DD-EFI Digital Pro Dash User Guide

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DD-EFI Digital Pro Dash

Product Information:

The DD-EFI Pro Dash is a digital dashboard designed for use with vehicles. It features main connectors V1 and V2 for connecting to the vehicle's ECU. The dash has two I/O connectors for sensors and digital inputs.

The product comes with sensor and digital wiring harnesses, T-Tap connectors, and a breakout board for connecting sensors directly from DD-EFI.

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For warranty-related inquiries, please contact support at
Digital Dash EFI LLC via email at **support@dd-efi.com**.

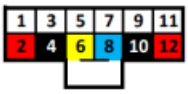
Product Usage Instructions

1. **Connection from Dash to ECU:** Wire the Can H/L Wires (Red/Black Twisted Pair) to the ECU Can H/L Wires. Use a volt meter to verify that there is 12V on the Yellow Wire (12V Switched). The screen will only turn on when 12V is applied.
2. **Dash Setup & Configuration:** If you have already completed the assembly process of your dash and provided your TunerStudio Registration and Current Project, your setup and configuration are complete. Proceed to wiring the I/O connectors
   for your digital and analog inputs.
3. **I/O Connectors:** The Pro Dash has two I/O connectors for sensors and digital inputs. Refer to the provided diagrams for each pin's location, function, and wire color in the 12-pin and 10-pin black connectors. Use the provided sensor and digital wiring harnesses, T-Tap connectors, and breakout board for easy connections.
4. **Sensor Connector:** Make a single wire connection by attaching the Yellow Wire (Pin 12) to your vehicle's fuel sending unit signal wire. Use the provided T-Tap Wire Connector for easy connection to your factory wiring.

Main Connector

V1

Main Connector



Color: Natural/Tan

Pin	Wire	Description
1	N/A	
2	Red	12V Power - Connect to a "Clean" 12V+ Battery Power Source
3	N/A	
4	Black	Ground - Connect to a "Clean" Ground Source
5	N/A	
6	Yellow	12V Ignition - Connect to a "Clean" switched battery source
7	N/A	
8	Blue	Optional 12V Switched - another trigger to Turn ON the dash ie: Dome light, Door Switch, etc.
9	N/A	
10	Black	Can L - Connect this wire to the CAN L on your Megasquirt ECU (Red/Black Twisted Pair)
11	N/A	
12	Red	Can H - Connect this wire to the CAN H on your Megasquirt ECU (Red/Black Twisted Pair)

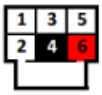
V2

Main Connector

Color: Natural

Pin	Wire	Description
1	N/A	
2	Red	12V Power - Connect to a "Clean" 12V+ Battery Power Source
3	N/A	
4	Black	Ground - Connect to a "Clean" Ground Source
5	N/A	
6	Yellow	12V Ignition - Connect to a "Clean" switched battery source
7	N/A	
8	Blue	Optional 12V Switched - another trigger to Turn ON the dash ie: Dome light, Door Switch, etc.

CanBus Connector



Color: Natural

Pin	Wire	Description
1	N/A	
2	N/A	
3	N/A	
4	Black	Can L - Connect this wire to the CAN L of your Megasquirt ECU (Red/Black Twisted Pair)
5	N/A	
6	Red	Can H - Connect this wire to the CAN H of your Megasquirt ECU (Red/Black Twisted Pair)

CAUTION: Make sure to install a Jumper Wire (With Factory Resistor or Fuse) between the vehicle's alternator excite/sensing wire to the vehicles ignition wire when removing the instrument cluster or your alternator may not charge. To verify that your alternator is charging start the vehicle and use a Volt Meter on the Battery terminals. You should have a reading of 13V+ when connected to the Battery.

Connection from ECU to Dash: Install your USB Tuning Cable into one of the open USB Ports on the Pro Dash
Connection from Dash to ECU: Wire the Can H/L Wires (Red/Black Twisted Pair) to the ECU Can H/L Wires

Troubleshooting Dash Not Turning ON:

- Fan on back of Dash Running – NO
  - Verify Wiring – Make sure the Red (12V Battery) and Black (Ground) are NOT hooked up to the CAN H/L wires. This is the 6ft long twisted wire pair that goes to your Megasquirt ECU.
  - Verify 12V – Use a Volt Meter to verify there is 12V to both the Red Wire (12V Battery) and the Yellow Wire (12V Switched).
- Fan on back of Dash Running – YES
- Use a Volt Meter to verify there is 12V on the Yellow Wire (12V Switched). The screen will only Turn ON when 12V is applied.

Dash Setup & Configuration

After the assembly process of your dash, you were requested to provide your TunerStudio Registration and Current Project.

If you did this, your setup and configuration has been completed and you can move on wiring to the I/O Connectors for your Digital and Analog Inputs

If you did NOT, please contact **support@dd-efi.com** to complete this step of the setup and configuration process.

I/O Connectors

The DD-EFI Pro Dash has (2) I/O Connectors for Sensors and Digital Inputs. Below are diagrams outlining what each Pins location, function, and wire color in the 12 Pin and 10 Pin black connectors. Provided: Sensor and Digital Wiring Harnesses, (4) T-Tap Connectors (Used for: Fuel Level, L/R Turn Signals, High Beam), Breakout Board (If you purchased sensors directly from DD-EFI)

Sensor Connector

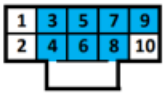
Color: Black

Pin	Wire	Description
1	White	VR2+ ***
2	Blue	VR2- ***
3	White	VR1+ ***
4	Blue	VR1- ***
5	Red	5V VREF Power - this is used to supply 5V Power for Sensors 1-5
6	Black	Sensor Ground - this is used to supply Ground for Sensors 1-5
7	Green	Sensor 1
8	Green	Sensor 2
9	Green	Sensor 3
10	Green	Sensor 4
11	Green	Sensor 5 (Oil Pressure) this is already pre-setup for a DD-EFI 0-100PSI Pressure Sensor
12	Yellow	Fuel Level - this is already pre-setup by connecting to the factory fuel sending units signal wire

Sensor Connector

- **(5) ADC (Sensor) Inputs:**
  o Sensor 5, this is pre-configured in default DD-EFI Dashboards for Oil Pressure
  o This requires a Digital Pressure Sensor, so if you need one, we offer one at **https://dd-efi.com/collections/accessories**
- Breakout Board – this is included with any order that purchases sensors directly from us to simplify the wiring process
- **Sensor Wiring:**
  o All wiring diagrams are on our website (**https://dd-efi.com/pages/technical-resources**)
- Fuel Level (Yellow Wire) – this is a pre-configured internal circuit to make the wiring of your factory vehicle fuel sending unit a single wire connection. Attach the Yellow Wire (Pin 12) to your vehicles fuel sending unit signal wire. There is a provided
  T- Tap Wire Connector for easy connection to your factory wiring.

Digital Connector



Color: Black

Pin	Wire	Description
1	White	PWM Output 1
2	White	PWM Output 2
3	Blue	Digital Input 1 (Left Turn Signal) this is already pre-setup by connecting to the factory Left Turn wire
4	Blue	Digital Input 2 (Right Turn Signal) this is already pre-setup by connecting to the factory Right Turn wire
5	Blue	Digital Input 3 (High Beam) this is already pre-setup by connecting to the factory High Beam wire
6	Blue	Digital Input 4
7	Blue	Digital Input 5
8	Blue	Digital Input 6
9	Blue	Digital Input 7
10	N/A	

Digital Connector

- **(2) PWM Outputs:**

    - Configurable for either ON/OFF
    - PWM Setup: Extended Control -> PWM Output 1 or 2
    - Outputs are low side (Pull to Ground)
    - Each capable of up to 6A
- **(7) Digital Inputs:**

  Configurable for 12V trigger inputs
- **Digital Inputs 1, 2 & 3 – pre-configured in DD-EFI Dashboards for**
    - Provided T-Tap Wire Connector(s) for easy connection
    - Left Turn Signal – Digital Input 1
    - Right Turn Signal – Digital Input 2
    - High Beam – Digital Input 3
- **Push Button Start**
    - Setup: Extended Control -> Push Button Start
    - Input Port
        - Select one of the available Digital Inputs
        - This typically comes from the output of the push start button; the inputs are preconfigured for 12v input.
    - Output Port
        - Select one of the available PWM Outputs
        - These outputs provide a ground signal and are typically wired to a relay that will provide the 12v to the starter solenoid.
- **Examples of other Digital Inputs uses:**
    - Factory Indicators – Seat Belts, Low Level Indicators, etc.
    - AC Idle Up
    - Launch Control

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Documents / Resources

Pro Dash Quickstart Guide	**DD-EFI Digital Pro Dash** [pdf] User Guide Digital Pro Dash, Dash