## **ResearchNotes**<sup>™</sup>

Disassembly instructions from our Vehicle Research Team

# 2016–up Mazda MX5 Miata 2017–up Fiat 124 Spider



# CRUTCHFIELD®



Disconnect the battery

Set parking brake and disconnect negative battery cable to prevent any electrical short.



Before starting, compare items on your invoice with items received. Carefully check through packaging material. If any item is missing, please call **Crutchfield Technical Support at 1-888-955-6000.** 

Although reasonable attempts are made to verify the accuracy of the information contained in these ResearchNotes, it is presented without warranties or guarantees of any type due to the constantly changing nature of this type of information and running changes in vehicle production. Any person or entity using this information does so at his or its own risk. If you find our instructions are different from your vehicle, or if you have questions, do not continue with your installation. Contact our toll-free technical support for assistance.

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## Vehicle wiring guide

NOTE: In most cases a speaker wiring adapter is available from Crutchfield and splicing will not be necessary. If no adapter is available, use this chart as a guide to splice or tap the wires. Some wiring may not be present depending on your vehicle's audio system.

FUNCTION	POLARITY/COLOR/LOCATION
Left front speakers	positive (+): yellow/black or black, negative (-): yellow/green or red
Right front speakers	positive (+): yellow or white, negative (-): white/black or green
Left headrest speaker	positive (+): white/blue or light green, negative (-): white/red or pink
Right headrest speaker	positive (+): white or violet, negative (-): white/green or gray
Subwoofer	positive (+): brown, negative (-): green
Speed sense (non-Bose system)	blue - radio in dash or tuner above passenger's kick panel, white 24-pin plug, pin 19
Reverse (+)	white/black - Electrical Supply Unit in driver's kick panel against firewall, white 18-pin plug, pin 12
Parking brake	red/black - parking brake switch, white 1-pin plug, pin 1
Foot brake (manual transmission)	red - brake switch, white 4-pin plug, pin 4
Foot brake (automatic transmission)	red - Start/Stop Unit in steering column, white 32-pin plug, pin 2
NOTES:	
• If equipped with a factory amplifier, the amplifier will be located behind the passenger's side dash trim.	





## Dash display (Bose system)

#### **REMOVAL INSTRUCTIONS**

Tools Required: Panel tool, 10mm socket, ratchet and extension

- 1. Starting on driver's side edge, pry out dash trim panel to release clips, but do not remove panel.
- 2. Pry out center dash vent/hazard switch panel to release seven (7) clips, disconnect harness and remove panel.
- 3. Pull instrument cluster shroud toward rear of vehicle to release clips, then allow shroud to hang by harness.
- 4. Remove one (1) 10mm screw securing receiver to dash. Pull receiver toward rear of vehicle to release two (2) clips, disconnect harnesses and remove receiver.

#### Important information about your vehicle

- Dash LCD displays vehicle information such as climate controls, keyless entry system, etc. and cannot be replaced at this time.
- The removal instructions above apply to the Bose system only. We have not researched the receiver in the non-Bose system.



















2. Pry out center dash vent/hazard switch panel to release seven (7) clips, disconnect harness and remove panel.



































## Tuner/Amp module (Bose system only)

#### **REMOVAL INSTRUCTIONS**

Tools Required: Panel tool, 10mm socket, ratchet and extension

- 1. Remove one (1) 10mm screw from passenger's kick panel.
- 2. Starting at top edge, pry off passenger's side front pillar trim panel to release two (2) clips, disconnect harness and remove trim panel.
- 3. Pry out on passenger's side dash panel to release nine (9) clips and remove panel.

#### Important information about your vehicle

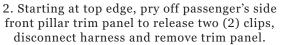
• The tuner/amp module is located under the passenger's side dash.









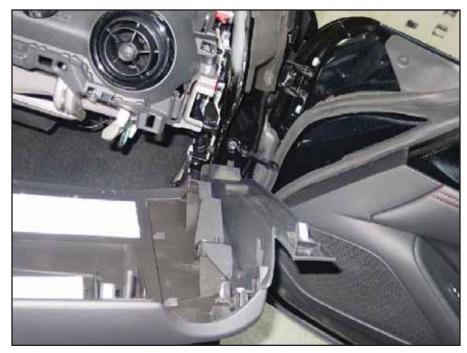




















#### **REMOVAL INSTRUCTIONS**

Tools Required: Panel tool, small flat blade screwdriver

- 1. Starting at top edge, pry off front pillar trim panel to release two (2) clips, disconnect harness and remove trim panel.
- 2. Pry tweeter off pillar trim panel to release clips and remove tweeter.

Difficulty Rating: 3 (must fabricate bracket)

#### Important information about your vehicle

- Use the factory speaker grilles.
- A wiring harness is not available. You'll have to splice or tap the vehicle's speaker wires to your new speaker wires.
- You'll need to fabricate a bracket to install new tweeters in this location. In some cases, you may need to use backstraps, hot glue, or silicone to secure them.



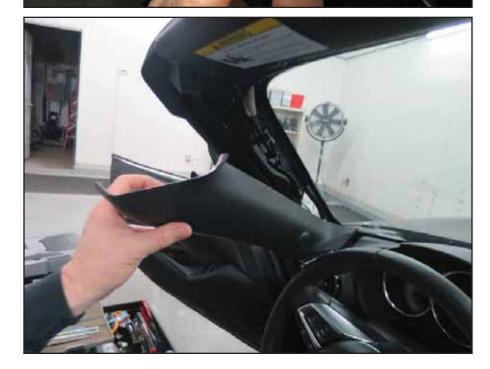








 Starting at top edge, pry off front pillar trim panel to release two (2) clips, disconnect harness and remove trim panel.









2. Pry tweeter off pillar trim panel to release clips and remove tweeter.





















## Front door woofers

#### **REMOVAL INSTRUCTIONS**

Tools Required: Panel tool, small flat blade screwdriver, Phillips screwdriver, 10mm socket, ratchet and extension, drill with 1/8" bit

- 1. Pry out screw cover behind door release handle and remove one (1) exposed Phillips screw.
- 2. Pry out screw cover inside door pull cup and remove one (1) exposed Phillips screw.
- 3. Pry out sides and bottom of door panel to release eight (8) clips, disconnect harnesses and door lock/release assembly, then remove door panel.
- 4. Remove three (3) 10mm screws securing speaker to door, disconnect harness and remove speaker.

Difficulty Rating: 3 (drill new screw holes)

#### Important information about your vehicle

- Cut plastic grille ring off back of door panel to gain extra height if needed.
- Use the factory speaker grilles.
- A speaker adapter bracket is required.
- You'll need to re-drill the mounting screw holes.

Caution: WEAR EYE PROTECTION. Always be careful when drilling in a vehicle. Be aware of things such as wiring, windows, fuel lines and safety devices. Check drilling depth and location to avoid damage to vehicle appearance.









1. Pry out screw cover behind door release handle and remove one (1) exposed Phillips screw.























3. Pry out sides and bottom of door panel to release eight (8) clips, disconnect harnesses and door lock/release assembly, then remove door panel.









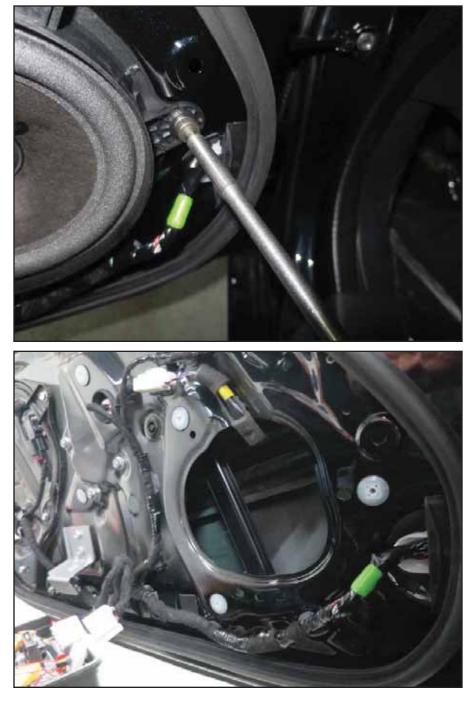
















### Headrest speakers



#### Important information about your vehicle

• Seat-mounted airbags must be removed in order to access this headrest location. This is not recommended. There are two speakers in each headrest in the Bose system.





## Footwell subwoofer (Bose system only)

#### **REMOVAL INSTRUCTIONS**

Tools Required: Panel tool, Phillips screwdriver, 10mm socket, ratchet and extension

- 1. Pry up the passenger's side door scuff panel to release five (5) clips and remove scuff panel.
- 2. Pull door weatherstrip away from body along kick panel.
- 3. Remove one (1) center pushpin clip from the passenger's side kick panel by first prying out center pin, then prying out entire clip.
- 4. Pull kick panel toward rear of vehicle to release one (1) clip and remove kick panel.
- 5. Remove one (1) plastic Phillips clip securing edge of carpet, then pull carpet panel toward rear of vehicle.
- 6. Remove one (1) plastic Phillips clip securing foam block in footwell, then remove foam block.
- 7. Remove two (2) 10mm nuts and one (1) 10mm bolt securing subwoofer enclosure to body, disconnect harness and remove enclosure.
- 8. Remove four (4) Phillips screws securing subwoofer to enclosure, disconnect harness and remove subwoofer.

Difficulty Rating: 5 (must fabricate bracket)

#### Important information about your vehicle

- Replacing the 1- or 2-ohm factory speaker with a higher-impedance aftermarket speaker will result in lower volume levels.
- You'll need to fabricate a speaker mounting bracket or spacer.
- The factory woofer in this location only receives bass frequencies from its amplifier. Replacement speakers will only reproduce bass.



















3. Remove one (1) center pushpin clip from the passenger's side kick panel by first prying out center pin, then prying out entire clip.







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5. Remove one (1) plastic Phillips clip securing edge of carpet, then pull carpet panel toward rear of vehicle.



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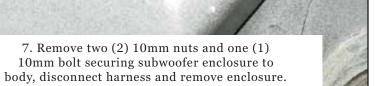
































8. Remove four (4) Phillips screws securing subwoofer to enclosure, disconnect harness and remove subwoofer.





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