MG Rover SCU Unlock Tool - User's Manual
Version 1

Applicable to:

All MG Rover Models fitted with the Pektron Security Control Unit / Body Control Unit, 2003 to 2005 approx.

Note: This product has been extensively tested with part numbers YWC001540 and YWC001541, which are fitted to all UK and European spec. cars in this range. It may not work on units intended for other markets, e.g. Japan.

Features:

- Unlocks SCUs so that new remotes can be programmed in, even when the original remote(s) has failed or has been lost.

- 'Undeletes' remotes that have accidentally been deleted during programming.

- No desoldering required: The tool uses contact pins to reset the SCU

- No PC required: These functions are operated by simple push buttons

Unlocking Process

Remove the SCU from the car. Check to make sure the SCU hasn't suffered water damage.

Take the printed circuit board out of the SCU, and place it on on the Unlock Tool. The PCB is aligned by use of the jig pins, indicated by the red arrows in the photo below:

Turn the thumb catches (shown by the green arrows) to hold the PCB down

Note: On some SCUs the corner holes may be blocked with solder. If this is the case, the 2 jig pins can be moved to an alternative position on the tool. There are 2 spare jig pins stored on the right hand side.
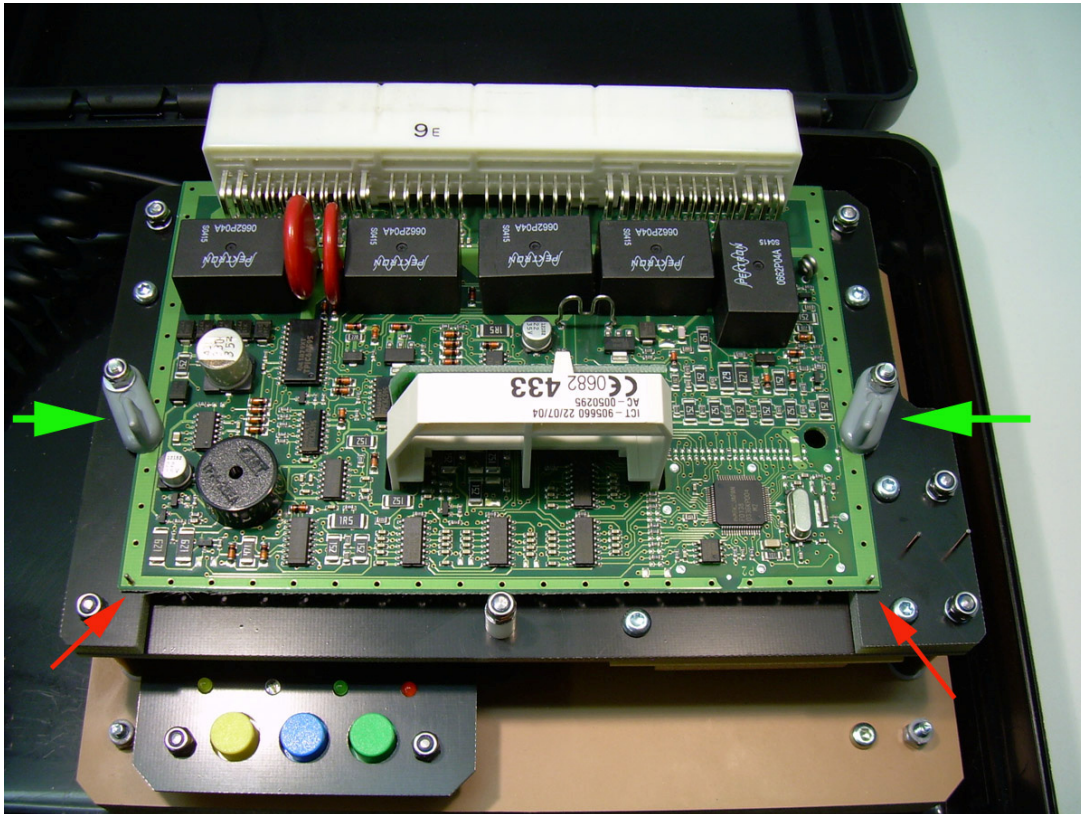
Plug the cigar lighter socket into a 12V source. The 4 LEDs should pulse during a 'Power On' sequence, and then the Yellow (Power) LED should stay on.

Press the Yellow (Prepare) switch. The Blue (Data) LED will come on for a second, and then, if the SCU has been prepared sucessfully, the Green (OK) LED will come on. If the Red (Error) LED comes on, the process hasn't worked. Check the back of the PCB for dirt / contamination, and try again.

Take the SCU PCB off the tool, put it back in its box, and re-fit it to the car.

Make sure that the Unlock tool is within Radio Frequency range of the car. Press the Green (Unlock) button on the Unlock Tool. The SCU should then be disarmed / Unlocked. If this doesn't work first time, just try pressing the Green (Unlock) button again.

Finally, new remotes can now be programmed into the SCU using the usual process, using your own diagnostic tool. Note that the SCU will behave as if it has been disarmed using an existing remote, and so will eventually re-arm itself, although keeping ignition turned on stops this. If re-arming happens it can be disarmed several more times using the Green (Unlock) button on the Unlock Tool. If the SCU doesn't disarm straight away, just keep pressing the Green (Unlock) button.

Your diagnostic tool may also ask you to 're-confirm' (exact wording varies) any existing remotes during the remote programming process. You can, if needed, press the Green button then as well, although this isn't essential.

The process of programming remotes to SCUs isn't 100% reliable, even in perfect conditions, and you may sometimes get a message from your diagnostic tool saying 'Programming Failed'. If this is the case, just leave ignition on and retry.

The process of preparing the SCU on the unlocking tool, and then disarming, can be repeated again if needed.

Undeleting Process

Once again remove the SCU from the car, take the PCB out, and mount it on the Unlock Tool as shown on the photo above.

Plug the cigar lighter connector into a 12V source.

Press the Blue (Undelete) button. The Blue (Data) LED will come on for about a second, and then you should see the following:

- Green (OK) LED comes on twice: The Unlock Tool could communicate with the SCU, and one remote has been undeleted. Note: If you suspect that more than one remote needs to be undeleted, you can always push the button again. If the green LED blinks twice a second time, a second remote has been undeleted etc.

- Green (OK) LED comes on once: The Unlock Tool could communicate with the SCU, but there were no deleted remotes to undelete.

- Red (Error) LED comes on: Either the Unlock Tool couldn't communicate with the SCU, or the EEPROM in the SCU has been totally erased. Try re-seating the CSU on the Unlock tool and try again.

If the remote(s) were deleted as a result of a programming error (and this is quite common) then put the SCU back on the car, and the previously deleted remotes should once again be functional.

If you want to prepare an SCU for unlocking, whilst at the same time undeleting a remote, this can be done in the same session whilst the SCU is on the rig. It's not important which order is used for these operations.

What the Tool Won't do

The tool won't solve hardware problems with the SCU. These are most likely to be:

Water ingress. This happens only on MG ZR / 25 models. To date we have not seen any water ingress problems on ZS / 45 or MG TF.
Sometimes the signs of water damage are obvious, and sometimes they are more subtle. Look into the pins of the connector, or at the RF receiver tile.
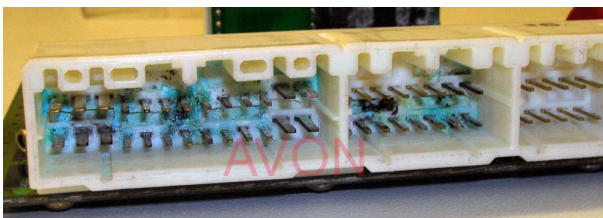
This shows a pretty extreme case!

Relay Failure: Failure of the on-board relays is relatively frequent on these units, and the relays themselves are made by Pektron, and have an unusual footprint. We have sourced a compatible (and better quality) replacement. Contact us for details.

Undelete Feature: The feature is designed to reinstate remotes that have accidentally been deleted during programming, or remotes that a customer has lost and then finds again after a new remote has been programmed.

If a remote has simply stopped working in the hands of a customer, then this feature won't make it work again.

Cautions

The contact pins are delicate, and will only work correctly if they are not bent, and are not dirty. So we recommend the following precautions:

- Keep the case closed when the tool isn't in use.
- Don't put other tools in the case that could rattle around and damage the contact pins in transit
- Don't subject the contact pins to side loads.
- Remember to strap the cigar lighter plug down with its velco strap when not in use.

The contact pins are gold-plated, and so shouldn't oxidise or tarnish during the life of the tool.

The jig pins are 1mm diameter steel pins, in order to mate up with the holes in the PCB. We've blunted them off, but they can still be slightly sharp. When pushing the PCB onto these jig pins, make sure that you don't stab yourself!

Overview of Switch / LED Layout