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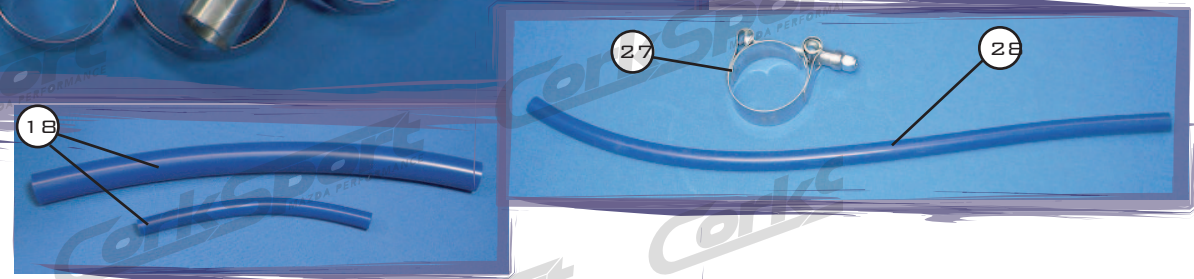
# Corksport Power Series Front Mount Intercooler For the 2010+ MazdaSpeed 3



**Parts List:**

- |     |                                     |
|-----|-------------------------------------|
| 1.  | Corksport Turbo Inlet Pipe          |
| 2.  | Corksport MAF Housing & Pipe        |
| 3.  | CorkSport Ram Airbox                |
| 4.  | Air Filter                          |
| 5.  | CorkSport Intercooler               |
| 6.  | Intercooler Pipe #1                 |
| 7.  | Intercooler Pipe #2                 |
| 8.  | Intercooler Pipe #3                 |
| 9.  | Intercooler Pipe #4                 |
| 10. | Intercooler Pipe #5                 |
| 11. | Intercooler Brackets                |
| 12. | Qty 4: 2.25" Silicone Couplers      |
| 13. | Qty 2: 2.25"-2.5" Silicone Reducers |
| 14. | Qty 1: 2.0"-2.25" Silicone Reducer  |
| 15. | Qty 1: 2.75" Silicone Coupler       |
| 16. | Qty 1: 3"-3.25" Silicone Reducer    |
| 17. | Qty 1: 2.25"-3" Silicone Reducer    |
| 18. | Qty 1: Silicone Hose Kit            |
| 19. | Qty 2: M8 x1.25 x 20mm Bolts        |
| 20. | Qty 2: M8 Washers                   |
| 21. | Qty 2: M6 x 1.0 Flange Nuts         |
| 22. | Qty 12: 63-71mm T-Bolt Clamps       |
| 23. | Qty 2: 70-78mm T-Bolt Clamps        |
| 24. | Qty 2: 77-85mm T-Bolt Clamps        |
| 25. | Qty 3: 83-91mm T-Bolt Clamps        |
| 26. | Qty 1: 57-85mm T-Bolt Clamps        |
| 27. | Qty 1: 38-43mm T-Bolt Clamp         |
| 28. | Qty 1: 4mm silicone hose            |
| 29. | M6x1.0 30mm bolts and nuts          |

- Silicone Color:**
- Black
  - Red
  - Blue



Kit Assembled by: \_\_\_\_\_ Date: \_\_\_\_\_



# Corksport Power Series Front Mount Intercooler For the 2010+ MazdaSpeed 3

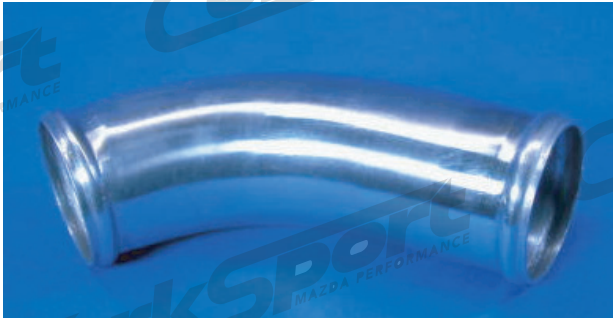
Intercooler Pipe #1



Intercooler Pipe #2



Intercooler Pipe #3



Intercooler Pipe #4



Intercooler Pipe #5



Turbo Inlet Pipe



MAF Housing Pipe

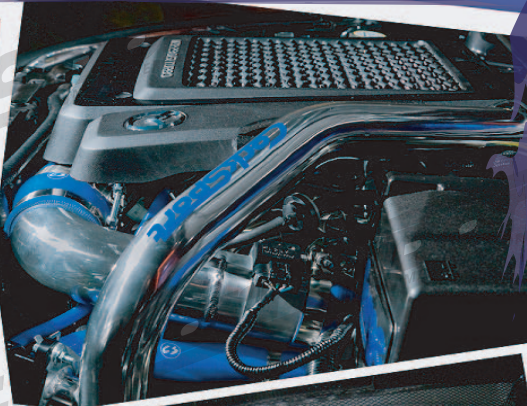


Intercooler Brackets



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## Corksport Power Series Front Mount Intercooler Kit For the 2010+ MazdaSpeed 3



**NOTE:** These instructions were written for reference only and the use of a factory service manual is recommended. Please read these instructions thoroughly prior to starting installation. Disconnection of the battery is required for this installation. Refer to your owners manual for specific vehicle requirements.

**NOTE:** This kit has been tested and is known to fit the following Bypass/Blow off valves; HKS, Greddy, OEM Mazda and Forge. If you have another type of valve there may be clearance problems and relocation of the valve flange may be required.



**WARNING:** This kit will raise boost level approximately 2 to 3 psi on an otherwise stock car. Please make sure if you have other modifications to your vehicle that fuel delivery is correct and safe for your modifications including this intercooler kit.



**WARNING:** Make sure vehicle is completely cooled down prior to starting installation. Just because it's called an intercooler doesn't mean that it can't get hot enough to seriously injure you. If you are going to work on your car within an hour or two of having driven it, use of a fan to cool off the area around the intercooler and exhaust manifold is highly recommended.





Part Number: Axl-6-130 Time Estimate: 4-5 Hours Wrench Rating: 3/5	Model: MazdaSpeed3	Year 2010+	Trim All
<b>TOOLING LIST:</b> 3/8 Drive Ratchet 6" 3/8 Drive Extension 8mm long socket 10mm Long Socket 12mm Long Socket Phillips Screwdriver Longnose Angled Pliers Channel Lock Pliers		<b>PARTS LIST:</b> Corksport Turbo Inlet Pipe Corksport MAF Housing & Pipe CorkSport Ram Airbox Air Filter CorkSport Intercooler Qty 5: Intercooler Pipes Qty 2: Intercooler Brackets Qty 4: 2.25" Silicone Couplers Qty 2: 2.25"-2.5" Silicone Reducers Qty 1: 2.0"-2.25" Silicone Reducer Qty 1: 2.75" Silicone Coupler Qty 1: 3"-3.25" Silicone Reducer	
		Qty 1: 2.25"-3" Silicone Reducer Qty 1: Silicone Hose Kit Qty 12: 63-71mm T-Bolt Clamps Qty 2: 70-78mm T-Bolt Clamps Qty 2: 77-85mm T-Bolt Clamps Qty 3: 83-91mm T-Bolt Clamps Qty 1: 57-65mm T-Bolt Clamp Qty 2: M8 x 1.25 x 20mm Bolts Qty 2: M8 Washers Qty 2: M6 x 1.0 Flange Nuts	

For help with installation, call 360-260-CORK (2675)

# INSTALLATION INSTRUCTIONS:

## CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

### HOW THE INSTRUCTIONS WORK

TO BEST COVER ALL OF OUR CUSTOMERS EXPERIENCE LEVELS AND FAMILIARITY WITH THE SYSTEMS ON THEIR MAZDA, WE HAVE BROKEN OUR INSTRUCTIONS DOWN INTO NUMBERED STEPS, EACH OF WHICH HAS THE CORE INFORMATION IN THE HEADER WITH ADDITIONAL DETAIL AS NEEDED DEPENDING ON YOUR EXPERIENCE. IF YOU HAVE A HIGH LEVEL OF EXPERIENCE, YOU CAN JUST USE THE CHECKLIST BELOW AND THEN SKIP TO THE STEP NUMBER WHERE YOU NEED HELP OR ASSISTANCE. VIDEO ASSISTANCE MAY ALSO BE AVAILABLE FOR CERTAIN STEPS AND IS INDICATED BY THE HD ICON:  AREAS WHERE THERE IS A SAFETY CONCERN ARE INDICATED BY THE WARNING ICON:  CAUTIONARY AREAS (WHERE PARTS ARE FRAGILE, ETC) ARE INDICATED BY THE CAUTION ICON:  KEY TIPS ARE INDICATED WITH THE LIGHT BULB ICON: 



### OVERVIEW/CHECKLIST:

THIS IS AN OVERVIEW OF EACH OF THE STEPS OF THE BUILD. YOU CAN USE THIS AS A REFERENCE AND A CHECKLIST AS YOU BUTTON UP THE WORK ON THE CAR.

- 0: SUPPORT CAR ON FLOOR JACK/JACKSTANDS OR LIFT
- 1: REMOVE INTERCOOLER COVER (2X 10MM HEX HEAD BOLTS)
- 2: REMOVE BATTERY BOX COVER (2 INTEGRAL LATCHES)
- 3A: DISCONNECT NEGATIVE THEN POSITIVE BATTERY TERMINALS
- 3B: REMOVE BATTERY HOLD DOWN BRACKET (2X 10MM HEX NUTS)
- 3C: REMOVE BATTERY AND PLACE IN A SAFE LOCATION.
- 4A: REMOVE FRONT OF BATTERY BOX, DISCONNECTING THREE WIRE LOOM CLIPS IN THE PROCESS.
- 4B: REMOVE ECU COVER.
- 4C: DISCONNECT LATCHING ECU PLUGS.
- 5A: UNPLUG MAF SENSOR HARNESS.
- 5B: DISCONNECT AND REMOVE AIRBOX (12MM HEX HEAD & PUSH IN GROMMETS)
- 5C: DISCONNECT AND REMOVE BATTERY BOX (3X 10MM HEX BOLTS)
- 6A: UNCLIP AND DISCONNECT VALVECOVER BREATHER HOSE. (SEE VIDEO ON THE PRODUCT PAGE ON OUR WEBSITE).
- 6B: REMOVE RUBBER ACCORDION HOSE BETWEEN TURBO INLET AND AIRBOX (10MM HOSE CLAMP)
- 6C: DISCONNECT AND REMOVE RECIRCULATION VALVE HOSE BETWEEN TURBO INLET PIPE AND RECIRCULATION VALVE. (2 SPRING HOSE CLAMPS).
- 6D: DISCONNECT MOUNT OF TURBO INLET PIPE (10MM NUT).
- 7A: DISCONNECT TWO LOOM CLIPS FROM TURBO INLET PIPE.

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## OVERVIEW/CHECKLIST (CONT):

- 7B: DISCONNECT BOOST CONTROL SOLENOID LINE FROM TURBO INLET AND BOOST CONTROL SOLENOID.
- 7C: DISCONNECT HOSE CLAMP AT TURBOCHARGER AND EXTRACT TURBO INLET PIPE.
- 8: ASSEMBLE CORKSPORT TURBO INLET PIPE AS SHOWN IN FIGURE 8A
- 9A: INSTALL CORKSPORT TURBO INLET PIPE TO TURBO. DO NOT TIGHTEN.
- 9B: ATTACH TURBO INLET BRACKET TO STUD WITH 10MM NUT, TIGHTEN. TIGHTEN T-BOLT CLAMP ON TURBOCHARGER/SILICONE COUPLER.
- 9C: ATTACH VALVECOVER BREATHER HOSE TO VALVECOVER (USE SILICONE SPRAY).
- 9D: ATTACH 4MM HOSE TO BOOST CONTROL SOLENOID. (USE SILICONE SPRAY).
- 10A: REMOVE THE I/C FASTENERS (3X 12MM NUTS WITH WASHERS).
- 10B: REMOVE THE BREATHER HOSE FROM THE BOV (WITH PLIERS).
- 10C: LOOSEN THE I/C HOSE CLAMPS (10MM HEX HEAD OR PHILLIPS).
- 10D: REMOVE THE I/C FROM THE ENGINE AND SET ASIDE.
- 10E: REMOVE THE TWO BOOST TUBES FROM VEHICLE (10MM HEX HEAD).
- 11A: REMOVE THE FRONT UNDERTRAY SHEILD (12X HEX HEAD SCREWS).
- 11B: REMOVE THE DRIVER'S SIDE UNDERTRAY TO FENTER LINER BOLTS (2X 10MM BOLTS).
- 11C: REPEAT STEP 11B FOR THE PASSENGER'S SIDE BOLTS.
- 11D: REMOVE THE 3 LOCK SCREWS HOLDING THE DRIVER'S SIDE FENDER LINER TO THE SIDE OF THE BUMPER (3X PHILLIPS HEAD CLIPS).
- 11E: REMOVE THE BOLT HOLDING THE DRIVER'S SIDE OF THE BUMPER TO THE FENDER (1X 8MM HEX/PHILLIPS HEAD BOLT).
- 11F: REPEAT STEPS 11A & 11B FOR THE PASSENGER'S SIDE.
- 11G: REMOVE THE DRIVER'S SIDE LOCK CLIPS HOLDING THE TOP OF THE BUMPER IN PLACE.
- 11H: REMOVE THE DRIVER'S SIDE TORX HEAD BOLT HOLDING THE TOP OF THE BUMPER IN PLACE (T30 TORX BIT).



FOR HELP WITH INSTRUCTIONS CALL 360-260-CORK (2675)

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## OVERVIEW/CHECKLIST (CONT):

- 11I: REPEAT STEPS 11G & H FOR THE PASSENGER SIDE.
- 11J: UNCLIP BOTH FOG LIGHTS AND FREE WIRING FROM BUMPER.
- 11K: REMOVE THE BUMPER FROM THE VEHICLE.  
**⚠ NOTE: FIRST UNCLIP THE SIDES, THEN THE FRONT OF THE BUMPER.**
- 12A: INSTALL A 2.25" COUPLER & 63-71MM T-BOLT CLAMP TO THE 3 TURBO OUTLET AND TIGHTEN.
- 12B: INSTALL A 63-71MM T-BOLT CLAMP (LOOSE) AND I/C PIPE #1.
- 12C: INSTALL A 2.25" COUPLER TO THE OTHER END OF I/C PIPE #1 AND SLIDE 2 63-71MM T-BOLT CLAMPS ON TO THE COUPLER.
- 12D: REMOVE THE 12MM BOLT FROM THE A/C COMPRESSOR BRACKET.
- 12E: INSTALL I/C PIPE #2 INTO THE COUPLER ON I/C PIPE #1 AND ATTACH THE BRACKET TO THE A/C COMPRESSOR AND REINSTALL BOLT.
- 12F: INSTALL THE I/C BRACKETS ON THE I/C (2X 8MM BOLTS).
- 12G: REMOVE THE 10MM CORE SUPPORT BOLTS, LINE UP THE I/C BRACKETS, & REINSTALL THE BOLTS (MAKE SURE THAT THE I/C IS PUSHED UP TIGHT WITH THE BOTTOM OF THE CRASH BAR & TIGHTEN BOLTS).  
**⚠ NOTE: YOU MAY WANT AN EXTRA SET OF HANDS FOR THIS STEP.**
- 12H: INSTALL A 2.25" SILICONE COUPLER AND 2 63-71MM T-BOLT CLAMPS ON THE END OF I/C PIPE #2.
- 12I: INSTALL A 2.5"-2.25" SILICONE REDUCER ONTO I/C PIPE #3 AND THE I/C USING 1 70-78 & 1 63-71MM T-BOLT CLAMPS.
- 12J: GO BACK THROUGH AND TIGHTEN ALL T-BOLT CLAMPS AND BOLTS.
- 13A: INSTALL A 2.5"-2.25" SILICONE REDUCER ONTO I/C PIPE #4 AND THE GOLD SIDE OF THE I/C USING 1 70-78 & 1 63-71MM T-BOLT CLAMPS.
- 13B: INSTALL A 2.25" SILICONE COUPLER WITH 2 63-71MM T-BOLT CLAMPS ON TO THE END OF I/C PIPE #4.  
**⚠ NOTE: YOU MAY WANT TO TIGHTEN THE LOWER T-BOLT CLAMP ENOUGH SO THAT THE CLAMPS DO NOT SLIDE BACK DOWN I/C PIPE #4.**
- 13C: INSTALL THE 2.75" SILICONE COUPLER & 2 77-85MM T-BOLT CLAMPS ON TO I/C PIPE #5.



# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## OVERVIEW/CHECKLIST (CONT):

- 13D: INSTALL THE OTHER SIDE OF I/C PIPE #5 ON TO THE 2.25" SILICONE COUPLER ON THE OPEN END OF I/C PIPE #4.
- 13E: INSTALL I/C PIPE #5 ON TO THE THROTTLE BODY.
- 13F: GO BACK THROUGH AND TIGHTEN ALL T-BOLT CLAMPS AND BOLTS.
- 14A: INSTALL THE LARGE END OF THE 3.25"-3.0" SILICONE REDUCER ON TO THE RAM AIRBOX AND INSTALL 2 83-91MM T-BOLT CLAMPS.
- ⚠ WARNING: BLACK GEL-COAT ON AIRBOX IS EASILY SCRATCHED.
- 14B: INSTALL THE AIRBOX ON TO THE FACTORY I/C LOCATION & REINSTALL THE FACTORY NUTS AND TIGHTEN (3X 12MM NUTS).
- 14C: INSTALL YOUR BOV ON THE BOV FLANGE ON I/C PIPE #1.
- ⚠ NOTE: THE STOCK BOV WAS USED, BUT YOUR APPLICATION MAY DIFFER.
- 14D: INSTALL THE 3"-2.25" SILICONE REDUCER INTO THE MAF SENSOR HOUSING USING AN 83-91MM T-BOLT CLAMP AND TIGHTEN CLAMP.
- 14E: INSTALL THE MAF SENSOR IN TO THE MAF HOUSING.
- ⚠ NOTE: USE A TWISTING MOTION TO ENSURE THAT THE O-RING SEATS.
- 14F: INSTALL A 63-71MM T-BOLT CLAMP AND THE 2.25" END OF THE MAF HOUSING COUPLER ON TO THE TIP AND PLUG IN MAF SENSOR.
- 14G: INSTALL THE OTHER END OF THE MAF HOUSING PIPE INTO THE SILICONE COUPLER ON THE AIRBOX AND TIGHTEN THE T-BOLT CLAMPS.
- 14H: TRIM THE FACTORY TOP MOUNT I/C COVER TO CLEAR I/C PIPE #1.
- ⚠ NOTE: ONLY TRIM WHAT YOU NEED. EACH VEHICLE IS DIFFERENT.
- 14I: INSTALL THE SUPPLIED AIR FILTER IN TO THE AIRBOX.
- 14J: INSTALL THE TOP MOUNT I/C COVER (1X CLIP & 2X 10MM NUTS).
- 15A: INSTALL THE BATTERY BOX BACK IN TO PLACE (3X 10MM BOLTS).
- 15B: INSTALL THE ECU CONNECTERS AND ECU COVER.
- 15C: INSTALL THE BATTERY AND MAKE SURE ALL WIRES ARE PROPERLY ROUTED AND CONNECTED INSTALL THE BATTERY TIE DOWN (2X 10MM NUTS). INSTALL THE FRONT BATTERY COVER AND BOX TOP.
- STARTING THE CAR: AT THIS TIME, START THE CAR AND CHECK FOR LEAKS. IF ANY LEAKS ARE FOUND, ADJUST CLAMPS AND RETIGHTEN.

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## OVERVIEW/CHECKLIST (CONT):

- 16A: REINSTALL THE BUMPER COVER BEING SURE THAT IT IS CORRECTLY POSITIONED AND INSTALL THE 2 BOLTS HOLDING THE SIDE OF THE BUMPER TO THE FENDER (2X 8MM HEX/PHILLIPS HEAD).**
- 16B: REINSTALL THE 2 TORX HEAD BOLTS & 6 PUSH CLIPS IN TO THE TOP OF THE BUMPER TO SECURE IT IN PLACE.**
- 16C: REINSTALL BOTH FOG LIGHTS AND CLIP IN ALL WIRING CLIPS TO ENSURE THAT THE WIRING WILL STAY IN PLACE.**
- 16D: REINSTALL THE 3 DRIVER'S SIDE PHILLIPS HEAD CLIPS THAT HOLD THE BUMPER TO THE FENDER LINER. THEN REPEAT FOR PASSENGER SIDE.**
- 16E: REINSTALL THE UNDERTRAY USING THE 4 10MM HEX HEAD BOLTS TO SECURE THE INNER SIDE FENDER LINERS TO THE SIDES OF THE UNDERTRAY AND 12 10MM HEX HEAD SCREWS TO SECURE THE REST OF THE UNDERTRAY BACK INTO POSITION. TRIM THE FRONT UNDERTRAY FOR INTERCOOLER CLEARANCE.**
- 16F: LOWER THE VEHICLE, BEING SURE TO REMOVE ANYTHING OUT FROM UNDER THE VEHICLE.**
- DRIVING THE VEHICLE: ENSURE THAT EVERYTHING IS BACK ON THE CAR AND SECURED. START THE CAR AND DRIVE UNTIL IT IS UP TO OPERATING TEMPERATURE. OPEN THE HOOD AND CHECK FOR BOOST LEAKS OR ANY LOOSE CONNECTIONS. TIGHTEN ANY LOOSE CONNECTIONS. ONCE EVERYTHING IS SECURE, THE FMIC IS NOW SUCCESSFULLY INSTALLED.**



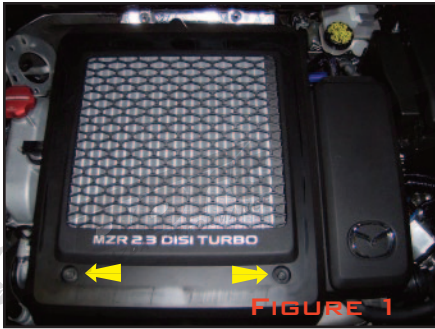
# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDA SPEED 3

## 0: SUPPORT CAR ON FLOOR JACK/JACKSTANDS OR LIFT

USE A FLOOR JACK AND JACKSTANDS TO GAIN ACCESS TO THE UNDERSIDE OF THE VEHICLE.

⚠ ALWAYS FOLLOW PROPER SAFETY PRECEDURES WHEN WORKING ON A VEHICLE.

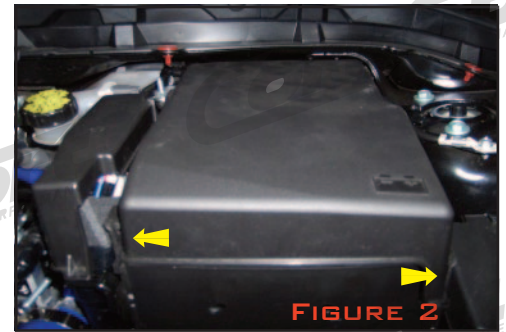
## 1: REMOVE INTERCOOLER COVER



THE INTERCOOLER COVER IS ATTACHED WITH TWO 10MM BOLTS WHICH CONNECT THE FORWARD EDGE OF THE COVER TO TWO TAPPED BOSSES. USE YOUR 10MM SOCKET AND 3/8" DRIVE RATCHET TO REMOVE THE TWO BOLTS SHOWN IN **FIGURE 1**. LIFT THE FRONT OF THE INTERCOOLER COVER OFF OF THE INTERCOOLER AND PUSH THE ENTIRE COVER TOWARD THE FIREWALL AND OFF OF THE CATCH AT THE BACK OF THE INTERCOOLER. LIFT THE COVER OUT OF THE ENGINE BAY AND PLACE IT ON YOUR WORKBENCH.

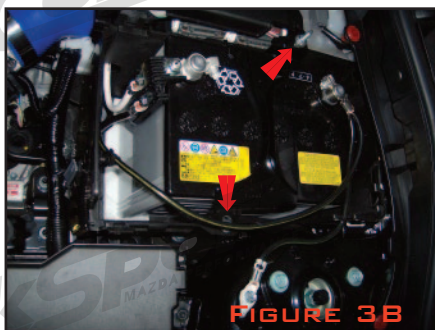
## 2: REMOVE THE BATTERY COVER.

THE BATTERY BOX COVER IS HELD ON WITH TWO CLIPS SHOWN IN **FIGURE 2**, PRY THE CLIPS OUTWARD BY HAND AND LIFT THE FRONT OF THE LID UPWARD AND THEN PULL THE LID FORWARD OUT OF THE LATCH MECHANISM AT THE BACK OF THE BOX. PLACE THE LID ON YOUR WORKBENCH.



## 3: DISCONNECT BATTERY TERMINALS, HOLD DOWN BRACKET AND BATTERY.

**A)** USE A 10MM END WRENCH AND DISCONNECT THE NEGATIVE TERMINAL OF THE BATTERY (THE ONE NEAREST THE FIREWALL), PLACE THE BATTERY NEGATIVE LEAD OUT OF THE WAY BETWEEN THE BATTERY BOX AND FENDERWELL, MAKING SURE NOT TO SCRATCH THE PAINTED FENDER. DISCONNECT THE POSITIVE LEAD USING THE 10MM END WRENCH AND PULL THE LEADS CLEAR OF THE FRONT OF THE BATTERY TO MAKE IT EASIER TO REMOVE THE BATTERY.

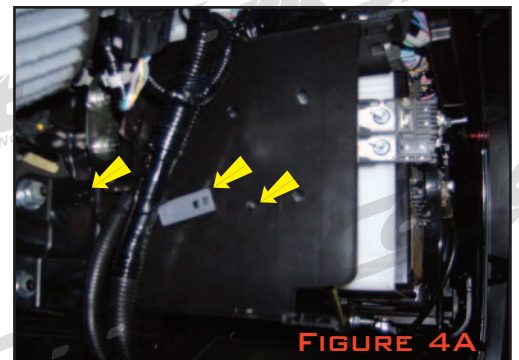


**B)** REMOVE THE TWO 10MM NUTS SHOWN IN **FIGURE 3B**. FROM THE BATTERY HOLD-DOWN BRACKET AND LIFT THE BRACKET FREE OF THE STUDS, PLACING IT ON YOUR WORKBENCH.

**C)** LIFT THE BATTERY FREE OF THE BATTERY BOX, AND PLACE IT IN A SAFE LOCATION.

## 4: REMOVE THE FRONT BATTERY COVER, ECU COVER, AND DISCONNECT ECU PLUGS.

**A)** THE FRONT BATTERY COVER IS JUST SLID INTO PLACE ON TWO GROOVES IN THE MAIN BATTERY BOX, AND IT SITS ON TWO PEGS THAT ARE AT THE TOP FRONT CORNERS OF THE BOX ITSELF. HOWEVER, THERE ARE THREE WIRING HARNESS LOOM STRAPS THAT ARE HELD IN PLACE TO THE BATTERY BOX BY A SET OF PUSH LOCK CONNECTORS. THESE ARE REMOVED BY COMPRESSING THEIR LATCHING FEATURES WITH A PAIR OF ANGLED OR STRAIGHT NEEDLE NOSED PLIERS AND PUSHING THEM BACK THROUGH THE HOLE THEY ARE ATTACHED TO. A DEMONSTRATION CAN BE FOUND IN THIS **VIDEO CLIP**. IT IS HELPFUL TO THEN PIVOT THEM OUT OF THE WAY SO THEY DO NOT RECONNECT INTO THE HOLE. REMOVE ALL THREE OF THESE CONNECTORS SHOWN IN **FIGURE 4A** AND REMOVE THE FRONT COVER OF THE BATTERY BOX.



# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## 4 (CONTINUED):



FIGURE 4B

**B)** REMOVE THE COVER FROM THE ENGINE CONTROL UNIT (ECU) BY DISCONNECTING THE LATCH THAT ATTACHES THE FRONT OF THE COVER TO THE BATTERY BOX AND ECU SHROUD. SEE WHITE ARROW IN **FIGURE 4B** FOR LOCATION OF ECU COVER AND LATCH.

**C)** DISCONNECT THE TWO ECU PLUGS BY DEPRESSING THE HASP BELOW THE WHITE CAMLOCK LATCH OF THE PLUG HOUSING. WHEN THE HASP IS DEPRESSED, LIFT THE WHITE LATCH MECHANISM WHICH WILL UNLOCK AND DISCONNECT THE

ECU PLUGS. BOTH OPERATE IDENTICALLY. AN EXAMPLE CAN BE SEEN IN **FIGURE 4C**. A DEMONSTRATION CAN BE FOUND IN THIS **VIDEO CLIP**. WHEN DONE CORRECTLY, THIS PROCESS SHOULD BE EFFORTLESS.



FIGURE 4C

## 5: DISCONNECT THE MAF SENSOR, REMOVE THE AIRBOX AND BATTERY BOX.

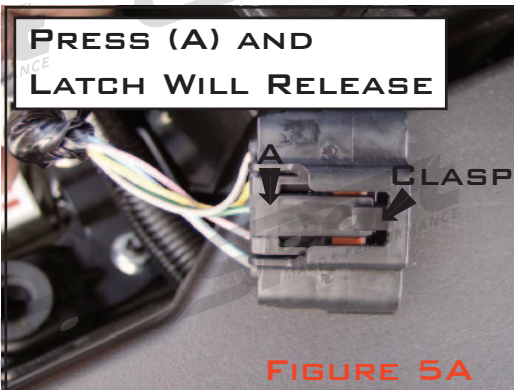


FIGURE 5A

**A)** THE MASS AIRFLOW (MAF) SENSOR, SHOWN IN **FIGURE 5A** IS PLUGGED IN WITH A LATCH LOCK SEALED CONNECTOR. PRESS DOWN ON THE LATCH ON THE TOP OF THE CONNECTOR AND PULL ON THE CONNECTOR WITH ONE HAND WHILE SUPPORTING THE MAF HOUSING AND AIRBOX WITH THE OTHER HAND. UNLIKE THE ECU CONNECTORS, THIS ONE CAN OFTEN TIMES BUILD UP A STRONG SURFACE TENSION BETWEEN THE SEALED O-RING AND THE MASS AIRFLOW SENSOR HOUSING, SO YOU'LL HAVE TO PULL HARD. WHEN YOU PUSH DOWN ON THE LATCH, YOU WILL SEE THE LATCH LIFT UP A RETAINING CLASP. IF THE CLASP DOES NOT MOVE UP, YOU'RE NOT GOING TO PULL THE CONNECTOR OUT WITHOUT BREAKING IT, SO PUSH THE LATCH DOWN HARDER RATHER THAN PULLING THE CONNECTOR HARDER. A DEMONSTRATION CAN BE FOUND IN THIS **VIDEO CLIP**.

**B)** THE AIRBOX IS CONNECTED TO THE CAR USING A SINGLE 10MM BOLT AND A PAIR OF PUSH-IN PLASTIC NUBS THAT CONNECT INTO TWO RUBBER GROMMETS BELOW THE AIRBOX AS WELL AS A 10MM HOSE CLAMP ATTACHING THE INLET PIPE TO THE AIRBOX. ONCE YOU REMOVE THE 12MM BOLT ATTACHING THE BOX TO THE VEHICLE, BACK OFF THE 10MM BOLT ON THE HOSE CLAMP ATTACHED TO THE RUBBER ACCORDIAN INLET PIPE AND PUSH THE PIPE OFF OF THE AIRBOX. PULL THE AIRBOX UP AND OUT OF THE ENGINE COMPARTMENT (THE DETENTS AND GROMMETS WILL HOLD IT FAIRLY TIGHT. AND SET IT ON YOUR WORKBENCH. YOU WILL REMOVE THE MAF SENSOR LATER IN THE INSTRUCTIONS PRIOR TO INSTALLING THE NEW PIPE, AND CAN LEAVE IT IN PLACE FOR NOW.

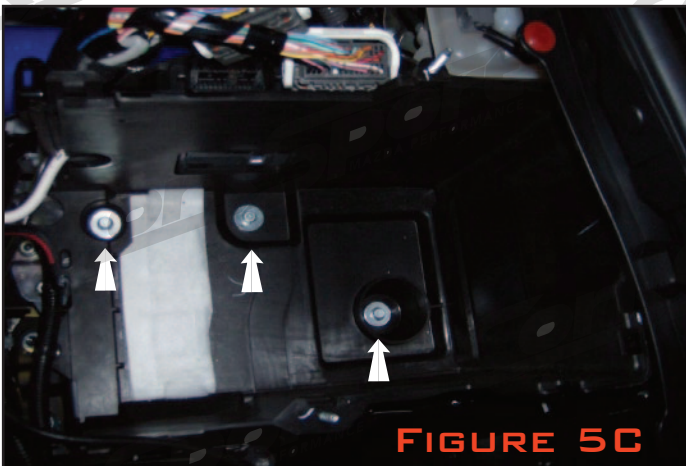


FIGURE 5C

**C)** REMOVE THE THREE 10MM BOLTS FROM THE FLOOR OF THE BATTERY BOX SHOWN IN **FIGURE 5C** USING A RATCHET, 10MM SOCKET AND 6" 3/8 DRIVE EXTENSION. YOU WILL NOW BE ABLE TO EXTRACT THE BATTERY BOX AND ECU FROM

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## 5: (CONTINUED):

THE ENGINE COMPARTMENT. THERE ARE A NUMBER OF ELEMENTS FROM THE WIRING HARNESS THAT SURROUND THE BOX, SO OFTEN TIMES AN EXTRA SET OF HANDS CAN BE HELPFUL TO CLEAR THE WAY TO EXTRACT THE BOX. PUT THE BOX ON THE BENCH IN A SAFE PLACE AS IT CONTAINS YOUR ECU, THE BRAIN AND NERVOUS SYSTEM OF YOUR MAZDASPEED3.



## INLET PIPE REMOVAL OVERVIEW VIDEO ILLUSTRATION.

THERE ARE A NUMBER OF CONNECTIONS ON THE FACTORY TURBO INLET PIPE. WE START BY REMOVING THE FACTORY VALVECOVER BREATHER HOSE, THEN THE RUBBER ACCORDION BOOT THAT CONNECTS THE AIR BOX TO THE HARD PLASTIC INLET PIPE. THE RECIRCULATION VALVE HOSE IS REUSED, BUT REMOVED AT THIS POINT AS IS A MECHANICAL CONNECTION BETWEEN THE VALVECOVER AND THE HARD PLASTIC PIPE. THERE ARE ALSO TWO WIRING HARNESS CLIPS AND A BOOST CONTROL SOLENOID HOSE THAT HAVE TO BE REMOVED PRIOR TO DISCONNECTING THE TURBO INLET FROM THE TURBOCHARGER.

## 6: REMOVE THE VALVE COVER BREATHER HOSE, RUBBER ACCORDION HOSE, RECIRCULATION HOSE, INLET PIPE BRACKET.

A) THE VALVECOVER BREATHER HOSE IS A TRICKY ONE AS IT USES TWO CLIP LOCK CONNECTIONS. YOU CAN USE TWO SCREWDRIVERS TO RELEASE EACH OF THE LATCHES ON THE INTERNAL CLIPS (GREEN ON THE VALVECOVER, BLUE ON THE INLET ACCORDION HOSE), BUT THERE IS A MUCH EASIER WAY BY FASHIONING A RELEASE MECHANISM OUT OF A PAPER CLIP SHOWN IN FIGURE 6A. SLIDE THE



CLIP IN BEHIND THE LATCH CLIP (GREEN/BLUE PARTS) AND REMOVE THE ENTIRE ASSEMBLY. VIDEO AVAILABLE ON OUR WEBSITE PRODUCT PAGE. AS AN ALTERNATIVE, YOU CAN PULL THE GREEN OR BLUE CLIP ASSEMBLY OUT OF THE HOSE TOWARD THE VALVECOVER.



FIGURE 6A



B) THE RUBBER ACCORDION HOSE THAT CONNECTS THE AIRBOX TO THE HARD PLASTIC TURBO INLET PIPE IS HELD ONTO THE TURBO INLET PIPE WITH A 10MM HOSE CLAMP. BACK THE 10MM BOLT OUT OF THE HOSE CLAMP AND EXTRACT THE ACCORDION HOSE AND STORE IT AWAY, IT WILL NOT BE REUSED.

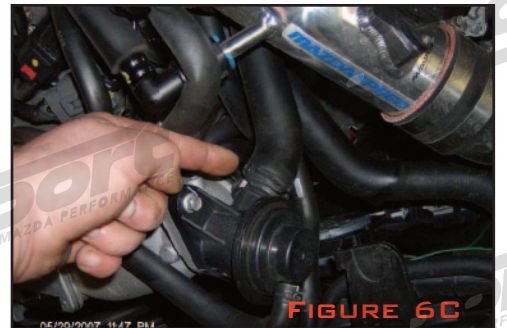


FIGURE 6C

C) THE RECIRCULATION HOSE IS ATTACHED TO THE RECIRCULATION VALVE (SOMETIMES KNOWN AS A BLOW-OFF VALVE) ON THE INTERCOOLER AND ONTO A FITTING ON THE UNDERSIDE OF THE HARD PLASTIC TURBO INLET PIPE ON THE OTHER, AS SHOWN IN FIGURE 6C. BOTH ENDS

ARE RETAINED WITH A PAIR OF HOSE CLAMPS THAT CAN BE RELEASED WITH CHANNEL LOCK PLIERS (OR BY HAND IF YOU'RE A MASOCHIST). USE THE PLIERS TO RELEASE THE CLAMP TENSION AND MOVE THE HOSE CLAMPS TO THE CENTER OF THE HOSE AWAY FROM THE FITTINGS. PULL THE HOSE OFF OF THE FITTINGS AND PLACE IT ONTO YOUR WORKBENCH.



FIGURE 6D

D) FINALLY WE WILL DISCONNECT THE 10MM NUT THAT HOLDS THE HARD PLASTIC TURBO INLET PIPE IN PLACE. SEE FIGURE 6D FOR LOCATION, REMOVE THE NUT AND PULL THE GROMMET AND HARD PLASTIC HOSE FREE OF THE MOUNTING STUD.

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## **7: DISCONNECT WIRING HARNESS CLIPS FROM INTAKE, DISCONNECT BOOST SOLENOID LINE AND INLET PIPE FROM TURBOCHARGER**

**A)** THE HARD PLASTIC INTAKE PIPE HAS TWO WIRING HARNESS CLIPS ATTACHED TO IT (SAME PUSH LOCK STYLE DESCRIBED EARLIER, VIDEO OF REMOVAL AVAILABLE ON AXL-6-118 PRODUCT PAGE ON CORKSPORT WEBSITE) BECAUSE EACH OF THESE ARE WELL CONCEALED BY OTHER ITEMS IN THE ENGINE COMPARTMENT, FIGURE 7A SHOWS THE TURBO INLET PIPE OUT OF THE CAR AND THE LOCATIONS OF THE CLIPS ARE MARKED FOR CLARITY. REMOVE THE CLIPS AND PIVOT THEM OUT OF THE WAY.

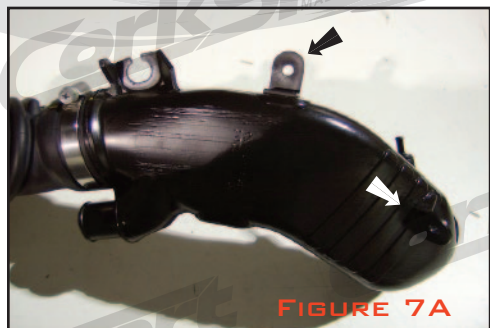


FIGURE 7A

**B)** THE BOOST CONTROL SOLENOID LINE FITTING IS MARKED ON FIGURE 7A. REMOVE THE HOSE CLAMP FROM BOTH ENDS OF THE LINE ATTACHED TO THIS FITTING BY USING NEEDLE NOSE PLIERS, AND, WITH FINESSE, REMOVE THE HOSE FROM THE FITTING ON THE TURBO INLET PIPE AND THE BOOST CONTROL SOLENOID. GREAT CARE SHOULD BE TAKEN WITH THE END OF THE LINE ON THE BOOST CONTROL SOLENOID AS IT IS A PASTIC HOUSING. IF YOU HAVE DIFFICULTY, TRY ROTATING THE HOSE TO BREAK THE SEAL OF THE RUBBER TO THE PLASTIC FITTING AND THEN PULLING STRAIGHT UP. IT DOES TAKE SOME FORCE, BUT IT COMES OFF CLEANLY IF PULLED IN LINE WITH THE ATTACHED FITTING.

**C)** FINALLY, WE ARE GOING TO REMOVE THE PLASTIC INLET PIPE FROM THE TURBOCHARGER. DEPENDING ON YEAR AND MODEL, THE INLET PIPE WILL MOST LIKELY HAVE A HOSE CLAMP THAT IS ACTUATED WITH A PAIR OF PLIERS, BUT ON SOME MODELS AND YEARS, THERE IS A HOSE CLAMP WITH AN 8MM BOLT. BACK THE HOSE CLAMP OFF AND PULL THE HARD PLASTIC INLET PIPE OFF OF THE TURBOCHARGER INLET. THE STUD THAT MECHANICALLY MOUNTS THE INLET PIPE TO THE BRACKET MAY HAVE FALLEN BACK INTO PLACE, SO MAKE SURE IT IS REMOVED (SEE STEP 6D, PAGE 5). EXTRACT THE PLASTIC TURBO INLET PIPE AND SET ASIDE.

## **8: ASSEMBLING AND INSTALLING THE CORKSPORT TURBO INLET PIPE**

**A)** ASSEMBLE THE TURBO INLET PIPE AS SHOWN IN FIGURE 8A. AS SEEN, THE T-BOLT BAND CLAMP THAT HOLDS THE SILICONE TUBING TO THE TURBOCHARGER COMPRESSOR HOUSING SHOULD JUST BE TIGHTENED DOWN SLIGHTLY, BUT STILL LOOSE ON THE SILICONE COUPLING. THE 2" DIAMETER END CONNECTS TO THE TURBOCHARGER WHILE THE 2.25" END CONNECTS TO THE CORKSPORT TURBO INLET PIPE, WITH THE BAND CLAMP 10MM FASTENER TIGHTENED. EACH OF THE SILICONE HOSES - THE 6" LONG, SMALLER DIAMETER SHORT HOSE FOR THE BOOST CONTROL SOLENOID AND THE 12" LONG, LARGER ID HOSE FOR THE VALVECOVER BREATHER CONNECTION SHOULD BE



FIGURE 8A

**LUBRICATED WITH SILICONE SPRAY PRIOR TO ATTACHING THE FITTING ON THE TIP. ALSO, REMOVE THE FACTORY MOUNTING GROMMET AND WASHER FROM THE FACTORY TIP AND INSTALL ON THE CORKSPORT TIP AS SHOWN BY THE BLACK ARROW IN FIGURE 8A.**

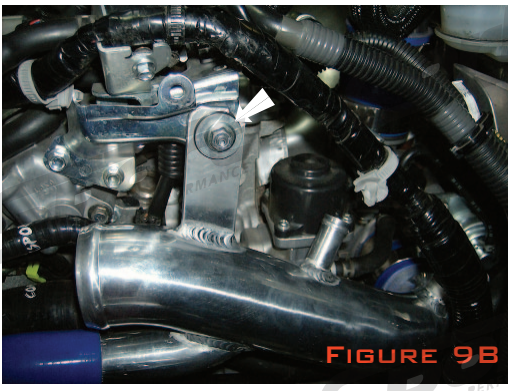
## **9: TURBO INLET INSTALLATION, VALVECOVER HOSE INSTALLATION AND BOOST CONTROL SOLENOID HOSE INSTALLATION.**

**A)** THE TURBO INLET IS FITTED DOWN BETWEEN THE ECU WIRING HARNESS AND THE VALVECOVER, SIMILAR TO THE ORIENTATION OF THE FACTORY HARD PLASTIC TURBO INLET. FEED THE SILICONE COUPLER END OF THE INLET DOWN IN THE GIVEN SPACE TOWARD THE TURBOCHARGER COMPRESSOR HOUSING INLET, AVOIDING CATCHING THE FITTINGS AND LINES

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## 9: (CONTINUED)

OF THE TURBO INLET ON THE WIRING HARNESS AND COMPONENTS IN THE VICINITY. ALIGN THE BUCKET ON THE CORKSPORT TURBO INLET PIPE WITH THE STUD ON THE VALVECOVER BRACKET AND CONNECT THE 2" DIAMETER SILICONE COUPLING OVER THE END OF THE TURBOCHARGER COMPRESSOR INLET, TAKING CARE TO KEEP THE LOOSE HOSE CLAMP IN PLACE. THIS SHOULD FIT EASILY - IF NOT, THE T-BOLT CLAMP IS PROBABLY TOO TIGHT.



**FIGURE 9B**

**B)** ATTACH THE BUCKET ON THE CORKSPORT TURBO INLET OVER THE STUD ON THE FACTORY VALVECOVER BRACKET AND START THE NUT ONTO THE STUD AS INDICATED IN **FIGURE 9B**. CHECK TO ENSURE THAT THE SILICONE COUPLING IS STILL FULLY ENGAGED BETWEEN THE TURBOCHARGER AND TURBO INLET PIPE AND TIGHTEN THE NUT THE REST OF THE WAY. THEN TIGHTEN THE T-BOLT BAND CLAMP AT THE TURBOCHARGER

COMPRESSOR INLET. THIS HAS TO BE TIGHT.



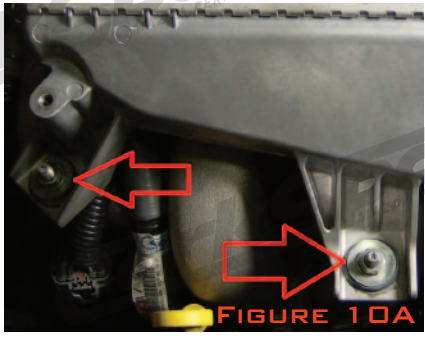
**FIGURE 9C**

**C)** FEED THE 14MM VALVECOVER BREATHER HOSE UNDERNEATH THE WIRING HARNESS TOWARD THE VALVECOVER BREATHER FITTING AS SHOWN IN **FIGURE 9C**. APPLY A SMALL AMOUNT OF SILICONE SPRAY TO THE INSIDE OF THE HOSE AND TO THE VALVECOVER FITTING AND SLIDE THE HOSE OVER THE FITTING UP TO THE STOP COLLAR. IF THERE ARE ANY KINKS IN THE HOSE, RE-EVALUATE THE ROUTING. THIS WILL PREVENT YOUR CRANKCASE FROM VENTING PROPERLY.

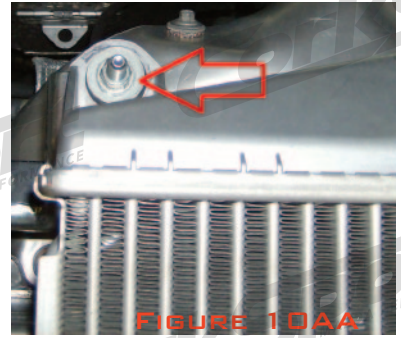
**D)** APPLY A SMALL AMOUNT OF SILICONE SPRAY ONTO THE FREE END OF THE 6" LONG 4MM HOSE AND CONNECT IT TO THE BOOST CONTROL SOLENOID OUTLET. BE GENTLE.

## 10: REMOVING THE STOCK INTERCOOLER

**A)** REMOVE THE THREE (3) 12MM NUTS (SHOWN IN **FIGURES 10A & 10AA** BY **RED ARROWS**) SECURING THE INTERCOOLER TO THE TOP OF THE ENGINE USING THE 3/8" DRIVE RATCHET AND THE 12MM LONG SOCKET. THERE ARE TWO BOLTS ON THE BOTTOM OF THE INTERCOOLER AND ONE LOCATED ON THE TOP LEFT CORNER.

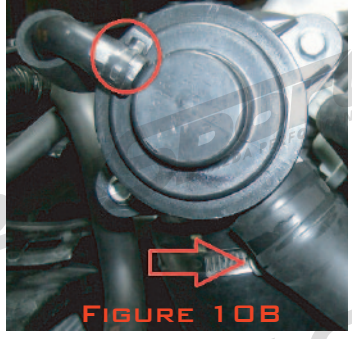


**FIGURE 10A**



**FIGURE 10AA**

**B)** USING PLIERS, REMOVE THE BREATHER HOSE (SHOWN IN **FIGURE 10B** BY THE **RED CIRCLE**).



**FIGURE 10B**

**C)** LOOSEN THE TOP HOSE CLAMP ON BOTH THE FRONT (**FIGURE 10B**) AND REAR (**FIGURE 10BB**) BOOST TUBES USING THE 3/8" DRIVE RATCHET. A SMALL PHILLIPS SCREWDRIVER MAY BE USED INSTEAD.



**FIGURE 10BB**

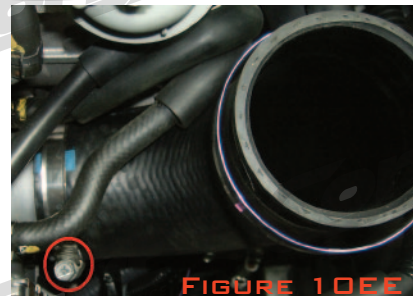
# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDA SPEED 3

## 10: (CONTINUED)

D) REMOVE THE INTERCOOLER FROM THE ENGINE AND SET ASIDE.



E) LOOSEN THE BOTTOM HOSE CLAMPS ON BOTH THE FRONT AND REAR BOOST TUBES USING EITHER THE 3/8" DRIVE RATCHET AND 10MM LONG SOCKET, OR THE SMALL PHILLIPS HEAD SCREWDRIVER. THE BOTTOM HOSE CLAMPS FOR THE FRONT AND REAR BOOST TUBES CAN BE SEEN IN FIGURES 10E & 10EE IN THE RED CIRCLES.

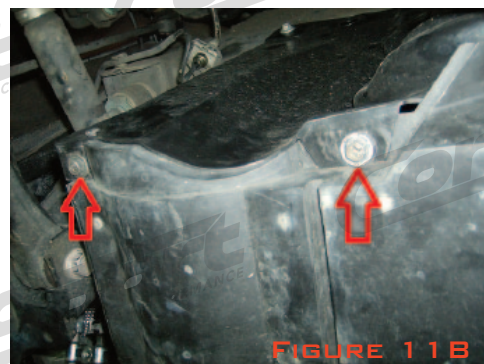


## 11: REMOVING THE FRONT BUMPER

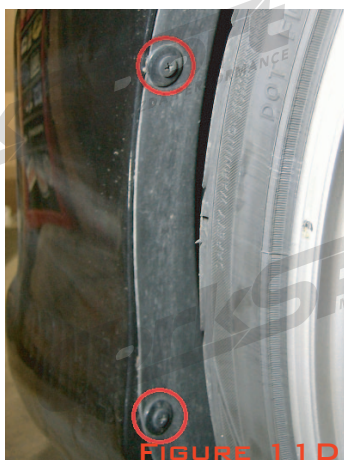
A) REMOVE THE 12 (TWELVE) HEX HEAD SCREWS (SHOWN BY THE RED ARROWS IN FIGURE 11A) USING THE RATCHETING WRENCH AND 10MM LONG SOCKET.



B) REMOVE THE 2 (TWO) 10MM SCREWS (SHOWN BY THE RED ARROWS IN FIGURE 11B) USING A RATCHETING WRENCH AND 10MM LONG SOCKET.

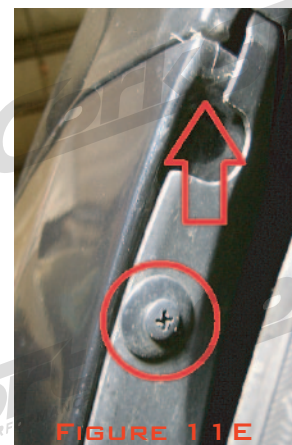


C) REPEAT STEP 11B FOR THE DRIVER'S SIDE OF THE UNDERTRAY AND REMOVE THE UNDERTRAY.



D) REMOVE THE 3 (THREE) PLASTIC LOCK SCREWS (SHOWN BY THE RED CIRCLES IN FIGURES 11D & 11E) ON THE EDGE OF THE DRIVER'S SIDE WHEEL WELL USING A SMALL PHILLIPS SCREWDRIVER.

E) REMOVE THE 1 (ONE) 8MM HEX HEAD BOLT (SHOWN BY THE RED ARROW IN FIGURE 11E) USING A SMALL PHILLIPS SCREWDRIVER OR RATCHET AND 8MM SOCKET.



F) REPEAT STEPS 11A & 11B FOR THE PASSENGER SIDE WHEEL WELL.

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDA SPEED 3

## 1 1: (CONTINUED)

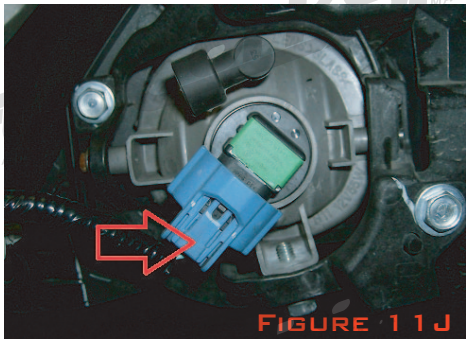
**G)** LOCATE THE 3 (THREE) LOCK CLIPS ON THE TOP OF THE BUMPER (SHOWN IN **FIGURE 1 1 G** IN THE **RED CIRCLES**) ON THE DRIVER'S SIDE OF THE ENGINE BAY. REMOVE THEM BY USING A FLATHEAD SCREWDRIVER TO POP THE TABS UP AND THEN PULL THE CLIP OUT OF THE HOLE.



**FIGURE 1 1 G**

**H)** LOCATE THE 1 (ONE) TORX HEAD BOLT ON THE TOP OF THE BUMPER (SHOWN IN **FIGURE 1 1 G** BY THE **RED ARROW**) ON THE DRIVER'S SIDE OF THE ENGINE BAY. REMOVE IT BY USING A T30 TORX BIT AND RATCHET.

**I)** REPEAT STEPS 1 1 G & 1 1 H FOR THE PASSENGER SIDE CLIPS AND BOLT.



**FIGURE 1 1 J**

**J)** UNCLIP BOTH FOG LIGHTS FROM THE WIRING HARNESS BY SQUEEZING ON THE BLUE CLIP AND PULLING DOWN (SHOWN IN **FIGURE 1 1 J** BY THE **RED ARROW**). ONCE UNPLUGGED, MAKE SURE THAT THE WIRING IS FREE FROM ANY CONNECTION TO THE BUMPER COVER.

**K)** REMOVE THE BUMPER FROM THE VEHICLE

**NOTE:** THE BEST WAY TO REMOVE THE BUMPER IS TO UNCLIP THE SIDES OF THE BUMPER FROM THE FENDER AND THEN PULL UP AND OUT ON THE FRONT.

## 1 2: INSTALLING THE FMIC & WARM SIDE SILIGONE & PIPING

**A)** INSTALL A 2.25" STRAIGHT SILIGONE COUPLER WITH 63-71MM T-BOLT CLAMP ON TO TURBO OUTLET. TIGHTEN THE HOSE CLAMP USING A RATCHETING WRENCH AND 10MM LONG SOCKET (BOTTOM T-BOLT CLAMP SHOWN IN **FIGURE 1 2 A**).



**FIGURE 1 2 A**

**B)** INSTALL A 63-71MM T-BOLT CLAMP ON TO THE OTHER SIDE OF THE PREVIOUSLY INSTALLED SILIGONE COUPLER AND INSTALL I/C PIPE #1 INTO THE COUPLER AS SHOWN IN **FIGURE 1 2 A & 1 2 B** (BOTH IMAGES ARE OF THE SAME PIPE AND CONNECTION). LEAVE THE T-BOLT CLAMP SOMEWHAT LOOSE AT THIS TIME.



**FIGURE 1 2 B**

**NOTE:** PLEASE REFER TO THE PACKING LIST THAT CAME WITH THE INSTRUCTIONS FOR DEFINITIONS AND PIPE LABELS.

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## 12: (CONTINUED)

**C)** INSTALL A 2.25" STRAIGHT SILICONE COUPLER ON THE OTHER END OF I/C PIPE #1 (SHOWN IN **FIGURE 12C**) AND SLIDE 2 (TWO) 63-71MM T-BOLT CLAMPS ONTO COUPLER.

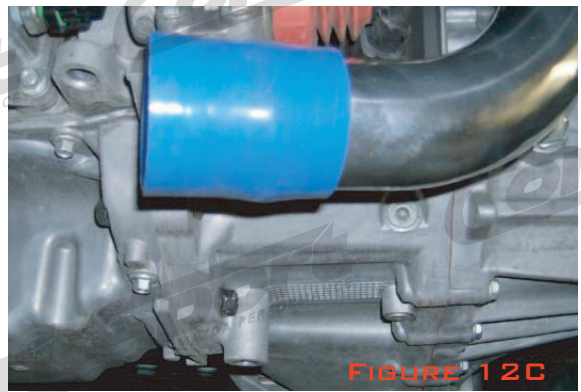


FIGURE 12C

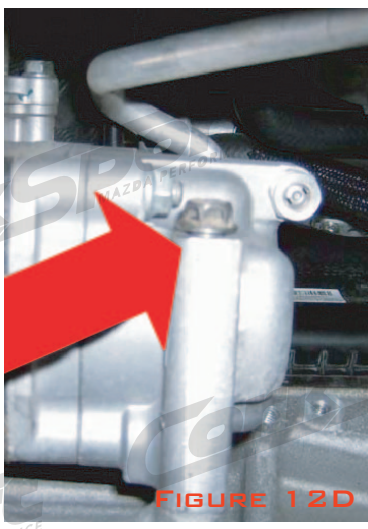


FIGURE 12D

**D)** REMOVE THE 12MM HEX HEAD BOLT FROM THE A/C COMPRESSOR BRACKET SHOWN IN **FIGURE 12D**. SET ASIDE FOR LATER USE.

**E)** INSTALL I/C PIPE #2 INTO THE COUPLER ON PIPE #1 AND ATTACH THE BRACKET TO THE A/C COMPRESSOR USING THE FACTORY 12MM HEX HEAD BOLT. LEAVE THE BOLT AND T-BOLT CLAMPS LOOSE AT THIS TIME (SEE **FIGURE 12E**).



FIGURE 12E

**F)** INSTALL THE I/C BRACKETS ON THE I/C WITH THE SUPPLIED M8 BOLTS AND LOCK WASHERS (SEE **RED CIRCLES IN FIGURE 12F**).

**G)** REMOVE THE 10MM HEX HEAD CORE SUPPORT BOLTS (SEE **RED ARROWS IN FIGURE 12F**) USING A RATCHETING WRENCH AND 10MM LONG SOCKET. LINE UP THE RADIATOR BRACKETS AND REINSTALL THE CORE SUPPORT BOLTS. MAKE SURE THAT THE I/C IS INSTALLED AS FAR UP AS IT CAN GO (CLOSE TO THE BOTTOM OF THE CRASH BAR) AND THIS WILL ENSURE THAT YOUR BUMPER AND UNDERTRAY WILL CLEAR THE I/C.

**NOTE:** YOU MAY WANT AN EXTRA SET OF HANDS TO HELP INSTALL THE I/C. ALSO, I/C BRACKETS WILL LOOK LIKE THE BRACKETS WITH THE BLUE BACKGROUND, BUT THE PROCESS REMAINS THE SAME.

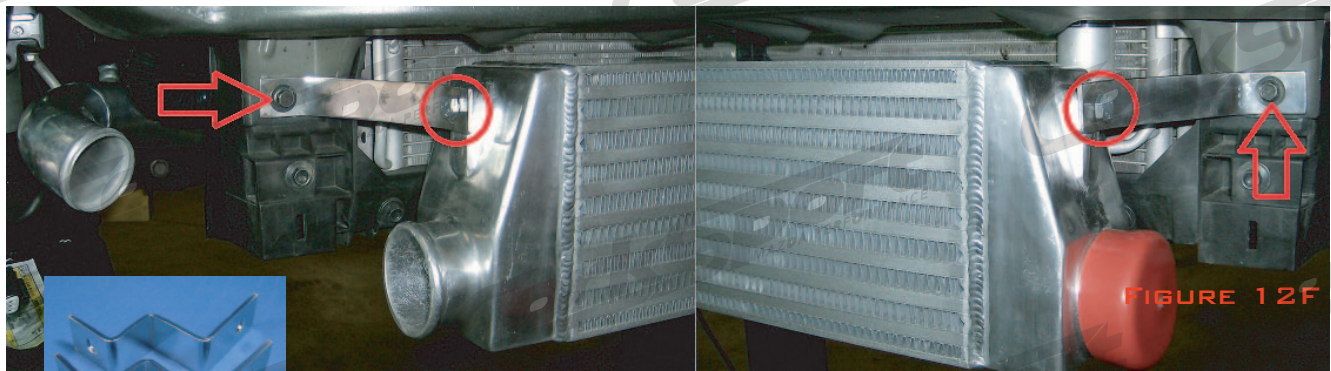


FIGURE 12F



# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## 1 2: (CONTINUED)

**H)** INSTALL A 2.25" STRAIGHT SILICONE COUPLER AND 2 (TWO) 63-71MM T-BOLT CLAMPS ON THE END OF I/C PIPE #2 (SEE RED ARROWS IN FIGURE 12H).

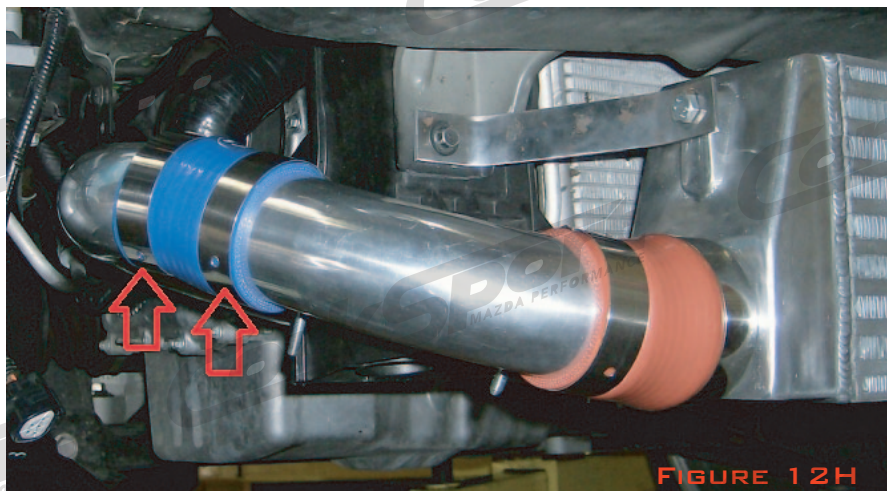


FIGURE 12H

**I)** INSTALL A 2.5" - 2.25" SILICONE REDUCER ONTO THE I/C (LARGER SIDE ON I/C). INSTALL 1 (ONE) 70-78MM AND ONE (1) 63-71MM T-BOLT CLAMP ONTO THE SILICONE REDUCER AND INSTALL I/C PIPE #3 AS SHOWN IN FIGURE 12H).

**J)** AT THIS TIME, YOU CAN GO BACK THROUGH AND CHECK CLEARANCES OF THE INSTALLED INTERCOOLER PIPING AND TIGHTEN ALL T-BOLT CLAMPS AND BOLTS.

## 1 3: INSTALLING THE COLD SIDE SILICONE & PIPING

**A)** INSTALL A 2.5" - 2.25" SILICONE REDUCER WITH 1 (ONE) 63-71MM AND 1 (ONE) 70-78MM T-BOLT CLAMP ONTO I/C PIPE #4 AND THE COLD SIDE OF THE FMIC AS SHOWN IN FIGURE 12H. LEAVE THE T-BOLT CLAMPS LOOSE FOR NOW.



FIGURE 13B

**B)** INSTALL A 2.25" STRAIGHT SILICONE COUPLER WITH 2 (TWO) 63-71MM T-BOLT CLAMPS ONTO THE END OF I/C PIPE #4 AS SHOWN IN FIGURE 13B BY THE RED ARROW.

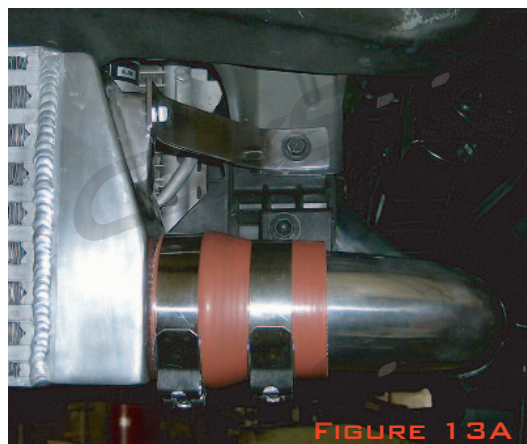


FIGURE 13A

**NOTE:** YOU MAY WANT TO SLIGHTLY TIGHTEN DOWN THE LOWER T-BOLT CLAMP SO THAT THE OTHER CLAMP DOES NOT FALL DOWN THE I/C PIPE.

**C)** INSTALL THE 2.75" SILICONE COUPLER AND 2 (TWO) 77-85MM T-BOLT CLAMPS ONTO I/C PIPE #5 AS SHOWN IN FIGURE 13C TO THE RIGHT.

**D)** INSTALL THE OTHER SIDE OF I/C PIPE #5 ON TO THE 2.25" SILICONE COUPLER ON THE OPEN END OF I/C PIPE #4 AT THE LOCATION OF THE RED ARROW IN FIGURE 13B ABOVE.

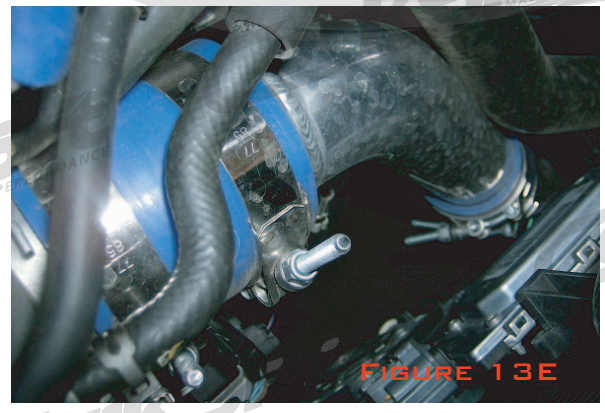


FIGURE 13C

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDA SPEED 3

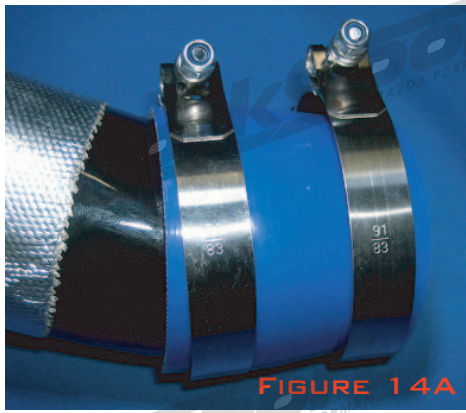
## 1 3: (CONTINUED)

- E) INSTALL I/C PIPE #5 ON TO THE THROTTLE BODY (SEE **FIGURE 13E**)
- F) AT THIS TIME, GO BACK AND CHECK CLEARANCES OF THE PIPES AND TIGHTEN ALL OF THE T-BOLT CLAMPS FROM THE COLD SIDE OF THE I/C ALL THE WAY TO THE THROTTLE BODY.



**FIGURE 13E**

## 1 4: INSTALLING THE MAF SENSOR, PIPING, AND AIRBOX

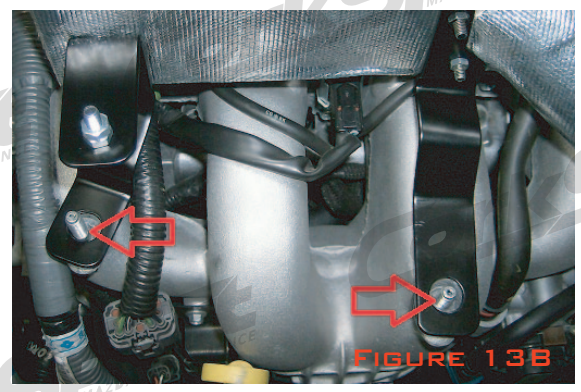


**FIGURE 14A**

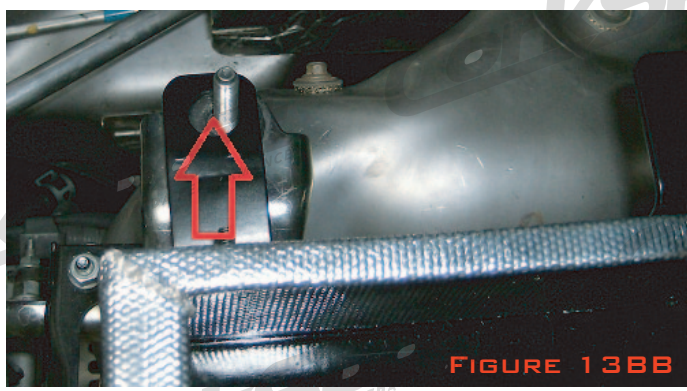
- A) INSTALL THE LARGER END OF THE 3.25" - 3.0" SILICONE REDUCER ON TO THE END OF THE RAM AIRBOX AND INSTALL 2 (TWO) 83-91MM T-BOLT CLAMPS AS SHOWN IN **FIGURE 14A**.

**⚠ WARNING:** THE AIRBOX HAS A HEAT RESISTANT GEL COAT ON IT THAT IS EASILY SCRAPPED. PLEASE USE CARE WHEN PRYING OR REMOVING THE SILICONE REDUCER. DAMAGE TO THE AIRBOX COULD RESULT IN TURBO FAILURE!

- B) INSTALL THE AIRBOX ON TO THE FACTORY TOP MOUNT I/C MOUNTING LOCATION. REINSTALL THE FACTORY NUTS WITH SUPPLIED WASHERS AND TIGHTEN (SEE **FIGURE 13B & 13BB**).



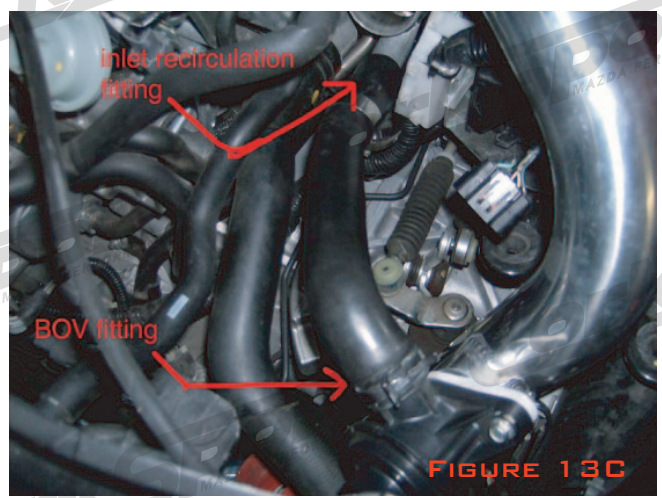
**FIGURE 13B**



**FIGURE 13BB**

- C) INSTALL YOUR BOV ON THE BOV FLANGE ON I/C PIPE #1 (SEE **FIGURE 13C**). FACE OUTLET TOWARD RECIRCULATION FITTING ON THE TURBO INLET PIPE AND INSTALL BOV HOSE AS SHOWN. USE THE SUPPLIED 6MM BOLTS AND NUTS

**⚠ NOTE:** THE STOCK BOV WAS USED, BUT YOUR SPECIFIC APPLICATION AND I/C PIPE MAY HAVE A DIFFERENT FLANGE AND/OR BOV.



**FIGURE 13C**

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDA SPEED 3

## 14: (CONTINUED)

D) INSTALL THE 3" - 2.25" SILICONE REDUCER ONTO THE MAF SENSOR HOUSING WITH AN 83-91MM T-BOLT CLAMP AND TIGHTEN CLAMP (SEE **FIGURE 14D**).



FIGURE 14D

E) INSTALL THE MAF SENSOR INTO THE MAF HOUSING WITH THE SUPPLIED ALLEN HEAD BOLTS AND A 3MM ALLEN WRENCH.

**NOTE:** USE A TWISTING MOTION WHILE INSERTING THE MAF SENSOR TO ENSURE THAT THE O-RING SEATS PROPERLY.

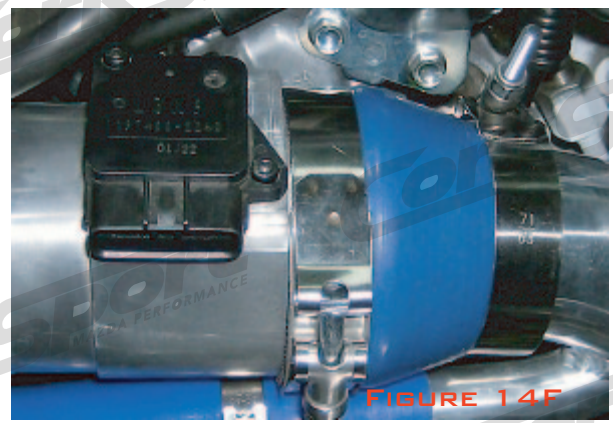


FIGURE 14E

F) INSTALL A 63-71MM T-BOLT CLAMP AND THE 2.25" END OF THE MAF HOUSING ON TO THE TURBO INLET PIPE AS SHOWN IN **FIGURE 14F**. RECONNECT THE MAF SENSOR PLUG.



FIGURE 14F

G) INSTALL THE OTHER END OF THE MAF HOUSING PIPE INTO THE SILICONE COUPLER THAT IS ALREADY ATTACHED TO THE AIRBOX AS SHOWN IN **FIGURE 14G**. ONCE INSTALLED, TIGHTEN THE T-BOLT CLAMPS ON THE INTAKE ASSEMBLY USING A RATCHETING WRENCH AND A 10MM LONG SOCKET.

H) TRIM THE FACTORY TOP MOUNT I/C COVER TO CLEAR I/C PIPE #1 AS SHOWN IN **FIGURE 14H**.

**NOTE:** YOU ONLY HAVE TO TRIM ENOUGH TO CLEAR THE PIPE. YOUR FINISHED PART MAY LOOK SLIGHTLY DIFFERENT FROM THE PICTURE.

I) INSTALL THE SUPPLIED AIR FILTER IN TO THE AIRBOX AS SHOWN IN **FIGURE 14I**.



FIGURE 14I

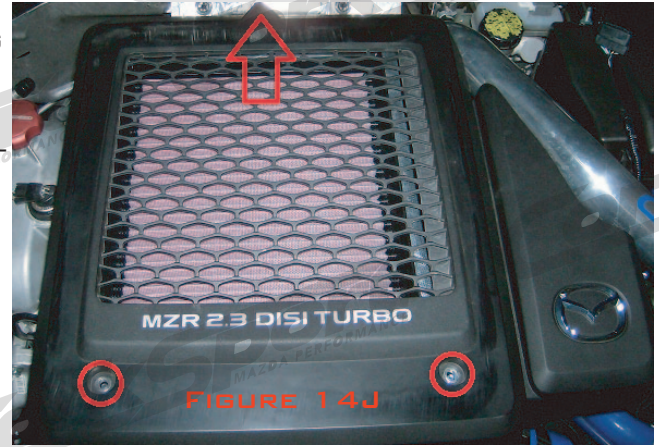


FIGURE 14H

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDASPEED 3

## 14: (CONTINUED)

- J) INSTALL THE COVER ON TO THE AIRBOX, BEING SURE THAT THE REAR TAB LATCHES TO THE REAR AIRBOX TAB (SEE **RED ARROW** IN **FIGURE 14J**). THEN LINE UP THE HOLES IN THE FRONT OF THE FACTORY COVER WITH THE BOLTS (SEE **RED CIRCLES** IN **FIGURE 14J**) AND INSTALL THE 2 (TWO) SUPPLIED 10MM FLANGE NUTS AND TIGHTEN USING A RATCHETING WRENCH AND 10MM LONG SOCKET.

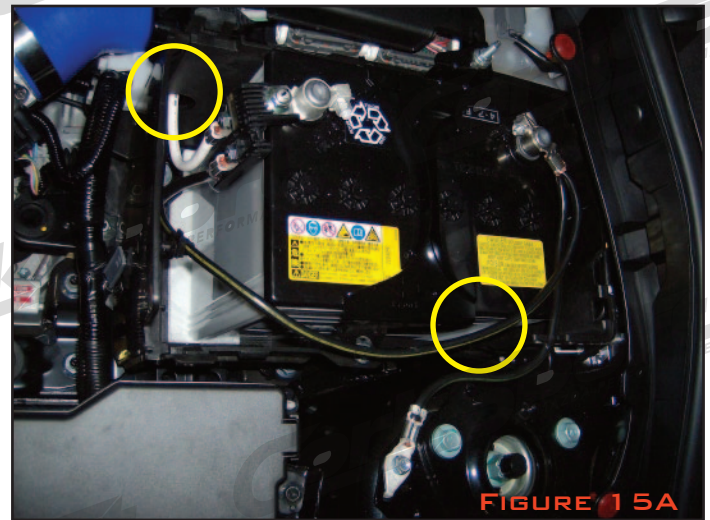


## 15: INSTALLATION OF BATTERY BOX, ECU CONNECTORS, BATTERY AND COVERS.

- A) INSTALL THE BATTERY BOX BACK INTO PLACE, FASTENING INTO THE CHASSIS WITH THE THREE 10MM BOLTS THROUGH THE BASE OF THE BOX. FEED THE BATTERY TERMINAL LINES THROUGH THE CUTOUTS IN THE BOX AS SHOWN IN **FIGURE 15A**.

- B) INSTALL THE ECU CONNECTORS AND LATCH THE CAM LOCKS TO SEAT THE CONNECTORS INTO THE ECU. INSTALL THE ECU COVER OVER THE CONNECTORS.

- C) INSTALL THE BATTERY INTO THE BATTERY BOX (NEGATIVE TERMINAL TOWARD THE FIREWALL) AND INSTALL THE HOLD DOWN BRACKET OVER THE TWO STUDS ON THE BOX. THERE IS A DIAGRAM ON THE BRACKET THAT SHOWS 'FORWARD' AND AN ARROW WHICH SHOULD POINT TOWARD THE FRONT OF THE CAR. INSTALL THE TWO 10MM FLANGE NUTS ONTO THE STUDS. INSTALL THE POSITIVE BATTERY CABLE ONTO ITS TERMINAL AND TIGHTEN THE 10MM NUT HAND TIGHT. INSTALL THE NEGATIVE BATTERY CABLE ONTO ITS TERMINAL AND TIGHTEN THE 10MM NUT HAND TIGHT. INSTALL THE FRONT COVER ONTO THE BATTERY BOX AND SNAP THE WIRING HARNESS CLIPS INTO PLACE AS SHOWN IN **FIGURE 4A** ON PAGE 1. INSTALL THE BATTERY BOX TOP INTO PLACE AND LATCH THE TWO LATCHES ON THE FORWARD SIDES OF THE BOX.



**STARTING THE CAR:** AT THIS TIME, WE WOULD RECOMMEND STARTING UP THE VEHICLE AND LETTING IT WARM UP TO OPERATING TEMPERATURE TO CHECK FOR AIR LEAKS. TO CHECK FOR AIR LEAKS, START YOUR CAR AND CHECK FOR RUNNING ISSUES OR HARD STARTING. IF ANY HARD STARTING OR RUNNING ISSUES OCCUR, THEN CHECK FOR AIR LEAKS. THIS CAN BE DONE WITH A SPRAY BOTTLE OF WATER BY SPRAYING THE SILICONE CONNECTORS AND JOINTS. IF THE IDLE CHANGES WHEN SPRAYING CONNECTIONS, THEN CHECK THE HOSE CLAMPS FOR TIGHTNESS AND THE FITMENT OF THE SILICONE COUPLERS. AFTER FINDING A CONNECTION LEAK, RE-START YOUR CAR AND REPEAT IF NECESSARY. YOU MAY WANT TO DRIVE THE VEHICLE AS WELL. IF EVERYTHING IS SATISFACTORY, YOU MAY MOVE ON TO REINSTALLING YOUR BUMPER.

# INSTALLATION INSTRUCTIONS: CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT FOR THE 2010+ MAZDA SPEED 3

## 16: REINSTALLING THE FRONT BUMPER

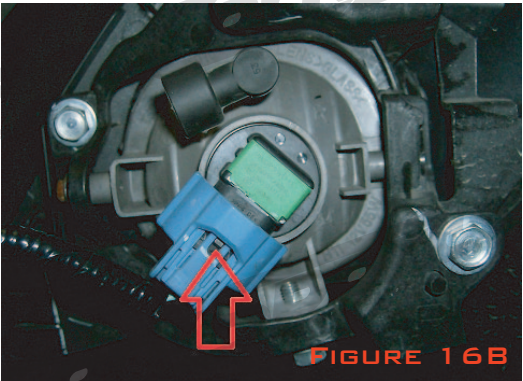
**A)** RE-POSITION THE BUMPER COVER BACK ON THE VEHICLE, BEING SURE THAT THE CLIPS (SEE **RED CIRCLES** IN **FIGURE 16A**) FULLY CLIP BACK INTO PLACE. THEN INSTALL THE 2 (TWO) HEX HEAD BOLTS IN TO THE CORNERS OF THE BUMPER WHERE THEY MEET THE FENDER (SEE **RED ARROW** IN **FIGURE 16A**) USING EITHER A PHILLIPS HEAD SCREWDRIVER OR 8MM SOCKET AND RATCHETING WRENCH.



**FIGURE 16A**

**⚠ WARNING:** USE CAUTION TO AVOID SCRATCHING THE FENDER WITH THE EDGES OF THE PLASTIC BUMPER.

**B)** REINSTALL THE 2 (TWO) TORX HEAD BOLTS AND 6 (SIX) PUSH CLIPS INTO THE TOP OF THE BUMPER, SECURING IT BACK IN PLACE (SEE STEPS 11E-G AND **FIGURE 11G**).



**FIGURE 16B**

**C)** REINSTALL BOTH FOG LIGHTS (SEE **RED ARROW** IN **FIGURE 16B**) AND ENSURE THAT ALL WIRING IS SECURED BACK IN TO THEIR WIRE CLIPS.

**D)** REINSTALL THE 3 (THREE) DRIVER'S SIDE PHILLIPS HEAD CLIPS HOLDING THE FENDER LINER TO THE EDGE OF THE BUMPER (SEE **RED CIRCLES** IN **FIGURES 11D & E**) AND REPEAT FOR THE PASSENGER SIDE CLIPS.

**E)** REINSTALL THE UNDERTRAY BY REUSING THE 4 (FOUR) FACTORY 10MM HEX HEAD BOLTS USING A RATCHETING WRENCH AND 10MM LONG SOCKET IN TO THE INSIDE FENDER LINER CLIPS (SEE **RED ARROWS** IN **FIGURE 11B**). THEN INSTALL THE 12 (TWELVE) HEX HEAD BOLTS (SEE **RED ARROWS** IN **FIGURE 11A**) AND FRONT UNDERTRAY PEICE FOLLOWING STEPS 11A-C IN REVERSE. IT WILL BE NECESSARY TO TRIM THE FRONT UNDERTRAY. SEE **FIGURE 16C**.

**F)** LOWER THE VEHICLE BY REMOVING IT FROM THE JACKSTANDS OR LIFT.

**DRIVING THE VEHICLE:** ENSURE THAT EVERYTHING IS SECURE ON THE VEHICLE AND REMOVE ANY JACK-STANDS OR TOOLS THAT MAY STILL BE UNDER THE VEHICLE. TAKE THE VEHICLE FOR A DRIVE AND GET THE ENGINE UP TO OPERATION TEMPERATURE. PARK THE VEHICLE, OPEN THE HOOD AND CHECK ALL INTERCOOLER AND INTAKE PIPING AND SILICONE COUPLER CONNECTIONS TO ENSURE THAT EVERYTHING IS STILL SECURE. IF YOU FIND A LOOSE CONNECTION, REPOSITION THE COUPLER AND T-BOLT CLAMPS AND RE-TIGHTEN. ONCE EVERYTHING IS SECURE, YOU HAVE NOW SUCCESSFULLY INSTALLED YOUR NEW CORKSPORT POWER SERIES FRONT MOUNT INTERCOOLER KIT.



**FIGURE 16C**