

12.3" Pro Dash Quick Start Guide 553-111



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ATTENTION!

THE USB FLASH DRIVE INCLUDED WITH YOUR DIGITAL DASH CONTAINS A DETAILED USER MANUAL. ONE MAY ALSO BE FOUND ONLINE AT <u>www.holley.com.</u>

Introduction

The Holley EFI Pro Dash is customizable with a variety of gauge and indicator screens that can be programmed to display any parameter you need from a Holley EFI system. This quick start guide will get you up and running with your new dash. A detailed User Manual can be found on the USB flash drive included with your product.

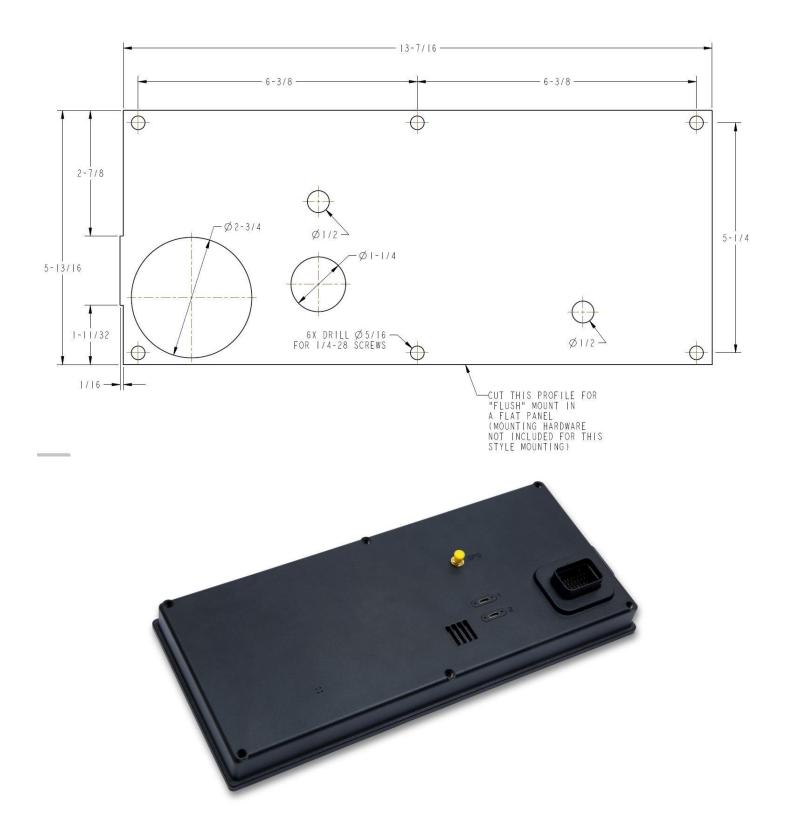
Package Contents



Mounting

There are basically two ways to mount the dash, "surface" and "flush" mount. The product has six, ¼-28 tapped mounting holes to allow the user to "surface" mount the enclosure (mount to a flat surface or bracket). Included with the contents of this kit is a separate template with a 1:1 layout of hole locations required for the ¼-28 holes as well as other access holes needed.

There is a cut line on the template that allows the user to recess the product to facilitate a "flush" mounting option which recesses the unit, please be aware that brackets to support the back of the dash will need to be fabricated.



Connections

Main Connector

A 34 pin CAN/power harness supplied with the pro-dash and is used to for power, communications and I/O.

The following are the required connections:

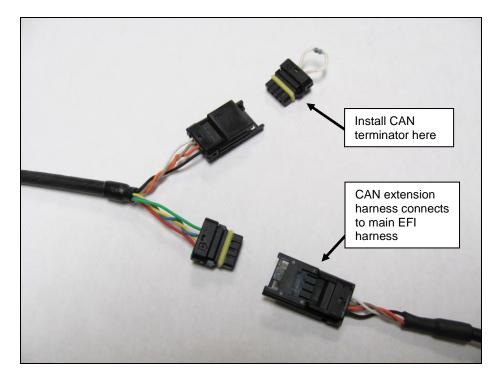
<u>Loose Black</u> – Connect to a "clean" ground source. Don't ground to poor sources such as sheet metal, or a ground point that does not have solid connectivity back to the battery.

Loose White - Connect to a "clean" switched battery power source

Loose Red – Connect to a "clean" continuous battery power source

"Clean" = a connection that does not share the same connections as "dirty" sources such as coils, a starter, solenoids, fans, etc., that have a lot of electrical noise or solenoid fly-back voltage.

<u>CAN</u> - Connect the harness from the CAN connector on the vehicles EFI main harness to the digital dash using the supplied male/female 4' CAN/Power extension. Place the supplied terminator into the empty CAN connector. The terminator must be used at the end of the CAN cable.



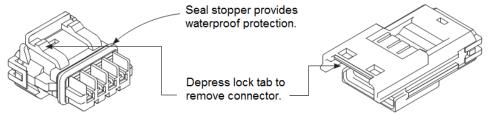
Holley EFI main harnesses use two types of CAN connectors. Earlier harnesses use a 2 pin metripak connector. The kit includes an adapter to go from this to the 4' extension harness (note the white power and black ground wires are NOT needed for the Pro Dash, but need to be connected if other CAN devices require it for their power supply). Later harnesses plug directly into the 4' extension harness.



Old Style CAN Adapter

The CAN harness attached to the dash includes both male and female CAN connectors. These connectors are wired in parallel to allow daisy chaining of multiple devices on the CAN bus.

Note that the Pro Dash does not use the CAN cabling to supply power and ground for it, unlike some other Holley EFI CAN devices, nor does the Pro Dash supply power to the CAN cabling, which is provided by the EFI harness.



Pro Dash CAN Cable Description

Pin	Function	Description
1	+12V	Power (pass through between connectors, not used for Pro Dash)
2	CAN1H	CAN_H Holley EFI communications
3	CAN1L	CAN_L Holley EFI communications
4	GND	Ground (pass through between connectors, not used for Pro Dash

CAN Extension Harness

The dash is supplied with a 4' CAN extension harness. Holley also offers the following replacement harnesses:558-451 - 1 foot558-452 - 4 feet558-453 - 8 feet558-454 - 12 feet

Additional wires can be installed to use additional functions in the pro-dash. Consult the connector diagram and main user manual for more information.

VIEW FROM REAR OF DASH

1 GN		2		3		4		5		6		7 CAN1		8 CAN1		9 CAN2
D		12V		SSR1		SSR2		SSR3		SSR4		Н		L		L
	10		11		12		13		14		15		16		17	
	CVBS		CVBS										CAN2		5V_EX	
	1		2		SW4		SW3		SW2		SW1		Н		С	
	18		19		20		21		22		23		24		25	
	AIN_		AIN_		AIN_		AIN_		AIN_		AIN_1		AIN_1			
	1		3		5		7		9		1		3		IGN	
26		27		28		29		30		31		32		33		34
GN		AIN_		AIN_		AIN_		AIN_		AIN_1		AIN_1 2				
D		2		4		6		8		0		2		SPD1		SPD2

Notes:

- 1. The 12V main power input (pin 2) also provides backup for the internal clock and GPS
- 2. IGN (pin 25) needs to be connected to 12V to turn on the unit (low current input)
- 3. SSR1-SSR4 are low-side solid state relays, 1.5 Amp max
- 4. 5V_EXC is used to power sensors, 450mA max
- 5. CVBS inputs are reserved for future use

The unit will draw approximately 5 mA in standby to maintain its real time clock and GPS information for quicker acquisition. **USB**

The unit has two standard USB type C locking receptacles (USB 2.0). Connect the supplied locking cable to the USB port on the back of the unit and tighten the thumbscrews.

This cable provides a type 'A' receptacle that can accept USB flash drives for saving data logs, uploading gauge screen layouts, background images, or firmware updates. You may also use these to connect to a USB mouse or keyboard if you do not want to use the integrated touchscreen for configuration.



The USB Flash drive that is included with your unit contains a user manual and can be used to transfer configurations and log files to your computer.

GPS Antenna

Install the GPS antenna where it has clear view of the sky to the horizon for best reception. The antenna comes with a built-in magnet and can also be permanently mounted. For racing applications, it is recommended that the antenna be permanently mounted using the included double-sided VHB tape.

Connect the SMA connector to the GPS antenna connector on the back of the unit. Do not overtighten the connector, 3-5 in lbs max.

Cleaning

If screen needs cleaning, use the supplied microfiber cleaning cloth. Do not use harsh chemical cleaners on the touch screen display.

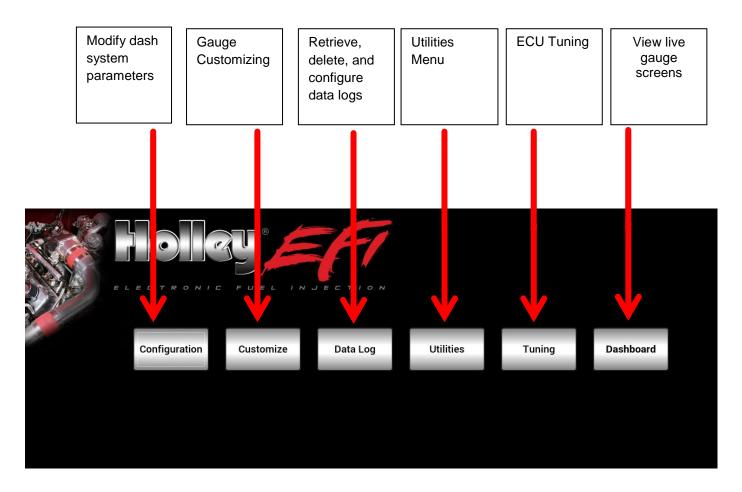
Touchscreen Basics

The Pro Dash has a capacitive touch screen display similar to many cell phones and does not require a stylus. While thick gloves may not work properly, some racing gloves are available with integrated finger pads that work with touch screens. The touch screen is used for configuration and EFI tuning. A stylus can be purchased (if desired). Make sure that it is for a capacitive touch screen which would be used for a cell phone.

There are four switch inputs that can be used with pushbutton switches to select functions on the pro dash while driving.

Main Menu

The main menu can be reached by touching anywhere on the dashboard screen to bring up the on screen buttons, then press on 'Menu' in the upper right corner.



CAN extension harness connects to main EFI harness

Preconfigured Gauge Screens



Layout 1



Layout 3





Layout 4



Layout 5



Layout 7



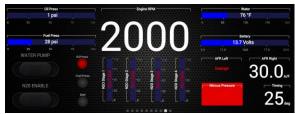
Layout 9



Layout 6



Layout 8



Layout 10

Modifying Channels on a Preconfigured Layout

Choosing 'Customize' from the Main Menu enables the gauge customization mode. Entering this mode will allow any of the preconfigured layouts to be modified, or one may be built from scratch.

Any gauge channel can be changed to meet user needs. To do this, touch the gauge you wish to modify and push 'Customize'. At the top right corner of the customize gauge menu is a button that will allow the user to redefine the channel being displayed. For instance, "RPM" below could be changed to display Boost.

dig-dash	×
Customize gauge	\sim
Label	RPM
RPM	
Units	
RPM Range	
0 8000	
Warnings	
(disabled) Peak Hold	
(disabled)	
Gauge Sweep	
-135 135	
Foreground Color	
change Background Color	
chanae	• <u>O</u> k

NOTE: Only the gauge value being display will be updated, the user MUST manually change Labels, Units, Range, Warnings etc. with proper values as these will NOT be updated automatically! Refer to the 'Customizing Your Layout' Section of the user manual for instructions on gauge customization.

Saving Gauge Screens

Quick Save

There are two ways to quickly save a gauge screen:

Add	•	
Layout	Þ	Import
Save		Export
Background	l	Clear
Cancel		

Option 1: Touch any blank area of the screen and choose 'Save'



Option 2: Choose the top right navigational button labeled 'Save'

Rename and Save

The export function (see Option 1 above) will allow any gauge layout to be renamed and saved internally or to a USB Memory Stick.

NOTE: The last 'saved' gauge screen will be loaded by default at each power-up.

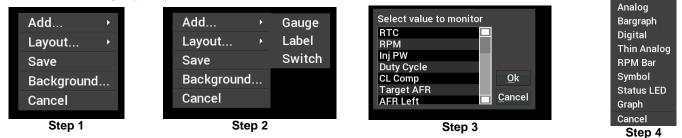
Building a Custom Gauge Screen

To begin building a custom layout from a blank template, touch any bare area of the background. Choose Layout >Clear.

Add ▸	
Layout →	Import
Save	Export
Background	Clear
Cancel	

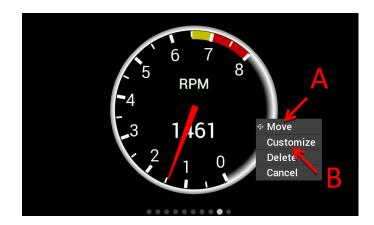
Add Gauges

- 1. Select 'Add'
- 2. Select 'Gauge'
- 3. Select Value to Monitor
- 4. Select Gauge type



Customizing the Gauge

While in 'Customize' mode, touch the gauge you would like to modify and a menu will appear. To move the gauge select 'Move' (A) and drag the gauge to place it in the desired location. To customize the visual properties and warning indicators, select 'Customize' (B) from the pop up menu. In the scroll window you can see the parameters that are configurable.



Select parameter	×
Select value to monitor	
RTC	
RPM	
Inj PW	
Duty Cycle	
CL Comp	<u>O</u> k
Target AFR 📃	
Show all channels	<u>C</u> ancel

Backup/Restore

A Backup and Restore option can be found under the Utilities menu.

Factory default configurations can be found at /internal/defaults/Dash_Config_V4.tgz for EFI connected units, or /internal/defaults/Dash_Config_SA.tgz for standalone operation.

Backup

To create a backup copy of the complete Dash configuration, choose Backup Configuration.

	Device	Backup Dash Configuration						
USB2		Dash_Config_20160908.tgz defaults images logs lost+found	Save					
Fil	Filename: Dash_Config_20160920							
Ent	Enter a filename to save the dash configuration as.							

Navigate to where you want the backup file stored, adjust the filename if necessary and press Save.

Restore

To restore a previously saved configuration, select the Restore Configuration from the menu, locate the desired *.tgz file and press Restore.

Data Log Playback

Data logs may be reviewed by selecting the 'Playback' button in the upper left corner of the dash. The Digital Dash will play back data logs that have been downloaded from an ECU or recorded locally on the dash.

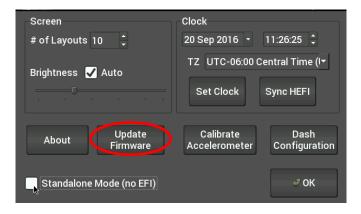
Playback	Look in:	👼 /USB1	-		🤼 🖽 🔳	Save
	局 USB1 ┣┃ logs	Name quarter pass.DL		⊽pe Dat ∩LFile9Fe	e Modif e1:18	
Prev						Next
	File <u>n</u> ame:				D pen	
	Files of type	: Datalog files (*.dl *.dlz)			X Cancel	
Record						

Firmware Upgrade

New or additional features developed by Holley can be added to the Digital Dash by updating firmware. These updated firmware files can be obtained by contacting tech service (270-781-9741 or 1-866-464-6553) or they may be downloaded from our website (<u>https://www.holley.com/support/resources/#Fuel_Injection</u>).

To perform a firmware update, follow these steps:

- 1. Extract the contents of the firmware .zip file onto a USB memory stick (unzip files and put on USB memory stick).
- 2. Connect the USB memory stick to one of the USB cables on the Digital Dash.
- 3. Select 'Update Firmware' from the Configuration menu and follow the on screen prompts. The firmware will automatically update.
- 4. Verify the version number using the About button after turning the dash off and on again.



Holley Technical Support 1-866-464-6553

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