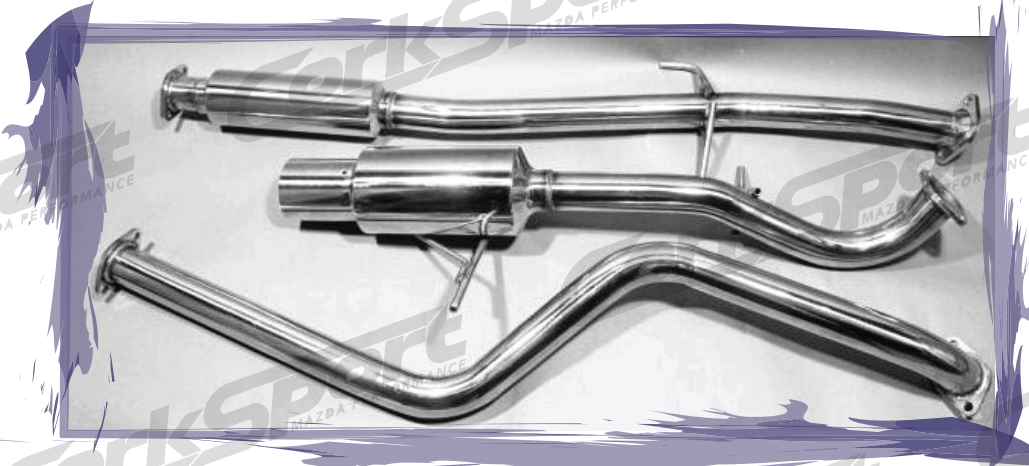


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## POWER SERIES 80MM EXHAUST MAZDASPEED PROTEGE



**WARNING:** MAKE SURE VEHICLE IS COMPLETELY COOLED DOWN PRIOR TO STARTING INSTALLATION. EXHAUST SYSTEMS AND ESPECIALLY CATALYTIC CONVERTERS CAN 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 EXHAUST SYSTEM AND THE CATALYST.



**WARNING:** THOROUGHLY READ THE PRECAUTIONS AND INSTRUCTIONS THAT COME WITH YOUR FLOOR JACK AND JACKSTANDS AS WELL AS YOUR VEHICLE'S OWNERS MANUAL FOR APPROPRIATE JACKING METHODS AND JACKING / SUPPORT POINTS. ALWAYS DOUBLE UP SUPPORT ON A VEHICLE - JACK STANDS AND FLOOR JACK /ETC.



**NOTE:** WHEN UNDER THE CAR, YOU SHOULD BE WEARING MECHANICS GLOVES OR OTHER FORM OF HAND PROTECTION AS WELL AS ANSI APPROVED SAFETY GLASSES.



**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.





<b>PART NUMBER:</b> 99P-6-100 <b>TIME ESTIMATE:</b> 60-90 MIN. <b>WRENCH RATING:</b> 2/5	<b>MODEL</b> MAZDASPEED PROTEGE	<b>YEAR</b> 2002-2003.5	<b>TRIM</b> ALL
<b>TOOLING LIST:</b> 3/8 DRIVE RATCHET BEST: DC IMPACT GUN 6" 3/8 DRIVE EXTENSION 17MM BOXED END WRENCH 17MM LONG SOCKET BEST: WOBBLY/UNIV. 14MM BOXED END WRENCH 14MM LONG SOCKET BEST: WOBBLY/UNIV. 22MM O2 SENSOR SOCKET SILICONE SPRAY/WD-40 PENETRATING SPRAY JACK STAND FLOOR JACK MECHANICS GLOVES SAFETY GLASSES		<b>PARTS LIST -10 CONFIG.:</b> FORWARD EXHAUST SECTION MIDDLE EXHAUST SECTION TAILPIPE SECTION 4X M10X1.25X35MM BOLTS 2X M10X1.25X80MM BOLTS 6X M10 FLAT WASHERS 2X M10 31MM FLAT WASHERS 4X M10 LOCK WASHERS 8X M10X1.25 NUTS 2X 80MM EXHAUST GASKETS <b>OPTIONAL:</b> MOTOR MOUNTS SILENCER CATALYTIC CONVERTER	

COVER SHEET

FOR HELP WITH INSTALLATION, CALL 360-260-CORK (2675)

# INSTALLATION INSTRUCTIONS: CORKSPORT 80MM POWER SERIES EXHAUST FOR MAZDASPEED PROTEGE

## 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. ALWAYS READ ALL SAFETY WARNINGS ON COVER SHEET OF INSTRUCTIONS!! 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 BUTTUN UP THE WORK ON THE CAR.

- 1:**  SAFELY GET CAR IN THE AIR ON FLOOR JACK AND JACKSTANDS OR USE A LIFT.
- 2A:** APPLY PENETRATING SPRAY AND REMOVE FASTENERS CONNECTING J SECTION OF THE DOWNPIPE TO FORWARD EXHAUST PIPE.
- 2B:** APPLY PENETRATING SPRAY AND REMOVE FACTORY O2 SENSOR FROM FWD. EXHAUST.
- 2C:** APPLY PENETRATING SPRAY AND REMOVE FASTENERS BETWEEN FORWARD AND MIDDLE SECTIONS OF THE EXHAUST.
- 2D:** SPRAY EXHAUST HANGERS ON FORWARD SECTION OF EXHAUST WITH SILICONE SPRAY. REMOVE FORWARD SECTION OF EXHAUST FROM THE VEHICLE.
- 2E:** APPLY PENETRATING SPRAY AND REMOVE FASTENERS HOLDING THE TAILPIPE SECTION TO THE MIDDLE SECTION OF THE EXHAUST AND REMOVE THE MIDDLE SECTION FROM THE VEHICLE.
- 2F:** SPRAY MUFFLER HANGERS WITH SILICONE SPRAY, DISCONNECT AND REMOVE MUFFLER.
- 3A:** INSTALL CORKSPORT EXHAUST FRONT SECTION INTO FRONT EXHAUST HANGERS.
- 3B:** INSTALL THE TWO SUPPLIED M10 80MM LONG BOLTS WITH STANDARD FLAT WASHERS THROUGH DOWNPIPE AND CS EXHAUST FLANGE. INSTALL THE FACTORY SPRINGS, LARGE FLAT WASHERS AND TWO M10 NUTS. TIGHTEN NUTS UNTIL THERE IS ABOUT 1MM GAP BETWEEN SPRING COILS. INSTALL A SECOND SET OF JAM NUTS ONTO BOLTS AND TIGHTEN.
- 3C:** INSTALL O2 SENSOR WITH ANTI SEIZE. TIGHTEN TO ~10 FT LB OF TORQUE.
- 3D:** INSTALL TAILPIPE SECTION ONTO HANGERS AND ALLOW TO HANG IN PLACE.
- 3E:** INSTALL MIDDLE SECTION OF EXHAUST SYSTEM INTO VEHICLE ALONG WITH SUPPLIED 80MM GASKETS AND HARDWARE.
- 3F:** ADJUST EXHAUST HANGERS FOR MINIMUM 1/2 TAILPIPE INCH CLEARANCE TO REAR BUMPER. USE ZIP-TIES ON HANGER POSTS TO FIX BUSHING LOCATION FROM SIDE TO SIDE.  
 IMPROPER INSTALLATION COULD DAMAGE BUMPER.
- 4:** CHECK TO MAKE SURE GASKETS ARE SEATED, BOLTS ARE TIGHT. TAKE OFF JACK STANDS AND TEST RUN CHECKING FOR LEAKS.

CHECK  
LIST**FOR HELP WITH INSTALLATION, CALL 360-260-CORK (2675)**

# INSTALLATION INSTRUCTIONS: CORKSPORT 80MM POWER SERIES EXHAUST MAZDASPEED PROTEGE

## 1: SUPPORT CAR ON FLOOR JACK/JACKSTANDS OR LIFT.

USE A FLOOR JACK AND JACKSTANDS TO GAIN ACCESS TO THE UNDERSIDE OF THE VEHICLE. ALWAYS REFER TO THE FLOOR JACK AND JACKSTAND MANUFACTURERS INSTRUCTIONS AS WELL AS THE FACTORY OWNERS MANUAL FOR YOUR VEHICLE TO DETERMINE JACKING POINTS AND SUPPORT POINTS. ALTERNATELY, USE AN AUTOMOTIVE LIFT TO GAIN ACCESS TO THE UNDERSIDE OF THE VEHICLE. REDUNDANT SUPPORT MECHANISMS ARE RECOMMENDED.

## 2: FACTORY EXHAUST REMOVAL

A) APPLY PENETRATING SPRAY (PB BLASTER, AEROKROIL, WD-40) AND REMOVE THE TWO 14MM HEAD NUTS FROM THE J SECTION OF THE DOWNPIPE TO FORWARD EXHAUST SECTION CONNECTION SHOWN IN FIGURE 2A AND RETAIN THE SPRINGS FOR LATER USE. IF THEY ARE DIFFICULT TO REMOVE, RESPRAY AFTER THEY'VE BACKED OFF A BIT, RETIGHTEN AND LOOSEN TO WORK THE PENETRATING SPRAY INTO THE THREADS.

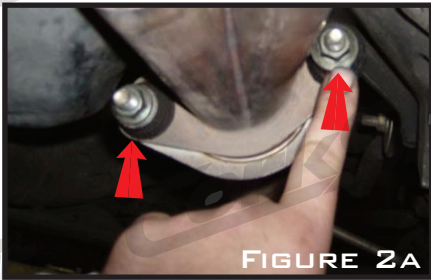


FIGURE 2A

B) APPLY PENETRATING SPRAY AND USE AN O2 SENSOR SOCKET AND REMOVE FACTORY O2 SENSOR FROM FORWARD SECTION OF EXHAUST. ENSURE THAT SENSOR HARNESS DOES NOT BIND UP WHEN REMOVING. THERE IS ENOUGH LENGTH IN THE WIRING HARNESS TO PREVENT THIS, YOU JUST NEED TO

MAKE SURE THE TWISTING OF THE WIRE OCCURS OVER THE ENTIRE LENGTH OF THE HARNESS. LET THE SENSOR HANG ON THE HARNESS UNTIL IT IS REINSTALLED.



FIGURE 2C

C) APPLY PENETRATING SPRAY AND REMOVE THE TWO 14MM NUTS CONNECTING THE FORWARD AND MIDDLE SECTIONS OF THE EXHAUST SHOWN IN FIGURE 2C.

**HD** D) SPRAY EXHAUST HANGERS ON FORWARD PIPE, SHOWN IN FIGURE 2D, WITH SILICONE SPRAY OR WD-40 AND REMOVE

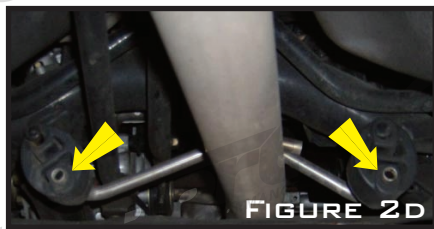


FIGURE 2D

THEM FROM THE EXHAUST SYSTEM. REMOVE FORWARD SECTION OF EXHAUST FROM THE VEHICLE. EXHAUST HANGER BUSHING REMOVAL VIDEO AVAILABLE HERE: <http://bit.ly/8Eb6NZ>

E) APPLY PENETRATING SPRAY AND REMOVE THE TWO 14MM NUTS AND BOLTS SHOWN IN FIGURE 2E HOLDING THE TAILPIPE SECTION TO THE MIDDLE SECTION OF THE EXHAUST AND REMOVE THE MIDDLE SECTION FROM THE VEHICLE.

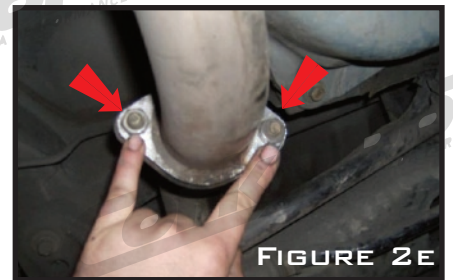


FIGURE 2E

F) SPRAY TAILPIPE AND MUFFLER HANGERS WITH SILICONE SPRAY OR WD-40 AND REMOVE HANGERS FROM EXHAUST SYSTEM.

## 3: CORKSPORT EXHAUST INSTALLATION

A) INSTALL CORKSPORT EXHAUST FRONT SECTION INTO FRONT EXHAUST HANGERS.

B) INSTALL THE TWO SUPPLIED M10 X 1.25 80MM LONG BOLTS WITH TWO OF THE SUPPLIED FLAT WASHERS THROUGH DOWN PIPE THEN FLANGE ON CORKSPORT EXHAUST. INSTALL THE FACTORY SPRINGS REMOVED EARLIER THEN THE TWO 31MM O.D FLAT WASHERS AND TWO OF THE M10 X 1.25 NUTS. TIGHTEN NUTS UNTIL THERE IS ABOUT 1MM GAP BETWEEN SPRING COILS. (STEP B CONTINUED ON PAGE 2)

# INSTALLATION INSTRUCTIONS: CORKSPORT 80MM POWER SERIES EXHAUST MAZDASPEED PROTEGE

## 3: CORKSPORT EXHAUST INSTALLATION (CONTINUED)

B) (CONTINUED) INSTALL THE TWO REMAINING M10 x 1.25 NUTS ONTO THE BOLTS AND USING TWO 17MM WRENCHES, LOCK THE NUTS. SEE FIGURE 3B FOR FASTENER STACKUP.

C) APPLY ANTI-SEIZE TO O2 SENSOR AND INSTALL INTO BUNG ON SIDE OF FORWARD PIPE. TIGHTEN TO ~10 FT LB OF TORQUE. MAKE SURE THE CABLE IS NOT BOUND OR TOUCHING THE EXHAUST OR CV SHAFTS.



D) INSTALL TAILPIPE SECTION ONTO HANGERS AND ALLOW TO HANG IN PLACE AS SHOWN IN FIGURE 3D.

E) INSTALL MIDDLE SECTION OF EXHAUST SYSTEM INTO VEHICLE ALONG WITH SUPPLIED 80MM GASKETS AND HARDWARE. HARDWARE SHOULD BE INSTALLED AS FOLLOWS: M10x1.25 BOLT, FLAT WASHER, FLANGE, GASKET, FLANGE, LOCK NUT, M10x1.25 NUT. DEPENDING ON ALIGNMENT OF FORWARD PIPE HANGERS, YOU MAY NEED TO PULL DOWN ON ONE HANGER IN ORDER TO ALIGN THE FLANGE CONNECTING THE FRONT PIPE TO THE MIDDLE PIPE.

**⚠ WARNING:** DEPENDING ON YOUR ALIGNMENT OF FLANGES AND INSTALLATION, THE TAILPIPE MAY BE CLOSER THAN PREFERRED TO THE REAR BUMPER VALENCE. IT SHOULD BE AT

MINIMUM 1/2" FROM THE BUMPER TO PREVENT DAMAGE TO THE PAINT. THE TWO REAR HANGERS MAY NEED TO BE ADJUSTED TO GET HEIGHT ALIGNMENT CORRECT. VIDEO TIPS ON ADJUSTING EXHAUST HANGERS HERE: <http://bit.ly/7Qvf1z>



TAILPIPE SPACING

F) FINALLY, TO KEEP THE SIDE TO SIDE ADJUSTMENT JUST RIGHT, YOU CAN USE A CABLE TIE (ZIP TIE) OR TWO ON THE HANGER RODS TO KEEP THE BUSHINGS FROM MOVING SIDE TO SIDE RELATIVE TO THE HANGER ROD.

## 4: BUTTON-UP AND LEAK CHECK

ENSURE THAT ALL OF THE GASKETS ARE INSTALLED, FLANGES ARE ALIGNED CORRECTLY (NOT OFFSET OR CLOCKED IMPROPERLY TO THE ADJACENT FLANGE) AND THAT ALL OF THE NUTS ARE TIGHTENED (20-30 FT LB OF TORQUE EXCEPT FOR SPRING LOADED FASTENERS, WHICH SHOULD HAVE A 1MM GAP BETWEEN COILS OF THE SPRING).

**⚠** ADDITIONALLY, CHECK FOR GAPS BETWEEN THE CAR AND THE EXHAUST AND ADJUST HANGERS AS NECESSARY. THIS IS A VERY LARGE EXHAUST FOR A CAR THAT WAS INTENDED ORIGINALLY TO HAVE A MUCH SMALLER SYSTEM ON BOARD. YOU MAY NEED TO USE MOTOR MOUNT INSERTS AND URETHANE EXHAUST HANGERS IN ORDER TO KEEP IT FROM HITTING UNDER HARD CORNERING OR RAPID CHANGES BETWEEN ACCELERATION AND DECELERATION.

SAFELY REMOVE THE CAR FROM THE JACKSTANDS AND START IT UP. LISTEN FOR EXHAUST LEAKS. IF LEAKS ARE PRESENT, PUT THE CAR BACK ONTO THE JACKSTANDS PER THE MANUFACTURERS RECOMMENDATIONS AND LOOK FOR SOOT MARKS TO SEE WHERE THE LEAKS ARE PRESENT. ADJUST GASKETS AND FLANGE TORQUE AS NECESSARY - GENERALLY OVERTIGHTENING THE FLANGES IS ONLY GOING TO WARP THE FLANGE, NOT FIX THE LEAK. AND REMEMBER, IF YOU DO RUN INTO AN ISSUE WHICH YOU CAN'T RESOLVE, GIVE US A RING AT THE NUMBER BELOW AND WE'LL HELP YOU OUT.