

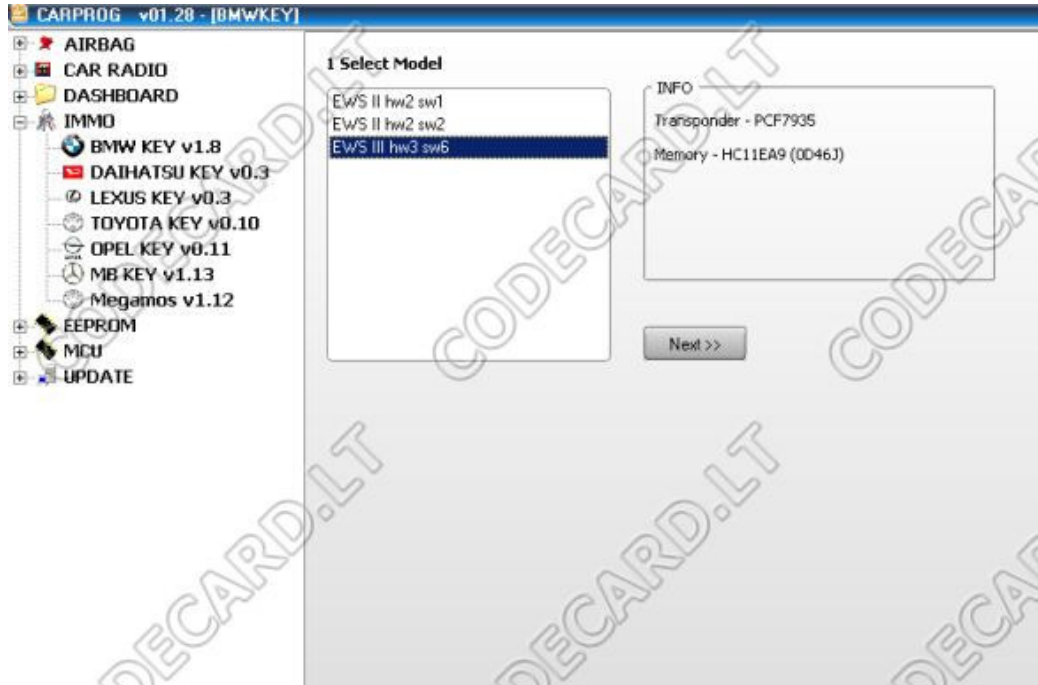
## S4.4 CarProg BMW key programmer manual

### System description:

BMW Key programmer is CarProg software designed for BMW immobilizers EWS1, EWS2 and EWS3 programming and transponder key generating using EWS data.



Immobiliser EWS installed on the BMW cars since 1996. EWS are used on BMW E38 (7xx), E39 (5xx), E36 and E46 (3xx), E53 (X5), Z4 also on others car made with BMW cooperation - Mini Cooper, Rover 75, Range Rover.



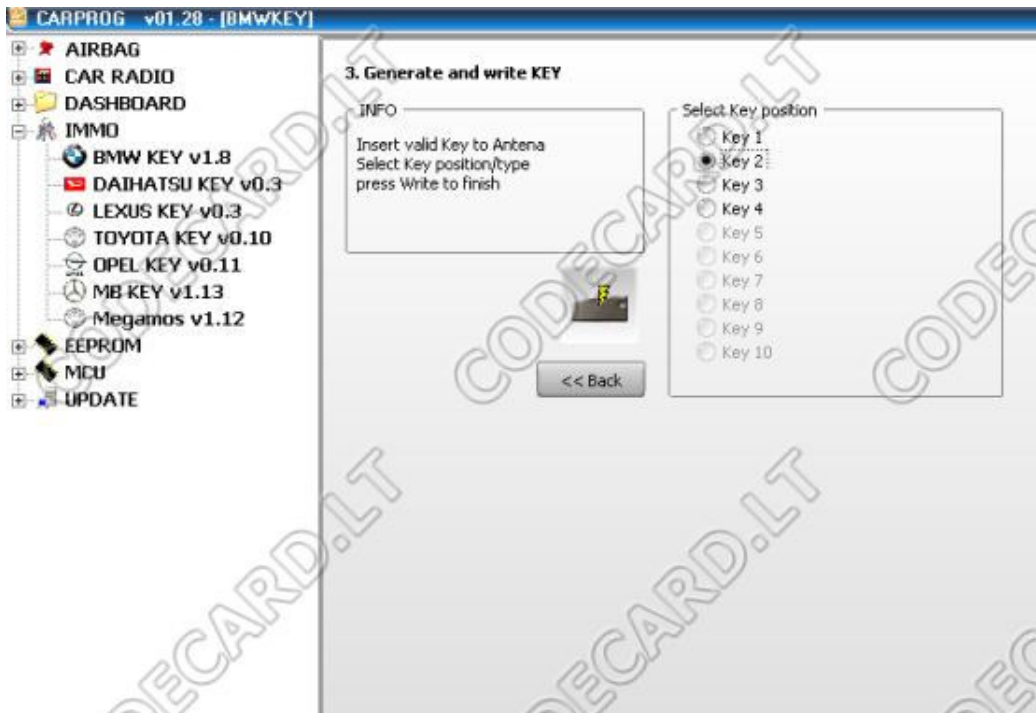
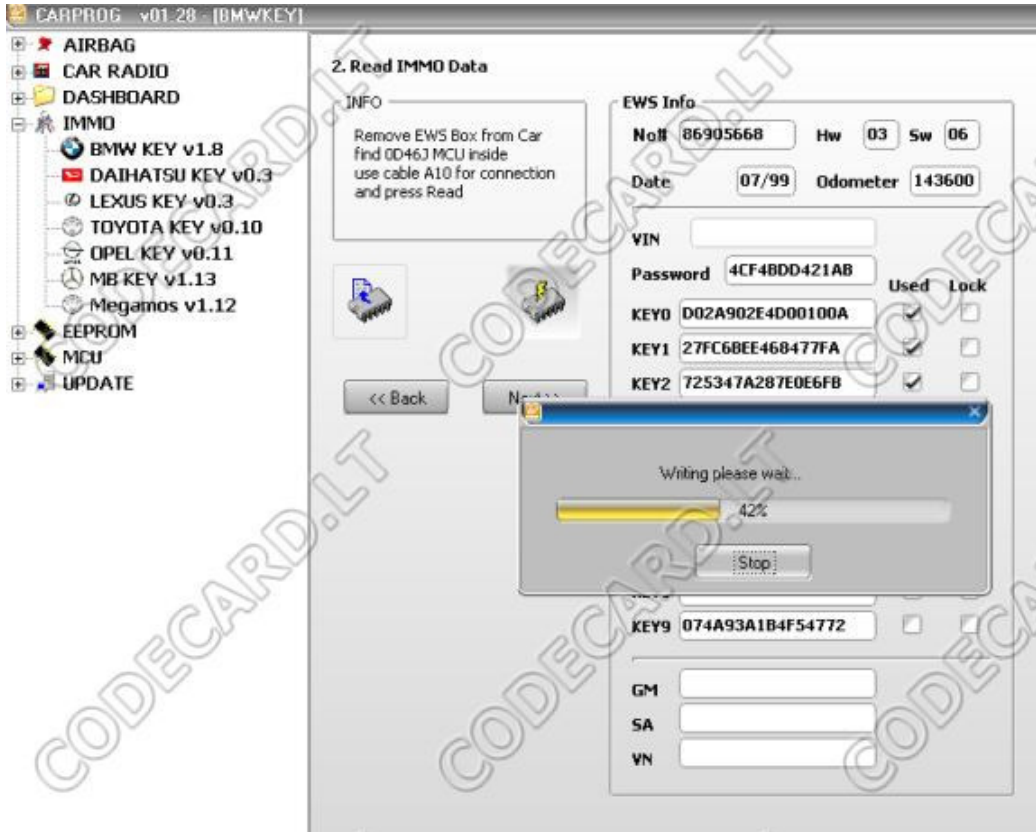
**Supported systems:**

Supports all immobilizers modifications EWS1, EWS2, EWS3, EWS3+

**Functions:**

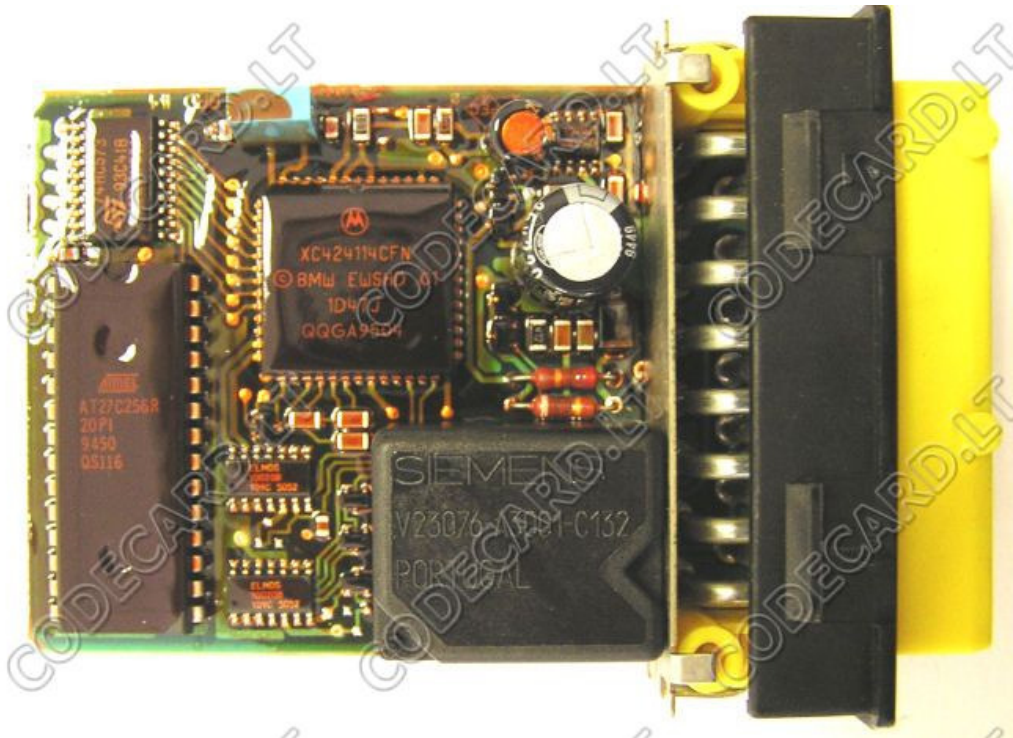
- Reading and writing EWS1, EWS2, EWS3, EWS3+ using CarProg Motorola cable;
- Automatic identification EWS version of dump;
- Adding new keys;
- Restoring original lost key synchronization;
- The blocking and unblocking key access to the car if car key is lost;
- Reading and changing data coding (for the vehicle);
- Changing parameters EWS (product number, date of manufacture, etc.);
- Change VIN number stored in EWS;
- Change VIN numbers in the key (stored in key after 1998);
- Changing mileage in EWS (in EWS after 1998);
- Changing mileage in the key;

**Works with empty PCF7935 and with original BMW keys (EMU – emulator)**

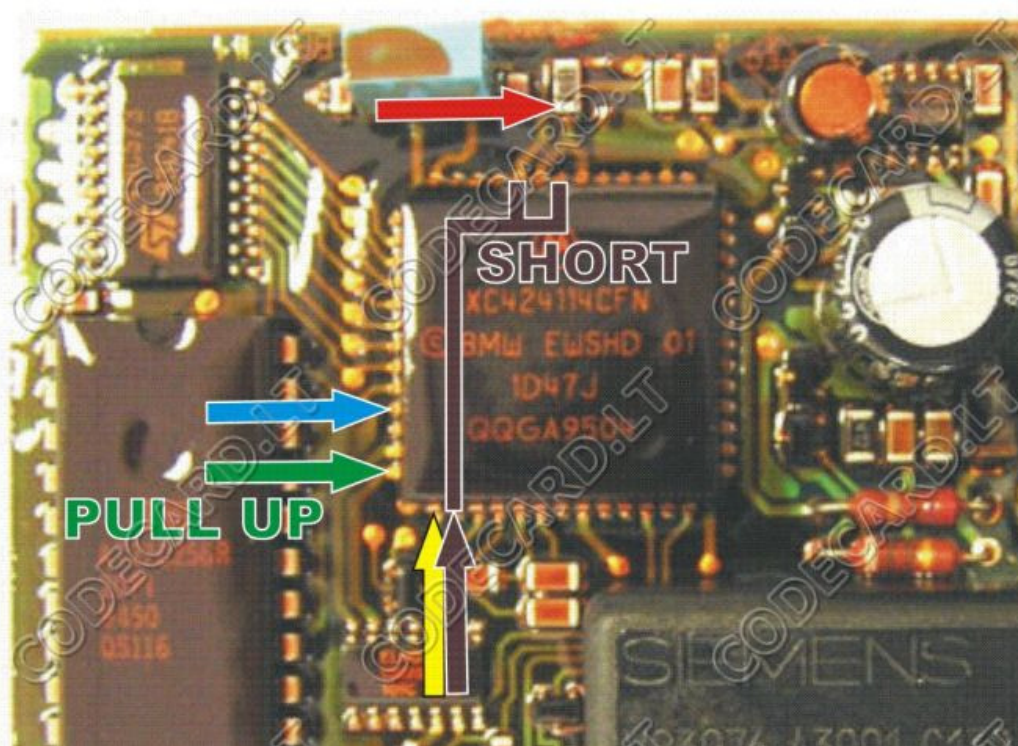


### How to connect CarProg to EWS:

**S4.4.1.EWS2 older immobilizer:** Old immobiliser type with Motorola processor in DIP package and 27C256 EPROM. Usually this immobiliser is fitted to E36 cars. Use **A10** adapter and connect immobiliser like in picture:







Select in CarProg BMW immobiliser Menu **EWS2 old** immobiliser system and read EWS data. Now you can see how many key is programmed and perform action you won. To program key just set empty PCF7935 transponder in to CarProg antenna adapter **A3**, select key number to program and perform key programming action.

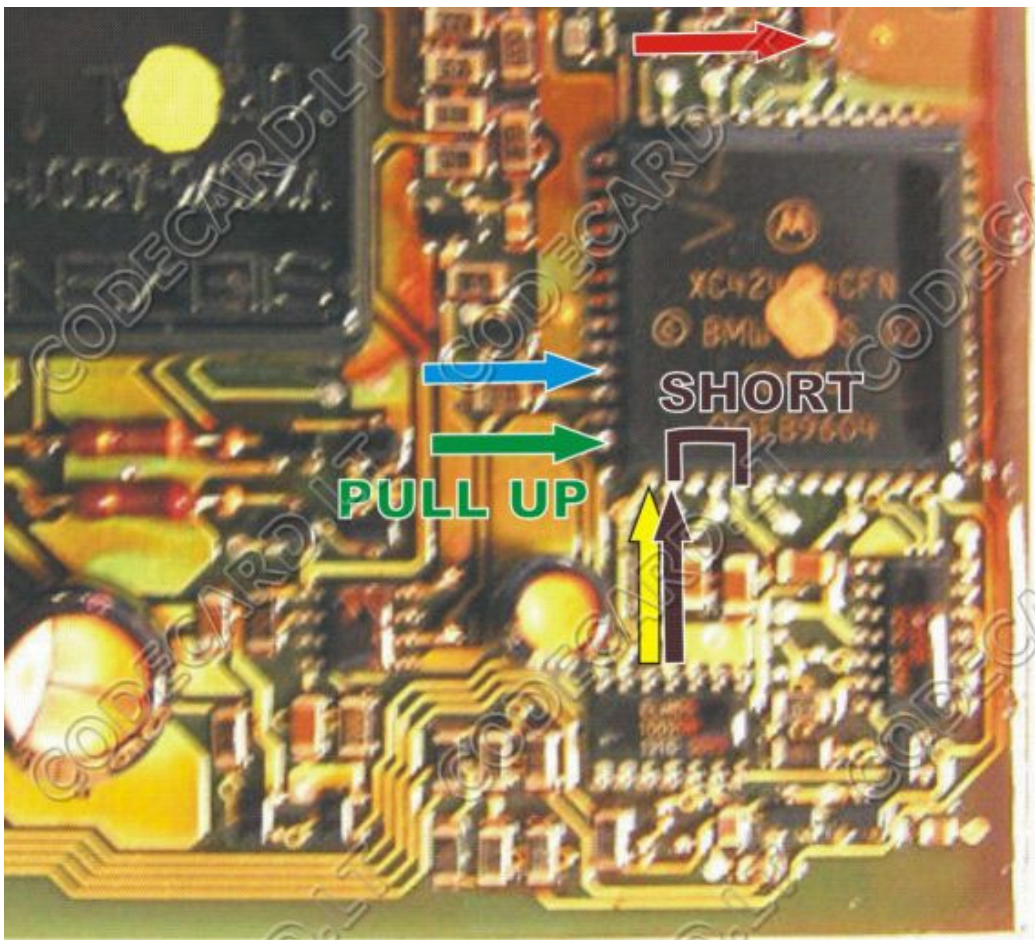
Also see in this manual how to:

- **Restore old keys** (in case if old key stop to work);
- **Delete lost transponder key;**
- **Change EWS settings;**
- **Check key;**

Some EWS2 problems you can solve by soldering all EWS board connections.

**S4.4.2 EWS2 immobiliser:** usually used in BMW cars up to year 1996, with yellow or violet connector (white or black plastic box). Use **A10** adapter and connect immobiliser like in picture:

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Select in CarProg BMW immobiliser Menu **EWS2** immobiliser system and read EWS data.  
**EWS 2 have several different software versions – after reading check if SW on CarProg screen is the same like on EWS box, if no – select EWS1 and read again.**

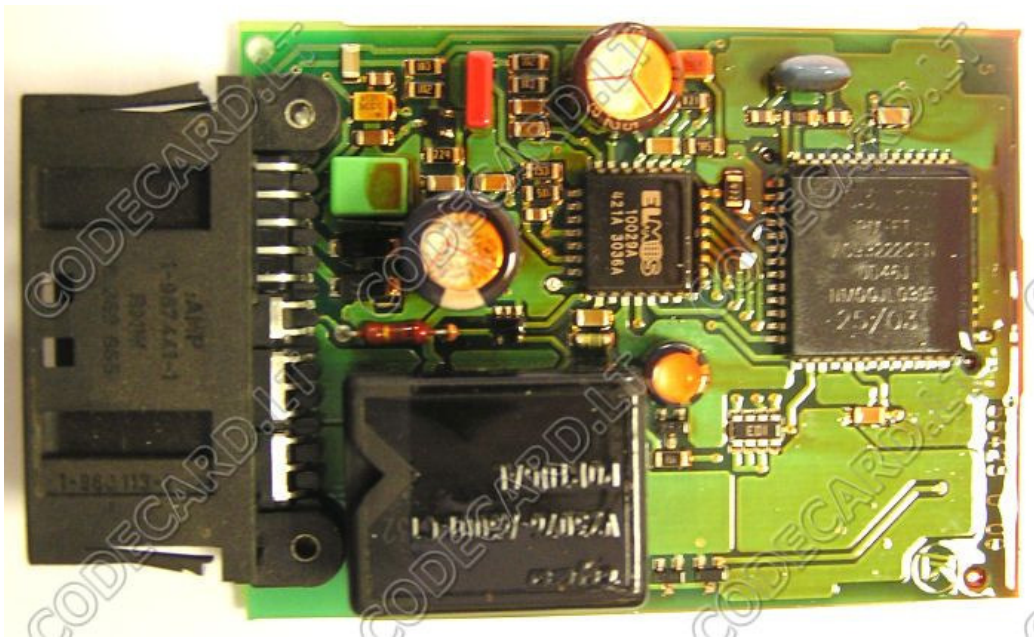
Now you can see how many key is programmed and perform action you won. To program key just set empty PCF7935 transponder in to CarProg antenna adapter **A3**, select key number to program and perform key programming action.

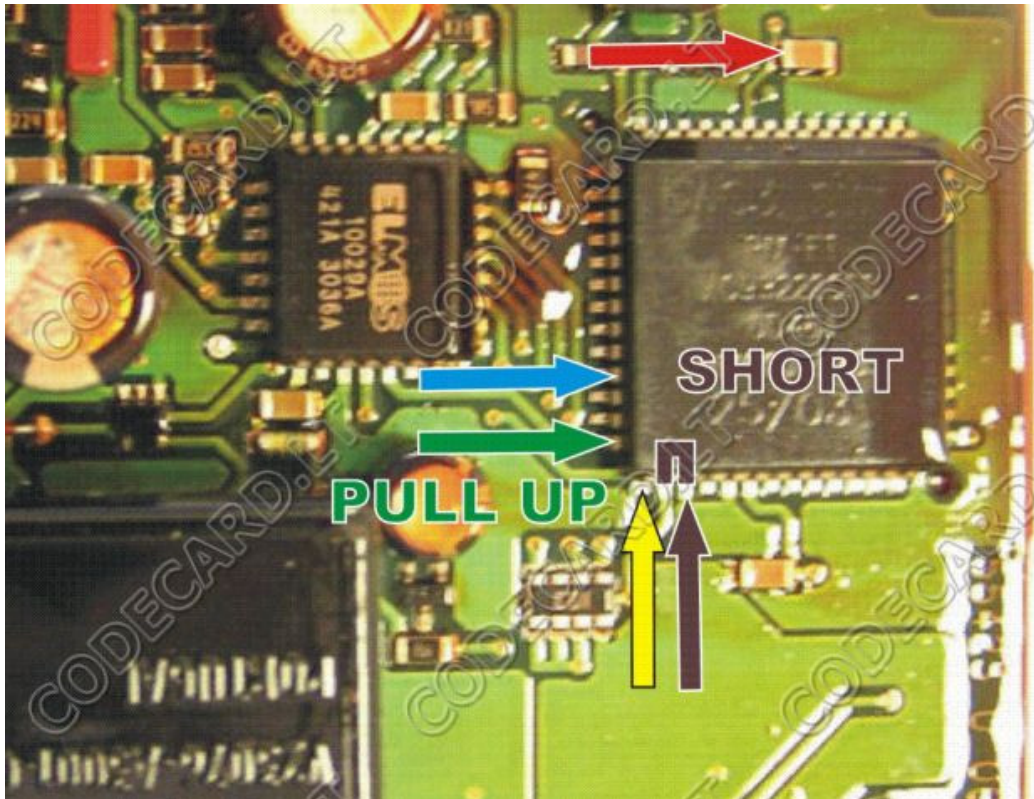
**EWS2 with processor mask 2D47J in some case can by erased while reading in the car year 1997.**

Also see in this manual how to:

- **Restore old keys** (in case if old key stop to work);
- **Delete lost transponder key;**
- **Change EWS settings;**
- **Check key;**

**S4.4.2 EWS3 immobiliser:** used in BMW, Mini and Rover cars year 1997-2004, with black connector (white or black plastic box). Use **A10** adapter and connect immobiliser like in picture:





Select in CarProg BMW immobiliser Menu **EWS3** immobiliser system and read EWS data. Now you can see how many key is programmed and perform action you won. To program key just set empty PCF7935 transponder in to CarProg antenna adapter **A3**, select key number to program and perform key programming action.

**EWS3 with processor mask 2D47J can be erased while reading. This processor type is used in EWS3 software versions SW5, SW4 and SW3. Tested, that SW3 HW1 EWS3 memory will be lost while reading. For recover lost EWS3 data send your EWS sw and hw information to support@codecard.it.**

**Most common problem in EWS3 immobilizers is bad ELMOS circuit. Check if this IC temperature in working state is normal. If ELMOS is very hot – replace it first.**

Also see in this manual how to:

- **Restore old keys** (in case if old key stop to work);
- **Delete lost transponder key;**
- **Change EWS settings;**
- **Check key;**

**S4.4.3 EWS3 immobiliser key programming by K-Line:** used in BMW, Mini and Rover cars year 1997-2004, with black connector (white or black plastic box). Use **A11** adapter, connect A11 cable to immobiliser black connector. Connect external +12V power supply to CarProg. Follow CarProg instructions and for few seconds short 0D46J MPU pins 22 and 23 like in picture:





Now you can see how many key is programmed and perform action you won. To program key just set empty PCF7935 transponder in to CarProg antenna adapter **A3**, select key number to program and perform key programming action.

**EWS3 with processor mask 2D47J can be erased while reading. This processor type is used in EWS3 software versions SW5, SW4 and SW3. Tested, that SW3 HW1 EWS3 memory will be lost while reading. Recover lost EWS3 data is impossible with our equipment.**

**Most common problem in EWS3 immobilizers is bad ELMOS circuit. Check if this IC temperature in working state is normal. If ELMOS is very hot – replace it first.**

Also see in this manual how to:

- **Restore old keys** (in case if old key stop to work);
- **Delete lost transponder key;**
- **Change EWS settings;**
- **Check key;**

### **EWS Key programmer Additional functions:**

- **Restore old keys:** in older BMW cars equipped with EWS2 immobiliser most common problem is key variable part synchronization loosing. This happen when battery is old and bad charged. Original transponder key remote control work, but car starter relay is not operated. Remove EWS from car, connect it to CarProg like in pictures and read EWS data. Now insert not working key in CarProg antenna and **Check Key**. CarProg will show key number. Just deselect this key **Used** box and perform EWS write operation. **If you don't have car key, is possible to restore all car keys - deselect Used box for all used key.**

- **Delete lost transponder key:** in key data write all FFFF and perform **Write EWS** operation. Key will be disabled.
- **Change EWS settings:** you can change EWS VIN number, mileage and perform EWS write operation. This data will be overwritten in all car keys after first engine start – in case if key is working. Also you can change EWS password, key data, EWS GM, VN, SA car coding – but be careful and not use this function if you are not an advanced user – you can damage the car.
- **Check key:** insert key into CarProg antenna adapter and **Check key** validity to EWS and key number.