

# CorkSport Power Series True 3 inch Intake 2007-2013 Mazdaspeed 3, 2006-2007 Mazdaspeed 6



# This package should contain:

- ☐ 1) 1x CorkSport Turbo Inlet Pipe
- □ 2) 1x CorkSport 76mm MAF Housing assembly with Air Straightener
- □ 3) 1x Silicone Reducer 3"-3.25"
- ☐ 4) 1x Silicone Reducer 3"-2.25"
- □ 5) 1x Dry Flow Air Filter
- ☐ 6) 1x 10" Long Large ID Hose
- □ 7) 1x 6" Long Small ID Hose
- □ 8) 1x 57-65 T-Bolt Clamp
- □ 9) 2x 77-85 T-Bolt Clamps
- □ 10) 1x 83-91 T-Bolt Clamp
- □ 11) 1x 95-103 T-Bolt Clamp
- □ 12) 1x 107-115 T-Bolt Clamp (not pictured)
- □ 13) 1x Silicone Reducer 3"-4" (not pictured)

#### **SILICONE COLOR:**

- Black
- □ Red
- □Blue

#### **FILTER COLOR:**

- Black
- □ Red
- Blue

#### **HOSE CLAMP COLOR:**

- Polished
- □Black

Kit Assembly By: \_\_\_\_\_ Date: \_\_\_\_





# CorkSport Power Series True 3 inch Intake 2007-2013 Mazdaspeed 3, 2006-2007 Mazdaspeed 6



Thank you for purchasing the CorkSport Mazdaspeed 3 Turbo Inlet Pipe. The Big MAF 3" Intake is fabricated with a high polished 3 inch turbo inlet pipe and a True 3" inside diameter MAF housing. The Velocity stack design smooth's the air flow and increases the flow of air for maximum performance. If you plan on upgrading or have already upgraded your turbo, this upgrade is a must to keep your engine breathing smoothly. Get the best of both worlds by increasing power without losing throttle response.

Please let us know what you think by submitting a review at: <a href="http://www.corksport.com/corksport-power-series-2007-2013-mazdaspeed-3-big-maf-3-intake.html">http://www.corksport.com/corksport-power-series-2007-2013-mazdaspeed-3-big-maf-3-intake.html</a>

# **Pre-Installation Notes:**



**Re-calibration of MAF settings in the ECU are required** for your car to run properly after installing the CorkSport 3" Intake with 76mm MAF housing.



**Disconnection of battery and removal of battery box and Vehicle ECU are required for installation.** Consult factory service manual or owner's manual for your car for specific details on disconnection of battery. Bridging the terminals on the battery can cause SERIOUS damage to vehicle electronics and can cause injury.



**How our instructions work:** To best cover all of our customers' experience levels, we have included an overview checklist for the more technically advanced users along with step-by-step instructions for customers that require additional detail.



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.

# **Materials and Time:**



General Info.
Part #: Axl-6-276
Time Est: 60-90 min
Wrench Rating: 2/5

# **Tooling List**



# Parts List

1x CorkSport Turbo Inlet Pipe
1x CorkSport 76mm MAF Housing with Air Straightener
1x Silicone Reducer 3"-3.25"
1x Silicone Reducer 3"-2.25"
1x Silicone Reducer 3"-4"
1x Dry Flow Air Filter
1x 12" Long Large ID Hose

1x 12" Long Large ID Hose 1x 6" Long Small ID Hose 1x 57-65 T-Bolt Clamp 2x 77-85 T-Bolt Clamps

1x 83-91 T-Bolt Clamp 1x 95-103 T-Bolt Clamp 1x 107-115 T-Bolt Clamp





## Checklist

This is an overview of each step in the build. You can use this as a reference and a checklist as you button up the work on your car



These instructions were written using a 2013 Mazdaspeed 3. 2007-2009 Mazdaspeed 3 Mazdaspeed 6 are similar.



**Re-calibration of MAF settings in the ECU are required** for your car to run properly after installing the CorkSport 3" Intake with 76mm MAF housing.

1. <u>Re</u>	move the Factory Intake and Filter Housing		
a)	Remove the top mount intercooler cover (TMIC) (red circles in Figure 1a).		
	Now is a good time to look at your intercooler and see if you have any bent fins or debris lodged in the intercooler fins. Removing debris and straightening the fins will improve the performance of the intercooler.		
b)	Loosen the two (2) 10mm hose clamps on the factory rubber intake elbow (red circle and green circle in Figure 1b).		
c)	Unplug the MAF housing sensor (green circle in Figure 1c).		
d)	Remove the two 10mm bolts on the air filter housing bracket and remove the bracket .		
e)	Remove the valve cover breather tube. (Figure 1d)		
0	video support on removal of the valve cover breather hose located in knowledgebase		
f)	<b>Pull up on the filter housing</b> to pop it free from the car and remove it along with the intake elbow and breather tube.		
	nove the Battery and ECU		
a) b)	Remove the battery box cover.  Disconnect the battery terminals.		
c)	Remove the two 10mm nuts for the battery tie down bracket (shown with red circles in Figure 2b).		
☐ d)	Remove the battery from the battery box.		
e)	Remove the front battery box panel.		
☐ f)	Disconnect the ECU plugs.		
g)	<b>Remove the battery box</b> . Remove the three 10mm bolts in the bottom of the box, and remove the battery box and ECU (red circles Figure 2d).		
3. Remove the Factory Turbo Inlet Pipe (TIP)			
☐ a)	Using pliers, release the hose clamps (red circles in Figure 3a) located on the bypass valve hose.		



# Checklist

3. <u>Rer</u>	nove the Factory Turbo Inlet Pipe (TIP) Continued		
□ b)	Remove the 10mm nut that holds the stock turbo inlet pipe in place (blue circle in Figure 3b).		
c)	Remove the two wiring harness clips (red arrows in Figure 3b) located on the stock turbo inlet pipe.		
☐ d)	Using needle nose pliers, remove the hose from solenoid fitting on the stock turbo inlet pipe and the boost control solenoid.		
	Be very carful to not break the nipple off the boost control solenoid.		
	If you are having difficulty getting it loose, try rotating the hose to break the seal of the rubber to the plastic fitting and then pulling straight up. It takes a little force, but cleanly comes off.		
□ e)	<b>Remove the plastic inlet pipe from the turbocharger.</b> Loosen the 10mm hose clamp at the turbo inlet, pull the stock turbo inlet pipe off of the turbocharger, and remove it from the car.		
4. Ass	emble the CorkSport Turbo Inlet Pipe		
	Assemble the turbo inlet pipe. Attach the 2.25" to 3.0" silicone reducer onto the turbo side of the inlet pipe. Place the two clamps (77-85 and 57-65) onto the reducer and lightly tighten the 77-85 clamp (shown in Figure 4a). Leave the smallest 57-65 clamp loose.		
□ b)	Remove the rubber mounting grommet and washer from the factory turbo inlet pipe and install it on the CorkSport TIP (circled in blue in Figure 3b and green on CorkSport TIP in Figure 4a).		
5. Install the CorkSport Turbo Inlet Pipe			
a)	Place the CorkSport TIP in a similar orientation to the factory pipe.		
□ b)	Attach the bracket on the CorkSport turbo inlet over the stud on the factory valve cover bracket and hand tighten the nut onto the stud (red circle in Figure 5b).		
□ c)	Connect the supplied small ID silicone hose from the brass nipple to the boost control solenoid (green circles in Figure 5c).		
	Be very carful to not break the nipple off the boost control solenoid.		
☐ d)	Connect the supplied large ID silicone hose to the valve cover and the large port on the TIP (red arrows in Figure 5c).		
e)	Install the bypass valve hose.		
f)	Remove the plastic cover that houses the ECU.		
$\bigcap$	If installing the CorkSport ECU and Battery Relocation kit skip this step.		
☐ g)	Install the battery box back into place, with three 10mm bolts (shown in Figure 2d).		
☐ h)	Install the ECU connectors and latch the cam locks to seat the connectors into the ECU.		
☐ i)	Install the battery into the battery box.		



# Checklist

5. <u>Inst</u>	all the CorkSport Turbo Inlet Pipe Continued
	Install the front cover onto the battery box and snap the wiring harness clips into place (shown in
	Figure 2b).
□ k)	Install the battery box top back onto the battery box (Figure 2a).
□ "′	install the battery box top back onto the battery box (Figure 24).
6 Inat	all the Carl Sport MAE Housing
	all the CorkSport MAF Housing
a)	Remove the MAF sensor from the factory air filter housing (Figure 6a).
□ b)	Install the MAF sensor into the CorkSport 76mm MAF housing and secure it with the two (2) supplied
ш ′	3mm hex screws (Figure 6b).
	Similar Serems (Figure 66).
	Place the 3.0" to 3.25" silicone reducer, along with two (2) of the supplied T-bolt clamps onto the
c)	
	turbo inlet pipe. Do not tighten the clamps at this time (Figure 6c).
∐ d)	Place the CorkSport MAF housing into the silicone reducer. Make sure that the "AIRFLOW" sign points
	toward the turbo inlet pipe (airflow direction shown with red arrow in Figure 6d).
□ e)	Install CS air filter onto the end of the MAF housing using the last T-bolt clamp (Figure 6e).
ш .	
	Adjust the silicone elbow so that the MAF and filter and sitting level in the car (Figure 6e) and tighten
ш -,	all the hose clamps.
	an the hose damps.
~\	Connect the MAE concer harness (red circle in Figure 60)
☐ g)	Connect the MAF sensor harness. (red circle in Figure 6e)
☐ h)	Replace the intercooler cover, making sure that the metal bracket under the cover is latched onto the
	tab in the back of the intercooler tank casting.



This completes the installation of your CorkSport 3" Intake. You will need to recalibrate the MAF sensor with an ECU reflashing device such as the COBB Accessport.

If there are issues with the idle, check your connections and hose clamps for tightness and check to make sure the MAF sensor is fully seated in the housing and not cocked at a non parallel angle relative to the housing surface. After a test drive, recheck all hose clamps again for tightness. Check out our <a href="knowledgebase">knowledgebase</a> for additional install information.





# **Detailed Instructions**

These installation instructions were written using a 2013 Mazdaspeed 3.



**Re-calibration of MAF settings in the ECU are required** for your car to run properly after installing the CorkSport 3" Intake with 76mm MAF housing.

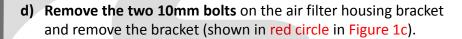
- 1. Remove the Factory Intake and Filter Housing
- a) Remove the top mount intercooler cover (TMIC) by removing the two 10mm bolts (red circles in Figure 1a).

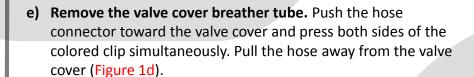


Now is a good time to look at your intercooler and see if you have any bent fins or debris lodged in the intercooler fins. Removing debris and straightening the fins will improve the performance of the intercooler.











<u>video support on removal of the valve cover breather hose located</u> <u>in knowledgebase</u>

f) Pull up on the filter housing to pop it free from the car and remove it along with the intake elbow and breather tube.



Figure 1a

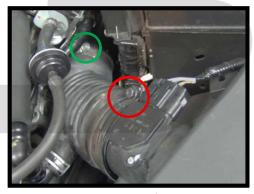


Figure 1b



Figure 1c



Figure 1d



# **Detailed Instructions:**

#### 2. Remove the Battery and ECU

- a) Remove the battery box cover. The cover is held on with two clips (shown with red arrows in Figure 2a). Pry the clips outward by hand and lift the front of the lid off of the box.
- b) Disconnect the battery. Disconnect the battery terminals with a 10mm end wrench. Refer to Figure 2b for negative (-) and positive terminals (+). Disconnect the negative terminal of the battery first, then the positive terminal (Figure 2b).



- c) Remove the two 10mm nuts for the battery tie down bracket (shown with red circles in Figure 2b).
- d) Remove the battery from the battery box.
- e) Remove the front battery box panel. Remove the MAF wiring harness clip (blue circle Figure 2b), and negative battery cable clip (purple circle Figure 2b), from the front battery box panel using needle nose pliers to compress the clips on the inside of the battery box. Then slide the panel upwards and remove it (green arrow in Figure 2b).

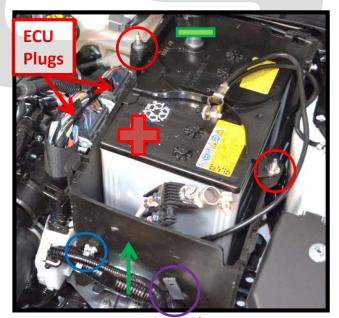


Figure 2b

f) Disconnect the ECU plugs by pushing on the tabs (red arrows in Figure 2c) and pulling the white lock upward simultaneously (green arrows in Figure 2c). Refer to Figure 2b for location of ECU plugs and Figure 2c for close ups.



When done correctly, this process should be effortless.

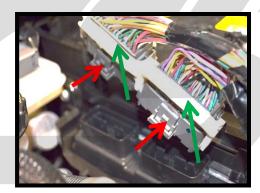


Figure 2c



# 2. Remove the Battery and ECU (continued)

g) Remove the battery box. Remove the three 10mm bolts in the bottom of the box, and remove the battery box and ECU (red circles Figure 2d).

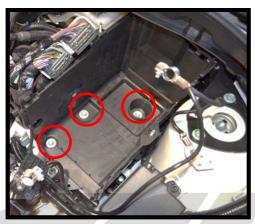


Figure 2d

## 3. Remove the Factory Turbo Inlet Pipe (TIP)

- a) Using pliers, release the hose clamps (red circles in Figure 3a) located on the bypass valve hose. Remove the hose from the car and save if you are re-using it. You can discard the rubber hose and spring clamps if you will be installing the optional CorkSport Silicone BPV Hose.
- b) Remove the 10mm nut that holds the stock turbo inlet pipe in place (blue circle in Figure 3b).
- c) Remove the two wiring harness clips (red arrows in Figure 3b) located on the stock turbo inlet pipe.
- d) Using needle nose pliers, remove the hose from solenoid fitting on the stock turbo inlet pipe and the boost control solenoid (see Figure 5d on next page and identified in Figure 3b by blue arrow).



Figure 3a



Be very carful to not break the nipple off the boost control solenoid.



If you are having difficulty getting it loose, try rotating the hose to break the seal of the rubber to the plastic fitting and then pulling straight up. It takes a little force, but cleanly comes off.

e) Remove the plastic inlet pipe from the turbocharger. Loosen the 10mm hose clamp at the turbo inlet, pull the stock turbo inlet pipe off of the turbocharger, and remove it from the car.

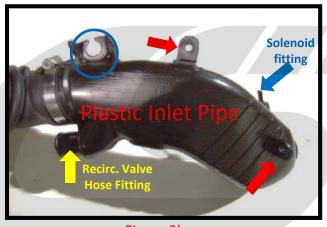
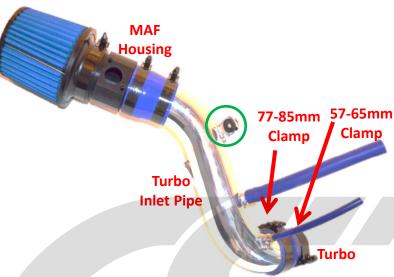


Figure 3b



# 4. Assemble the CorkSport Turbo Inlet Pipe

a) Assemble the turbo inlet pipe (shown w/ the MAF housing and filter attached in Figure 4a, you will attach the MAF housing and filter later. Attach the 2.25" to 3.0" silicone reducer onto the turbo side of the inlet pipe. Place the two clamps (77-85 and 57-65) onto the reducer and lightly tighten the 77-85 clamp (shown in Figure 4a). Leave the smallest 57-65 clamp loose (Do not attach the MAF housing and air filter at this time).



b) Remove the rubber mounting grommet and washer from the factory turbo inlet pipe and install it on the CorkSport TIP (circled in blue in Figure 3b and green on CorkSport TIP in Figure 4a).

#### 5. Install the CorkSport Turbo Inlet Pipe

a) Place the CorkSport TIP in a similar orientation to the factory pipe. Feed the silicone coupler end of the TIP toward the turbocharger inlet. Align the bracket on the CorkSport turbo inlet pipe with the stud on the valve cover bracket (red circle in Figure 5b) and connect the 2.25" diameter silicone coupling over the end of the turbocharger compressor inlet, taking care to keep the loose hose clamp in place (shown in Figure 5a). This should fit easily - if not, the T-bolt clamp is probably too tight or is interfering.

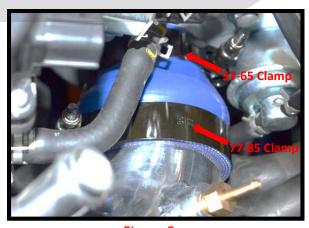


Figure 4a

Figure 5a

b) Attach the bracket on the CorkSport turbo inlet over the stud on the factory valve cover bracket and hand tighten the nut onto the stud (red circle in Figure 5b). 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. Adjust as needed before tightening the nut. Then tighten the T-bolt clamps at the turbocharger compressor inlet.



Figure 5b



## 5. Install the CorkSport Turbo Inlet Pipe (continued)



Figure 5c

Figure 5d

c) Connect the supplied small ID silicone hose from the brass nipple to the boost control solenoid (green circles in Figure 5c).



Be very carful to not break the nipple off the boost control solenoid (Figure 5d).

- d) Connect the supplied large ID silicone hose to the valve cover and the large port on the TIP (red arrows in Figure 5c).
- e) Install the bypass valve hose. Reuse the spring clamps if re-installing the factory rubber BPV hose, or use the T-bolt clamps supplied with the optional CorkSport silicone BPV hose (red circles in Figure 5e).

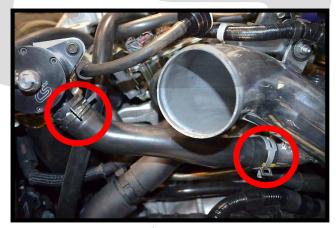


Figure 5e

f) Remove the plastic cover that houses the ECU. Unscrew the two Phillips head screws (red circles indicate screw locations) and pull the cover upward (exposed ECU shown in Figure 5f).



If installing the CorkSport ECU and Battery Relocation kit skip this step.

- g) Install the battery box back into place, with three 10mm bolts (shown in Figure 2d). Feed the battery terminal lines through the cutouts in the box.
- h) Install the ECU connectors and latch the cam locks to seat the connectors into the ECU. Install the ECU cover over the connectors (shown in Figure 2c).

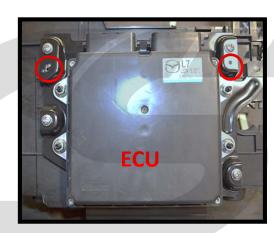


Figure 5f



## 5. Install the CorkSport Turbo Inlet Pipe (continued)

- i) Install the battery into the battery box. First position and install the battery tie down. Next, install the positive battery cable onto its terminal and tighten the 10mm nut. Repeat with the negative battery terminal.
- j) Install the front cover onto the battery box and snap the wiring harness clips into place (shown in Figure 2b).
- k) Install the battery box top back onto the battery box (Figure 2a).

#### 6. Install the CorkSport MAF Housing

- a) Remove the MAF sensor from the factory air filter housing by removing the two Phillips head screws and gently prying the sensor free (Figure 6a).
- b) Install the MAF sensor into the CorkSport 76mm MAF housing and secure it with the two (2) supplied 3mm hex screws (Figure 6b).

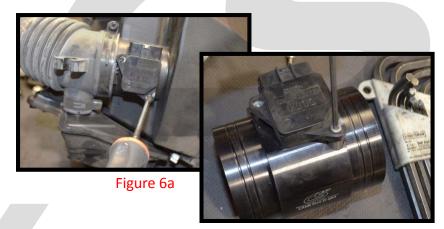


Figure 6b

- c) Place the 3.0" to 3.25" silicone reducer, along with two (2) of the supplied T-bolt clamps onto the turbo inlet pipe. Do not tighten the clamps at this time (Figure 6c).
- d) Place the CorkSport MAF housing into the silicone reducer. Make sure that the "AIRFLOW" sign points toward the turbo inlet pipe (airflow direction shown with red arrow in Figure 6d).

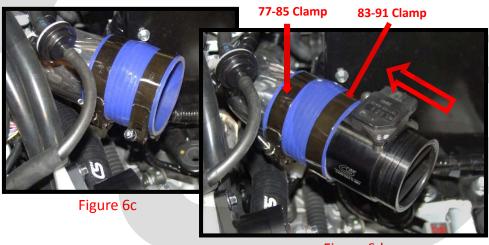


Figure 6d



# 6. Installing the CorkSport MAF Housing (continued)

- e) Install CS air filter onto the end of the MAF housing using the last T-bolt clamp (Figure 6e).
- f) Adjust the silicone elbow so that the MAF and filter and sitting level in the car (Figure 6e) and tighten all the hose clamps.



Figure 6e

- g) Connect the MAF sensor harness. Press it onto the sensor firmly until it "clicks". (red circle in Figure 6e)
- h) Replace the intercooler cover, making sure that the metal bracket under the cover is latched onto the tab in the back of the intercooler tank casting. Lower the front of the intercooler cover and install the two 10mm bolts (red arrows in Figure 6f).



Figure 6f



This completes the installation of your CorkSport 3" Intake. You will need to recalibrate the MAF sensor with an ECU reflashing device such as the COBB Accessport.

If there are issues with the idle, check your connections and hose clamps for tightness and check to make sure the MAF sensor is fully seated in the housing and not cocked at a non parallel angle relative to the housing surface. After a test drive, recheck all hose clamps again for tightness. Check out our <a href="knowledgebase">knowledgebase</a> for additional install information.



# What's Next:

#### **CorkSport Mazdaspeed Relocation Battery Box**

Clean up your engine bay and free up some more space. With the CorkSport Mazdaspeed 3 ECU relocation battery box not only can you move that ECU out of the way and out of the elements, but you can also keep your factory size battery. Crafted from fiberglass reinforced polymer, the CorkSport battery box comes in a stylish matte finish that is ready to paint or can be left as is for a stock appearance. The CorkSport battery box allows you to use intakes up to 3 inches or larger (depending on the brand)and mounts the ECU to plastic not metal like the factory to prevent possible interference.



#### **CORKSPORT Mazdaspeed MZR Bypass Valve**

Add performance and style while protecting your turbo with the Patent Pending CorkSport Mazdaspeed MZR Bypass Valve. Using an innovative patent pending design utilizing a wave spring, we were able to reduce the spring height of the OEM Bypass Valve by 50%. This size reduction provides the same amount of force, while accelerating the speed of the valve. By increasing speed the Bypass Valve effectively increases the life of your turbo by preventing premature wear since the BPV can safely move at speeds 33% faster than stock or other valves.



#### **CorkSport Aluminum Oil Catch Can**

Enhance the reliability of your engine and improve performance and fuel economy with the CorkSport Oil Catch Can. By adding an oil catch can, you will increase the longevity of your engine by helping keep unclean crankcase vapors and oil out of the engines intake. Made of billet aluminum for strength, the CorkSport Oil Catch Can includes everything you need for a complete install. Don't let your Mazda get contaminated by sediment, crankcase vapors, or unclean oil. With the CorkSport Oil Catch Can you will remove unwanted debris that would normally contaminate the intake tract. This allows for cleaner air entering the engine, lower detonation rates and increases longevity.





#### MAF Calibration Procedure

Start but going to <a href="http://www.cobbtuning.com/">http://www.cobbtuning.com/</a> and downloading a copy of Accesstuner Race for your vehicle.

Connect your Cobb AP to your computer and install Accesstuner Race.

1. Once installed, open the program and select file>load map.

Load the current map you are running on your car.

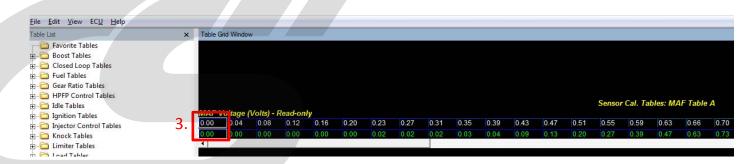
Save this map to another name to make sure you save the original file.

- 2. Select Sensor Cal. Tables > MAF Table A
- 3. Copy the supplied MAF calibration into the table by copy and pasting the entire MAF calibration table.



#### http://corksport.com/support/instructions/AxI-6-276MAFCalibration.txt

If you have a Gen1 Mazdaspeed3 or Mazdaspeed6 you will have a MAF Table B as well that you will have to copy the calibration into





Re-calibration of MAF settings in the ECU will change how your car runs. Without doing this calibration your car may not start. A custom tune afterward is required for your car to run properly after installing the CorkSport 3" Intake with 76mm MAF housing.