

Mazda Data Interface with SWC 2007-2015

INTERFACE FEATURES

- Provides NAV outputs (parking brake, reverse, speed sense)
- Retains audio controls on the steering wheel
- Can be used in both amplified and non-amplified models
- Retains balance and fade (excludes amplified models)
- Retains the ability to set the clock with a service harness
- Micro-B USB updatable

INTERFACE COMPONENTS

- AXDIS-MZ1 interface
- AXDIS-MZ1 harness
- 16-pin harness with stripped leads
- Female 3.5mm connector with stripped leads

APPLICATIONS

MAZDA

CX-7	2007-2012
CX-9	2007-2010
CX-9	2013-2015



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TOOLS REQUIRED

- Wire cutter • Crimp tool • Solder gun • Tape
- Connectors (example: butt-connectors, bell caps, etc.)

Attention! Let the vehicle sit with the key out of the ignition for a few minutes before removing the factory radio. When testing the aftermarket equipment, ensure that all factory equipment is connected before cycling the key to ignition.

CONNECTIONS TO BE MADE

Attention! This interface will work with models that are either factory amplified, or non-amplified. Please follow the instructions carefully for your model vehicle. Failure to do so will result in either no sound, or low sound. If you are unsure if your vehicle is factory amplified or not, please contact your local dealership.

For models without an amplifier:

From the 16-pin harness with stripped leads to the aftermarket radio:

- Connect the **Gray** wire to the right front positive speaker output.
- Connect the **Gray/Black** wire to the right front negative speaker output.
- Connect the **White** wire to the left front positive speaker output.
- Connect the **White/Black** wire to the left front negative speaker output.

The following (3) wires are only for multimedia/navigation radios that require these wires.

- Connect the **Blue/Pink** wire to the VSS/speed sense wire.
- Connect the **Green/Purple** wire to the reverse wire.
- Connect the **Light Green** wire to the parking brake wire
- Tape off and disregard the following (8) wires, they will not be used in this application:
Blue/White, Brown, Green, Green/Black, Orange/White, Purple, Purple/Black, Red.

From the AXDIS-MZ1 harness to the aftermarket radio:

- Connect the **Black** wire to the ground wire.
- Connect the **Yellow** wire to the battery wire.
- Connect the **Red** wire to the accessory wire.
- Connect the **Blue** wire to the power antenna wire.
- If the aftermarket radio has an illumination wire, connect the **Orange** wire to it.
- Connect the **Green** wire to the left rear positive speaker output.
- Connect the **Green/Black** wire to the left rear negative speaker output.
- Connect the **Purple** wire to the right rear positive speaker output.
- Connect the **Purple/Black** wire to the right rear negative speaker output.

Note: *The 2' long harness with a 24-pin connector is a service harness for setting the clock with the factory radio. Please run this harness to a location where it can be easily accessed, yet hidden.*

Continue to 3.5mm jack steering wheel control retention

CONNECTIONS TO BE MADE (CONT)

Attention! This interface will work with models that are either factory amplified, or non-amplified. Please follow the instructions carefully for your model vehicle. Failure to do so will result in either no sound, or low sound. If you are unsure if your vehicle is factory amplified or not, please contact your local dealership.

For models with an amplifier:

From the 16-pin harness with stripped leads to the aftermarket radio:

- Connect the **Blue/White** wire to the amp turn on wire. This wire must be connected to hear sound from the factory amplifier.
- Connect the **Gray** wire to the right front positive speaker output.
- Connect the **Gray/Black** wire to the right front negative speaker output.
- Connect the **White** wire to the left front positive speaker output.
- Connect the **White/Black** wire to the left front negative speaker output.
- Connect the **Green** wire to the left rear positive speaker output.
- Connect the **Green/Black** wire to the left rear negative speaker output.
- Connect the **Purple** wire to the right rear positive speaker output.
- Connect the **Purple/Black** wire to the right rear negative output.

The following (3) wires are only for multimedia/navigation radios that require these wires.

- Connect the **Blue/Pink** wire to the VSS/speed sense wire.
- Connect the **Green/Purple** wire to the reverse wire.
- Connect the **Light Green** wire to the parking brake wire
- Tape off and disregard the following (3) wires, they will not be used in this application: **Brown, Orange/White, Red**

From the AXDIS-MZ1 harness to the aftermarket radio:

- Connect the **Black** wire to the ground wire.
- Connect the **Yellow** wire to the battery wire.
- Connect the **Red** wire to the accessory wire.
- Connect the **Blue** wire to the power antenna wire.
- If the aftermarket radio has an illumination wire, connect the **Orange** wire to it.
- Tape off and disregard the following (4) wires, they will not be used in this application: **Green, Green/Black, Purple, Purple/Black**

Note: *The 2' long harness with a 24-pin connector is a service harness for setting the clock with the factory radio. Please run this harness to a location where it can be easily accessed, yet hidden.*

Continue to 3.5mm jack steering wheel control retention

3.5mm jack steering wheel control retention:

- The 3.5mm jack is to be used to retain audio controls on the steering wheel.
 - For the radios listed below, connect the included *female 3.5mm connector with stripped leads* onto the male 3.5mm SWC jack from the AXDIS-MZI harness. Any remaining wires tape off and disregard.
 - **Eclipse:** Connect the steering wheel control wire, normally **Brown**, to the **Brown/White** wire of the connector. Then connect the remaining steering wheel control wire, normally **Brown/White**, to the **Brown** wire of the connector.
 - **Metra OE:** Connect the steering wheel control Key 1 wire (**Gray**) to the **Brown** wire.
 - **Kenwood or select JVC with a steering wheel control wire:** Connect the **Blue/Yellow** wire to the **Brown** wire.
Note: If your Kenwood radio auto detects as a JVC, manually set the radio type to Kenwood. See the instructions under changing radio type.
 - **XITE:** Connect the steering wheel control SWC-2 wire from the radio to the **Brown** wire.
 - **Parrot Asteroid Smart or Tablet:** Connect the 3.5mm jack into the AXSWCH-PAR (sold separately), and then connect the 4-pin connector from the AXSWCH-PAR into the radio.
Note: The radio must be updated to rev. 2.1.4 or higher software.
 - **Universal “2 or 3 wire” radio:** Connect the steering wheel control wire, referred to as Key-A or SWC-1, to the **Brown** wire of the connector. Then connect the remaining steering wheel control wire, referred to as Key-B or SWC-2, to the **Brown/White** wire of the connector. If the radio comes with a third wire for ground, disregard this wire.
Note: After the interface has been programmed to the vehicle, refer to the manual provided with the radio for assigning the SWC buttons. Contact the radio manufacturer for more information.
 - **For all other radios:** Connect the 3.5mm jack from the AXDIS-MZI harness into the jack on the aftermarket radio designated for an external steering wheel control interface. Please refer to the aftermarket radios manual if in doubt as to where the 3.5mm jack goes to.

With the key in the off position:

- Connect the AXDIS-MZI harness into the interface, and then to the wiring harness in the vehicle.

Attention! Do not connect the AXDIS-MZI harness to the wiring harness in the vehicle just yet.

Attention! If retaining steering wheel controls, ensure that the jack/wire is connected to the radio before proceeding. If this step is skipped, the interface will need to be reset for the steering wheel controls to function.

PROGRAMMING THE AXDIS-MZ1

For the steps below, the L.E.D. located inside the interface can only be seen while active. The interface does not need to be opened to see the L.E.D.

1. Start the vehicle.
2. Connect the AXDIS-MZ1 harness to the wiring harness in the vehicle.
3. The L.E.D. will initially turn on solid **Green**, then turn off for a few seconds while it auto detects the radio installed.
4. The L.E.D. will then flash **Red** up to (18) times indicating which radio is connected to the interface, and then turn off for a couple of seconds. Pay close attention to how many **Red** flashes there are. This will help in troubleshooting, if need be. Refer to the L.E.D. feedback section for more information.
5. After a couple seconds the L.E.D. will turn on solid **Red** while the interface auto detects the vehicle. This process should take 5 to 30 seconds.
6. Once the vehicle has been auto detected by the interface, the L.E.D. will turn on solid **Green** indicating programming was successful.
7. Test all functions of the installation for proper operation, before reassembling the dash.
8. If the interface fails to function, refer to Resetting the AXDIS-MZ1.

Note: The L.E.D. will turn on solid **Green** for a moment, and then turn off under normal operation after the key has been cycled.

STEERING WHEEL CONTROL SETTINGS

L.E.D. feedback

The (18) **Red** L.E.D. flashes represent what brand radio the AXDIS-MZ1 believes it is connected to. Each flash represents a different radio manufacturer. For example, if you are installing a JVC radio, the AXDIS-MZ1 will flash (5) times. Following is a legend that dictates which manufacturer corresponds to which flash.

L.E.D. feedback legend

1 flash - Eclipse (Type 1) †	10 flashes - Clarion (Type 2) †
2 flashes - Kenwood ‡	11 flashes - Metra OE
3 flashes - Clarion (Type 1) †	12 flashes - Eclipse (Type 2) †
4 flashes - Sony / Dual	13 flashes - LG
5 flashes - JVC	14 flashes - Parrot **
6 flashes - Pioneer / Jensen	15 flashes - XITE
7 flashes - Alpine *	16 flashes - Phillips
8 flashes - Visteon	17 flashes - TBD
9 flashes - Valor	18 flashes - JBL

* **Note:** If the AXDIS-MZ1 flashes Red (7) times, and you do not have an Alpine radio connected to it, that means the AXDIS-MZ1 does not detect a radio connected to it. Verify that the 3.5mm jack is connected to the correct steering wheel jack/wire in the radio.

** **Note:** Part number AXSWCH-PAR is required (sold separately). Also, the Parrot radio must be updated to rev. 2.1.4 or higher through www.parrot.com.

† **Note:** If you have a Clarion radio and the steering wheel controls do not work, change the radio type to the other Clarion radio type; same for Eclipse. The following section explains how to do this.

‡ **Note:** If you have a Kenwood radio and the L.E.D. feedback comes back as showing as a JVC radio, change the radio type to a Kenwood. The following section explains how to do this.

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STEERING WHEEL CONTROL SETTINGS *(CONT)*

Attention: The Axxess Updater App can also be used to program the following (3) sub-sections as well, pending that the interface has been initialized and programmed.

Changing radio type

If the LED flashes do not match the radio you have connected, you must manually program the AXDIS-MZ1 to tell it what radio it is connected to.

1. After (3) seconds of turning the key on, press and hold the Volume-Down button on the steering wheel until the L.E.D. in the AXDIS-MZ1 goes solid.
2. Release the Volume-Down button; the L.E.D. will go out indicating we are now in Changing Radio Type mode.
3. Refer to the Radio Legend to know which radio number you would like to have programmed.
4. Press and hold the Volume-Up button until the L.E.D. goes solid, and then release. Repeat this step for the desired radio number you have selected.
5. Once the desired radio number has been selected, press and hold the Volume-Down button on the steering wheel until the L.E.D. goes solid. The L.E.D. will remain on for about (3) seconds while it stores the new radio information.
6. Once the L.E.D. goes off, the Changing Radio Type mode will then end. You can now test the steering control wheel controls.

Note: *If at any time the user fails to press any button for a period longer than (10) seconds, this process will abort.*

Radio legend

- | | | |
|---------------------|----------------------|--------------|
| 1. Eclipse (Type 1) | 7. Alpine | 13. LG |
| 2. Kenwood | 8. Visteon | 14. Parrot |
| 3. Clarion (Type 1) | 9. Valor | 15. XITE |
| 4. Sony/Dual | 10. Clarion (Type 2) | 16. Phillips |
| 5. JVC | 11. Metra OE | 17. TBD |
| 6. Pioneer/Jensen | 12. Eclipse (Type 2) | 18. JBL |

Remapping the steering wheel control buttons

Let's say you have AXDIS-MZ1 initialized and you want to change the button assignment for the steering wheel control buttons. For example, you would like Seek-Up to become Mute. Follow the steps below to remap the steering wheel control buttons:

1. Ensure the AXDIS-MZ1 is visible so you can see the L.E.D. flashes to confirm button recognition.
Tip: *Turning the radio off is recommended.*
2. Within the first twenty seconds of turning the ignition on, press and hold the Volume-Up button on the steering wheel until the L.E.D. goes solid.
3. Release the Volume-Up button, the L.E.D. will then go out; The Volume-Up button has now been programmed.
4. Follow the list in the Button Assignment Legend to reference the order in which the steering wheel control buttons need to be programmed.

Continued on the next page

STEERING WHEEL CONTROL SETTINGS *(CONT)*

Note: If the next function on the list is not on the steering wheel, press the Volume-Up button for (1) second until the L.E.D. comes on, and then release the Volume-Up button. This will tell the AXDIS-MZ1 that this function is not available and it will move on to the next function.

5. To complete the remapping process, press and hold the Volume-Up button on the steering wheel until the L.E.D. in the AXDIS-MZ1 goes out.

Button assignment legend

1. Volume-Up	10. Band
2. Volume-Down	11. Play/Enter
3. Seek-Up/Next	12. PTT (Push to Talk)
4. Seek-Down/Prev	13. On-Hook
5. Source/Mode	14. Off-Hook
6. Mute	15. Fan-Up *
7. Preset-Up	16. Fan-Down *
8. Preset-Down	17. Temp-Up *
9. Power	18. Temp-Down *

* Not applicable in this application

Note: Not all radios will have all of these commands. Please refer to the manual provided with the radio, or contact the radio manufacturer for specific commands recognized by that particular radio.

Dual assignment instructions (long button press)

The AXDIS-MZ1 has the capability to assign (2) functions to a single button, except Volume-Up and Volume-Down. Follow the steps below to program the button(s) to your liking.

Note: *Seek-Up and Seek-Down come pre-programmed as Preset-Up and Preset-Down for a long button press.*

1. Turn on the ignition but do not start the vehicle.
2. Press and hold down the steering wheel control button that you want to assign a long press function to for about (10) seconds, or until the L.E.D. flashes rapidly. At this point release the button; the L.E.D. will then go solid.
3. Press and release the Volume-Up button the number of times corresponding to the new button number selected. Refer to the Dual Assignment Legend. The L.E.D. will flash rapidly while the Volume-Up button is being pressed, and then go back to a solid L.E.D. once released. Go to the next step once the Volume-Up button has been pressed the desired number of times.
Caution: *If more than (10) seconds elapses between pressing the Volume-Up button, this procedure will abort, and the L.E.D. will go out.*
4. To store the long press button in memory, press the button that you assigned a long press button to (the button held down in Step 2). The L.E.D. will now go off indicating the new information has been stored.

Note: *These steps must be repeated for each button you would like to assign a dual purpose feature to. To reset a button back to its default state, repeat Step 1, and then press the Volume-Down button. The L.E.D. will go out, and the long press mapping for that button will be erased.*

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STEERING WHEEL CONTROL SETTINGS (CONT)

Dual assignment legend

- | | | | |
|-------------------|----------------|----------------|-----------------|
| 1. Not allowed | 6. ATT/Mute | 11. Play/Enter | 15. Fan-Up * |
| 2. Not allowed | 7. Preset-Up | 12. PTT | 16. Fan-Down * |
| 3. Seek-Up/Next | 8. Preset-Down | 13. On-Hook | 17. Temp-Up * |
| 4. Seek-Down/Prev | 9. Power | 14. Off-Hook | 18. Temp-Down * |
| 5. Mode/Source | 10. Band | | |

* Not applicable in this application

TROUBLESHOOTING

Resetting the AXDIS-MZ1

1. The **Blue** reset button is located inside the interface, between the two connectors. The button is accessible outside the interface, no need to open the interface.
2. Press and hold the reset button for two seconds, and then let go to reset the interface.
3. Refer to “Programming the Interface” from this point.

If you are having difficulties with the installation of this product, contact our Tech Support line either by phone at **1-800-253-TECH**, or email at **techsupport@metra-autosound.com**. Before doing so, look over the instruction booklet a second time and ensure that the installation was performed exactly as the instruction booklet is stated. Have the vehicle apart and ready to perform troubleshooting steps before contacting Metra/Axxess Tech Support.



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