



# Owner's Manual with Installation Instructions

## **Banks Brake<sup>®</sup> Exhaust Brake System**

**2001-2004 Chevy/GMC 6.6L Duramax  
Turbo-Diesel Pickups**

THIS MANUAL IS FOR USE WITH SYSTEM 55232 AND 55233

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**bankspower.com**



Dear Customer,

Your new Banks Brake is a uniquely designed exhaust brake with electronic controls, designed to achieve the optimum level of braking from your vehicle's engine.

If you have any questions concerning the installation and operation of the Banks Brake, please call our Technical Service Hotline at (888) 839-2700 between 7:00 am and 5:00 pm (PT). If you have any questions relating to shipping or billing, please contact our Customer Service Department at (888) 839-5600.

Thank you.

## General Installation Practices

1. For ease of installation of your Banks Brake, please read this 20-page Owner's Manual before starting any work. Become thoroughly familiar with all components and phases of the installation before beginning any work.
2. Inspect all components supplied for any foreign material that may have entered during shipping and handling.
3. The installation should be performed at a time when the vehicle has been allowed to completely cool. This installation requires the installer to work near surfaces that may remain hot after the vehicle has been run. Failure to allow the vehicle to cool may result in personal injury.

4. Pay particular attention to the routing of wires. Keep them away from exhaust heat, moving parts and sharp edges that may cause damage. Route or tie away from critical areas as required. Keep all wires a minimum of 6" from hot exhaust parts, 8" or more is recommended whenever possible.

**Warning! Never work under any vehicle supported only by a jack of any kind. DO NOT USE concrete blocks or other masonry items that may collapse under the vehicle weight.**

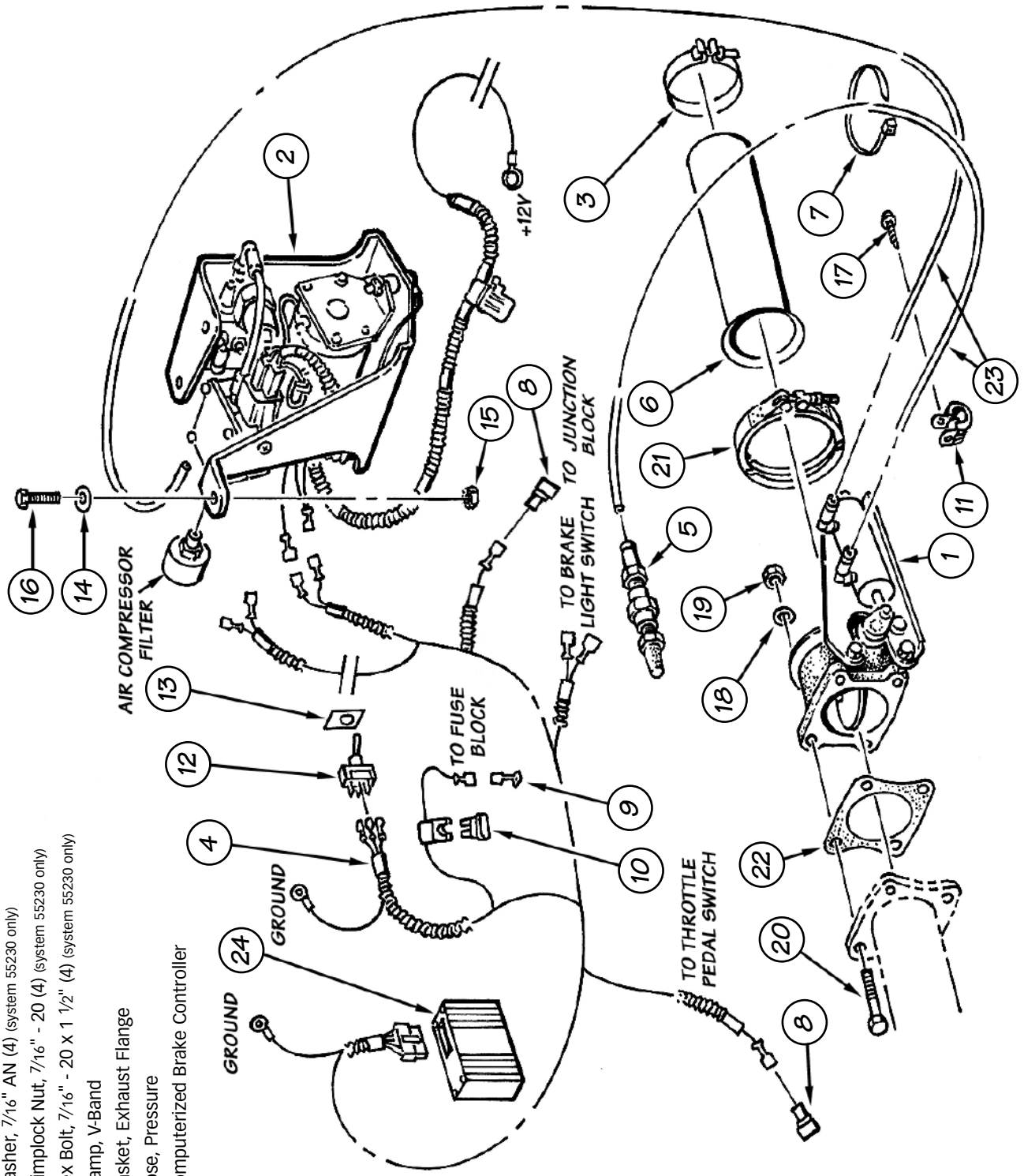
*NOTE: If the vehicle has had the Banks Monster exhaust system P/N 48628, 48629 and 48630 (without a 4-bolt gasket flange) previously installed, it will be necessary to use the optional Banks Flange Adapter Kit (P/N 55246) to install the Banks Brake.*

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# General Assembly Diagram

- 1 Assembly, Brake Housing
- 2 Compressor Panel
- 3 Exhaust Clamp, 4"
- 4 Wire Harness
- 5 Breather assembly
- 6 Adapter, 4" Exhaust
- 7 Cable Ties, 7" (10)
- 8 Connector, Tee-tap, red (2)
- 9 Fuse Clip, .187 Push On
- 10 Fuse, 2 amp
- 11 Cable Clamp, 1/4" x 1/4" (4)
- 12 Switch, Power
- 13 Plate, Power Switch
- 14 Washer, 1/4" SAE (6)
- 15 Keps Nut, 1/4" - 20 (3)
- 16 Hex Bolt, 1/4" - 20 x 3/4 (3)
- 17 Screw, self-threading, Hex Wshr Hd, zinc (4)
- 18 Washer, 7/16" AN (4) (system 55230 only)
- 19 Crimplock Nut, 7/16" - 20 (4) (system 55230 only)
- 20 Hex Bolt, 7/16" - 20 x 1 1/2" (4) (system 55230 only)
- 21 Clamp, V-Band
- 22 Gasket, Exhaust Flange
- 23 Hose, Pressure
- 24 Computerized Brake Controller



# Section 1

## AIR COMPRESSOR PANEL AND WIRE HARNESS INSTALLATION

**1.** As a precaution, disconnect the ground of the battery (if there is more than one battery, disconnect both grounds).

**2.** Locate the rubber grommet located on the driver's side firewall. Using a utility knife, make a 1-inch-long slit in the grommet at the 11 o'clock position. See **Figure 1** for proper location of required cut.

**3.** Remove the lower dash panel from the vehicle by removing the two (2) screws at the bottom corners of the panel (retain for reinstallation). *NOTE: There are also two (2) clips located at the top corners of the panel, which hold the panel in place. These clips can be released by gently pulling on the corners of the panel. Use caution to avoid damaging the panel during removal.*

*NOTE: On vehicles with a center console it may be necessary to remove the console to ease removal of the lower dash panel.*

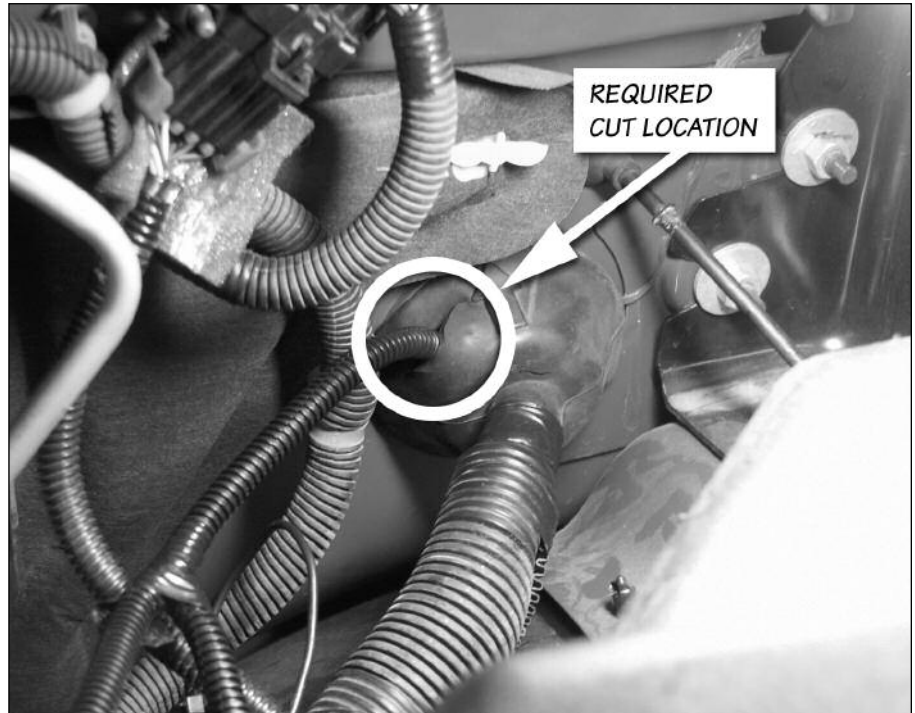
**4.** Locate the large grommet under the dash where the main (large) wire harness penetrates the firewall. Pull the grommet away from the firewall to allow the Banks wire harness to run through the 1-inch slit, cut in **Step 2**.

**5.** Locate the end of the Banks brake wire harness that has a GRAY and a PURPLE wire pair (with inline connector). Push the end of the harness through the hole in the firewall starting from the interior of the vehicle. *NOTE: Taping the end of the harness to a piece of stiff wire (i.e. coat hanger) may make routing the harness through the firewall a simpler task. The stiff wire should be pushed through the slit in the grommet and then the wires can be attached to the stiff wire and pulled through the hole in the firewall.*

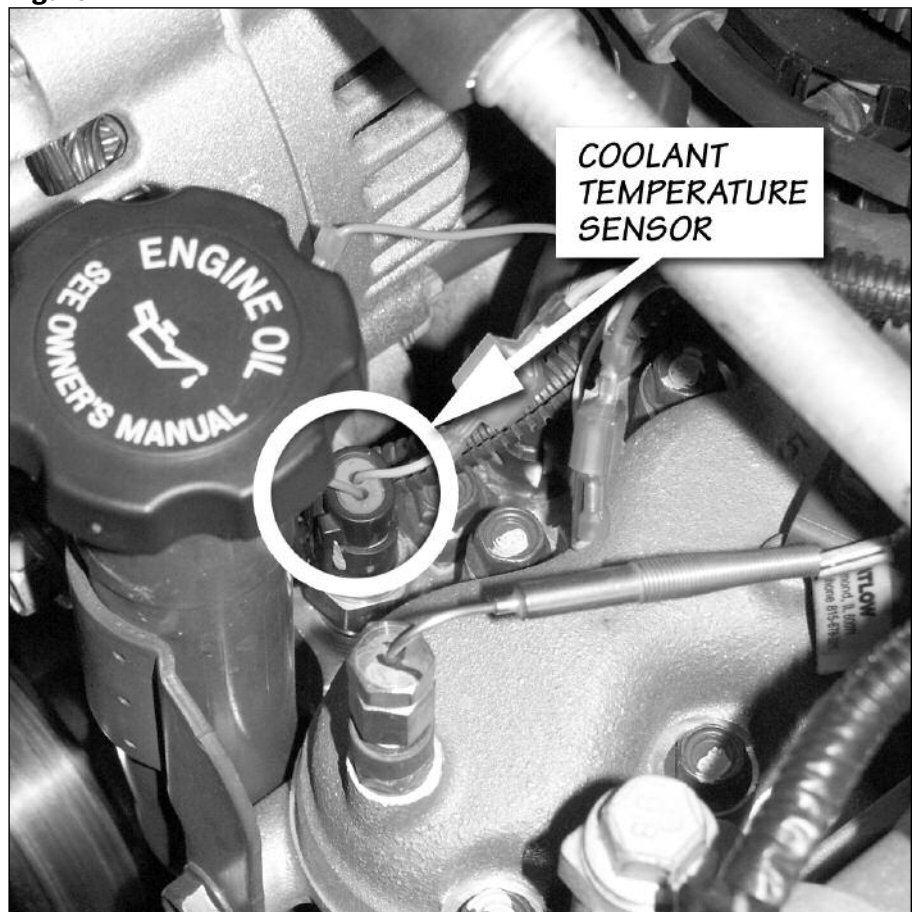
**CAUTION: Pull gently to avoid damage to the wire harness connectors. Always pull on the wire harness convolute sheath rather than the wires themselves.** Continue to pull the harness through the firewall until the branch containing a GREEN and a BLACK wire comes through the firewall.

**6.** Route the PURPLE and GRAY wire pair to the coolant temperature sensor as shown in **Figure 2**. The coolant temperature sensor is located on the front of the engine near the center on the top side.

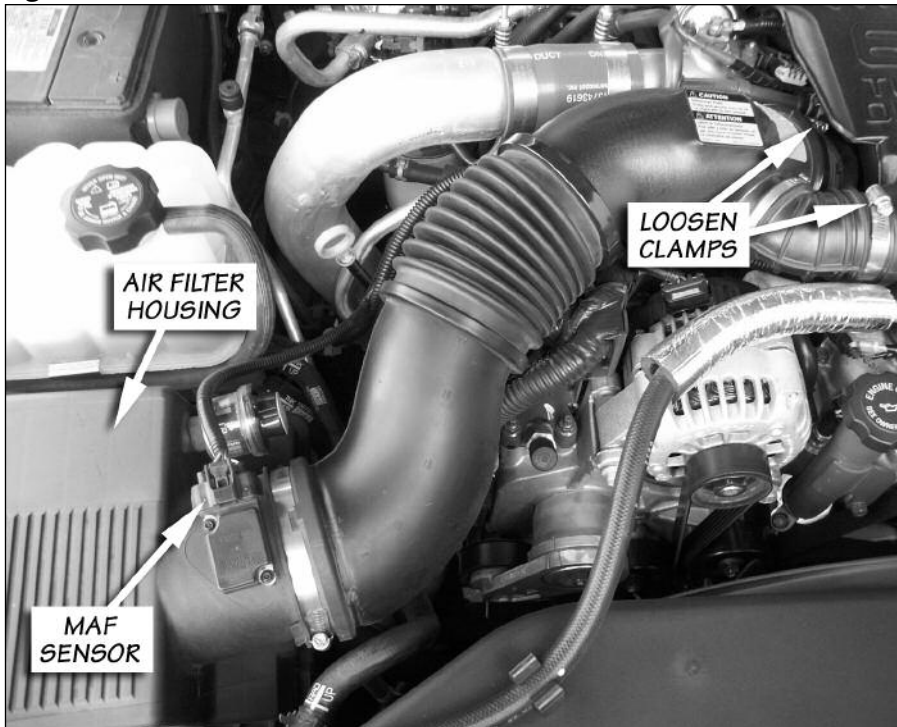
**Figure 1**



**Figure 2**



**Figure 3**



**7.** Unplug the factory wire harness from the engine coolant temperature (ECT) sensor. Plug the sensor end of the Banks wire harness into the ECT sensor. Plug the factory connector into its mate on the Banks Brake harness.

**8.** Inspect the end of the supplied pneumatic hose and ensure that the end of the hose is free from burrs and is cut squarely. The hose can be trimmed with a sharp knife or razor blade. Avoid cutting the hose with scissors or side cutters because it will collapse the hose before it cuts and may cause a pressure leak in the future.

**9.** Screw the air compressor filter into the open port on the air compressor (see general assembly diagram). *Note: Filter should only be hand tightened.*

**10.** Disconnect the mass air flow sensor connector (see **Figure 3**).

**11.** Loosen the clamp that holds the air intake tube to the intake manifold and disconnect the hose from the intake manifold (see **Figure 3**).

**12.** Remove the air filter box from vehicle.

**13.** Remove air box mounting plate from vehicle by removing the five (5) retaining bolts (retain for re-use).

**14.** Remove the "compressor panel mounting template" from the center spread of this manual (**page 14**) and cut along the lines as shown on the template.

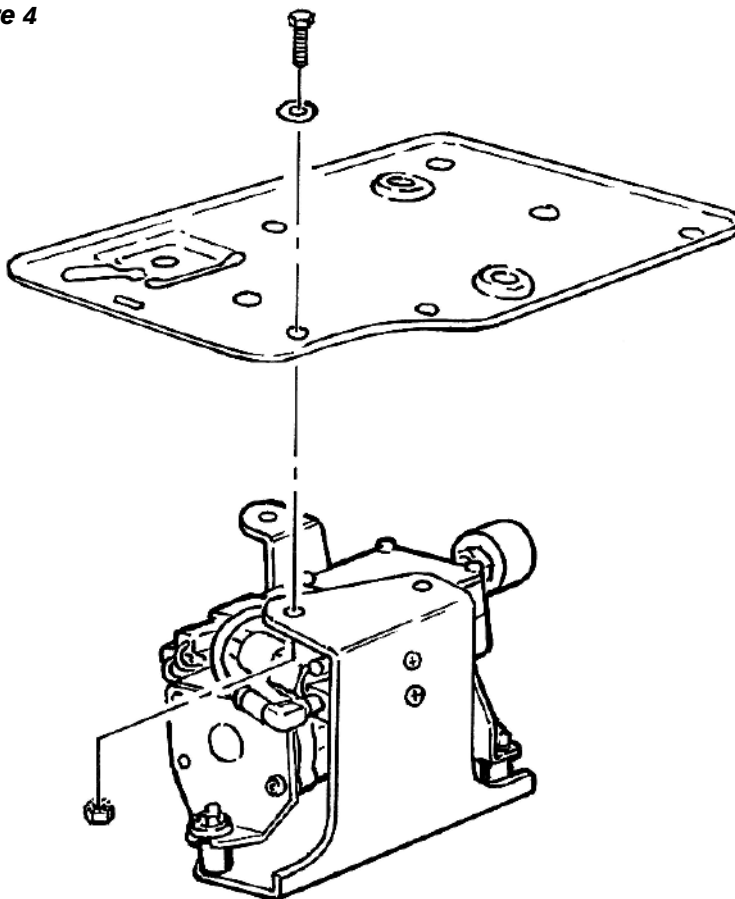
**15.** Attach the template to the air box mounting plate using tape. Center punch the three (3) mounting holes located by the template.

**16.** Using a  $\frac{3}{8}$ " drill bit, drill the three (3) previously center punched locations. Remove template and deburr each hole with a file or deburring tool.

**17.** Mount compressor panel to air box mounting plate using the supplied  $\frac{1}{4}$ "-20 x  $\frac{1}{2}$ " bolts,  $\frac{1}{4}$ "-20 Nylock nuts and  $\frac{1}{4}$ " washers as shown in **Figure 4**.

**18.** Test fit the compressor panel assembly in vehicle. Ensure that the panel has clearance on all sides. If the panel comes in contact with other vehicle components or structure, re-position compressor panel on air box mounting plate until there is clearance on all sides.

**Figure 4**



**19.** Attach the pneumatic hose to the air compressor panel by inserting the hose into the push-lock fitting as shown in **Figure 5**.

**20.** Mount the compressor panel assembly in the vehicle using the five (5) previously removed bolts. Re-install the air filter box. Re-connect the Mass Airflow Sensor.

**21.** Locate the GREEN and BLACK wire pair on the Banks Brake Harness (previously pulled through the firewall). Route the wires across the engine by following the factory wire harness towards the right front of the engine compartment. Plug the BLACK wire into the BLACK wire on the air compressor panel. Plug the GREEN wire into the GREEN wire on the air compressor panel.

**22.** Route the compressor power wire (fuse holder with a ring terminal) to the battery junction block as shown in **Figure 6**. Remove the nut from the bus bar stud and place the ring terminal over the stud. Re-install the nut on the bus bar stud.

**23.** Remove instrument panel by gently pulling around edge of panel.  
*NOTE: To facilitate removing the panel, the auto-matic gearshift lever should be placed in low gear and the tilt steering wheel should be lowered as much as possible.*

**24.** Route the wire harness to the locations shown in **Figure 7**.

**25.** Attach the two (2) ground wires (BLACK wire with ring terminals) to the existing studs (see **Figure 7**) by removing the existing nut and placing the ring terminal over the studs. Re-install the hold down nuts.

**26.** Attach power switch wires (RED, YELLOW, BLACK) to power switch as shown in **Figure 8**.

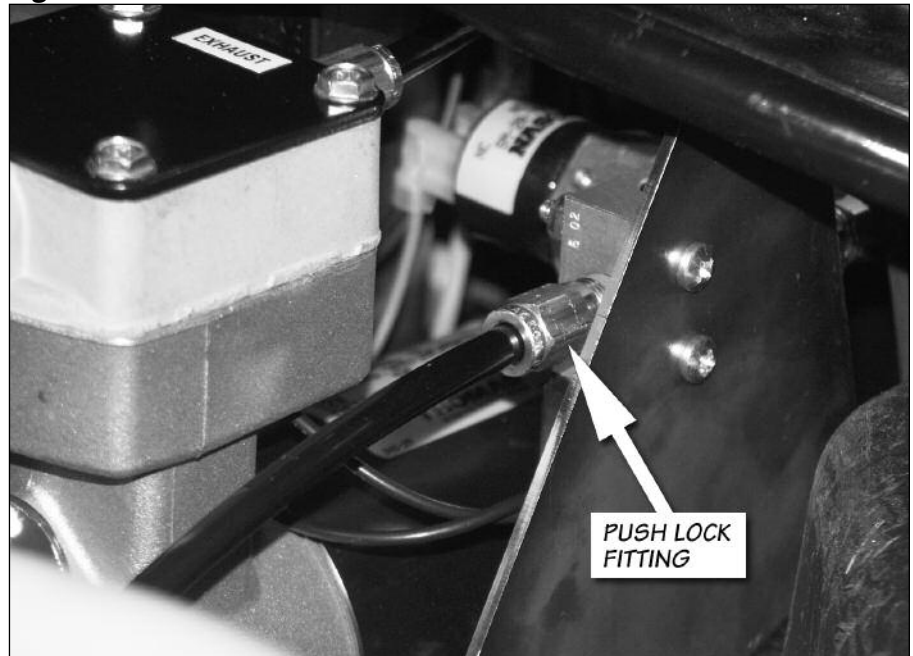
**27.** Install the supplied red T-tap onto the DARK BLUE wire at the throttle pedal switch assembly (See **Figure 9**). Install the BLUE Banks Brake wire onto the T-tap connector.

**28.** Locate the junction block. The junction block is located on the firewall behind the emergency brake pedal, under the instrument panel.

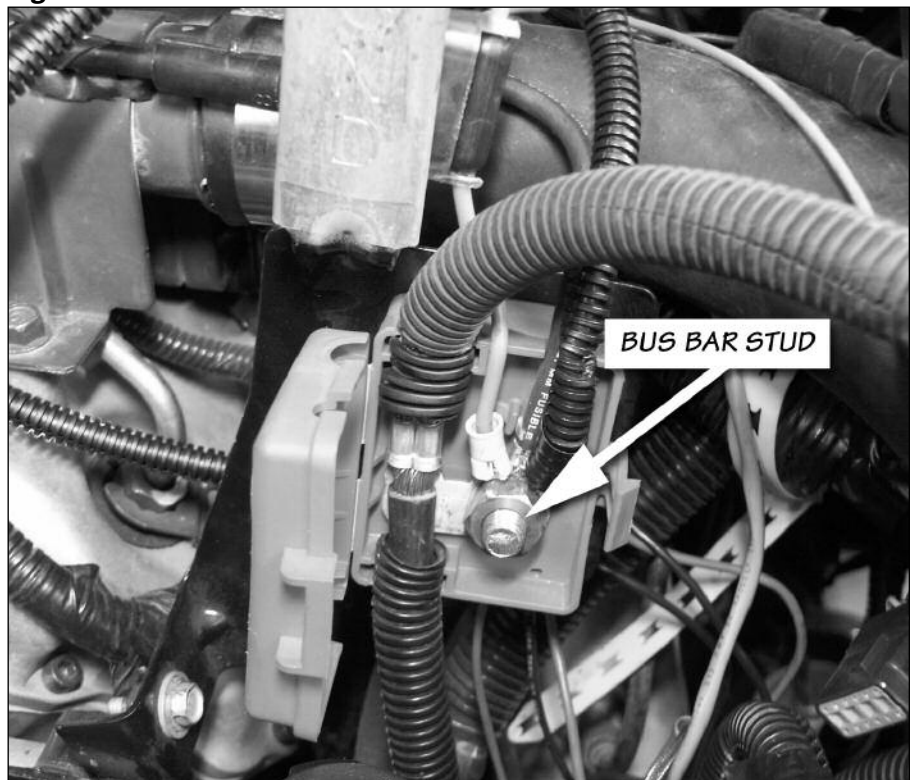
**29.** Remove the black plastic cover from the junction block by removing the center retaining nut.

**30.** Remove the junction block from

**Figure 5**



**Figure 6**



its mount by depressing the lock tabs on the sides of the junction block and pulling the junction from its mount.

**31.** Turn the junction block over to gain access to the wiring on the backside.

**32.** On 2001-2002 models: Locate one of the GREEN wires with the WHITE

stripe (see **Figure 10A**). Pins D5, E5, F5 and F6 are all acceptable locations for the GREEN wire with WHITE stripe.

On 2003 models: Locate the GREEN wire with WHITE stripe in Pin E6 (see **Figure 10B**).

Figure 7

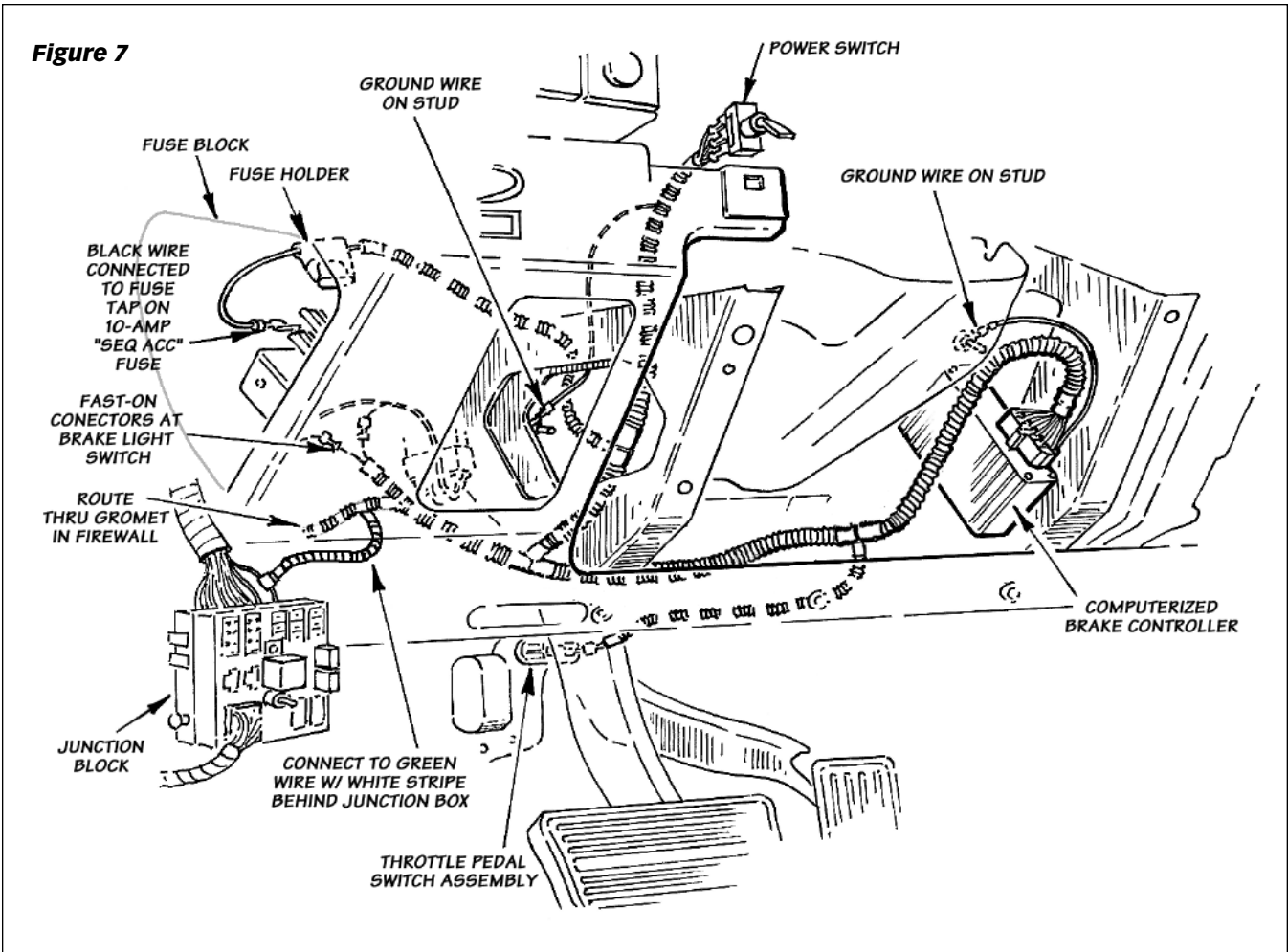
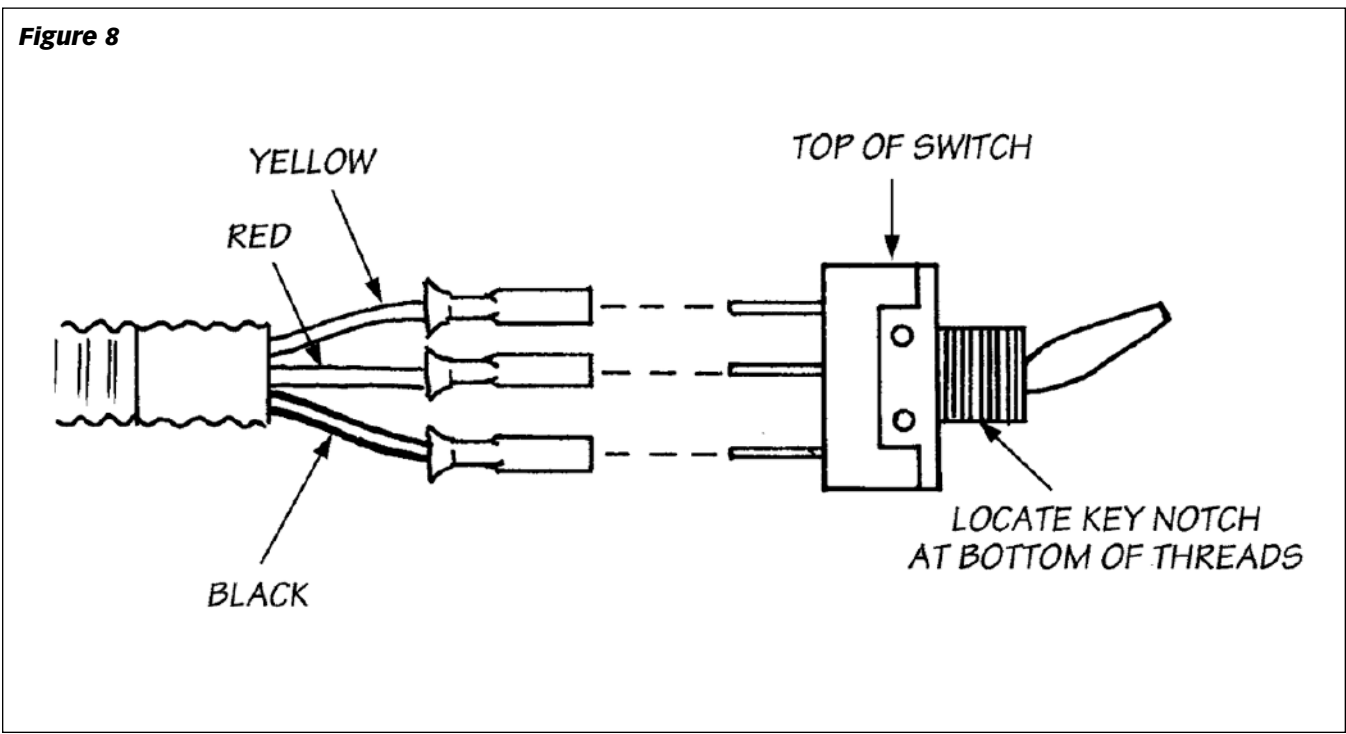


Figure 8



**33.** Install the supplied red T-tap on one of the wires located in the previous step. Plug the ORANGE Banks Brake wire into the T-tap connector.

**34.** Reinstall the junction block in its mount. Reinstall the junction block cover and secure with retaining nut.

**35.** Locate the brake light switch on the top of the brake pedal assembly (see **Figure 7**). Locate the PURPLE wire that goes into the brake pedal switch connector. Cut the PURPLE wire approximately 4" from the brake pedal switch connector.

**36.** Using an appropriate wire stripping tool, strip approximately 1/4" of insulation from each end of the previously cut PURPLE wire.

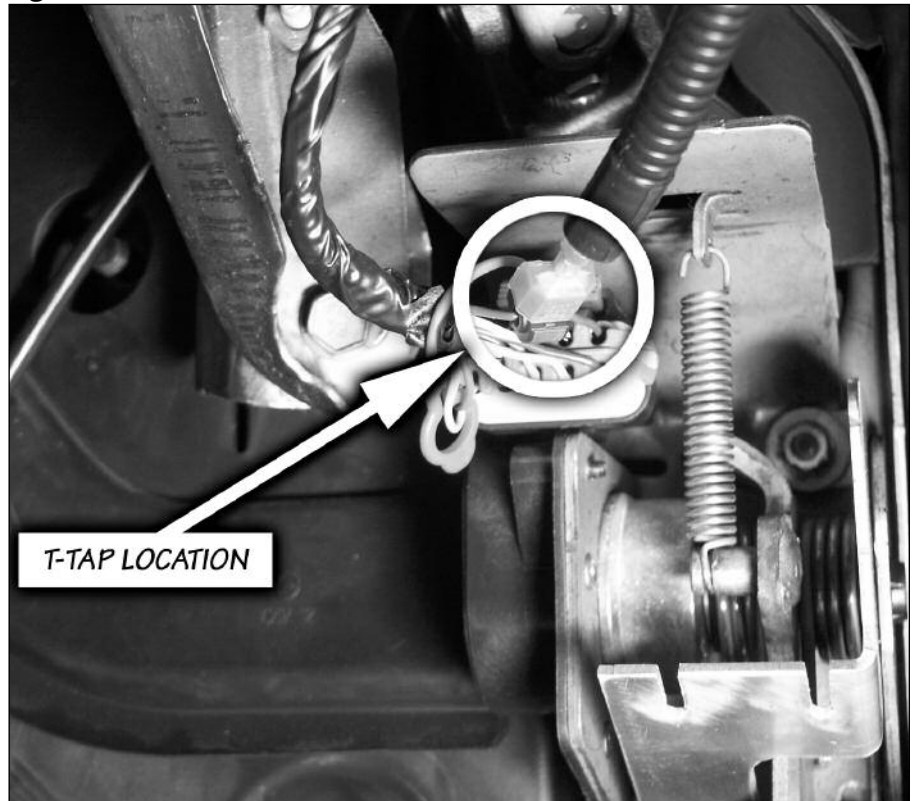
**37.** Using the appropriate crimping tool, crimp one of the supplied pink ultra fast tab (male) Fast-on Connectors to one of the PURPLE wires.

**38.** Using the appropriate crimping tool, crimp one of the supplied pink ultra fast receptacle (female) Fast-on Connectors to the remaining PURPLE wire.

**39.** Connect the BROWN Banks Brake wires to the fast-on connectors that have been previously installed on the PURPLE wires.

**40.** Locate the fuse box cover on the

**Figure 9**

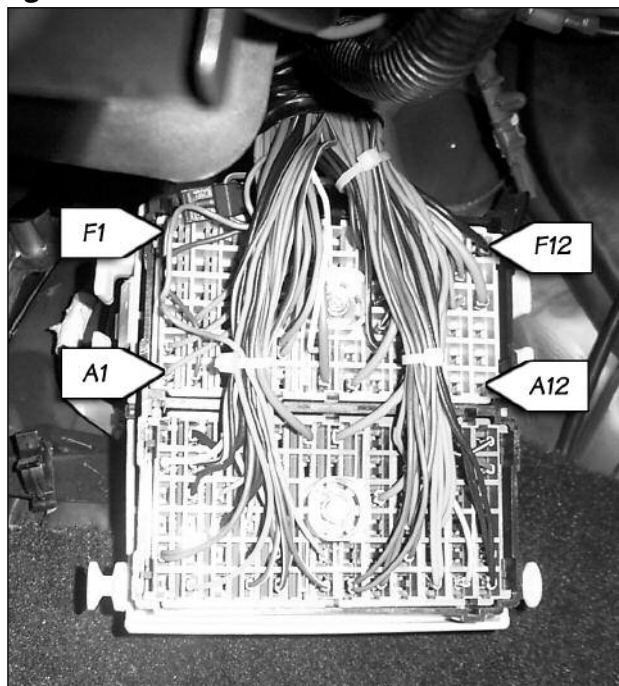


driver's side of the dashboard. Remove the cover exposing the fuse block. Locate the 10 AMP "SEQ ACC" fuse as shown in **Figure 11**. Remove the fuse and install the supplied fuse tap on the fuse body. Re-install the fuse in the fuse block. See **Figure 12**

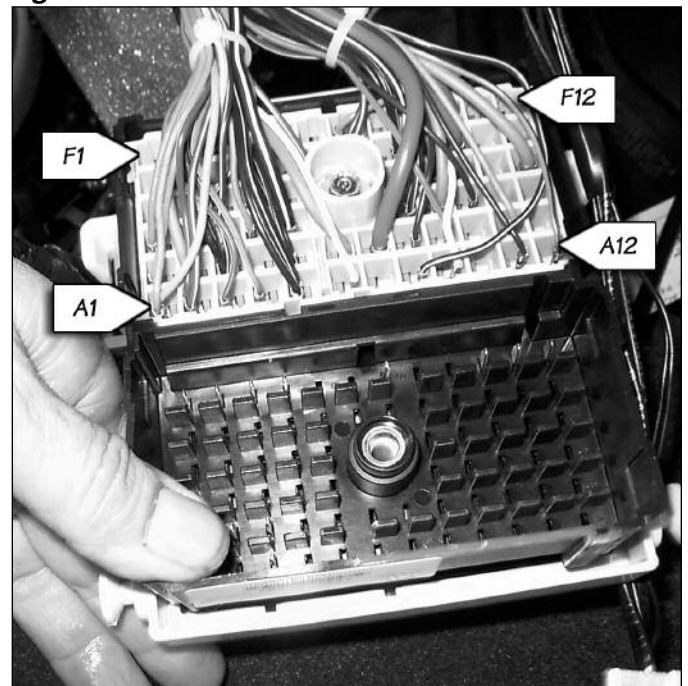
**41.** Route the BLACK (with fuse holder) wire to the fuse block and connect the end of the BLACK wire to the previously installed fuse tap.

**42.** Re-install fuse cover.

**Figure 10A** Junction Block

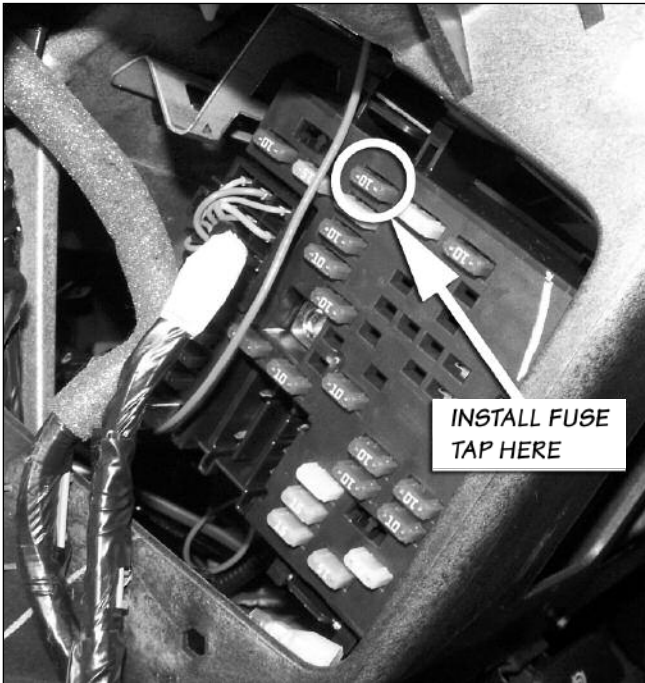


**Figure 10B** Junction Block

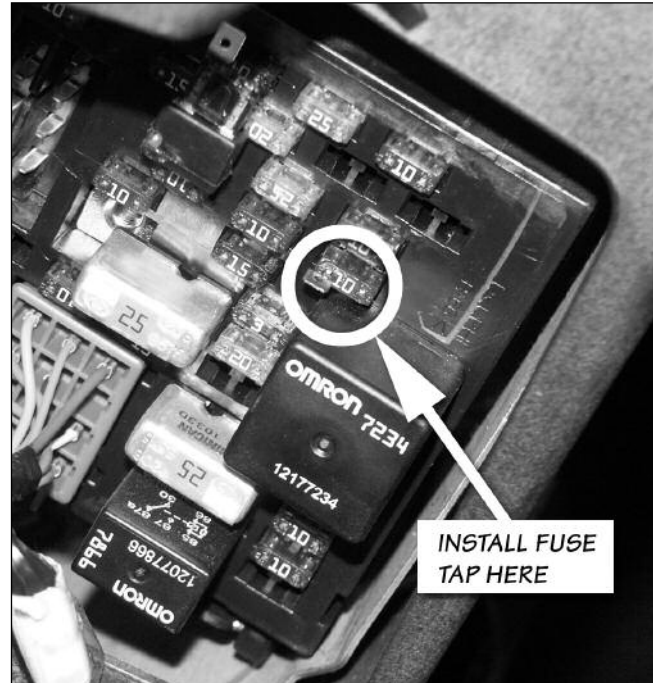




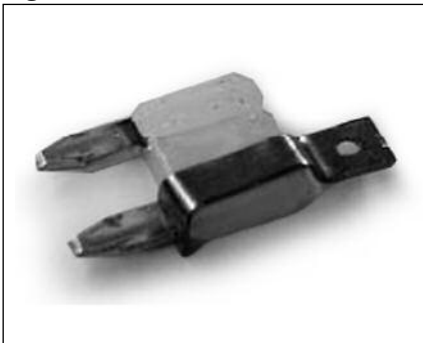
**Figure 11 (2003) Fuse Block**



**Figure 11 (2001-02) Fuse Block**



**Figure 12**



**43.** Route the 14-pin Banks Brake connector as shown in **Figure 7**. Plug the 14-pin connector into the supplied Computerized Brake Controller (CBC).

**44.** Ensure that the surface of the sheet metal structure is clean and free of oil, grease, and dirt. Clean and dry as required using a cloth dampened with rubbing alcohol or similar cleaning solution. **CAUTION: Do not spray fluid directly onto any electrical equipment, or damage to the equipment may result.** Peel the protective backing

off of the adhesive tape on the backside of the CBC. Install the CBC onto the sheet metal structure under the dash as shown in **Figure 13**. Hold the module against the vehicle structure for approximately 1 minute while applying pressure to allow the tape to properly adhere to the surface.

**45.** Locate the "switch template" at the back of this manual (**page 19**). Cut the template out of the manual using scissors. Be sure to follow the outline of the template as closely as possible. Attach the template to the backside of the instrument panel (previously removed) using tape (see **Figure 14**).

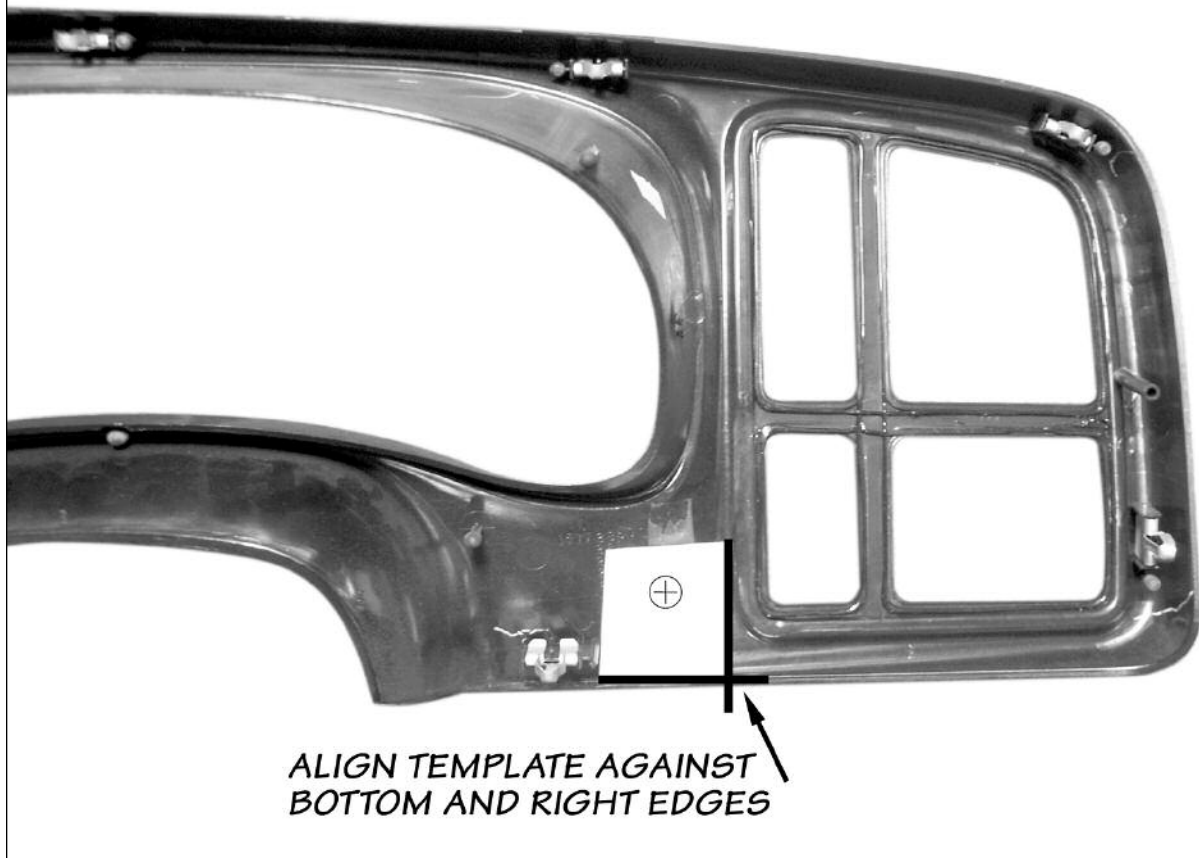
**Figure 13**



**46.** Using a 1/8" drill bit, drill a pilot hole through the center of the cross hairs on the template. Flip the panel over and drill a 1/2" hole at the location of the pilot hole (the use of a "Unibit" drill bit is recommended to help eliminate burrs and to produce a round hole). Remove the template from the backside of the dash panel. **NOTE: It is very important that hole is located per the provided template. The switch may not clear the dash structure if the hole is shifted to another location.**

**47.** Remove the chrome bezel nut from the power switch shaft.

**Figure 14**



**48.** Insert the switch shaft into the hole that was drilled in the dash panel. Install the provided switch plate cover and reinstall the chrome bezel nut.

**49.** Re-install the instrument panel.

-END, SECTION 1-

## Section 2

### BANKS BRAKE INSTALLATION

**50.** Route the pneumatic hose from the compressor panel to the driver side of the vehicle by following the engine wiring harness. Use the supplied corrugated split loom to protect the hose from other engine components.

**51.** Route the provided pneumatic hose down the transmission tunnel on the driver's side of the vehicle. The hose should follow the factory wiring harness.

*NOTE: The fittings used in the pneumatic system are of a quick release type and the hose can be easily removed by pushing in on the release ring of the fitting and pulling the hose out of the fitting.*

**52.** Raise the front of the vehicle and support it with properly weight rated safety stands, ramps or a commercial hoist. Follow the manufacturer's safety precautions. Take care to balance the vehicle to prevent it from slipping or falling. When using ramps, be sure the front wheels are centered squarely on the topsides; place transmission in park; set the parking brake and place blocks behind the rear wheels.

**CAUTION: Do not work under any vehicle supported only by a jack. Severe injury may result.**

**53.** Route the pneumatic hose along the driver's side frame rail towards the torsion bar cross member. Use the supplied cable ties to secure the hose to the electrical harness and/or fuel lines.

**54.** Route the air hose across the rear facing side of the torsion bar cross member.

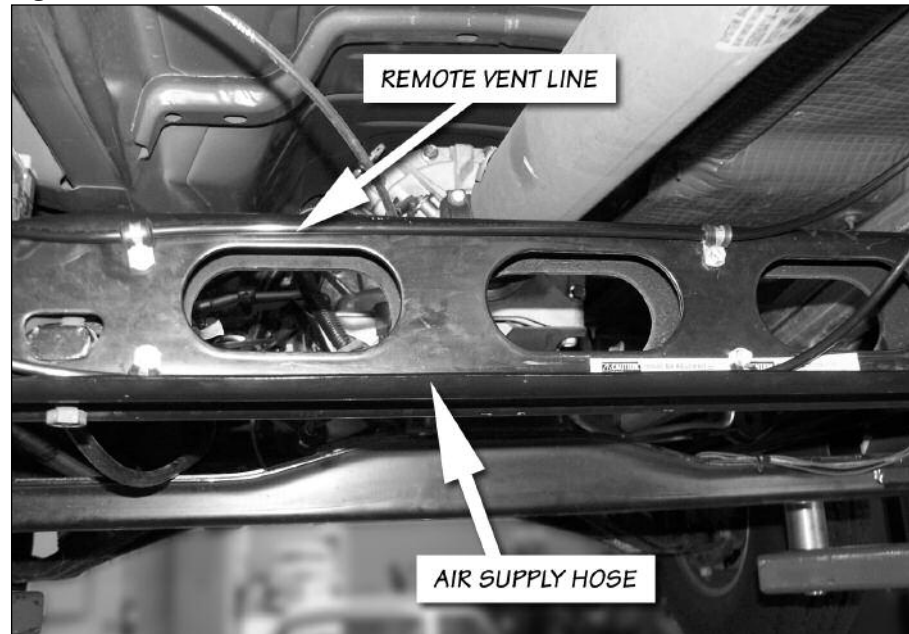
**55.** Using the supplied tubing clamps and self threading 1/4-20 bolts, mount the pneumatic hose to the torsion bar cross member as shown in **Figure 15**.

*NOTE: The self-threading bolts require a 7/32" pilot hole to be drilled for proper thread formation.*

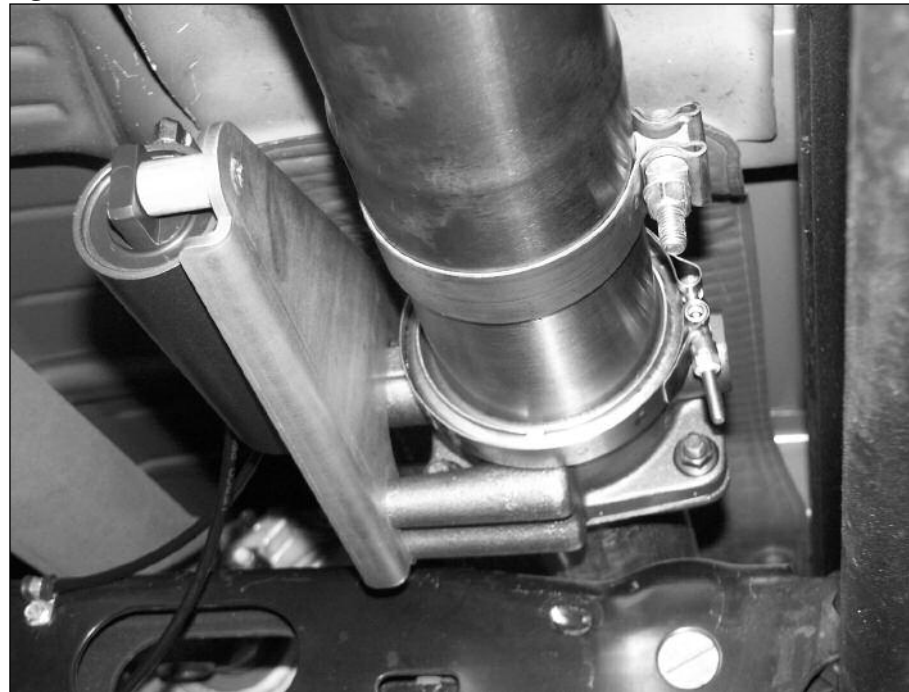
*NOTE: If the Banks Brake is being installed in conjunction with a factory exhaust system skip to **Step 61** of this manual.*

*NOTE: If the vehicle has had the Banks Monster exhaust system P/N 48628-48630 (without a 4-bolt gasket flange) previously installed, it will be necessary to use the optional Banks Flange Adapter Kit (P/N 55246) to install the Banks Brake. Follow the*

**Figure 15**



**Figure 16**



*installation instructions provided with the adapter kit.*

**56.** Remove the intermediate pipe extension pipe from the exhaust system by removing the four (4) bolts from the 4-bolt exhaust flange and loosening the band clamp immediately behind the 4-bolt flange. Discard the old gasket. *NOTE: It may be necessary to heat the end of the intermediate pipe with a torch to allow the extension pipe to be removed from the vehicle.*

**57.** *On vehicles without a catalytic converter:* Install the Banks Brake assembly onto the 4-bolt flange using the supplied 7/16-20 x 1 1/2" bolts, 7/16" Crimplock nuts and washers (see **Figure 6**). Install the supplied exhaust gasket between the Banks Brake and the 4-bolt exhaust flange. Snug the bolts up and adjust the brake housing to align the two flange halves with each other. Evenly torque the flange bolts to 50 ft-lbs. (See **Figure 16**.)

On vehicles with a catalytic converter: Install the Banks Brake assembly onto the 4-bolt flange using the factory studs and previously removed nuts. Install the supplied exhaust gasket between the Banks Brake and the 4-bolt exhaust flange. Snug the nuts up and adjust the brake housing to align the two flange halves with each other. Evenly torque the flange nuts to 50 ft-lbs (see **Figure 16**).

**CAUTION: The following step involves cutting a stainless steel tube. Safety glasses should be worn during any cutting operation, and care should be taken to avoid injury due to sharp edges and burrs.**

**58.** The exhaust brake outlet pipe must be trimmed to the proper length prior to installation. **Figure 17** illustrates the proper trim dimensions depending on the cab/bed configuration of the vehicle. The pipe can be trimmed with a hacksaw and the end of the pipe should be deburred to prevent the possibility of injury due to sharp edges.

**59.** Install the supplied V-band clamp on the outlet of the brake housing. Do not tighten clamp at this time.

**60.** Slide the supplied exhaust band clamp over the inlet to the intermediate pipe. Do not tighten the clamp at this time.

**61.** Slide the outlet of the exhaust brake outlet pipe into the slip joint on the intermediate pipe.

*NOTE: Disengaging the intermediate pipe and tailpipe hangers from their rubber mounts may ease installation of the exhaust brake outlet pipe. Spray lubricant (i.e. WD-40, etc.) and a pry bar will make disengagement of the hangers a much simpler task.*

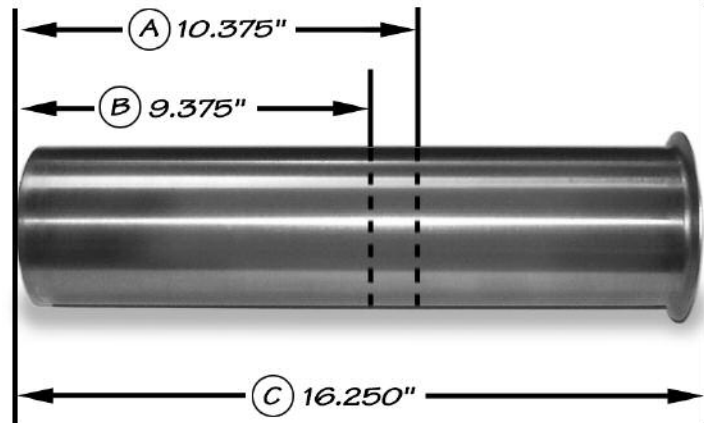
**62.** *NOTE: Steps 61-66 are provided to adapt the Banks Brake to a factory exhaust configuration. If the system is being installed on a vehicle that is already equipped with a Banks Monster Exhaust system, skip to **Step 67**.*

**63.** Mark a line 5" back from the 4-bolt exhaust flange interface as shown in **Figure 18**. Using a hacksaw or similar cutting tool, cut the pipe at the previously marked line.

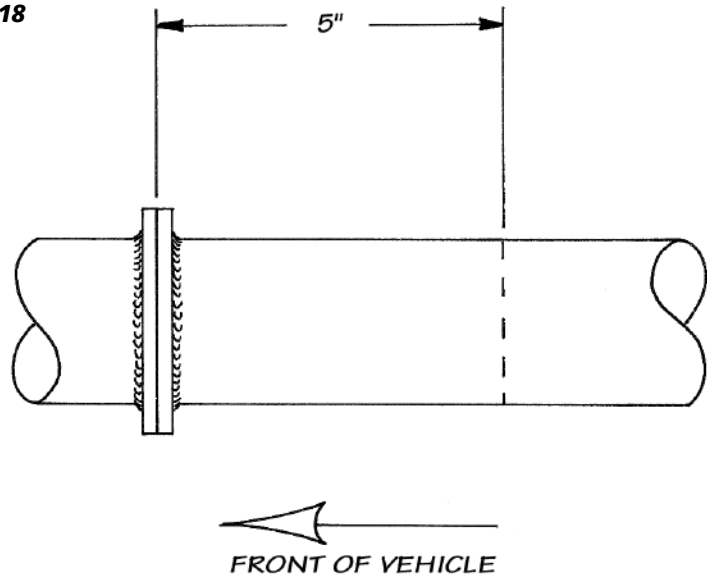
**64.** Remove the four (4) retaining nuts (retain for re-use) from the 4-bolt

**Figure 17**

- (A) STANDARD CAB LONG BED
- (B) EXTENDED CAB LONG BED  
EXTENDED CAB SHORT BED
- (C) CREW CAB LONG BED  
CREW CAB SHORT BED  
(NO CUT REQUIRED)



**Figure 18**



flange and remove rearmost flange and the gasket. Both pieces (gasket and pipe) may be discarded.

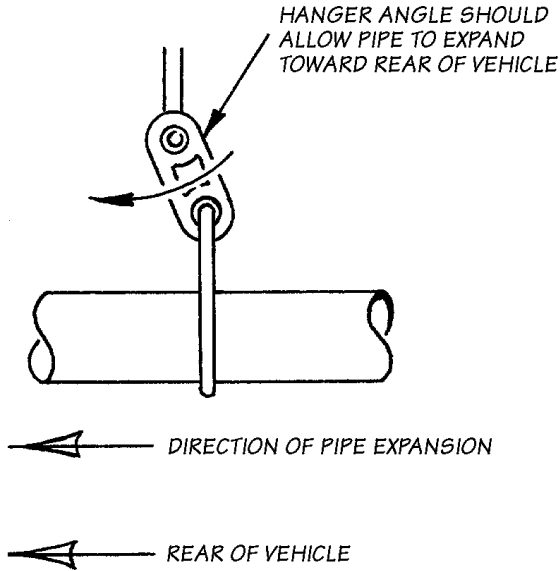
**65.** Place a mark on the inlet to the intermediate pipe that is 3" from the previously cut edge of the pipe.

*NOTE: This mark is used in a subsequent step to ensure proper engagement of the exhaust brake adapter pipe.*

**66.** Install the supplied gasket onto the 4-bolt flange. Install the Banks Brake onto the 4-bolt flange as shown in **Figure 16** using the previously removed bolts, attach the Banks Brake to the flange. Torque the nuts to 30 ft-lbs.

**67.** Slide the supplied exhaust band clamp over the inlet to the

**Figure 19**



intermediate pipe. Do not tighten the clamp at this time.

**68.** Slide the outlet of the provided exhaust brake outlet pipe onto the intermediate pipe.

*NOTE: Disengaging the intermediate pipe and tailpipe hangers from their rubber mounts may ease installation of the exhaust brake outlet pipe. Spray lubricant (i.e. WD-40, etc.) and a pry bar will make disengagement of the hangers a much simpler task.*

**69.** Engage the exhaust brake outlet pipe in the V-band clamp. Snug the clamp and ensure that the pipe is centered on the V-band flange on the brake housing. Torque the V-band clamp to 12 ft-lbs.

**70.** Adjust the engagement of the slip joint until the hangers on the intermediate pipe and tailpipe are positioned slightly forward as shown in **Figure 19**. Position the band clamp as shown in **Figure 20** and torque the clamp to 35 ft-lbs.

*NOTE: On vehicles with factory exhaust, the edge of the exhaust brake outlet pipe should be lined up with the mark made in **Step 63**. However, this joint can be adjusted in or out approximately 1/4" as required to properly adjust the exhaust hangers.*

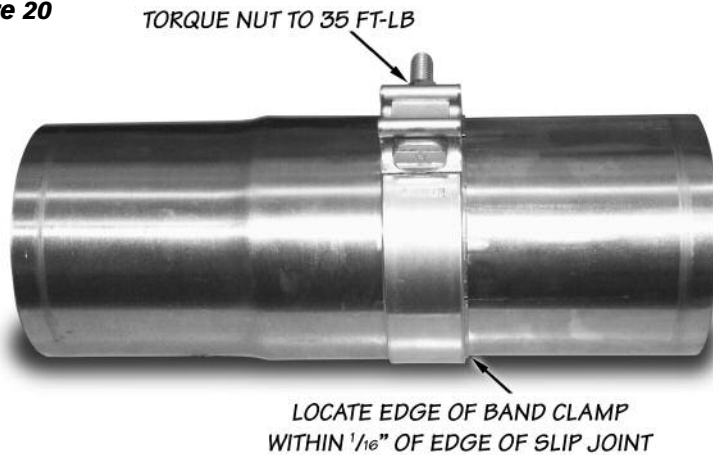
**71.** Install the pneumatic line into the pneumatic fitting located on the rear of the brake actuator cylinder. See **Figure 21**. *NOTE: The hose should be trimmed as required to allow the hose to follow the torsion bar cross member and then gently arc towards the actuator. Retain the remaining hose for use on the remote vent line. Do not allow hose to touch exhaust components, otherwise it may be damaged by the heat.*

**72.** Install one end of the remaining pneumatic line into the pneumatic fitting on the forward end of the brake actuator cylinder.

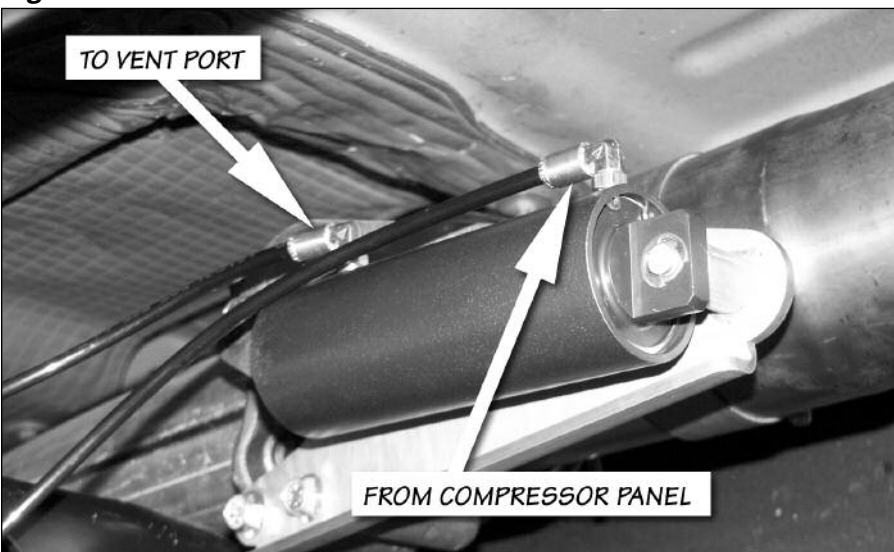
**73.** Route the line across the torsion bar cross member above the previously installed line. Using the supplied tubing clamps and self threading 1/4-20 bolts, mount the pneumatic hose to the torsion bar cross member as shown in **Figure 15**. *NOTE: The self-threading bolts require a 7/32" pilot hole to be drilled for proper thread formation.*

*NOTE: Be sure to route all plastic lines away from exhaust components. If plastic hose rests on exhaust or*

**Figure 20**



**Figure 21**



*exhaust brake brackets, it may be damaged.*

**74.** Continue to route the vent line forward along the frame rail and follow the transmission wire harness to the top of the transmission. Trim

the line as required to allow the vent port to be installed as high as possible on the transmission. Install the vent port on the end of the vent line and secure the vent line using the supplied cable ties.

**75.** Lower the Vehicle.

**76.** Re-connect the previously disconnected ground terminals at the battery (if there is more than one battery, re-connect both).

-END, SECTION 2-

## Section 3

### FUNCTIONAL TESTING

*NOTE: The following testing should be performed only after the vehicle has been allowed to COMPLETELY COOL. This test verifies the performance of the warm-up feature of the brake system and must be performed with a cold vehicle.*

**77.** Verify that the Banks Brake Activation Switch is in the "OFF" position.

**78.** Ensure that the accelerator pedal is **NOT** depressed. Turn the ignition key to the "ON" position. The green LED on the Computerized Brake Controller (CBC) should light up and the air compressor should run for approximately 2 seconds before turning off.

**79.** Slowly press the accelerator pedal. The green LED should turn off almost immediately (very little throttle movement) and the air compressor panel should vent the air from the brake actuator. Release the accelerator pedal and the green LED should again light up and the compressor should run for approximately 2 seconds and then shut off. Repeat this cycle a few times to verify CBC function.

**80.** Start the engine and let it idle. The brake valve will close and can be verified by the muffled sound of a restricted exhaust pipe.

**81.** Slowly press the accelerator pedal. The green LED should turn off almost immediately (very little throttle movement) and the air compressor panel should vent the air from the brake actuator and the brake valve should open. Release the accelerator pedal and the green LED should again light up and the compressor should run for approximately 2 seconds and then shut off. Repeat this cycle a few times to verify CBC function. *NOTE: The engine speed (RPM) should not exceed 1200 rpm prior to brake disengagement.*

**82.** Allow the vehicle to reach normal operating temperature. The brake will remain active until the vehicle reaches approximately 125°F engine coolant temperature (measured with a Tech II scan tool). Once the vehicle warms up, the brake will turn off.

**83.** Re-install the lower dash panel.

*NOTE: Once the vehicle has passed the initial functional tests outlined in **Steps 77-82** the vehicle can be driven in order to complete the required functional testing.*

**84.** Obtain a vehicle speed of approximately 40-45 mph in an area where speeds of this nature are safe and traffic is light. Turn the Banks

Brake activation switch to the "ON" position. Release the throttle. The brake should activate and the vehicle will begin to slow. Bring the vehicle to a safe stop (using the service brakes). As the vehicle speed drops below approximately 15 mph the brake should turn off. Turn the Banks Brake activation switch to the "OFF" position.

**85.** Obtain a vehicle speed of approximately 40 mph in an area where speeds of this nature are safe and traffic is light. Set the cruise control to 40 mph. Activate the Banks Brake by placing the activation switch in the "ON" position. The cruise control should disengage and the vehicle should begin to slow.

**86.** Turn the Banks Brake activation switch to the "OFF" position. Activate the cruise control and set it for approximately 40 mph. Press on the brake pedal. The cruise control should deactivate.

*NOTE: Once the vehicle has passed all of the tests outlined in **Steps 77-86**, the installation of the Banks Brake system is complete and ready for years of reliable service*

-END, SECTION 3-

# Section 4

## SAFETY

**Caution:** Your Banks Brake is NOT a substitute for the hydraulic brakes on your truck. The device will not correct or compensate for improperly maintained hydraulic brakes. Also please be aware that your Banks Brake is not designed to be used as a parking brake or to bring your vehicle to a complete stop. Your Banks Brake is a

supplementary braking system designed to help you slow down or to assist you in maintaining a more constant speed when descending a grade. Remember that this exhaust brake is first and foremost a safety device and it is most efficient when used to prevent, rather than correct a runaway vehicle condition.

The use of a Banks Brake does not increase the load capacity of your vehicle. Gross Combined Weight Rating specifications should always be adhered to. The Banks Brake will allow you to slow your vehicle more effectively within your vehicle's weight specifications.

-END, SECTION 4-



## Section 5

### OPERATION/DRIVING TIPS

Use your Banks Brake to assist in slowing your vehicle while traveling down grades. To activate the brake, flip the switch to the "ON" position. With the switch on, the brake will be active anytime that your foot is not on the accelerator pedal. Note that cruise control will be cancelled if it is active at the time the Banks Brake is engaged.

When alternating between braking activity and acceleration, it is good practice to allow a minimum of one second to elapse after the brake has been disabled or the throttle is applied before reaching full throttle acceleration. This allows enough time for the brake valve to fully open and eliminates the possibility of excess exhaust backpressure being introduced into the engine.

If your vehicle is equipped with an automatic transmission, your Banks Brake can be used with the transmission in 5th, 4th, 3rd or 2nd gear. The transmission should be placed in "TOW/HAUL" mode anytime the brake is going to be used.

TOW/HAUL mode holds the torque converter clutch locked when the brake is active and will increase brake performance greatly. The engine should be downshifted to maintain a high engine speed (brake performance is optimal above 2000 rpm).

If your vehicle is equipped with a manual transmission, it should also be downshifted to maintain a high engine speed when the brake is active.

When the engine is cold (below 125°F) the exhaust brake will activate to reduce the amount of warm-up

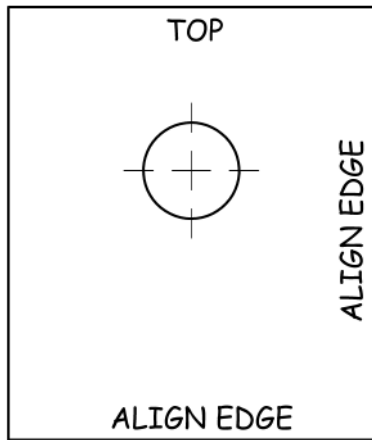
time required. Once the vehicle reaches operating temperature the brake will open. This cold start brake activation also serves as a maintenance cycle, which helps prevent soot build-up and keeps the shaft assembly from sticking. This process is automated and eliminates the need for any additional maintenance.

If it becomes necessary to remove the CBC from the vehicle, a by-pass plug has been provided to install in its place. If the CBC is removed without being replaced by the by-pass plug, the vehicle will idle poorly and set a diagnostic code. The CBC should only be removed when the ignition switch is in the "OFF" position.

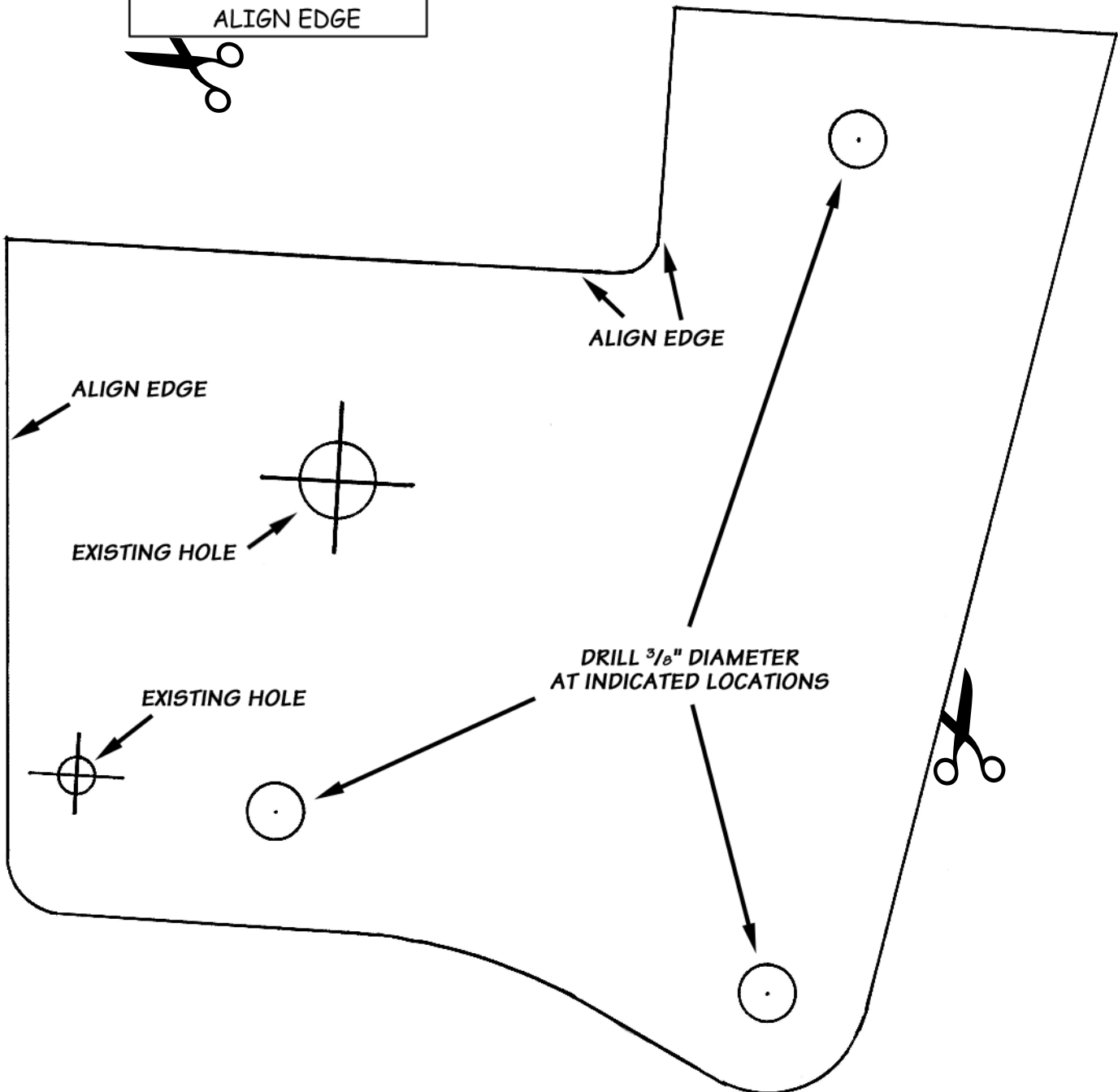
-END, SECTION 5-

# Notes

### Switch Template



### Compressor Panel Mounting Template



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