



VAG[®] Instrument Cluster Reset Cable ADC219

Introduction

Thank you for your purchase.

ADC219 VAG[®] cable connects to the AD Pro tester and the vehicle's OBD port and is specifically used in a lost key situation for various VAG[®] group vehicles. See Info Quest for full list of models supported.

You will also require ADS230 software (VAG[®] Instrument Reset) for use with ADC219 cable. The transponder type used will depend on the brand and geographic region where you are working, and precode data may be unique to each vehicle chassis.

Cable components



VAG[®] - Lost key situation for CAN TP2.0 and UDS protocol vehicles

Purpose of the product

The purpose of the ADC219 cable and ADS230 software is to produce a working key when all keys are lost on specific Volkswagen[®], Seat[®] and Škoda[®] vehicles. This is done by removing the instrument cluster, connecting to a specific point on the circuit board of the rear of the cluster and using the tester software to place the instrument cluster into Service Mode. This then allows the user to add a working key to the vehicle by turning on the ignition with a new key and transponder.

Vehicle applications

Vehicle applications fall into two initial categories, those using the CAN protocol TP2.0 and those using the CAN protocol UDS. Within those two generic applications are additional families of systems which are CAN TP2.0 Micronas and CAN UDS VDO.

It must be remembered that those instrument clusters then have their own algorithms which must be accessed where possible. Connecting to the rear of the instrument cluster does NOT bypass the need for an access algorithm and therefore any restrictions of use created by a lack of algorithm bypass is still in place. Under these circumstances you will see “unrecognised dashboard”.

Process

The process of producing a working key for VAG[®] must start with verifying the application by using the iQ. Once you have done this, you will need to remove the instrument cluster. Because of the wide variation in vehicle applications there are many different procedures required, but it will normally require you to move the steering wheel to its lowest possible position and pull it towards you to move it as far from the cluster as possible. You will then need to remove the trim covering from the bottom of the instrument cluster to gain access to the two retaining Torx screws.

You can then remove the cluster after unplugging its single blue or black electrical connector.

Technical Support do have the specific instrument cluster removal process photos for each individual vehicle, so if you are not sure please contact your support team for details.



Tools Required

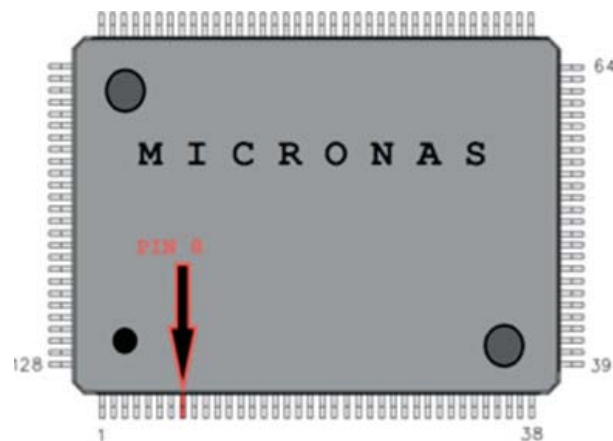
- Pro Tester
- Smart Dongle
- Smart Aerial
- ADC219 Adapter cable
- Torx T20 screwdriver
- Torx T10 screwdriver
- Flat blade screwdriver
- Correct or correctly prepared ID48 (T33)

Once the instrument cluster is removed you need to connect the ADC219 cable to the rear of it, plug the male 16-pin DLC socket into the vehicle's diagnostic socket (whilst remembering that you must have good, stable battery voltage for any process of programming) and connect the female DLC socket to your Advanced Diagnostics tester.

From here you need to navigate through the manufacturers menu to By System and choose the protocol identified in the initial process (CAN TP2.0 or UDS VDO) and select the "No working key" item from the menu. The tester will then communicate with the instrument cluster and ask you to place the ADC219 probe on the correct pinpoint of the instrument cluster, and this equates to pin 67 of UDS cluster and 8 on Micronas clusters.

Note: use of this cable/software does not require the instrument cluster needles to be detached and the front fascia removed, the only part that needs to be removed on UDS clusters is the rear cover of the cluster. Micronas clusters require more disassembly.

Please pay attention to the processor orientation denoted in the pictures below:



Once you have identified the correct pin of the microprocessor, place the pin probe on the nearest point of the circuit board that is easily accessible, such as this:



Continue with the software prompts on the tester screen. If you have placed the probe in the correct position the software will ask you to remove the probe, it will then get security access and the cluster will be placed into service mode.

Once this happens the cluster will either add a key to the number of transponders already programmed in the cluster, or it will erase all known transponders and add a transponder to that amount.

Note: Please ensure you read the ABS Coding for UDS clusters before refitting the cluster to the vehicle.

Under these circumstances the cluster display will change at the bottom (where the mileage is displayed) to show the number of transponders programmed and the number of transponders requested. In the case below: zero transponders programmed of 1 transponder requested:



Once you refit the instrument cluster to the vehicle and cycle the ignition with a valid transponder the instrument cluster will change to show the new value:

**Notes:**

As with most UDS transponder programming, once the instrument cluster has been requested to add a transponder (and the cluster changes to 0-1 or 1-2 or 2-3 for example) the tester is then not required to add a transponder and indeed will normally not be allowed to access the programming functions from that point onwards. All that is required is for a valid transponder to be cycled in the ignition, so if the cluster display remains as above and does not increment to 1-1, 2-2 or 3-3 then the transponder you are using is incorrect or faulty.

(TP2.0) - ADC219 Probe Procedure - ADS230 Software

VEHICLE SELECTION
MAZDA
MITSUBISHI
NISSAN
TOYOTA
SEAT
VOLKSWAGEN

VEHICLE SELECTION
+ 2003 - 2007
+ 2007 - 2009

VEHICLE SELECTION
+ AUTODETECT IMMO
+ AUTODETECT REMOTE
+ READ PINCODE
+ BY SYSTEM
+ BY VEHICLE

VEHICLE SELECTION
+ WITH WORKING KEY
+ KEYS LOST (ADC219)

VEHICLE SELECTION
+ ISO KW1281
+ ISO KW2000
+ TP2.0
+ UDS

CONNECT ADC219 TO CLUSTER
PRESS ENTER KEY

VEHICLE SELECTION
+ READ PIN /PRE
+ PROGRAM KEYS
+ PROGRAM REMOTES

PLEASE WAIT TRYING TO COMMUNICATE
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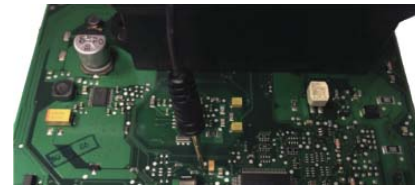
(TP2.0) - ADC219 Probe Procedure - ADS230 Software

ECU IDENTIFICATION
VIN: WWWZZZ1KZW180311 PART: VWZ7Z0G8018972
ID: 1K6 920 962
TYPE: KOMBIINSTRUMENT
PRESS ENTER KEY

HOLD TEST PROBE
PRESS ENTER KEY

DIAGNOSTIC MENU
ECU IDENTIFICATION
> SPECIAL FUNCTIONS
PRESS ENTER KEY

PLACE PROBE ONTO THE MICROPROCESSOR PIN AS PER INSTRUCTION IMAGES, INDIVIDUAL TO EACH CLUSTER TYPE.



DIAGNOSTIC MENU
> ENTER SERVICE MODE
PRESS ENTER KEY

RELEASE TEST PROBE
PRESS ENTER KEY

ENTER SERVICE MODE
PLEASE WAIT

PLEASE WAIT TRYING TO COMMUNICATE

(TP2.0) - ADC219 Probe Procedure - ADS230 Software

ENTER SERVICE MODE

PLEASE RECONNECT DASHBOARD TO
VEHICLE AND SWITCH IGNITION ON
WITH THE NEW KEY

ENTER SERVICE MODE

PROCEDURE COMPLETE

REASSEMBLE THE CLUSTER AND
REFIT TO THE VEHICLE. CYCLE IGNI-
TION WITH A VALID KEY TO
ADD A NEW TRANSPONDER.

THE CLUSTER WILL READ
0-1, 1-2, 2-3 ETC UNTIL A NEW
TRANSPONDER IS ADDED.

ADDITIONAL KEYS CAN NOW BE
ADDED TO THE VEHICLE VIA THE
TESTER SOFTWARE

ABS Code (Reading) Procedure - ADS230 Software

IN SOME CASES WHEN
RESETTING A **UDS CLUSTER**
THE ABS CODING DATA COULD
BE OVER WRITTEN BY THE
CLUSTER.

**IT IS ADVISED TO READ THE
ABS CODING DATA FROM THE
VEHICLE BEFORE THE CLUSTER
IS REMOVED FROM THE VEHICLE.**

THE ABS CODING DATA IS STORED
ON THE TESTER AND
CAN BE WRITTEN BACK TO THE
ABS MODULE IF REQUIRED.

VEHICLE SELECTION

MITSUBISHI
NISSAN
TOYOTA
SEAT

VOLKSWAGEN

VEHICLE SELECTION

+ AUTODETECT IMMO
+ AUTODETECT REMOTE
+ READ PINCODE

+ BY SYSTEM

+ BY VEHICLE

VEHICLE SELECTION

+ ISO KW1281
+ ISO KW2000
+ TP2.0

+ UDS

VEHICLE SELECTION

+ PROGRAM KEYS

+ PROGRAM REMOTES

VEHICLE SELECTION

+ VDO DASH

+ MARELLI DASH

VEHICLE SELECTION

+ WITH WORKING KEY

+ KEYS LOST (ADC219)

VEHICLE SELECTION

+ ABS CODING

+ KEYS LOST (ADC219)

ABS Code (Reading) Procedure - ADS230 Software

PLEASE WAIT TRYING
TO COMMUNICATE

LONG CODING
E - VIN: WW1ZZZ2KZCX062930
PLEASE WAIT

ECU IDENTIFICATION
ID: 1K0 908 379
PRESS ENTER KEY

LONG CODING
E - VIN: WW1ZZZ2KZCX062930
PLEASE WAIT

S: 010102010302
LH: 433C600D092103FCC215
LL: 06E79019C072300000
SUCCESSFUL
PRESS ENTER KEY

DIAGNOSTIC MENU
ECU IDENTIFICATION
> **SPECIAL FUNCTIONS**
PRESS ENTER KEY

CODING INFORMATION IS STORED
ON THE TESTER. THE CLUSTER CAN
BE REMOVED AND RESET.

DIAGNOSTIC MENU
> **READ LONG CODING**
> WRITE LONG CODING
PRESS ENTER KEY

ABS Code (Writing) Procedure - ADS230 Software

IF THE ABS AND TRACTION
CONTROL WARNING LIGHTS
ARE ILLUMINATED AFTER
REINSTALLING THE CLUSTER, THE
ABS CODING DATA WILL NEED TO
BE WRITTEN BACK TO THE
VEHICLE.

DIAGNOSTIC MENU
> READ LONG CODING
> WRITE LONG CODING
PRESS ENTER KEY

LONG CODING
E - VIN: WV1ZZZ2KZCX062931
PLEASE WAIT

LONG CODING
E - VIN: WV1ZZZ2KZCX062931
PLEASE WAIT

R- VIN WV1ZZZ2KZCX062931
SUCCESSFUL
PRESS ENTER

(UDS VDO) - ADC219 Probe Procedure - ADS230 Software

VEHICLE SELECTION
MAZDA
MITSUBISHI
NISSAN
TOYOTA
SEAT
VOLKSWAGEN

VEHICLE SELECTION
+ WITH WORKING KEY
+ KEYS LOST (ADC219)

VEHICLE SELECTION
+ AUTODETECT IMMO
+ AUTODETECT REMOTE
+ READ PINCODE
+ BY SYSTEM
+ BY VEHICLE

VEHICLE SELECTION
+ ABS CODING
+ KEYS LOST (ADC219)

VEHICLE SELECTION
+ ISO KW1281
+ ISO KW2000
+ TP2.0
+ UDS

CONNECT ADC219 TO CLUSTER
ENSURE THE ABS CODING HAS BEEN READ
BEFORE REMOVING THE CLUSTER FROM
VEHICLE

PRESS ENTER KEY

VEHICLE SELECTION
+ VDO DASH
+ MARELLI DASH

**PLEASE WAIT TRYING
TO COMMUNICATE**

(UDS VDO) - ADC219 Probe Procedure - ADS230 Software

ECU IDENTIFICATION

VIN: WWWZZZ1KZ9W828257
PART: VWZ7ZOG8018975
ID: 1K6 920 970E
TYPE: KOMBIINSTRUMENT

PRESS ENTER KEY

DIAGNOSTIC MENU

ECU IDENTIFICATION
> **SPECIAL FUNCTIONS**

PRESS ENTER KEY

ENTER SERVICE MODE

> **ENTER SERVICE MODE**

RECONNECTING THE DASHBOARD AFTER
RESET COULD CAUSE THE ABS CODING TO BE
LOST AND A FAULT PRESENT. ENSURE
THAT YOU READ THE ABS CODING
DATA BEFORE CONTINUING.

PRESS ENTER KEY

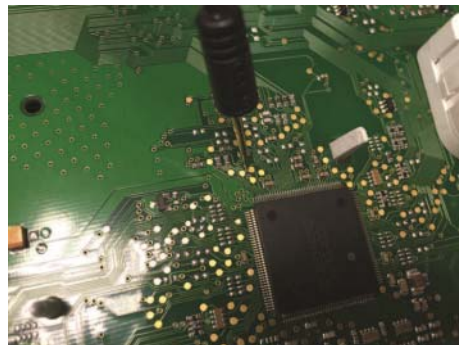
ENTER SERVICE MODE

PLEASE WAIT

DASHBOARD TYPE #2

**HOLD TEST PROBE IN CORRECT
POSITION**

PLACE PROBE ONTO THE
MICROPROCESSOR PIN AS PER
INSTRUCTION IMAGES,
INDIVIDUAL TO EACH CLUSTER TYPE.



(UDS VDO) - ADC219 Probe Procedure - ADS230 Software

PLEASE WAIT
RELEASE TEST PROBE

PLEASE WAIT

FETCHING SECURITY DATA

ENTER SERVICE MODE

PROCEDURE COMPLETE
ENSURE THAT THE ABS CODING DATA IS
RESTORED AFTER THE DASHBOARD HAS BEEN
RECONNECTED

REASSEMBLE THE CLUSTER AND
REFIT TO THE VEHICLE. CYCLE
IGNITION WITH A VALID KEY TO
ADD A NEW TRANSPONDER.

THE CLUSTER WILL READ
0-1, 1-2, 2-3 ETC UNTIL A NEW
TRANSPONDER IS ADDED.

ADDITIONAL KEYS CAN NOW BE
ADDED TO THE VEHICLE VIA THE
TESTER SOFTWARE.

Cluster Types and Probe Points

Note: (A or B) points can be probed with the pin on ADC219 cable
For enhanced pictures - please see digital versions on USB provided

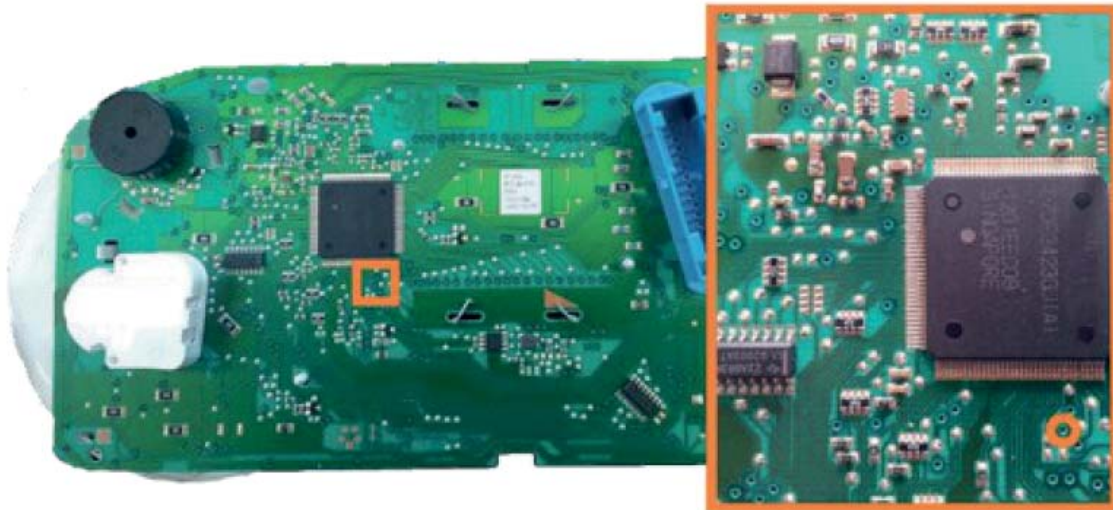


VDO NEC (2 MOTORS - 1 SPEAKER RIGHT)



VDO NEC (2 MOTORS - 1 SPEAKER LEFT)

Cluster Types and Probe Points



VDO NEC (2 MOTORS - 1 SMALL SPEAKER LEFT)



VDO NEC (4 MOTORS - 1 SPEAKER RIGHT)

Cluster Types and Probe Points

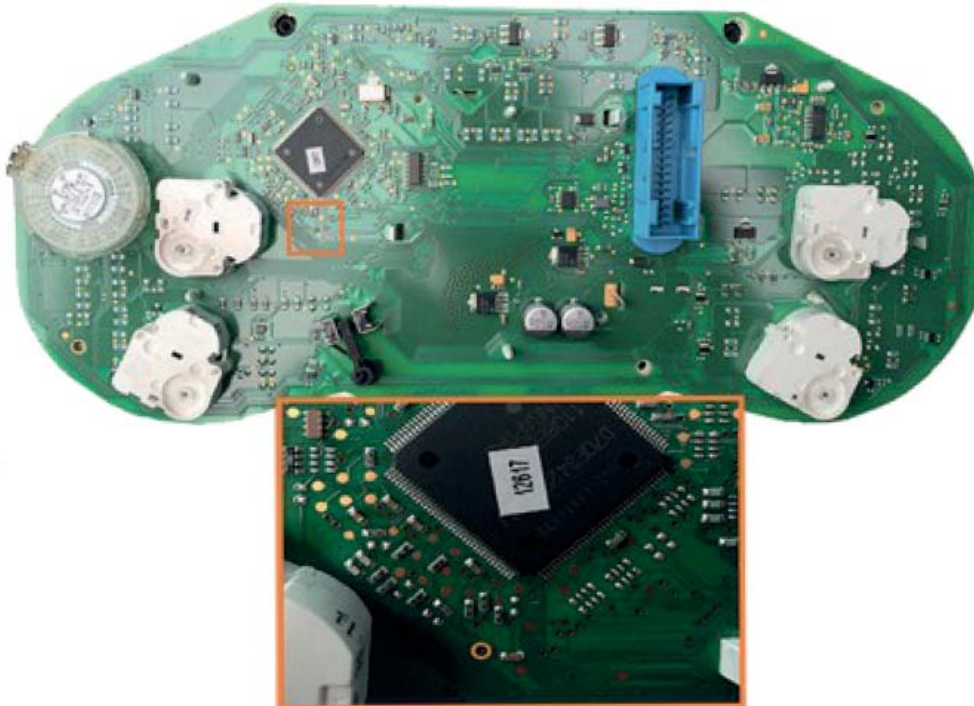


VDO NEC (4 MOTORS - 1 SPEAKER LEFT)



VDO NEC (4 MOTORS - 1 SPEAKER UPPER RIGHT)

Cluster Types and Probe Points



VDO NEC (4 MOTORS - 1 SPEAKER LEFT)



VDO NEC (4 MOTORS - 1 SPEAKER LEFT)

Cluster Types and Probe Points



MICRONAS PIN OUT

Notes:

Due to the number of cluster variations fitted to VAG[®] Group vehicles, AD cannot guarantee 100% coverage for ADC219 / ADS230 in a lost key situation for the vehicles listed in the application list.

The cable has been designed for advanced auto locksmiths who have a good working technical knowledge of removing, disassembling and re-fitting instrument clusters from vehicles.

For a full list of VAG[®] vehicles supported for lost keys situation please visit infoQuest via the AD website or download the ADiQMobile app from the Google Play Store or App Store.