

**1991 - 1996
GM B-Body
Pedal Assembly
Installation
Instructions**



**THREE
PEDALS**

You are about to embark upon a fairly intensive conversion process that will turn your car into a badass machine.

Before taking apart your car:

- 1. Read through the entire instructions.** If something doesn't make sense, it probably will once you actually take your car apart, but in any case don't hesitate to call or email for clarification.
- 2. Ensure you've received each part.** Review your packing list to ensure you have received all necessary parts. If anything is missing or looks wrong, please contact us.
- 3. Recruit a friend.** Unless you're a professional mechanic working with a lift and a transmission jack, you'll probably really appreciate a second set of hands for certain steps. Plan accordingly, as you're responsible for recruiting the friend(s) and buying the pizza and beer.

Get your car in position, get your tools out, and let's get going.

We are available by phone or email to help you with any questions you may have along the way.

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Pedals

Pedal Removal

To access the brake pedal assembly the steering column must be removed, and to access the steering column several interior trim panels must be removed. To get the column out, a bunch of wiring harnesses must be disconnected.

When removing plastic trim panels that are 20+ years old it can be easy to break something. Go slow and ensure you've found the engagement points before you pull with all your might.

1. Remove the driver's seat, carpet trim along the driver's door, kick panel, and center console, and roll the carpet back so that you can access the brake pedal and nuts at the base of the steering column that go into the firewall. With a power or manual seat, the easiest way we know is to first move the seat all the way back and then remove the two 13mm nuts securing the front of the seat rails to the floor (which are hidden under plastic covers). Next, move the seat all the way forward and remove the four 13mm nuts securing the rear of the seat rails to the floor (also hidden under plastic covers).
2. Disconnect the negative battery terminal.
3. Turn the steering wheel so that the front wheels are straight. Using the tilt functionality in the steering column, tilt the wheel down as far as it will go.
4. Remove the gauge cluster trim covering the dash gauges by removing two 7mm screws, accessible from underneath the top portion of the panel; the screws point up, going into the dashboard upper trim pad. The black plastic housing and clear plastic come out as one piece. You may have to rotate it as you remove it in order to clear the steering column stalks; if you have a column shifter, shift into low to make room.
5. Now it's time to remove the big piece, known as the instrument panel lower trim plate assembly in the factory service manual.
 - a. Remove the three 7mm bolts that run along the bottom edge of the piece, pointing up.
 - b. Open the glove box door.
 - c. Remove fuse panel cover and remove the 7mm bolt through the fuse panel into the trim.

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- d. Remove the 7mm bolt above the ashtray.
 - e. Pull the piece away from the dashboard. There are multiple clips holding it in place; we like to start pulling from inside the fuse panel area as you can get a nice grip on the piece. Work your way across the piece, pulling gently as you go.
 - f. Disconnect the wiring harnesses behind the ashtray (ashtray light and cigarette lighter, if present). The light harness is easiest to separate using a small regular screwdriver or similarly shaped tool to lift the retaining tab.
6. Using the tilt functionality in the steering column, move the wheel so that the steering column is straight.
 7. Remove the knee bolster, the black rectangular panel under the steering column, by removing four 10mm bolts. We like to put these bolts back in their place loosely by hand so we don't confuse them with the bolts for the next part.
 8. Remove the deflector (steel piece the knee bolster bolts to) by removing 4 10mm bolts. Again we like to put these bolts back where they came from, loosely.
 9. Support the column while you loosen the two 15mm nuts that hold the column to the dash. Back the nuts out until they reach the end of the threads. Gently lower the steering column so that it rests on the nuts.
 10. Now it's time to explore the many wiring harnesses that attach to your steering column. Each one surprises with its own release tab location.

The list below is in the order we see the connectors, starting under the steering column. The tables on the following pages contain pictures of each connector, release instructions, and wire colors.

Note that your car probably has at least one zip tie holding things in place under there, so have your snippers handy.

And note that if you have a former police or service car, your car wiring has most likely been (1) equipped with additional wiring from the factory, (2) modified by the agency with lots of electronics, and (3) unmodified by the agency and/or random people to remove said electronics. On top of that, it's probably since been (4) further modified by random people. So, hard to say what you'll see, but this list is what you should see, minus any of the cool factory service options you may have had.

- a. Windshield wipers: Large grey connector going into a white receptacle. Pull back the tab in the middle while pulling the connector out.

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- b. Cruise control: Black connector with blue inserts. Use your finger or small regular screw driver to lift the tab as you pull the connector out.
- c. High beams: Located on the driver's side of the column, black connector into brown receptacle.
- d. Shift interlock: Behind the high beams there is a black cylindrical body with a cable going into it. Use a small regular screwdriver or similarly shaped tool to depress the tab passing through the connector.
- e. Airbag: Back under the column there is a yellow connector, first remove the green pin using a small regular screwdriver or similarly shaped tool pry it out. Then use the same tool to depress the tab passing through the connector as you pull the connector out.
- f. Theft deterrent relay (Pass-Key): Black connector. Using a small regular screwdriver or similarly shaped tool to lift the retention tab as you pull the connector out.
- g. Turn signals: Mounted to the underside of the steering column, a large black connector. Squeeze the tab in the middle as you pull the connector out.
- h. Cornering lamps: Small black connector next to the turn signal connector. Pull back the tab in the middle while pulling the connector out.
- i. Ignition switch: Black and a blue connectors side-by-side; the black connector must be removed first by squeezing the two tabs. Then remove the blue connector by squeezing its two tabs.
- j. For all except '96 Impala, towards the base of the steering column, on the top side of the column, there is a white plastic housing with 3 connectors – disconnect all 3. Working from driver side to passenger side:
 - i. Park neutral position: Use a small regular screwdriver or similar tool to lift the tab as you pull the connector.
 - ii. Reverse lights: Wiggle the connector while you pull it.
 - iii. Keyless entry: Single wire. After all you've just been through, we bet you can figure this one out.

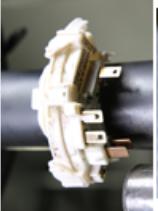
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Step	Connector Location	Connector Color	Function	Wire Colors	Removal	Picture
a	Under steering column	Grey	Windshield wipers	Pink, purple, green, grey, white	Pull back the tab in the middle while pulling the connector out	
b	Under steering column	Black with blue insert	Cruise control (steering column)	Green, brown, blue, grey	Use your finger or small regular screw driver to lift the tab as you pull the connector out	
c	Driver side of steering column	Black	High beams	Tan, yellow, green, green	Squeeze the two tabs on the black connector as you pull the connector out	
d	Under steering column	Black	Shift interlock	Green/white, black	Use a small regular screwdriver or similarly shaped tool to depress the tab passing through the connector	
e	Under steering column	Yellow	Airbag	White, green	First remove the green pin using a small regular screwdriver or similarly shaped tool pry it out; then use the same tool to depress the tab passing through the connector as you pull the connector out	

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Step	Connector Location	Connector Color	Function	Wire Colors	Removal	Picture
f	Under steering column	Black	Theft deterrent relay	White, purple	Using a small regular screwdriver or similarly shaped tool to lift the retention tab as you pull the connector out	 
g	Under steering column	Black	Turn Signals	Tan, light green, black, light blue, blue, brown, 2 purple, yellow, green, white	Squeeze the tab in the middle as you pull the connector out	 
h	Under steering column	Black	Cornering lamps	Black, orange, grey/black	Pull back the tab in the middle while pulling the connector out	 
i	Top of steering column	Black and Blue	Ignition	Black: 12 ga orange, red; thin purple, green Blue: 12 ga brown, red, pink, yellow	The black connector must be removed first by squeezing the two tabs; then remove the blue connector by squeezing its two tabs	 

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Step	Connector Location	Connector Color	Function	Wire Colors	Removal	Picture
jii	Base of steering column, on top	Black into white switch	Park neutral position	Orange, black	Use a small regular screwdriver or similar tool to lift the tab as you pull the connector	
jiii	Base of steering column, on top	Black into white switch	Reverse lights	Green	Wiggle the connector while you pull it	
jiii	Base of steering column, on top	Black into white switch	Keyless entry	Pink, green	Easy, just pull	

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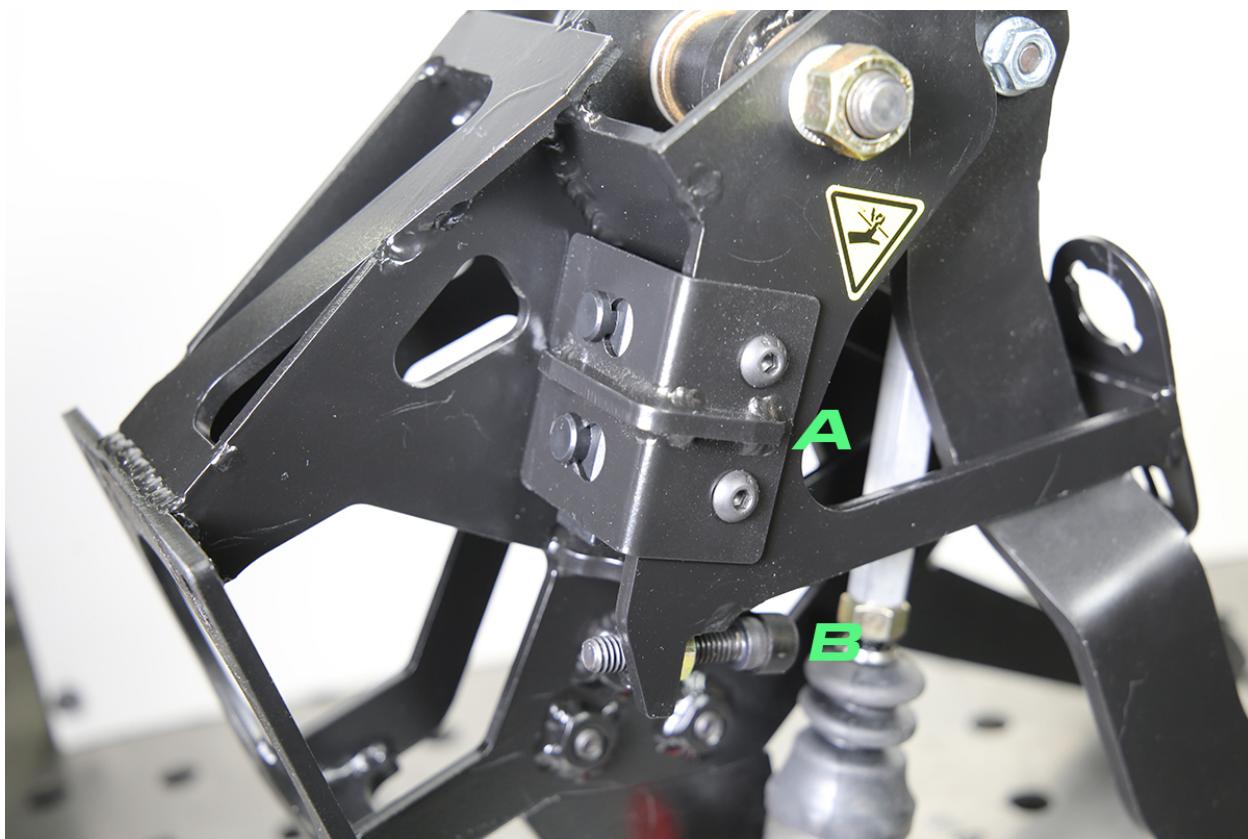
11. Column shift cars: disconnect the metal clip under the column for the shift location indicator wire.
12. Back to hardware. Under the hood, the steering column passes through the firewall and is then bolted to the joint at the top of the upper intermediate shaft. Remove the nut with a 15mm socket or wrench. The bolt has a square shoulder so needs no tool; remove the bolt.
13. The steering column is a friction fit into the upper intermediate shaft and they must be separated. This shaft collapses like a telescope to shorten, and to separate the joint you need to collapse the shaft about 1 ½". At the top of the upper intermediate shaft is what the factory service manual calls a "pot joint", but whatever it is, you can grab onto this to get a good grip as you try to move it towards the front of the vehicle. On some cars it can be done by hand but it's slow. Alternatively, you can tap on the end of the shaft but there is not a lot of room between it and the firewall. If going this route, use a brass faced hammer and go slowly so as not to damage your steering components and periodically rotate the shaft in order to keep the joint moving evenly
14. For column shift cars, disconnect the transmission linkage at the base of the steering column by removing the spring clip. From underneath the car, remove the rest of the linkage.
15. Back inside the car: where the column meets the firewall, peel back the insulation covering the column.
16. With a 7/16" socket remove the three bolts holding the black steering column plate to the floor.
17. Before you yank your steering column find a space to store it. We like to lay it down on something soft to avoid damage. And try to keep the wheel where it is, which would be keeping the front tires straight if they could talk.
18. The steering column can now be removed by removing the two 15mm nuts under the steering column that you loosened previously. The steering column is a little heavy and bulky, take your time pulling it out to ensure that you don't snag a wire or two on the way. If this is the first time your car's column has been removed you will have to overcome the light adhesive between the black steering column plate and the firewall, you can gently rock the column back and forth to ease it out.
19. Remove the steering column shroud, the formed piece of steel directly over where the steering column mounts. It is held in place with one 13mm bolt; remove this, and put the bolt back in the hole loosely.

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20. At the brake pedal, disconnect the four wiring harnesses that feed into the two switches mounted on the pedal. Each connector can be disconnected with a small regular screwdriver or similar tool.
 - a. Top switch – cruise control:
 - i. Cruise control interrupt: Grey connector with brown and brown/white wires, we will tap into this during a later step.
 - ii. Torque Converter Clutch: Clear connector, not re-used.
 - b. Bottom switch – brake lights: Disconnect the connectors, they are both reused along with the switch.
21. Remove the spring clip retaining the brake master cylinder pushrod – a small hook tip tool works well, or needle nose pliers. Note that the pushrod has more material on the lower side when installed properly. Remove the washer, pushrod, and second washer from the brake pedal. The pushrod may require a little encouragement to get off; take your time and be sure not to bend the pushrod; use a nylon pry stick if you need some leverage.
22. Remove the four 15mm nuts holding the brake pedal to the brake booster.
23. Remove the 13mm bolt holding the brake pedal to the dashboard (bolt points straight up). This bolt will be replaced with a socket cap screw and washer provided with your pedal.
24. Remove your factory brake pedal.

Pedal Installation

1. Prior to installing your new clutch and brake pedal assembly:
 - a. Ensure both pedal arms rotate freely and do not bind.
 - b. The neutral safety switch comes pre-installed in a removable bracket – remove the bracket for pedal installation (two screws, see A in photo below), but keep the switch in the bracket.
 - c. The clutch pedal stop is pre-installed at the approximate right height (see B in photo below), but you'll adjust this at a later point.



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- d. If you purchased your master cylinder from us at the same time as your pedal assembly, your master cylinder is pre-installed and the turnbuckle is set to the approximate right length. If you did not purchase the master cylinder from us, install it in the bracket using the supplied black Delrin spacers, 2" length shoulder bolt, 1/4" washer, and 1/4" Nord-Lok washer.
 - i. Pinch the 2 spacers on either side of the master cylinder's bearing, with the thicker spacer on the inboard side (closest to the brake pedal). Slide this assembly into the bracket, and line up the holes.
 - ii. Put a dab of grease on the shoulder, and install the shoulder bolt, with the threads of the bolt on the inboard side. Install the Nord-Lok washer and nut, and tighten the nut to 50 in/lb.
- e. Attach the supplied 2 fittings to the master cylinder. Before installing fittings, ensure the master cylinder is clean and grease-free. Brake parts cleaner works well; dry with compressed air if you've got it. Clean the fittings and hoses with brake cleaner as well.
 - i. The low pressure fitting is Earl's Performance Plumbing pn 785056ERL. After cleaning the fitting, install the o-ring and put a little bit of brake fluid on the o-ring before installing in the master cylinder. Do not overtighten – if the o-ring starts squishing out, you've overtightened.
 - ii. The high pressure fitting is either to -4AN size with Earl's pn 501902ERL-single, or -3AN size with Tilton pn 73-820. Install this fitting tight!
 - iii. The supplied 5/16" ID EPDM rubber hose is then installed on the low pressure fitting outlet using the supplied hose clamp.
 - iv. The supplied high pressure stainless steel braided line is then installed on the high pressure outlet, and this needs some serious tightening as well.
 - v. With a piece of tape, cover the open end of the high pressure hose.
 - vi. Remove the master cylinder bracket from the pedal assembly by removing the 4 socket cap screws. Keep the master cylinder in the bracket, and keep the turnbuckle on. Your assembly will look like the photo below, except don't install the heat shield yet.



2. Impala only: where the brake pedal mounted, cut the insulation and peel if off in order to expose the metal firewall.
3. Installing the pedal requires drilling several holes. The supplied template makes locating the holes very straight forward, and here's the step by step:
 - a. Place the template over the 4 brake booster studs, just as your original brake pedal mounted, and per the picture below. The large circle should be below and to the left as you face the firewall.
 - b. Use tape to hold the template in place firmly against the firewall. Begin by taping the bottom right, ensuring the template is hanging evenly. The bottom left portion lays on a curved section of firewall; with the bottom right taped down, ensure the template is up against the inside of the curve as you tape the left side, and then tape down inside the curve if the template is not laying on the firewall across its full width.
 - c. Using a center punch, mark 5 spots as laid out below.
 - i. Center of the 2-1/4" circle
 - ii. The 4 holes surrounding the 2-1/4" circle

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- d. You can also mark the dashed circle outlines with a Sharpie or similar marker to help visually guide you with the hole saw cuts.
 - e. And, if you'd like a Three Pedals tattoo on your car, trace our logo with your Sharpie.
 - f. Remove the template.
 - g. Drill the holes in the order you center punched them: 2-1/4" hole saw, followed by the 7/64" drill bit. As you cut though the firewall keep your drill from continuing to run into stuff like your brake booster.
 - h. Coating the exposed metal with suitable primer and paint is a good idea – there's no easier time than now!
4. Install the firewall seal.
- a. The seal is installed with the four supplied stainless steel square drive bolts and the supplied #2 square drive bit. We like to use a 1/4" nut driver to hold the bit.
 - b. Position the seal against the firewall, with the part number facing you.
 - c. Insert the first screw in the top right corner and tighten gently; don't fully tighten just yet. Do the same for the screw in the bottom right corner.
 - d. Holding the seal firmly against the firewall, use a ball peen or similar tool with a rounded face to knock the firewall seal into the curved portion of the firewall, starting from the top and working your way down. We use a metal shaping hammer with a rubber head which avoids marking up the seal. The seal is aluminum and will form easily. Tap it with the hammer until it fits well.
 - e. Install the top left screw, and re-tap with the hammer as needed so that the seal sits nicely on the firewall. Install the last screw.
 - f. Tighten all four of the firewall screws snugly – monkey tight, not gorilla tight.
5. Remove the two convenience center mounting screws with a 7mm nut driver, and let it hang down. This will give you access to one of the pedal mounting nuts. If the convenience center gets in your way you can tuck it up over the parking brake.
6. '94 only: Remove the ABS computer, located right above the convenience center. This is a silver box, approx. 8"x2"x4", with a large black connector. Secure it out of your way while installing the pedal.

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7. With the supplied four M10x1.5mm flange lock nuts, M8x25mm socket cap bolt, and M8 washer on hand, install the pedal assembly in the car, without the master cylinder assembly. Hold the pedal assembly in place with 2 nuts loosely on the booster and the M8 bolt and washer up through the top of the pedal assembly, into the lower dash.
 - a. As you line up the 4 brake booster studs to go through the pedal assembly, ensure that the brake booster pushrod is routed directly to the brake pedal arm.
 - b. With the pedal assembly loosely installed, put a dab of grease on the stud on the brake pedal arm and install the original spring washer onto the stud, followed by the original brake booster pushrod, outer washer, and spring clip. The flat side of the booster pushrod hangs down.
 - c. Install the remaining booster nuts and tighten the 4 nuts and M8 bolt to 18 lb/ft.
8. Install master cylinder assembly by carefully first routing the high and low pressure hoses through their corresponding holes in the firewall seal. The seal is flexible, but too much stress will tear it. The low pressure hose is routed towards the outside of the car and up. The high pressure hose is routed towards the inside of the car and down. Be sure not to kink the high pressure hose - it is possible to kink the hose and create a small hole in the plastic liner inside the hose, and then you will have a difficult time bleeding the system because you won't see any fluid leak but something just won't work right and you'll try bleeding again and again without success. We're not saying we've ever kinked the hose like that, we're just saying that, you know, it's possible. The tape over the open high pressure hose will keep dirt and grease from entering the hose as you route it to the transmission.
9. Install the clutch pushrod to the clutch pedal arm using the supplied 3/8" diameter, 5/8" length shoulder bolt – first put a dab of grease on the shoulder bolt. Pass the bolt first through the rod end and second through the supplied 1/8" thick aluminum spacer, put some thread locker on the threads, and install the screw in the pedal arm. Once fully tightened, install the supplied serrated flange nut on the shoulder bolt and tighten while holding the shoulder bolt in place with a tool.
10. At this point, your clutch pedal and brake pedal should be at just about the same height, when looking at the foot pedal pads. If they are not at the same height, adjust the clutch pushrod until they are at the same height. Whether you're adjusting it or not, ensure that the 2 nuts – 1 on each side of the turnbuckle – are snug. The top nut is reverse thread, while the lower nut is standard thread.

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11. Install the neutral safety switch and connect the associated wiring. Using the neutral safety switch and bracket that came pre-installed on your pedal assembly, you'll also need the supplied AC Delco harness pn 12102690 which includes two butt connectors, as well as the supplied yellow 12 gauge wire and 2 additional 12 gauge butt connectors.
 - a. Cut the yellow wire in half.
 - b. The harness has two leads; each gets spliced to its own piece of yellow wire. The harness comes with two heat shrink butt connectors - you can use these or alternatively you can solder the connections. Note that the butt connectors must first be crimped on; once crimped, give the wires a tug – a real tug - and if they come out then re-do them. Once crimped tightly, use a butane torch to melt the connector. If soldering, be sure to use heat shrink tubing or electrical tape to insulate the connections.
 - c. Slip the supplied black braided insulation over the wiring leads, taking it all the way to the harness. Back the insulation away from the harness approximately $\frac{1}{4}$ " and use electrical tape to secure the insulation to the wires.
 - d. Using two of the supplied small zip ties, secure the insulation and wiring up over the top of the pedal assembly, towards the steering column. It's a good idea to zip tie the wiring to the pedal assembly, but leave a little slack so you can remove and install the switch.
 - e. With the neutral safety switch installed in the provided mounting bracket, clip in the harness and attach the bracket to the pedal assembly using the 2 provided 1/4"-20 button head screws. Ensure that the clutch pedal depresses the switch at least a tiny bit, and that the switch doesn't prevent the clutch pedal from hitting the clutch pedal stop.
 - f. The yellow wires get spliced in-line with the thick yellow starter wire under the steering column, visible from underneath the column. The harness with this yellow wire will also have a pink and brown wire of the same thickness going into it. To test that you have the right wire, back probe the yellow wire to the lower pin on fuse #24 (Crank fuse) for continuity. Splice in the neutral safety switch harness leads to the yellow wire. When the clutch pedal is depressed, the safety switch provides continuity, allowing the car to start.
12. Reinstall the convenience center.
13. '94 only: Re-install the ABS computer.

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14. Install three additional electrical sensors into your pedal assembly. Each is threaded into position until the tip of the plunger is flush with the body of the sensor with the pedal arms in the resting position, as they should be now. You may need a mirror and flashlight to get a good look at the plunger.

- a. Top brake pedal opening: Original brake pedal top switch for cruise control interrupt along with the threaded retainer; you only need the grey connector with the brown and brown/white wires. We plug the other one in, but it does nothing at this point.
- b. Bottom brake pedal opening: Original brake pedal bottom switch along with the steel retainer from your original pedal; insert both connectors.
- c. Clutch pedal opening: Install supplied cruise control interrupt switch pn 22620888 by first installing the supplied threaded plastic retainer pn 10194431.

15. It's time for some wiring.

- a. Cruise control: When cruise control is engaged, depressing the brake pedal turns the cruise control off. Your new pedal assembly retains this of course, and adds a switch so that moving your clutch pedal does the same thing.
 - i. Choose either of the two leads going into the grey cruise control connector on the top switch of your brake pedal, they are brown and brown/white. It doesn't matter which you choose.
 - ii. Cut this wire, peel back some insulation, and using a butt connector splice in one of the leads from the supplied cruise control interrupt harness. Similarly, it doesn't matter which wires are connected to which.

For all except '96 Impala: The following three connectors are plugged into the white switch at the base of the steering column

- b. Park neutral position: The two wires going into the PNP switch are orange/black and black/white. Cut the connector and splice the orange/black and black/white wires together; this enables your trunk release to work. The original connector for these wires can be removed from the car.
- c. Reverse lights & keyless entry: Both the reverse lights and keyless entry depend upon a pink wire for power when the car is running. The green wire that is on its own connector gets spliced into the pink wire. Use a butt

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connector and insert this green wire along with the pink wire into one end of the butt connector and crimp that side.

- i. Keyless entry: When your stock automatic was in park it provided power to keyless entry, so you will now modify your wiring to think it's always in park.
- ii. Reverse lights: When in reverse, the T56 provides continuity between the two wires coming out of the harness. If you purchased our full kit, you were supplied with the proper T56 reverse light wiring harness pn 12085485.

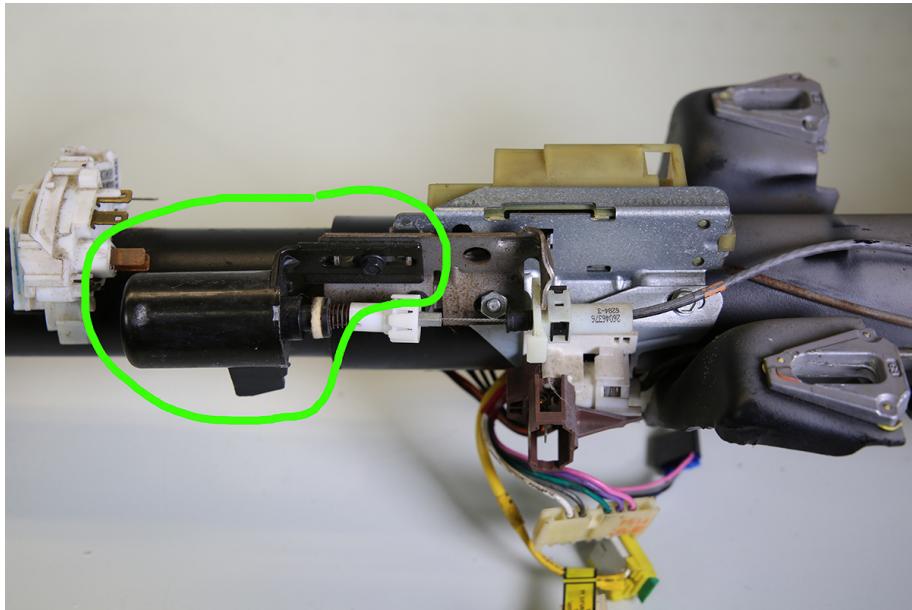
The green wire that goes into the same connector as the pink wire is the one to use, do not use the green wire that is on its own connector. Splice one of the wires from the T56 reverse light harness into this green wire and the other to the combined pink and green keyless entry wires from the previous step. It doesn't matter which lead from the harness is used for which side. The original connector for these wires can be removed from the car.

'96 Impala: The following wires can be found going into your floor shifter.

- a. Park neutral position: Connect yellow & purple to fool PCM into thinking car is in park, so it will start
- b. Trunk release: Connect orange/black wire to black/white wire so the trunk release will work. Black/white wire should be ground.
- c. Reverse lights & keyless entry: When in reverse, the T56 provides continuity between the two wires coming out of the harness. If you purchased our full kit, you were supplied with the proper T56 reverse light wiring harness pn 12085485. Using the pink and green wires at the floor shifter harness, connect the pink wire to one lead from the reverse light harness and the green wire to the other lead from the reverse light harness. It doesn't matter which lead from the harness is used for which side. The original connector for these wires can be removed from the car.

16. Install the steering column shroud, torqueing the bolt to 18 lb/ft.

17. **For all except '96 Impala:** Before you chuck that steering column back in, remove the shift interlock solenoid – see the circled item in the photo below. This is the black cylindrical body mounted to the driver side of the column, towards the base. A silver cable passed through a white clip which retains it to the column, and there is a separate white clip retaining the cable to the solenoid.



- a. Remove the solenoid by removing the $\frac{1}{4}$ " head screw holding it to the column.
 - b. Where the cable connects to the solenoid there is a white plastic clip with 6 fingers; lift these fingers up to remove the clip. Once you lift a few fingers you'll find they want to return to their original position as you lift the others, so hold them back! Your solenoid is almost free.
 - c. Zip tie the end of the cable to your steering column so it doesn't rattle around.
18. Installing the steering column is mostly the reverse of removal. Here it is summarized:
- a. Install the column by passing the end through the firewall and then sliding the column over the two mounting studs. Thread on the nuts just enough to fully engage the threads in the nut, and let the column rest there.
 - b. Install the 3 steering column jacket to floor bolts, torqueing to 58 lb/in.
 - c. Reconnect all the wiring harnesses – you should clip in 8 connectors, all of them except the shift interlock. Note that this counts the ignition connector, which is a 2 part blue and black connector, as one connector. If you don't have cruise control you have one less to connect.
 - d. On the yellow airbag connector ensure the green retention pin is replaced.

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- e. If you have a retired police car, by now you've probably found some mystery wires under your dash, and possibly some mystery switches. Can't help you there! But the police package fuse block with four 20 amp circuits is a nice piece.
 - f. Ensure no wires are being pulled taut, or are in the way of the steering column settling into position.
 - g. Tighten the two 15mm nuts holding the column in place, torqueing to 20 lb/ft.
 - h. Hope you've kept your steering wheel straight! Under the hood, slide the upper intermediate shaft back over the end of the steering column. Install the bolt and nut, torqueing to 40 lb/ft.
19. We recommend leaving the remaining interior panels off until you've successfully tested and adjusted everything.

Additional Wiring

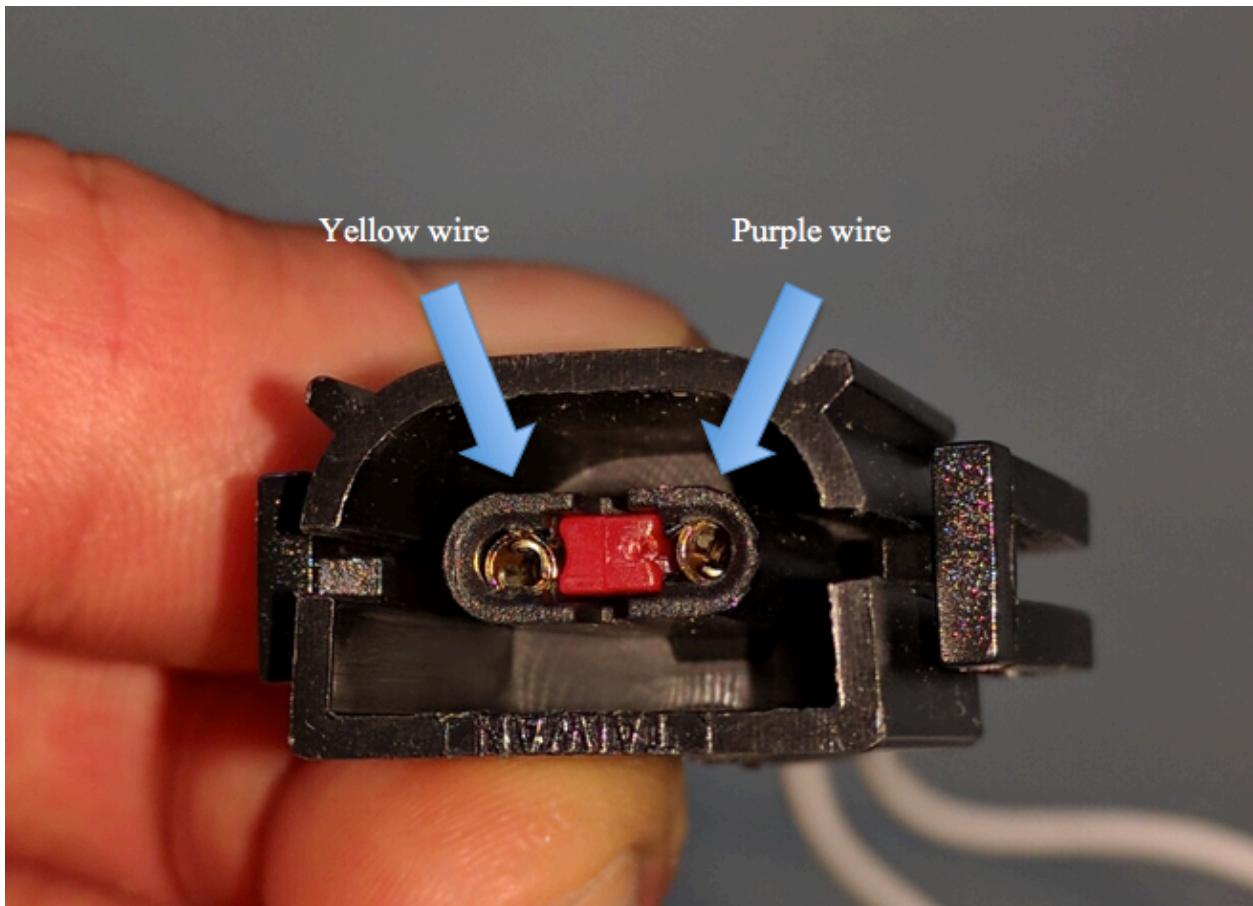
1. If you're running an LT1 engine, you need to modify a bracket for re-use. On the rear of the passenger side cylinder head, the transmission fluid dipstick is secured with a bracket – this bracket also supports some wiring. Remove the one bolt that holds this bracket.
 - a. With the dipstick out of the car, cut the bracket free as shown in the pictures below. We like to put some paint on that bare metal edge.
 - b. Re-install the bracket, supporting the wires it originally held. **This is an important step to avoid having your wiring harness accidentally brush up against the exhaust and burn through.**



2. Speedometer connection varies by transmission and year of your vehicle.

a. **'94-'97 F-Body LT1 T56:**

- i. **'96 Cars only:** Your stock speedometer harness plugs right in, but you may have to lengthen the wires to reach.
 - ii. **All but '96 cars:** speedometer harness pn 88987993 is supplied with your conversion kit, unless you have a '96 or purchased a T56 Magnum. This new harness replaces your stock harness - the purple wire goes to Pin A on the harness, the yellow to Pin B on the harness.
- b. **T56 Magnum:** The supplied speedometer harness pn PG-096 replaces your factory speedometer harness. Cut the purple and yellow wires to your old harness. Holding the new supplied connector so that you are looking into the inside of the connector and with the flat long side on the bottom, the lead on the right side connects to the original purple wire, and the other lead connects to the original yellow wire (see photo below).



Hydraulics

1. Mount the supplied clutch fluid reservoir to the supplied clutch fluid reservoir bracket using the provided stainless steel bolts and washers.
2. To install the clutch fluid reservoir bracket, remove the 2 nuts holding your brake master cylinder to your brake booster. Slide the bracket over the 2 studs and install the supplied 2 M10x1.5 flange locknuts, torqueing to 18 lb/ft.
3. The low pressure hose from the clutch master cylinder gets connected to the reservoir using the supplied hose clamp.
4. Under the car, slide the supplied heat sleeve over the high pressure hose from the master cylinder.
5. Route the high pressure hose towards your slave cylinder or hydraulic release bearing, being careful to keep the hose off of, and away from, heat sources like the exhaust and catalytic converter.
6. Attach the high pressure hose to the high pressure fitting for your slave cylinder or hydraulic release bearing, ensuring that the fittings and hose are clean. Tighten the high pressure fitting loosely for the moment.
7. Secure the high pressure hose to ensure it doesn't rub anything, and ensuring it doesn't touch the exhaust.
8. With a hydraulic release bearing, ensure the two hoses passing between the transmission and bellhousing are protected. We use rubber hose and zip ties as seen in the photo below.



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9. To bleed the hydraulic system a second person is incredibly helpful.
 - a. Fill the clutch fluid reservoir with DOT3 / DOT4 brake fluid.
 - b. Undo the high pressure hose at the slave cylinder or hydraulic release bearing. One person holds their finger over the hose outlet. The other person cycles the clutch pedal up and down, slowly, and on the way back up pulls the pedal all the way up. Do this until fluid comes out of the high pressure hose, this bleeds the master cylinder. 3 – 7 pumps usually does it.
 - c. Hook the high pressure line up to the slave cylinder or hydraulic release bearing, and make this nice and tight.
 - d. Ensure the reservoir has sufficient fluid. If you have a handheld vacuum pump, insert a rubber tip into the base of the reservoir and suck out any air bubbles present.
 - e. Slave cylinder:
 - i. Remove the slave cylinder from the bellhousing and remove the nylon strap from the pushrod.
 - ii. Compress the slave cylinder push rod slowly, repeating until no bubbles appear in the reservoir. This will take 10 – 20 repetitions.
 - iii. Re-install the nylon strap over the pushrod, and slide in the ends on each side.
 - iv. Attach the slave cylinder to the transmission, tightening the nuts to 15 lb./ft.
 - f. Hydraulic release bearing:
 - i. The upper hose is your bleed hose. This hose usually has a fitting in it with a bleeder valve, as well as Teflon tape or paste on the threads. The Teflon seals the threads while fluid exits the bleeder valve.
 - ii. Similar to bleeding your brakes, one person depresses the clutch pedal and holds it down. Once the pedal is down, the other person opens the bleeder valve and tightens it once fluid and air have passed out. This needs to be done quite a few times for a full bleed, approximately 10 – 20 cycles.

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- g. Ensure the reservoir fluid is topped up.
- h. The clutch pedal should now have a normal feel to it – some resistance, but not an overwhelming amount of resistance.

Adjustment

1. With the rear wheels off the ground, ensure the vehicle is stable. If you're not working on a lift, use 2 jackstands and chock the front wheels, or use 4 jackstands and have all the wheels off the ground.
2. With the parking brake off and the car in neutral, try to rotate the rear wheels. Then with the car in gear, but with the clutch pedal depressed, again try to rotate the rear wheels (obviously you'll need a helper here). If the rear wheels don't rotate under both situations, there is a problem:
 - a. If they don't rotate with the car in neutral, double check your shifter installation
 - b. If they don't rotate with the car in gear but with the clutch pedal depressed, re-bleed the clutch line.
 - c. If you have trouble with either situation, DO NOT DRIVE THE CAR, call us at 517.707.4140 or email us at info@threepedals.com. We will talk or walk you through diagnosis of the problem.
 - d. If all goes well, lower the car.
3. **All but '96 Impala:** Remove the column shift lever by punching out the pivot pin from below. Leave the shifter bowl in the park position.



4. Slide the supplied rubber shift boot over the shifter. Drill 7/64" holes to secure the boot to the floor using the provided stainless steel 3/8" long screws with a square drive head. The rubber boot has a metal ring around the base that will conform to the shape of the floor if you gently hit it with a hammer. Start by drilling and installing the 2 central bolts, 1 on the top and 1 on the bottom of the boot, as viewed from above. Once those 2 screws are installed, work your way out to each side, hammering the base gently, and drilling and installing screws 1 by 1.

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5. Now install the shifter stick using thread lock.
6. Roll the carpet back into place, and cut a hole for the shifter to come through. A utility knife with a fresh blade works well.
7. Install your shift knob. If installing a Three Pedals shift knob, use the supplied nut to act as a stopper. Adjust the clocking of the nut to get the shift knob oriented properly.
8. Re-install the front seats.
9. Connect the negative battery cable.
10. With the rear wheels still off the ground, start the car. With the clutch pedal down, put the transmission in 1st gear. The rear wheels should not rotate. If they do rotate, and you're comfortable that the hydraulics are fully bled, adjust the clutch pedal stop. Go in increments of 1 full revolution of the screw. Once it's down enough and the rear tires do not rotate any more, you can go an additional turn or two with the stopper screw. Be sure to lock the stopper in place using the supplied jam nut. Once secure, install the supplied plastic cap over the bolt.
11. Put your car down on all 4 wheels.
12. Enjoy!

Torque and Fluid Specifications

- (TL) Use medium thread lock
(TEF) Use Teflon tape or paste

T56

T56 Fluid Capacity	4.1 quarts / 3.9 liters
Fill & Drain plug torque (TEF)	20 lb/ft
Transmission to bellhousing adapter (TL)	26 lb/ft
Shifter assembly to transmission (TL)	15 lb/ft
LT1 T56 clutch fork bolt (TL)	18 lb/ft
LT1 T56 slave cylinder (actuator) to trans (TL)	15 lb/ft
Hydraulic release bearing to front of transmission (TL)	9 lb/ft

Three Pedals pedal assembly

Brake booster nuts	18 lb/ft
Bolt through pedal assembly into lower dash (TL)	18 lb/ft

Driveline

Flywheel (TL)	74 lb/ft
Pressure plate (TL)	22 lb/ft
Driveshaft strap bolts	16 lb/ft

Interior

Upper intermediate shaft bolt to steering column	40 lb/ft
Steering column jacket to floor	58 lb/in
Steering column to dash	20 lb/ft
Knee bolster	89 lb/in
Knee bolster deflector	89 lb/in
Dashboard trim screws	17 lb/in