Ghia5L's installation guide for BA shifter into an EA-ED

www.eseries.com.au

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WARNING/DISCLAIMER

Achtung! There are three very important bits of information that need to be known before attempting this installation (if using my document as a guide):

Firstly, this is not gospel. I will not be held responsible for any modifications/changes that you may make to your car!

Secondly, with my method, you WILL need to butcher your car! Non-reversible mods include making a hole in the steering column plate, and cutting a hole in the transmission tunnel. There are other non-reversible mods which are optional (depending on the interior cosmetics you're after), however the steering column plate and transmission tunnel *will* need modifying!

Thirdly, if this document is used as a guide for this installation, it will be done so under the condition that you agree that you have read this warning/disclaimer, and accept these conditions. (Lionel Hutz eat your heart out)

INTRODUCTION

This document should (hopefully) give assistance to people who wish to install a BA shifter into an EA-ED Ford, and in particular focuses on an EB1 V8 Fairmont Ghia. It aims at the physical side of things (pulling the interior + linkage apart, putting them back together), rather than the electronics, which Muzza has already covered in his report.

I am currently in the process of finishing off my BA shifter install in my EB. Admittedly, I indulged in some "backyard stylez" activities to get the shifter to integrate with the interior, but the only remaining things which need doing are minor. It has been working very well now for the past year, with only one electrical hiccup due to my negligence with respect to lack of heat shielding to protect a circuit! (Heat problem fixed now)

I cannot thank **EA2BA** and **Muzza** enough for all of their help, without these guys I would not be compiling this document, and you would not be reading it! Also I would like to thank **Pilch** for all of his help regarding fitting the shifter itself, and Atlee & Co (not members of www.fordforums.com.au) for assisting with wiring up the tiptronic side of things (and the beer).

Finally, without www.fordforums.com and www.fordforums.com.au, I wouldn't have the interest that I do in Fords and cars in general. I have learned much from these sites!

PREREQUISITES

1) Parts required:

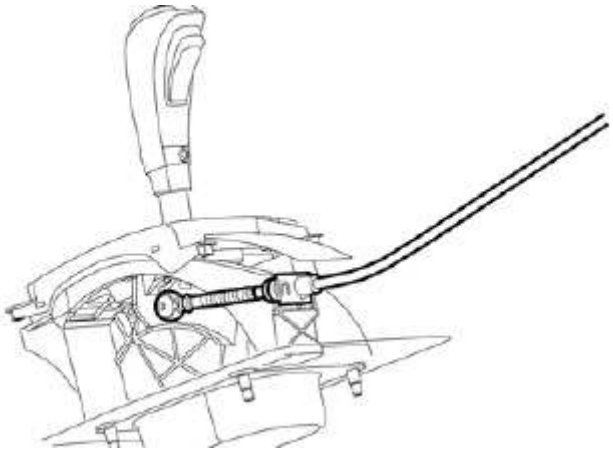
There are essentially seven parts needed to complete this installation. They are as follows:

BA gearknob (pictured below). This is needed for allowing the shifter to move through P-R-N-D. I was planning on using my EB's T-bar, but where the BA knob pulls up a thick plastic linkage (to allow the shifter to move thru the P-R-N-D gate), the EB's T-bar pushes its thin metal linkage down. Also, the standard E-Series thin metal linkage is attached to the shifter housing, rather than to the T-bar knob. When ordering thru Ford, its product code is BA 7E261 A1, and its description is "HANDLE TRANS CNTRL", with a unit list price of $49.72 (correct at 01/04/05).

BA shifter housing (also pictured below). Replaces the EA-D existing housing. When ordering thru Ford, its product code is BA 7A306 A, and its description is "HOUSING", with a unit list price of $100.10 (correct at 01/04/05).

BA shifter housing (shown with gearknob).

BA shifter cable (pictured below). Where the EA-D Fords have a series of metal linkages that run from the T-bar to the shift point on the gearbox, a BA Ford has a cable instead, somewhat like a gear cable on a mountain bike. When ordering thru Ford, its product code is BA 7E395 A, and its description is “CABLE TRANS SHIFT”, with a unit list price of $79.75 (correct at 01/04/05).



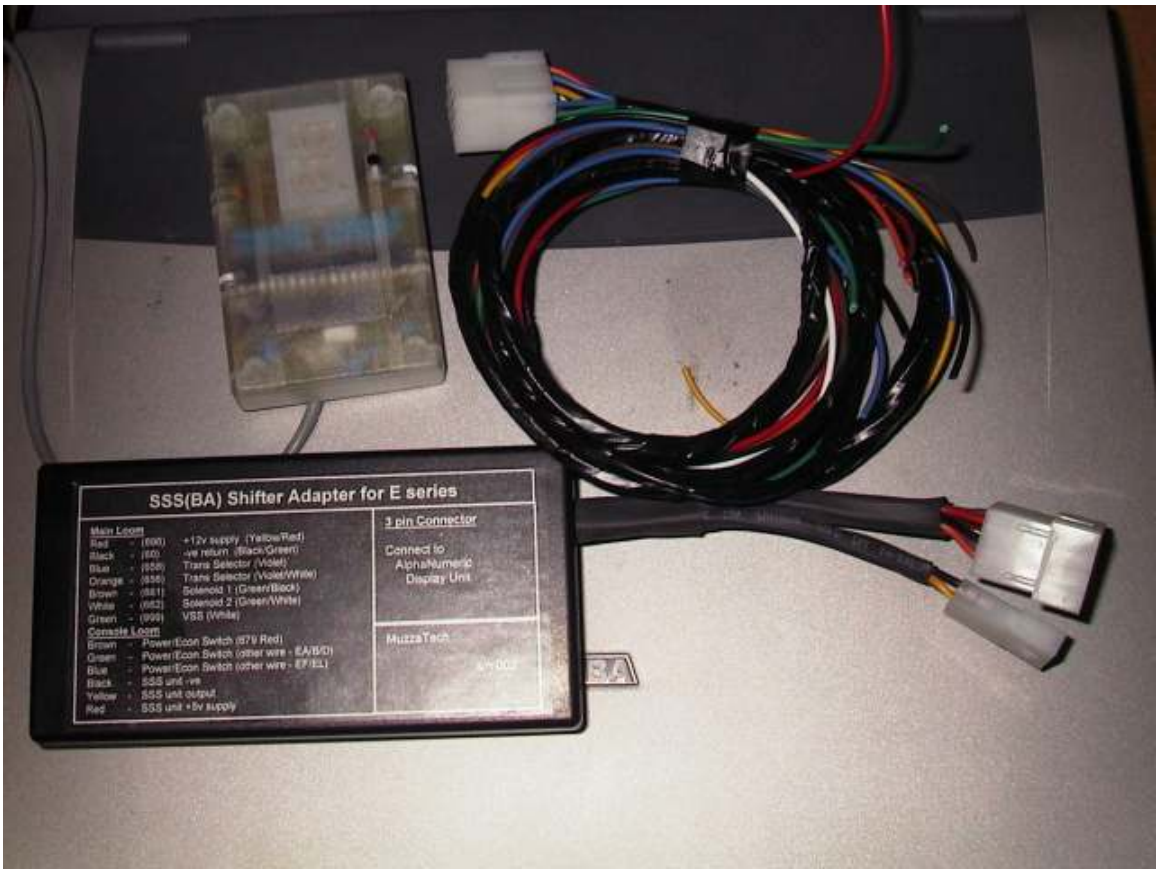
Here is the shifter housing end of the BA shifter cable (thanks to EA2BA for pic)

End of BA shifter cable (this end is attached to gearbox)

BA P-R-N-D fascia (pictured below). In my installation, I decided against using this fascia, as I am opting for a “manual” look with my install, whereas EA2BA went for the BA look in his EA. When ordering thru Ford, its product code is BA 7E213 A, and its description is “LENS TRANS CONTROL”, with a unit list price of $59.18 (correct at 01/04/05).

BA P-R-N-D fascia (I never opened the package)

BA adaptor goodies (pictured on next page) thanks to Muzza. Included in the package are the Shifter Controller Unit, Loom, and the Display unit, which is optional. I chose to purchase a modified version of the Display unit, whereas EA2BA has the original version (pictured). Ask Muzza for a current price list.



Thanks to Muzza for the photo.

2) Tools & other bits needed:

Hooboy! Bear with me on this, but I think these should cover it:

Sockets, wrenches, ratchets and spanners (open & ring)
Cordless drill + a range of small to large bits suitable for drilling through metal
Keyhole saw (similar to hacksaw)
Files (for plastic & metal)
Phillips head screwdrivers (long and short, with not too sharp/thin a head)
Flathead screwdriver (broad, shallow head)
Scissors
Zip ties
Fibreglass heat insulating bandage
Steel rubber hose clamps
Pointy nose pliers
Ramps, or a jack + axle stands
About 60x30cm of 1.5mm thick rubber matting
Custom steel box to be made (description found within this document)
Can of Poly-Fill or similar product. (Expandable foam)
Vinyl or leather to make a manual gearboot from (optional).

INSTALLATION

3) Gear display indicator (optional)

I installed a modified version which fits flush with the dash. If you do not wish to have this, it is not needed. Firstly I will show before and after pix:

Before… (blank plastic panel highlighted)

After!

Now how to do it…

Firstly you must take off the plastic panel which surrounds the head unit (picture on next page). This also incorporates the ashtray & ciggy lighter. This panel is held in place by two screws above the head unit.

Point number 1 in the picture below is one of these screw points. The plastic panel has already been taken off for this pic. The other screw point is mirrored on the other side.

Point number 2 in this picture is a screw point for the dash face which we are ultimately aiming to remove – the face that surrounds the clock. This screw point is behind the plastic panel that surrounds the head unit. The other screw point is mirrored on the other side.

Screw locations on passenger side of head unit.

Now, in the picture below, I will explain the following screw points:

1) This point is in the cavity.

2, 3, 4) These three points are in the top of the instrument cluster surrounding. These need to be removed so that the instrument cluster surrounding can be pulled forward, so that point 5 can be accessed.

5) When the instrument cluster surrounding is pulled forward, point 5 can be accessed. When this screw is removed, pull the clock surround out. The clock and demist button will need to be both unplugged (remember which plug is for what! I found three plugs behind my clock & demist button, one of them apparently not going anywhere!)

Screw locations for clock surround panel and instrument cluster surround panel.

The blank plastic panel and demist buttons can both be pushed out from behind. You must pinch the clips in, in order to have the buttons pop out. Simply pop the demist button back into the left hand hole (as opposed to the right where it was, unless you want to keep it there, in which case it would be a waste of time popping the demist button out in the first place!). For the Display Unit, gently feed the ribbon through the hole, and then click the Display Unit indicator face in. Before refitting the clock surround, find a path for the Display Unit's ribbon so that its plug finds an open area. Mine ended up behind

my handbrake. You need this so that the Display Unit's circuit box (looks similar to original Display Unit in picture of Muzza's(?) goodies, and is separate to the face which sits in the dash face) has enough space to be plugged in.

The display unit simply plugs into the given loom once the electronics are installed (this is done later).

Plug the clock and demist buttons back in (the clock will need to be reset), and then screw back the clock surround panel and instrument cluster surround panel (in the reverse order to how they were unscrewed). Leave the head unit surround panel unscrewed for now (but it can "sit" in place temporarily if you wish. It doesn't fall out).

4a) Removing E-series shifter

Firstly, have your car up on ramps/over a pit/on axle stands/jacked up.

Remove the T-bar knob (shown in pic on next page). This is done by loosening a nut below the knob, and then unscrewing the knob from the shaft.

Next, "pop" the P-R-N-D-3-2-1 fascia off from the centre console. It's kind of like a milo tin lid in this sense. Take care to avoid scratching it where you lever it, with a flathead screwdriver. Unplug the Power/Econ button from its loom. Underneath the fascia where the electric windows switchboard meets it, there are two screws where the switchboard is attached to the centre console. Remove screws, and carefully unplug switchboard from its loom (this plug has a clip which needs to be pinched I think, can't remember 100% to be honest).

Fascia & electric windows switchboard (needs a clean!)

Remember how the head unit surround wasn't reattached? You will see two looms: one for the Power/Econ button (shown unplugged here), and the other for the ciggy lighter. Unplug the Power/Econ button loom (this is a real bitch to do! The clip is tough). See picture below.

Power/Econ button loom (unplugged) and ciggy lighter loom. NOTE: the centre console has already been pulled out in this photo.

(Now look at the picture on the following page) In the console bin, underneath the carpet there are two screws. Remove screws. There are two other screws which screw into this bracket, but they can be accessed from the sides of the console You will need to move your seats forwards to access these with a screwdriver. This does not matter, as only these two screw points (pictured) need to be screwed back in again when refitting the centre console.

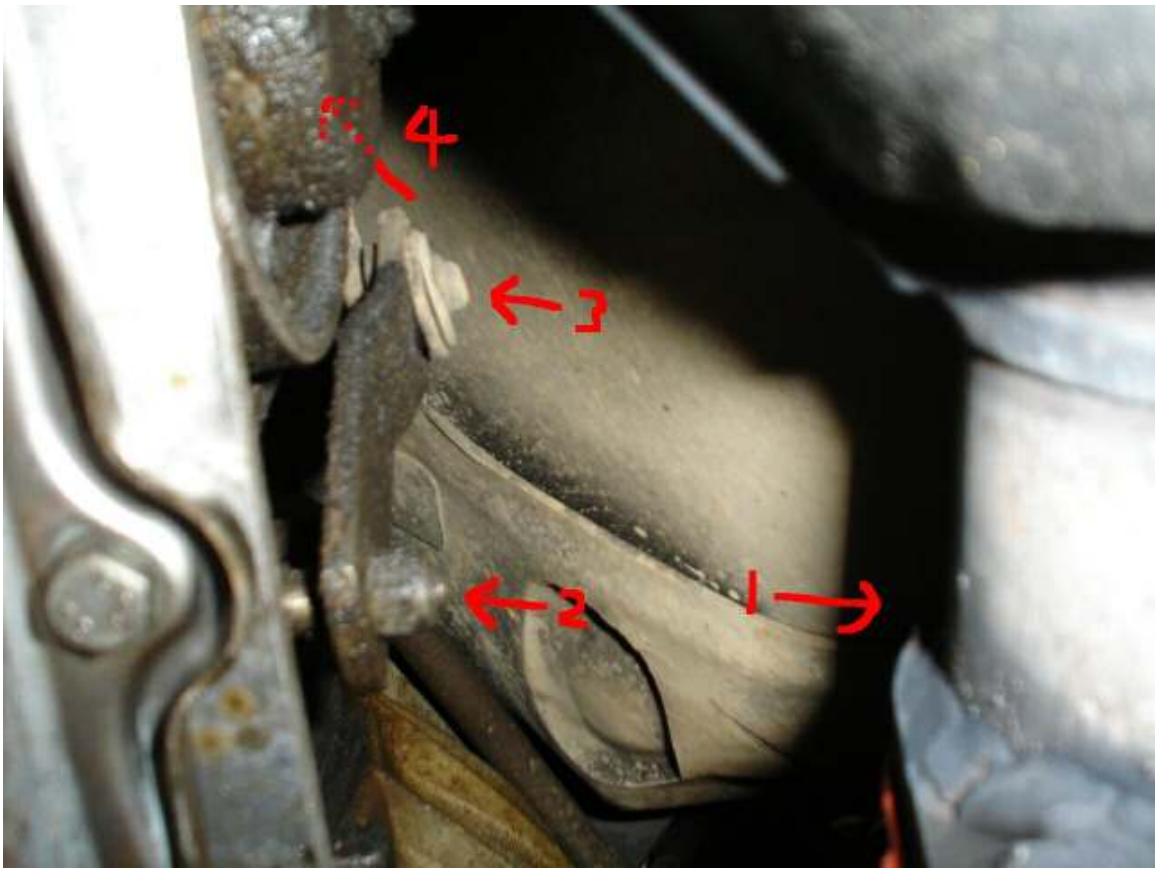
The whole console can now be removed by pulling backwards, and then diagonally upwards.

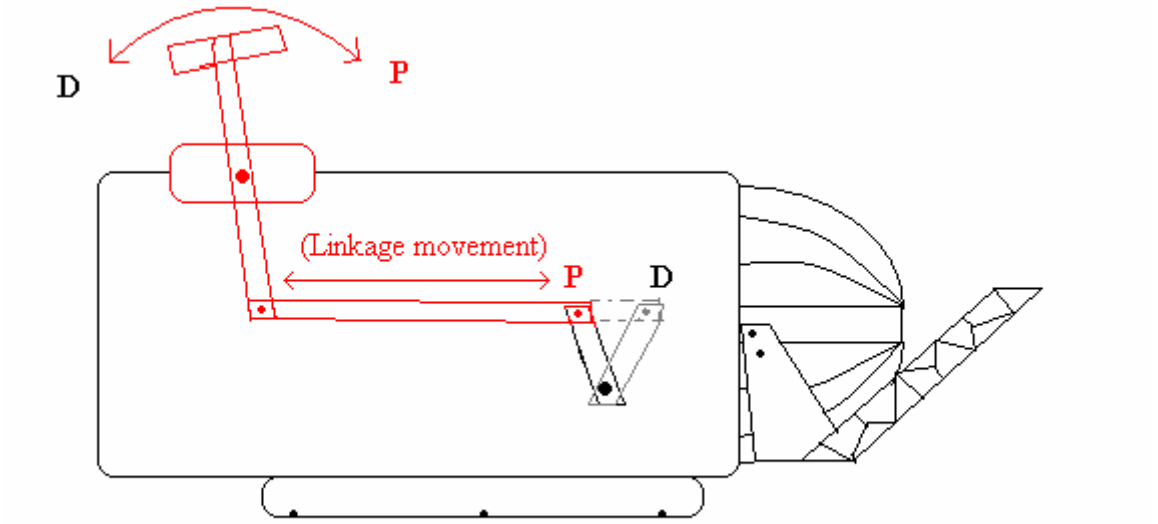
Centre console mounting point (“up” = towards dash).

Shown on the next page is a top view of the EB shifter housing, with the shifter in “D” position. The bolts holding it down are 8mm. I reused these for the BA housing (to be discussed later).

EB shifter housing

Before removing the housing, get under the car and find the shift point and attached linkage. Shown on the next page is a picture of this (into the page = looking towards the sky, while up is looking towards the rear of the car), and a side-on illustration. Point 1 is my cat. Point 2 is the axis of rotation for the shift point (Park would be rotated towards the top of the image, from point 3 that is, whereas Drive would be rotated towards the bottom of the image). Point 3 is where the linkages attach to the rotating shift point (a steel dowel + clip attach the linkage to the shift point). Point 4 is the linkage coming towards the shifter housing (hidden).





The gist of this illustration is: When you pull the shifter back to D, the shift point rotates forward, clicking/racheting like a shimano gear selector on a mountain bike. The bell housing is forward (to the right in this illustration) of the shift point, and the pan is below. The two black dots in front of the bell housing are threaded bolt holes which just happened to be there. Pilch & I decided to use them as the mounting point for the bracket we made.

Shown below is the removed EB linkages (to compare to illustration above). The shifter is in the P position. I should mention that if you accidentally bump the shift point and change gears (when no shifter is in place to change back to the gear you want – namely Drive), click it rearwards until it won't go any further, so that it is in Park (use this for orientation), and then push it forward until you reach Drive (3 clicks).

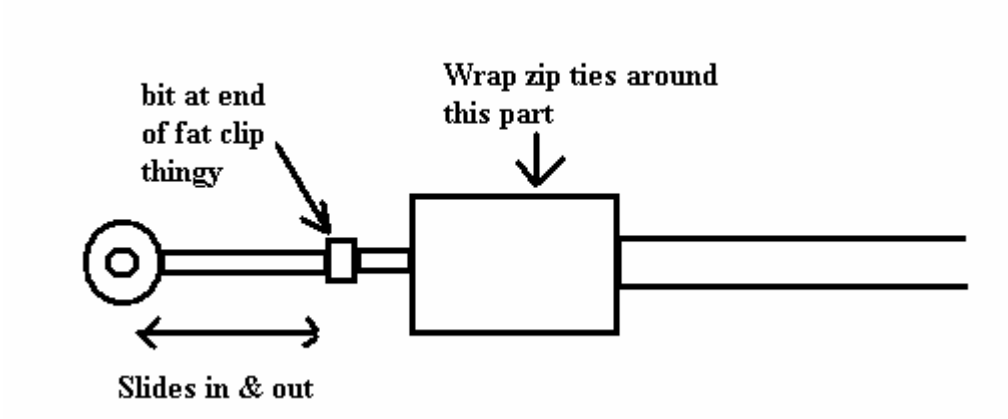
Now, how to remove the EB shifter. Point 3, as you remember, is where the linkages attach to the rotating shift point (a steel dowel + clip attach the linkage to the shift point). Take the clip off (it will be very stiff, requiring pointy nose pliers to try & get it off with). Push the steel dowel out (towards the transmission). Now, back in the car, remove the four bolts with an 8mm socket. The EB shifter plus linkages should come out in one go. Pictured on the next page is the EB shifter & linkages being removed from within the cabin.

Removal of EB's shifter housing and linkages

Find a bolt (& nut) the same diameter as the dowel, which is between 5-10cm long, plus two large washers. Preferably try & find a nut with a Nyloc bit in it so it will not come off due to vibration or other factors. The washers are needed since the grommet that is in the shifter linkage is rubbery and can pop out, as mine did. This is why I (retrospectively) used washers. Find a drill bit the same diameter as the dowel and drill through the eye at the end of the cable (pictured on next page). PLEASE NOTE that you drill *this* end of the cable, which connects up to the gearbox shift linkage. If you drill through the other end you will destroy your cable, since the other end links up to the BA housing. Also, be VERY CAREFUL when drilling through the eye because if you destroy the eye, you're up for another BA cable…

End of BA shifter cable (this end is attached to gearbox)

Shown below is how this end of the cable works:



5a) Fitting BA shifter <FIRST ATTEMPT>

Please note that I have changed how I have fitted the shifter since this attempt (however this attempt still worked fine). I changed my setup so that I could integrate the shifter with the centre console.

Now for replacing with the BA housing. Shown below is the EB shifter getting removed. The highlighted area needs to be cut out using a keyhole saw. I did not take exact (*cough* any *cough*) measurements when cutting, so I can only give you the highlights to go by. If you want to retain the original position for your electric windows (like I did), you MUST cut where I have highlighted, as the shifter housing will get in the way of where the electric windows switchboard originally sits. The top of this image is towards the dash, the bottom towards the back seat.

Removal of EB shifter & linkages.

Sit the BA housing on top, and screw down with the original 8mm bolts. The BA's bolt holes should line up with the EB's transmission tunnel bolt holes (from memory). If not, drill new holes through the transmission tunnel where the bolts need to go.

5b) Fitting BA shifter <CURRENT SETUP>

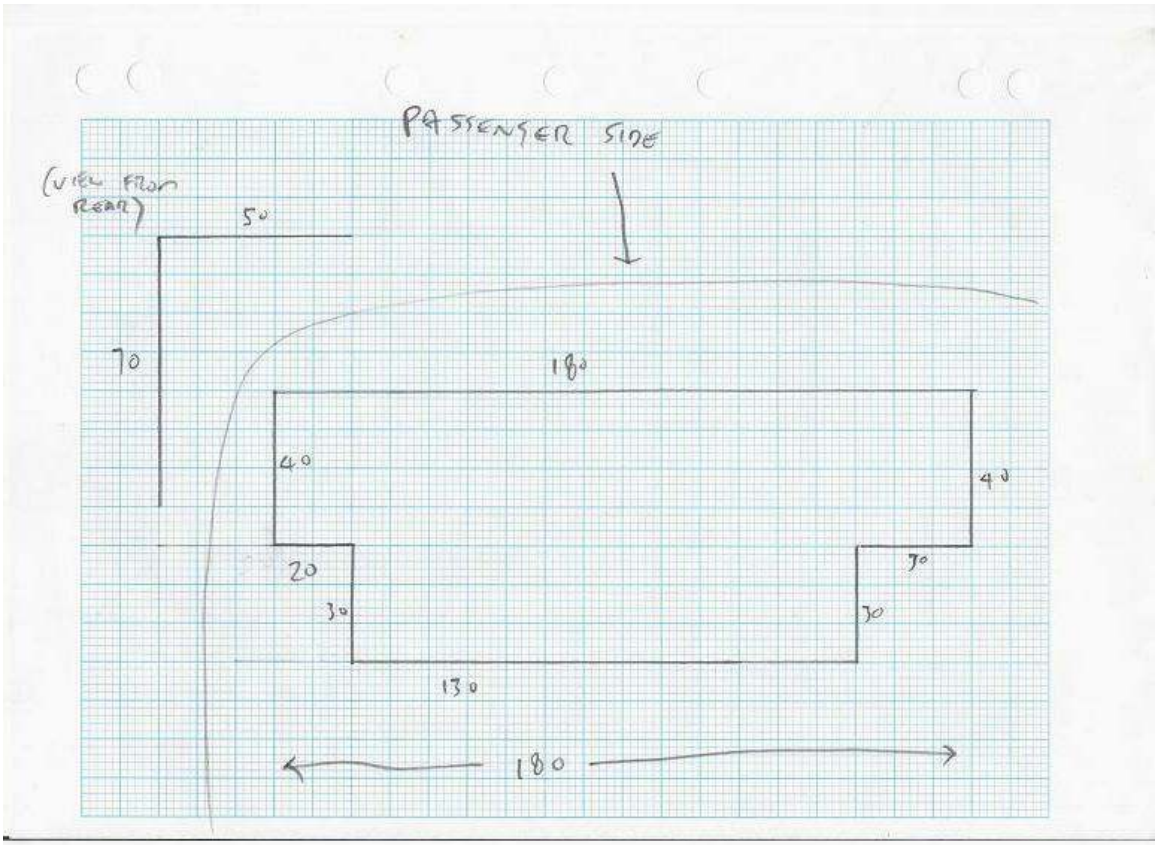
This attempt has opened up the trans tunnel a LOT more, however the shifter is now integrated with the centre console.

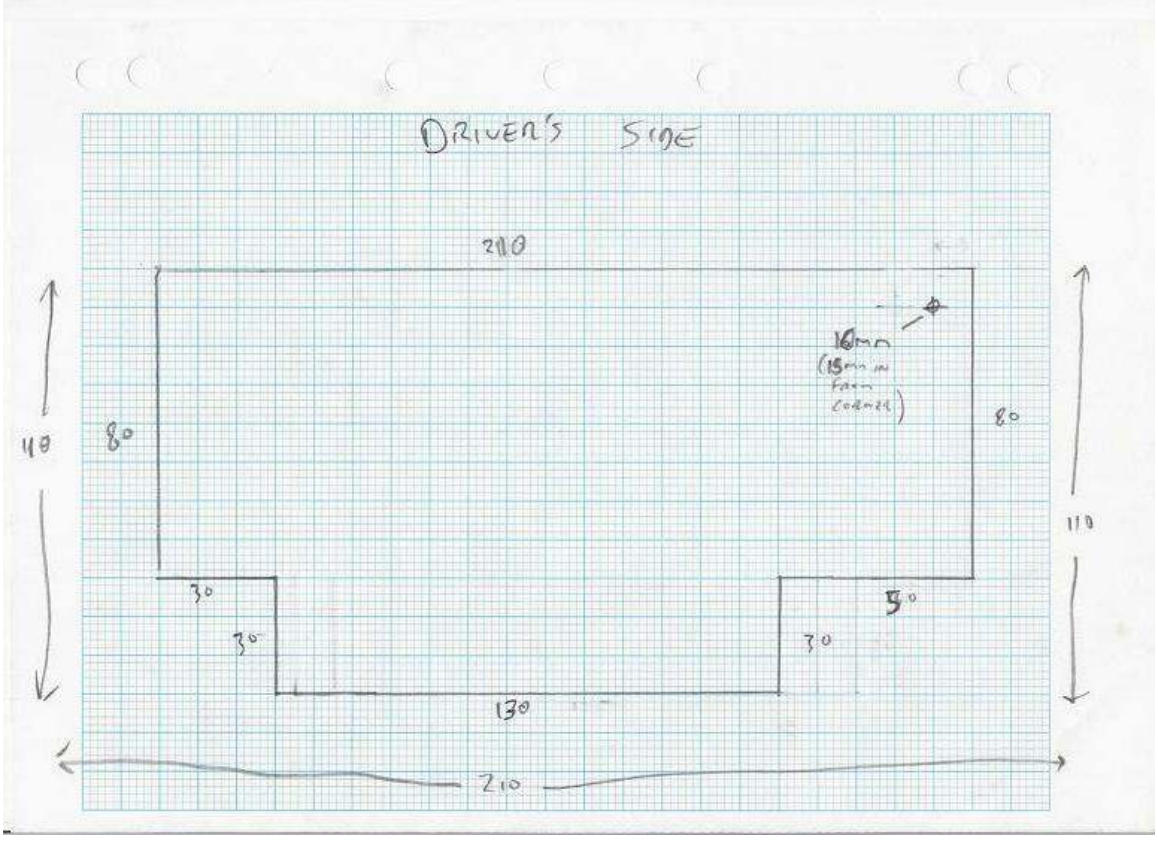
Firstly, a box needs to be made for the shifter housing to sit within. This box will fit snugly into the hole to be cut in the trans tunnel. Shown below and on the following pages are some pictures of the box I had made (cost: $60), as well as the measurements.

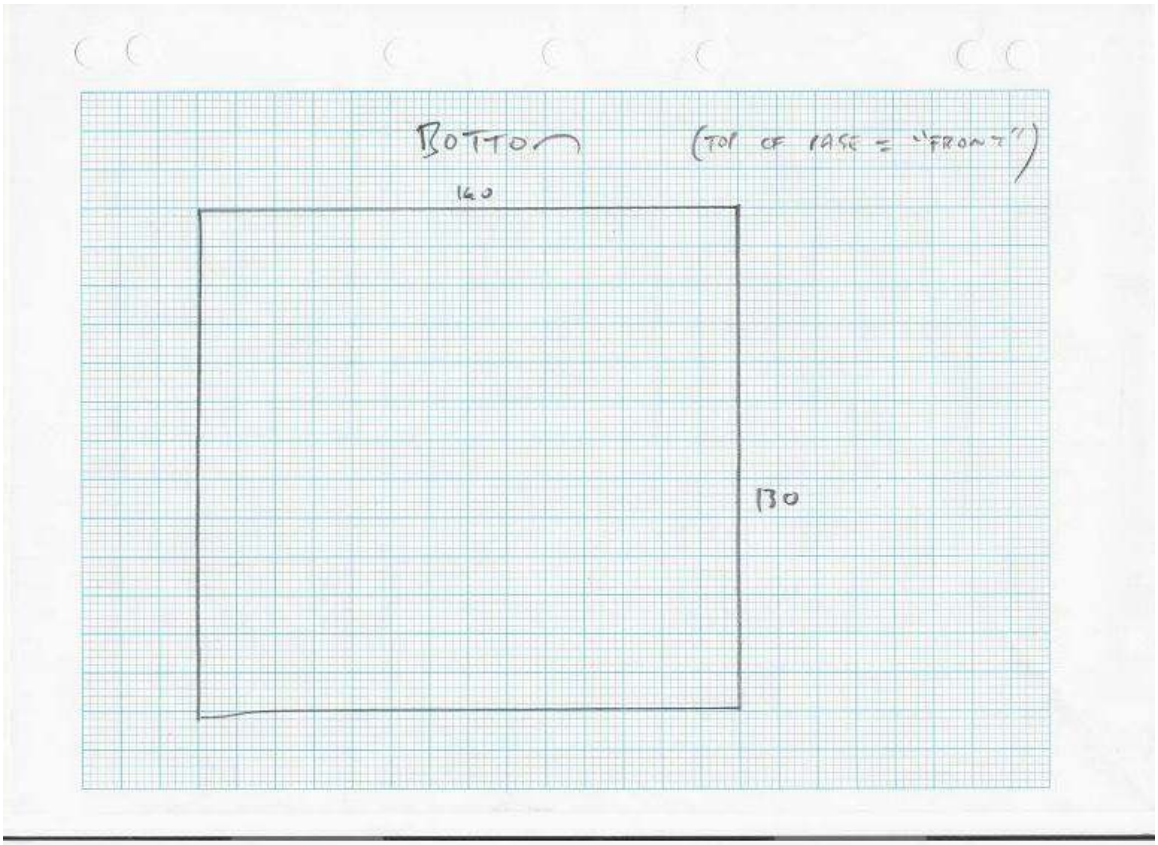
In the pic above, the front of the box is to the left of the image, the passenger side to the bottom of the image, the rear to the right of the image, and the driver side to the top of the image. This is looking down on the box, and the shifter fits snugly into this.

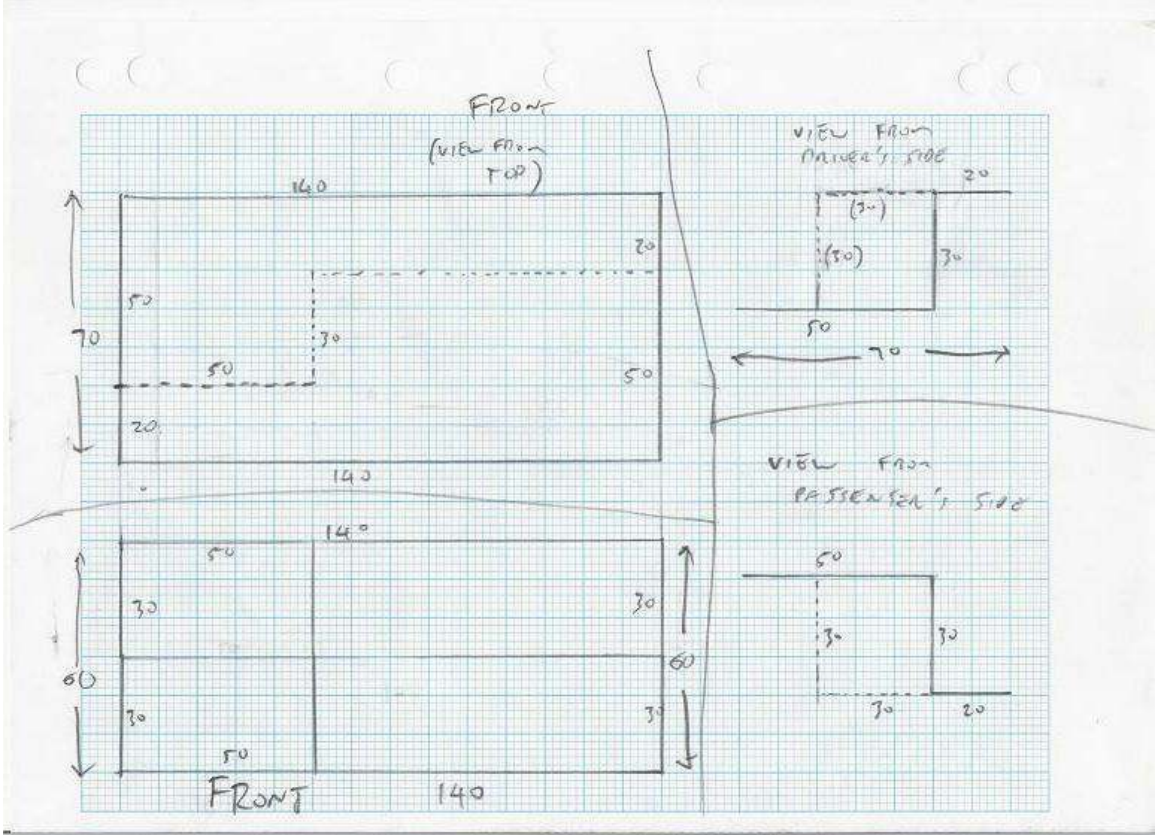
NOTE:1 cut some 1.5mm rubber sheet into shapes to cover the inside faces of this box, as the rubber will help insulate the box.

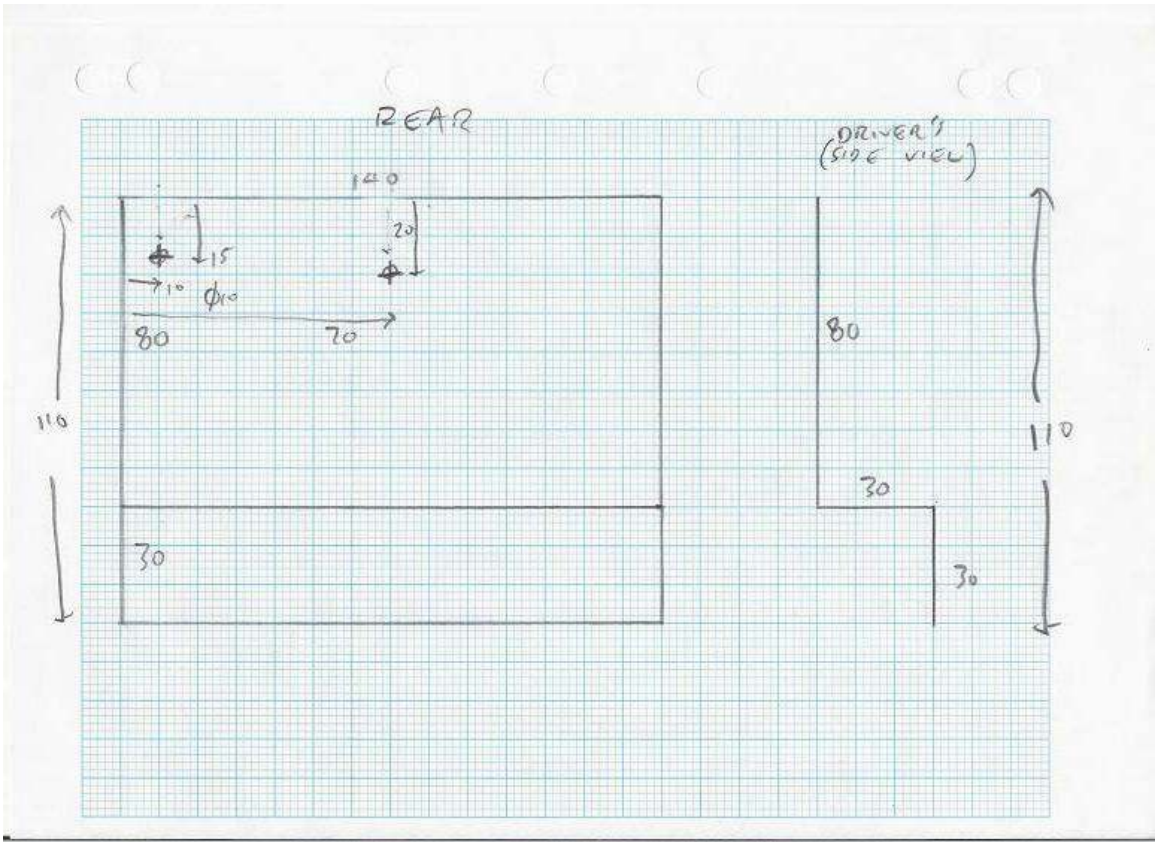
NOTE2: (Hindsight speaking here) In addition to the “lips” on the front & passenger sides of the box, two more “lips” of the same dimensions (50mm long) and at the same height (70mm above absolute bottom of the box) should extend from the rear & driver sides of the box. These “lips” should have self-tapping screws put through them and the trans tunnel so that the box is firmly secured.


PASSENGER SIDE
(VIEW FROM REAR)
50
70
180
40
40
20
30
30
70
130
180


DRIVER'S SIDE
210
40
80
16mm
(15mm IN FOAM COMPR)
80
110
30
30
50
70
130
210

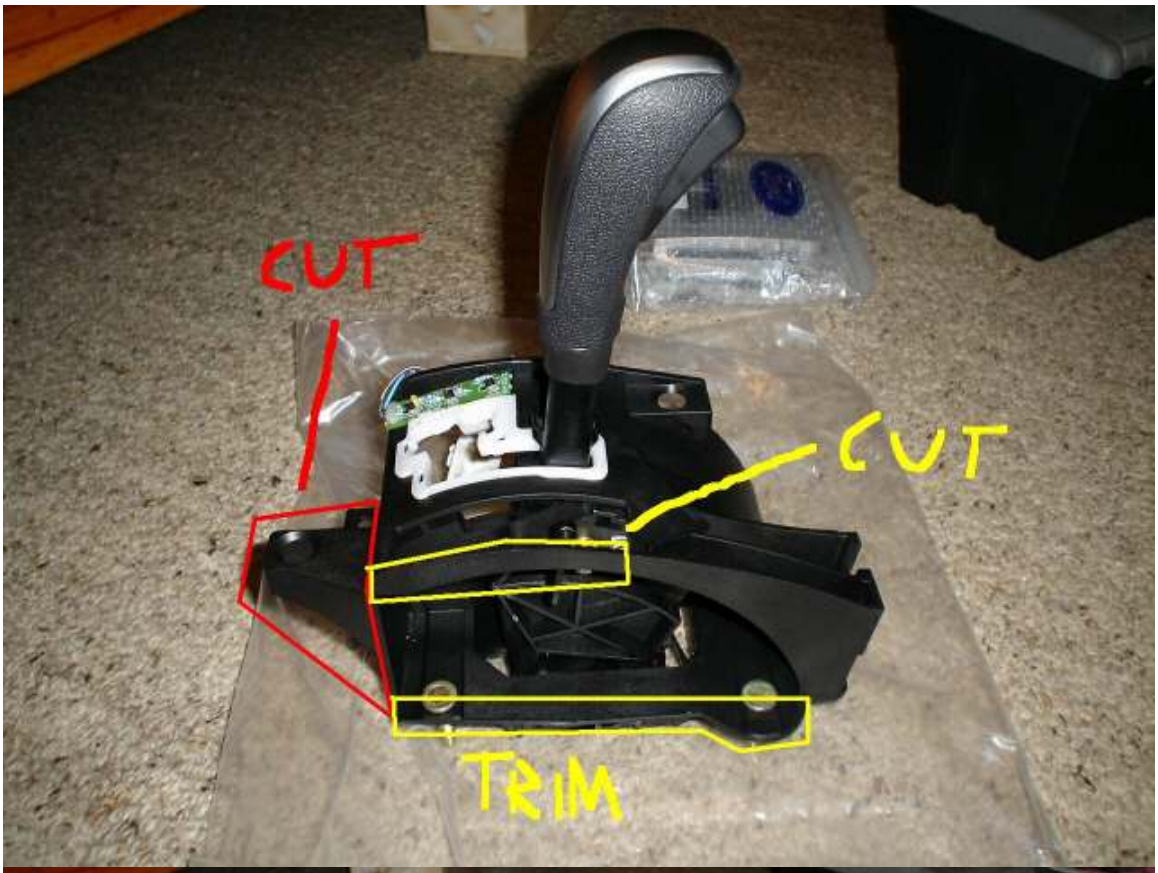

BOTTOM
(TOP OF BASE = "FRONT")
140
130


FRONT
(VIEW FROM TOP)
140
20
50
70
30
50
50
20
140
VIEW FROM DRIVER'S SIDE
20
(20)
(50)
30
50
70
VIEW FROM PASSENGER'S SIDE
140
50
30
30
60
30
30
50
FRONT
140
50
30
30
20



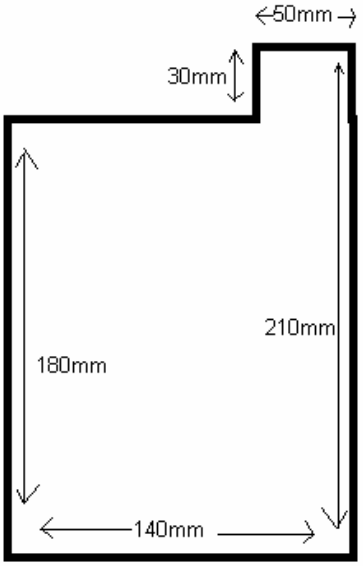
NOTE ON DIAGRAMS: Boltholes shown here are for anchoring the BA shifter to the box, using self-tapping screws or similar. Also, as stated below the first of these pictures (page 22, "NOTE2"), 50mm lips, should be added to the rear and driver sides of the box.

Next up, cut away the following bits from the BA shifter housing (shown on following page) so that it is "square" in shape, with no protrusions:

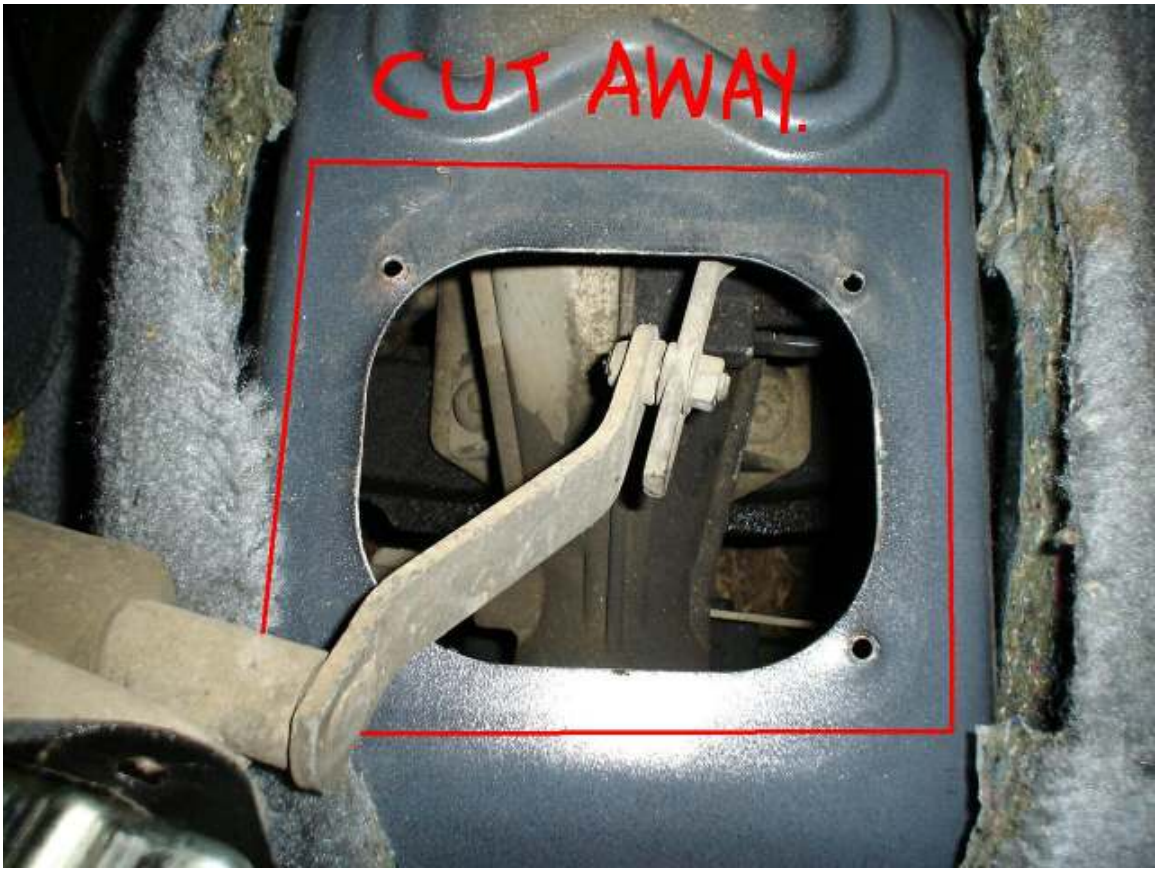

CUT
CUT
TRIM


CUT
CUT

Now, for the trans tunnel itself, a substantial amount needs to be cut away from the original hole. It is best to cut away the equivalent size of the box itself, such as shown below:



Shown below is roughly what needs cutting away (with the previous diagram in mind!).



Removal of EB shifter and linkages

In hindsight I should have simply cut this away cleanly, like shown on the previous page, but I ended up cutting away bit by bit, while trying to figure out how to fit the BA shifter lower down in the trans tunnel. In other words, it looks very backyard compared to the clean cutlines shown here!

Once the box containing the anchored shifter is mounted into place (and anchored itself), you should get under the car with a can of Poly-Fill expandable foam and fill the gaps between the box and the trans tunnel. These gaps being where air can pass from outside to within the cabin. This can either be done now, or after the rest of the installation has been completed.

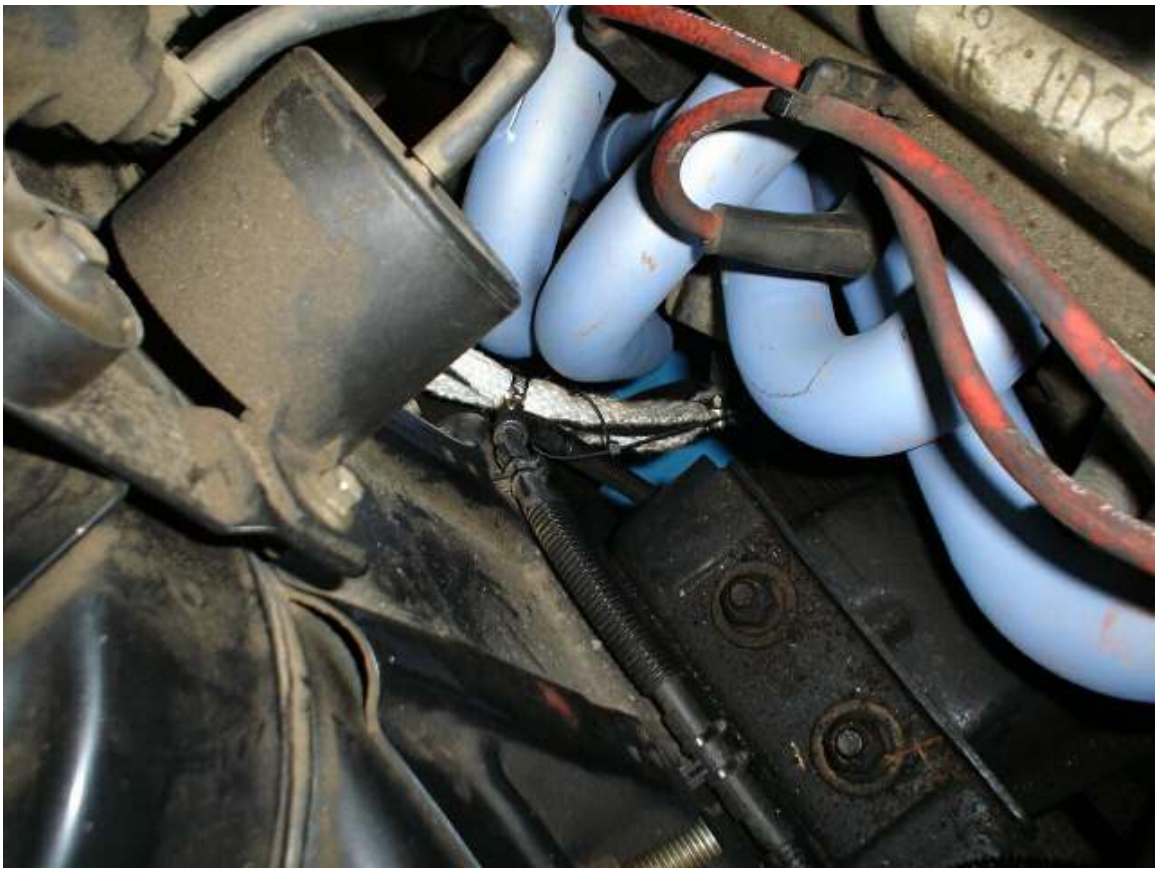
6) BA shifter cable.

Next, a hole needs to be made through the steering column plate attached to the firewall. Pull the carpet & sound deadening material down so that the plate is exposed (it's near the brake pedal). A hole needs to be made that is the size of the cable clip which clips into the BA housing (it's a black plastic clip about 15x30mm), so that the cable can be fed through the hole. If you're really keen, you could probably oxy it in 2 seconds, hopefully without setting anything on fire, but I opted to drill a series of instead. Shown on the following page is the drilling in progress. Many holes were drilled, and then was made larger through a mix of sawing with a keyhole saw, filing, and bending away with a crowbar(!!!).

Making progress with the cable feed hole.

When this hole is finished, feed the cable through from the engine bay. Connect up to BA shifter (slot the gearknob on while you're at it). Feed the rest of the cable around the outside of the extractors, and then loop back between the extractors and the block. Shown on the next page is the cable wrapped in heatproof bandage, coming out from the hole made in the steering column plate and looping around the extractors. Care was taken when looping so that the cable & bandage would not contact the extractors at any point. To stop the cable from floating around, it was ziptied at various points to anchor points, be they looms, eyelets, or other (fixed) cables within the engine bay. My cable is fixed firmly in place.

BA shifter cable (wrapped in heatproof bandage) coming from steering column plate.



BA shifter cable looping around extractors (the engine has been cleaned since this disgraceful shot was taken!)

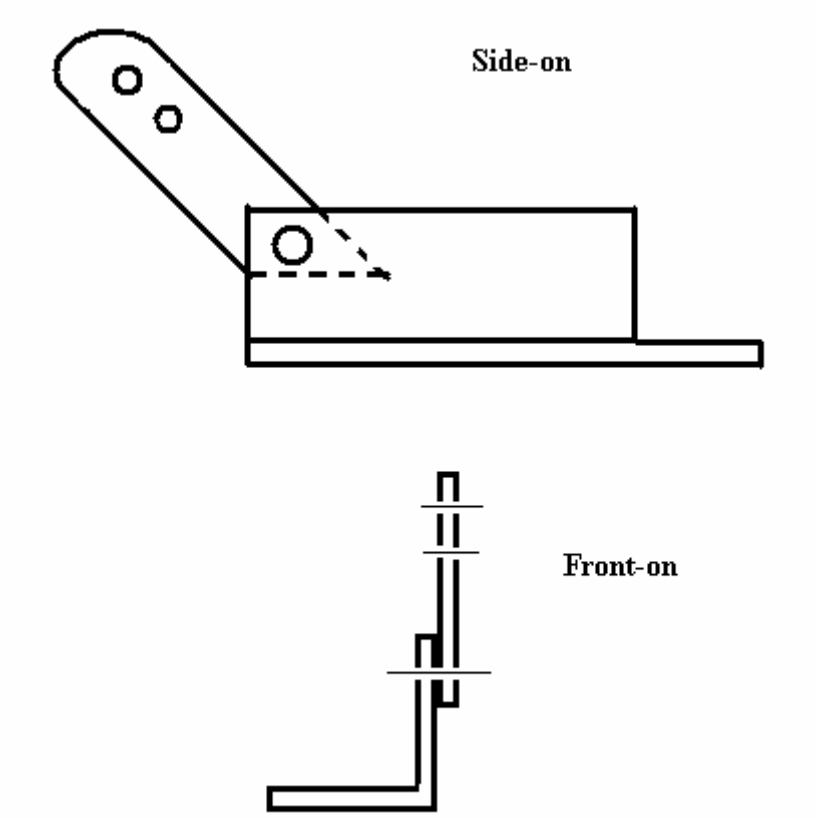
7) Linkage/bracket under the car

This is the most difficult part of the process! My linkage setup is still not correct, as it only selects R-N-D (no P). My current bracket for holding the cable is the correct distance away from the transmission's linkage arm, but the cable is attached too high up the arm, so that it doesn't rotate far enough to select P. My current bracket is wrapped in heatproof bandages, so I am unable to take any pictures of it for interpretation. Shown on the next page is my previous (and dodgy) bracket.

Bracket holding cable (from side-on).

The two bolt holes (upper left & centre) here are found on the bell housing and are actually threaded. Some bolts off Pilch's XC came in handy here, but all you need to do is find some with a matching diameter. The third bolt (lower right) is simply to connect the two bits of metal that make up the bracket together. My current bracket extends to the right of this image (towards the block) by about an inch, with the cable being ziptied to the TOP of the bracket rather than underneath as shown above. This lessens the angle of which the cable is at when attached to the shifter linkage arm.

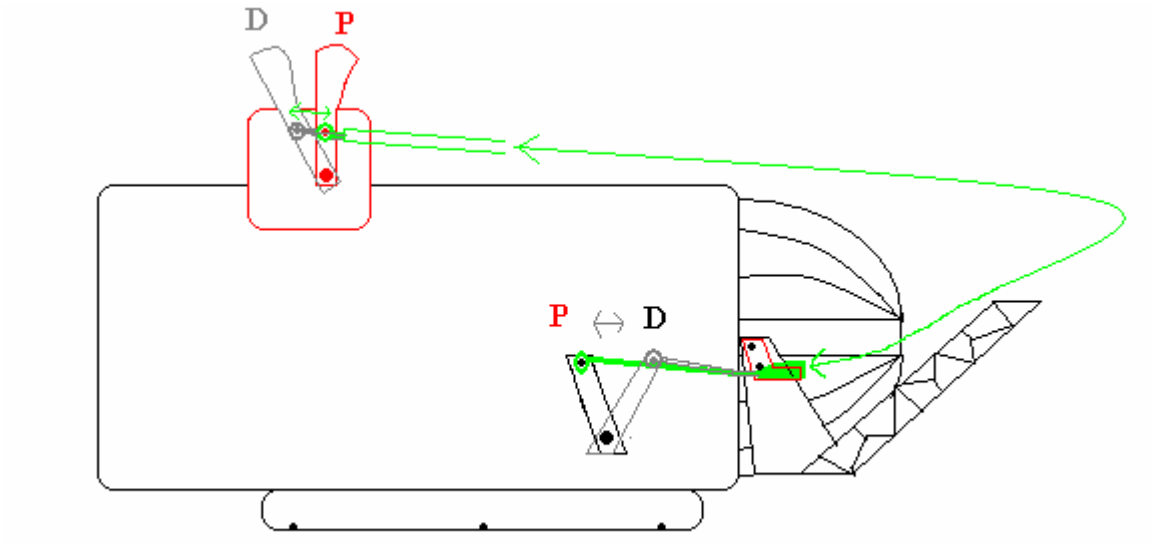
On the next page is a diagram of my current bracket, also made from two pieces of metal.



Shown on the next few pages is the other end of the cable bolted up to the shifter linkage arm, the underneath of the bracket (before I moved the cable to being on top of the bracket rather than underneath) and an illustration of the whole lot as well.

Cable meets shift point linkage. Note bolt & washers (there are only two washers, the other bits you see are from the grommet that sits in the end of the linkage).

"Quality" fitting of cable to bracket using wire. The engine is to the left of this image (blue pipe = extractors).



BA shifter, cable, bracket & shift point linkage.

It is VERY IMPORTANT to make sure than once your cable is attached to your bracket, it is attached FIRMLY so that there is NO MOVEMENT when shifting through gears. Your car will not be driveable until this bracket firmly holds the cable (and that it changes to the desired gear). If your bracket isn't mounted correctly for changing all gears, you can remove the cable from the BA shifter housing and pull it in/push it out as a temporary measure. It firmly clicks into the gear you choose, so don't worry about finding a gear somewhere between say Drive and Neutral. Just go through the clicks slowly so you select the right gear!!!

To obtain Park, there is a 2nd hole in the shifter arm, and I believe that if I was to move the connection point between the BA cable and the arm from the top of the arm to this 2nd point, I will be able to select all four gears, as the cable will push the arm farther when I go through the gears using the shifter. I haven't done this yet as I am lazy!

The BA shifter is now funtional, and operates like a standard E-Series shifter (tiptronic not installed yet). Your car is driveable! (pics below are old as shifter has been placed farther down in trans tunnel now. Pics shown with electrics installed)

Shown in neutral.


Shown in 1st (tiptronic mode)

8) Electronics (refer to Muzza's documents)

9) Replacing centre console & integration.

Now to make the interior presentable. The centre console has a lot of brackets underneath it which are not required when refitting (if you plan to add a manual style gear boot like what I have done, or a BA-style console cover, such as what EA2BA has achieved). I will delve into these a little later.

Firstly, take note of how the black plastic vent tube is attached to the underside of the console. Remove these attachments with a hacksaw/keyhole saw, as you will need to remove the vent tube from the console. DO NOT damage or destroy the vent tube, as this is still used!

Also, take note of how there is a bracket which holds the front bin to the front of the P-R-N-D-3-2-1 E-series fascia. Remove this bracket with a keyhole saw, as it will foul on the BA shifter housing when attempting to refit the console.

I believe there are some other tabs and excessive (non-essential for the integrity of the console or parts attached to the console) pieces of plastic which also need to be removed for clearance issues, but these can be discovered when you undergo repeated attempts to refit the console.

Before refitting the console itself, move the black plastic vent tube into place, and "pop" into the vent hole under the dash. Next, insert the centre console over the top of the BA

shifter housing (gearknob removed for additional clearance) in a diagonally-down fashion, lowering to horizontal once the void where the auto fascia once was is over the housing.

Remove the bin from the console by unscrewing and lifting out. Note that the console hasn't been screwed down to the mounting point yet (mounting point is pictured on next page) so that it can be moved around still. Reach into the hole to grab the black plastic vent tube, and then move the centre console forwards until the black plastic vent tube "pops" into the vents on the rear of the centre console.

Centre console mounting point ("up" = towards dash).

Replace the bin, and then screw back into the mounting points. Your centre console is now firmly reattached! All that remains is to refit the electric window switchboard (plug back into the loom). How you tailor your centre console is up to you. As mentioned, EA2BA has made a hybrid E-Series/BA console with the BA P-R-N-D fascia integrated, whereas I have opted for a more "manual" look. Shown on the next page are some images of his EA's BA conversion.

EA2BA's hybrid E-series/BA centre console with integrated BA fascia. (Picture courtesy of EA2BA)

A more close-up image (Picture courtesy of EA2BA)

Anyone who wishes to know more about the above console cover should direct their enquiries to EA2BA.

Shown below and on the following pages are some pictures of my 1st and current installations.

Here's an image from my first install ("Part 5a"). Take note of the visible hacking done to the front bin and the auto fascia, however my electric window switchboard is in its original position.

Here is a view from directly above ("Part 5a" install), showing where I cut into the auto fascia and the front bin. The power/economy button still works, but this is a redundant feature (unless you wish to use Power while in "D") due to the tiptronic shift mode automatically switching to Power mode.

On the following pages there are images of the current setup. I have a manual fascia in place of the butchered auto fascia, and the front bin has been replaced with a non-butchered (hehe) one.

The vinyl gearboot has been modified since these pictures were taken, being changed from a single piece to four triangles stapled together. Also, as is evident in one of these pictures, the vinyl didn't form a perfect seal around the inner edges of the fascia, but with the current vinyl gearboot it does. It is STILL incomplete, as I will make a leather gearboot (thanks to MADNC_8 for the leather!) to match the rest of my interior, however this vinyl design is what I will make the leather to. No measurements sorry, as I had to make it by trial and error, and didn't measure the succeeding design's dimensions.


ALPINE
PARK BRA

RESULTS <prior to shift kit and diff gears, but still apply>

This conversion kicks ass! I have tested this out on many different roads and at a drag strip and have gathered a fair understanding of how this shifter operates. Move the shifter between P and D and it behaves like a standard auto. Shift across to SSS mode and it behaves like a semi-manual, as intended! Select 1st and it will hold 1st until you choose 2nd. On a standard BA, it will automatically change to 2nd when the engine "redlines" (despite BA tachometers not having a redline zone). Since my shifter is hooked up behind a Windsor 5.0, which redlines at 5000rpm, I suspect that the redline setting for the BA shifter is set somewhere well above this, since the highest I have taken my 5.0 to has been 6000rpm. Fuel cut out is at around 6200rpm. So for my conversion, it won't shift to the next gear (no matter what gear you're in) until you shift it yourself.

Kickdown is an exception though. If you're travelling at a really low speed in 2nd or 3rd whist in SSS mode, and then floor it, the auto will still drop back to a more suitable gear, before returning to the intended gear. For example, when in "3" and gurgling along at 20kph, if you floor it it will kick back to 1st, hurriedly select 2nd before selecting and holding 3rd. However, if you were doing say 60kph in 3rd, it will hold 3rd, rather than kick down to 2nd. So it holds gears better than "D" will.

One thing that should be noted is that if you are travelling at moderately high rpms, say 3500rpm in 2nd at around 70kph with your foot off the accelerator, the torque converter will disengage (like pushing the clutch in), dropping the revs to around 1500rpm. Don't be alarmed, as it will still be in 2nd. The moment you touch the accelerator, and I mean *touch*, it will quickly reengage. It won't thump you in the back of the head, unless you're doing something silly like 60 in 1st, but it will reengage very quickly still. I have noticed that there is heat buildup when using SSS in this manner, so a large transmission cooler and a beefy torque converter would be wise investments for long-term use of the BA shifter. I intend to upgrade my cooler & converter sometime in the future. The SSS will NOT damage your box in the short term though, so don't expect any catastrophic failure, unless you change from 4th to 1st at 100kph and boot it.

By the way, when holding 1st, it can be wound out to nearly 110kph with the 5.0! ☺ ☺ ☺

When using the tiptronic, FIRMLY pull or push the gearknob, as a half-hearted attempt won't let the electronics recognise that a gearchange is wanted, and it will not change gears. Hence 6000rpm in 1st at 110kph, rather than changing to 2nd.

The SSS will shift from 1st to 3rd. 4th is selected by moving back into "D". I have found this to be a minor annoyance, however to be shifting to 4th while driving flat-out using the SSS for 1-2-3 will quickly strip you of your licence, since 3rd gear at 200kph is a tad under 5000rpm. **Note, since fitting 4.11s, I would opt for 4th to be included in SSS mode.*

I find that overall, I use "D" 90% of the time still, however if I'm travelling up a windy road, through backstreers, or putting the wind up a commodore, I'll use the SSS.

FUTURE IMPROVEMENTS

<report made prior to shift kit & diff gears>

Although the SSS works a treat, it is a tad sluggish as it is set to "driving Miss Daisy" spec. Shifting at 5000ish rpm at WOT will see the gears actually change around 5800rpm. I intend to install a shift kit such as one from www.shiftkits.com.au. The BA shifter's electronics to not tap into the loom wires required for an S5 electronic shift kit.

**Note: I have since fitted a mild shift kit, and WOW it makes a difference! Minimal lag (<200rpm) between shifts at WOT.*

**Note2: Since fitting the 4.11 diff gears, it will chirp the wheels (this is an LSD diff, and I have 225s) from 1st-2nd at WOT.*

I still need to reposition where the cable is connected to the shifter linkage arm coming from the transmission. This will give me P-R-N-D. Reverse, Neutral and Drive can be selected with confidence (and it won't slip out of these gears), but Park is *just* out of reach, so selecting Reverse covers both the traditional Reverse and Park positions regarding shifter position. The solution to this was stated on page 37.

I will change my diff gear ratio from 3.27:1 to 3.7:1 or 3.73:1 sometime in the near future, so that my car will be much snappier to drive. At the moment I have to hold onto gears for too long due to their large range through the revs. For example at a recent cruise up to the Sugarloaf reservoir, I held 2nd gear from the bottom to the top of the mountain, despite speeds ranging from 30 to 100kph. 2nd gear at 100kph is well below the redline by the way!

**Refer to Note2 above! Pfft 3.7s…*

I strongly recommend this as an alternative to a T5 conversion. Compare the costs, and unless you obtain T5 parts off Ebay or a mate (or buy a cheap wreck and resell the rest of the wreck), the BA shifter conversion will end up much cheaper. It is also much much simpler and more straightforward than a T5 conversion. Yes, manuals can be more fun, but the BA shifter comes damn close and has an added "wow" factor to it. Also, think of being stuck in traffic with a manual compared to your friend, "D".

Cheers,

-Dave-

Ghia5L

E-SERIES OWNERS CLUB