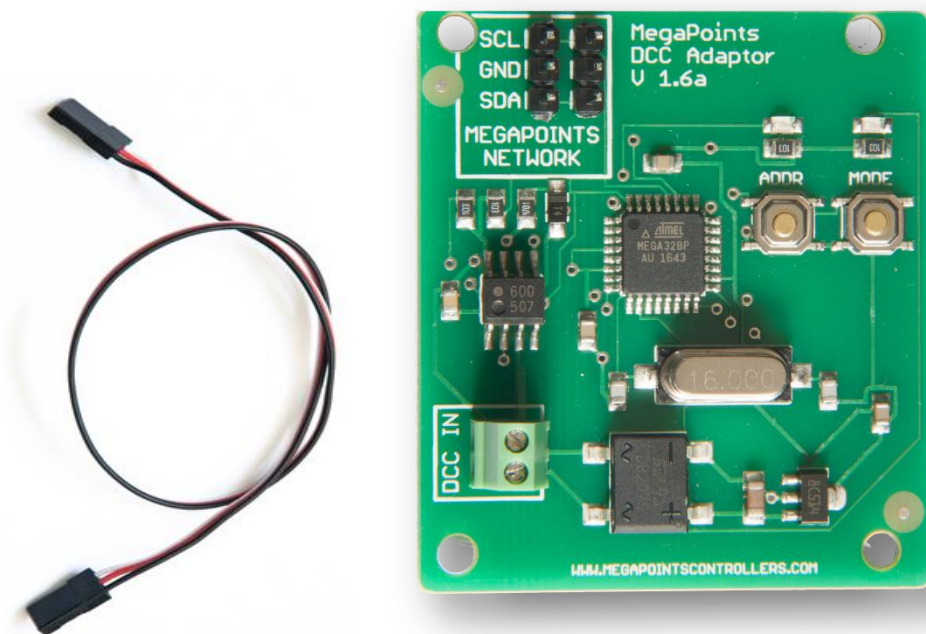
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What's included

This component ships with:

- 1 x DCC interface processor board
- 1 x Servo cable (for hook-up to a Controller or MultiPanel)



Introduction

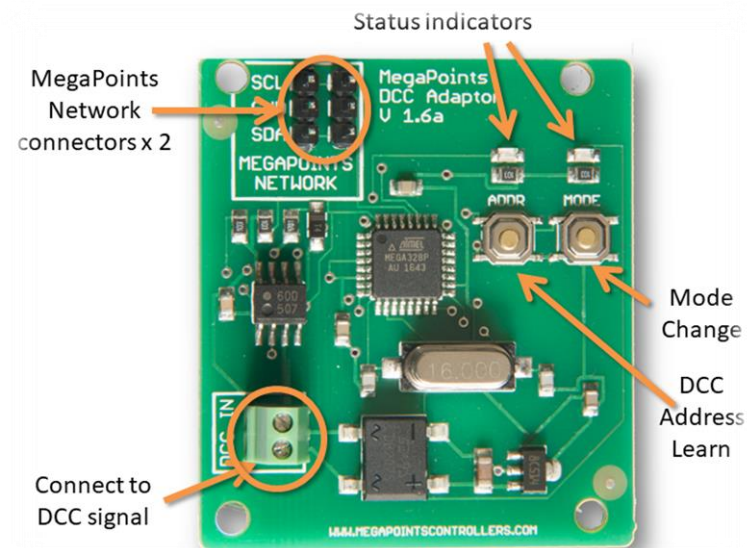
This guide covers DCC modules 1.6 onwards.

The MegaPoints DCC module provides easy access to any NMRA compliant DCC signal for MegaPoints controllers. Using a single servo connector and cable it's easy to hook up and get going.

The DCC module has two modes of operation. In simple mode it connects directly to a servo or solenoid or relay controller. Network connection via the three pin connector or screw terminals and provides 12 DCC addresses for accessory control.

In gateway mode the DCC module connects to a MultiPanel Processor (*mimic panel controller*) and provides over 200 DCC addresses for the entire network. In this mode only a single DCC gateway is required for up to 192 sets of points or accessories.

Hooking up



Connect the two screw terminals to your DCC signal. When power is applied the unit will begin to flash. The board will draw about 20ma from the DCC bus.

Connect the supplied cable to the three pin connector at the top left of the DCC module. The other end will plug directly into the MegaPoints Controller or MultiPanel. Observe the orientation of the plug. Ensure SDA connects to SDA and SCL connects to SCL. If these are reversed no damage will occur, but any attached devices won't see the signal.

NOTE: If connecting directly to a Servo Controller you must set slave mode on the Servo Controller. See the respective user guide for details.

Changing DCC address

Any valid DCC accessory address can be used in the range 1 – 2000. The DCC module address is configured by entering monitor mode and watching for a DCC accessory packet. The unit will then configure itself to the first address it sees. This address becomes the base address for the module. All remaining addresses (*total 12 for simple mode*) use the base address plus 11 next DCC addresses.

Example: Setting the DCC base address to 1

- Press and hold the left button for about one second until the green light illuminates.
- From your DCC controller send an accessory packet to DCC address 1.
- The green light will extinguish as soon as the DCC module has discovered an accessory packet.

The DCC module is now configured to use addresses 1-12 for attached controller outputs 1-12.

Send an accessory packet to any address in the 1-12 range and observe the corresponding servo (*or solenoid, or relay as appropriate*) move as each DCC command is received.

Example: Setting the DCC base address to 150

- Press and hold the left button for about one second until the green light illuminates.
- From your DCC controller send an accessory packet to DCC address 150.

The green light will extinguish as soon as the DCC module has discovered an accessory packet. The DCC module is now configured to use addresses 150-162 for the controller outputs 1-12.

Send an accessory packet to any address in the 150-162 range and observe the corresponding attached device (*servo, solenoid or relay*) move as each DCC command is received.

DCC address ranges

Remember, in monitor mode, the first DCC accessory packet that is seen becomes the base address for the unit.

In Simple mode the module has 12 DCC addresses starting from the base address and incrementing upwards. For example, address range 1 – 12.

In Gateway mode the module has over 200 DCC addresses starting from the base address and incrementing upwards. For example, address range 1 – 192. The next address block of 24 above the logical 192 are for router control.

Changing the mode

NOTE: The default mode is simple mode and will connect directly to a Servo, Solenoid or Relay Controller without adjustment.

Checking the mode is easy:

- If the left LED flashes then the unit is in simple mode for direct attachment of up to 12 devices.
- If the right LED flashes then the unit is in gateway mode and will only talk to a mimic panel processor and router.

To toggle the mode, follow this procedure:

- Press and hold the right button for 1 second until the light flashes three times.

Settings are remembered until you change them.

Gateway mode

Further details of gateway mode are available from the MultiPanel Processor documentation.

Diagnostic mode

The DCC module is equipped with a diagnostic mode to check communications between the DCC module and a direct attached Controller (servo, solenoid or relay). This mode will toggle each of the 12 Controller outputs approx. once every 12 seconds in sequence.

To enter diagnostic mode, press and hold down both buttons while applying DCC bus power. When the LEDs illuminate, release the buttons. After about 12 seconds one LED will extinguish indicating the direction of the Controller output. This will reverse every 12 seconds with an accompanying LED change.

To leave diagnostic mode, recycle the power to the DCC bus or temporarily disconnect the DCC module from the DCC bus.

Further information

See the web site (megapointscontrollers.com) for more information and links to instructional videos.

Contacting us

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Check website for up to date contact information.

If you have any product improvement suggestions we'd be very pleased to hear from you.