

YOU CAN DO IT

BUY/VAT/DONOR/BUILD/IVA/REGISTER/DRIVE™

ASSEMBLY MANUAL FOR DUTTON Phæton 5 Donor:-
Mazda MX5 Mk3 NC 2005-2015 55-15 Reg

This manual - January 2026 - takes precedent over all earlier dated editions. We suggest you don't download until you have the kit in front of you as we continually upgrade this manual.

TOOLS REQUIRED



Usual garage hand tools, jack, 4 axle stands, drill, Elastoplast, Haynes Mazda manual, Pop rivet gun.



Additional specialist tools you will require:- wire crimping tool. Note 1/2” wide jaws in pic to correctly crimp wire, wire stripper, brake and fuel pipe bender (with sample) and special pliers for Mazda hose clamps.

If there is anything that does not make sense please advise, we are always interested in any comments that might improve the build-up for the benefit of other builders (and us)

20 PAGES verses 47 PAGES and 75 colour photos?

Prior to purchasing any kit it is recommended that a Companies assembly manual is forensically examined to determine:-

- a) Can you build it?
- b) Does it show all the parts being fitted with clear photos?

Our manual has 47 pages and 75 colour photos.

It is counter-intuitive to assume that just because our manual has 47 pages that the build-up will take twice as long as a 20 page manual.....

It is recommended that you fill in the following and keep this manual with your completed Phæton 5, it will help with obtaining parts at a later date

DUTTON PHÆTON 5 VIN # DUTT0NPHAET0N8__ __ __

VIN is spelt with zeros to comply with DVLA regulations.

MAZDA VIN # (17 digit): -

MAZDA MX5 mk3 MODEL#: -

MAZDA REGISTRATION #: -

MAZDA REGISTRATION YEAR: -

DUTTON # WHEN REGISTERED:-

Nomenclature: -

A post 1st upright post (windscreen)

B post 2nd upright post (behind driver)

C post 3rd upright post (behind rear seat)

LHS = Left as viewed from sitting in car

RHS = Right as viewed from sitting in car

LHD = Left hand drive

RHD = Right hand drive

PS = passenger side

DS = drivers side

ss = stainless steel

Dia = diameter

= Mazda part number
i/d = inside diameter
o/d = outside diameter
IVA = Individual Vehicle Approval
ffm = full and free movement
GRP = Glass fibre Reinforced Plastic (FRP in some countries)
F = front
R = rear
m = male
f = female
Nylock = self locking nut
SVA = Single Vehicle Approval (now obsolete)
Washer = normal outside dia (2 x i/d)
Penny washer = oversize outside dia (3.5 x i/d)
ms = mild steel
1" (inch) = 25.4mm
1ft = 300mm
8.8 grade standard bolt
10.9 grade medium bolt
12.9 grade high tensile bolt
hyd = hydraulic
cyl = cylinder
hex set = hexagonal headed fully threaded screw
bolt = fastener with solid shaft and short thread
Button head = domed headed bolt with Allen socket
damper = what is incorrectly referred to as a "shock absorber"
bundy = copper pipe (brake/clutch/fuel)
DVLA = Driver and Vehicle Licencing Agency
DVSA (was VOSA) = Driver and Vehicle Standards Agency

ITEMS THAT ARE SUPPLIED LOOSE IN KIT (i.e. not pre-attached to the body/chassis) ARE HIGHLIGHTED IN GREEN

PLEASE READ THIS BEFORE BUILD-UP.

Kit cars and the law:-

1/ Prior to vehicle registration the car must comply with IVA regulations issued by DVSA.

2/ The split second DVLA issue a registration number the IVA regs go out of the window and the vehicle must then comply with all relevant Construction & Use regs and Vehicle Lighting regs (effectively 3 years later during the 1st required MOT test)

3/ Take photos during your build-up, you might have to send a handful to DVLA if requested to show it was "amateur built"

To comply with IVA these instructions should be followed precisely

ALL pipes/hoses/wire/cables etc. must be supported minimum every 12"

(300mm)

ALL wiring must be covered by plastic conduit IN ADDITION to the coloured plastic around the wire, although you are allowed a couple of inches leeway around plugs/sockets etc.

A full list of nuts & bolts/hose clips/wire etc and steel brackets are supplied with the kit.

WIRING SPECS:-

Wire is referred to by the number of copper strands (x) and colour/s and is rated as: -

Strands	Amp	Typical use (see Haynes manual)
(14)	8	All lighting and most other systems
(28)	17	Mainly medium duty earth
(44)	27	Main earth/charging circuit/engine fan
(65)		Not used on the Phaeton

Dutton wire colours codes : -

B	black (earth)
Br	brown
Bl	blue
R	red
Y	yellow
P	purple
W	white
G	green
O	orange
Gy	grey

All Dutton wiring unless otherwise stated is (14)

Standard Dutton colours with World wide colour codes:-

Black RAL 9005
Yellow BS 10-E-53
White BS 00-E-55
Dark Admiralty Grey BS 18-B-25
Blue RAL 5015
Green RAL 110-70-70
Orange RAL 2009
Red RAL 3020

These numbers will be useful if you want to colour match your 3rd brake light, door mirrors etc.

Pre-mixed colours can be obtained via Ebay (and others) in tins and aerosols, order correctly by quoting colour and BS or RAL #.

This manual is in 3 sections:-

- 1/ Mazda strip download
- 2/ Build-up of complete rolling chassis
- 3/ Fitting out body shell

SECTION 1 The Mazda strip down.



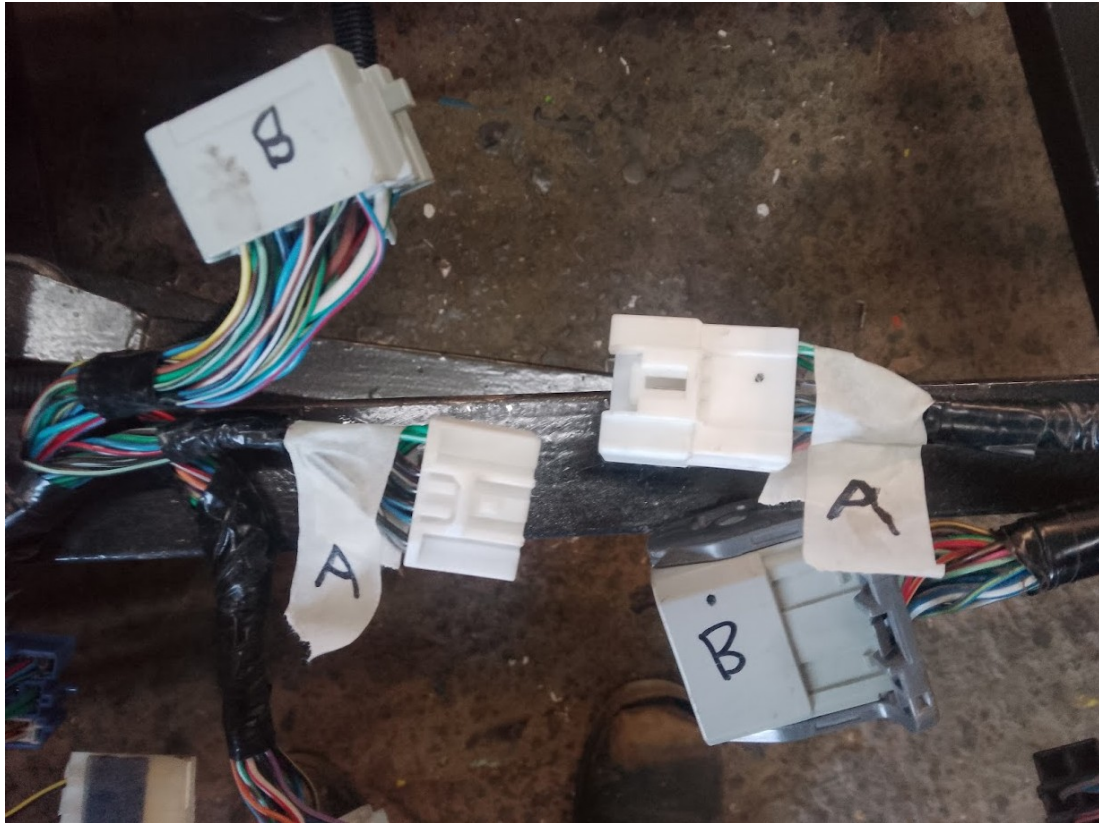
WORK TO COMPLETE BEFORE YOU HAVE THE KIT

It is most important that you check everything on the Mazda works before stripping it down otherwise if you build up your 5 and something doesn't work you won't know whether its a Mazda fault or you have assembled something incorrectly.

Before disconnecting battery:-
park wipers
hood down

Remove battery

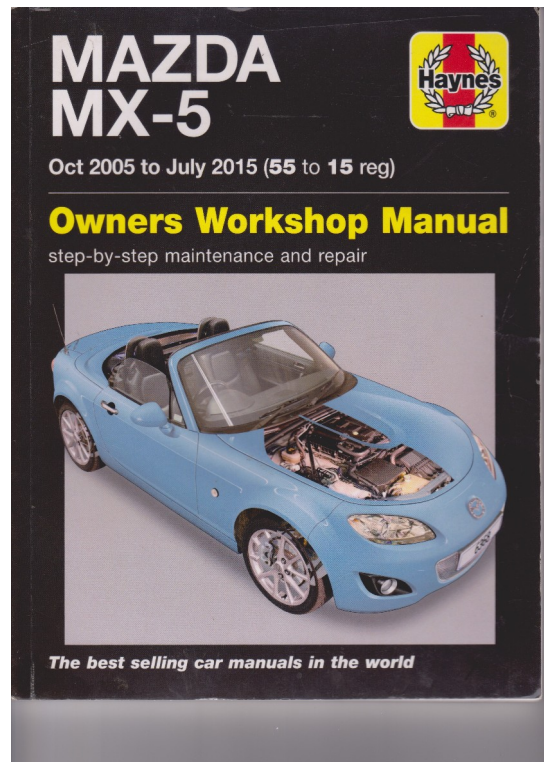
Remove bonnet, boot lid and seats. We recommend that you take photos and in particular number all electrical plugs/sockets and hoses with masking tape prior to strip down.



It is advised to clean up and paint all metal components :- front and rear suspension etc whilst waiting for your 5. We use commercial chassis black paint.

Due to the construction of the Mazda it doesn't make any difference in which order you strip it down and will depend more on your storage space, availability of equipment etc. The Haynes manual is imperative. We won't insult your intelligence by reminding you to be cognisant of a safe working environment.

Manual from Haynes Direct via Ebay around £23 inc postage. **Mazda MX-5 (Oct 05 - July 15) 55 to 15 Haynes Repair Manual (Paperback)**



SECTION 2 the rolling chassis build-up.

CAPTIONS UNDER PHOTOS REFER TO THAT PHOTO THROUGHOUT THIS MANUAL





Remove Bonnet (4 bolts) and bonnet stay (1 bolt). Remove body bolts (4 front bolts and 2 in boot). Remove boot lid (4 bolts). 2 adults needed to lift body tub off.

Due to the design of the Phaeton 5 the entire rolling chassis is built up before re-fitting the body tub.

REAR SUSPENSION/SUB FRAME

Discard girder used to join diff to gearbox. Keep all nuts and bolts.

Discard Mazda coil-over dampers. Keep nuts and bolts



Bolt directly onto chassis mounts. Leave all 6 bolts loose until the diff mounting has also been attached.

Check front **bolt** head is underside (so it can be removed when bodyshell is on)

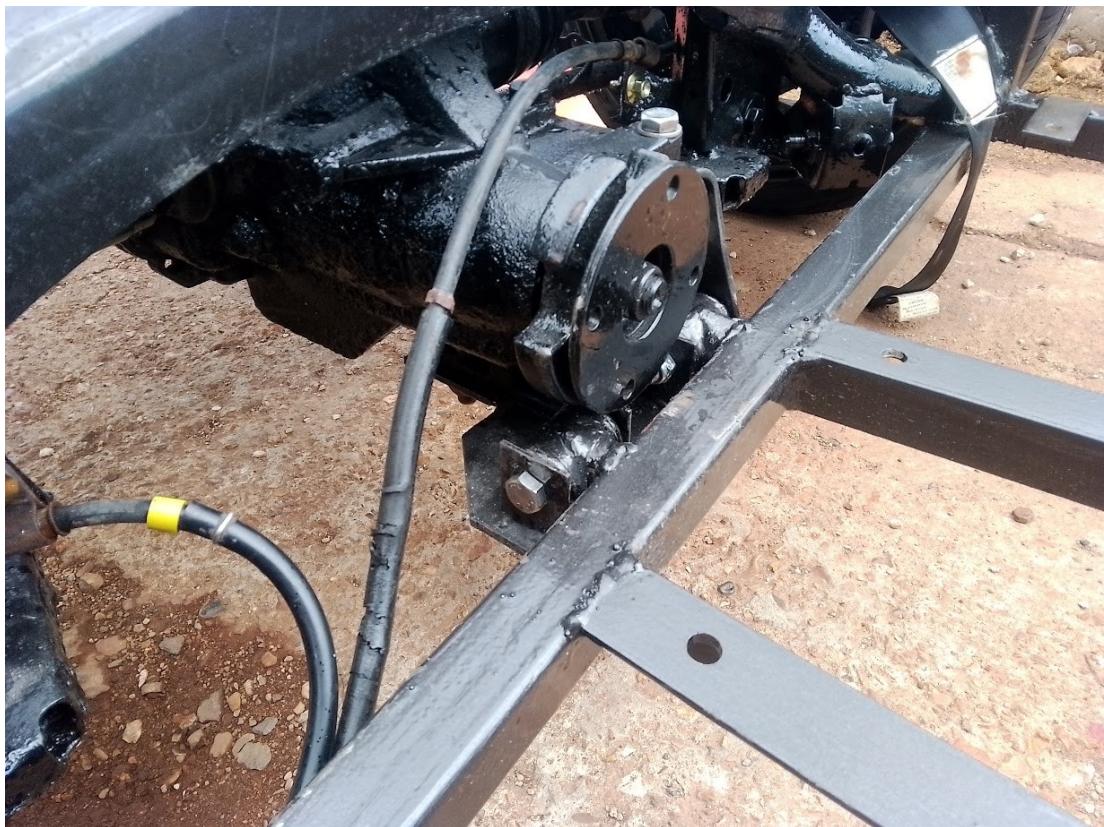
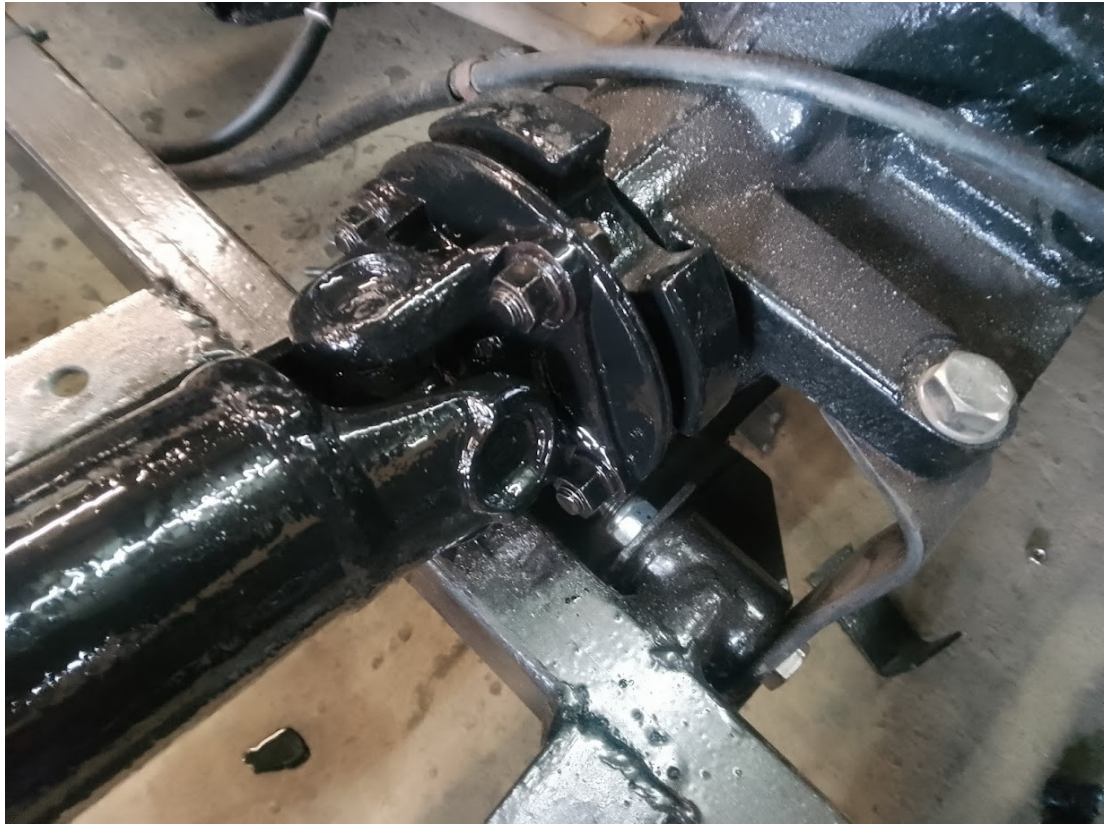


centre bolt



rear bolt

Bolt complete rear sub frame (with suspension) to chassis with 6 attachment bolts 4 off M12 x 80, 2 off M12 x 30

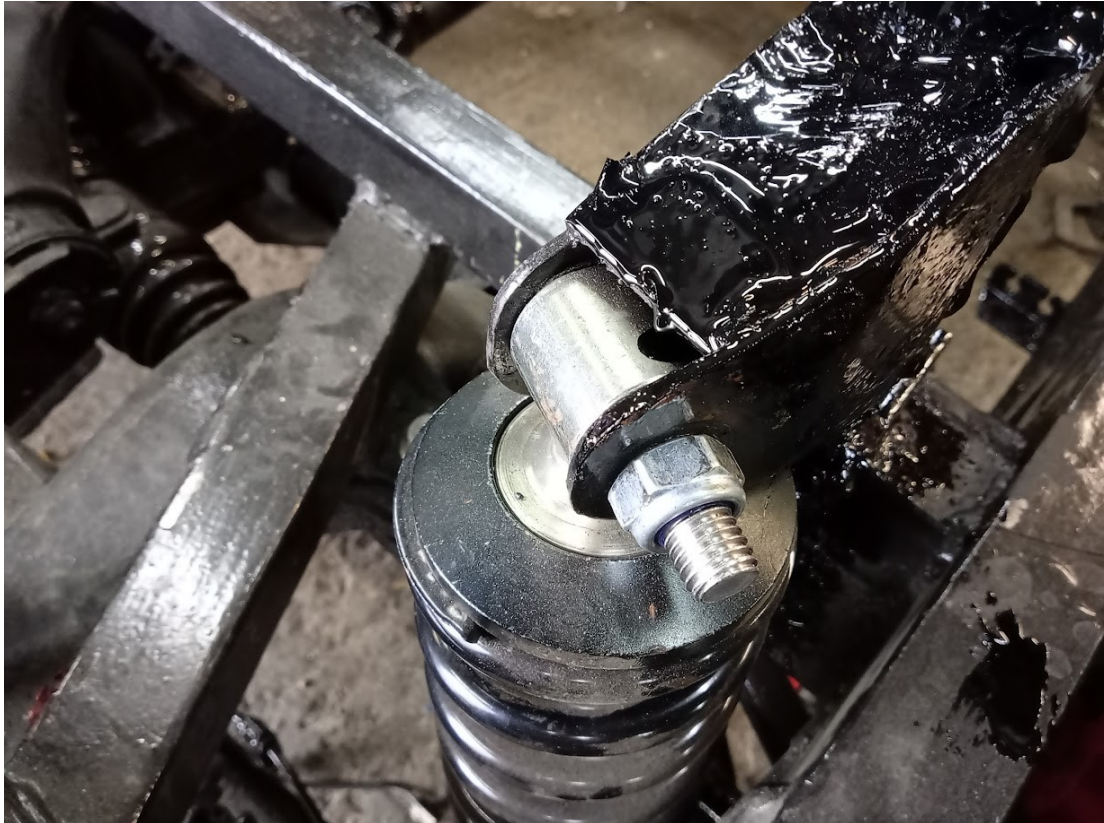


Bolt front diff bracket to diff casing using 12m Mazda studs and nuts plus 1 bolt M12 x 50 top bolt. Use 2 off M14 Mazda nuts for lower mount.

Bolt diff bracket thru chassis rubber mountings 2 bolts M10 x 80

Now tighten all bolts

Check diff oil use SAE 90 GL5



Ride height is preset at factory but you can easily adjust yourself by screwing base ring nuts up or down. Similarly the damping rate is set a 50% and can be adjusted to suit

Bolt coil-over dampers to lower mounting on hub, use Mazda washer/nut

Bolt top mounts to chassis 1 bolt M12 x 60

That completes rear suspension

FRONT SUSPENSION

Discard Mazda coil-overs

Fully assembled suspension straight off the Mazda can be fitted.



Bolt lower wishbone first using Mazda bolts/nuts
Bolt Top wishbone 2 bolts M10 x 80
Bolt coil-over damper M10 x 60



Bolt rack and anti roll bar

ENGINE & GEARBOX

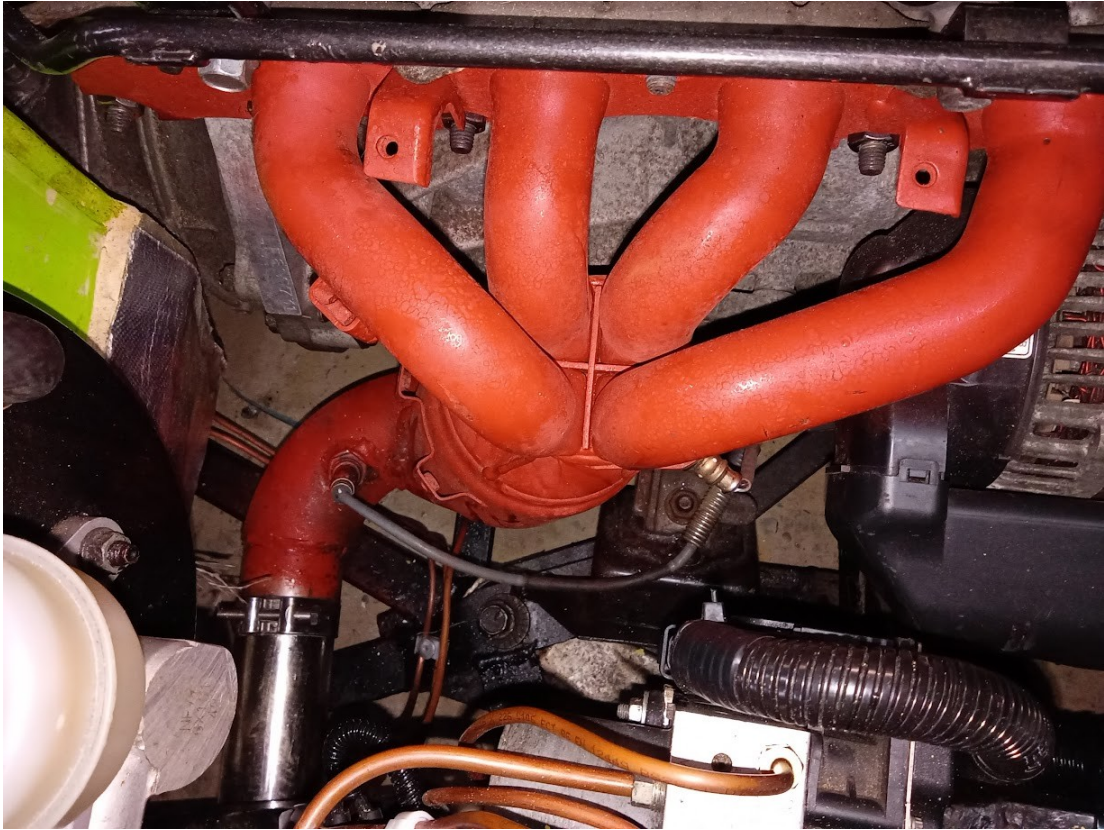


Discard Mazda front sub frame. Remove both rubber engine insulators from Mazda front sub-frame and bolt to chassis. Lower engine onto rubber insulators



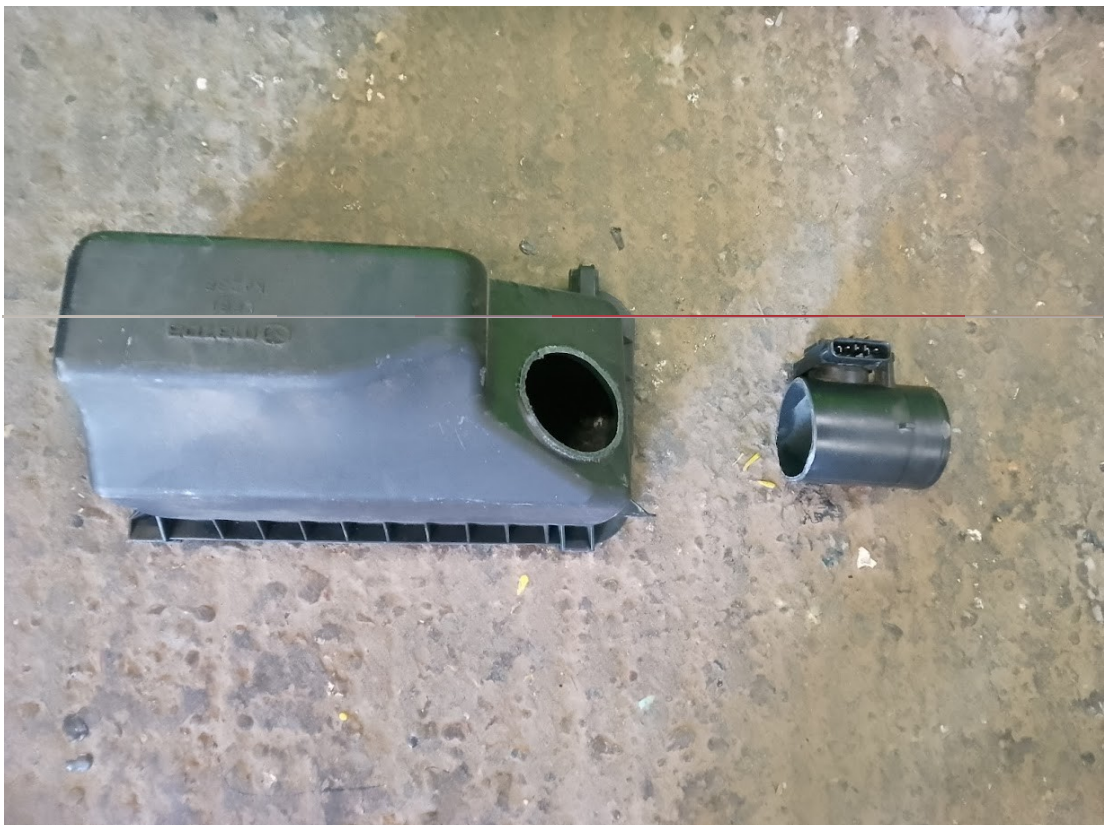
Bolt **gearbox plate** to gearbox using 2 Mazda bolts
Bolt **gearbox insulator** to chassis 4 off M10 x 30 with penny washers on top

EXHAUST MANIFOLD



Bolt factory modified exhaust manifold with gasket, plug in both lamdas

AIR FILTER



Cut off pipe with MAP socket



Insert into [air filter](#), check that cut end of pipe goes into filter body. Super glue plastic pipe to rubber air filter grommet

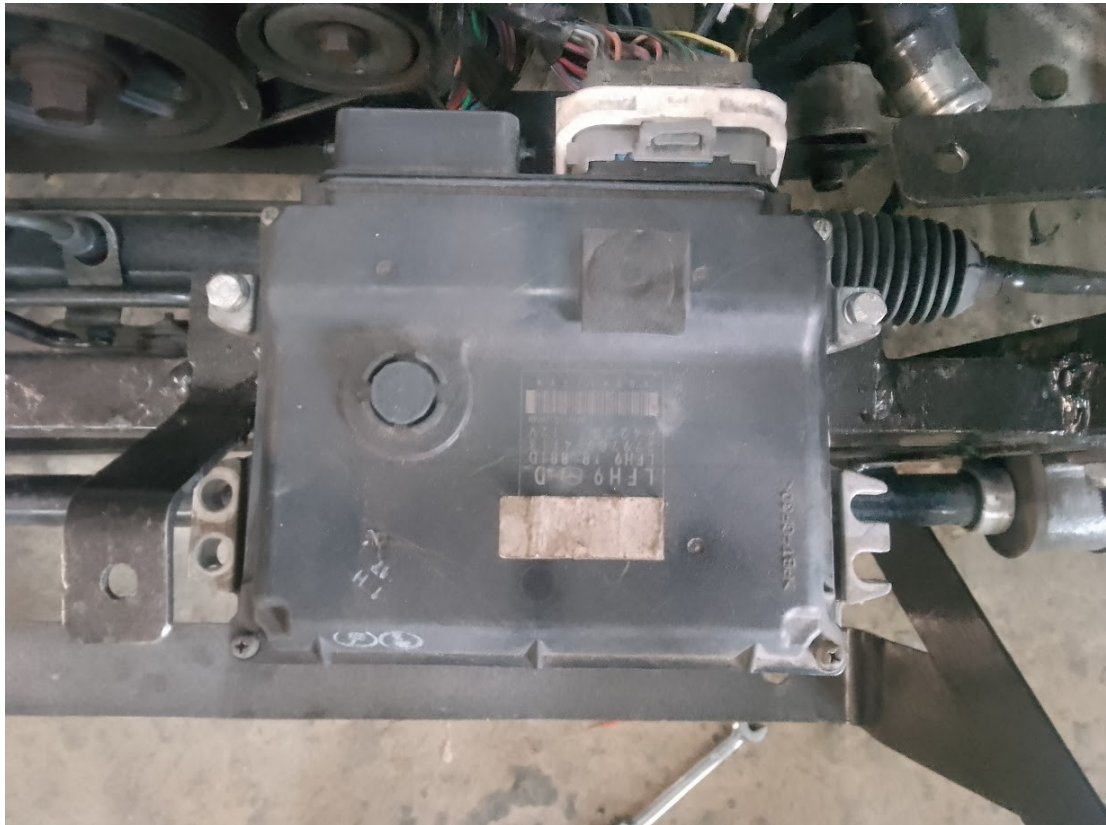




Clamp assembled air filter into U clamp welded to chassis, check socket for MAP is upwards. Extend MAP loom by 5 x 12" Y wire and plug in

ENGINE ANCILLARIES

As you wire up all the below ancillaries the Mazda looms will automatically adopt the correct position along the chassis and the various earthing bolts pre-welded to the chassis will become apparent and in the correct position. There are 3 bolts on top tube on LHS and 3 on RHS



Bolt ECU 2 off M6 x 25 Plug in standard unmodified Mazda loom and socket, this will establish the final position of loom



bolt power steering bottle 2 off M6 x 25 and couple up hydraulic hoses. Discard separate steel oil heat exchanger tube



Bolt 2 off M6 x 25 screen washer check lower mount fits inside welded tube bracket. Plug in standard unmodified Mazda loom and socket, this will establish the final position of loom

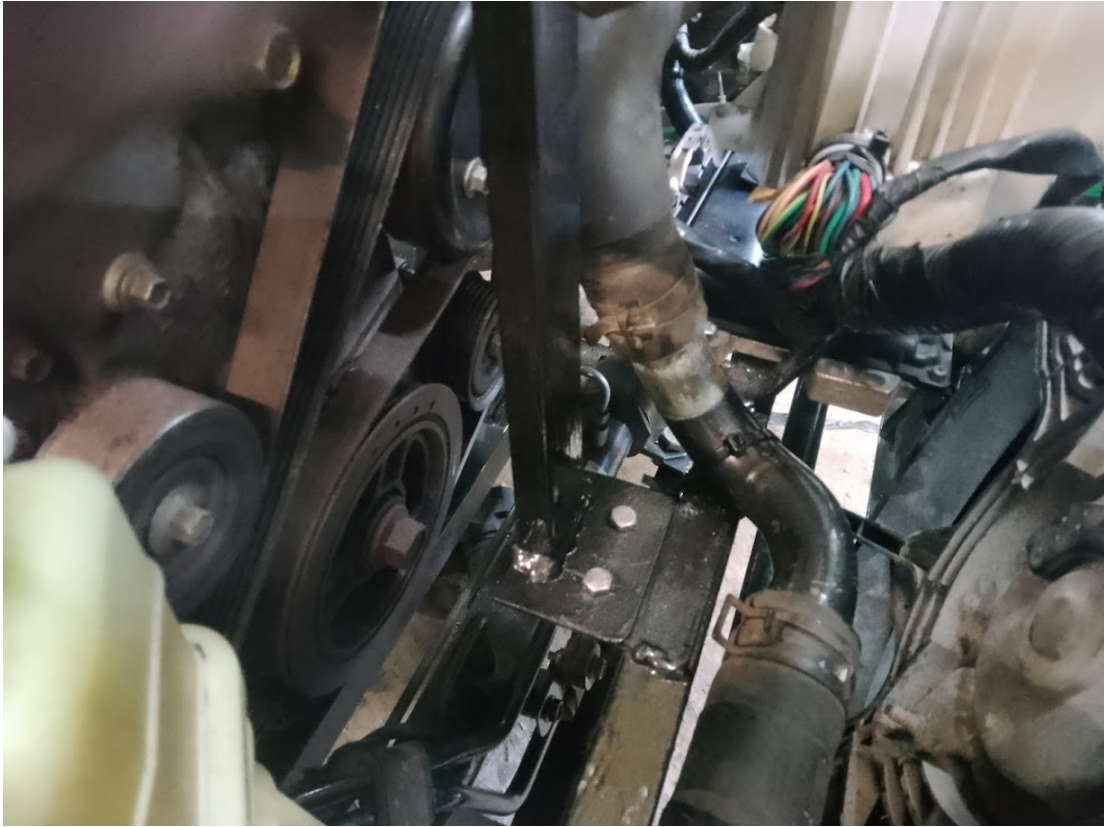


Discard this engine plate

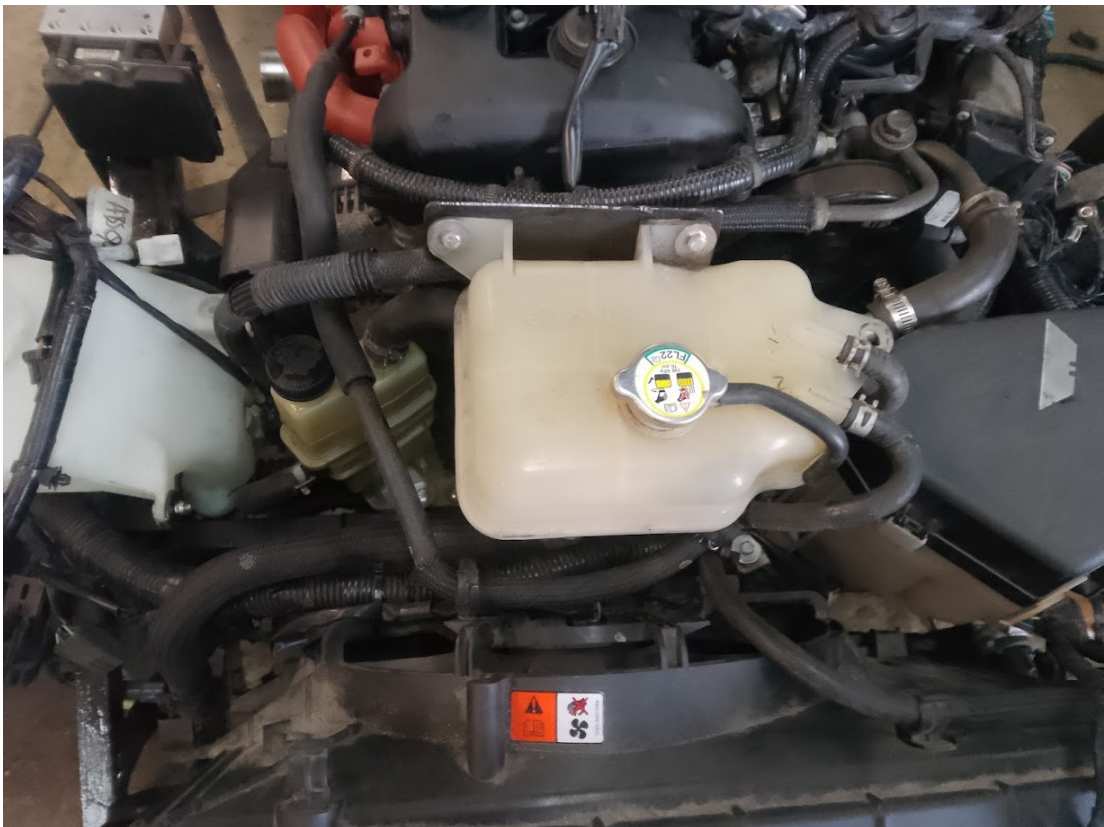


bolt 3 off M6 x 25 above ECU

Plug in standard unmodified Mazda loom and socket, this will establish the final position of loom



bolt steel water tank bracket to chassis 2 x M6 x 25



bolt water tank to top of bracket 2 x M6 x25 Fit standard unmodified Mazda water hoses

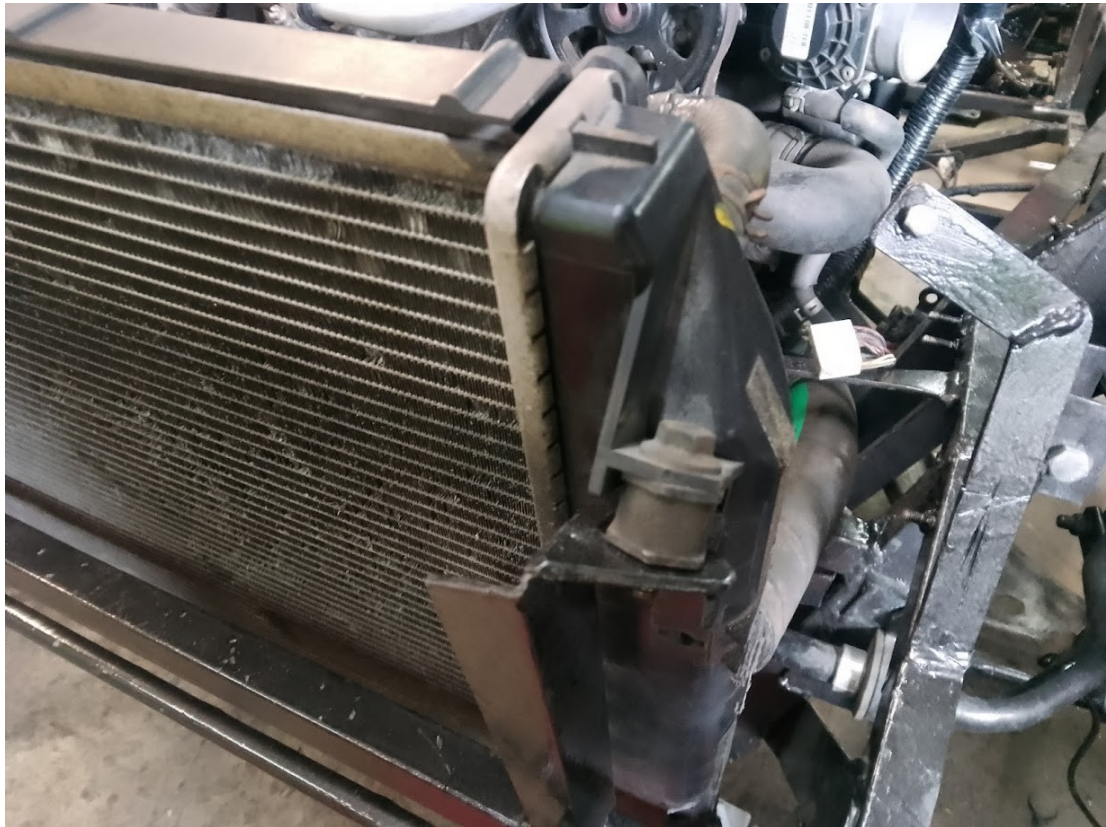
RADIATOR & FAN



Note lower and upper rad mounts and unmodified lower hose ready to couple up to rad



Slot lower rad pegs into chassis



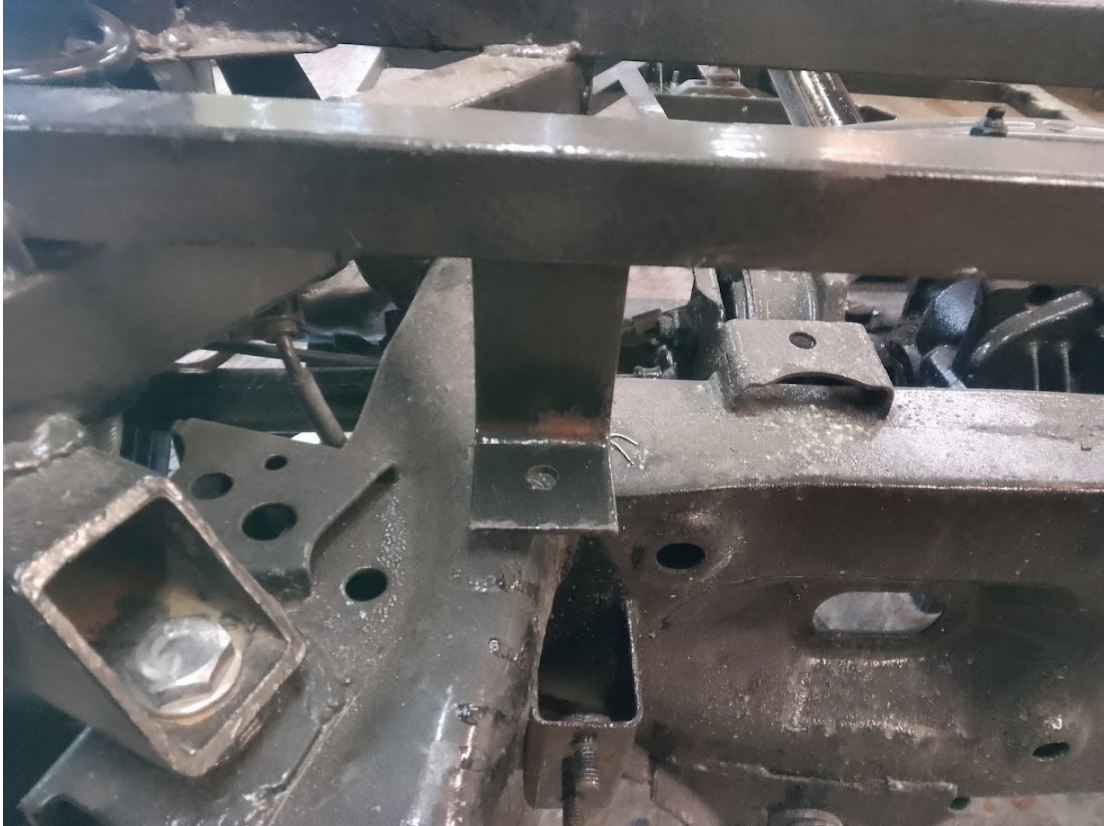
bolt top of rad insulators to chassis bracket
Couple up standard unmodified Mazda water hoses. Top hose is extended
with 32mm dia rubber water hose.
PROP SHAFT



Prop is shortened at factory, bolt to diff using Mazda bolts (note direction of

bolts)

FUEL TANK



bolt 4 x M8 x 25 and penny washers

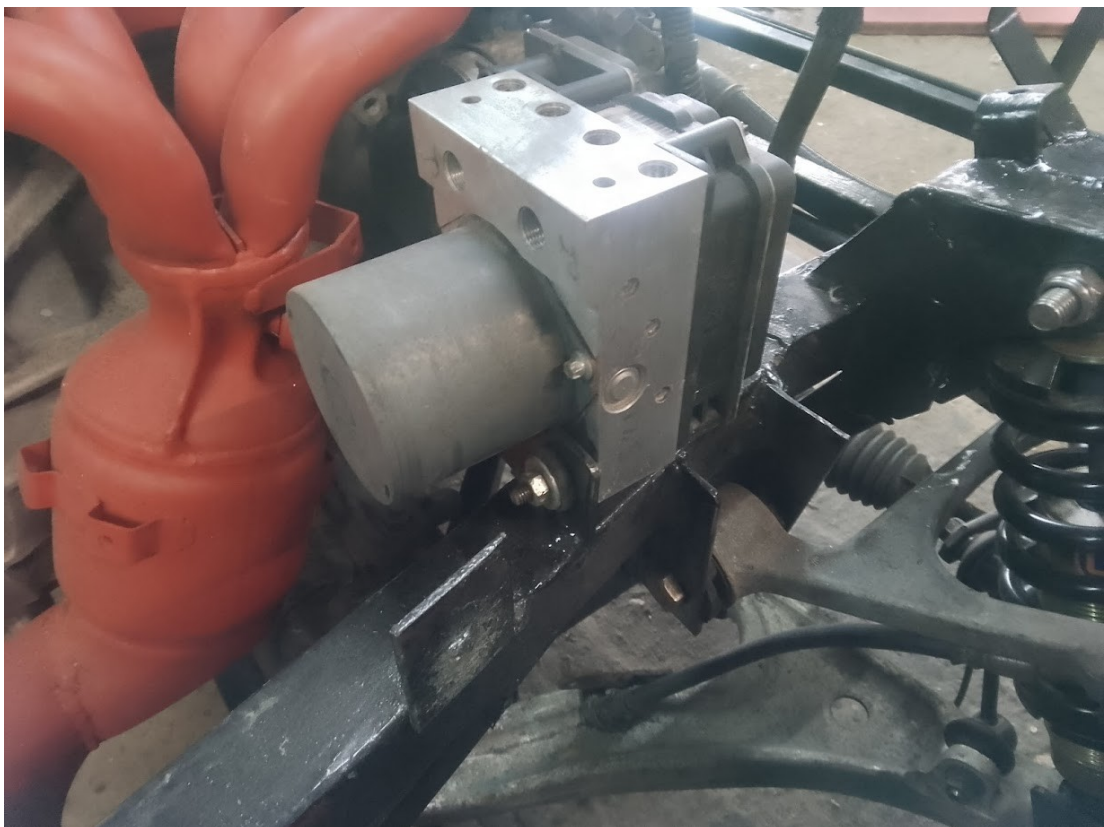


Blank off unused tank vent with hose/ blanking plug and clips
ABS





Fit Mazda rubber insulators and sleeves into bracket on chassis



Bolt ABS unit thru rubber insulators, check correct direction of unit. Plug in standard unmodified Mazda loom and socket, this will establish the final position of loom

BRAKE/CLUTCH LINES

3/16" cupro nickel Bundy

BRAKE:-

FL 27"

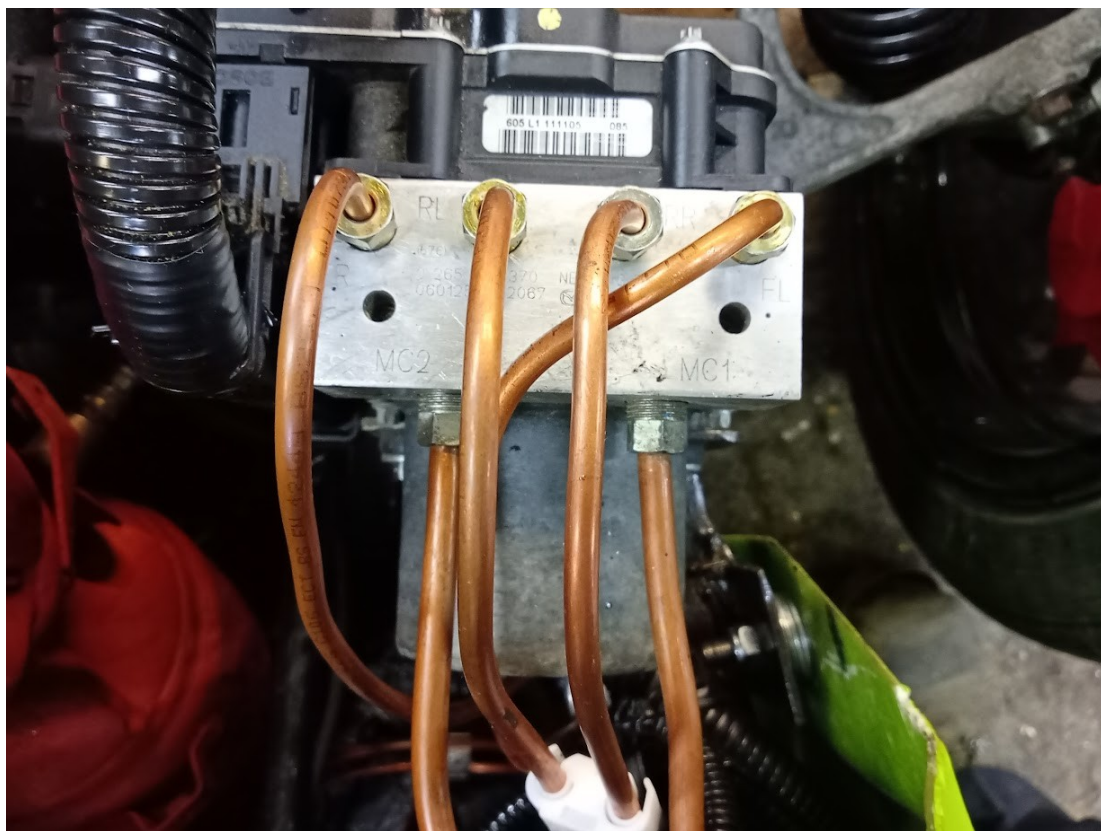
FR 60"

RL 106"

RR 112"

CLUTCH:-

36"



ABS body top is clearly stamped:-

FR (front right)

RL (rear left)

RR (rear right)

FL (front left)

2 off 1/4" 10" cupro nickel Bundy pipe from ABS marked MC2 and MC1 to master cylinder with casting marked 1 and 2 (fit these 2 pipes after body is fitted)

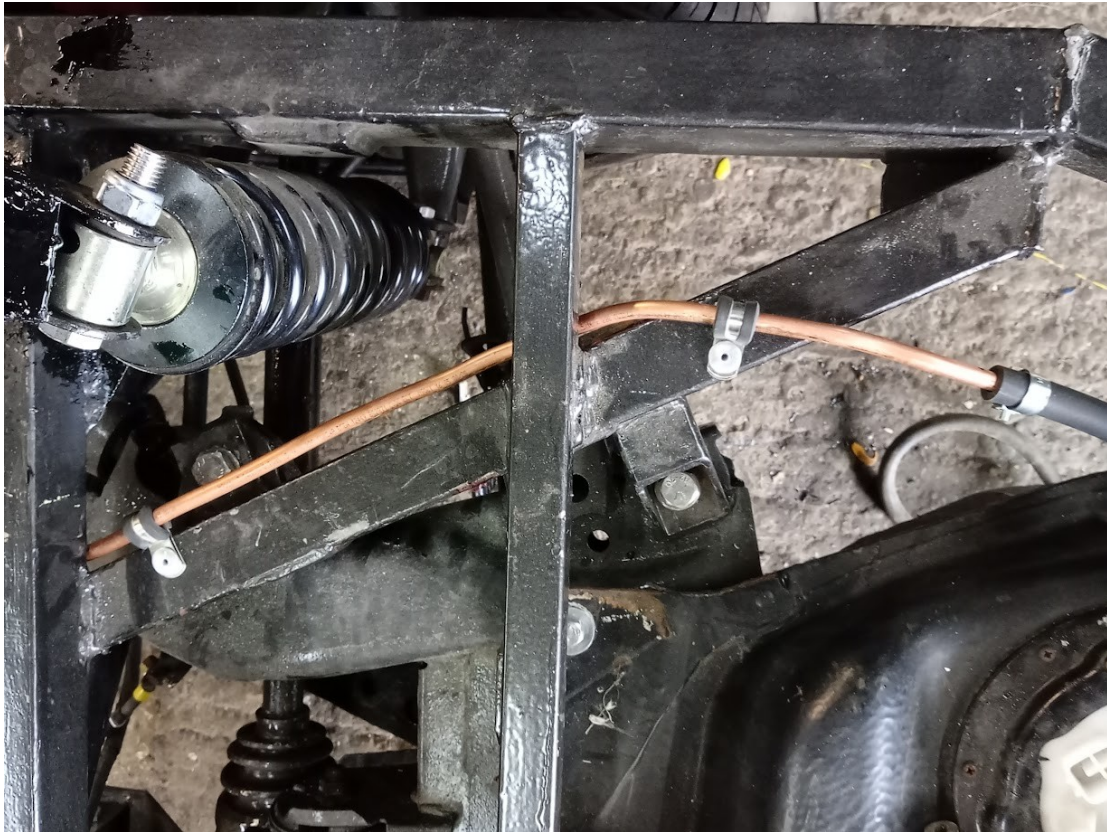






FUEL LINE
5/16" Cupro nickel bundy 125"

Fuel line must always retain the flanges on both ends



Fit pipe at tank end

BONNET WIRING (chassis side)



(the steel ratchet bonnet stay is factory fitted)

WIRING SPECS:-

All Wire is referred to by the number of copper strands (x) and colour/s and is rated as: -

Strands	Amp	Typical use (see Haynes manual)
(14)	8	All lighting and most other systems
(28)	17	Mainly medium duty earth
(44)	27	charging circuit/engine fan
(65)		Starter motor and main earth

Dutton wire colours codes : -

B	black (earth)
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P	purple
W	white
G	green
O	orange
Gy	grey

All Dutton wiring unless otherwise stated is (14)



Bolt left and right 13 pin “trailer” socket with hinge on waterproof flap uppermost to steel plate welded to both front corners of chassis

Wiring for plug is covered in section 3

Numbers below refer to numbers stamped on the socket terminals. Don't forget to put all wires thru black plastic socket weather sealer and thru steel support plate before fitting the wires to socket.

SOCKET numbers LHS

SOCKET numbers RHS

All Mazda wiring this side (except spot) needs to be extended
12” Y wire.

All Mazda wiring this side is correct length

Indicators:-

- 1 G/B
- 2 B/R

- 1 B
- 2 G/W

Side:-

- 3 B/G
- 4 B

- 3 G/B
- 4 B/R

Spot:-

- 5 B
- 6 B/R

- 5 B
- 6 B/R

H/lamp outer:-

7 Y/B

8 P/W

7 W/B

8 B/Y (x2)

H/Lamp inner:-

9 Br

10 P/W

9 Br

10 G/B

11,12 and 13 are not used.

SOCKET VIEWED FROM BEHIND.



You have now completed 80% of the built-up

SECTION 3 re-attaching the body.

REFIT BODY



Re-bolt body to chassis using 6 off **M8 x 25** button headed bolts.



Couple up **clutch hydraulic bundy** to bracket welded to top of chassis

FIT ANCILLARIES IN ENGINE BAY



Couple up engine harness left side thru precut hole viewed from dashboard side



Couple up engine harness left side thru precut hole viewed from engine side



Bolt air filter to bracket welded onto top of chassis. Note position of fuel pipe bundy and riveted P clip



Fit servo thru precut holes in bulkhead, attach pedal box and bolt up



Fit clutch master cylinder thru precut holes in bulkhead, attach pedal box and bolt up, couple up hose to reservoir



Fit standard Mazda battery and attach with Mazda battery clamp. Fit both terminal covers



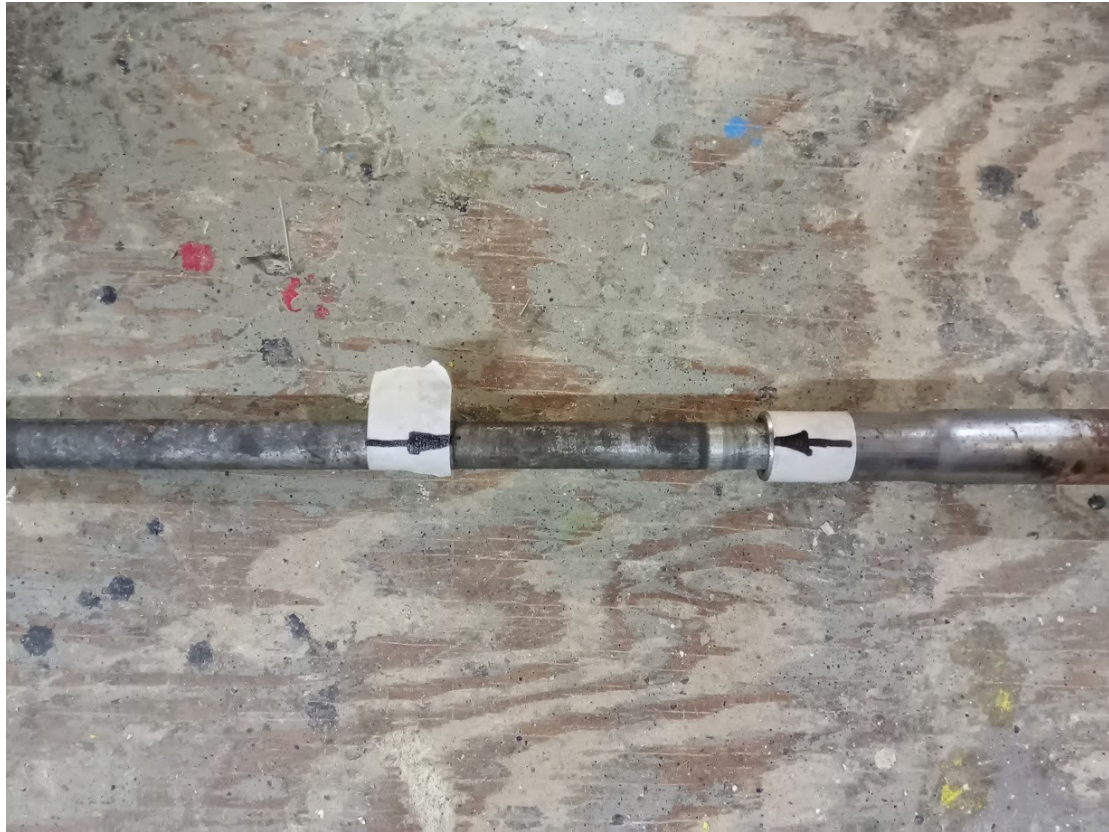
Factory modified steering column, self aligning bearing and rack U/J.



Fit factory modified column thru precut hole in bullhead bolt to pre-fitted dashboard bracket, when thru into engine bay fit **self aligning bearing**. Note 2 retaining grub screws on collar are facing towards steering column.



Bolt **self aligning bearing** to chassis bracket. Bolt to U/J and to rack. Tighten both grub screws



Check this dimension to show lower column is fully located into spline. Critical dimension between both arrows MUST be 3 1/2" to 4" measured from outer end of outer column (right arrow) to small change in solid shaft diameter (left arrow)



Fit steering wheel, use standard Mazda wheel for IVA test. Check for ffm lock to lock. A proprietary wheel may be fitted after IVA. Refit GRP dashboard

FUEL FILLER



Trim rubber hose



Bolt filler pipe for pre-cut hole in body

REAR LAMP



Push rear lamp into pre-cut hole. Attach with aluminium bracket and also attach LED resistor

WIRE BONNET





Wire left and right bonnet loom as per previous wiring loom pages, encase in plastic conduit and heat glue to inner face of bonnet. Note **LED resistor** for indicator and **wiring plug**. Attach spot lamps using mastic so outer black rim is flush with GRP bonnet.



Re-bolt bonnet onto chassis hinge

SEATS



Grind thru lever handle and discard. Discard black plastic side panel



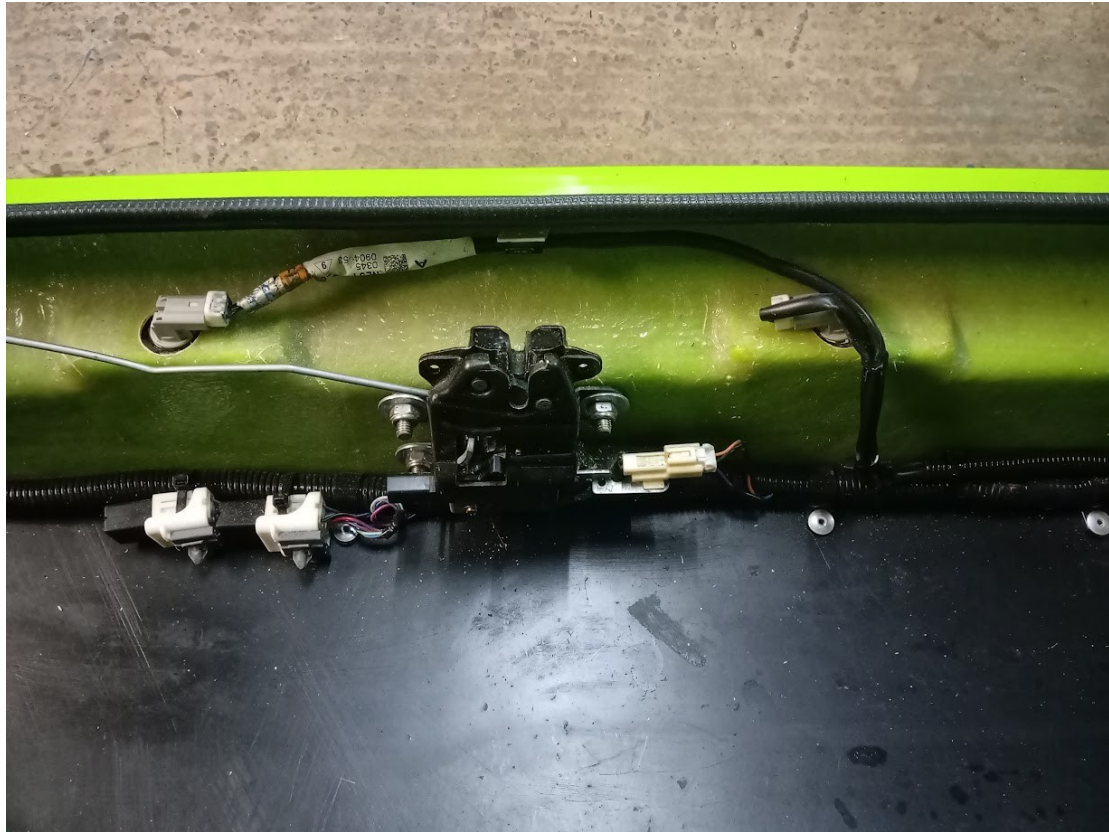
standard rear seat supports



Grind thru both side lips on both ends of both runners and bend down to be parallel to seat runner on both seats. In background of photo grind off location post.

Lay **carpet** on floor and cut thru 2 x 4 holes to line up with chassis mountings. Lay seats on and bolt up using **stainless steel button M12 bolts and thick washers** on top of runners

ELECTRIC BOOT LOCK



bolt electric boot lock assembly to pre-drilled holes



bolt manual key operate lock to pre-drilled holes. Bolt striker plate to boot lid. Adjust to suit

THE BACK OF THE CAR AND THE LAST ITEM. THE END.