

## JAMES BARANE RACING AFTERMARKET PARTS AND ACCESSORIES

### 2014+ SKYACTIV Mazda 3/6 and 2013+ CX-5 Adjustable Short Shift Arm Adapter Installation Instructions

#### **Tooling:**

- ✓ Ratchet wrench
- ✓ 10mm socket
- ✓ 12mm socket
- ✓ 13mm socket
- ✓ 1/4" open end wrench
- ✓ 5mm allen wrench
- ✓ Philips head screw driver
- ✓ Flat head screw driver
- ✓ Loctite (optional)

#### Parts List:

- ✓ 1 Short shift arm adapter
- ✓ 1 linkage mounting pin
- ✓ 3 6mm x 14mm socket cap bolts
- ✓ 3 8mm x 45mm hex bolts
- ✓ 3 8mm lock washers
- ✓ 3 3/4" spacers

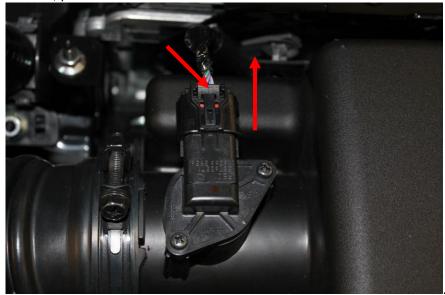
1. Start by opening the hood and removing the engine cover. Pull up on each corner to remove the cover.



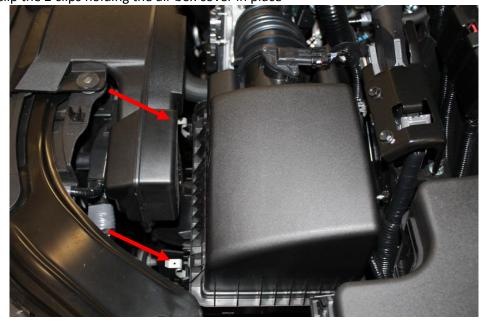
2. With a Philips head screw driver, loosen the hose clamp at the throttle body and remove the cam cover vent tube by pulling straight up.



3. Next remove the lead connected to the MAF sensor by depressing the tab at the rear of the connector then, pull the connector towards the rear of the car.



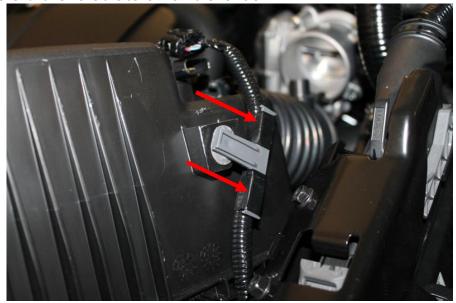
4. Unclip the 2 clips holding the air box cover in place



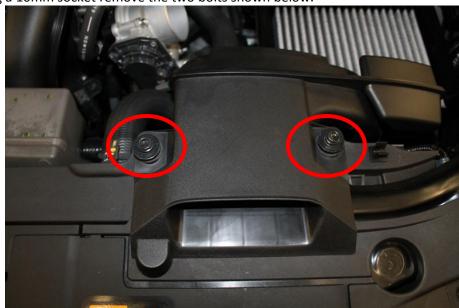
5. Separate the top of the air box from the bottom and remove the rubber accordion hose attached to the throttle body.



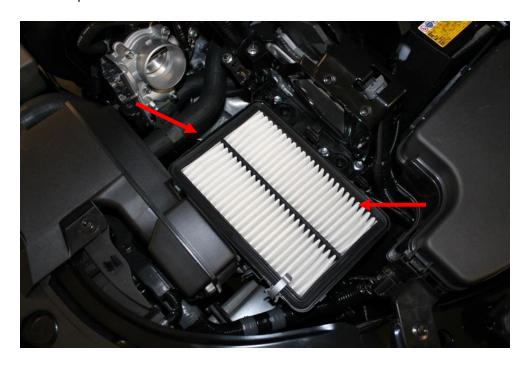
6. Using a razor knife carefully cut the tape securing the MAF sensor wire from the back of the air box cover and remove the cover from the vehicle.



7. Using a 10mm socket remove the two bolts shown below.



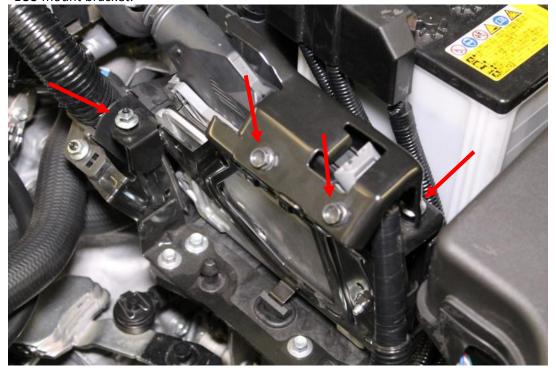
8. Grab the bottom section of the air box firmly and give it a swift tug upwards to remove the entire lower portion of the air box from the vehicle.



Copyright © 2016 James Barone Racing LLC. Any unauthorized reproduction or publication of this document is a strictly prohibited without the written consent of James Barone Racing.

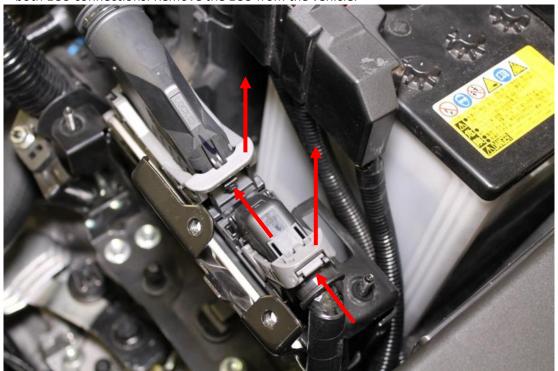


9. Using a 10mm socket, remove the 2 bolts securing the ECU cover and the two nuts securing the ECU mount bracket.

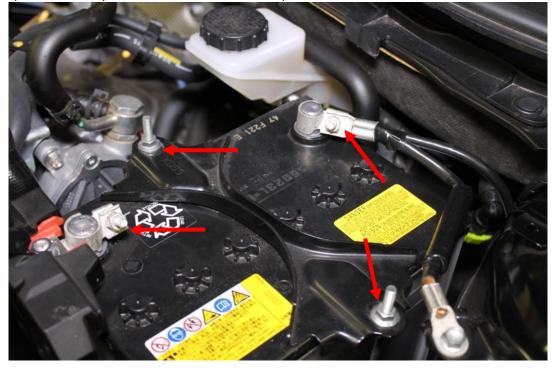


Copyright © 2016 James Barone Racing LLC. Any unauthorized reproduction or publication of this document is a strictly prohibited without the written consent of James Barone Racing.

10. Depress the tabs on each ECU wiring connector, pivot the arm of the connectors up and remove both ECU connections. Remove the ECU from the vehicle.

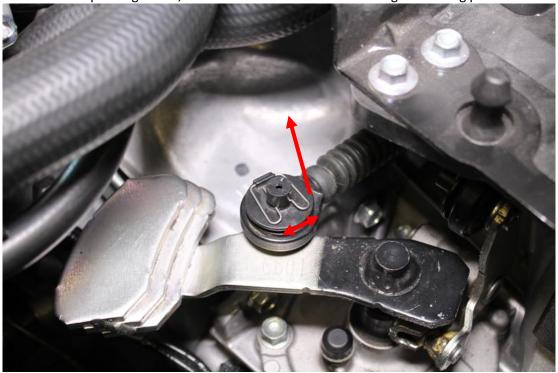


11. Using a 10mm socket, remove the battery hold down bracket, the negative battery cable, the positive battery cable and remove the battery from the vehicle.

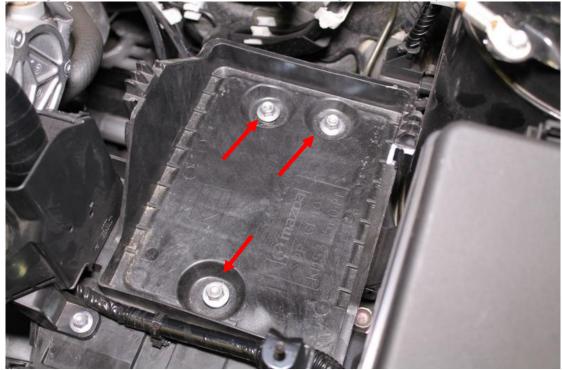


Copyright © 2016 James Barone Racing LLC. Any unauthorized reproduction or publication of this document is a strictly prohibited without the written consent of James Barone Racing.

12. Carefully spread the wire clip securing the shift linkage to the shift arm. Rotate it up and towards the passenger side, and then lift the cable off the linkage mounting pin.



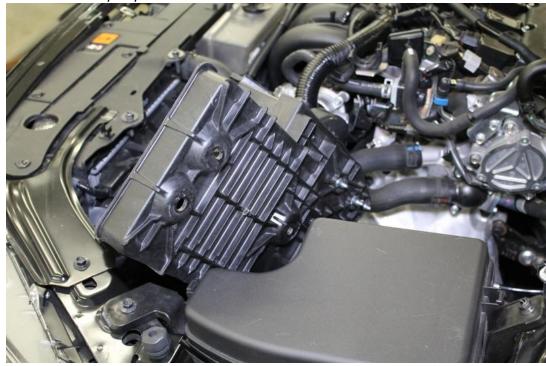
13. Using a 12mm socket, remove the three bolts securing the battery tray.



14. Using a flat head screw driver, unclip the ECU wiring harness.



15. Pivot the battery tray towards the front of the vehicle.



16. Using a 12mm socket, remove the 3 bolts securing the cable mounting bracket to the transmission. Save the bolts.



- 17. Place the 3 aluminum spacers included with your kit below the cable mounting bracket and resecure the mounting bracket with the 3, 8mm lock washers and the 3, 8mm x 45mm bolts included with your kit. Then tighten using a 13mm socket to 23ft/lbs.
  - ➤ Note It's easier to install one spacer and bolt at a time, leaving each loose until all three have been installed.

18. Reinstall the battery tray, battery, ECU, ECU connections, ECU cover, and reconnect the positive battery connection. Reconnect the negative when the entire installation is complete.





19. Place the top half of the JBR short shift arm adapter over the OEM linkage pin and on to the OEM shifter arm. Position the bottom half below the arm and secure using the 3, 6mm x 14mm bolts included with your kit. Tighten evenly using a 5mm allen wrench. (One drop of loctite on each bolt is optional)



20. Install the linkage pin in the desire location and tighten with a ¼" open end wrench. (One drop of loctite on the pin is optional)



21. Review the installation and operation, re-install the air box assembly and enjoy your New JBR Short Shift Arm Adapter.

Copyright © 2016 James Barone Racing LLC. Any unauthorized reproduction or publication of this document is a strictly prohibited without the written consent of James Barone Racing.

# Congratulations!! You've now completed the installation of your new JBR SKYACTIV Short Shift Arm Adapter