This WizAired Cold Air Intake (CAI) System is uniquely designed to fit GM 3800 Series II engines which have an LS1/Northstar throttle body and LS1/LS6 MAF sensor retrofitted induction. The system also has provisions for mounting the Powertrain Control Module (PCM) within the air box. This CAI system is designed to provide easy installation with minimal time, tools and headaches.

1. Tools Needed:
   1.1. Flat Blade Screwdriver
   1.2. 8 & 13 mm wrenches
   1.3. 5/16” Socket and ratchet or Nut Driver
   1.4. Pliers
   1.5. General purpose grease (opt.)
   1.6. Utility Knife (opt.)
   1.7. Hacksaw Blade (opt.)

2. Air Box Removal
   2.1. Remove the front brace from the strut tower and front frame.
   2.2. Remove existing air box or induction system.
   2.3. If PCM is held in a tray or strapped down, dismount it so the PCM is free to be moved around while connected to its wiring harness. Place the PCM aside by the cooling fan until later.
   2.4. Some earlier model W-Body vehicles have their coolant recovery bottle mounted in the left fender. Installing the WizAired CAI System requires this coolant bottle be removed and eliminated from this location. In these cases, a later model coolant recovery bottle must be purchased and mounted on the passenger strut tower. Refer to the Tech Info > Coolant Bottle on our website (www.easyperformance.com) for further information.

3. CAI Installation
   3.1. Begin the installation by clipping the two U-Clip nuts through the two square access holes and towards the round mounting holes in the fender frame. See Figure 3.1 to properly identify which locations the U-Clip nuts are to be installed. If unused U-Clips are already in these locations, replace them with those clips included. If the outer forward clip position is in use, use the alternate location shown in Figure 3.1
   3.2. Check that the upper radiator hose clamp is in a position that doesn’t interfere with the air box installation. If it is protruding towards the fender, then you will need to rotate it out of the way. The CAI Box will come nearly flush with the upper radiator hose’s side.
   3.3. Position the PCM Tray on the fender frame as shown in Figure 3.3. Using two ¼-20 x 1” pan head screws with washers, secure the PCM Tray to the fender frame. Do not over tighten the screws and over compress the grommets. The screws only need to be snug. Tip: You may need to push and hold the tray towards the fender’s corner and compress the weatherstripping in order for the PCM Tray grommet holes to line up with the U-Clips.

   Figure 3.1
   Figure 3.3

3.4. Check Hood Release Cable location. Some earlier Grand Prixs have their hood release cable routed in the headlamp opening. If this is the case, the cable will need to be rerouted through the small hole located next to the radiator. Doing this will permit easier air box installation.
3.5. The next task is installing the aluminum air box. While this may be tricky, if you follow the installation procedure, it will slip in with little difficulty. Proceed as follows.

3.5.1. While holding the PCM up and towards the fender, position the air box with the forward corner tucked under the radiator wall by the upper radiator hose and the remaining box held up and towards the engine as shown in Figure 3.5.1.

3.5.2. Pull the PCM wire harness upwards through the weatherstrip slot in the air box. Hint: Applying a thin film of grease on the sealing surfaces of the weatherstripping will allow the PCM wire harness to slip into the sealing slot much easier than if the rubber seals are dry.

3.5.3. With the PCM harness in the sealing slot, rotate the air box into final position by pushing down & towards the fender on the back end of the air box while rotating about where the front is mating with the radiator wall.

3.5.4. Jog air box around so the 5 holes in the air box's bottom lip align with the screw studs in the PCM tray and drops into place.

3.6. Fasten the aluminum air box to the PCM tray.

3.6.1. Using a 5/16” socket and ratchet (or preferably a 5/16” nut driver) begin to screw the air box to the PCM tray the 5 of the #6 nuts. Tip: Only start each nut in succession. Do not finish tighten any of the nuts until they are all started. You may find it easier to access and secure the front end of the box with the left headlight assembly removed.

3.6.2. Start in the center corner and work your way out to each end with starting all of the retaining nuts.

3.6.3. Once all the screws are started, tighten each of them down snuggly. DO NOT over tighten them.

3.7. Lay the PCM tray insulation in place by slipping it over the PCM strap hooks. The PCM will be cushioned with this layer of material.

3.8. Attach the PCM strap onto the rear hook by slipping the loop end of the strap over the hook. Then, secure the loop end by sliding the retaining collar up to the hook.

3.9. Position the PCM in between the PCM mounting hooks. Stretch the PCM strap over the PCM and hook onto the front tray hook as shown in Figure 3.9. NOTE: Some vehicle years (~1998) have the PCM wired with the wire harness coming off the right side of the PCM instead of the left. If you have this situation, you will need to lay the PCM upside down. This will not cause any problems. Just lay down the tray insulation sheet and strap the PCM in position as described.

3.10. Install intake duct.

3.10.1. Pre-tighten one of the hose clamps so it slides loosely over the shorter length intake duct.

3.10.2. Slide the shorter length intake duct section onto the throttle body. Slide the hose clamp over the joint and tighten down to secure the intake duct. IMPORTANT: Be sure the end of the intake duct's stiffening wire within the duct material lamination is UNDER the hose clamp. The hose clamp must ensure the wire does not work its way through the duct material or come loose.

3.10.3. Install the rubber adapter over the outlet side of the Mass Air Flow (MAF) Sensor (smaller diameter end).

3.10.4. Pre-bend this small duct section towards the air box duct opening. This will cause the duct to corrugate on the inside radius of the bend. With the duct bent in this position, push out any corrugations on the inside of the bend so they are...
protruding outward so as to not disrupt air flow. You can easily reach your hand inside the duct and push the creases out with your finger.

3.10.5. With this intake duct section held in this position, slide on another hose clamp and insert the outlet side of the MAF Sensor into the duct. The MAF Sensor has a flow direction indicator molded on the outside surface. Be certain the MAF direction is correct.

3.10.6. Rotate the MAF connector so it is pointing directly rearward, at the engine bay’s firewall, similar to what is shown in Figure 3.10.6. Tighten the MAF in this position with the hose clamp. IMPORTANT: Be sure the end of the intake duct’s stiffening wire within the duct material lamination is UNDER the hose clamp.

3.10.7. Insert the bare end of the longer intake duct assembly through the air box opening and slip the larger hose clamp over the duct end.

3.10.8. Position the longer intake duct over the MAF Sensor’s inlet mounting flange. With the intake duct in proper alignment with the MAF inlet flange, tighten in position with the hose clamp to secure the intake duct. IMPORTANT: Be sure the end of the intake duct’s stiffening wire within the duct material lamination is UNDER the hose clamp.

3.11. If an IAT Sensor needs to be installed, cut an access hole through the air box insulation surrounding the IAT Grommet located in the air box just forward of the intake duct. Once a hole is cut in the air box insulation, insert the IAT sensor into the IAT Grommet. CAUTION: Do NOT force the IAT Sensor into the grommet and dislodge the grommet. Lightly lubricate the inside surface of the grommet with some grease to ease inserting IAT Sensor. Wiggling the sensor back and forth while pushing it in will allow it to walk into the grommet without dislocating the grommet.

3.12. Install the air filter purchased over the protruding end of the intake duct. NOTE: The outside diameter of the intake duct’s aluminum coupler is 4 inches. The filter element purchased should accommodate this size air duct. Secure into position with the clamp that should come with the filter element.

Note: If there is insufficient room between the protruding end of the intake duct and the fender wall, then the longer intake duct section must be cut to the appropriate length. Due to the use of throttle body spacers and varying engine location, the intake duct was purposely cut to accommodate the longest duct situations. The duct must be removed from the MAF sensor and that end cut. The duct can be cut down using a utility knife to slice the material. The spring wire must be scored with a hacksaw blade and then snapped with pliers when the wire is bent at the scoring.

3.13. Place the cover on the air box and fasten down with the two straps stretched over the ears on the cover.

3.14. Replace the front brace and tighten down as it was before.

3.15. Insert the connector anchor in the front brace.

3.16. Installation is complete.
4. WizAired CAI Logo Instructions

Easy Performance is branding the WizAired Logo on the air box lid. This logo is laser engraved using state of the art laser equipment. The cover tape found on the lid is intentionally left in place to provide the customer with additional customizing options. We suggest one of the following customizing options to provide for a unique look for the WizAired CAI system.

4.1. Customizing Options:

4.1.1. Clear Etched Look – Remove the cover tape to reveal a clear etched logo.

4.1.2. Custom Single Color – Mask off the remaining portion of the lid, select a customizing color spray paint, lightly color coat the logo and then remove the cover tape to reveal the single colorized logo.

4.1.3. Custom Multi Color – Mask off the remaining portion of the lid. Select desired custom color combination spray paints. Mask off each portion of the logo separately for each color to be used. Lightly color coat each logo section independently while the remaining sections remain covered. Once all colors have been applied, remove the cover tape to reveal the multicolored logo.

4.1.4. Create your own method and customizing scheme for the logo.

Final Check: If your CAI box is not fitting as expected, there are a couple of things you can do. If the CAI box is not tall enough to have the lid or other CAI box seals contacting the fender/radiator wall framing, then you can then loosen the PCM tray bolts and shim the tray up with a suitable material (foam urethane, Styrofoam, wood, rubber, etc.) in those areas needed to be raised. To alter the box location slightly by loosening up the PCM tray bolts and move the CAI box in the desired direction. If you are unable to relocate the CAI box enough to eliminate any gaps in the lid or CAI sides, you can remove the lid and bend the entire CAI box into the direction needed. Be careful not to alter the box angles that must match the lid. Since the CAI box is made of aluminum alloy, it can be shifted around to tailor the fit to the shape/location of your engine compartment.

Another option available to you is to pull the weatherstripping seals from their panels as much as 1/4". This will extend their reach and will not cause any problems. The seals grip onto the panels by 1/2" and do not need that much engagement to function properly.

If you have any question, concerns or comments on the Cold Air Induction System Kit and/or the installation instructions, please visit Easy Performance Products website at www.easyperformance.com and browse to the Cold Air Induction System product web page. Please browse the FAQs (Frequently Asked Questions) section in the Cold Air Induction System. There may be questions you have that are already answered. Otherwise, you can always contact us at support@easyperformance.com.