



Quick Reference: Immobilizer III Service Procedures

Notes:

Before starting: Read these instructions completely.

When working on an Immobilizer system, try to have all the vehicle keys available. Some repairs require the Adaptation of the keys. If you adapt only one key, the remaining keys will not start the vehicle.

Before replacing any Immobilizer system parts, use a Scan Tool to record the VIN and 14 digit Immobilizer number from the Instrument Cluster (Address Word 17) or the Engine Control Module (Address Word 01.) If this is not possible, obtain the 14 digit Immobilizer number from the Instrument cluster label.

Record the coding for the Instrument Cluster and all the Adaptation numbers if possible.

After obtaining the 14 digit Immobilizer number, obtain and record the SKC (**S**ecret **K**ey **C**ode) number from WINS. It is the same procedure used to retrieve radio codes.

New Instrument Clusters will not have a scratch-off tag with the SKC. Vehicles sold in the North American Region will only use the four (4) digit SKC at this time. Please ignore the instructions on the VAS 5051 regarding the seven (7) digit SKC until further notice.

When replacing only an ECM, it is not necessary to adapt the vehicle keys. If you're replacing the Instrument Cluster, it is necessary to adapt the vehicle keys. ***If you replace both the ECM and Instrument Cluster at the same time, you will have to replace all the vehicle keys. Whenever possible, complete the adaptation of the first component before replacing the second.***

Warning

It is possible to try used Instrument Clusters and ECMs as long as they are the correct part numbers. You will have to enter the SKC of the used part as a Login procedure before performing any Adaptation procedures. *Do not install both the Instrument Cluster and ECM in the same vehicle simultaneously or you will not be able to return them to the original vehicle. Only replace one part at a time and replace the used part with the original before trying another used part.*



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Adapting Vehicle Keys

Remember, try to have all the vehicle keys if possible. If you adapt only one key, the other vehicle keys will not start the vehicle.

Keep the keys to be adapted separate from each other so they will be easier to handle and to minimize possible interference when doing the procedure.

1. Insert first vehicle key into ignition and switch ignition on.
2. With Scan Tool, select Address Word 17 – Instrument Cluster
3. Select Function 11 – Login procedure
4. Enter a 0 (zero) followed by the 4 digit SKC.
5. Press 'Q'
6. Select Function 10 – Adaptation
7. Select Channel 21
8. Use the slide bar or keypad to enter the total amount of keys to be adapted at this time.
9. Press 'Save'
10. Press 'Accept'
11. Turn key off and remove.
12. Insert next key and switch ignition on. Leave ignition on until Immobilizer light goes off. You have only 30 seconds for each key.
13. Repeat step 12, until all remaining keys are adapted. Remove last key from ignition when done.
14. Check all keys by starting vehicle.



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Installing/Adapting a new Engine Control Module

Obtain SKC from WINS by using the 14 digit Immobilizer code from the vehicle Instrument Cluster.

The VIN and 14 digit Immobilizer number are 'written' to the new ECM automatically when the ignition is switched on.

1. Install new ECM in vehicle.
2. Connect Scan Tool and select Address 01 – Engine Electronics.
3. Verify that VIN and 14 digit have been written to ECM. **If they have not, a row of X's will appear on the display, see the procedure below.**
4. Use all keys to start vehicle.
5. Make sure the ECM coding (Function 07) is correct.
6. Perform '00' scan – 'Interrogate all fault memories.'
7. Clear all relevant faults.
8. Adapt throttle and kickdown.
9. Set Readiness Code.

It is possible that the VIN and 14 digit Immobilizer code will not be written to the ECM automatically. If this happens, x's will appear as place holders on the Scan Tool screen.

If the VIN and 14 digit Immobilizer number are not 'written' to the new ECM automatically when the ignition is switched on, proceed as follows:

1. Connect Scan Tool and select Address 01 – Engine Electronics.
2. Select Function 10 – Adaptation.
3. Select Channel 50. Field 1 shows 'Pin?'
4. Enter a '0' followed by the 4 digit SKC obtained from WINS via the 14 digit Immobilizer Code of the Instrument Cluster.
5. Press 'Q' and wait until VIN and Immobilizer code are displayed on Scan Tool.
6. Check that VIN displayed on Scan Tool matches VIN of vehicle.
7. Press 'Save' and then 'Accept.'
8. Select Function 06 – End Output
9. Switch ignition off and then back on within one minute but do not start vehicle for 2 minutes.
10. After 2 minutes, use all keys to start vehicle.
11. Make sure ECM coding Function 07) is correct.
12. Perform '00' scan – 'Interrogate all fault memories.'
13. Clear all relevant faults.
14. Adapt throttle and kickdown.
15. Set Readiness Code.



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Installing/Adapting a new Instrument Cluster

This procedure requires adapting all the vehicle keys after installing the new component.

Remember, try to have all the vehicle keys if possible. If you adapt only one key, the other vehicle keys will not start the vehicle.

Keep the keys to be adapted separate from each other so they will be easier to handle and to minimize possible interference when doing the procedure.

Before removing the old Instrument Cluster, obtain and record the VIN and 14 digit Immobilizer code number if possible. (The 14 digit Immobilizer code can also be obtained from the ECM.) You should also copy the mileage and all of the adaptations from the old instrument cluster so that they can be transferred to the replacement cluster. If available, use Guided Fault Finding on the VAS 5051 to transfer this information.

Obtain SKC from WINS by using the 14 digit Immobilizer code.

1. Install new Instrument Cluster.
2. Connect Scan Tool and select Address Word 17 – Instrument Cluster.
3. Select Function 10 – Adaptation.
4. Select Channel 50
5. Enter '0' followed by the 4 digit SKC for the old Instrument Cluster.
6. Press 'Q' and wait until VIN and Immobilizer code are displayed on Scan Tool.
7. If the adaptation was performed correctly, the information in the instrument cluster should match the ECM
8. Select Function 06 – End Output
9. Switch ignition off and then back on within one minute but do not start vehicle for 2 minutes.
10. Adapt all the remaining keys as described on page two (2.)



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Installing/Adapting a new Instrument Cluster and new ECM at the same time

If you are replacing both the ECM and Instrument Cluster at the same time, you will have to replace all the vehicle keys. Whenever possible, complete the adaptation of the first component before replacing the second to avoid replacing all of the keys.

Keep the keys to be adapted separate from each other so they will be easier to handle and to minimize possible interference when doing the procedure.

Note:

You can only enter the VIN into the Instrument Cluster using the VAS 5051.

Before removing the old Instrument Cluster, obtain and record the VIN and all other adaptation numbers.

1. Obtain the 4 digit SKC number for the new Instrument Cluster through WINS by using the 14 digit Immobilizer code number printed on the new Instrument Cluster label. Record this number for reference.
2. Install the new Instrument Cluster and ECM.
3. Using new ignition key, switch ignition on.
4. Connect Scan Tool and select Address Word 17 – Instrument Cluster.
5. Select Function – Transmitting Vehicle Identification Number.
6. Enter VIN in new Instrument Cluster with keypad.
7. Select Address Word 01 – Engine Controls
8. *Verify that VIN and 14 digit immobilizer number have been written to ECM.
9. Select Function 06 – End Output
10. Adapt all keys. Procedure on Page 2.
11. Make sure ECM coding (Function 07) is correct.
12. Perform '00' scan – 'Interrogate all fault memories.'
13. Clear all relevant faults.
14. Adapt throttle and kickdown.
15. Set Readiness Code.

*It is possible that the VIN and 14 digit Immobilizer code will not be written to the ECM automatically. If this happens, x's will appear as place holders on the Scan Tool screen.

If the VIN and 14 digit Immobilizer number are not 'written' to the new ECM automatically when the ignition is switched on, follow process outlined on page 3, Steps 1 through 15 on second half of page.



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Installing a used ECM

It is possible to try a used ECM (for diagnostic purposes) as long as they are the correct part number. You will have to enter the SKC of the used part as a Login procedure before performing any Adaptation procedures.

Only replace one part at a time and replace the used part with the original before trying a different part.

1. Obtain and record SKC of used ECM via the 14 digit immobilizer code and WINS.
2. Obtain and record the coding from the ECM of the vehicle you're working on.
3. Remove ECM and install replacement ECM.
4. Connect Scan Tool and select Address Word 01 – Engine Electronics.
5. Select Function 11 – Login.
6. Enter '0' followed by the 4 digit SKC for the used ECM.
7. Press 'Q'. After confirmation, ECM is ready for use. Press back arrow to get back to function screen.
8. Select Function 10 – Adaptation.
9. Select Channel 50. Field 1 shows 'Pin?'
10. Enter a '0' followed by the 4 digit SKC from the vehicle you're working on, obtained from WINS via the 14 digit Immobilizer Code.
11. Press 'Q' and wait until VIN and Immobilizer code are displayed on Scan Tool.
12. Check that VIN displayed on Scan Tool matches VIN of vehicle.
13. Press 'Save' and then 'Accept.'
14. Switch ignition off and then back on within one minute but do not start vehicle for 2 minutes.
15. After 2 minutes, use all keys to start vehicle.
16. Make sure ECM coding (Function 07) is correct.
17. Perform '00' scan – 'Interrogate all fault memories.'
18. Clear all relevant faults.
19. Adapt throttle and kickdown.
20. Set Readiness Code.

If installing the used ECM does not repair the vehicle you're working on, remove it and re-install the original ECM before attempting further repairs.



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Installing a used or remanufactured Instrument Cluster

Login is required to unlock the system before the adaptation can be performed.

It is possible to try a used Instrument Cluster (for diagnostic purposes) as long as they are the correct part number. You will have to enter the SKC of the used part as a Login procedure before performing any Adaptation procedures. **Only** replace one part at a time and replace the used part with the original before trying a different part.

1. Obtain and record the coding and all adaptation numbers from the Instrument Cluster of the vehicle you're working on and remove this cluster.
2. Install used Instrument Cluster.
3. Obtain and record SKC of used component via the 14 digit immobilizer code and WINS.
4. Select Address Word 17 – Instrument Cluster.
5. Select Function 11 – Login.
6. Enter '0' followed by the 4 digit SKC for the used Instrument Cluster.
7. Press 'Q'. After confirmation, Instrument Cluster is ready for use. Press back arrow to get back to Function screen.
8. Select Function 10 – Adaptation.
9. Select Channel 50. Field 1 shows 'Pin?'
10. Enter a '0' followed by the 4 digit SKC obtained from WINS via the 14 digit Immobilizer Code of the original vehicle Instrument Cluster.
11. Press 'Q' and wait until VIN and Immobilizer code are displayed on Scan Tool.
12. Check the displayed VIN and Immobilizer number and make sure they match the numbers in the ECM.
13. Select Function 06 – End Output
14. Switch ignition off and then back on within one minute but do not start vehicle for 2 minutes.
15. Adapt all the remaining keys as described earlier.

If installing the used Instrument Cluster does not repair the vehicle you're working on, remove it and re-install the original Instrument Cluster before attempting further repairs.



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Emergency Start Procedure

It is no longer possible to perform an emergency start procedure by inputting the SKC with the Clock and Odometer knobs of the Instrument Cluster. You must use the Scan Tool.

1. Obtain and record SKC of Instrument Cluster via the 14 digit immobilizer code and WINS.
2. Select Address Word 17 – Instrument Cluster.
3. Select Function 11 – Login.
4. Enter '0' followed by the 4 digit SKC for the Instrument Cluster.
5. Press 'Q' to accept.
6. Press 06 to End Output.
7. Do not switch off ignition.
8. Start vehicle.

Once the emergency start procedure has been successfully completed, the Immobilizer Control lamp will light constantly and the Immobilizer will be switched free:

1. As long the engine is running.
2. For 45 minutes with the engine switched off but the ignition key inserted in the ignition.
3. For 5 minutes after the key is removed from the ignition.