Data Interface with SWC

Fits Select Ford Models 2005-2014

FEATURES

- Designed for non-amplified and amplified systems
- Provides accessory power (12-volt)
- Retains audio controls on the steering wheel
- Easy-to-set DIP Switches for SWC configuration
- Provides NAV outputs (parking brake, reverse, and speed sense)
- Type "C" USB updatable
- All outputs are 250mA

APPLICATIONS

FORD

Edge	2007–2010
Escape	2008–2012
Expedition	2007–2014
Explorer	2006–2010
Explorer Sport Trac	2007–2010
F-150	2009–2014
F-250/ 350/ 450	2008–2012
Five Hundred	2005–2007
Flex	2009–2012
Focus	2008–2011
Freestyle	2005–2007
Fusion	2006–2012
Mustang	2005–2013
Taurus	2008–2012

LINCOLN

MKS	2009–2012
MKX	2007–2010
MKZ	2007–2012
Navigator	2007–2014
Zephyr	2006

MERCURY

Mariner	2007–2011
Milan	2006–2011
Montego	2005–2007
Mountaineer	2006–2010

MAZDA

Tribute	2009–2011

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Visit **MetraOnline.com** for more detailed information about the product and up-to-date vehicle specific applications

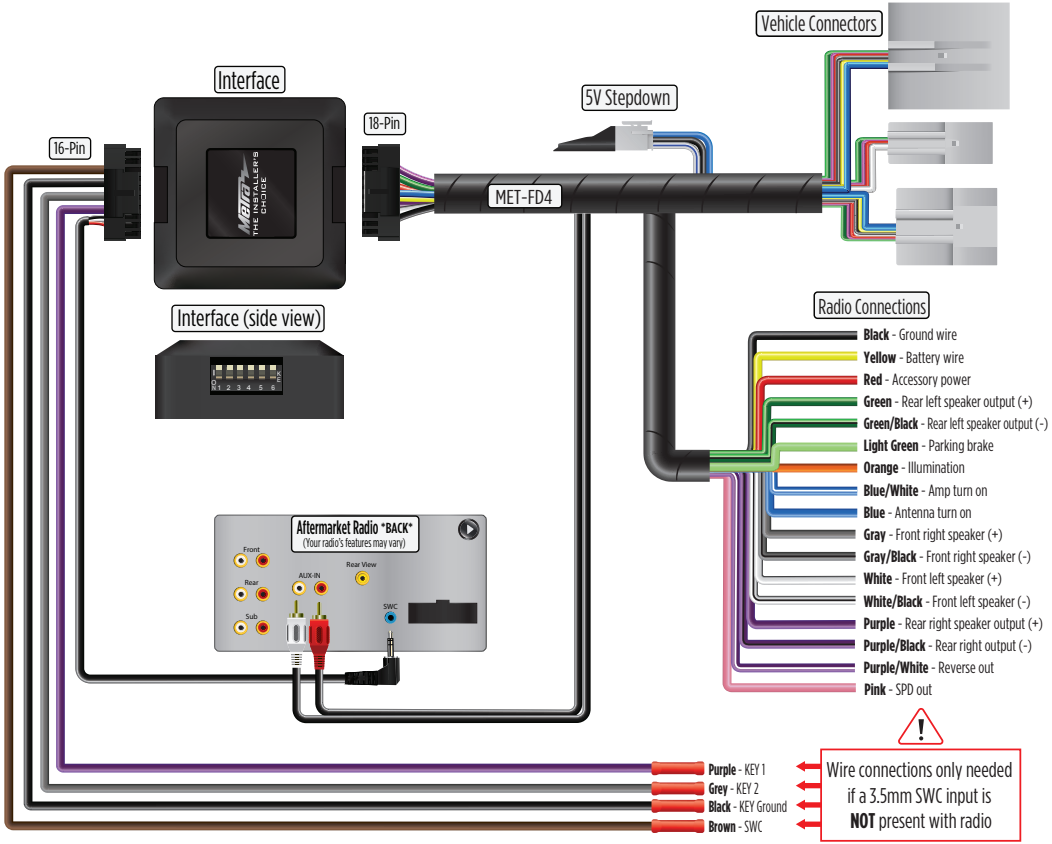
Visit our **Vehicle Fit Guide** for up-to-date vehicle-specific applications.

COMPONENTS

- MET-FD4 interface
- Vehicle-specific harness
- 3.5mm pigtail

ATTENTION: With the key out of the ignition, disconnect the negative battery terminal before installing this product. Ensure that all installation connections are secure before cycling the ignition to test this product. NOTE: Refer also to the instructions included with the aftermarket radio.

CONNECTIONS: WIRING & KEY



SWC CHART: DIP SWITCH CONFIGURATION

MANUFACTURER	SYSTEM	DIP SWITCH SETTINGS				CONNECTION
		1	2	3	4	
RESERVED	NA	OFF	OFF	OFF	OFF	SOFTWARE UPDATE MODE
ALPINE	IR DATA	OFF	ON	OFF	OFF	MALE 3.5MM JACK
ANALOG SINGLE EXTEND	ANALOG	ON	ON	ON	ON	BROWN SWC IR
ANALOG SINGLE WIRE	ANALOG	ON	ON	ON	OFF	BROWN SWC IR
CLARION	IR DATA	ON	OFF	ON	ON	MALE 3.5MM JACK
CUSTOM	IR DATA	ON	OFF	ON	ON	HEAD UNIT DEPENDENT
GRUNDIG	IR DATA	OFF	ON	OFF	ON	BROWN SWC IR
JVC	IR DATA	OFF	OFF	ON	OFF	BROWN SWC IR
KENWOOD 1	IR DATA	ON	OFF	OFF	OFF	BROWN SWC IR
KENWOOD 2	IR DATA	ON	ON	OFF	OFF	BROWN SWC IR
KEY 1 / KEY 2	ANALOG	OFF	ON	ON	OFF	KEY1 / KEY 2 WIRES
KEY 1 / KEY 2 EXTEND	ANALOG	OFF	ON	ON	ON	KEY1 / KEY 2 WIRES
PHILIPS	IR DATA	OFF	ON	OFF	OFF	BROWN SWC IR
PIONEER 1	ANALOG	OFF	OFF	OFF	ON	MALE 3.5MM JACK
PIONEER 2	ANALOG	OFF	OFF	ON	ON	MALE 3.5MM JACK
SONY	ANALOG	ON	OFF	ON	OFF	MALE 3.5MM JACK

DIP SWITCH 5 & 6

DIP Switch 5 & 6 are reserved for vehicle specific configuration.

KEY1 AND KEY2

KEY1 and KEY2 are specifically tailored for analog learning mode-style radios. Our SWC module is designed with a resistor chain that precisely matches the required resistance for seamless compatibility with this type of head unit.

KEY1 AND KEY2 EXTEND

This mode extends every button press to 2 seconds during the learning process. However, with rollwheel-designed steering wheel buttons, holding for 2 seconds isn't feasible.

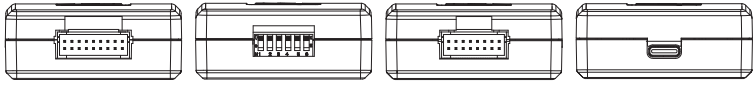
Our KEY1 and KEY2 extend feature addresses this by automatically prolonging each press, simplifying head unit programming even in such scenarios. Extend mode is not intended for normal use, it is only used in the teaching process.

ANALOG SINGLE WIRE AND ANALOG SINGLE WIRE EXTEND

This function operates similarly to KEY1 and KEY2 but transmits all unique values through the IR SWC single wire. This is crucial for compatibility with learning-style head units featuring only one learning input wire. To ensure compatibility, we've incorporated this feature into our steering wheel control interface, ensuring seamless operation across various head unit setups.

The Analog Extend mode functions identically to its counterpart within the KEY1 and KEY2 system but transmits through a single wire.

SWC INTERFACE



18 PIN HARNESS CONNECTOR | DIP SWITCHES | 16-PIN HEAD UNIT CONNECTION LEAD | USB-C

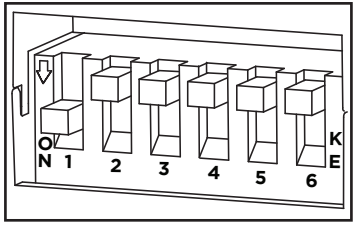
INSTALLATION & STEERING WHEEL CONTROL CONFIGURATION

Before Installation

Prior to installing the interface, it is essential to remove and disconnect the factory stereo. For guidance on this process, please refer to the vehicle owner's manual/handbook or seek assistance from a professional.

Setting the DIP Switches

This interface includes a set of DIP Switches. Consult the DIP Switch selection guide to select the appropriate configuration. To activate a DIP Switch, press it downward into the **'ON'** position. Refer to the diagram for an example of the 'KENWOOD1' DIP Switch configuration. (Figure A)



(Figure A)

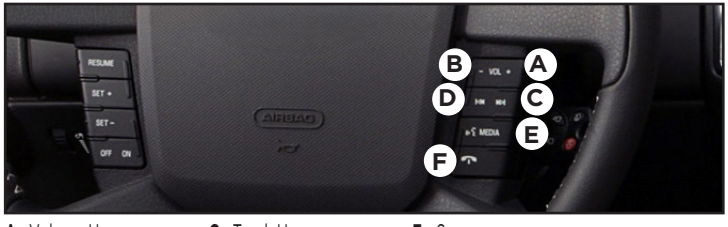
Installation

1. Take the interface, then connect the 16-PIN head unit connection lead and the 18-PIN steering wheel harness connectors to their respective ports.
2. Connect the head unit connection lead to the steering wheel remote input on the rear side of the aftermarket stereo.

   Connection methods vary based on the stereo brand, utilising either a 3.5mm jack connector SWC IR wire or wired inputs KEY1 and KEY2.

   For specific connection guidance, refer to your aftermarket stereo's installation manual if not clearly labelled on the stereo harness.
3. Connect the power/speaker wires from the interface to the corresponding power/speaker wires on the aftermarket stereo.
4. Connect the vehicle-specific connectors from the interface harness to the corresponding connectors on the vehicle harness.
5. Connect the wires on the harness to the rear of the stereo (if applicable).
6. Connect the antenna adapter to the vehicle's existing connection at the rear of the aftermarket stereo.
7. After connecting all wires (along with any additional accessories), it's crucial to thoroughly test the stereo and steering wheel controls before reassembling the dashboard. If steering wheel controls are unresponsive, inspect connections and check DIP Switch settings. Repeat the connection process if necessary, following the outlined steps.

Steering Wheel Control (SWC) Configuration



A Volume Up
B Volume Down
C Track Up
D Track Down
E Source
F Pick Up/Hang Up

The image above serves as an example. Actual steering wheel control configurations may vary.

Button Remapping for Steering Wheel Control (SWC) Interfaces

1. Set any of the six DIP Switches to **ON**. (Figure A) (All **OFF** is reserved for SW update).
2. Connect the **USB-C** cable to your PC, Mac, or smartphone, then connect it to the interface.
3. The interface will show up as a drive on the connected device and will be identified by the name **"INTERFACE"**. (Figure B)
4. Double click the drive to open it.
5. You will find a .txt file named **"Interface Configuration."** Open it. (Figure C)
6. By default, this configuration file is blank and does not contain any steering wheel control re-mapping. (Figure D)
7. Editing and saving this text file onto the interface allows you to change the functions of the buttons during normal operation.
8. **IMPORTANT:** Before you begin to edit the Configuration File, make a copy of the blank file so that you can always revert back to the original system.

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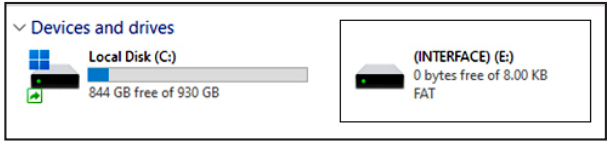
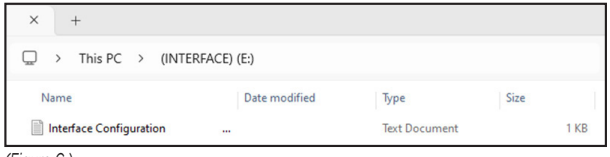


(Figure B)



(Figure C)

(Figure D)

9. These steering wheel buttons can be re-configured or given two functions. The buttons available to you will depend on which car the interface is being fitted to.

The following list shows all possible buttons on all possible cars:

VOL UP	PRESET UP	OFF HOOK
VOL DOWN	PRESET DOWN	ON HOOK
TRACK UP	SOURCE	PHONE
TRACK DOWN	ATTENUATE	VOICE REC

The aftermarket radio control commands that can be assigned to them are shown below.

Please Note: Not all functions are supported by all aftermarket radios

VOL UP	PRESET UP	OFF HOOK
VOL DOWN	PRESET DOWN	ON HOOK
TRACK UP	SOURCE	VOICE REC
TRACK DOWN	ATTENUATE	

In addition to button remapping, we can add a dual function to each button on the steering wheel. Each button can have a short press command and a long press command assigned to it.

The length of time in milliseconds that the button needs to be held for is considered a long press can also be configured.

Example

Here is an example of configuring the source button so that a short press performs the source function, while a long press activates voice recognition. In this example, we will set the long press hold time to 1 second (1000 milliseconds).

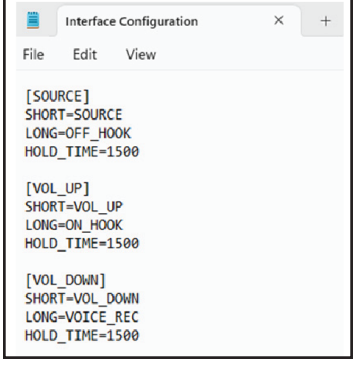
First, place the steering wheel button you want to configure inside square brackets:

[SOURCE]

Next, the text that follows will configure the actions for that button. It is crucial to maintain the exact text for button names and actions as shown at right, (Figure E) and to follow the syntax precisely as illustrated in the following example:

[SOURCE]
SHORT=SOURCE
LONG=VOICE_REC
HOLD_TIME=1000

Here is an example of a completed configuration file:



(Figure E)

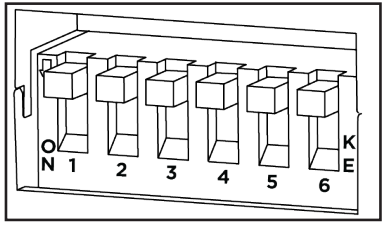
You can repeat this process multiple times for each button you want to remap.

Note that it is not necessary to write a remap configuration for any button whose standard function you wish to keep unchanged. Finally, remember that you can only configure the steering wheel buttons that are available on your steering wheel.

10. Make sure you save the new edited **Configuration File** back onto the INTERFACE.

Updating The Software on Your Steering Wheel Control Interfaces

1. Set all six DIP Switches to OFF. (Figure A)
2. Connect the USB-C cable to your PC, Mac, or smartphone, then connect it to the interface.
3. The interface will show up as a drive on the connected device and will be identified by the name “INTERFACE”. (Figure B)
4. Double click the drive to open it.
5. The system file displays the current versions of the hardware (HW) and BIOS. The other file, starting with “SWxxxx,” indicates the current software (SW) version installed on the interface.
6. You need to first delete the SWxxxx file.
7. Simply drag and drop, or copy, the new “SWxxx” file onto the interface. Once the file is copied, unplug the USB cable and then plug it back in.
8. The interface LED will illuminate solid for approximately 7 seconds, then it will begin to flash. Once it starts flashing, the interface will be visible as a drive on the PC again.



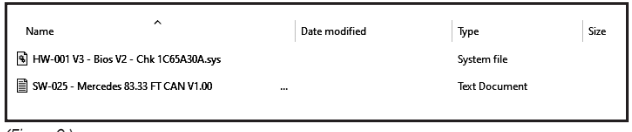
(Figure A)

9. Open the drive and verify that the “SWxxxx” file has been updated to the new version.

You should now have the latest software on your interface, indicating that the update was successful. At this point, you are ready to install the interface in your vehicle.

Ensure that all connections are secure and follow the installation guidelines provided in the user manual. Once installed, the interface should function with the updated software.

(Figure B)



(Figure C)

(Figure D)

PRIOR TO INSTALLATION: Installation requires a certain level of technical knowledge. Prior to installation, it is important to read the manual. Select a location for installation that is dry and free from heat sources. It is essential to use the correct tools during installation to prevent any damage to the vehicle or the product itself.

Please note that we cannot be held liable for any issues arising from improper installation. Before proceeding with installation, disconnect the negative battery terminal and ensure the key is removed from the ignition.

Having difficulties? We're here to help.

Contact our Tech Support line at:
386-257-1187

Or via email at:
techsupport@metra-autosound.com

Tech Support Hours (Eastern Standard Time)

Monday - Friday: 9:00 AM - 7:00 PM
Saturday: 10:00 AM - 5:00 PM
Sunday: 10:00 AM - 4:00 PM

Metra recommends MECP certified technicians