

FITTING A PERFORMANCE EXHAUST

Beef up your exhaust note and double your tail pipes. We reveal what's involved

Words and Pics: Rob Hawkins

Removing the standard exhaust system on a Mini and fitting an aftermarket set up is a reasonably straightforward nut and bolt job. The following twenty steps show what's involved and how to access the exhaust with a trolley jack and axle stands. However, if you can use a suitable two or four post ramp, it's a lot easier. There are no special tools required, just the usual assortment of spanners and sockets. Fiddly jobs include fitting a manifold and trying to locate the bolts into the head. Awkward jobs include dropping the entire exhaust system while keeping your fingers out of the way.

Set aside half a day to change your exhaust system. If you want to remove the exhaust



manifold, the following instructions show what's involved. Performance manifolds are available. However, if the flexi-joint has broken on the standard unit or the catalytic converter has failed, specialists, such as The Professional Tyre and Wheel Company

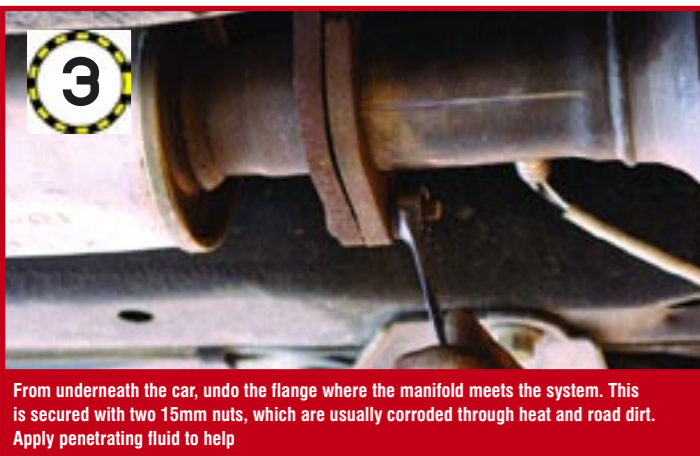
of Bradford (01274 371 177), can repair the manifold, saving you from buying a new one. A new flexi-joint costs £60 fitted and a cat costs £110. The performance exhausts shown here cost £300 fitted, including modifying the rear valance, and come with a choice of tailpipes.



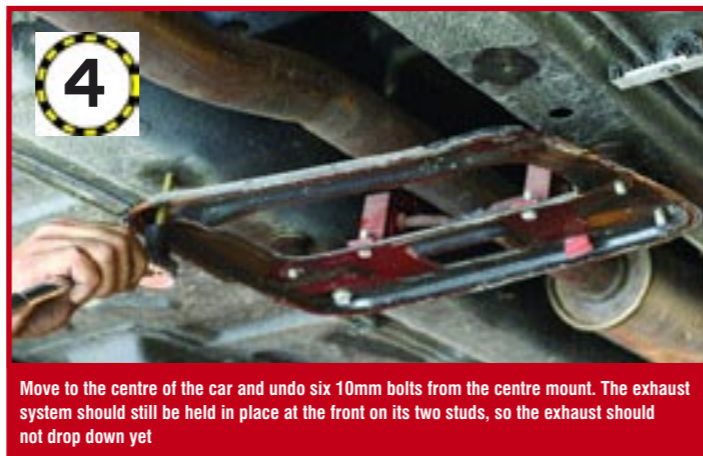
1 With the car on level ground, select first gear and apply the handbrake. Disconnect the battery by undoing the negative terminal, which is secured with a 10mm nut and bolt. Make sure you've got your stereo code



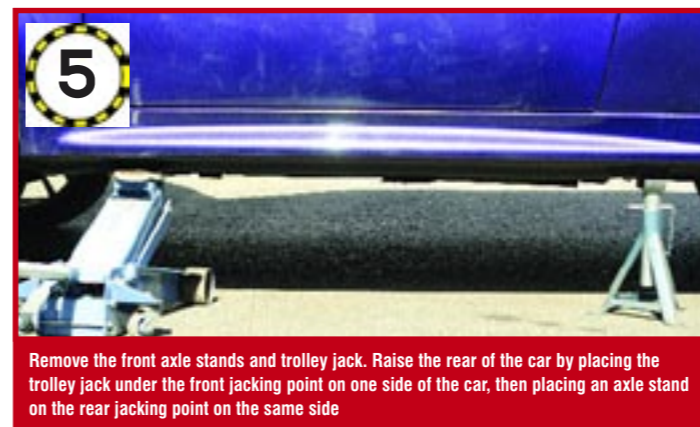
2 Check the rear wheels and raise the car with a trolley jack underneath the front jacking point. Place an axle stand under the front crossmember, then repeat for the other side. Two axle stands must be placed under the cross member



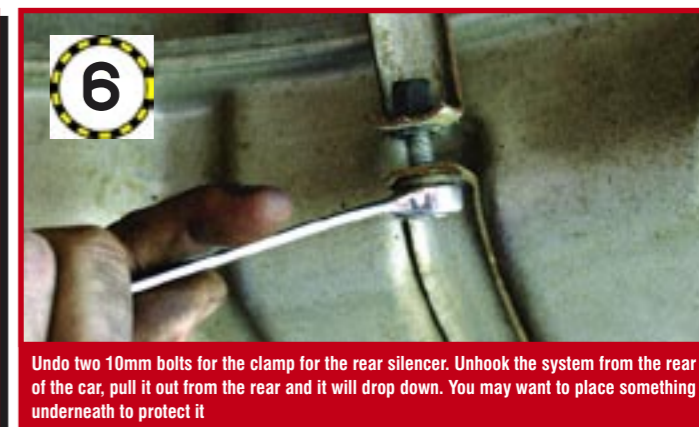
3 From underneath the car, undo the flange where the manifold meets the system. This is secured with two 15mm nuts, which are usually corroded through heat and road dirt. Apply penetrating fluid to help



4 Move to the centre of the car and undo six 10mm bolts from the centre mount. The exhaust system should still be held in place at the front on its two studs, so the exhaust should not drop down yet



5 Remove the front axle stands and trolley jack. Raise the rear of the car by placing the trolley jack under the front jacking point on one side of the car, then placing an axle stand on the rear jacking point on the same side



6 Undo two 10mm bolts for the clamp for the rear silencer. Unhook the system from the rear of the car, pull it out from the rear and it will drop down. You may want to place something underneath to protect it



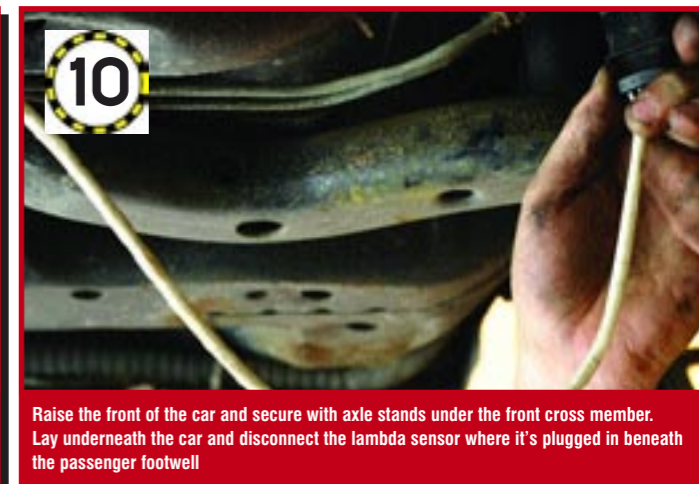
7 If the exhaust you're fitting doesn't need the standard clamp for the rear silencer, it can be removed completely. It is fitted with four 13mm nuts into the underneath of the floor



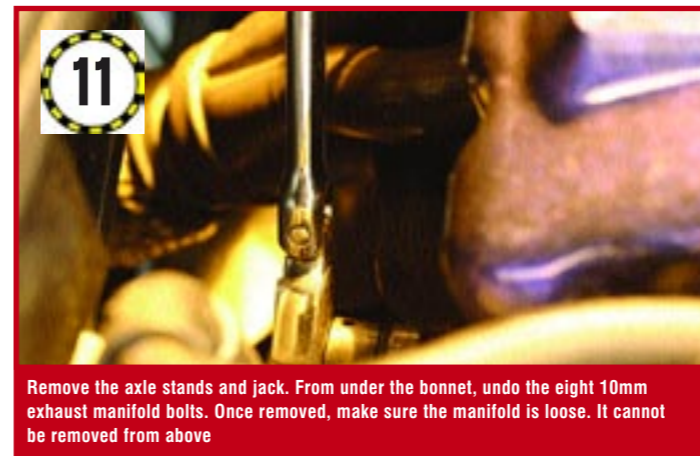
8 Remove the jack and stand. If you intend to remove the exhaust manifold, lift the bonnet and unclip the lambda sensor plug, which is connected to the side of the cylinder head, just below the oil filler cap



9 The lambda sensor wire disconnected in the last step runs around the power steering reservoir to its connection on the exhaust. Feed this wire out so that the manifold can be removed later



10 Raise the front of the car and secure with axle stands under the front cross member. Lay underneath the car and disconnect the lambda sensor where it's plugged in beneath the passenger footwell



11 Remove the axle stands and jack. From under the bonnet, undo the eight 10mm exhaust manifold bolts. Once removed, make sure the manifold is loose. It cannot be removed from above



12 Raise the front of the car on the jacking points and place axle stands under the front cross member. Remove the exhaust manifold from under the car, making sure the lambda sensor wires don't catch

NEWMINI HOW TO



13 When refitting the exhaust manifold, make sure the lambda sensor wires are fitted. Slot the manifold from underneath into the engine bay. Ask someone else to help from above to guide the manifold



14 Fit a gasket for the exhaust manifold and start refitting the 10mm exhaust bolts. Once they have been fitted, fully tighten all of them. Route the lambda sensor wires and reconnect the plugs



15 Returning to fitting the exhaust system, start by raising and supporting the front of the vehicle. The centre mount can be flexi-mounted by fitting Classic Mini exhaust bobbins into the holes in the body



16 Take the new exhaust system and measure it up to make sure it will fit. Fit it to the exhaust manifold flange and support it to check it doesn't foul anything. Use wooden blocks to support it



17 Make sure the centre mount can be fitted onto the flexible bobbins fitted in step 15 and can be secured with suitable nuts. Loosely fit in place if desired, but don't fully tighten anything yet



18 You may need to fit new mounts for the exhaust hangers at the rear of the exhaust. The existing mounts for the standard clamps can be used if possible. Otherwise measure up and fit new mounts into the underside of the boot floor



19 If the positioning of the exit pipes is different to the original exhaust, you may need to modify the rear valance and cut a section out to allow the new pipes to exit properly. Use masking tape and a jigsaw to cut the valance



20 Once everything looks as though it's going to line up, tighten all nuts and bolts, lower the car, reconnect the battery and test drive. Listen for any knocks from the exhaust when driving. Check all fittings again