



**Equipped with *AEM DRYFLOW* Filter  
No Oil Required!**

**Kit Part Number: 21-642**

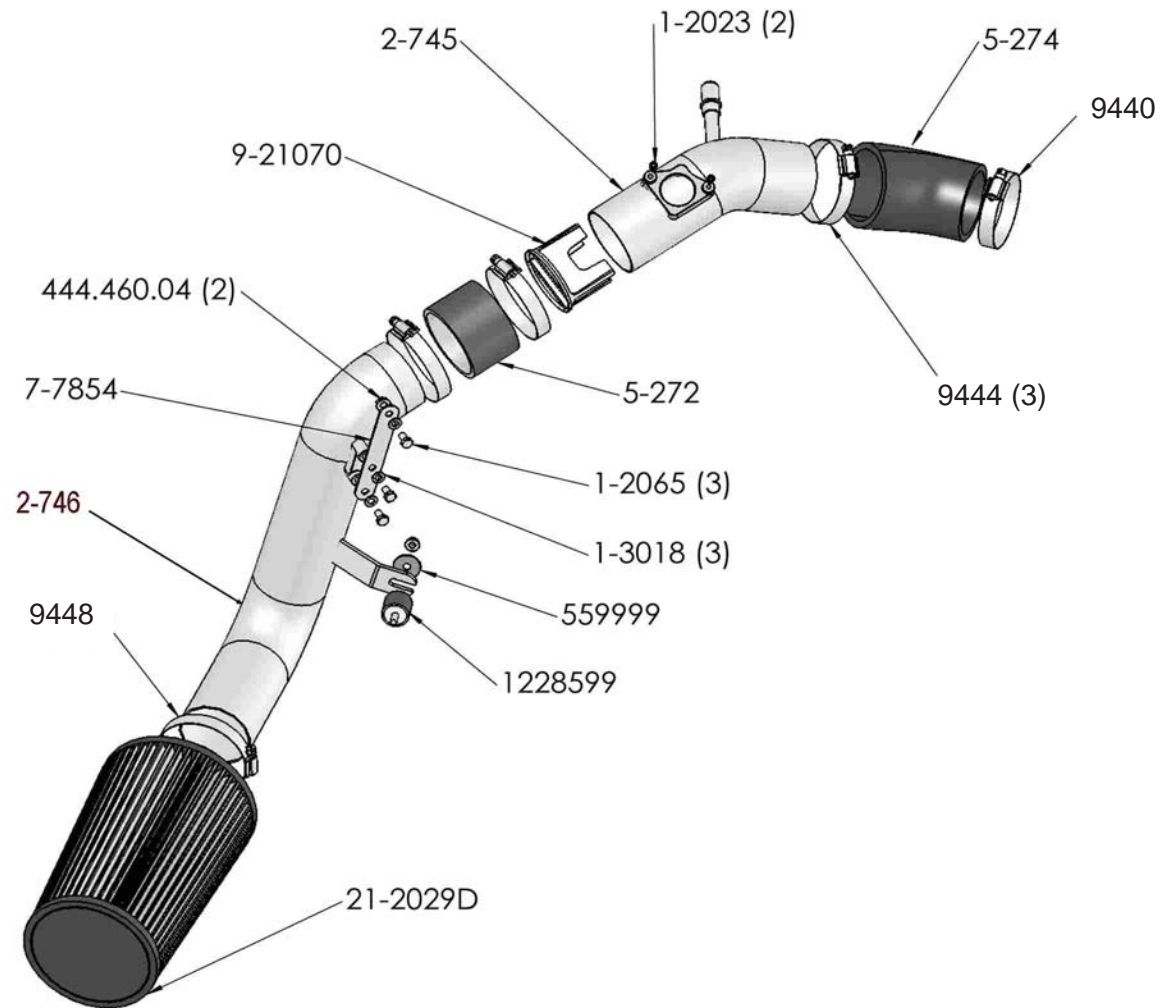
**2007-2008 Mazda Mazdaspeed 3      CARB EO # D-392-30**

Cold Air Intake Systems that are pending an Executive Order number (EO#) relating to exemptions under Section 27156 of the Vehicle Code from the California Air Resource Board (CARB) are for off-road use only in California, which may never be used on public highways.

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Advanced Engine Management Inc.  
2205 126<sup>th</sup> Street, Unit A  
Hawthorne, CA 90250  
Phone: 310.484.2322  
<http://www.aempower.com>



### BILL OF MATERIALS

Quantity	Part Number	Description
1	2-745	Inlet Pipe, Upper
1	2-746	Inlet Pipe, Lower
1	9440	#40 hose clamp
3	9444	#44 hose clamp
1	9448	#48 hose clamp
1	5-274	Adapter Hose, 2.5/2.75 45 deg
1	5-272	Hose, 2.75 x 2"
1	559999	Washer, M6
2	444.460.04	Nut, M6
1	9-21070	Flow Straightener
1	1228599	Rubber Mount, M6
2	1-2023	Bolt, 8-32
1	7-7854	Ballast Bracket
1	21-2029D	Air Filter, 2.75" x 9" Dryflow
3	1-2065	Hex Bolt, M6 x 1 x 12
3	1-3018	Washer, M6 x 12mm OD
2	10-922S	AEM Decal
1	10-7558	Instructions

## 1. Preparing Vehicle

- a) Make sure vehicle is parked on a level surface.
- b) Set parking brake.
- c) If engine has run in the past two hours let it cool down.
- d) Disconnect the negative battery terminal.

## 2. Removal of Stock System



**a)** Stock intake system.



**b)** Remove the two bolts securing the plastic intercooler shroud. Remove the shroud.



**c)** Unplug and remove the mass air flow sensor (MAF) wiring harness.



**d)** Unclip the two metal retaining straps securing the air filter housing lid to the lower air box housing. Loosen the hose clamp securing the inlet tube to the turbo inlet pipe and remove the lid.





**e)** Remove the air filter from the housing. Remove the rubber strap securing the front of the lower housing by pulling up on the loop.



**f)** Remove the check tab on the back side of the air filter housing, then slide the rubber isolator rearward. Lift up on the lower air filter housing and remove.



**g)** Disconnect the plastic breather hose from the inlet tube by squeezing the blue retaining clip and pulling on the breather hose. Loosen the hose clamp on the turbo inlet and remove the tube.



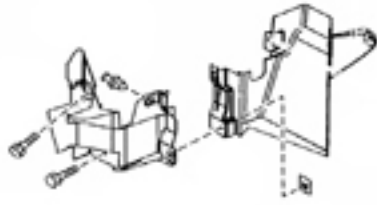
**h)** From underneath the vehicle remove the seven bolts and two plastic connectors holding the center splash shield in place and remove shield



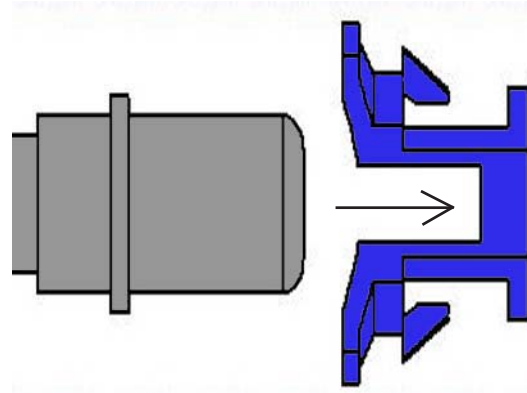
**i)** Remove the two bolts and plastic screw connector for the inner-wheel well splash shield. Remove the shield (shield will not be reinstalled).



**j)** Remove three bolts and the two plastic screw connectors for the inner fender liner. Bend the lining such that it allows access to the area behind the bumper/fender area.



**k)** Remove bolt, attachment clip, and plastic screw connector for the air director located behind left fog lamp / headlamp housing. Remove the air director.



**l)** From the inlet pipe that was previously removed, remove the blue plastic breather hose clip from the breather nipple by carefully prying up on the two small tabs on both sides of the clip.

### 3. Installation of Cold Air Intake

**a)** When installing the intake system, do **not** completely tighten the hose clamps or mounting tab hardware until told to.



**b)** Install the 45 degree coupler onto the stock turbo inlet tube and secure using a #40 hose clamp.



**c)** Install the previously removed (Step 2l) plastic breather hose clip onto the nipple on the upper intake pipe as shown. Simply slide the clip over the end until it snaps into place.



**d)** Using the two supplied 8-32 bolts, install the MAF sensor into the upper intake pipe. Next, install the 2.75" straight coupler onto the MAF end of the pipe as shown.



**e)** With the coupler on the pipe, slide the supplied airflow straightener into the end of the pipe and align the slots with the MAF sensor as shown.

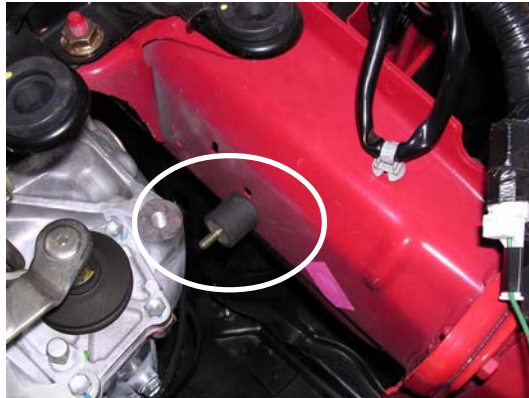




**f)** Install the upper intake pipe into the 45 degree coupler on the turbo inlet. Rotate the pipe until the breather hose is aligned with the nipple on the pipe. Plug the nipple and the MAF harness into the pipe.



**g)** Locate the resistor ballast for the headlight on the inside of the driver's side frame rail. Remove the two bolts securing it and unplug the wiring harness.



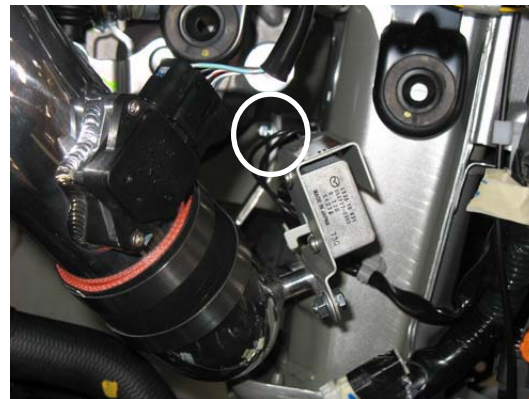
**h)** Thread the rubber mount into the hole located towards the front of the vehicle where the balast was mounted.



**i)** Attach the resistor ballast to the lower intake tube using the mounting bracket, three M6 bolts and washers, and one M6 nut.



**j)** Install the lower intake pipe into the coupler attached to the upper intake pipe and use a #44 hose clamp to secure. Align the intake mounting bracket with the rubber mount installed in the previous step.



**k)** Align the lower pipe mounting bracket with the rubber mount and install one M6 washer and nut to secure. Plug the resistor ballast into the wiring harness.



**l)** Install the air filter onto the end of the lower intake pipe. Push the filter over the pipe until the stop in the pipe is reached. Use a #48 clamp to secure the filter onto the intake pipe.



**m)** Reinstall the intercooler cover and check for clearance. Adjust pipes if necessary.



**Stock Intake System**

**AEM CAS Intake Installed**



#### 4. Re-assemble Vehicle

- a) Position the inlet pipes for the best fitment. Be sure that the pipes or any other components do not contact any part of the vehicle. Tighten the rubber mount, all bolts, and hose clamps.
- b) Check for proper hood clearance. Readjust and tighten pipes if necessary.
- c) Inspect the engine bay for any loose tools, and check that all fasteners that were moved or removed are properly tightened.
- d) Reconnect negative battery terminal. Start engine. Let car idle for 3 minutes. Perform a final inspection before driving the vehicle.

#### 5. Service and Maintenance

- a) It is recommended that you service your AEM Dryflow filter every 20,000 miles for optimum performance. Use AEM Dryflow cleaning kit part # 21-110.
- b) Use aluminum polish to clean your polished AEM intake pipes.
- c) Use window cleaner to clean your powder coated AEM intake pipes. **NOTE: DO NOT USE Aluminum polish on a powder coated AEM intake pipe**

<p>For technical inquiries e-mail us at <a href="mailto:tech@aempower.com">tech@aempower.com</a> or call us at 310.484.2322 Option # 3</p>
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#### AEM Air Intake System Warranty Policy

AEM warrants that its intake systems will last for the life of your vehicle. AEM will not honor this warranty due to mechanical damage (i.e. improper installation or fitment), damage from misuse, accidents or flying debris. AEM will not warrant its powdercoating if the finish has been cleaned with a hydrocarbon-based solvent. The powdercoating should only be cleaned with a mild soap and water solution. Proof of purchase of both the vehicle and AEM intake system is required for redemption of a warranty claim.

This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to AEM must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is non-transferable. Improper use or installation, use for racing, accident, abuse, unauthorized repairs or alterations voids this warranty. AEM disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM. Warranty returns will only be accepted by AEM when accompanied by a valid Return Merchandise Authorization (RMA) number. Credit for defective products will be issued pending inspection. Product must be received by AEM within 30 days of the date RMA is issued.

If you have a warranty issue, please call (310) 484-2322, extension 203 and our customer service department will assist you. A proof of purchase is required for all AEM warranty claims.