



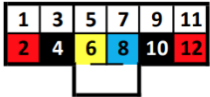
**Pro Dash
Quickstart Guide**

Main Connector

V1 Main Connector Pinout

Pin	Wire	Description
1	White	Dimming - 12V+ source to trigger dimming feature
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)

Main Connector



Color: Natural

V2/V3 Main Connector Pinout

Pin	Wire	Description
1	White	Dimming - 12V+ source to trigger dimming feature
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.

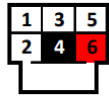
Main Connector



Color: Natural

CanBus Connector

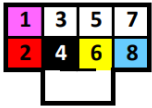
Pin	Wire	Description
1	N/A	
2	N/A	
3	N/A	
4	Black	Can L - Connect this wire to the CAN L of your Megasquirt ECU (Red/Black Twisted Pair)
5	N/A	
6	Red	Can H - Connect this wire to the CAN H of your Megasquirt ECU (Red/Black Twisted Pair)



Color: Natural

V3 Main Connector Pinout

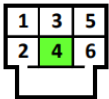
Main Connector



Color: Natural

Pin	Wire	Description
1	Pink	Dimming - 12V+ source to trigger dimming feature
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	Lt. 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	Lt. Green	Can L - Connect this wire to the CAN L of your Megasquirt ECU
5	N/A	
6	White	Can H - Connect this wire to the CAN H of your Megasquirt ECU

*****CAUTION**: Make sure to install the supplied Resistor Wire 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 (Lt. Green/White) to the ECU Can H/L Wires

Troubleshooting Dash Not Turning ON:

- Fan on back of Dash Running – **NO**
 - 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.

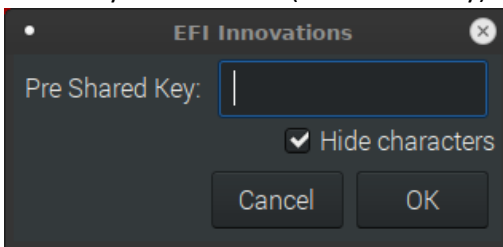
Dash Setup & Configuration

Connecting to the Internet

1. Connect your wireless keyboard, plug-in the USB Dongle into an open USB Port on the Dash
2. Power up the Dash
3. Using your mouse, navigate to the bottom-right of the screen for the taskbar to appear
4. Click on the WIFI icon below indicated with the red box



5. Choose the WIFI Network from the listing that you would like to connect to by clicking on it
6. Enter in your Password (Pre Shared Key)

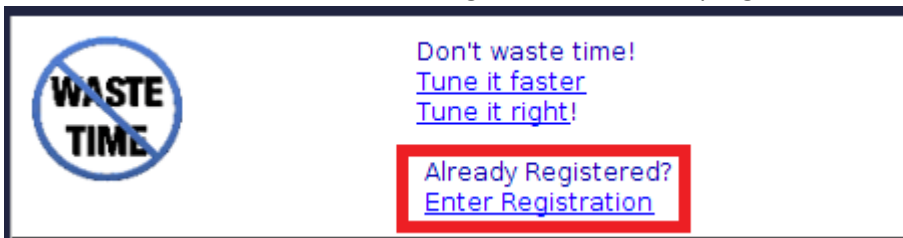


7. Dash will connect to your WIFI Network with the icon changing to the below once connected



Registering TunerStudio

1. Within TunerStudio, click on "Enter Registration" at the top-right of the screen



2. Complete the Registration information:
 - a. First Name
 - b. Last Name
 - c. Email
 - d. Registration Key (This is case sensitive, so ensure that letters are capitalized)

Connecting your ECU to the Dash

1. Plug-in MS ECU Tuning Cable to an open USB Port (Blue Tab) on side of Dash
2. Within TunerStudio, Open the Project “MS ECU”

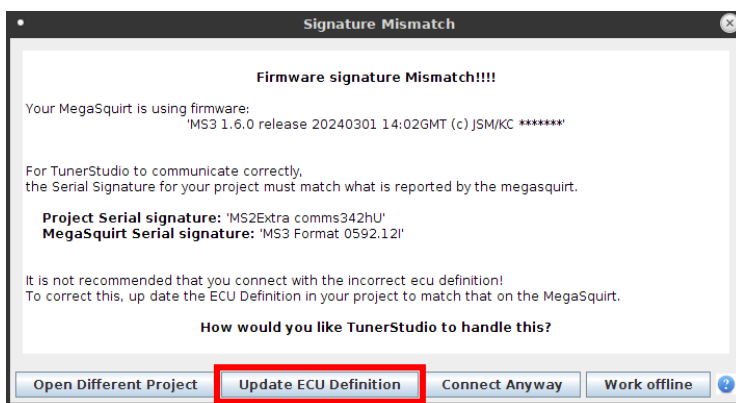
[Create New Project](#) - A project is required to connect to your ECU

[Open Last Project](#) (Pro Dash Standalone)

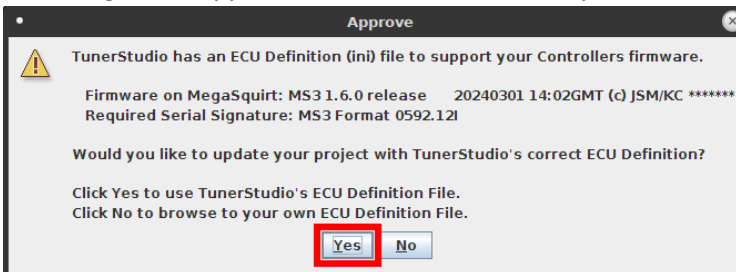
Open other recently used Projects:

- [Pro Dash Standalone](#)
- **MS ECU**
- [MicroTestModule](#)

3. The project will open to a “Signature Mismatch” screen. Click on “Update ECU Definition”



4. You will get an “Approve” screen. Click “Yes” to proceed connecting to your ECU.



5. The Dash will go through its connection process. Once completed, it will open the default dashboard, which you can verify its connection with the lights flashing on the bottom-right of screen.



CanBus Configuration

The Pro Dash utilizes the 29-bit Megasquirt Can Protocol, ensuring seamless integration with your MS ECU. It comes equipped with a 120-ohm termination resistor, which is pre-installed and set to ON by default via the DIP Switch.

Important Note: If you have multiple CAN Devices on the CanBus chain, it's crucial to ensure that the Pro Dash is positioned at the end. Alternatively, you'll need to switch the DIP Switch to OFF if the Pro Dash is in the middle of the CanBus chain.

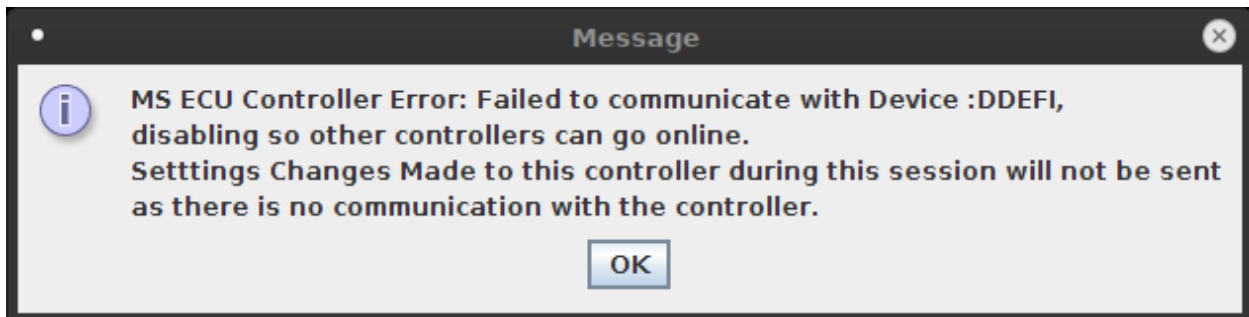
Instructions:

Dash to ECU ONLY: The Pro Dash is configured with the termination resistor set to ON by default. This setting is correct, and no change needs to be made for Pro Dash and MS ECU ONLY.

Multiple CAN Devices: If you're connecting multiple CAN Devices, ensure that the Pro Dash is the last device in the chain. If not, switch the DIP Switch to OFF to deactivate the termination resistor if another CAN Device is at the end of the CanBus Chain.

Note: If you receive the below message, please use the following instructions to resolve this error message

CAN Communication Error Message



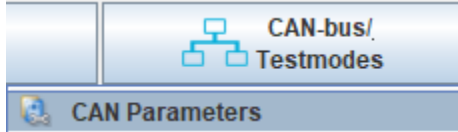
Step 1: Verify you have the Can H and Can L wires are connected between the Pro Dash to the ECU

Step 2: Verify the CanBus is enabled on your ECU by following the below steps based on if your ECU is MS2 or MS3 based

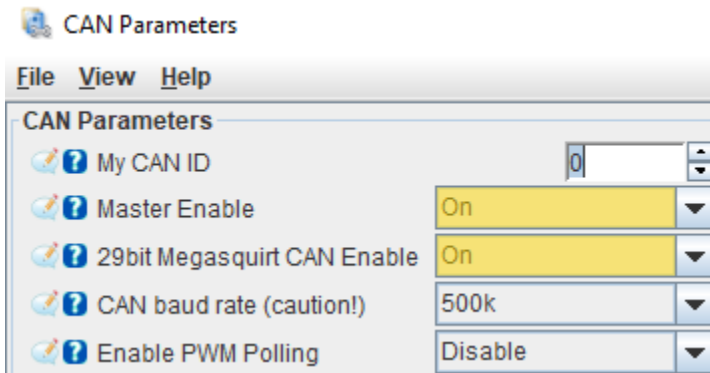
Note: If any of the above items were corrected in Step 1 and/or Step 2 you will need to power cycle, to ensure the error has been cleared the project may need to be Closed (Alt + X) and Re-opened

MS3 ONLY

1. Go to CAN-bus/Testmodes -> CAN Parameters (top-right of menu bar)

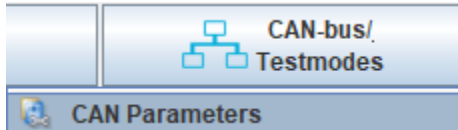


2. Ensure the below are "On" (highlighted):
 - a. Master Enable
 - b. 29bit Megasquirt CAN Enable

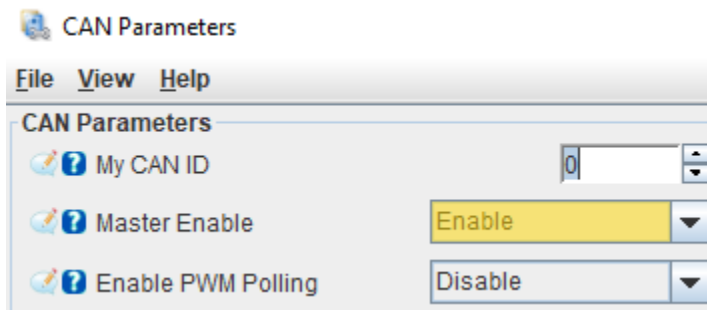


MS2/Microsquirt ONLY

1. Go to CAN-bus/Testmodes -> CAN Parameters (top-right of menu bar)

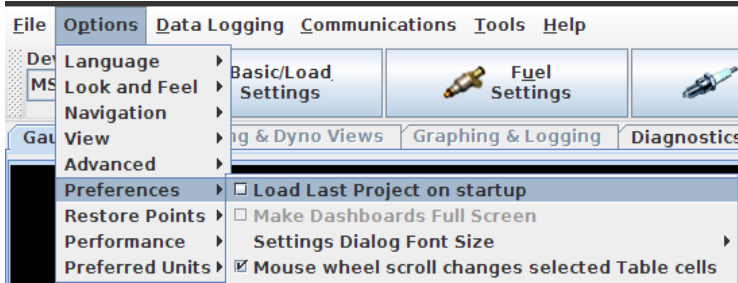


2. Ensure the below is "On" (highlighted):
 - a. Master Enable

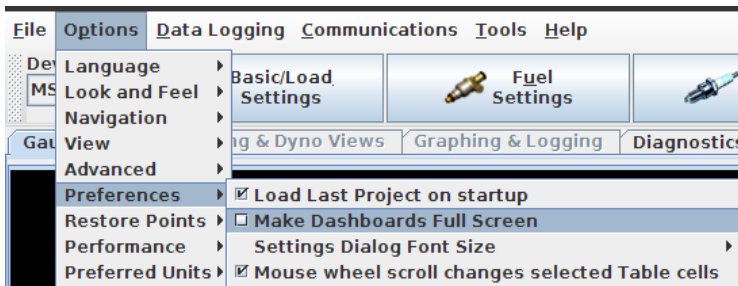


Setting Dash Preferences

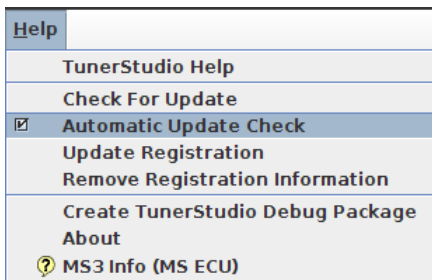
1. Enable “Load Last Project on startup” from top menu bar
 - a. Options > Preferences > Load Last Project on startup



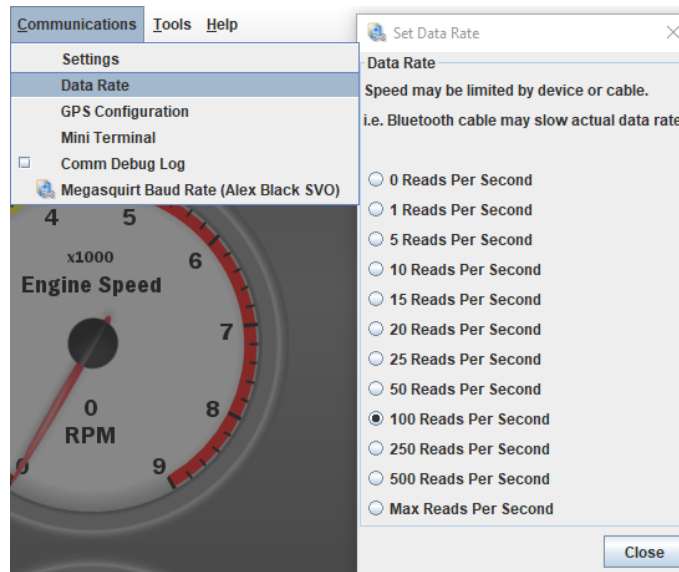
2. Enable “Make Dashboards Full Screen” from top menu bar
 - a. Options > Preferences > Make Dashboards Full Screen



3. Disable “Automatic Update Check” from top menu bar
 - a. Help > Automatic Update Check



4. Update Data Rates (Optional)
 - a. Communications > Data Rate
 - b. This speeds up the refresh rate of the gauges on the dashboards



5. Close TunerStudio to **SAVE** all above settings by using your mouse and scrolling to the bottom taskbar, right-click on TunerStudio, and click on "Close Window". To reopen TunerStudio, click on the icon on the bottom-left of the taskbar highlighted in red.



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).

V1 Sensor Connector Pinout

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

V2 Sensor Connector Pinout

Sensor Connector



Color: Black

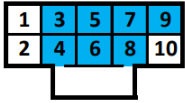
Pin	Wire	Stripe	Description
1	Purple		VR1 +
2	Tan		VR1 -
3	Purple	Black	VR2 +
4	Tan	Black	VR2 -
5	Red		5V VREF Power - this is used to supply 5V Power for Sensors 1-5
6	Black		Sensor Ground - this is used to supply Ground for Sensors 1-5
7	Green		Sensor 1
8	Green	White	Sensor 2
9	Green	Yellow	Sensor 3
10	Green	Orange	Sensor 4
11	Green	Pink	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:**
 - Sensor 5, this is pre-configured in default DD-EFI Dashboards for Oil Pressure
 - This requires a Digital Pressure Sensor, so if you need one, we offer one at <https://dd-efi.com/collections/accessories>
- **Sensor Wiring:**
 - **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.

V1 Digital Connector Pinout

Digital Connector

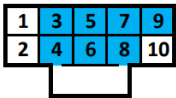


Color: Black

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	

V2 Digital Connector Pinout

Digital Connector



Color: Black

Pin	Wire	Stripe	Description
1	Grey		PWM Output 1
2	Grey	Black	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	White	Digital Input 2 (Right Turn Signal) this is already pre-setup by connecting to the factory Right Turn wire
5	Blue	Yellow	Digital Input 3 (High Beam) this is already pre-setup by connecting to the factory High Beam wire
6	Blue	Orange	Digital Input 4
7	Blue	Pink	Digital Input 5
8	Blue	Lt. Green	Digital Input 6
9	Blue	Tan	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: Pro Dash Outputs -> Push Button Start
 - Input Port
 - Select one of the available Digital Inputs
 - The output of the push start button; the inputs are preconfigured for 12v input.
 - Output Port
 - Select one of the available PWM Outputs
 - Output provides a ground signal wired to a relay that provides 12v to the starter solenoid.

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