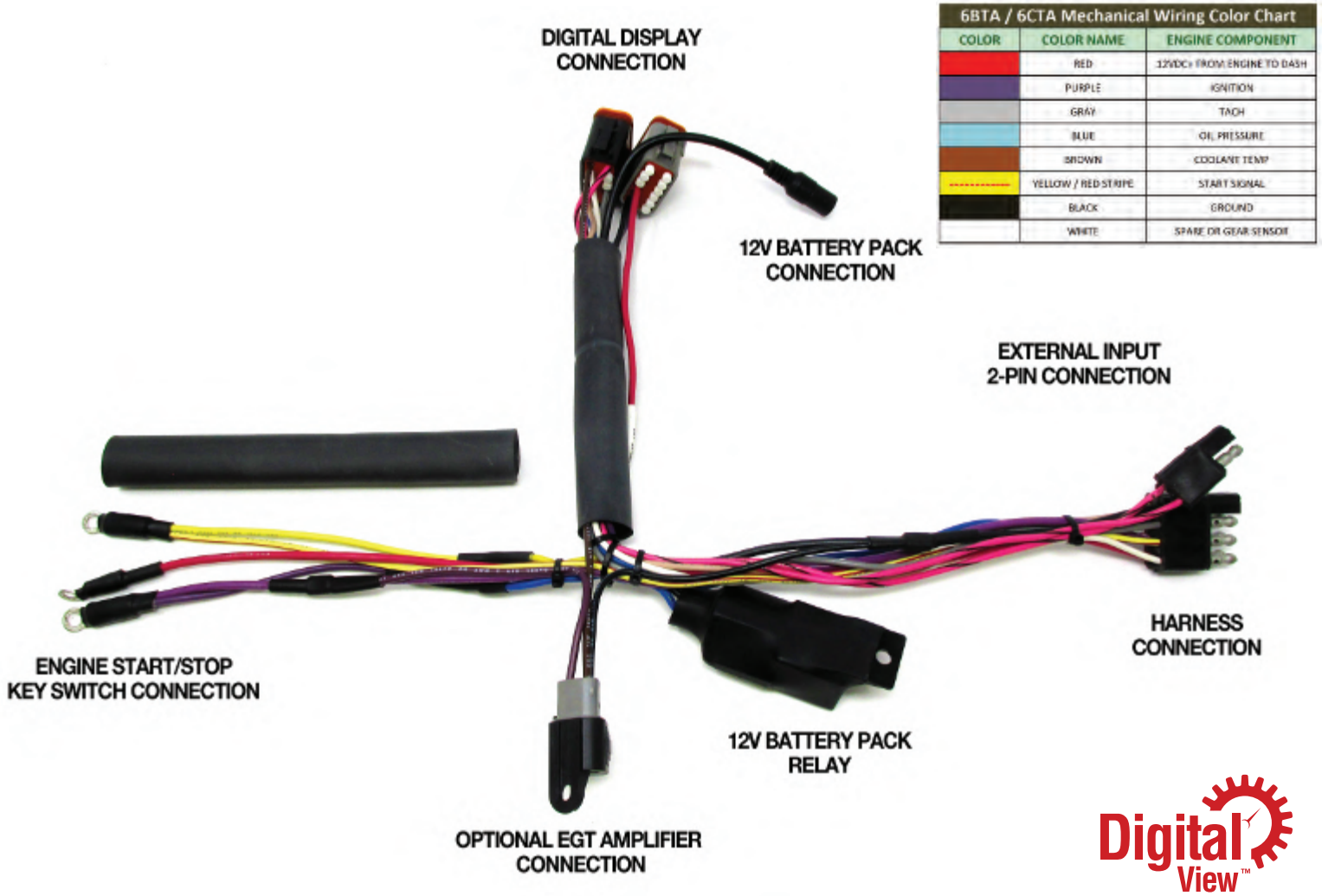
SMX DigitalView Mechanical Engine Digital Display Kit

Welcome to the Seaboard Team!

Thank you for purchasing the SMX DigitalView Mechanical Engine Digital Display Kit from Seaboard Marine Inc. The SMX DigitalView was designed to work and install into a factory Cummins Marine mechanical B or C series diesel engines. The display harness is designed to incorporate with the factory 8/10 pin extension harness that is distributed from the engine to the main dash area and control station. Once plugged in, you will be able to view all standard engine parameters and start/stop the engine with the included 3-position Cole Hersee key switch. Also included with your kit will be a small USB data drive that will be pre-loaded with your specific engine configuration parameters. If needed, you can load this configuration tool into the back of the display port to set the display back to it's original settings.

Getting to know the hardware:



6BTA / 6CTA Mechanical Wiring Color Chart		
COLOR	COLOR NAME	ENGINE COMPONENT
	RED	12VDC+ FROM ENGINE TO DASH
	PURPLE	IGNITION
	GRAY	TACH
	BLUE	OIL PRESSURE
	BROWN	COOLANT TEMP
	YELLOW / RED STRIPE	START SIGNAL
	BLACK	GROUND
	WHITE	SPARE OR GEAR SENSOR

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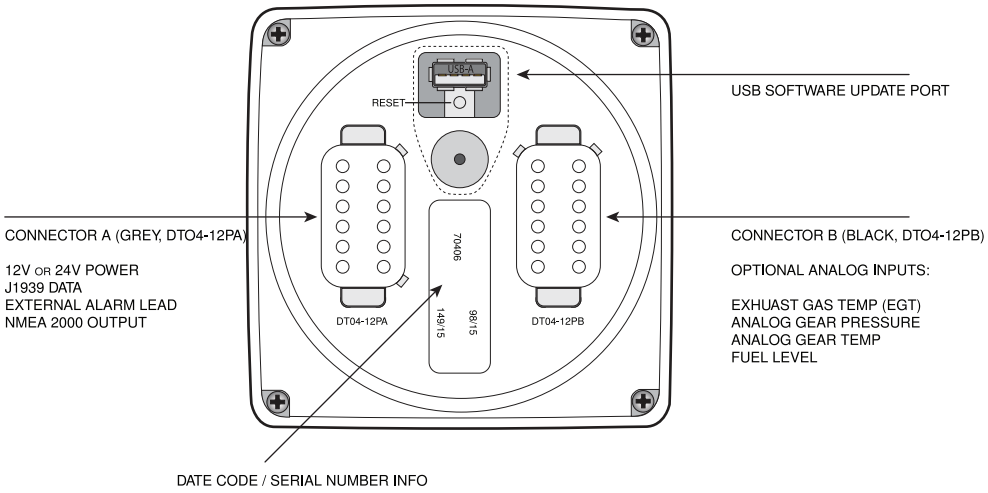
Getting to know the hardware (cont.):

Figure 1: SMX SeaView Console



Setting up and managing kit options:

Transmission Add-ons (Gear Pressure / Gear Temperature):

Both gear pressure and temp add-ons are available. If you have selected one or both of these options, a compatible sending unit will be provided with the kit. Gear pressure is already part of the Cummins factory harnessing and uses the WHITE wire so no wiring will be provided. If gear TEMP has been selected, then a small 2-wire harness will be provided that will connect to the 2-pin factory harness on the ENGINE side (where the extension harness connects to the on-engine harness). Either sending unit will be FLOATING GROUND which means one terminal goes to battery NEG and the other is used for SIGNAL, the senders are NOT polarity sensitive.

NOTE: Do NOT ground the sending unit(s) to the engine block. Ground senders to the harness ground or direct to BAT (-).

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Boost Pressure Add-on:

If you have selected this option, a compatible sending unit will be provided with the kit. Boost pressure is NOT a part of the Cummins factory harnessing so a small 2-wire harness will be provided that will connect to the 2-pin factory harness on the ENGINE side (where the extension harness connects to the on-engine harness). The sending unit will be FLOATING GROUND which means one terminal goes to battery NEG and the other is used for SIGNAL, the senders are NOT polarity sensitive.

NOTE: Do NOT ground the sending unit to the engine block.

Exhaust Gas Temp (EGT / Pyro) Add-on:

If you have selected this option, you will receive 3 main components: 1) EGT Amplifier, 7 ft. of 18/2 lead wire, and a thermocouple. The lead wire can be extended up to 150' with standard 18/2 red-yellow boat/safety wire. The thermocouple comes standard with an 1/8" NPT fitting but 1/4" NPT fittings are also available if needed.

EGT/Pyro is NOT a part of the Cummins factory harnessing but is already wired into the DigitalView harness so no alternate wiring is necessary other than the 2 lead wires from the probe. Once the probe and leads wires are run from the engine to the display, connect the YELLOW and RED wires properly to the provided EGT Amplifier with the correct spade terminals.

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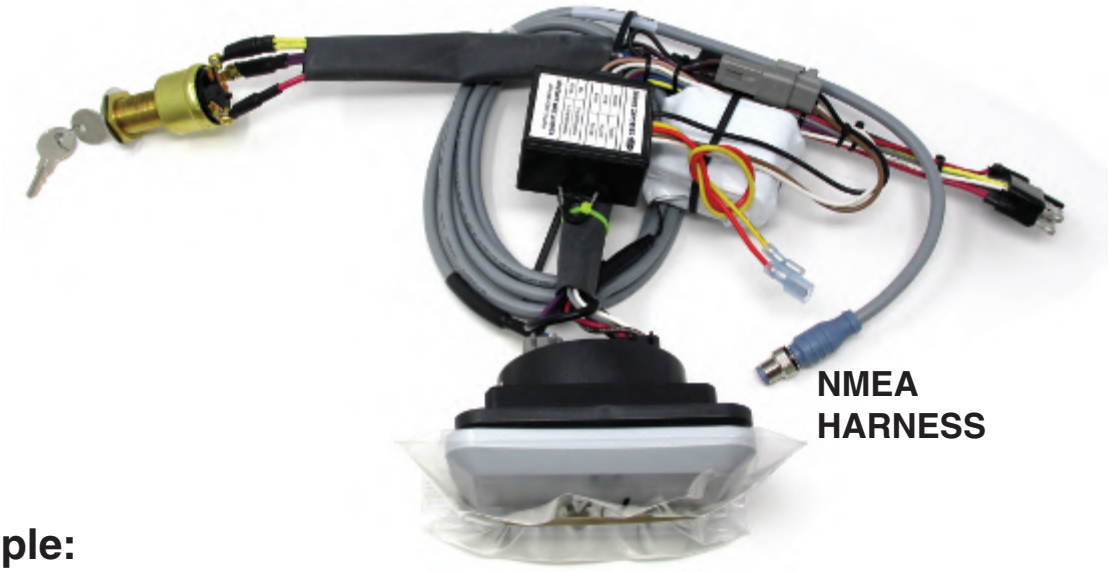
Installing and Configuring the NMEA harness (option):

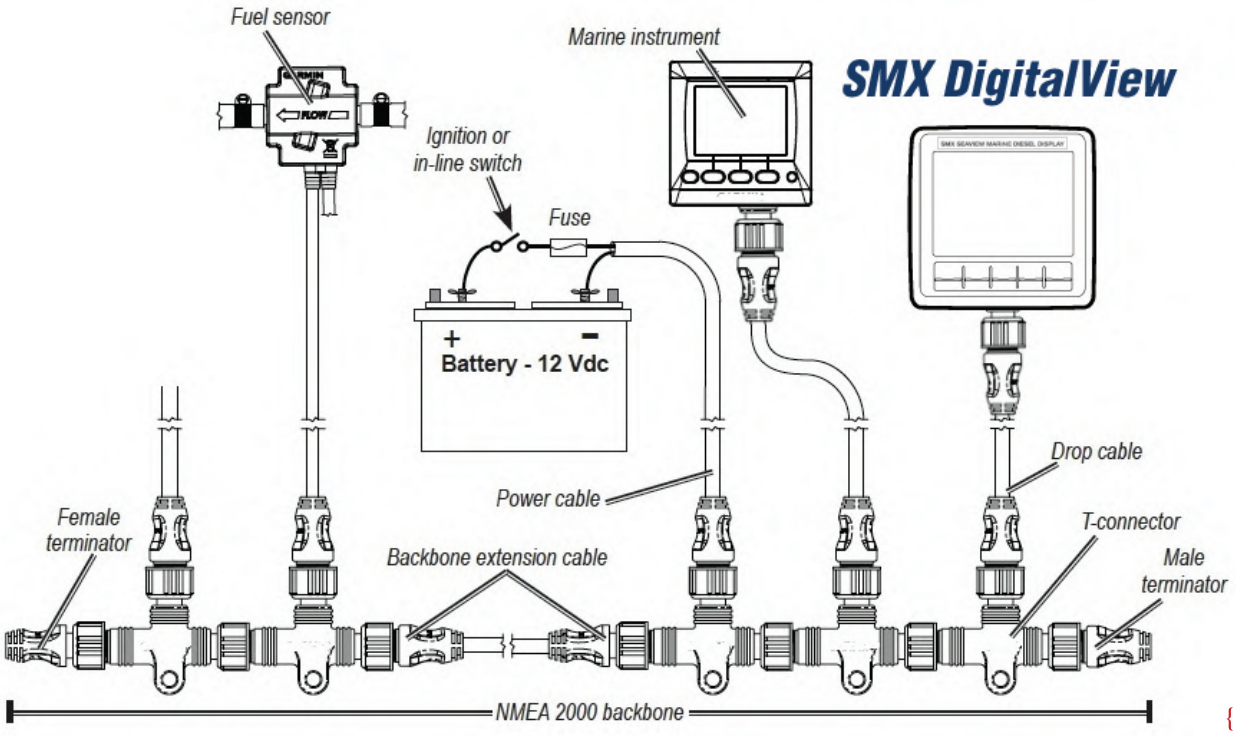
If you have selected this option, a standard 5-pin NMEA 2000 communication will be provided pre-wired into the display. This harness will need to be connected into you existing NMEA backbone with a standard NMEA drop “T”. If you have a twin engine vessel, the displays will be pre-configured for PORT & STBD and will be marked accordingly. No modifications should be necessary on the display side, so once installed, you will need to setup, import, and configure the engine(s) on your NMEA 2000 compatible device network.

NOTE: If the device needs to be changed from or to PORT or STBD, enter the menu by holding down the far right button, then go to **SYSTEM CONFIG > ENGINE ID** and make the required change.



NMEA HARNESS

NMEA Network example:



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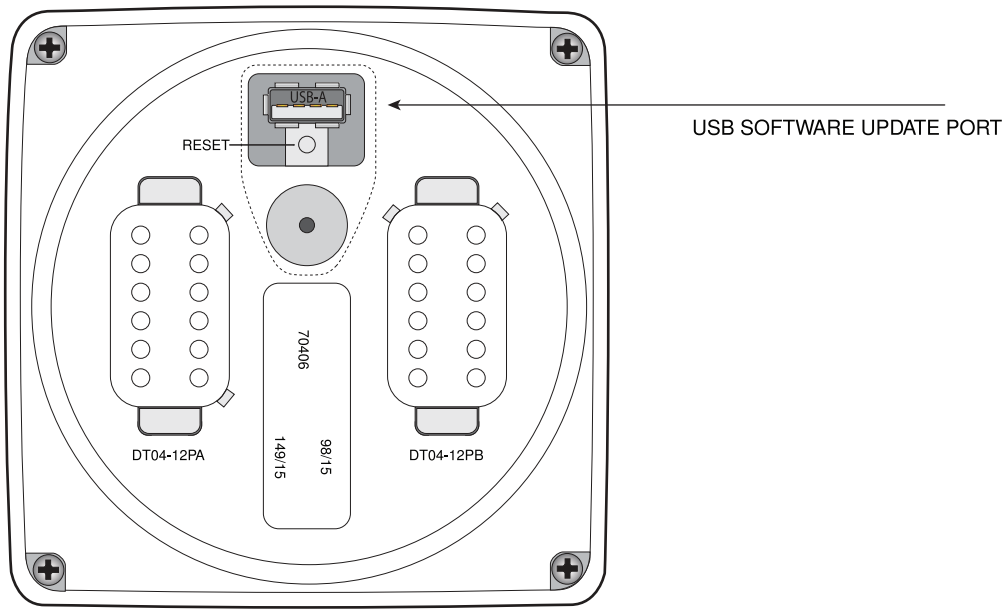
Updating the Display via USB

If you have a need to update the display software and/or configuration, this can be easily done with a standard off the shelf USB data drive. With the device powered on, insert the USB data drive into the back of the display. System software updates with prompt throughout the process. Configuration updates will flash the digital screen BLACK, then re-appear with a simple “beep”.



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