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<td>K-LINE CLUSTER</td>
<td>Pin code is extracted from the cluster. It is a 4 digit pin code.</td>
<td>There is no need for precoded transponder for these systems, a blank 48 or 48 can bus transponder will work.</td>
<td>*Remote is programmed via OBD, there is also an on board procedure for remote programming but it does not work all the time. *Correct series of remote should be used. N series of remote works for most of the cars.</td>
<td>All VW, Skoda, Seat cars 2000-2004. Polo, Transporter, Ibiza, Cordoba, Fabia 2004-2007. Transporter 2007-2009. 2007-2008-2009 Polo, Fabia, Ibiza are excluded.</td>
<td></td>
</tr>
<tr>
<td>K-LINE POLO, IBIZA, CORDOBA, FABIA</td>
<td>Pin code is extracted from the cluster or the Ecu. It is a 4 digit pin code.</td>
<td>There is no need for precoded transponder for these systems, a blank 48 or 48 can bus transponder will work.</td>
<td>*Remote is programmed via OBD, there is also an on board procedure for remote programming but it does not work all the time. *Correct series of remote should be used. N series of remote works for most of the cars.</td>
<td>2007-2008-2009 Polo, Fabia, Ibiza, Cordoba</td>
<td>VDO and AGD clusters, EDC15 and Magnetti marelli Ecu's are supported. Zed-FULL covers this system vehicles 100%.</td>
</tr>
<tr>
<td>CAN BUS SYSTEM</td>
<td>Pin code might be extracted either from ECU or Instrument cluster. It might be a 4 or 5 digit pin code.</td>
<td>*There is no need for precoded transponder. *48 can bus transponder should be used, a regular 48 transponder will definitely won't work even though programming seem successful. *Vw, Skoda and Seat has different can bus transponders and they can not be used instead of each other.</td>
<td>*Remote is programmed via OBD, there is no known on board procedure for remote programming. *Correct series of remote should be used. N series of remote works for most of the cars.</td>
<td>All VW, Skoda, Seat cars 2004-2007 except Passat B6, Vw cc, Vw Touareg, Polo, Transporter, Ibiza, Cordoba, Fabia, Beetle.</td>
<td>*Some 2007 cars might be a dealer key system(USA) *If Zed-FULL says “channel is locked” even after waiting 5 minutes, choose add key option to programme key.</td>
</tr>
<tr>
<td>DEALER KEY SYSTEM</td>
<td>Pin code and CS might be extracted either from ECU or Instrument cluster. It might be a 4 or 5 digit pin code.</td>
<td>*48 Canbus transponder should be precoded with CS. *Blank 48 can bus transponder or regular 48 transponder will definitely won’t work even though programming seem successful. If CS is 6 bytes, 7th byte must be brute forced using the external antenna ring.</td>
<td>*Remote is programmed via OBD, there is no known on board procedure for remote programming. *Correct series of remote should be used. N series of remote works for most of the cars.</td>
<td>All VW, Skoda, Seat cars 2008-2009 except Passat B6, Vw cc, Vw Touareg, Polo, Transporter, Ibiza, Cordoba, Fabia, Beetle.</td>
<td>Some 2007 cars might be a dealer key system(USA)</td>
</tr>
<tr>
<td>BEETLE</td>
<td>Pin code and CS is extracted from ECU</td>
<td>*Blank Vw can bus 48 transponder is precoded with the CS *Blank 48 can bus transponder or regular 48 transponder will definitely won’t work even though programming seem successful. If CS is 6 bytes, 7th byte must be brute forced using the external antenna ring.</td>
<td>No remote programming via OBD is available on Zed-FULL. There is an On board procedure for it.</td>
<td>2006-2011 vw Beetle</td>
<td>There is a problem in key programming, it will be fixed soon.</td>
</tr>
</tbody>
</table>
### UDS CLUSTER

**Pin code and CS is extracted from the cluster. It is a 4 or 5 digit pin code.**

- Regular 48 transponder should be precoded with CS.
- *Vw, Audi, Skoda, Seat blank 48 can bus transponder will also work.*
- CS is 12 Bytes and all 12 bytes are always available, there is no need for brute force with the external antenna.
- There are 2 types of transponders, type 1 can be programmed to all vehicles where type 2 transponders can only be programmed to vehicles which has type 2 system.
- Zed-Full identifies the vehicle and transponder system before proceeding to programming.
- Remote is programmed via OBD.
- There is only 1 type of remote.
- *Remote deleting procedure yet, it will be added soon.*

**APP.LIST**

- All 2010+ Vw, Skoda, Seat cars except Passat B6, Vw Cc, Vw Touareg.

**NOTE**

There are 4 different clusters:
- **VD0(24c32,24c64 eeprom):** If all keys are lost, Eeprom application is needed for service mode. 2010-2012, very common.
- **Magnetti Marelli:** Add key and lost key situation are all via OBD, not very common, 2010-2012
- **Johnson control:** Polo, Ibiza, Fabia 2010-2012, not very common
- **VDD(24c64 eeprom):** If all keys are lost, Eeprom application is needed for service mode. 2012-2014 very common

### PASSAT B6 SYSTEM

**Pin code and CS is extracted from the ECU via OBD**

- *Vw can Bus 48 or Pcf7936 transponder must be precoded with CS.*
- If CS is 6 bytes and if Zed-FULL says “No response”, Comfort module eeprom file must be sent to IEA Tech support.
- If CS is 7 bytes, Zed-FULL will precode the transponder.
- Remote is programmed via OBD.
- There is no known on board programming procedure.

**APP.LIST**

- Passat B6(Smart key with 48 or Pcf7936 transponder Cc(Smart key with 48 or Pcf7936 transponder) 2004-2008.
  - If the car is 2008+ comfort module eeprom file must be sent to IEA tech support.

**NOTE**

- If all keys are lost fuses as in the picture needs to be short circuited in order to Wake up the ECU.
- *Prox. Keys has Pcf7936 transponder.*
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<td>PORSCHE CAYENNE/TOUAREG</td>
<td>Pin code and CS is extracted from the ECU via OBD.</td>
<td>&quot;A blank Pcf7936 or original remote key needs to be precoded with the extracted CS. &quot;If CS is 6 bytes, 7th byte must be brute forced using the external antenna ring(This Function is not supported in Zed-FULL yet, not very common).&quot;</td>
<td>Remote is programmed via OBD. There is no known on board programming procedure.</td>
<td>2004-2008 Porsche Cayenne, Vw Touareg with gasoline engine. Can bus Diesel cars with EDC16 ecu(K-line with EDC16 ecu is not supported)</td>
<td>If all keys are lost fuses as in the picture needs to be short circuited in order to Wake up the ECU.</td>
</tr>
<tr>
<td>AUDI A3 CLUSTER</td>
<td>Pin code and CS is extracted from the cluster in most cases, but in some cases it maybe extracted from the ECU</td>
<td>&quot;A blank Audi can bus transponder must be precoded using the CS. &quot;48 can bus transponder should be used, a regular 48 transponder will definitely won't work even though programming seem successful. If CS is 6 bytes, 7th byte must be brute forced using the external antenna ring.</td>
<td>Remote is programmed via OBD. There is no known on board programming procedure.</td>
<td>2004-2008 Audi A3</td>
<td>There are some certain types that is not supported by Zed-FULL(if the vehicle has Simos 7 Ecu and undefinable cluster) but majority of these cars are supported.</td>
</tr>
<tr>
<td>AUDI A4 CLUSTER</td>
<td>Pin code and CS is extracted from the cluster.</td>
<td>&quot;If the vehicle has RB4 cluster, blank 48 transponder is used. &quot;If the vehicle has RB8 cluster, a blank 48 transponder should be precoded with the CS. Always 12 bytes of CS is available, there is no need to use external antenna ring for brute forcing.</td>
<td>Remote is programmed via OBD. There is no known on board programming procedure.</td>
<td>2001-2008 Audi A4 2001-2004 cars have RB4 cluster 2004-2008 cars have RB8 cluster</td>
<td></td>
</tr>
<tr>
<td><strong>AUDI A6 &amp; Q7 ECU &amp; EZS</strong></td>
<td><strong>If there is a working key, EZS is read first, then with the pin code and part of CS gathered from EZS, complete CS is read from EZS.</strong></td>
<td><strong>If all keys are lost, Ecu is read first, then with the pin code and part of CS gathered from ECU, complete CS is read from EZS.</strong></td>
<td><strong>This software can extract pin code and CS for the vehicles with flick key (8E transponder). Smart key systems are not supported.</strong></td>
<td><strong>Remote is programmed via OBD. There is no known on board programming procedure.</strong></td>
<td><strong>There are 2 types of remotes with 868 Mhz. And 433 Mhz. Frequency. If wrong remote key is used (incorrect frequency) transponder will work but not the remote, so in this case transponder should be unlocked (under OBD-VAG-Audi A6/Q7 menu) and correct remote with correct frequency should be used.</strong></td>
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