Installation Procedures

ECS Stage 3 Brake Kit
Installation Instructions

This tutorial is provided as a courtesy by ECS Tuning.

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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ECS Stage 3
Brake Kit Installation Guide

SAFETY FIRST

As always, when performing any work on your vehicle it is important that you make safety your main concern. If using a jack, properly support the vehicle with jack stands on each side. Never work under a vehicle supported only by a jack. Before you undertake this installation, it is important that you read the following instructions! Listed below are the necessary tools to complete the job. If the installation of this product seems overwhelming, please contact a qualified installer in your area.

Recommended Tools:

- Flathead screwdriver
- 21mm socket
- 17mm socket
- 11mm line wrench or equivalent
- 14mm 12 point socket
- Ratchet
- 8mm allen socket
- Impact
- T30 Torx
- Torque wrench
- Jack
- Jack stands

Please also note that:

If your car has steel spindles (as opposed to aluminum found on newer models) you will need to grind a small “nub” on the lower part of the spindle. Approx 1mm will be removed and has no impact on spindle strength.

Remove the stock brake components, cut/remove splash guard, clean hub.

After safely lifting the vehicle to a suitable working height and removing the front wheels start removing the stock brake components. Begin with the calipers and brake lines and then the carrier and rotor. It is a good idea to thoroughly clean and prepare the rotor hub to avoid any debris from causing a misalignment of the new brake components.

To install the larger rotor we first recommend removing the T30 screws and the splash guard itself. Some customers have been able to keep their stock splash guard with some minor trimming, however if you choose to go this route we recommend that you be careful as the clearance tolerances are close.

ECS Stage 3
Brake Kit Installation Guide

Install Caliper Bracket

Install the ECS Tuning caliper bracket with the original carrier bolts that you removed earlier and torque to 92ft-lb (125Nm). The bracket should sit flush against the inside of the OEM carrier spindle mount.

Install Rotor

Install the rotor onto the hub. Hold the rotor in place using a lug bolt and spacer (large nut). Note the correct directional rotation of the rotor. The slots/ holes should sweep backwards at the 12 o'clock position.

Install Caliper

You must first load the brake pads into the calipers before installing them. Install the caliper over the rotor. Using two of the supplied 12x1.5mm nuts and a 14mm 12 point socket, secure the caliper to the bracket. Torque to 62-ftlb(85Nm). Install the anti rattle clip by setting it in place and sliding the bolts from the front side, through the spacer sleeve and tightening them into the back of the caliper.

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ECS Stage 3
Brake Kit Installation Guide

Route stainless line:

Attach the new stainless line to the hard line at the inside of the wheel well. Loop the line as shown creating an S shape towards the caliper. Zip-tie the brake line to the spindle to prevent it from rubbing against the wheel. Turn the steering wheel lock-to-lock and check for any binding or pinching of the brake line. Install a copper seal washer on each side of the banjo fitting and secure the line to the caliper with the supplied banjo bolt.

Brake Pad Sensor Options:

You have 4 options for installing pad sensors. All solutions:

OPTION 1
Mintex Red Box pads are the only pads sold by ECS equipped with holes necessary to install the pad sensors. If you happen to be using Red Box pads then you will only need to cut the pad sensor wire from your old stock pad, splice it onto the included pad sensor harness and plug it into your stock harness.

OPTION 2
Most other pads can be easily modified to support the pad sensors. Simply drill a hole in the top of the pad (centered on the notch in the backing plate for the sensor). The following will disable the pad sensor. Realistically you are probably an automotive enthusiast and do not need an indicator light on the dashboard warning you of low pad thickness. Most drivers visually check their brakes monthly and after hard track events.

OPTION 3
Simply cut the connector from the stock pad, short the two wires together and plug it into the vehicles harness. The instrument cluster looks for an open circuit as indication that the pads are worn to their limit. Connecting the two wires will close the circuit and keep your pad sensor light off.

OPTION 4
Get a VAG-COM or similar tool and recode the instrument cluster to ignore the pad sensor circuit. You will need to reference your vehicles service manual for the proper coding.

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ECS Stage 3
Brake Kit Installation Guide

Check Your Work!

With the rotor, caliper bracket, and caliper installed, rotate the rotor slowly. Check for clearance problems. It is normal for there to be some noise from the pads contacting the rotor; however nothing else should make contact with the rotor surface. Go back and check the torque of all your bolts. Install your wheels and properly torque all lug bolts to 89ft-lb (120Nm). Note that proper lug torque is essential to assure that the hat does not warp under heavy use. Low cost torque wrenches can be found at most local parts and tool retailers.

Bleed the brakes starting with:

1) Passenger Side:
- Inner Bleeder Screw
- Outer Bleeder Screw

2) Driver Side:
- Inner Bleeder Screw
- Outer Bleeder Screw

3) Repeat!

You may need to repeat this process a few times. New calipers, lines and having had the brake system open for a period of time during the install will mean there is a good amount of air to remove from the system.

Important - follow the bed in procedure for new pads or rotors.

NOW GO HAVE SOME FUN!

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