INTRODUCTION TO THE MEV EXOCET

The launch of Exocet in 2010 created a storm in the kit car industry. Heralded as the new Lotus 7 with its true British sports car layout of front engine rear wheel drive and offering excellent value for money. One firm we can thank for keeping build costs low and less complex than anything else on the market place is Mazda who took our best of British sports cars and made them better and cheaper, now we take what they created and make it even better and cost even less! Over 1000 Exocet kits now sold, this is the most popular in the world, selling well in across the pond in the USA.

The MX5 is a great donor, modern engineering, excellent handling via double wishbones in each corner, discs all round, precise steering and a short shift gear box. These cars cover 250,000 miles with ease and have bomb proof engines that are easy to tune, perfect for an Exocet conversion! With over one million MX5's sold we are never going to run out of donors and these sales figures ensure there is always competition in the spares market so running costs are kept in check. Good news when you strip your donor too as you will be surprised how much money you can get back for the parts you don't need for your Exocet, these cars are worth more in parts than they are complete, cheers Mazda! Use a MKI or MKII, a MK 2.5 will need a slight bonnet mod for cam unit clearance.

Ten reasons why should you go down the Exocet route to build your own car.

1. The Mazda is 50% heavier than Exocet, put your MX5 on a diet.
2. No welding or special skills required, just transplant parts to a new lightweight chassis.
3. Only basic tools are required plus the loan of an engine hoist to remove the MX5 body.
4. No nightmare electrics to face as we just plug the MX5 loom back in where it was.
5. No parts to modify, standard MX5 exhaust, prop shafts, steering, brakes, pedals etc.
6. Costs kept low and convenient by even using minor items from the MX5 such as handbrake/throttle cables, instruments, switches, radiator and even the water pipes.
7. Ease of testing for road use items such as brake balance, self-centring, emissions, decibels, protective steering, speedo calibration are all type approved on the donor.
8. Large choice of great value donors, buy an MOT failure and throw away the rusty bit.
9. Tons of tune up options available, super/turbo chargers, brake/suspension upgrades.
10. The MEV owner's forum is a very friendly helpful place to share your experiences.

Worthy of note too is that Exocet provides a platform to create a unique vehicle, not just through the choices offered on our online configurator (see www.mevltd.co.uk) but via your own imagination. We don't provide specific instructions on exactly how you should build your Exocet, we guide you through the process and hope that along the way you will spot areas where you can add your own ideas and create something unusual. After all it would be a real shame if 2 Exocets turned out to be the same as each other. This is an opportunity to express yourself, making the choice of colour, nose style and wheels is just the start. Just pick a budget and achieve a major accolade of driving you own creation.

MILLS EXTREME VEHICLES LTD, ITS EMPLOYEES AND REPRESENTATIVES WILL NOT BE HELD RESPONSIBLE FOR ANY LOSS OR INJURY HOWEVER CAUSED WHEN USING THIS GUIDE.

Now on to the build guide starting with a safe and healthy warning.

MEV EXOCET BUILD GUIDE

ENJOY YOUR BUILD. TAKE YOUR TIME AND TAKE CARE.

We assume that you will take all precautions and use proper personal protective equipment, ensuring you and anyone present is not in any danger. Obvious dangers include parts snapping, flying objects, heavy weights, sharp edges, fuel and electrics,

The suspension springs on MX5's are highly preloaded, removing them with the body in place holding them down is the way to go in the absence of spring compress tools.

If the donor is fitted with air bags then ensure the battery has been disconnected for an hour before removing them.

If the donor has air con then this needs the pressure releasing under control at the valve, not by cutting pipes!

Rear drive shafts are usually very tight, leave them in or you may be in for a battle.

Always have a first aid kit at hand and be in reach of a phone if working alone, always double check that your working environment is safe. You will need ear protection, eye protection and dust masks. You will also need axle stands, a decent jack and good quality spanners/tools that are up to the job. If bolts/nuts get tighter when coming out then wind them back in, clean the threads and spray releasing lubricant (WD40).

OK LET'S GET STARTED

Section 1: MX5 Dismantling

The aim is to remove the body shell and leave the front sub-frame with the engine, and the rear sub-frame with the differential, connected together via the alloy back bone, as seen in the picture below.

The picture below shows a 200mm long piece of tube that is inserted in to each corner of the suspension so that the rolling chassis may indeed roll without the engine and diff sinking.

The “skate” that you will have left can be stripped to replace bushes if required, and to properly detail, clean and paint all the suspension parts, brakes and sub-frames.

First remove battery from the boot then push the cables down through the floor.
Then jack up the car and place on good solid axle stands for access to the underside.
Next, remove the seats, seat belts, and carpets.

Remove the speedometer plugs and cable and then remove the instrument unit.

Remove the 2 plastic caps from each side of the dash board and remove the 4 bolts.
Remove the plastic cap from the top centre of the dash and remove the bolt below it.
Remove the 2 air vents above the radio and remove the screws. Pull off radio panel.
Remove the 2 bolts either side of the radio then remove the plastic surround.
Next, remove the steering column and shaft that connects it to the rack.

Now lift out the whole dash unit to gain access to the wiring harness/loom.
Unplug all the cables going to the fuse box to allow them through the bulkhead.
All cables can now be pulled back from the engine bay and battery into the cockpit.
It looks complicated but all you need to do is plug it all back where it was.

MAKE SURE YOU LABEL EVERYTHING. Labels on both ends of plugs may be useful.

Many of the plugs you see in the loom pictured below will not be re-connected. No heater, wipers, interior light, cig socket, radio, electric mirrors, speakers, window motors, headlight lift motors, glove box light, etc.

It is possible to drastically reduce the wiring loom, only the brave should attempt this however. It is fairly easy to identify speaker wires etc. and these can be cut out. Some cables that you don't need can cause trouble if cut however. This is due to links that you may not be aware of, therefore you cut off by accident say the earth to something you are retaining. I inadvertently cut off the back lighting to the instruments when I cut the pile of wires out below. I would say that if you are going to do this then get the car running first and check all lights/features every time you cut a single wire. The cables around the pedal assembly can be shortened too, it all helps for a tidy engine bay.

There is a charcoal canister that you may wish to lose (black plastic round case in engine bay, see above) If you do then you can leave the pipe open after the check valve (see below) on the tank to allow for evaporation without a vacuum forming. You may also wish to replace the large fuel filter that is located near the tank. Smaller ones are available and the one on your donor is probably partly clogged. Make sure a replacement is for injection engines and does not have a clear plastic case.

Remove the throttle cable and clutch master cylinder leaving it attached to the gearbox via the pipe.

Remove the brake/clutch pedal, master cylinder and servo. Keep the spring clips for the pedal pins.

Remove all electrical connections and plugs from the engine. **Label them as you go** and remember to label the ones that were not plugged in and were in fact spare, otherwise you will be looking for somewhere to plug them in later.

Disconnect the 2 fuel pipes that feed the fuel rail on the offside of the engine bay.

Drain the fuel tank from the plug underside, it will be heavy and unbalanced to lift otherwise.

Remove the rubbers holding the exhaust to the body and the lambda sensor plug or plugs.

Remove the air box and un-plug the air flow meter that is attached to it.

Remove the radiator, and air con if fitted. **Careful** as this may be pressurised.
Unscrew the 2 front brake pipes noting where they are connected from. Cut or unscrew the rear brake pipe at the junction on the rear axle. Disconnect the handbrake cables from the rear callipers.

Remove the 4 bolts holding the front antiroll bar to the body, there is provision for this on the Exocet.

Support the underside of the front and rear sub-frames with substantial props or use short tubes to support the suspension as shown in the previous picture.

Remove the speedometer cable from the gearbox.

Remove the centre nut on the top of each shock absorber. If you remove the 2x8mm bolts on the top instead then the springs will be compressed and difficult to remove later for cleaning or painting.

Remove the six bolts holding the rear sub-frame to the body shell.

Remove the eight bolts holding the front sub-frame to the body shell.

The picture above shows the rear off side bolt being removed, this is one of 3. If they start getting tighter when being screwed out then back off, wire brush, spray WD40 or similar and try again.

Lift off body with an engine hoist leaving the 2 sub-frames connected by the alloy back bone.
This is best achieved by attaching a lifting chain to the seat bolt holes as the balance is about right. Use front near side hole next to the transmission tunnel and rear off side next to the tunnel.

If there is fuel in the tank the balance will be poor but this should have been drained first.

THIS IS NOT A ONE MAN JOB! HELP IS NEEDED TO BALANCE THE BODY WHILST THE “skate” IS ROLLED OUT FROM UNDER. If it does not lift easily you may have left an engine earth attached.

The alternative is to use a 9” angle grinder and cut the shell into smaller pieces but it is not a 2 minute job. It does make it easier to take to the scrap yard though, but it can be dangerous and extreme care must be taken, sparks and fuel do not mix and you only have 2 hands, 10 fingers and 2 eyes, let’s keep it that way!

I would strongly recommend that a lifting chain is used, the body shell weighs around 250 kgs.
It is also suggested that the doors and boot lid/bonnet are removed first, these are very heavy too.

Don't forget that once the load is taken from the top off the shock absorbers then the engine and diff frames will sink to the ground unless propped up or tubes are inserted as per the picture shown previously.

You can now remove the tank, filter, handbrake and cables.

The pipe near the edge of the pump is the return.

Ideally you should have a trailer ready so the shell can be loaded and taken to a scrap metal merchant. Don't forget any odd bolts or screws or rubber capping may well come in handy later.
Car scrap dealers may ask for your V5, don't part with it!

Below is what Mazda call the power plant frame (PPF)

Section 2: Fitting the Alloy Floor & PVC Side Panels

Next we can cut the alloy floor as shown in the picture, you lay the chassis on the alloy, mark around it with a felt pen and then cut with a jig saw with a fine blade.

You will need a lubricant to stop the alloy from clogging the teeth of the blade. WD40 works fine. Just spray it along your line before you commence cutting.

Next job is to rivet the floor to the chassis. You will need to mark the holes at 100mm centres. You may wish to use a sealant such as PU between the chassis and floor to stop it vibrating.

The chassis in the pictures is not painted of course but all the holes can be drilled before painting. They will need clearing out after though. It is quicker to drill after it is painted. You just need carpet under the chassis so you can turn it upside down without damaging the paint or powder coating.

The plastic sides are easy to trim to shape and fit using self tapping screws at 150mm centres.
It looks much better if you just use 2 screws each end and secure the panels with PU adhesive along the length top and bottom. G-type side panels tuck under the chassis to allow for concealed fixings.

Section 3: Fitting chassis to sub-frames

Now you can lower the chassis on to the rolling PPF (power plant frame) and bolt it up.
Use washers between the sub frame and chassis on the rear 4 bolts.

The one above shows wooden blocks for support (the engine has been removed in this example but it is not necessary to remove the engine from the sub-frame to construct your kit).

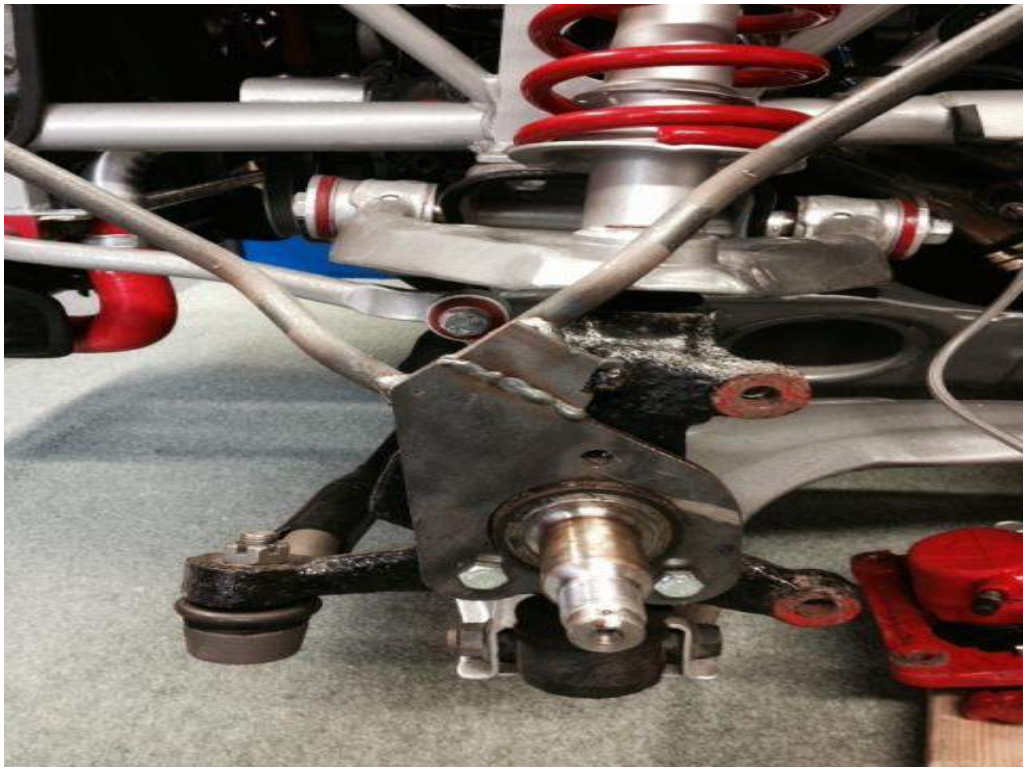
Below you can see the four bolts used to hold the rear sub-frame to the chassis. On 1.8 cars you may find brackets from the lower part of the frame that will line up with the two brackets on the lower edge of the Exocet chassis at the back edge of the floor.

The rear anti roll bar is left in place but the front one needs bolting to the chassis with 4 8mm bolts.

Section 4: Wings/Wing Stays

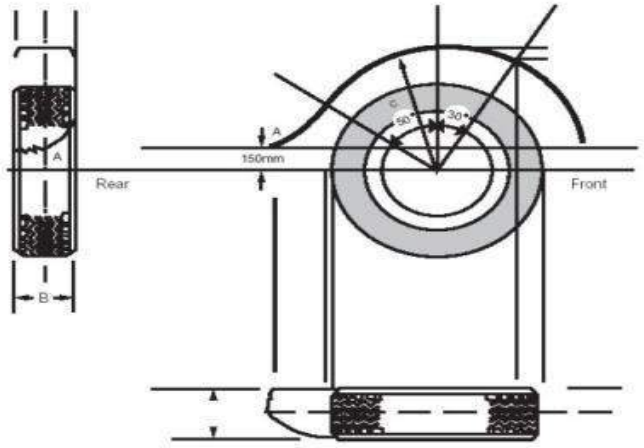
The wing stays are supplied in a set of 4. You will see from the picture below that the rear pairs are attached by drilling an 8mm hole in the rear upright for one bolt and the other is attached to the top calliper bolt with a bolt that is 6mm longer than the donor. You can drill with the suspension assembled. Just remove the shock absorber and use an electric drill from the inside, it is forged so fairly easy to drill. Alternatively remove the top wishbone bolt to allow access by pivoting the hub.

The front pair as shown below are attached to the 3 bolt holes that were intended for the tin dust guard, this involves pulling off the front hub bearing. Bolts to be 5mm longer than those removed.



The sketch below is taken from the IVA manual with regards to the requirement for positioning of the wings. You will need a spirit level to ensure that the wheel rim does not protrude beyond a vertical line from the edge of the wing.

Figure 1



We drill 2 holes for the wings stays to go into and then bond them to the underside with PU adhesive. If you are fitting the LED lights into your kick wings or G-type wings fit them before fitting wings to car.

It is important that thread lock paste is used on the calliper bolts and longer bolts/locking washers.

The wing stays are designed to use 195/50-15 wheels with a standard Mazda off-set.
You will also need 30mm thick wheel spacers each corner. These can be the cheaper universal type with stud extensions or the better solid indexing ones with replacement studs or separate studs.
If your wheels are ET 30, go for 30 mm spacers to get to 0. Within 5-10 mm is accurate enough.

Section 5: Steering Column and Pedal Assembly

The steering column is shown below.

There are several points worthy of note in the above picture.

1. The spacers on the back of the brake pedal are left attached on the driver side of the bulkhead. Normally these are cut off and placed on the engine bay side, depending on the steering column length. This is adjustable with a hammer as shown below!

2. Note that there is a clutch pedal switch to plug back into the loom.

3. Note there is a brake pedal switch to plug back into the loom.

4. Note the 2 black wires on the reservoir, these should have a plug for the brake level warning.

5. A hole needs drilling then filing square for the throttle cable to clip back in to.

6. A spacer is used where the clutch pedal is bolted at the top of the assembly.

7. The pipe from servo to cam cover has a one way valve, the arrow should point to the head.

8. The relay on the end of the brake pedal assembly is for the fuel pump.

9. The steel “tab” above the clutch cylinder is for an optional diagonal brace to be bolted across to the top of the driver’s side shock absorber mounting plate, see opposite side welded tube.

10. When bolting the steering column in the bolt in the clutch pedal for the column needs replacing with a longer one and a stack of washers.

It is possible to cut the feed and return pipes on the power steering rack and join them with a rubber hose (below right). This will save weight and reduce engine load. Exocet is light and does not need power steering. You can strip the rack and remove the valve on the centre of the rack (below left).

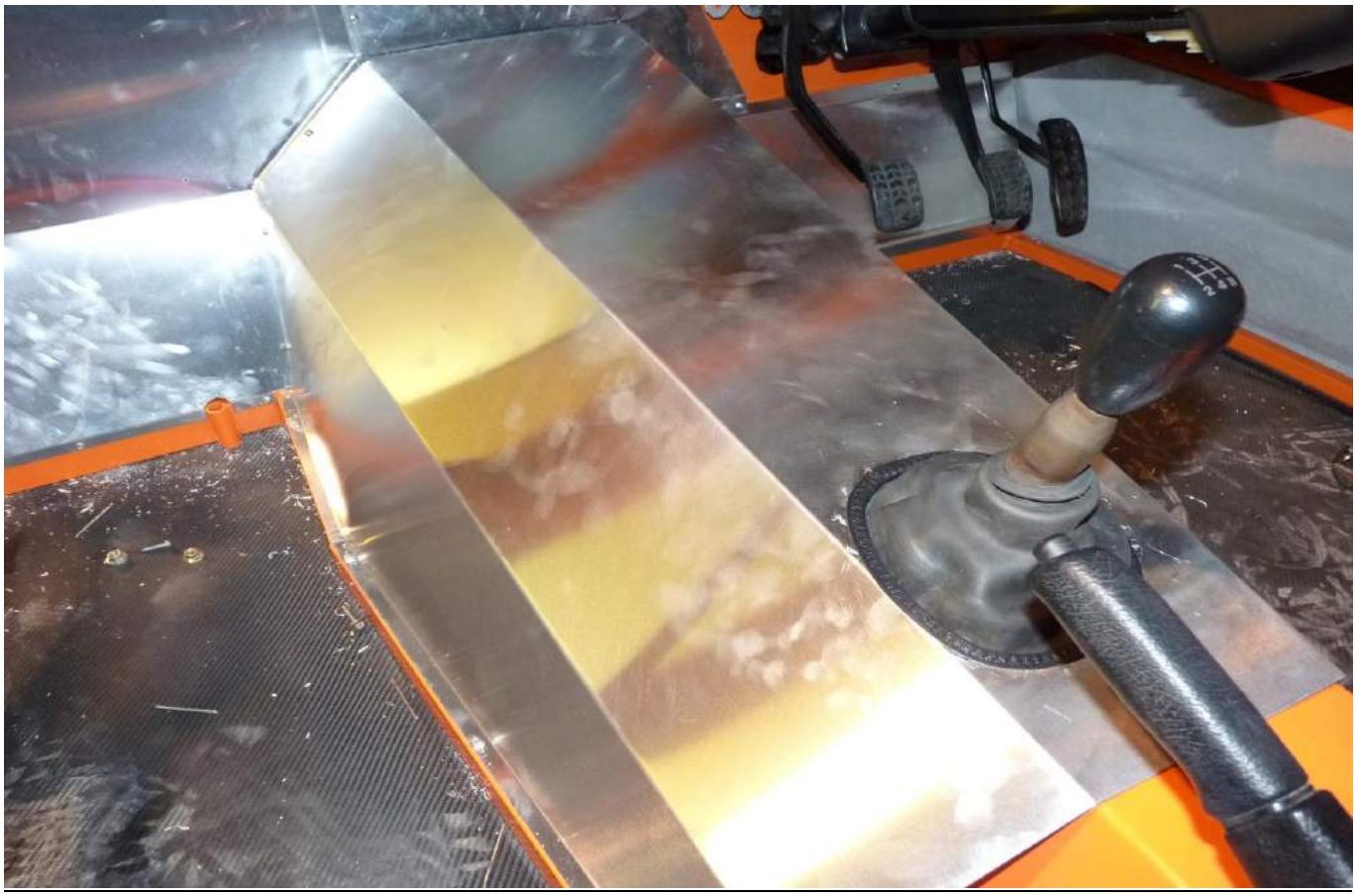
The servo and pedals for brake and clutch are fitted just the same as they were in the MX5. Note the arrow on the pipe from the servo to the cam cover as there is a one way valve part way up the pipe. You may need spacers to bolt the pedals at the top to the chassis. Use 8mm bolts here. Check the column is the correct length to fit to the rack, this can be repositioned if required by cutting off the spacers on the back of the pedal assembly and putting them on the opposite side of the bulkhead. If your donor has ABS then it is best to get rid by swapping the master cylinder and chucking the rest. All ABS does is add more complexities and weight than needed, Exocet is a driver's car, who needs a computer to tell us to stop pressing the middle pedal when traction is lost?

Here we can see the drop plate for the column, this can be altered if you would like the wheel higher.

The bulkheads need a little trimming, they come folded. Use stiff card to make a template before cutting the alloy sheet.

Below is a picture of the 3 panels ready to rivet in place. Remember you may need a large hole in the centre one for a cable grommet. The centre piece is cut from the left over centre of the floor sheet. You can trim with tin snips and fold in a vice.

To cut a hole for the gear lever it is easier if you remove the lever via the 3 screws, pull it out so you can lower the tunnel into place for more accurate marking. Edge trim perhaps and a rubber gaiter is one way to do it.
The column cover was made from the spare part of the floor.



Section 6: Lighting & Wiring

Lighting positions are very important.
The light emitting surfaces of the headlights have to be a minimum of 500mm from the ground.
All lights except fog and reverse need to be within 400mm of the edge of the wings.
Rear lights need to be a minimum of 350mm from the ground.
The fog light needs to be on the off side or centre line, and the reverse light on the nearside, or centre line and they have to be a minimum of 250mm from the ground. The fog light must be e marked **and** have a B or an F marking and be a minimum of 100mm from the stop/tail light. Ensure the fog light is 90 degrees to the ground, if it has arrows on the lens, ensure they point the right way.

Front indicators need to be seen from 20 degrees (if below 750mm) inwards.
Side repeaters need to be seen at 5 degrees from the side of the car from 3m behind.

In theory the wiring is an easy task, it all worked before you removed it from the MX5 so there is no reason for faults to occur now. Just plug it all back in according to the labels you attached to the loom, and make sure you have a good earth on all the points above. Obviously you do not need wipers/heater/interior lights etc. so there will be plenty of redundant plugs, just don't be too hasty in cutting them off as you may find you have created an IVA fail point should for instance, the back lighting to your instrument cluster fail to illuminate. Some of these have a dimmer module that shares an earth path with other apparatus that you may be tempted to cut!

Headlights;

A 10mm hole will need drilling in the side of the front lamp to mount the front indicator on the side as shown below. For IVA the headlight will need rotating in the rim to give a flat beam.
If you mount them so that the dipped beam is not level with the road then they may fail but you are not required to have a kicked beam as seen on most cars. You may find the bulbs need replacing to ensure you have a flat beam that is defined.

EARTH POINTS. Very important.

1. One from Battery to chassis.
2. One to alloy beam near diff.
3. One to alloy beam near front.
4. One strap from engine to chassis above exhaust manifold.
5. One multiple earth at pedals.
6. One above the exhaust on front bulkhead (near engine earth strap).
7. One at the petrol tank for rear lights/pump.

Hazard switch;

The MX5 hazard switch also controls the headlamp motors which you no longer have so it is worth considering using a single pole one way switch with a hazard symbol on it. It does not need to light up as both tell tales flash when hazards are on. Just join the orange wire to the black via a switch for the hazards and leave the other wires with no connection. Remove headlamp motor fuses.

Number Plate Lights;

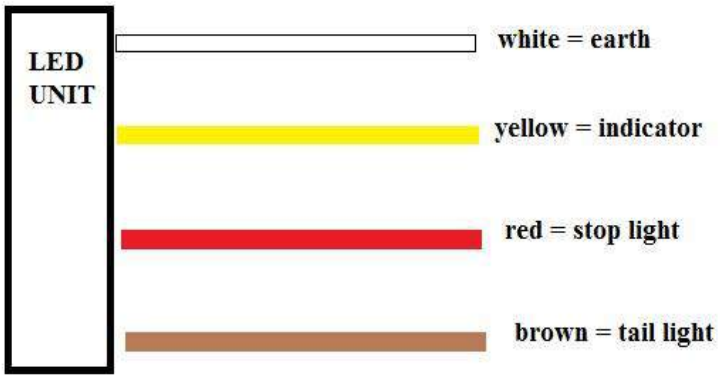
The number plate lights from the MX5 can be retained and re-used. A better option is to use the new LED number plate bolts, very neat bolts with lights built in, find them online.

Light units;

The rear wings have a “kick” to enable mounting of the rear LED lights. This unit contains the stop/tail light, rear indicator and reflector. You may need to sand the bottom edge of the light unit to get it to sit flush.
The fog and reverse lights will need mounting separately paying attention to the IVA requirements, the fog light needs to be on the off side, and the reverse light on the nearside, and has to be a minimum of 250mm from the ground. Fog needs to be a minimum of 100mm from the stop/tail light. The fog light must be e marked and have an F or a B mark. It must be vertical.

Using projector headlights of Venom type gets complicated as they have single filament bulbs and therefore require wiring modifications to keep mains on when the internal shutter switches to dip.

When connecting the MX5 loom to your new lights the following will help you identify the colours.



MX5 REAR LIGHT CLUSTER COLOURS

Black = earth

Red/black = tail light and number plate

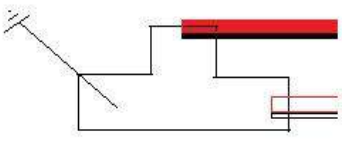
Green = stop light

Green/white = offside indicator

Green/black = nearside indicator

Red/green = reverse light

Blue/black = fog light



HEADLIGHT BULBS rear view

Red/black = dip beam
Red/white = main beam

Black = earth

DOMINATOR HEADLIGHTS

White = dip beam
Yellow = main beam

Black/white = earth

Instruments;

You can mount the MX5 instrument cluster on an alloy bracket bolted to the column mount plate. You will have off cuts from the floor. You could make an alloy surround.

Or use the MEV GRP unit.

Note the fog and hazard switches neatly mounted in the corners of the pod. The switches must illuminate when switched on unless there are tell-tale lamps for fog/hazard in the instrument cluster.

Engine bay wiring;

Below is a good example of how to keep it neat. This builder made a tray to load all the wiring into including those wires that are not needed.

Make sure that all connections are clean and tight and that they are secured properly ensuring no cables can contact moving or hot parts and that rubber lined P clips or plastic ones are used. If cables pass through an alloy panel then you should use a proper grommet to protect the cable.
P clips should be a maximum of 200mm apart.

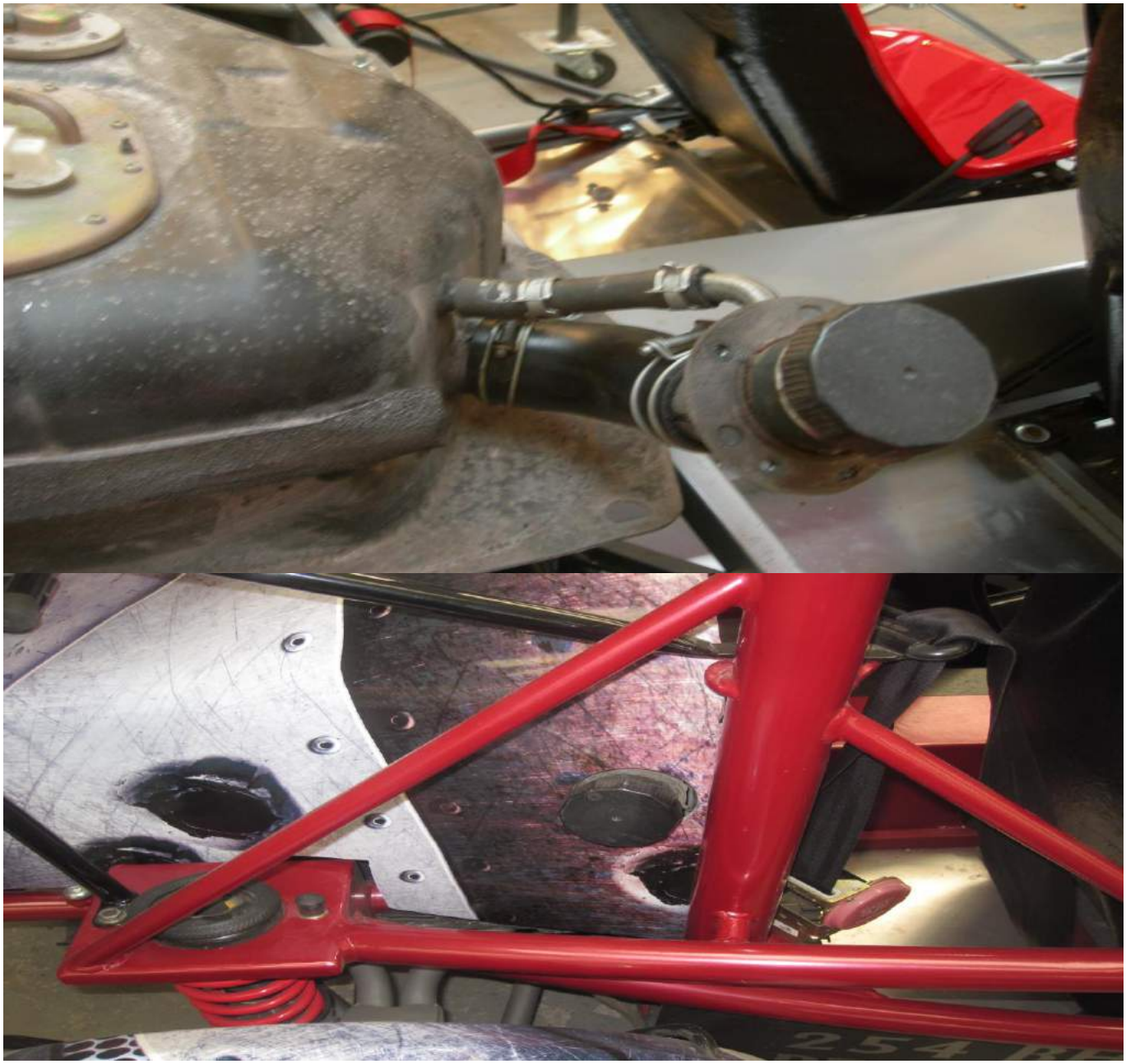
The MX5 loom for the headlight wires are too long for the driver's side and will need reducing but the passenger side wires are about right including horn and fan and can be kept tidy.

If you have a MKI donor then it has separate side/indicator units so a slight loom mod is required here to connect to the MEV headlights with indicators and side lights all in one unit.

The battery can be mounted behind the seats and a box made to protect it. Not an IVA requirement.

Section 7: Fuel Tank & Fuel Pipe Connections

The MX5 fuel tank fits under the rear cover. Brackets are welded to the chassis and holes need to be drilled in these to mount the tank. The filler pipe and filler cap from the MX5 can be used. (Be aware of IVA regulations that if the fuel cap is not lockable it must be tethered, if it is lockable it must not be possible to remove the key from the filler cap until it is locked back in place).
Note MK2 tanks are taller so you may need to hang the tank from under the brackets for clearance.



The fuel pipe connections are very important to get right. Firstly the car will not run if they are inadvertently swapped and secondly if you do get them the wrong way around and then remove them you may get splashed with high pressure fuel.

The pipe in the centre of the pump unit is the feed and this goes to the end of the fuel rail that is at the belt end of the block, not the regulator end. The other one is the return pipe.

I tend to use 8mm copper for the main runs and attach it to the rubber that came on the donor either end provided it is in good condition. You will need to flare the ends of the copper slightly though to ensure they don't pop off!

Section 8: Handbrake

The handbrake needs careful positioning to ensure cable tension before drilling to mount it.

You may have to open the holes up for the cables with a round file.

You will note the switch on the handbrake which must be connected to the loom as it is used to check the bulb is working for the brake fluid level test.

The plastic handbrake cover from the donor will need fitting and you may be tempted to make a cover for the cables too. Don't forget to fit a gaiter around the gear lever too. Much neater with and it covers sharp edges that may cause concern for the IVA inspector.
It is always better to see knock on trim used to cover the edges of the alloy sheet as shown below, this helps to stop panel rattling too. A cover for the handbrake cable is made from the floor offcut.

Section 9: Shock Absorbers

When fitting the front shock absorbers it may be necessary to cut out the centre bridge of the top wishbones to gain clearance. This depends on the diameter of your chosen shock body. Banana shaped 6mm thick plates are provided to bolt to the wishbones in order to return the level of stiffness they had before you cut out the bridge. 2 bolts are required 8mm each side, flip them over if they do not clear your shocks. You may need to trim the edge of your front subframe for clearance of the wishbones. You may prefer aftermarket shocks with adjustable damping and ride height or lowering springs on the standard MX5 shocks.

Section 10: Radiator mounting brackets

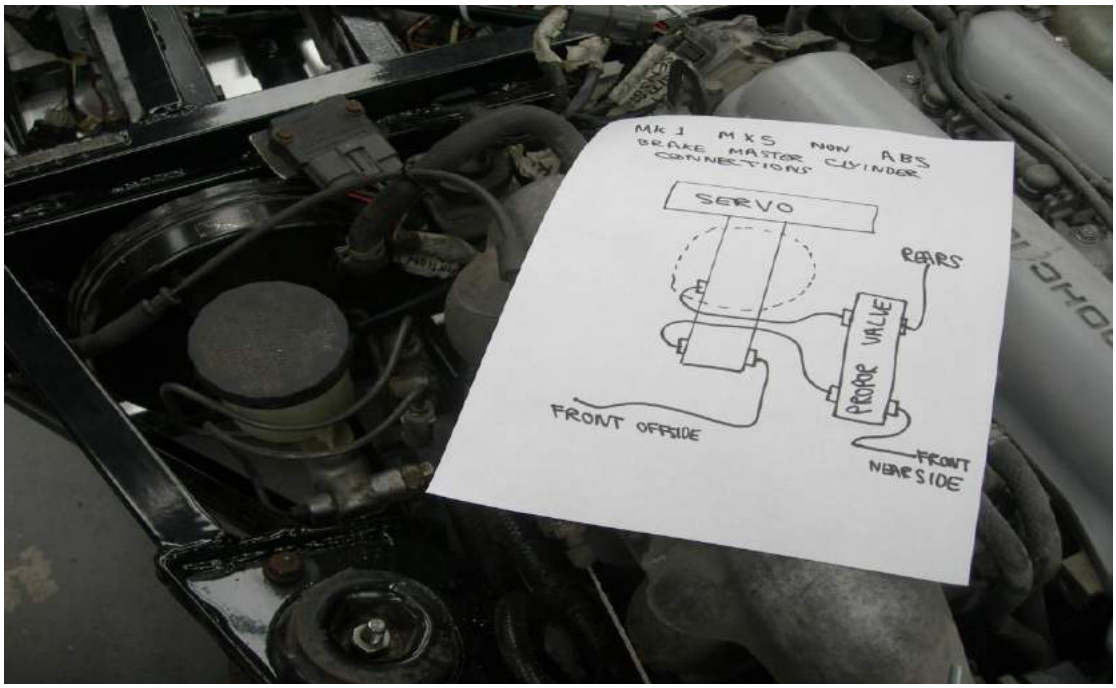
The radiator is mounted on the front of the chassis. Aluminium brackets can be made by the builder for this purpose or purchased with the kit for the MK1 radiator.

Bonnet lock down;

There are various fittings on the market from bonnet pins to flush catches and Dzuz type fasteners.

Section 11: Brake Pipe Connections

Note in the picture above, the ally bracket for the standard MX5 front brake flexi hose. This needs to be positioned to ensure that the hose does not come into contact with the tyres or wishbones during full suspension and steering travel
Please follow the sketch below to ensure you correctly connect the dual circuit brakes system.



Brake fluid level test. The IVA inspector will ensure that in the event of low fluid that the light on the dash illuminates. This will be connected via the handbrake switch as it was in the MX5. It then acts as a bulb/circuit test every time you apply the handbrake.

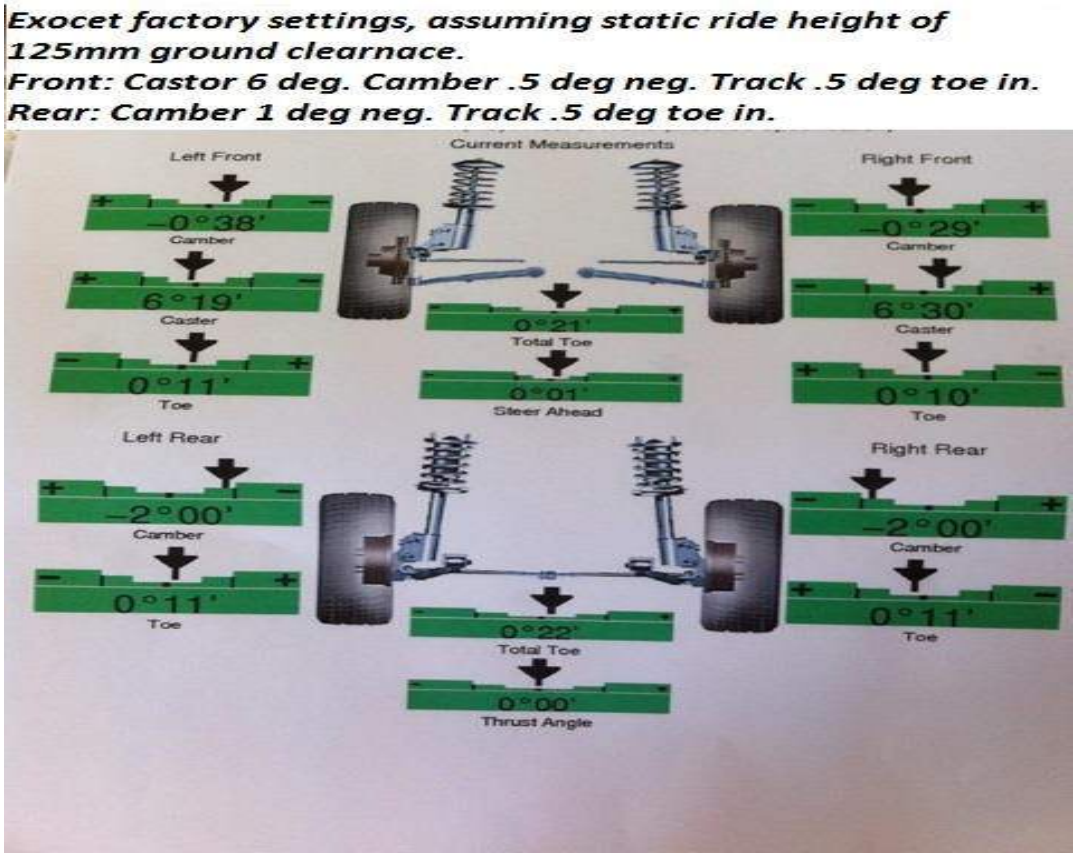
Section 12: Air filter

The MX5 filter is enormous and therefore we suggest you buy a cone type filter which will look and sound better, probably a slight performance boost too, or at least it will sound faster!

Section 13. Wheels and Tyres

This can be a confusing area. The wings and wing stays are designed for 195/50-15 tyres which means 15" wheels.

The off-set of the wheels is also known as ET, basically you are looking for around 10-0mm offset. So for example if you have a set of 15" wheels that have ET 30 stamped on them you will need 30mm spacers to achieve 0 or 20mm spacers to get to 10mm offset. Without the correct spacers the car will have a narrow track and will not handle as well or look as good. Nor will the wing stays fit.



Section 14: Mirrors

An interior rear view mirror is required even if vision is restricted from it. You can use the one off the donor, drill a hole in the base once you have ripped it off the screen drill a hole and mount it on the grp dash centre but upside down. Using Rivnuts to secure wing mirrors to the top chassis rail is a good idea. Check position a few times before getting out your drill though, measure twice drill once!
Wing mirrors must comply with the IVA regulations in terms of size and position in order to provide the correct field of view. You should check the IVA manual for this information to ensure your chosen mirrors comply. Ensure they have edges of at least 2.5mm radius. Long stem mirrors, a good choice.

Section 15: Seat Belts

Seat belts are taken from the MX5 and used in the same manner by attaching as shown below.
You may opt for a harness bar in which case you will need wrap around type harness's.
These will bolt to the floor plate and tunnel plate hole and wrap around the harness bar. For standard belts there is a hole as shown for the inertia reel unit which must be kept vertical to operate. Note that IVA inspectors will want access to the adjusters on the belts. You will need holes in the back of the seats for harness's which must pull without distortion or load on shoulders.

Section 16: Exhaust

For the purpose of the IVA test it is easier to use the donor exhaust although it is not pretty. MEV sell a stainless steel rear silencer that looks good and is tuned to comply with noise requirements.

Section 17: IVA guide

You are required to ensure that there are no edges (contactable with a 100mm diameter sphere) that are less than 2.5mm in radius. This includes edges of wishbones and any accessible nuts and bolts. Below is an example of nut covers and edge trim. You can use rubber tube such as heater hose or petrol pipe to cover nuts. There is an exempt zone around the steering wheel but even the bottom outside edge of the side panel could be called into question, take a file to your IVA test.
The edges of the pedal assembly are easier to cover with a triangle of plastic sheet cable tied to the chassis. Use an off cut from the PVC side panel perhaps.

VIN PLATES;

In addition to a chassis VIN plate you must also have a plate with the manufacturers name on it plus the VIN number.
The manufacturer's plate must be made of a durable material, must be indelibly marked with the manufacturer's name and must be securely attached to a part of the vehicle that will not be replaced through normal use.

A plate engraved at your local cobbler will be fine, 2 rivets on the dash board chassis tube is all that is required but ensure the manufacturers name (MEV LTD) is on a separate line to the VIN.

MOT;

You are not required to have an MOT for three years once you have passed the IVA regardless of the fact that you will be issued with a plate of the same year as the donor (age related plate) or have a cherished number. If you do have a number on a retention certificate it can be put on the Exocet when you register it rather than paying to change it after.

You do not need an MOT in order to register your vehicle, its age is classed as the date you built it.

IMPORTANT TIPS, common fail points.

Book a morning appointment to allow you time to modify any fail points.
Take tools, rubber trim, rubber hose, P clips, cable ties, self-tap screws, PU adhesive, etc etc.
Check brake flex hoses do not contact anything on full lock both ways and do not pull tight at any point. Secure handbrake cables and check when the handbrake is pulled hard that it does not reach the end of its travel.
Any minor exhaust leak may cause an emissions test fail.
Check hazards work with key out.

Check fog light only works with dip/main beam on. If you wire the rear fog to come on with the side lights then you will need a self-cancelling switch or a warning buzzer.
Check key for petrol cap cannot be removed when un-locked and is attached to ignition key, or tether the cap with say a bath plug chain and a couple of self-tap screws.
Ensure fog light is on offside or centre and it is 90 degrees to the road.
Make sure there is a specified fluid label on or near the brake reservoir area.
Obvious one, check the horn and all lights including back lights to instruments.
Make sure you have a dash mounted mirror, permanently fixed, if visibility is impaired from it then fit a near side mirror too.
E mark on seat belts required, check for frays to webbing and that they lock properly.
Ensure your column locks with the key removed.
CAT required unless you can prove the engine number and V5 are from a pre Aug 92 car.
Take the receipt for any fuel pipe used to prove it is suitable unless it is clearly marked.
Ensure you have a properly fixed interior mirror even if you can't see much from it.
You will need mirrors on extended arms to ensure the rear wings do not obstruct view.
Side repeaters need to be seen from 5 degrees out at the rear right down to the floor.
Front lights need to be seen at 20 degrees to the opposite side they are mounted, right down to the floor. This applies to headlights below 750mm, yours will be lower than this.

DRIVING TO THE IVA TEST

Under Section 22 of Schedule 2 of the Vehicle Excise Registration Act

22(1)A vehicle is an exempt vehicle when it is being used solely for the purpose of— (a)submitting it (by previous arrangement for a specified time on a specified date) for a compulsory test.
You do need insurance however which can be based on your VIN until you receive a reg number.

It is a good idea to drive to the test if you are confident that it will get you there. Before doing so you need to be absolutely sure that it is not going to overheat due to air locks or fail due to an alternator belt slipping. You will not get a refund on your test fee. On the other hand it is a great way to bed in new brake pads, and ensure it is hot in readiness for the pipe up your exhaust.

The other problem being that if you drive the Exocet you will have a limited amount of space for tools and any other items you may wish to take in case minor alterations are required. A mate with a boot full of bits and bobs can always be handy. In extreme cases you can use the other car to nip to Halfords if you need to make a quick purchase. Remember there is always time to carry out minors to get the ticket on the day.

The examiners are a friendly bunch and are not there to find fault, if they do spot an error in your build the chances are that you may be able to correct it and win or be grateful that he has spotted a safety issue that could bite you later. Even the best at this should have their work checked by a qualified experience second set of eyes. At the end of the day a pass means a safe car that you will no doubt drive like one you have stolen!

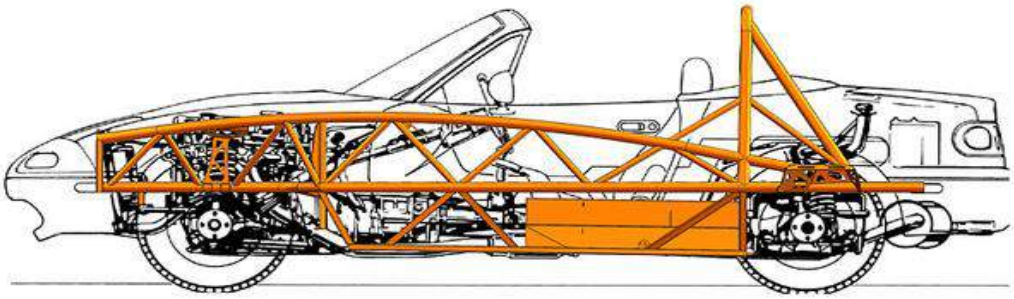
Imagine what it would be like without IVA testing, anyone with anything tearing around, not good.

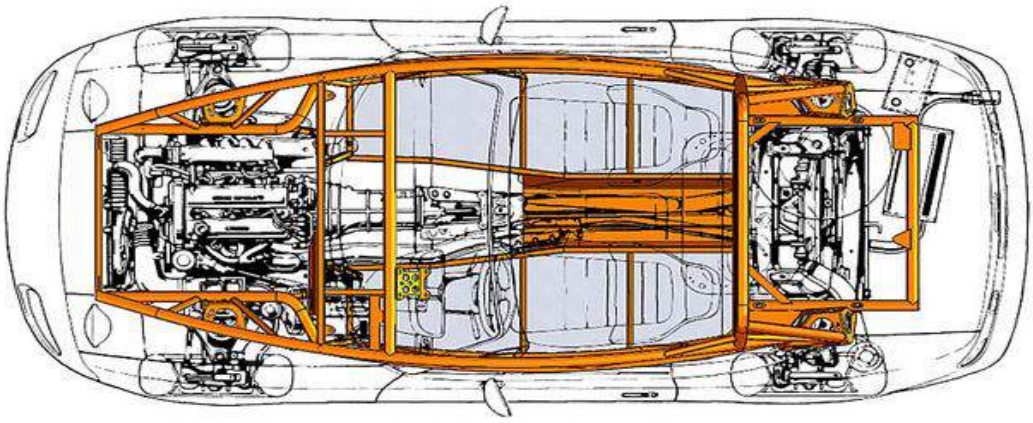
IVA Application form filling assistance.

Best to send a copy of V5 and build pictures to prove it is an "amateur build".
Often confused q's are:

3a enter; MEV VIN not the donor vehicle identification number.
3b enter; driver’s side under bonnet.
3c tick box A and include an amateur declaration form.
4a enter; MEV MEVSTER/Exocet.

4b enter; current date.
4c tick; NO.
4d tick; NO.
4e tick; NO.
4f enter; sports car.
4g enter; engine number on your V5
4h enter; On engine block, they might find it.
4j tick; manual or auto.
4k enter; 2.
4m enter; as appropriate.
4n tick; non turbo.
4p tick; NO. Unless you have retained ABS.
4q NA
4r tick; petrol.
4s 1600 or 1800cc.
4t enter; 4, in line.
4u enter; 115 BHP @ 6500 rpm. Or 132 BHP if 1.8 engine.
4v enter; 110 mph.
4w axle 1 500 axle 2 500 gross 1000 train NA
4x tick; NO.
Go to part 9.
And don't forget to include copy V5, build pics, amateur built declaration form (download from www.gov.uk/vehicleapproval) and a cheque for £450





Section 18: Registration

Once you have an IAC (individual approval certificate) in your hand you can then apply to register your car.
You will more than likely be issued with an age related plate. This will be of the same year as your donor but not the same number.

Applications to register your vehicle should be sent to KIT AND REBUILDS TEAM; DVSA; Swansea; SA99 1ZZ.

Documentation required for registration: -

- V55/5
- V5C (if donor vehicle is used)
- ID(Photocopies are acceptable)
- 1st Registration Fee (Check applicable rate)
- Fee for road tax
- MOT (if applicable)
- IVA/SVA/MSVA Certificate
- Receipts for any new or second hand parts.
- V627/1 'Built up Vehicle Inspection Report' to be completed before inspection.

You do not need an MOT for the first 3 years as age is classed as when it was completed.
You will need a receipt from the kit supplier that states "new and unused" and the VIN.

IMPORTANT: Keep copies of everything you send.

V55/5 COMPLETION INFORMATION

Registration No:	Leave blank
Tax class:	Petrol car
Period of tax:	12 months
Registration fee: £55.	Tax payable (Check current amount)
Manufacturer:	MEV
Make:	MEV
Model:	Replicar/Exocet
Type of body:	Sports car
Wheel Plan:	2 axle rigid
Colour:	State body colour
Type approval:	IVA number XXXX
Type:	NA
Variant:	NA
Version:	NA
Length:	NA
HC:	See IVA Cert
Un-laden weight:	NA
No seats:	2
Max net power:	131@6500 (for the mk1 1.8)
Max towable mass:	NA
Track width:	1450 depending on wheel/spacer choice
Width:	NA
NOx:	NA
Revenue weight:	NA
Standing places:	NA
Max permissible mass:	1280
Year of manufacture:	2016
Euro status dir no:	NA
Date from which tax to run:	1st of next month
Fuel:	Petrol
VIN:	As per invoice from MEV
Engine number:	Taken from donor V5
Cylinder capacity:	1840
Wheelbase:	2240
CO2:	See IVA cert
Mass in service:	835

Partic.s:	NA
CO:	NA
HC+NOx:	NA
Trailer wt:	NA
Stat. sound:	NA
Engine speed sound:	NA
Drive by sound:	NA
Power/weight:	NA

Once you have submitted your registration form and payment it may take 2 weeks for a registration document to arrive, keep chasing them if it does not arrive, they often lose applications or some of the documents you have submitted.

Then comes the very proud moment.

A drive in a car that you built yourself, fully understand and feel confident with as it is now legal and fully Government approved.
Take it easy until you get used to it, these are great cars to drive and handle extremely well but they are quick and it is always best to bring it on as you become more experienced.
Enjoy your Exocet, you deserve it, we look forward to seeing you and your creation at one the MEV meetings soon.