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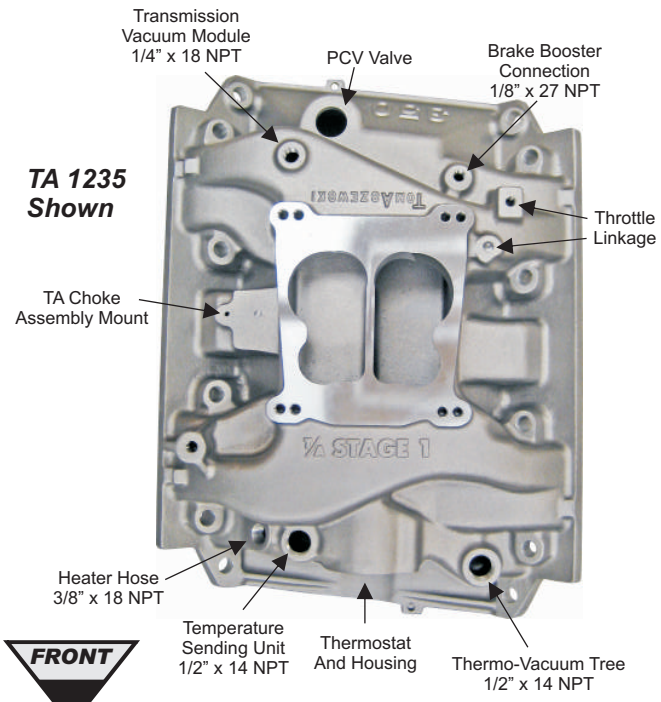
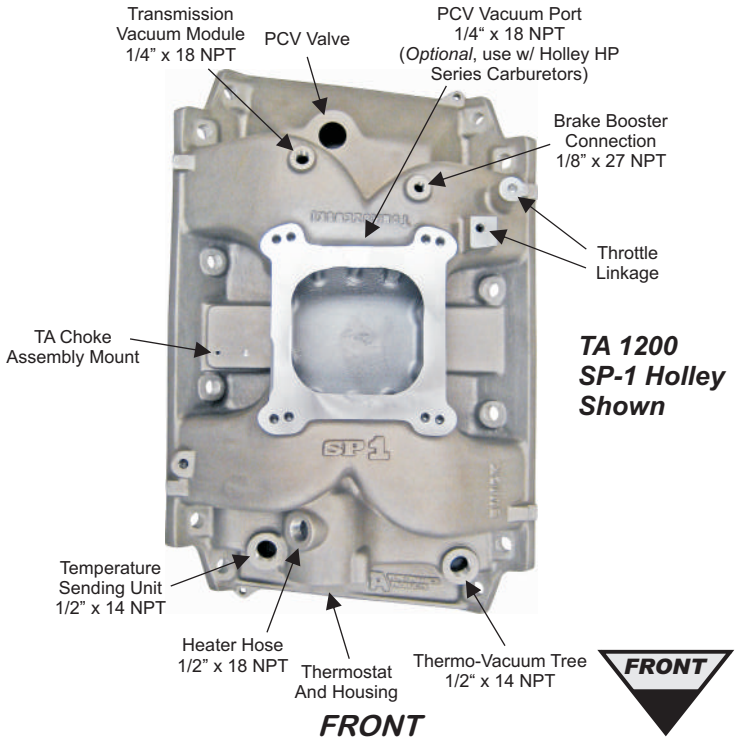
350 Stage 1



400-430-455 SP Series Intakes



Accessories List

Available From TA Performance

- TA 1535 Thermostat Housing
- TA 1535A 160 Degree Thermostat
- TA 1535B 455 Coolant By-Pass Hose
- TA 1535B350 350 Coolant By-Pass Hose
- TA 1535C 350 Heater Hose Connection
- TA 1241 Choke and Cover Assy (Q-Jet applications)
- TA 1240 PCV Grommet
- TA 1240A PCV Valve
- TA 1240B Trim to fit PCV hose for use with SP Series Intakes and HP Carbs
- TA 1246 Gasket Support Plate (Q-Jet Intake to Square Bore Carburetor)
- TA 1111-Series Intake Manifold Bolts (specify 350,455 or 400/430)
- TA 1735, 1736 or TA 1737 Stock Type Intake Gasket
- TA 1710 or TA 1711 Two Piece Composite Intake Gaskets
- TA Rubber End Seals (Sold Separate with TA 1710, 1711, 1712)

Available at Local Parts Stores:

- Thermo-Vacuum Tree
- Temperature Sending Unit
- Vacuum Port Connections Or Plugs

NOTES:

Bolt Torque:
50 ft/lbs w/ Iron Heads
40 ft/lbs w/ Aluminum heads

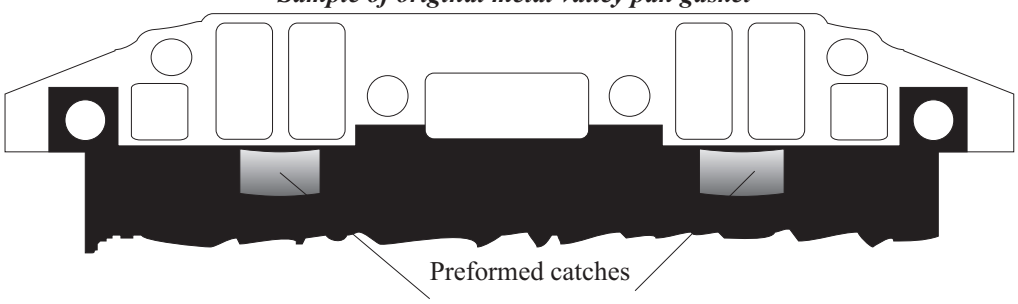
Use TA 1246 Gasket Support Plate when installing a Square Bore Carburetor on a Q-Jet Style Intake

Dominator Style Intakes will require some cleanup in the plenum area

Some applications will require a 1/4" to 1/8" pipe reducer for the Transmission Module connection

When using two piece composite intake gaskets, it is necessary to retain a portion of the original valley pan gasket so that the PCV system does not draw oil from the engine. A used metal gasket can be used for this purpose, just trim away the portion shown in white, retaining the black portion as shown in the picture below. Then install the valley pan gasket first ensuring that the catches, catch at the base of the head, then put the composite (2 piece) gasket into position allowing it to over lap the valley pan gasket at the areas around the end bolt holes and on the center area. **Note:** Do NOT delete the PCV system, unless other evacuation methods are used, doing so will cause excessive crankcase pressures.

Sample of original metal valley pan gasket



Follow Directions on Backside for Proper Installation →

Intake Manifold Removal

Allow engine to cool.

Tip: *To greatly reduce the amount of coolant that spills into the valley when the intake is removed, perform the following steps: Drain radiator. Then remove the lower radiator hose at radiator and point into a bucket. Remove the temperature sending unit on the intake manifold. Use compressed air or a shop vacuum (hooked up for blowing) and pressurize the coolant system through the sending unit port. A t first a considerable amount of coolant will be ejected out the lower hose. Continue until little to no coolant comes out the hose.*

Remove the intake in reverse order of tightening sequence.

Carefully clean the mating surfaces of all foreign material while protecting the valley area of the block from debris (including old gaskets, RTV oil and coolant). Use the appropriate methods dictated by the manifold and head materials (i.e. cast iron or aluminum). You may wish to use a degreaser for final preparation. Run a bottoming tap down all bolt holes and blow out or vacuum the debris.

Check the intake manifold for flatness of gasket surface. Resurface or replace if distorted or corroded. Check intake manifold bolts for damage such as corrosion, nicks or stretching. Also check bolts for correct length when changing intake manifolds. Replace damaged or incorrect bolts.

Intake Manifold Installation

CAUTION:
Usually, rubber end strips are used to seal the front and rear of the intake to the cylinder block. For best results pre-fit the intake manifold. Temporarily install selected gaskets then set the manifold in place. Measure the gap between the intake manifold and end of cylinder block. Then measure the thickness of the rubber end strips. If the gap is 75% of the seal thickness then (when installing) use the end seals alone. If the gap is less, then use RTV instead of the end strips and if the gap is greater, use the end strips with RTV applied to the top of the strips.

At this time also check the intake to cylinder head alignment, compare the angle of the intake to the angle of the heads. If these angles are similar continue with the selected gasket. If the angles are not the same, determine what gasket thickness or additional machining is required to achieve matching angles. TA Performance offers composite gaskets in different thicknesses in order to adjust the intake alignment. In most cases when deck height and cylinder head thickness are stock or close to stock dimensions the stock type valley pan gasket and end strips should work without additional effort.

After test fitting is complete, install intake manifold with the following recommendations:

TIP: *Install the PCV grommet and valve into the intake manifold prior to installing the intake manifold on the engine.*

TIP: *Because the PCV valve is in the intake manifold on most Buicks, it is necessary to use a baffle under the intake manifold. Original type valley pan gaskets perform this function. Otherwise a modified stock gasket or a custom baffle will be necessary. See diagram below. Not using a baffle will allow the PCV to draw the oil out of the engine. Eliminating the PCV valve will cause excessive crank case pressure.*

<u>Stock valley pan gasket only.</u>
Apply a light coat of RTV around the water ports on the front and rear of each cylinder head. Set gasket into place and then apply a light coat of RTV on the gasket around the front and rear water ports for each head. Install the rubber end seals and apply RTV at each corner where the end seal meets the valley gasket. Install the intake manifold and torque accordingly.

<u>Composite Intake Gaskets with Modified Stock Gasket as a Valley Cover.</u>
We recommend preparing the composite gaskets by coating them with Gasgacinch available from TA Performance. Trim the stock gasket (used or new is ok) per the diagram below. Apply light RTV around the water ports at the front and rear of each cylinder head. Then place the modified valley pan into position. Overlay the composite gaskets and install rubber end seals and/or apply RTV at the front and rear of the block. Then install the intake manifold and torque accordingly.