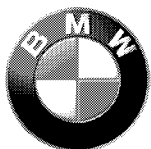


# **Vehicle And Key Memory Programmer Instructions**

# **HARDWARE**



## SUBJECT

### Windows® Vehicle/Key Memory Programmer

## MODEL

ALL

## SITUATION

BMW has introduced Vehicle and Key Memory Programming as an important competitive advantage to meet and exceed customers' expectations by allowing customers to select vehicle configuration options that suit their particular lifestyle.

As part of the sales and vehicle delivery process, sales personnel should discuss this important opportunity to customize vehicle configurations, which include but are not limited to:

- Visual and audible alarm setting / locking and unlocking confirmation
- Daytime running light setting
- Selective central locking options
- Seat memory options and many more

Until now, it was necessary to make an appointment with the Service department to have vehicles programmed in the workshop with the DISplus/MoDiC tester. This process may be time consuming and complicated especially in cases where customers change their mind about selected settings. In response to this situation BMW has developed a dedicated Windows® based Vehicle and Key Memory Programming device. This will free up diagnostic time on the DISplus/MoDiC and give Sales personnel an excellent opportunity to demonstrate BMW's technological leadership right in front of their customer. The software program is identical to the Vehicle/Key Memory program in the DISplus and MoDiC.

### Programmer Specifications and scope of delivery



Intel 233Mhz processor  
64MB RAM  
OBD diagnostic cable  
USB printer cable  
External CD drive  
2 rechargeable battery packs  
Hand strap

4.3GB hard drive  
20 Pin diagnostic cable  
External CD drive  
Touch screen  
Users manual for the Laptop  
Protective rubber bumpers  
Touch screen pen

Please initial and route to the following for information before filing

<input checked="" type="checkbox"/>	Service Manager	<input checked="" type="checkbox"/>	Warranty	<input checked="" type="checkbox"/>	Service Technicians - Initial Below				
<input checked="" type="checkbox"/>	Service Advisor		Parts Mgr.						
<input checked="" type="checkbox"/>	Service Advisor		Body Shop						
<input checked="" type="checkbox"/>	Shop Foreman		PDI Dept.						

### ★ ★ FIX IT RIGHT THE FIRST TIME, ON TIME, EVERY TIME ★ ★

For administrative convenience and to reduce costs, this bulletin may contain repair procedures for authorized BMW car centers and/or authorized BMW SAV centers. All references to SAVs and/or the X5 are ONLY intended for authorized BMW SAV centers. Furthermore, ONLY BMW SAV centers are authorized to perform repair and service work on SAVs.



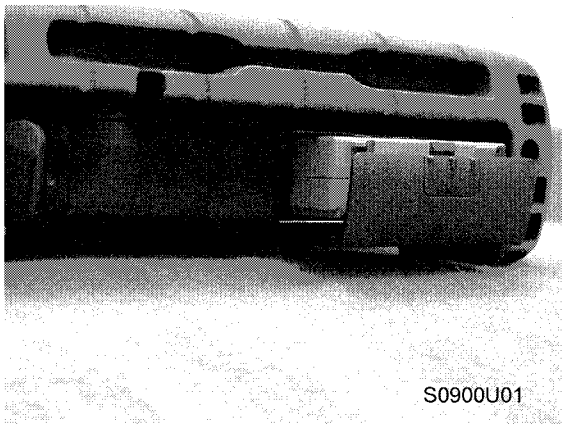
## **ACTION**

It is highly recommended that all BMW center personnel that will utilize the Windows Vehicle/Key programmer review the following:

1. Service Information Bulletins, which can be easily viewed on the BMW Technical Information website at [www.bmwtis.net](http://www.bmwtis.net)
  - 09 03 98- Configuration of Vehicle/Key Memory. This is a very informative SIB that explains the differences between Vehicle and Key memory, how to use each one and a listing of codable options on different models.
  - 09 01 96- Basic Differences between Coding & Programming. This SIB explains what coding is and how it differs from Programming.
2. Information shipped with the Vehicle and Key Memory Programmer
  - The 79 page "Win CKM Manual" that is loaded on every unit has an easy access ICON on the desktop. Simply double tap the ICON and the manual will be displayed. This manual includes complete step by step instructions.
  - The computer Users Guide is included with each unit and covers the operation of the Laptop. This book should be read and kept in a handy location for reference
3. V-Sat program and/or video tape included with the initial programmer shipment
  - The "Programming Key Memory" program is currently airing on VisionWerks. This informative program explains how to use the Windows Vehicle Key Programmer in easy to understand terms. A copy of this program is contained on the video tape shipped with every unit.

It is imperative that the Vehicle and Key Memory programming process becomes part of every sales transaction. Using this programmer is an excellent opportunity to demonstrate BMW technology to your customers.

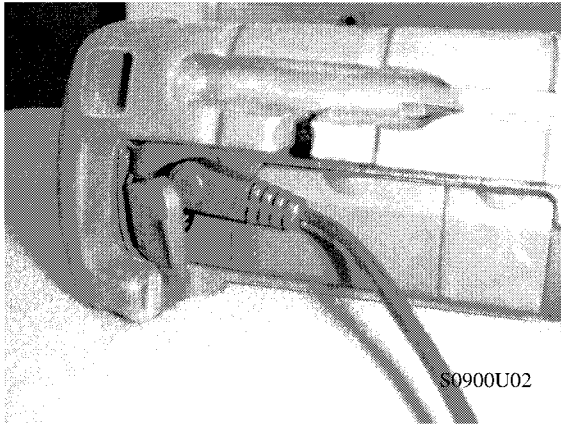
## **Charging the WINCKM UNIT Batteries**



- Insert the batteries (2) into the battery slots, one on each side of the laptop. Refer to page 6 #s 21 and 22 of the Laptop User's Guide.

S0900U01

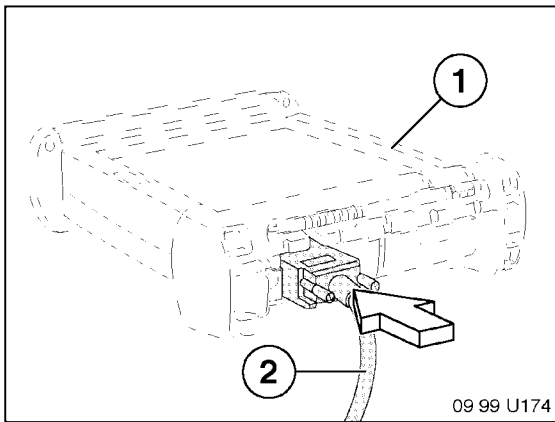




- Connect the 110-volt power cable to the power port of the computer.
- Normal battery charging time is ~3 hours for 1 battery. Refer to page 35 of the User's Guide for complete battery charging information. Unit batteries must be charged before operation.

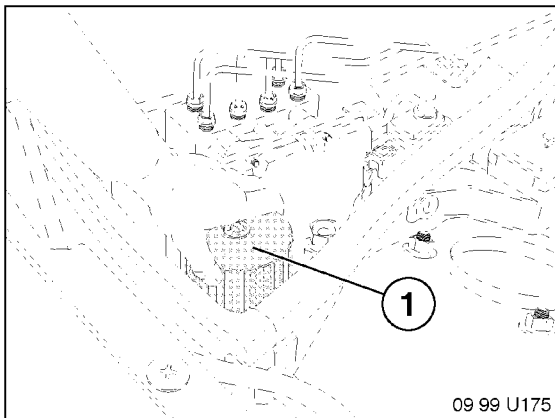
### **Using/Connecting WINCKM UNIT**

Complete How To instructions with illustrations are included with the WIN CKM Manual. To view the manual, double tap the WinCKM ICON on the desktop. In order to use the program on a vehicle, the Laptop power cord and the external CD drive do not need to be attached to the Laptop. The unit will run on its built-in charged batteries.



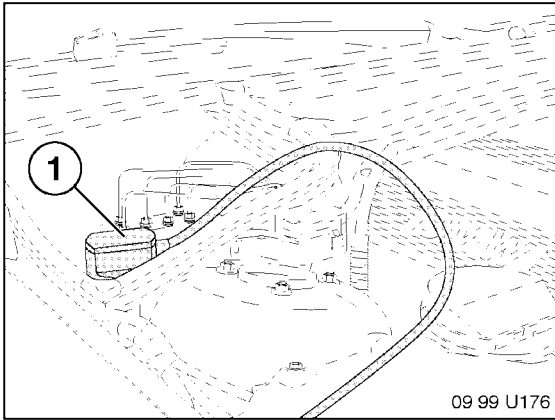
Connect the diagnostic/programming cable (ADS Cable - 2) to the serial port of the computer

### **Connection to vehicles with 20 pin Diagnostic Connector (Located in Engine Compartment)**



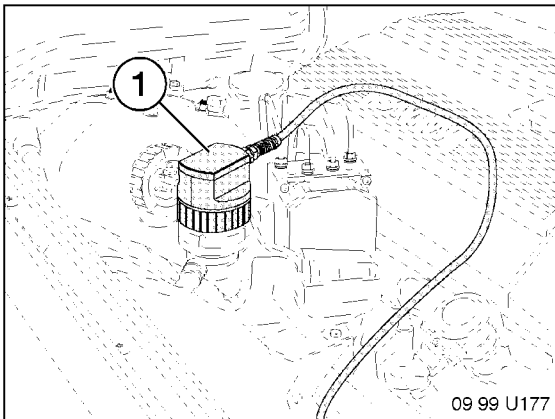
Remove the vehicle's 25-pin diagnostic connector cover (1) by turning counter-clockwise.

Connect the diagnostic plug of the ADS programming cable to the vehicle's diagnostic connector; switch "ON" the ignition.

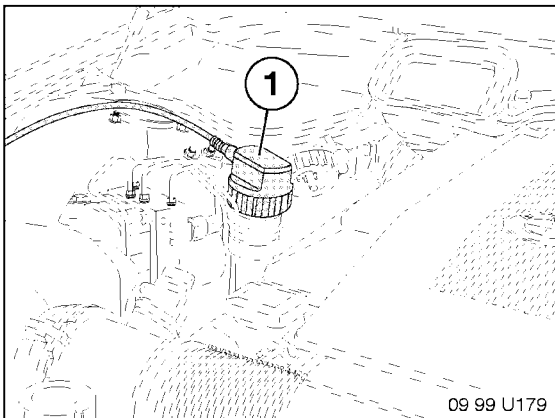


The following illustrations show the location of the diagnostic connector (1) in different BMW models.

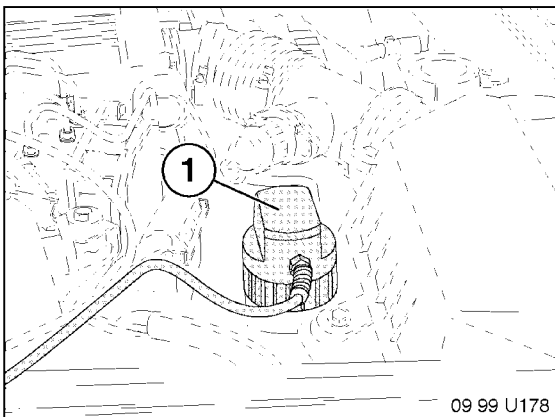
Location of the diagnostic 20-pin connector in 3 series (E46 prior to 6/2000 production) and Z8 vehicles (passenger rear side of engine compartment, near the bulkhead). Refer to next section "Connection to vehicles without 20 pin diagnostic connector" for E46 from 6/2000 production.



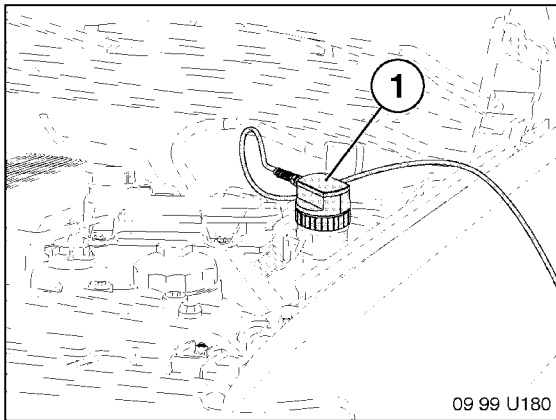
Location of the diagnostic 20-pin connector in 528 (E39) vehicle (passenger side of engine compartment, on the wheel well).



Location of the diagnostic 20-pin connector in 740 (E38), and 540 (E39) vehicle (passenger side of engine compartment, on the wheel well).

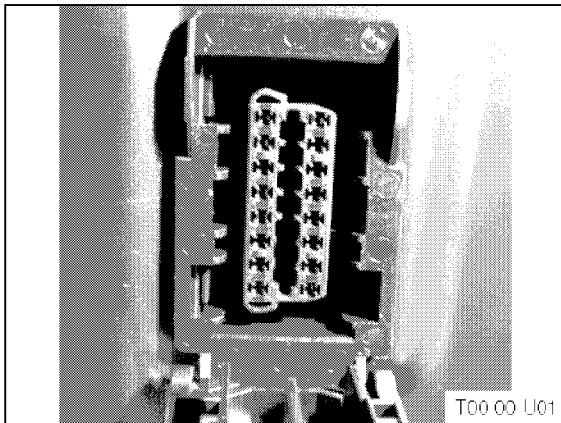


Location of the diagnostic 20-pin connector in 750 (E38) vehicle (passenger, front side of engine compartment, near the air filter housing).

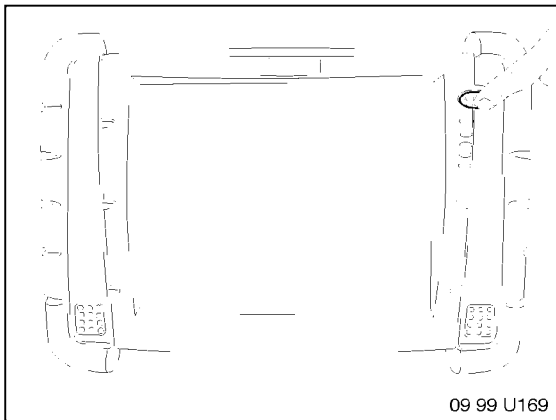


Location of the diagnostic 20-pin connector in X5 (E53) and Z3 vehicles (drivers side, on the wheel well).

### Connection to vehicles without 20 pin Diagnostic Connector (Previously located in Engine Compartment)

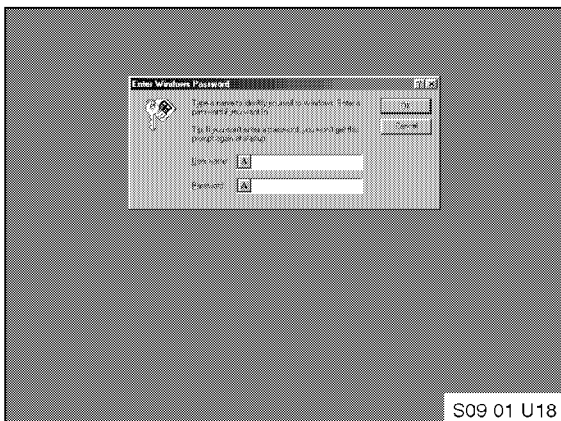


The 16-pin OBD II connector located inside the vehicle will be the only diagnostic port. The socket for the on-board (OBD II) diagnostic connector is located on the driver's side, on the underside of the instrument panel, behind a cover. The cover is marked "OBD".



### Powering up the computer

Turn the computer on, by pressing the button in the top right corner of the unit once.



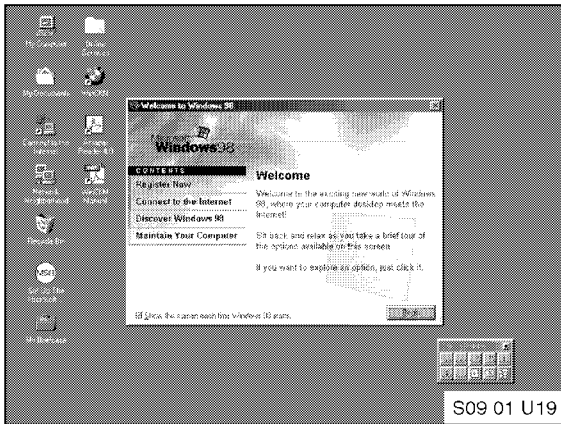
After window is loaded a screen requesting a user name and password may appear.

### To keep this screen from reappearing every time the unit is turned on:

Enter any user name

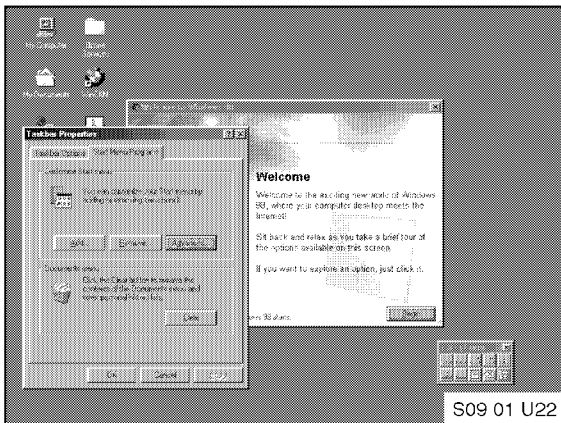
Do not enter a password

Select "OK" using the screen pen.



Once the desktop is loaded two additional screens may appear:

- Editing Palette
- Welcome to Windows 98



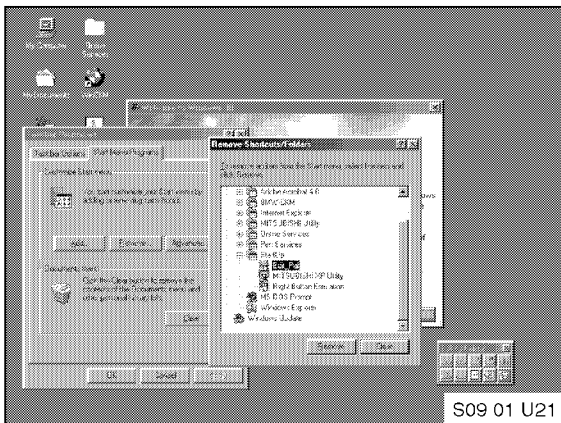
To keep the “Editing Palette” from reappearing:

Select “Start”

Select “Settings”

Select “Taskbar & Start Menu”

“Taskbar Properties” screen will appear.



Select the “Start Menu Programs” tab

Select “Remove”

Within the “Programs” folder

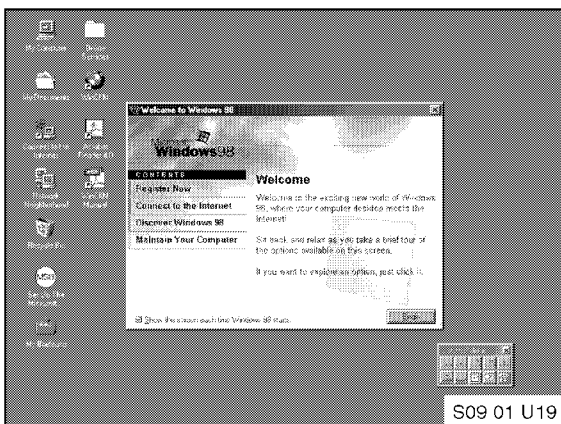
Select “Startup” (tap twice with pen)

Select only “Edit\_Pal”

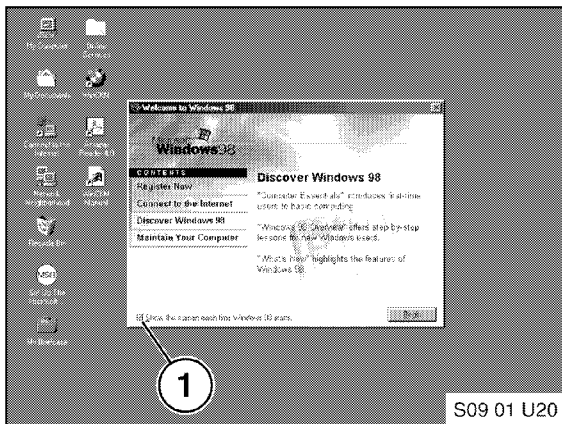
Select “Remove”

Select “Close”

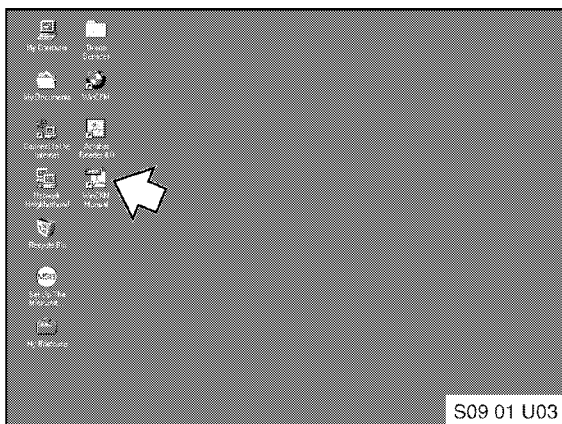
Select “OK”



Close the “Editing Palette” by selecting the X in the upper right corner of the box.

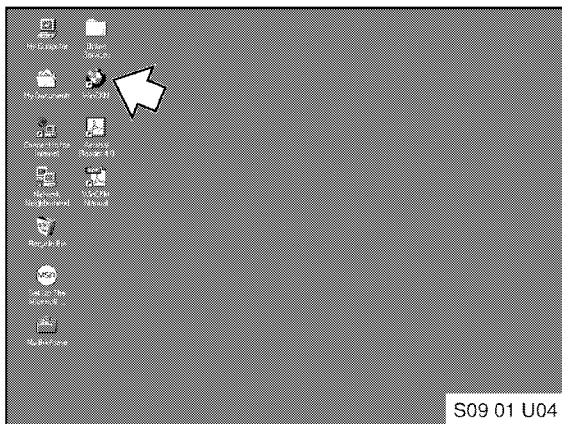


To keep the “welcome to Windows 98” screen from reappearing:  
 Uncheck the box (1) “Show this screen each time Windows 98 starts”  
 Close the screen by selecting the X in the upper right corner of the screen.



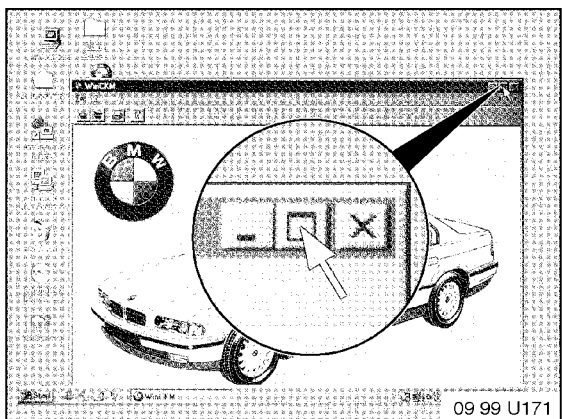
### Selecting the WinCKM Manual

From the Windows 98 desktop select WinCKM manual ICON (select the ICON using screen pen).

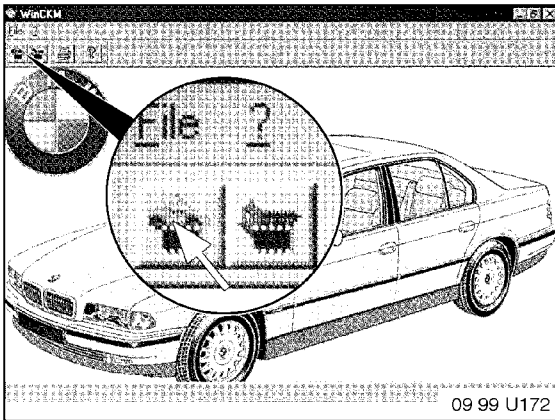


### Selecting the WinCKM Program

From the Windows 98 desktop select WinCKM ICON (select the icon using screen pen).



Maximize WinCKM screen by clicking on the middle button in the right, top corner of the window.

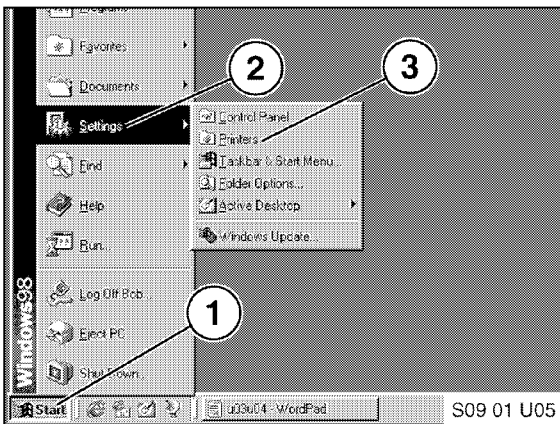


In order to select “Car Memory”, click on the top, left side button (red car symbol).

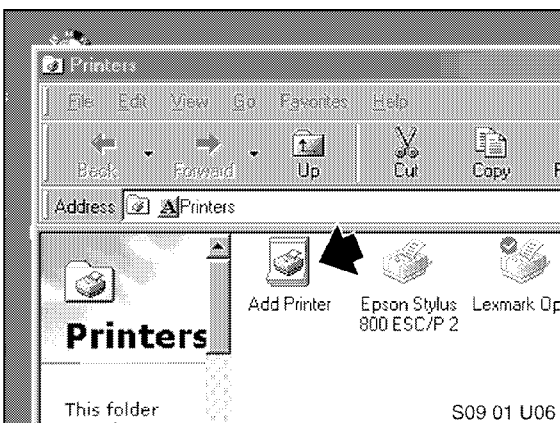
Vehicles equipped with hi-fi DSP audio system must have the radio turned “ON”. On 5, 7 series and X5 vehicles, before you start programming make sure that the trunk lock is not set to “valet” (horizontal) position. Leaving trunk lock in “valet” position can cancel some of the programming options.

## **PRINTER SETUP**

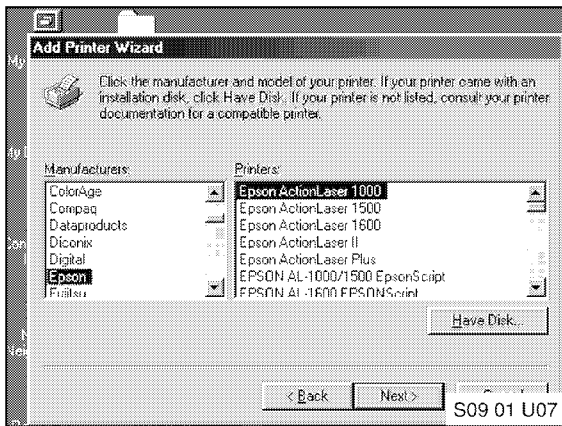
A program called Ghost View has been included with the Win CKM program. GS View allows any printing from Win CKM to be printed on a non-postscript printer. A listing of compatible printers is attached to this bulletin. Before you can print, the printer you have selected must be set up in the Windows printer directory. To do this:



- Select “Start” (1)
- Select “Settings” (2)
- Select “Printers” (3)



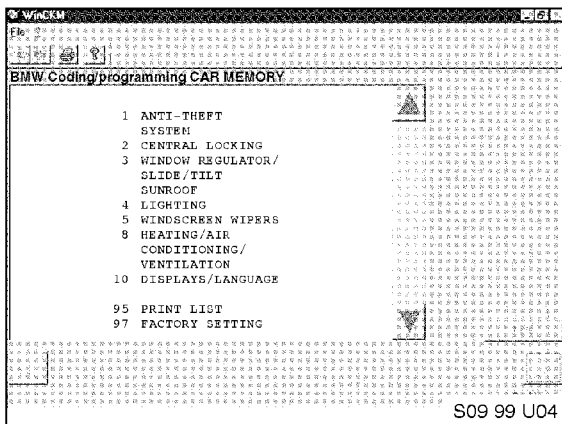
- Select “Add Printer”



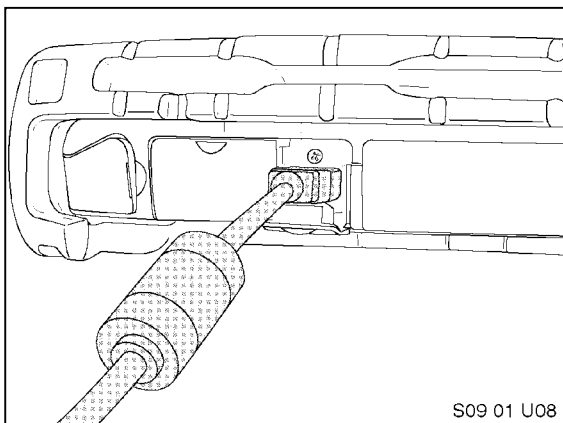
- Select printer manufacturer
- Select printer model
- The software will ask you to choose a port to print to. Choose "USBLPT1"
- Follow the on screen instructions. You will be prompted to print a test page. This is a good idea as it can point out any problems associated with your setup. If the test page has not printed, troubleshooting information will follow after selecting "NO".

## **PRINTING VEHICLE INFORMATION**

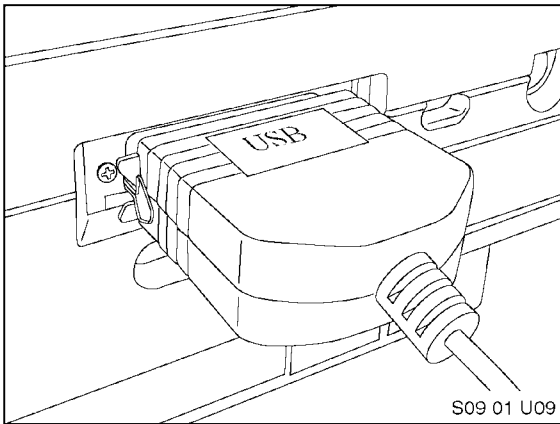
After automatic identification of the vehicle has taken place by the Win CKM software, a listing of the vehicles default settings can be printed. Default settings are settings that are preset for that model by the factory. A printout of the default settings as well as the final settings can be printed out for the customer. To print:



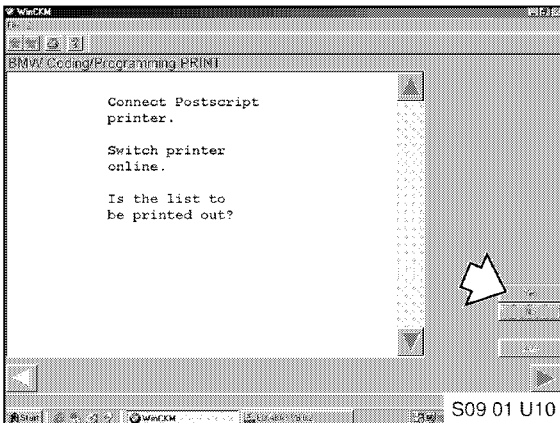
- Select "95 Print List" from the menu then right arrow (refers to the right facing green arrow at the bottom of the screen).
- Turn the vehicle key off. Disconnect the unit from the vehicle



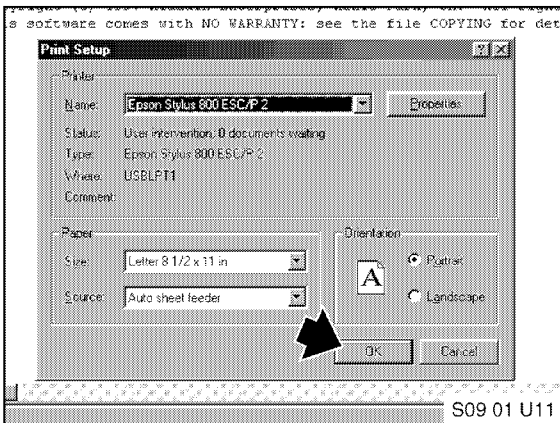
- Attach the blue USB cable to the USB port on the Laptop (#16 page 6 of Users Guide).



- The other end of the USB cable should be attached to the printer cable connector on the printer. **Note-** always attach a printer cable to the printer with the printer power turned off. However, attaching the USB end of the printer cable to the Laptop can be accomplished with the Laptop turned on. The software will recognize the cable automatically



- Select "Yes"



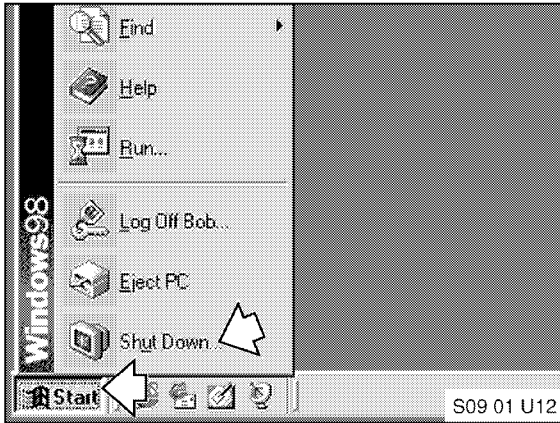
- Select the printer from the printer setup box
- Select "OK".



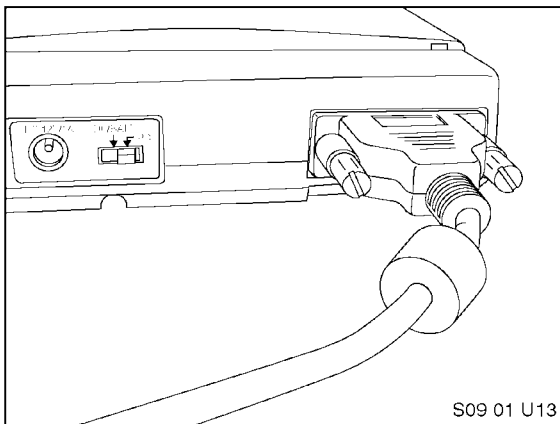
## **OPERATING SOFTWARE INFORMATION**

Every time a new version of software is delivered (~4 times a year) to BMW centers, simply put the "program" CD in the external CD drive and follow the instructions below to update the software.

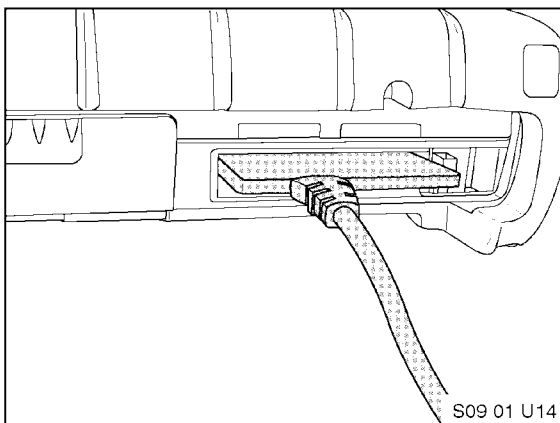
### **Updating the Win CKM program**



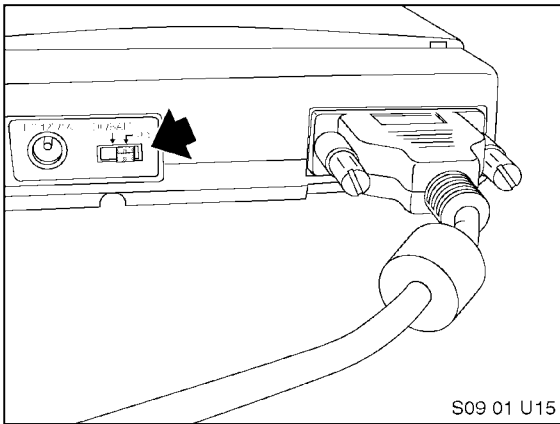
- Turn the Windows Vehicle/Key programmer off as you would any other laptop by selecting "Start" then "Shut Down" then "OK".



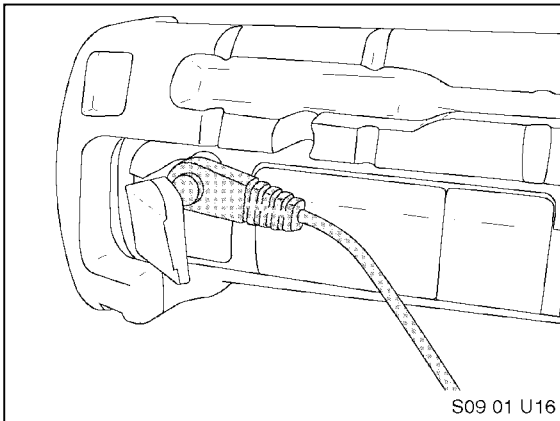
- Attach the black "multimedia" cable (included with each CD drive) to the back of the CD drive



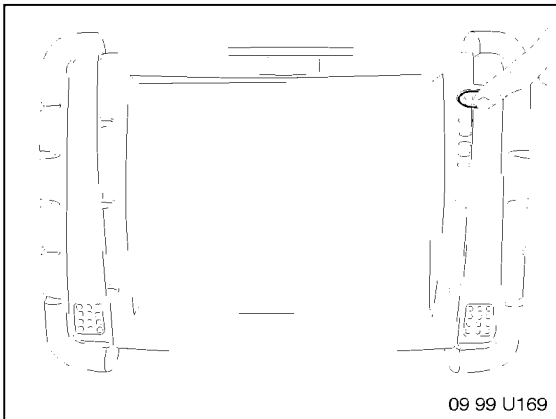
- Slide the Multimedia PCMCIA card (attached to the opposite end of the cable in step 2) into the top PCMCIA card slot (#19 page 6 of the Laptop users guide) on the Laptop. The arrow on the card must be up and goes in first.



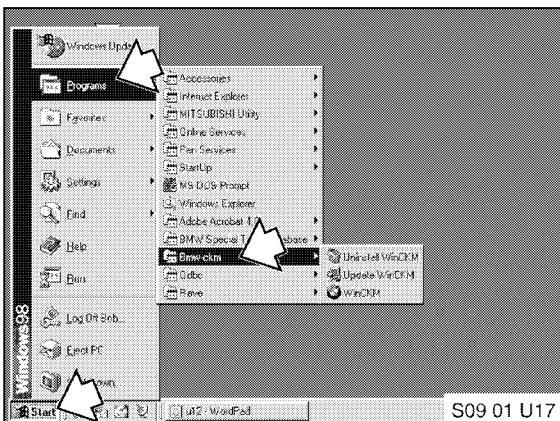
- Make sure that the selector switch on the back of the CD drive is in the “PC” position. With the switch in this position no power adapter is needed. The external CD drive draws its power from the Laptop



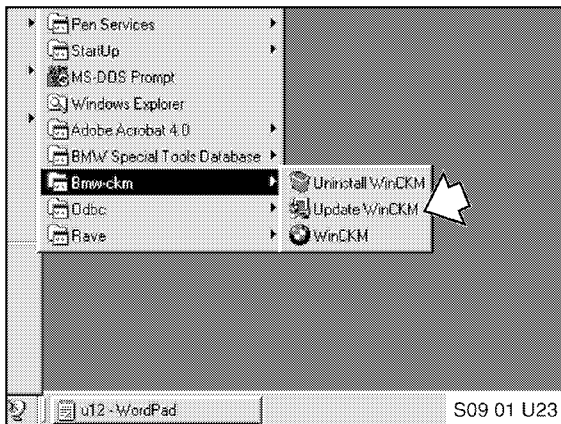
- Attach the 110-volt power cord to the single pin power connector on the right side of the Laptop (#12 page 6 of the Laptop users guide).



- Depress the power button on the right front side of the Laptop (#2 page 6 of the Laptop users guide).



- After the unit has started and the desktop is displayed tap “Start” then “Programs” then “BMW CKM”



- Select “Update Win CKM”. Follow the on screen instructions. Updating the software takes ~ 1 minute

## **WARRANTY INFORMATION**

The Laptop and its associated diagnostic cables are the property of BMW of North America and as such cannot be destroyed, sold, rented, leased or given away to any other parties.

The CD drive, its associated cables and the USB printer cable are the property of the BMW center that has received the items through the BMW Automatic Tool Shipment program. There are no warranties other than the manufacturers warranty enclosed in the box. To purchase replacement pieces contact TBS Network Intelligence @ 201 368 0544.

### **Laptop**

Warranty of the Laptop and the Laptop power cable is covered by a 3-year hot-swap warranty from Mitsubishi Mobile Computers. Damaged or user abused units are not covered by the warranty. Damaged or user abused units **must** be repaired at the centers expense. For hardware repair issues of the computer and power cord only:

1. Call the National Service Center @ 1 888 445 5250. Hours of operation are 8:00 am – 4:30 pm PST, Monday – Friday.
2. Shipment of the unit to the repair center is at the cost of the center. Do not send straps, batteries, CDs or rubber end bumpers when returning the unit for repair.
3. Batteries are considered a consumable and are therefore only covered by a “dead on arrival” warranty. This means that if the batteries will not charge when you receive the unit call the above number immediately.
4. For replacement of batteries that have previously worked, call the above number. Replacement costs of these batteries are the responsibility of the BMW center.

### **Vehicle/Key Memory Software**

Questions regarding operation of the Vehicle/Key Memory software will be addressed by the BMW Technical Hotline @ 1 800 472 7222.

### **Diagnostic Cables**

Contact BMW Quality and Service Engineering for replacement of BMW 20 pin and OBD diagnostic cables @ 201 573 2079.

## Printer Compatibility

Below is a list of printers that are compatible with the GSView printing program that the Windows Vehicle/Key Memory program uses. More information about the GSView program can be found on the Web at: <http://www.cs.wisc.edu/~ghost/doc/printer.htm>. The printer list and associated comments have been compiled from the makers of GSView.

Canon BubbleJet BJ10e  
 Canon BubbleJet BJ20 (5.10)  
 bj200  
 Canon BubbleJet BJ200  
 Canon BubbleJet BJC-210 (4.01) B/W only  
 Canon BubbleJet BJC-240 (3.33, 4.03) B/W only  
 Canon BubbleJet BJC-250 (5.10) B/W only  
 Canon BubbleJet BJC-70 (5.10) B/W only  
 bjc600  
 Canon BubbleJet BJC-600  
 Canon BubbleJet BJC-610 (3.53) 360dpi only, B/W & Color.  
 Canon BJC-50 (5.10) B/W OK. Color not tested.  
 Canon BJC-70 (5.01)  
 Canon BJC-80 (5.10)  
 Canon BJC-210 (5.10) Color. Use bj200 for B/W  
 Canon BJC-240 (5.01) Color. Use bj200 for B/W  
 Canon BJC-250 (5.50)  
 Canon BubbleJet BJC-1000 B/W OK. Color not tested.  
 Canon BubbleJet BJC-2000 Color and margins OK.  
 Canon BubbleJet BJC-4000  
 Canon BubbleJet BJC-4100 (4.01) no Color. For Color, use BJSETUP.EXE and the Epson LQ driver epson. See Russ Wright's Canon Printer Support Page.  
 Canon BubbleJet BJC-4200 (5.03) Color works.  
 Canon BubbleJet BJC-4300 (5.10) Color works, but not with photo Color cartridge (BC-22e).  
 Canon BubbleJet BJC-4550 (3.33, 4.01, 5.03) Color doesn't work in 3.33, but does in 4.01 In 5.03, Color only works for 24 and 32 bit/pixel.  
 Monochrome doesn't work. Maximum width is limited to 8.5 inches.  
 Canon BubbleJet BJC-6000 (4.03) 360dpi, 24bit/pixel. Does not do CCMMYK (photo inks). Colors look better with gamma correction.  
 Canon MultiPASS C2500 Color printer/fax/copier (3.53) 360x360dpi, B/W & Color, PRINTER button must be engaged  
 bjc800  
 Canon BubbleJet BJC-800  
 Canon BubbleJet BJC-7000 Color.  
 Canon BubbleJet BJC-4300 (5.10) Color works, but not with photo Color cartridge (BC-22e).  
 Canon BubbleJet BJC-4650 (5.10) Only works with 300dpi in Color. A3 printer.  
 deskjet  
 HP DeskJet (3.33)  
 HP DeskJet Plus (3.33)  
 In GS 3.53 to GS 4.01, these don't work.  
 djet500  
 HP DeskJet 500 (3.53)  
 HP DeskJet Portable (4.01)  
 HP OfficeJet 590 (5.50)  
 cdj500  
 HP DeskJet 400 (5.10) B/W and Color. You must swap cartridges to print in Color.  
 HP DeskJet 500C (3.53)

HP DeskJet 540C (3.53)  
 HP DeskJet 690C (4.03) 1bit/pixel and 32bit/pixel cdj550 is probably better.  
 HP DeskJet 693C (4.03) For Color.  
 HP DeskJet 550C (3.53)  
 HP DeskJet 560C (3.53)  
 HP DeskJet 600 (5.10) black (1bit/pixel) and Color (32bit/pixel)  
 HP DeskJet 660C (3.53)  
 HP DeskJet 660C (5.10)  
 HP DeskJet 682C (4.01) Use gamma=0.3  
 HP DeskJet 683C (3.33, 4.03)  
 HP DeskJet 693C (4.03) 24bit/pixel Is this a CMY or a CMYK printer?  
 HP DeskJet 694C (5.03) Works in Color. 690C, 692C, 693C and 694C are all software variations.  
 HP DeskJet 695C (5.50) Works in Color.  
 HP DeskJet 850 (3.53) 300dpi CMYK (32bit/pixel) See also cdj850.  
 HP DeskJet 870Cse (4.03) (16 or 32 bits/pixel) Use ljet4 device for B/W. See also cdj850.  
 HP DeskJet 895Cxi (5.03, 5.50) Does not work with cdj850.  
 HP DeskJet 970 (5.50) Some pages contain small black boxes, lines or missing characters.  
 HP OfficeJet 590 (5.50)  
 Olivetti jp450 (5.50)  
 Xerox XJ6C (5.50)  
 HP DeskJet 850  
 HP DeskJet 855  
 HP DeskJet 870Cse (4.03)  
 HP DeskJet 870Cxi (4.03)  
 HP DeskJet 890C (5.10)  
 HP DeskJet 672C (5.03) Can't print B/W text Prints B/W OK with cdj550. HP DeskJet 680 (5.01)  
 HP DeskJet 1100C (5.10) A3, with JetDirect card, B/W and images  
 HP DeskJet 500C (3.53)  
 HP DeskJet 500C (3.53)  
 HP DeskJet 510 (3.53)  
 HP DeskJet 520 (3.53)  
 HP DeskJet 540C (3.53)  
 HP DeskJet 693C (4.03)  
 Fujitsu DL-1100  
 Fujitsu DL-2400  
 Brother HL 720 (6.0)  
 Brother HL 730 (6.0)  
 Do not use hl7x0 with PCL compliant Brother HL 760. Use ljet4.  
 laserjet  
 Canon LBP4+ Works but very slowly  
 HP DeskJet 600 (3.53)  
 HP LaserJet II (5.10)  
 Xerox 4030 (5.10)  
 Tandy LP800 (5.10) With LaserJet III emulation.  
 Brother HL-660 (5.10)  
 Brother HL-760 (3.33) 600dpi  
 Epson EPL5700 (5.50) 300dpi OK. 600dpi has some minor glitches  
 HP DeskJet 600 (3.53) margins wrong  
 HP DeskJet 870Cse (4.03)  
 HP LaserJet 5 (4.01) 300dpi or 600dpi  
 HP LaserJet 5L (4.03) 300dpi or 600dpi Margins wrong in GS 3.33. Correct in GS 4.03.  
 HP LaserJet 6L (5.10) 600dpi Left margin needs to be adjusted (+5pt).  
 HP LaserJet 1100 (5.50) 600dpi OK.  
 IBM Network Printer 17 (5.50)  
 IBM/Lexmark 4029 (5.10) Margins wrong.

Lexmark Optra E+ (5.03)

Lexmark Optra SC 1275 (5.50) B/W only.

Oki OL410ex LED printer (4.03) 300dpi or 600dpi

ljetplus

HP LaserJet Plus (5.10)

Canon Laser LBP-600 (5.50)

NEC SuperScript 860 (5.10)

pjxl300

HP PaintJet XL300

HP DeskJet 600 (3.53) 300dpi OK, 600 dpi is very slow

HP DeskJet 1200C (3.53)

HP DeskJet 1600C (4.03) 24bit/pixel. -dShingling=2 -dDepletion=1 -dPrintQuality=1  
r4081

Ricoh 4081 laser printer (3.53)

Ricoh 6000 laser printer (3.53)

stcolor

Epson Stylus Color (3.53)

Epson Stylus Color II (3.53) -r360 -dMicroweave See Devices.htm.

Epson Stylus 400 (5.10) -r360 is OK. For -r720, use -dSoftweave

Epson Stylus 500 (4.03) -r360 or -r720, -dMicroweave (Doesn't work with 3.33.)

Epson Stylus 600 (5.10) -r360 and -r720, -dMicroweave and -dSoftweave

Epson Stylus 800 (3.53) -sModel=st800

A page on using the Stylus Printer under Linux has been written by Michael Holve

See also the uniprint device.

uniprint

See the Ghostscript file Devices.htm This unified printer driver included in GS 5.10 comes with configuration files for

Canon BJC 610

HP DeskJet 550C

NEC P2X

Epson Stylus Color

Epson Stylus Color II

Epson Stylus Color 500

Epson Stylus Color 600

Epson Stylus Color 800

Epson Stylus Color 1520

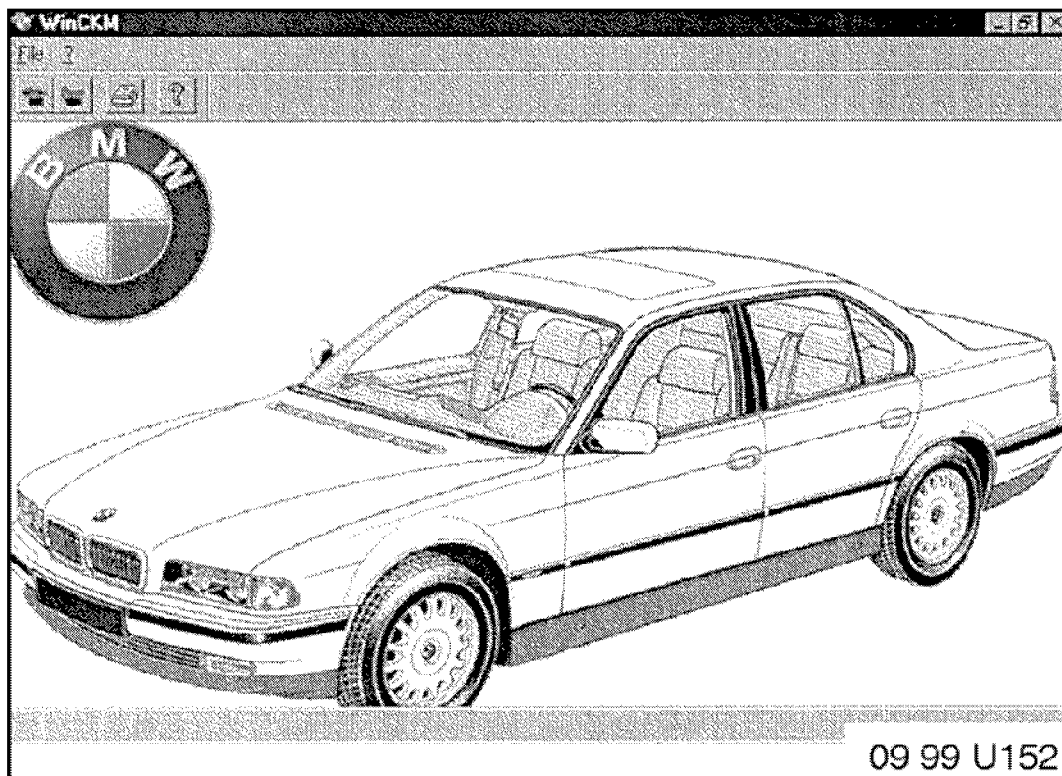
SUN rasterfile

## **BASIC OPTIONS**

# **BMW Group**

## **Quality & Service Engineering**

### **BMW Car & Key Memory Programming Instructions**





**SUBJECT:** Programming of “BMW Car Memory/Key Memory” in 3 series (E46), 5 series (E39), 7 series (E38), and X5 (E53) Vehicles.

**CONTENT:**

Detailed programming procedure for “BMW Car & Key Memory Customer Selection” **Attachment 1**

General Programming Instructions  
General Troubleshooting Hints  
Overview of All Car & Key Memory Applications  
Detailed programming procedure for all available Car Memory options **Attachment 2**

Detailed programming procedure for all available Key Memory options **Attachment 3**

**Introduction:**

“**Car Memory/Key Memory**” is an additional step towards customization of a vehicle according to the owner’s individual preferences.

“**Car Memory**” includes functions which are activated regardless of the vehicle key being used.

“**Key Memory**” contains functions which can be different depending on the vehicle key used. The vehicle key is identified during “unlocking”, only when remote control is used (functions are inoperative during “manual” unlocking).

Up to four different keys for the 3 series (E46), and two keys for the 5 series (E39), 7 series (E38) and X5 (E53) vehicles can be customized (upon delivery, the customer is provided with two remote control transmitters).

**Important:** The scope of customization depends on the equipment level installed in the vehicle.

## BMW Car & Key Memory Customer Selection Form

The table below summarizes the most important options of the “Car/Key Memory” program included in the “**BMW Car & Key Memory Customer Selection Form**”.

**These options have to be discussed with the customer during the sales consultation.**

<b>Car Memory</b>	<b>Key Memory</b>
DWA Alarm Confirmation	Central Locking - Automatic locking after pulling away (greater than 5.0 mph)
Daytime Driving Lights	Selective Central Unlocking
Pathway Lighting	Climate Control Settings
Seat Memory - Automatic driver's seat position	

### **Note:**

Attachment #1 of this manual contains detailed explanations of each feature and a step-by-step programming procedure for all options included in the Customer Selection Form.

**The customer must be informed about possible choices before delivery by filling out a selection sheet** (attached). The questionnaire is a three-part form: one copy stays with the customer, one goes to the sales department, and the last to the service department. According to the customer choices, the vehicle should be customized during the QC 1. Selection changes during the ownership period are not reimbursable under warranty. The customer should not be charged for the programming. Individualizing your customer's vehicle is an important contribution to a positive customer experience.

**Any additional programming items** contained in the **Attachment #2** and **Attachment #3** may also be programmed, but we recommend that they should be discussed with customers at a later date during a service consultation and upon customer request or inquiry.

“BMW Car & Key Memory Customer Selection” forms can be ordered free of charge by calling Sales Support Services (Literature Depart.) at 1-732-225-2800 between 8:45AM and 4:45PM (EST). The part number for a package of 50 sheets is: ZUS3077.

## BMW Car & Key Memory

### Customer Selection Form

The following Car/Key Memory custom configuration choices are available on the vehicle you have purchased (scope of the selection depends on equipment options of your vehicle).  
 "Car Memory" includes programmed functions activated regardless of the vehicle key being used.  
 "Key Memory" contains functions which can be different depending on the vehicle key used.

Please read the following selections and check the appropriate box. The factory default settings (factory selections) are underlined. If you choose not to make any new selections, your vehicle will be delivered with the default values.

Customer Name: \_\_\_\_\_

Model: \_\_\_\_\_ Year: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

Vehicle Identification Number: \_\_\_\_\_

BMW Center Name: \_\_\_\_\_ BMW Center No. \_\_\_\_\_

Car Memory				
System	Function	Selection	Customer Benefit	
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u>	-----	Alarm acknowledgment can be both visual and audible (siren "chirp", signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).	
	Arm/Disarm visually only	-----		
Daytime Driving Lights	<u>Not active</u>	-----	The low intensity hi-beams stay on with the ignition switched on (tail lights are off).	
	Active	-----		
Pathway Lighting	<u>Not active</u>	-----	When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beams "flash") with ignition turned off.	
	Active	-----		
Seat Memory- Automatic driver's seat position	<u>Not active</u>	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing "unlock" button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).	
	When unlocking	-----		
	When driver's door is opened	-----		
Key Memory				
System	Function	Selection K1      K2		Customer Benefit
Central Locking- Automatic locking after pulling away	<u>Not active</u>	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 5.0 mph. (Doors can be unlocked from inside at any time).
	Active	----	----	
Selective Central Unlocking	<u>Not active</u>	----	----	When feature is active, the first time the "unlock" button is pressed, only the driver's door is unlocked. The second press releases all locks.
	Active	----	----	
Climate Control Settings	<u>Always active</u>	N/A		The last Automatic Climate Control settings (temperature, air distribution, fan speed) when the particular key was used, are reactivated with next usage of the same key. This is a "Key Memory" feature permanently assigned to each key.

Technician Confirmation (Delivery Check)

Sales Specialist Confirmation

Customer (Acknowledgement)

\_\_\_\_\_  
Date

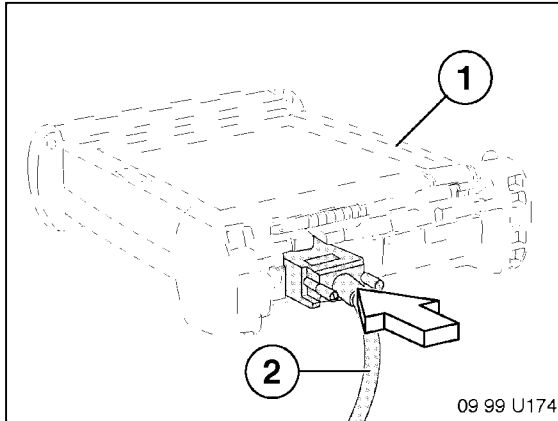
\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

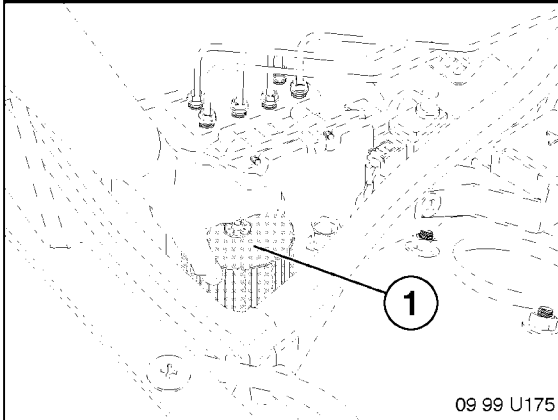
## Attachment #1 to “BMW Car/Key Memory” Programming Procedure

### Detailed Programming Procedure for “Customer Selection Form”

#### Car Memory

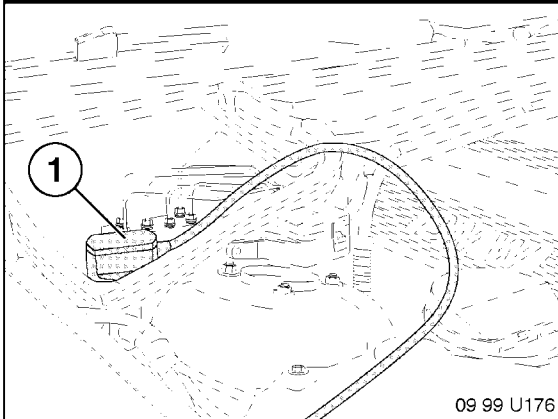


Connect the diagnostic/programming cable (ADS Cable - 2) to the serial port of the computer



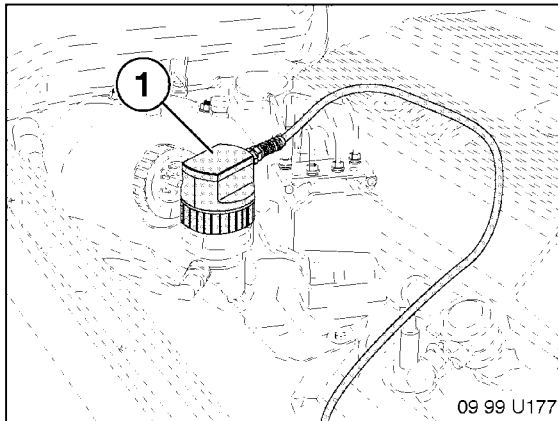
Remove (by turning counter-clockwise) cover from the vehicle's 25-pin diagnostic connector (1).

Connect the diagnostic plug of the ADS programming cable to the vehicle's diagnostic connector, switch “ON” the ignition.

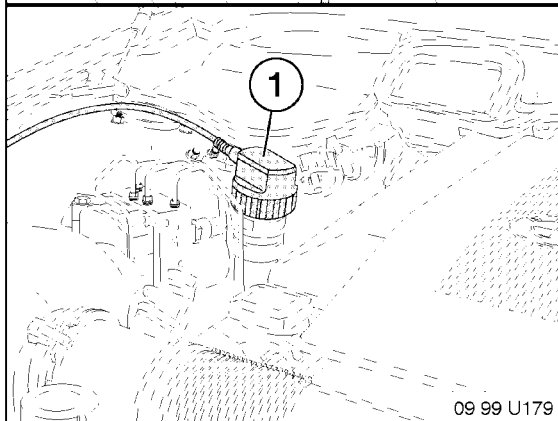


**The following illustrations show the location of the diagnostic connector in different BMW models.**

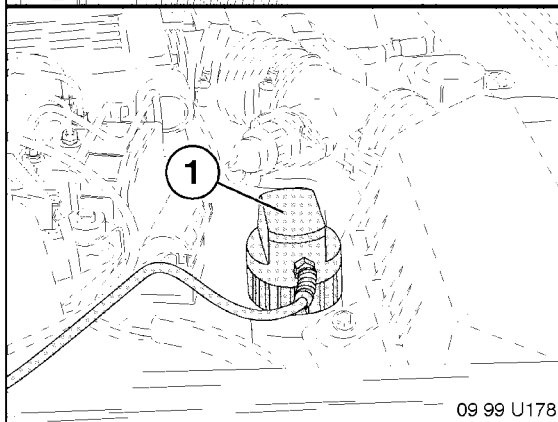
Location of the diagnostic 25-pin connector in 3 series (E46) vehicle (right, rear side of engine compartment, near the bulkhead).



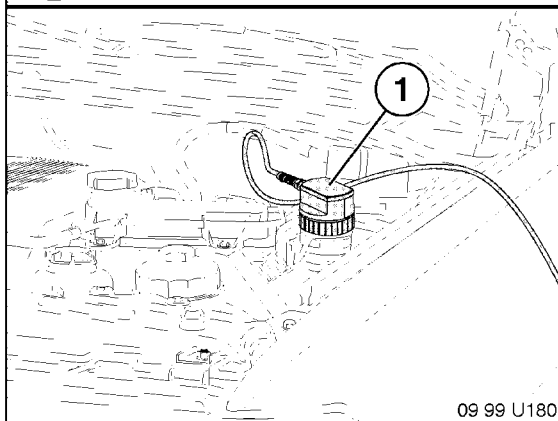
Location of the diagnostic 25-pin connector in 528 (E39) vehicle (right side of engine compartment, on the wheel well).



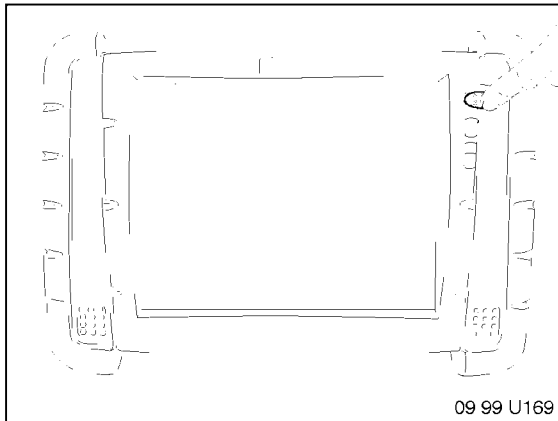
Location of the diagnostic 25-pin connector in 740 (E38), and 540 (E39) vehicle (right side of engine compartment, on the wheel well).



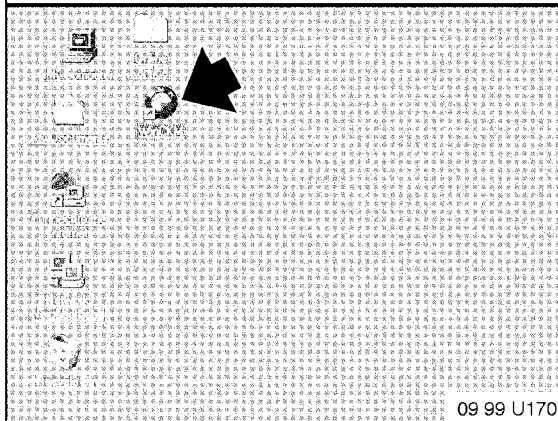
Location of the diagnostic 25-pin connector in 750 (E38) vehicle (right, front side of engine compartment, near the air filter housing).



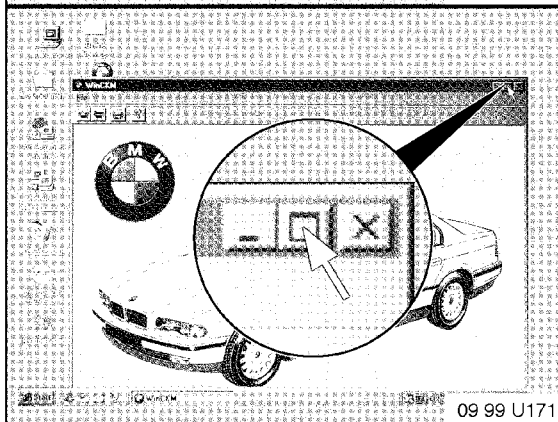
Location of the diagnostic 25-pin connector in X5 4.4 (E53) vehicle (right, rear side of engine compartment, on the wheel well).



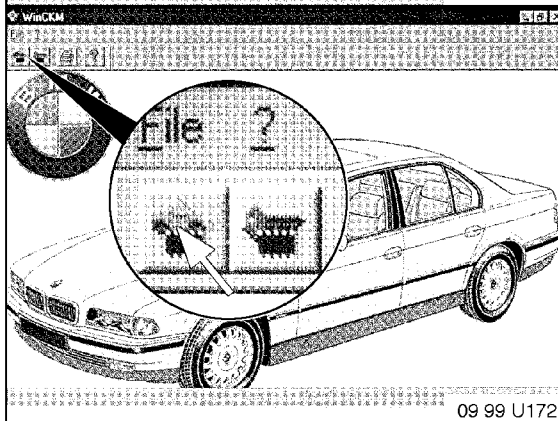
Turn the computer on, by pressing once the button in the top, right corner of the unit.



From the Windows 98 Desk Top select (touch the icon using screen pen): **WinCKM**



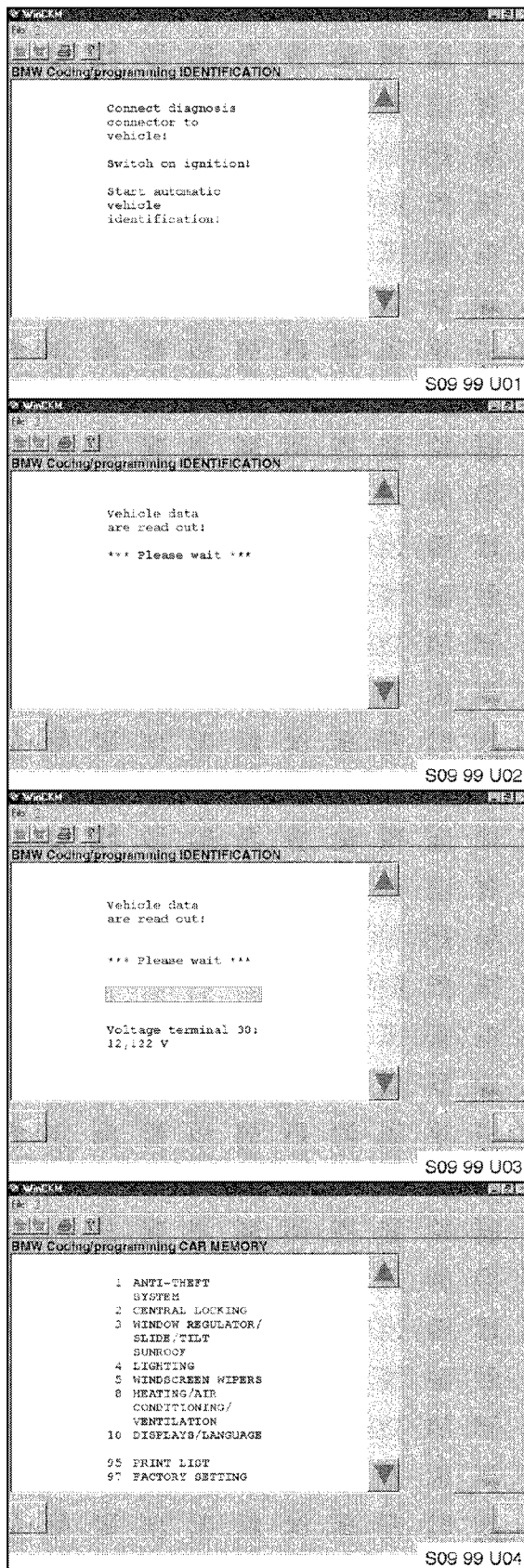
Maximize **WinCKM** screen by clicking on the middle button in the right, top corner of the window.



In order to select “**Car Memory**”, click on the top, left hand side button (red car symbol).

**Vehicles equipped with hi-fi DSP audio system, must have the radio turned “ON”.**

**On 5, 7 series and X5 vehicles, before starting programming make sure that the trunk lock is not set to “valet” (horizontal) position. Leaving trunk lock in “valet” position can cancel some of the programming options.**



After connecting programming cable and switching "ON" the ignition, start automatic vehicle identification:

by pressing "continue", green arrow button (lower, right, corner of the screen).

Identification process has been initiated.

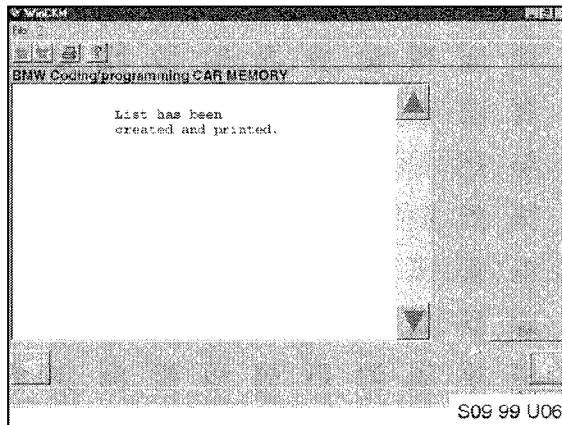
Automatic vehicle identification can take up to 45 seconds.

During that process, a bar progress indicator is displayed on the screen.

After successful vehicle identification, the menu screen will be displayed with a list of all detected control systems capable of "Car Memory" configuration.

**Important:**

The scope of vehicle programming in "Car Memory" depends on the level of equipment installed in the vehicle.



### **Important:**

**Due to the variations in vehicles hardware and software, it is recommended that “Print List” is selected prior to programming. “Print List” will give an overview of the options for that specific vehicle.**

To print the list of options connect the printer, select “96 Print List”,

and then press “continue”, green arrow button (right, lower corner of the screen).

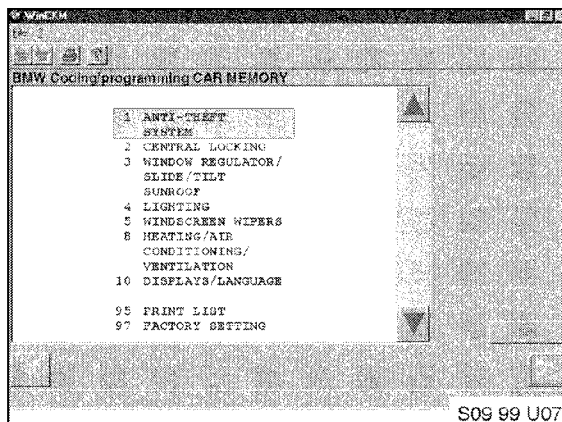
### **DWA Alarm Confirmation**

#### **Customer Benefit:**

For **3, 5, 7 series and X5 vehicles factory equipped with DWA Alarm System**, when locking/unlocking vehicle the preset (default) setting of alarm confirmation is visual (signal light flash) and audible (siren “chirp”). With “**Car Memory**” programming, the alarm acknowledgement can be changed to visual (signal light flash) only.

For **3 series vehicles without factory installed DWA Alarm System**, with “**Car Memory**” programming locking/unlocking can be acknowledge by visual signal (signal lights flash).

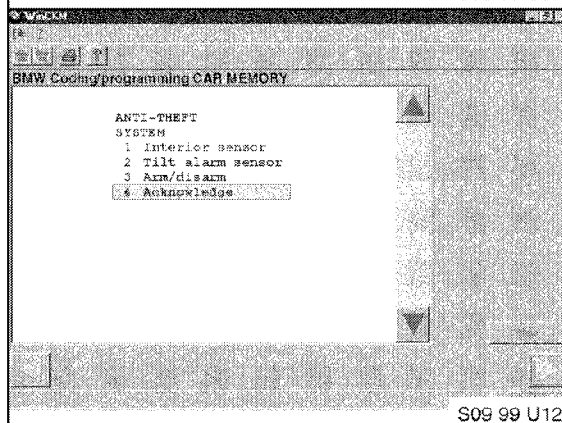
### **Setting “Arm/Disarm visually only”**



From the “**Car Memory**” menu options highlight:

#### **1 Anti-Theft System**

and then press “continue” green arrow button (lower, right corner of the screen).

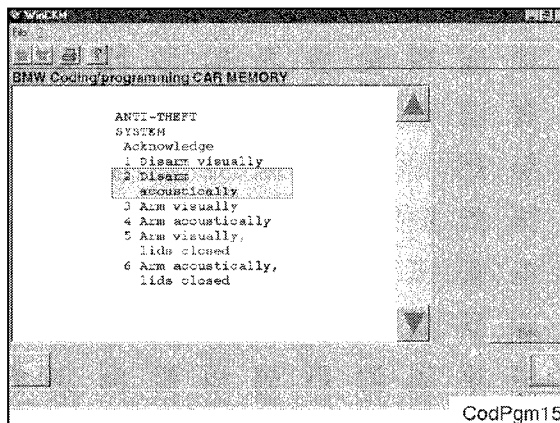


From the “**Anti-Theft System**” submenu highlight:

#### **4 Acknowledge**

and then press “continue” green arrow button (lower, right corner of the screen).

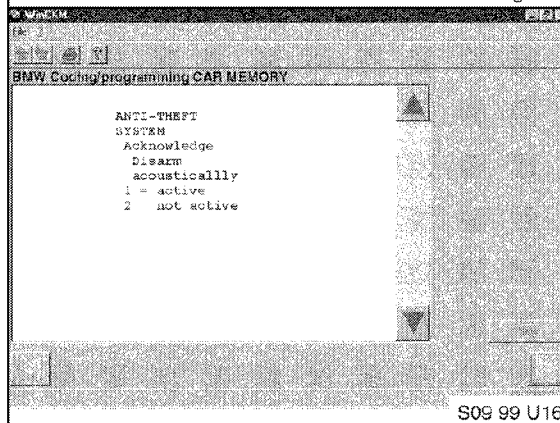




From the “**Acknowledge**” submenu highlight:

## 2 Disarm acoustically

and then press “continue” green arrow button (lower, right corner of the screen).

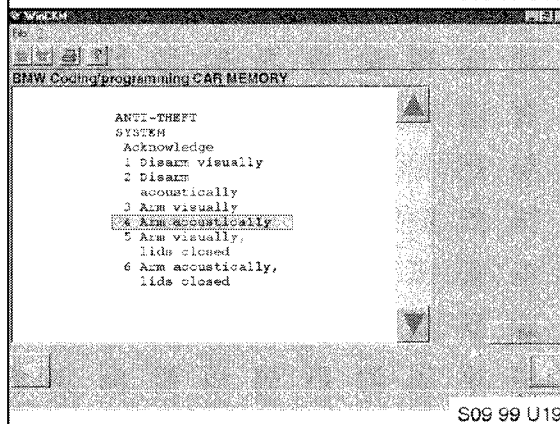


In the “**Disarm acoustically**” menu, the factory setting is “active” (siren “chirp” when unlocked).

To disable the function, highlight:

## 2 not active

and then press “continue” green arrow button (lower, right corner of the screen).

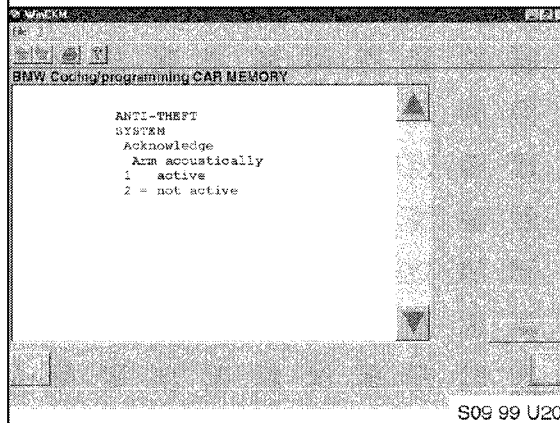


The same procedure has to be repeated for the arming (locking).

Return to “**Anti-Theft System/Acknowledge**” menu and highlight:

## 4 Arm acoustically

and then press “continue” green arrow button (lower, right corner of the screen).



In the “**Arm acoustically**” menu, the factory setting is “active” (siren “chirp” when locked).

To disable the function, highlight:

## 2 not active

and then press “continue” green arrow button (lower, right corner of the screen).

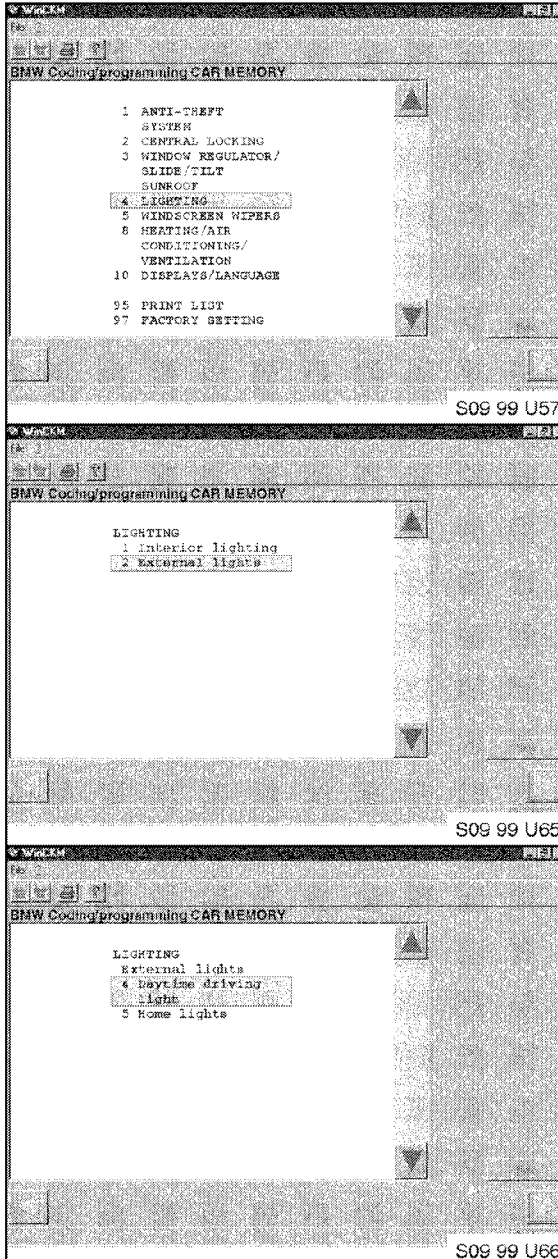
**The above procedure will change the alarm acknowledgment to Visual Only (signal lights flash).**

## Daytime Driving Lights

### Customer Benefit:

Thanks to “Car Memory” programming, the Daytime Driving Lights (low intensity hi-beams staying on all the times with the ignition switched on) function can be activated. The factory (default) setting is “not active”.

### Setting “Daytime Driving Lights - Active”



From the main menu of “Car Memory”, highlight:

#### **4 Lighting**

and then press “continue”, green arrow button (lower, right corner of the screen).

From the “Lighting” submenu, highlight:

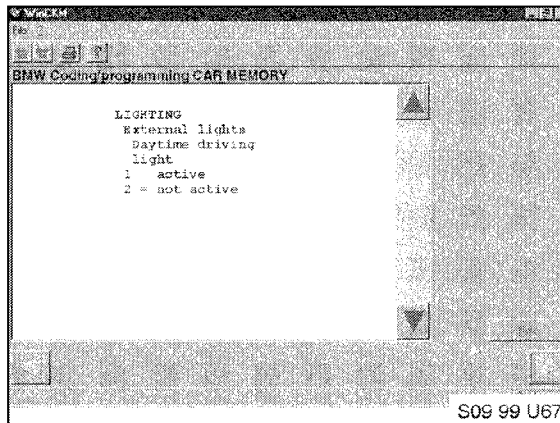
#### **2 External Lights**

and then press “continue”, green arrow button (lower, right corner of the screen).

From the “External Lighting” submenu, highlight:

#### **4 Daytime Driving Lights**

and then press “continue”, green arrow button (lower, right corner of the screen).



In the **“Daytime Driving Lights”** submenu, the factory setting is “not active”.

To activate the **“Daytime Driving Lights”**, highlight:

**1 active**

and then press “continue”, green arrow button (lower, right corner of the screen).

**Described above procedure will activate the “Daytime Driving Lights” function.**

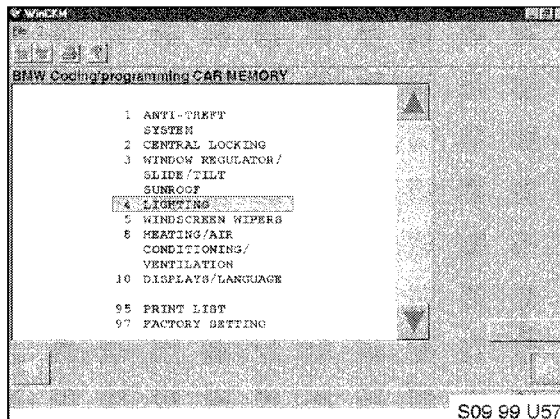
### Pathway Lighting

#### Customer Benefit:

When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beam “flash”) with the ignition turned off. The factory (default) setting is “not active”. Selection is only available for 3, 5, 7 series and X5 vehicles from '99 model year production.

The time duration is programmable for 40/90/150/240 seconds only on 5, 7 series and X5 vehicles (on 3 series vehicles is set to 40 seconds when active).

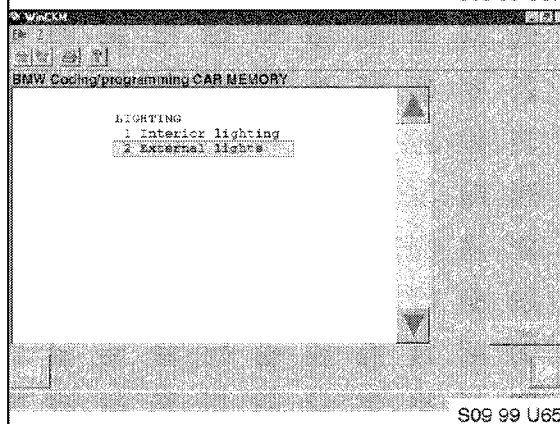
#### Setting “Pathway Lighting - Active”



From the main menu of **“Car Memory”**, highlight:

**4 Lighting**

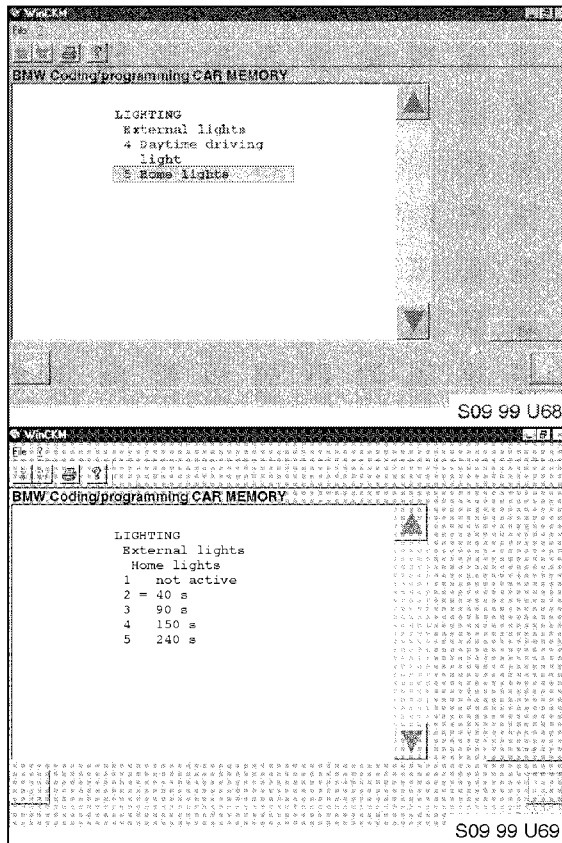
and then press “continue”, green arrow button (lower, right corner of the screen).



From the **“Lighting”** submenu, highlight:

**2 External Lights**

and then press “continue”, green arrow button (lower, right corner of the screen).



From the “**External Lighting**” submenu, highlight:

## 5 Home Lights

and then press “continue”, green arrow button (lower, right corner of the screen).

In the “**Home Lights**” submenu, the factory setting is “not active”.

To activate “**Home Lights**” function, highlight one of the options:

**40s, or 90s, or 150s, or 240s**

[Time duration is programmable for 40/90/150/240 seconds only on 5, 7 series and X5 vehicles (on 3 series it is set to 40 seconds when active)].

and then press “continue”, green arrow button (lower, right corner of the screen).

**Described above procedure will activate the “Pathway Lighting” function.**

## Seat Memory-Automatic Driver's Seat Position

### Customer Benefit:

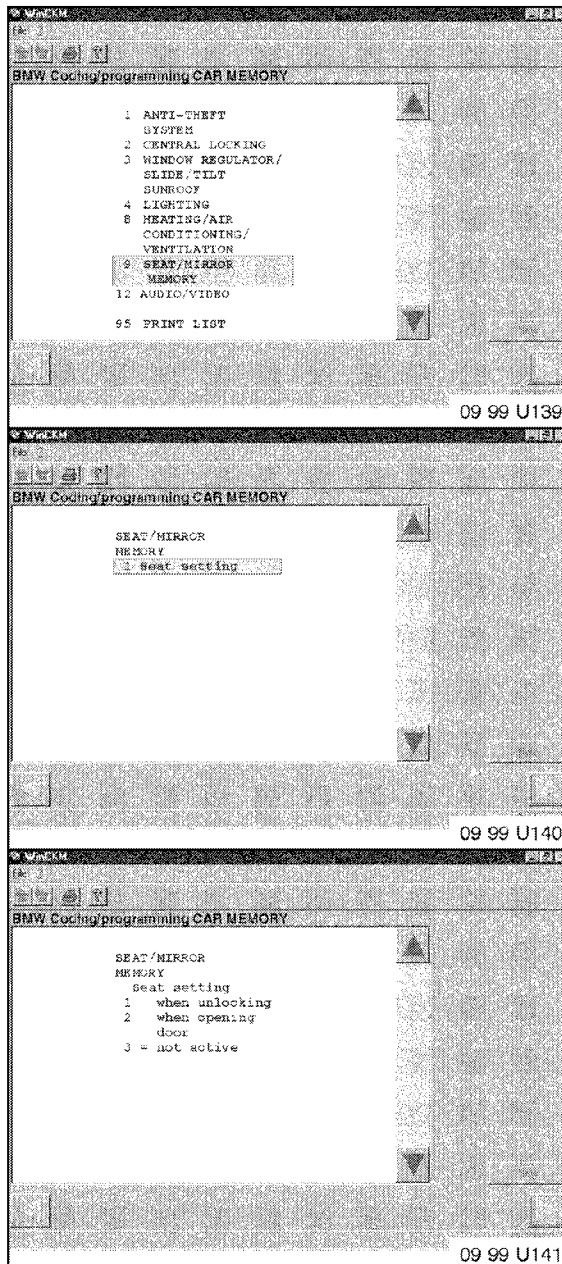
The automatic seat/mirror adjustment is activated by a specific key being used. (Driver's seat/mirror will return to the original position, set when the specific key was used). Setting in "**Car Memory**" defines when the actual adjustment starts: on pressing the unlock button on remote key, or when opening the door. The factory setting is "not active".

### Important:

Feature available on **3, 5, 7 series and X5** vehicles from '99 model year. Automatic mirror adjustment on **3 series** vehicles available since 9/99 production.

Feature available only on vehicles equipped with electric power seats.

### Setting "Seat Memory-Automatic Driver's Seat Position - Active"



From the main "**Car Memory**" menu list, highlight:

#### **9      Seat/Mirror Memory**

and then press "continue", green arrow button (lower, right corner of the screen).

From the "**Seat/Mirror Memory**" submenu highlight:

#### **1      Seat Setting**

and then press "continue", green arrow button (lower, right corner of the screen).

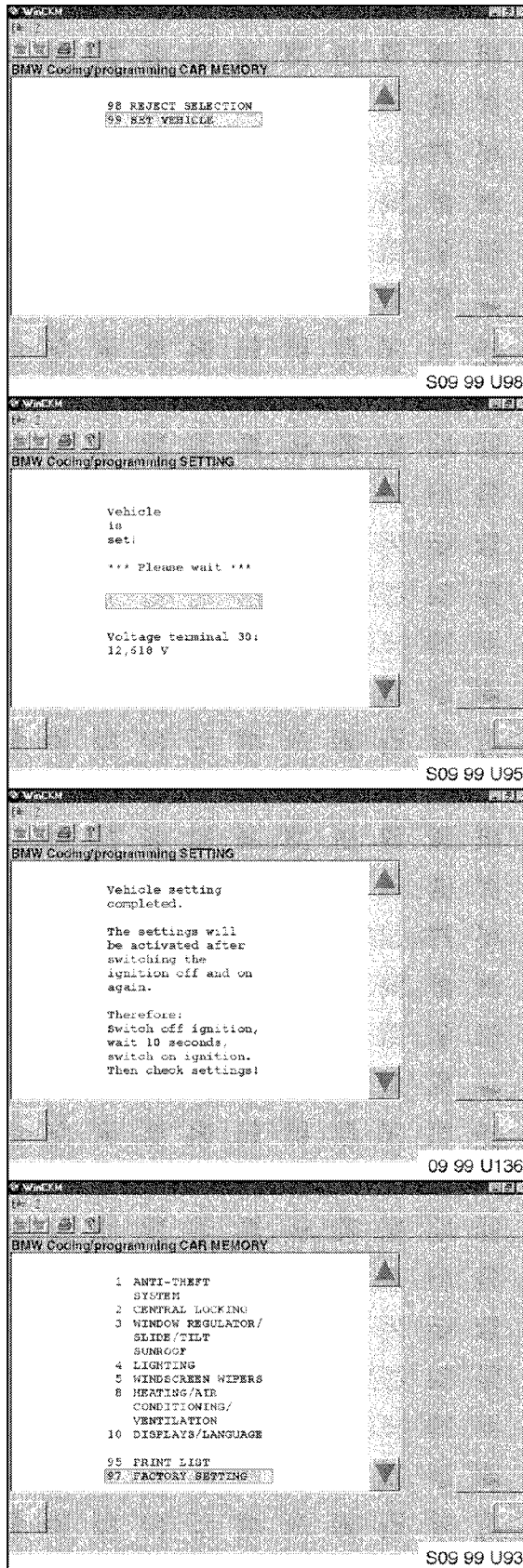
In the "**Seat/Mirror Memory**" submenu, the following options are possible: "when unlocking", "when opening door", and "not active". Factory setting is "not active".

To activate the automatic seat movement (return to the position set when the other key was used), select one of the options:

**1      when unlocking** (seat starts to move when unlocking the car with remote control)

**2      when opening door** (seat starts to move when opening the door)

Then press "continue", green button (lower, right corner of the screen).



When all of the required **"Car Memory"** configuration changes are entered, scroll down to the bottom of the main menu, and select:

## 99 Set Vehicle

and then press "continue", green arrow button (lower, right corner of the screen).

After a moment, all configuration changes are being displayed. Please, check the displayed list against the owner's selection sheet to make sure that all of the choices are included.

To continue, press the green arrow button (lower, right corner of the screen).

The display will request to cycle the ignition. Turn the ignition switch off, then switch back on.

Press **"Yes"** to continue. A bar progress indicator will be displayed.

This portion of the configuration process varies in duration based on the total number of selections.

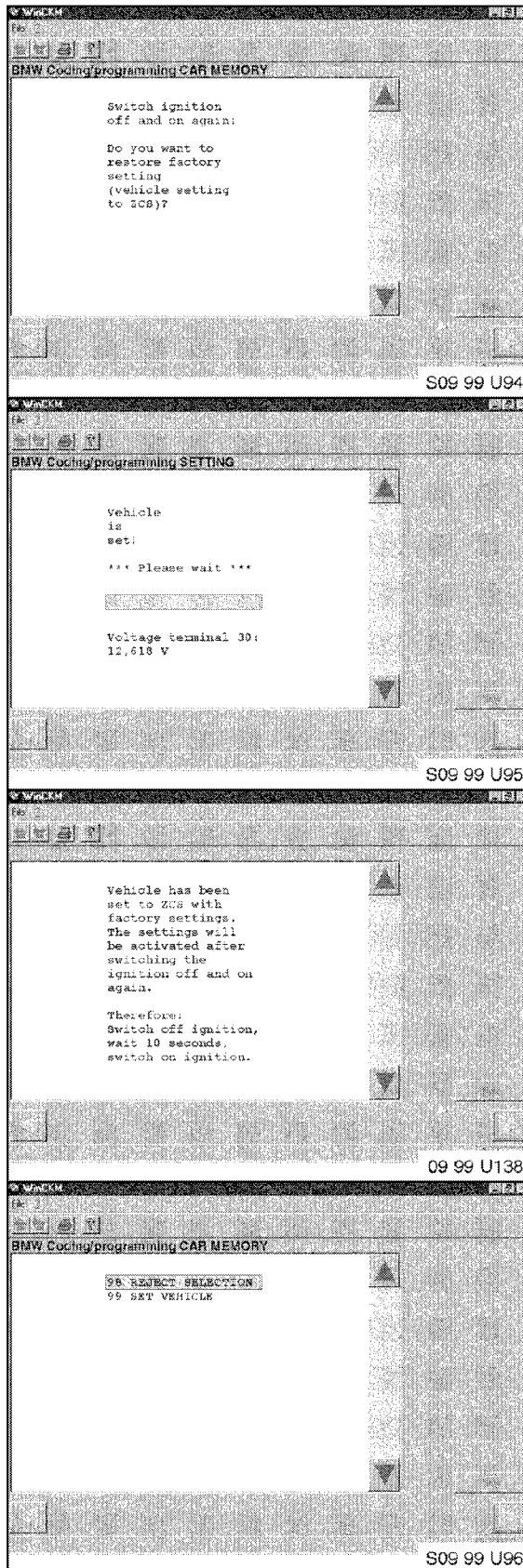
When the display changes to **"Vehicle setting completed"**, turn the ignition off for 10 seconds and turn it back on again (as prompted by the command).

**Verify the configuration changes by activating the new functions.**

If vehicle **"Car Memory"** selections have to be restored to the original, factory settings, then highlight:

## 97 Factory Settings

and then press "continue", green arrow button (lower, right corner of the screen).



The display will request to cycle ignition for confirmation of selected option.

Turn the ignition switch off, then switch back on. Press **“YES”** button to continue.

During the configuration a bar progress indicator will be displayed on the screen.

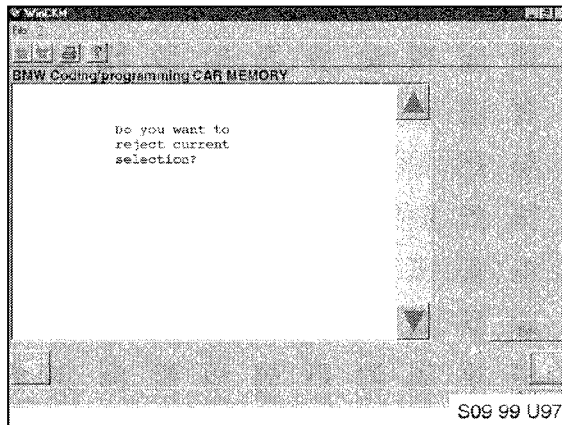
When the display changes to **“Vehicle has been set to ZCS with factory settings”**, turn the ignition off for 10 seconds and turn it back (as prompted by screen command).

Factory settings for **“Car Memory”** has been restored

In case the selected options are not corresponding to the choices from the customer’s selection list, then highlight:

## 98 Reject Selection

and then press **“continue”**, green arrow button (lower, right corner of the screen).



Next screen will ask you to confirm rejection.  
If you really want to reject selections, acknowledge your decision by pressing:

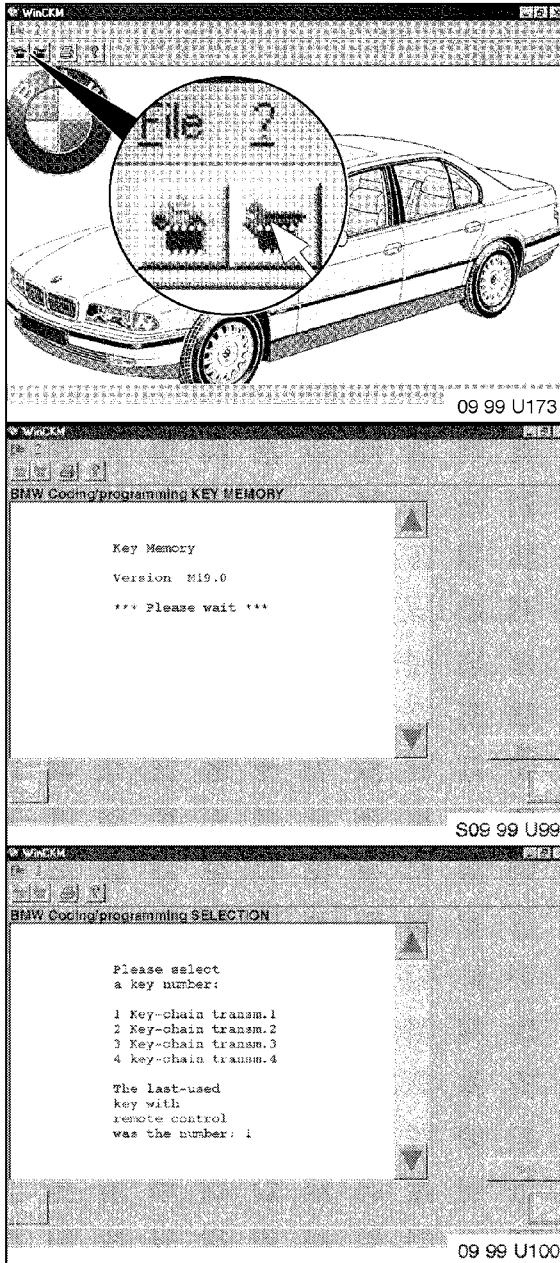
**"YES"** button.

Selected changes in **"Car Memory"** are going to be rejected.



## Detailed Programming Procedure for “BMW Car & Key Memory Customer Selection Form”

### Key Memory



From the main menu **WinCKM** screen, select: **“Key Memory”** (click on the second button from the left, in the top corner of the screen - yellow key symbol).

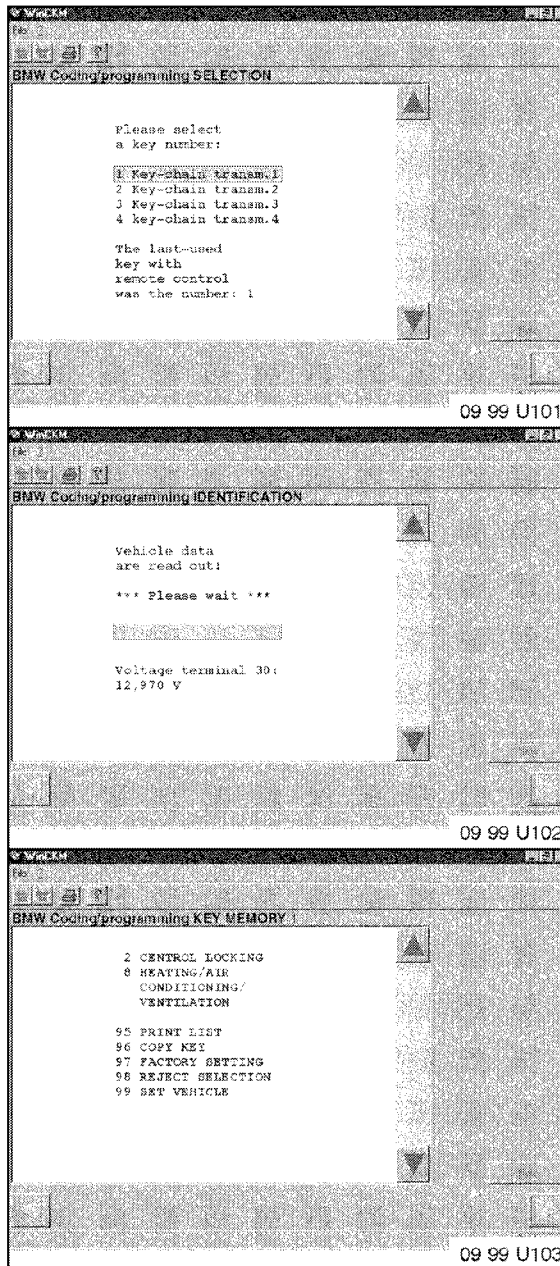
**Vehicles equipped with hi-fi DSP audio system, must have the radio turned “ON”.**

**Before starting programming, make sure that the trunk lock is not set to “valet” (horizontal) position. Leaving trunk lock in “valet” position can cancel some of the programming options.**

Wait a few seconds, for the next screen to appear.

After a short period of time the system will display a key number selection list (only two remote keys are supplied with new vehicle).

The display also shows the identification number of the last used key (helpful to identify the key later, when labels are misplaced or missing).



Using the owner's selection list, highlight the key for **"Key Memory"** assignment.

Then press "continue", green arrow button (lower, right corner of the screen) to start automatic vehicle identification.

Automatic vehicle identification can take up to 45 seconds.

During that process, a bar progress indicator is displayed on the screen.

After successful vehicle identification, the menu screen will be displayed with a list of all detected control systems capable of **"Key Memory"** configuration.

**Important:**

The scope of vehicle programming in **"Key Memory"** depends on the level of equipment installed in the vehicle.

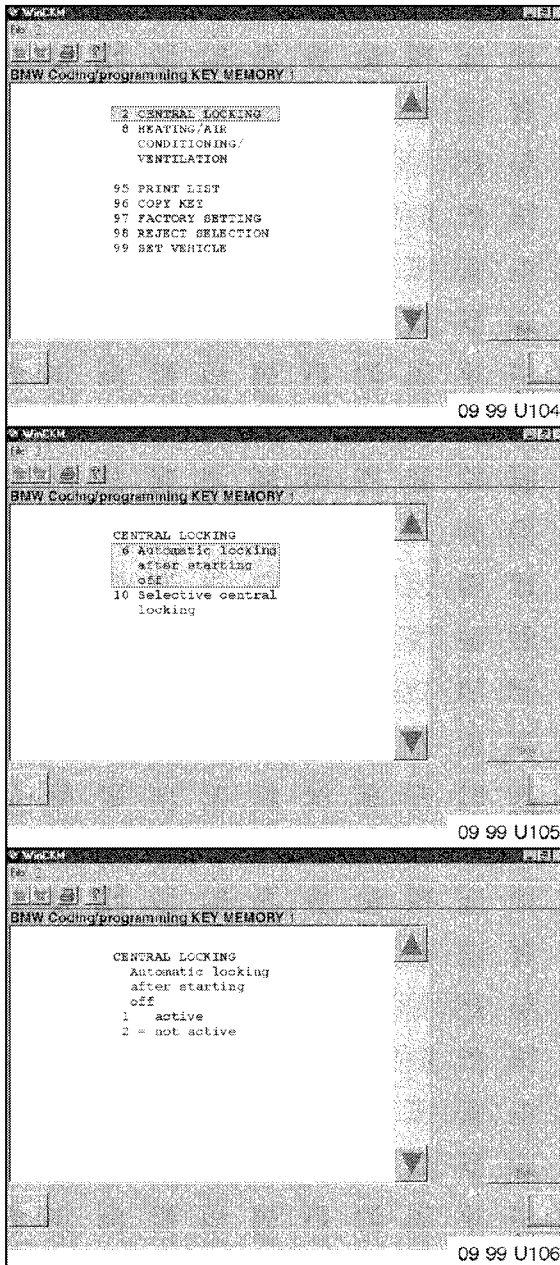
**Central Locking- Automatic locking after pulling away**  
**(Following applies only to 3, 5, 7 series and X5 vehicles from '99 MY)**

**Customer Benefit:**

Increased feeling of security from doors being automatically locked after exceeding speed of 5 mph. (Doors can be unlocked from inside at any time.) This function is selectable in **“Key Memory”** only for vehicles from '99 Model Year.

For 5 and 7 series vehicles manufactured prior to 9/98, this function is available in **“Car memory”**.  
 Factory setting is “not active”.

**Setting “Central Locking- Automatic locking after pulling away - Active”**



From the main **“Key Memory”** menu, highlight:

**2 Central Locking**

and then press “continue”, green arrow button (lower, right corner of the screen).

From the **“Central Locking”** submenu, highlight:

**6 Automatic locking after starting off**

and then press “continue”, green arrow button (lower, right corner of the screen).

In the submenu of **“Automatic locking after starting off”**, the factory (default) setting is “not active”.

To activate the option, highlight:

**1 active**

and then press “continue”, green arrow button (lower, right corner of the screen).

**Described above procedure will activate “Central Locking - Automatic locking after pulling away” function.**

### Selective Central Unlocking

The following applies only to 3, 5, 7 series and X5 vehicles from '99 MY

#### Customer Benefit:

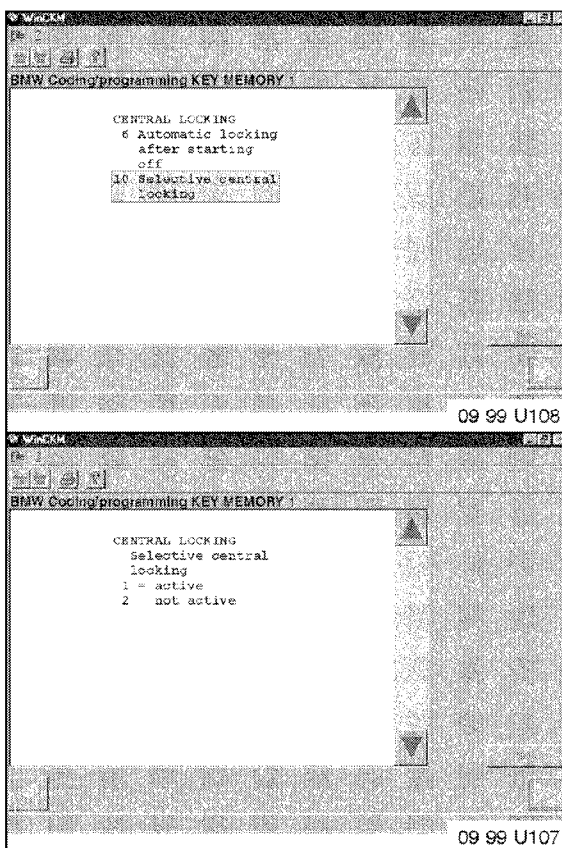
When feature is active, the first time the “unlock” key button is pressed, only the driver’s door is unlocked. The second press releases all remaining locks. Factory setting is “active”.

When feature is selected “**not active**”, the first pressing of the “unlock” button unlocks all locks (doors and trunk).

This function is selectable in “**Key Memory**” only for 3, 5, 7 series and X5 vehicles from '99 MY.

For 5 and 7 series vehicles manufactured prior to 9/98, this function is available in “**Car Memory**”.

### Setting “Selective Central Unlocking - Not active”



Return to the “**Central Locking**” menu, and highlight:

#### **10      Selective central locking**

and then press “continue”, green arrow button (lower, right corner of the screen).

In the “**Selective central locking**” menu, the factory (default) setting is “active” (first “unlock” press releases driver’s door only).

To disable the function, highlight:

#### **2      not active**

and then press “continue”, green arrow button (lower, right corner of the screen).

**Described above procedure deactivates “Selective central unlocking” function.**

**IMPORTANT:**

For 5, and 7 series vehicles manufactured prior to 9/98, selections: “Central Locking - Automatic locking after pulling away” and “Selective Central unlocking” are available in “CAR MEMORY”.

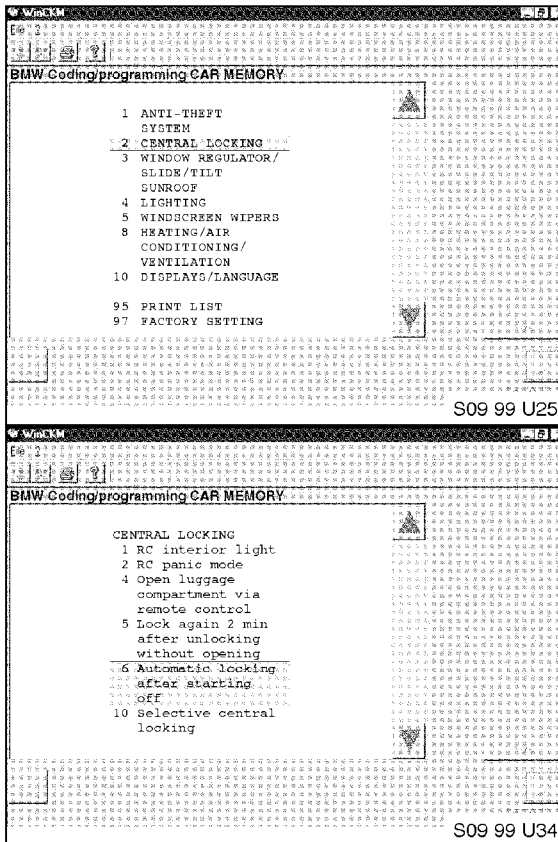
**The Following Applies Only to 5 and 7 Series Vehicles Prior to 9/98 prod.  
In “CAR MEMORY”**

**Central Locking - Automatic locking after pulling away**

**Customer Benefit:**

Increased feeling of security from doors being automatically locked after exceeding speed of 5 mph. (Doors can be unlocked from inside at any time.) This function is selectable in “Car Memory” only for **5 and 7 series** vehicles manufactured prior to 9/98. Factory setting is “not active”.

**Setting “Central Locking - Automatic locking after pulling away - Active”**



From the main “Car Memory” menu, highlight:

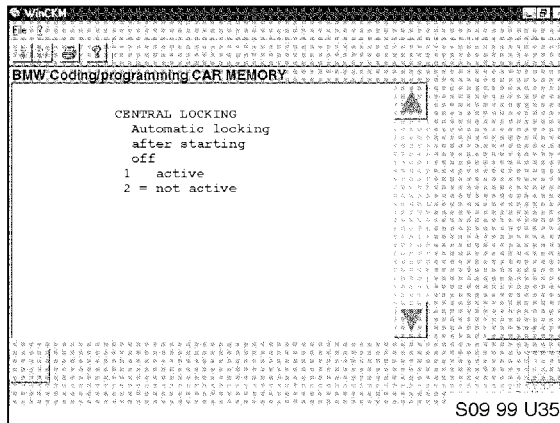
**2 Central Locking System**

and then press “continue”, green arrow button (lower, right corner of the screen).

From the “Central Locking” submenu, highlight:

**6 Automatic locking after starting off**

and then press “continue”, green arrow button (lower, right corner of the screen).



In the submenu “Automatic locking after starting off”, the factory (default) setting is “not active”.

To activate the option, highlight:

**1 active**

and then press “continue”, green arrow button (lower, right corner of the screen).

Described above procedure will activate “Central Locking - Automatic locking after pulling away” function.

### The Following Applies Only to 5 and 7 Series Vehicles Prior to 9/98 prod. In “CAR MEMORY”

#### Selective Central Unlocking

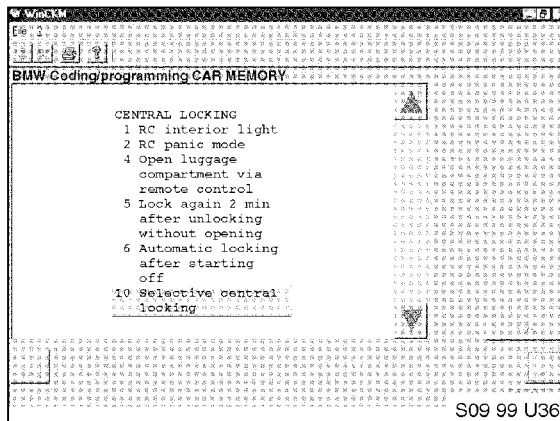
##### Customer Benefit:

When feature is active, the first time the “unlock” key button is pressed, only the driver’s door is unlocked. The second press releases all remaining locks. Factory setting is “active”.

When feature is selected “**not active**”, the first pressing of the “unlock” button unlocks all locks (doors and trunk).

This function is selectable in “Car Memory” only for **5, and 7 series** vehicles manufactured prior to 9/98.

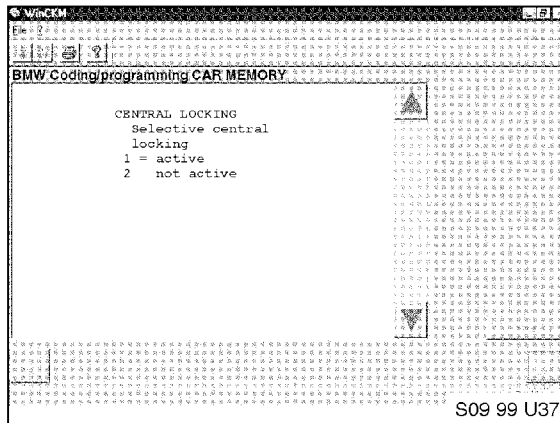
#### Setting “Selective Central Unlocking - Not active”



Return to the “Central Locking” menu and highlight:

**10 Selective central locking**

and then press “continue”, green arrow button (lower, right corner of the screen).



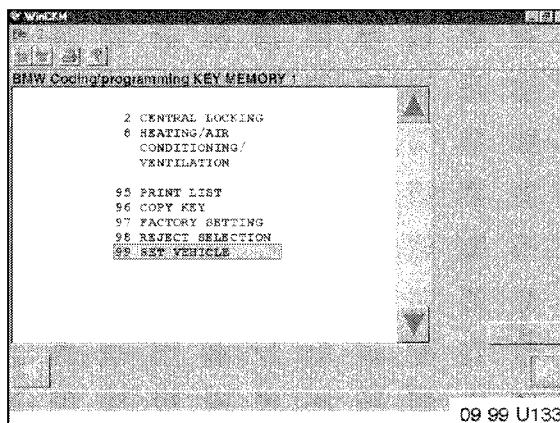
In the “**Selective central locking**” submenu, the factory (default) setting is “active” (first “unlock” press on the button releases driver’s door only).

To disable the function, highlight:

**2 not active**

and then press “continue”, green arrow button (lower, right corner of the screen).

Described above procedure deactivates “**Selective central unlocking**” function. Proceed with “**Set Vehicle**” procedure in “**Car Memory**”, as described on page 10 of this attachment.



When all of the required “**Key Memory**” configuration changes (for one specific key) are entered scroll down to the bottom of the main menu screen. Five selections are available:

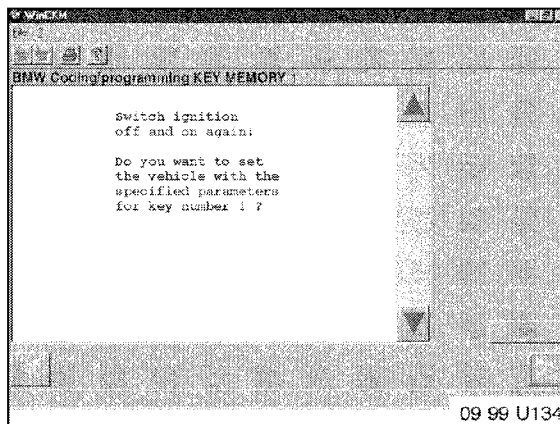
- 95 Print List**
- 96 Copy Key**
- 97 Factory Settings**
- 98 Reject Selections**
- 99 Set Vehicle**

Select:

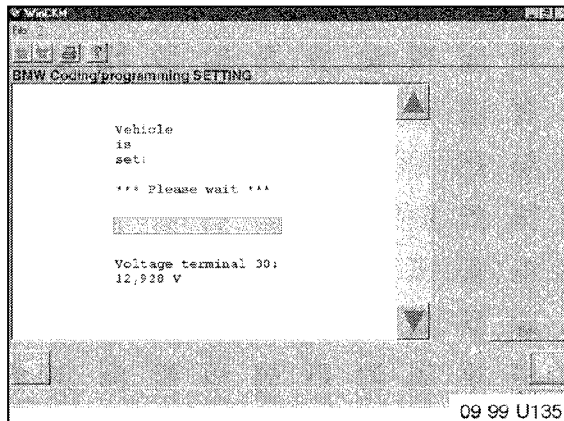
**99 Set Vehicle**

and then press “continue”, green arrow button (lower, right corner of the screen).

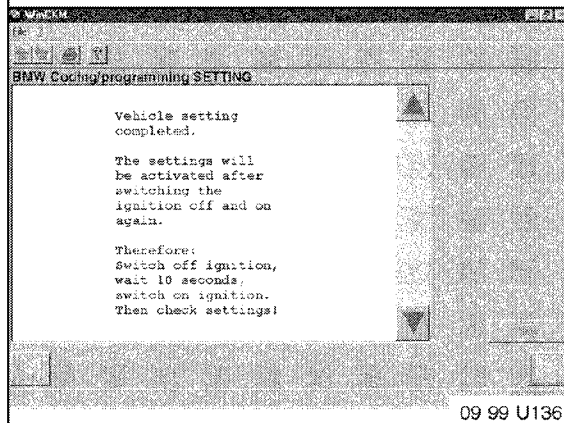
After selecting “**99 Set Vehicle**”, all configuration changes are being displayed. Check the displayed list against the owner’s selection sheet to make sure that all of the choices are included. Print that list and place it in the vehicle file for future reference.



To continue, press “continue”, green arrow button (lower, right corner of the screen). The display will request to cycle ignition, to confirm selected changes. Turn the ignition switch off, then switch back on. Press “**YES**” button to continue.



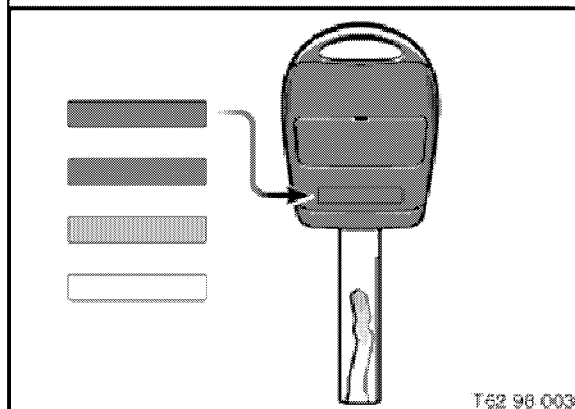
During a configuration process, a bar progress indicator is displayed on the screen



When the display changes to “**Vehicle setting completed**”, turn the ignition off for 10 seconds and turn it back (as prompted by screen command).

**Verify the configuration changes by activating new functions.**

**A separate programming procedure must be carried out for the second key.**



To identify keys, attach color label at the back of each key (labels are supplied with the vehicle).

Recommended labeling:

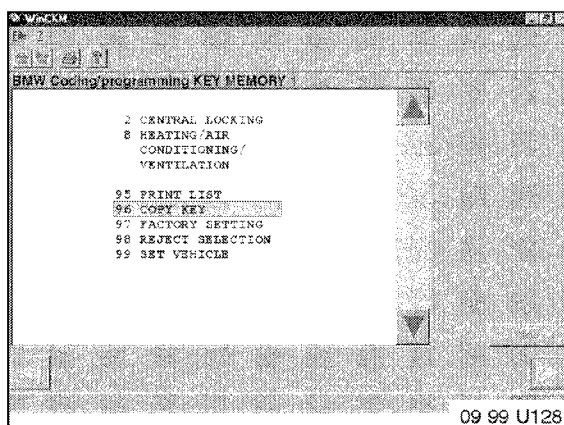
Key 1- Red

Key 2- Blue

If additional keys were ordered:

Key 3- Grey

Key 4- Green

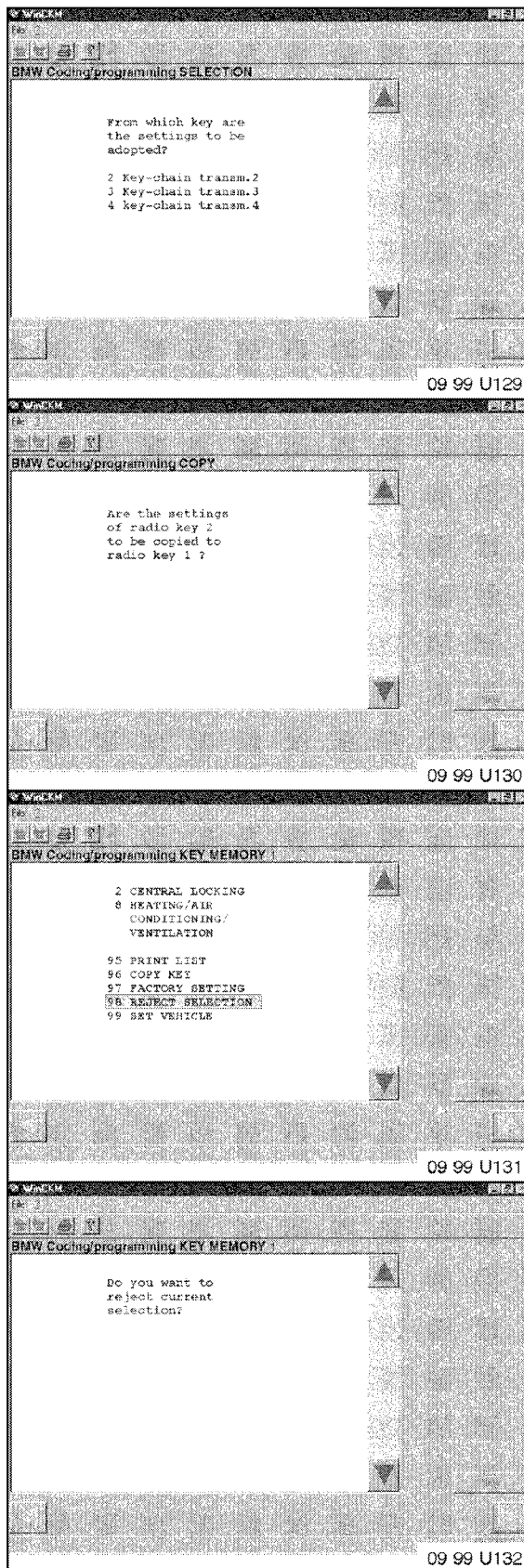


If the customer's selections for the second key are identical as for the first one, then highlight:

**96 Copy Key**

and then press “continue”, green arrow button (lower, right corner of the screen).





Identify the key, from which the programming to be copied was assigned, by highlighting the appropriate line,

and then press “continue”, green arrow button (lower, right corner of the screen).

And then acknowledge the selection by pressing “YES” button.

The “**Key Memory**” selections assigned to key number X, will be copied to key number Y.

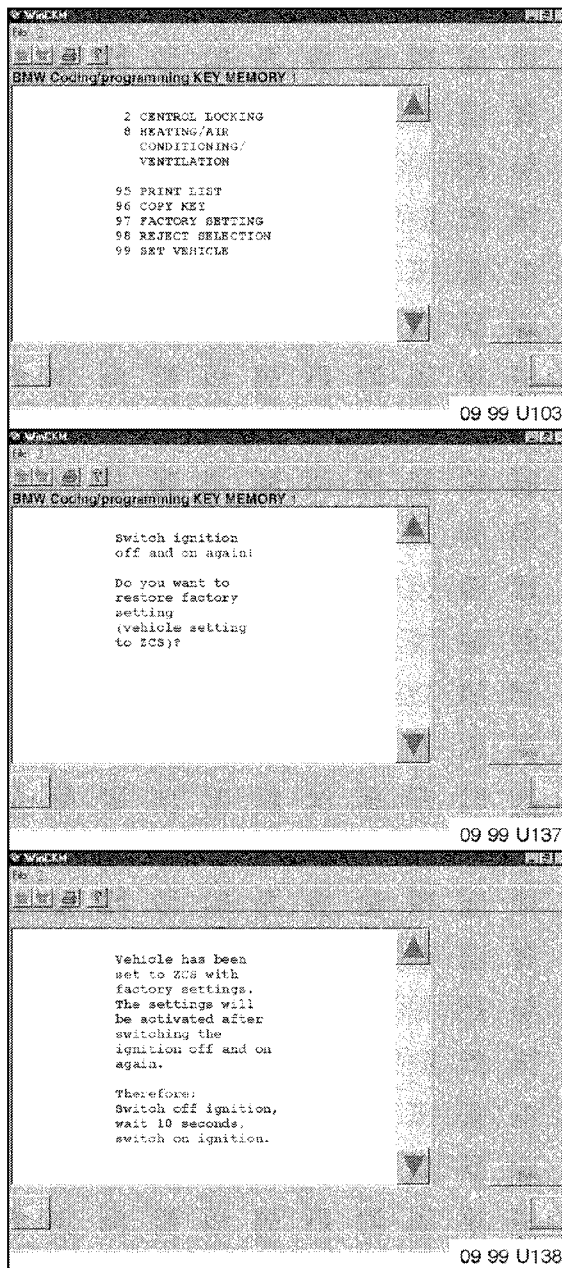
In case the selected options are not corresponding to the choices from the customer’s selection list, highlight:

## 98 Reject Setting

and then press “continue”, green arrow button (lower, right corner of the screen).

And then acknowledge your selection by pressing “YES” button.

The changed selection in “**Key Memory**” will be rejected.



In case, vehicle **“Key Memory”** selections have to be restored to the original factory settings, then highlight:

## 97 Factory Settings

and then press “continue”, green arrow button (lower, right corner of the screen).

The display will request to cycle ignition, to confirm selected changes.

Turn the ignition switch off, then switch back on. Press **“YES”** button to continue.

When the display changes to **“Vehicle has been set to ZCS with factory settings”**, turn the ignition off for 10 seconds and turn it back (as prompted by screen command).

Factory settings of **“Key Memory”** for that particular key have been restored.

## **“BMW CAR/KEY MEMORY” PROGRAMMING PROCEDURE** **ALL SELECTABLE OPTIONS**

### **Car Memory Programming:**

From the main **WinCKM** menu screen, select “**CAR MEMORY**” (the first button on the left, in the top corner of the screen)

1. After a short period of time the menu screen will be displayed with a list of all detected control systems capable of Car Memory configuration.
2. Using the owner's selection list, enter the system selected for customization. If other features are to be programmed, the “**Print List**” feature should be selected.
3. From the system submenu select the function to be altered.
4. Make the appropriate selection (activation/deactivation). The following symbols may be displayed next to the selection choice:

“=” Sign indicates present status

“\*” Sign indicates factory default (when present vehicle selection is different)

“>” Sign indicates entered change in selection.

5. After pressing the “continue” arrow, the system will accept the change in selection and the CAR MEMORY main menu will be displayed. If additional changes are required, enter the appropriate system and repeat steps from above.
6. When all of the required CAR MEMORY configuration changes are entered, scroll down to the bottom of the main menu. Three selections are available:

“97” brings back all factory settings

“98” rejects entered changes

“99” set changes

After selecting “**99 SET VEHICLE**”, all configuration changes are being displayed. Check the displayed list against the owner's selection sheet to make sure that all of the choices were included.

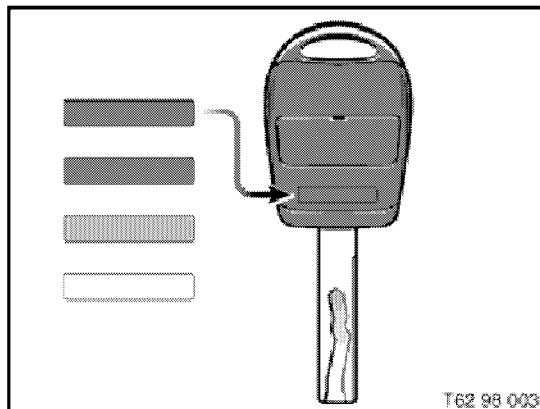
7. To continue, press the arrow button. The display will request to cycle the ignition. Turn the ignition switch off, and then switch back on. Press “Yes” to continue. A bar progress indicator is displayed along with the battery voltage. This portion of the configuration process varies in duration based on the total number of selections.

8. When the display changes to “**Vehicle setting completed**”, turn the ignition off for 10 seconds and turn it back on again. Verify the configuration changes by activating the new functions.

### **Key Memory Programming:**

From the main **WinCKM** menu screen, select “**KEY MEMORY**” (the second button on the left, in the top corner of the screen)

1. After a short period of time the system will display a key number selection list (only two remote keys are supplied with new vehicle). The display also shows the identification number of the last used key (helpful to identify the key if later on the labels are misplaced or are missing).
2. Using the owner's selection list, select the key for Key Memory assignment, and press arrow to continue. System is going to scan for all available key memory functions for the specific key. If other features are to be programmed, the “**Print List**” feature should be selected.
3. From the system main menu select function to be altered. Following procedure steps are similar to the CAR MEMORY procedure.
4. A separate programming procedure must be carried out for the second key. To identify keys, attach color label at the back of each key (labels are supplied with the vehicle).



Recommended labeling:

Key 1- Red

Key 2- Blue

If additional keys were ordered:

Key 3- Grey

Key 4- Green

**Note:**

If the **additional remote control keys** have been ordered, they have to be initialized along with two original keys. To initialize the keys, proceed as follows:

1. Enter the vehicle and close the doors.
2. Briefly (max. 5 seconds) turn the ignition on and off again.
3. Remove key; press and hold "unlock" button. While holding "unlock" button, rapidly press "lock" button 3 times within a period of 10 seconds.
4. Release "unlock" button. The LED flashes slowly for a maximum of 10 seconds.
5. The central locking system activates and releases all locks in rapid succession to indicate that the initialization procedure has been successful. If LED continues to flash or if the locking system fails to respond, the initialization procedure will have to be repeated.
6. To initialize additional remote control keys (make sure that no more than 30 seconds elapse between each initialization procedure) repeat steps 3 and 4.

Note: The ignition does not have to be cycled on/off for additional key initialization.

The initialization sequence defines the numbering of the keys in "Key Memory" program. The first key to be initialized automatically receives number one and should be labeled accordingly.

## Troubleshooting

### Hints:

#### Important:

If “**Error in Program Run**” is displayed when programming any functions of the “Car/Key Memory” program, the fault memory should be interrogated with a “Quick Test” (by a qualified technician from your Service Department, using DIS or MoDiC testers) and any faults stored should be first rectified.

No faults are to be stored in the control units when changing the “Car/Key Memory” options. Also, “**Error in Program Run**” will be displayed if control modules used for “Car and Key Memory” are not coded correctly. Contact your Service Department if any errors are displayed during coding.

If battery voltage drops below 11.8 V, the programming procedure will be terminated. Connect a battery charger to the vehicle if the voltage is below 11.8V.

**Vehicles equipped with a hi-fi DSP audio system, must have the radio turned “ON”.**

**Before starting programming, make sure that trunk lock is not set to “valet” (horizontal) position. Setting trunk lock to valet position can cancel some of the programming options.**

**ADDITIONAL  
AVAILABLE OPTIONS**

## Overview of All Available Car & Memory Applications:

The table below itemizes all available “Car Memory/Key Memory” options for the 7 series (E38), 5 series (E39), 3 series (E46), and X5 (E53) vehicles.

**Important:** Due to the variations in hardware and software of the vehicles, it is recommended that “Print List” be selected prior to programming. “Print List” will give an overview of the available Car and Key Memory options for that specific vehicle

- The = symbol denotes the factory default settings (factory delivery condition).

The **x753** denotes availability on all Model Year '99 and '00 E53's, E38's, E39's, and E46's.

The **75** denotes availability on E38's and E39's produced prior to 9/98.

### CAR MEMORY OPTIONS

Anti Theft System (DWA) (Available only on vehicles with DWA Alarm System)			
Interior sensor	=active not active		x <b>753</b> 75
Tilt Alarm Sensor	=active not active		x <b>753</b> 75
Arm/Disarm by means of:	remote control =locks and remote control (FZV)		x <b>75</b> 75
Arm/Disarm Acknowledgment	Disarm visually	Disarming of the DWA system is confirmed by a brief blinking of turn signals when active.	x <b>753</b> 75
	Disarm audibly	Disarming of the DWA system is confirmed by a brief siren signal when active.	x <b>753</b> 75
	Arm visually	Arming of the DWA system is confirmed by a brief blinking of turn signals when active.	x <b>753</b> 75
	Arm audibly	Arming of the DWA system is confirmed by a brief siren signal when active.	x <b>753</b> 75
	Arm visually, doors/lids closed E46 only	Arming of the DWA system is confirmed by a brief blinking of turn signals as soon as hood/trunk are closed, when active.	<b>3</b>
	Arm audibly, doors/lids closed E46 only	Arming of the DWA system is confirmed by a brief siren signal as soon as hood/trunk are closed, when active.	<b>3</b>

x **753**: E53, E38, E39, E46 1999 Model Year; 75: E38,E39 prior to 9/98



<b>Central Locking</b>		
Remote Control-interior light	=active not active	x 75375
Remote Control-panic mode	=active not active	x 75375
Remote Control-trunk opening E46 only	when disarmed =always	3
Automatic locking after start (5mph)	active (Listed on '99 MY E38, E39 but is active only when manually opening locks. Activation with remote control is executed in Key Memory) =not active	75
Selective central locking	=active (Listed on '99 MY E38, E39 but is active only when manually opening locks. Activation with remote control is executed in Key Memory) not active	75

<b>Window Regulators/Sunroof</b>		
Convenience opening Remote Control	=active not active	x 75375
“One Touch” Driver’s window close (auto up)	=active not active (“Single Strike Function close driver’s door”)	x 75375
“One Touch” Passenger window close (auto up)	=active not active (“Single Strike Function close passenger door”)	x 75375
“One Touch” Rear windows close (auto up)	=active not active (“Single Strike Function close rear”)	x 75375
“One Touch” sunroof close (auto close)	=active not active (“Single Strike Function close sunroof”)	x 75375

<b>Lighting</b>			
<b>Interior Lighting</b>	On during unlock E46 only	The interior light is turned on when unlocking mechanically (if active).	3
	On at KL R off, if headlights were on E46 only	The interior light automatically turns on when ignition is switched off after driving with headlights on (if active).	3
	Soft On/Off	The interior light is dimmed when turned on/off (if active).	x 75375
Daytime driving lights	active =not active	Daytime driving lights are turned on when the ignition switch is turned on	x 75375

x 753: E53, E38, E39, E46 '99 & '00 Model Year; 75: E38,E39 prior to 9/98

Pathway Lighting ("home" lights)	=not active 40 seconds 90 seconds 150 seconds 240 seconds	When the ignition is turned off, and high beams switch is activated momentarily (high beams "flash"), the driving lights are turned on for 40 seconds (if active). The time duration is programmable for 40/90/150/240 seconds on E38 and E39 only	x 758
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Heating/Air Conditioning/Ventilation			
<b>Flaps</b>			
Air recirculation memory	active =not active	Air recirculation is retained after restarting the engine.	x 7575
Footwell closed when cooling E38 only	normal =hot country	Footwell flaps closed when cooling to allow more center vent air for maximum cold air in "hot country" setting.	x 757
Defrost closed when cooling E38/E39 only	normal =hot country	Defrost vents closed to allow more center vent for maximum cold air in "hot country" setting.	x 757
Ventilation when cooling	normal =hot country	Interior air is recirculated when cooling in "hot country" setting.	77
<b>Blower</b>			
Automatic blower speed operation E39 only	normal =hot country	More fan output during cooling when "hot country" is selected.	x 55
Air Recirculation	normal =hot country	A larger portion of cooler air is recirculated when "hot country" is selected.	x 55
Key Selective*	=active not active	*This selection is not yet functional on the E39 but is listed.	5

Windscreen Wipers			
Switch back when stationery	=active not active	Wipers are switched from speed 1 to intermittent, or from speed 2 to speed 1 when the vehicle is stationary (if active).	x 7575
Rain Sensor	=active not active		8

x 758: E53, E38, E39, E46 '99 & '00 Model Year; 75: E38,E39 prior to 9/98

Seat/Mirror Memory			
Seat Settings  (Mirror memory is not available at present time)	when unlocking when opening a door =not active	The automatic seat adjustment is activated by the specific key being used if the vehicle is equipped with seat memory. Setting in Car Memory defines when the actual adjustment starts: when pressing unlock button on remote, or when opening the door.	x 753

Displays/Language			
Units	Consumption	l/100 km mpg(UK) =mpg(US) km/l	x 753 75
	Distance	km =ml These selections will change units display in Instrument Cluster, Board Computer, or A/C Control Module (temperature).	x 753 75
	Time	=12h 24h	x 753 75
	Temperature	degrees C =degrees F	x 753 75

Audio (DSP only)				
Audio (DSP Only) E38/E39 Only	Basis Modulation	Minimum =Standard Maximum	The base audio level can be increased or decreased.	x 75
	Frequency Shift	40 Hz 50 Hz 60 Hz 70 Hz 80 Hz 90 Hz 100 Hz	The range of the Amplifier levels is shifted to a higher or lower frequency range.	x 75

x 753: E53, E38, E39, E46 '99 & '00 Model Year; 75: E38,E39 prior to 9/98

## KEY MEMORY OPTIONS

<b>Central Locking</b>			
Automatic door locking after driving*	active* =not active	Doors are automatically locked when speed exceeds 5.0 mph (if active)	x 753
Selective central locking	=active not active	First press of the “unlock” button opens driver door only, second press opens remaining doors (if active). When feature not active, first press opens all doors.	x 753

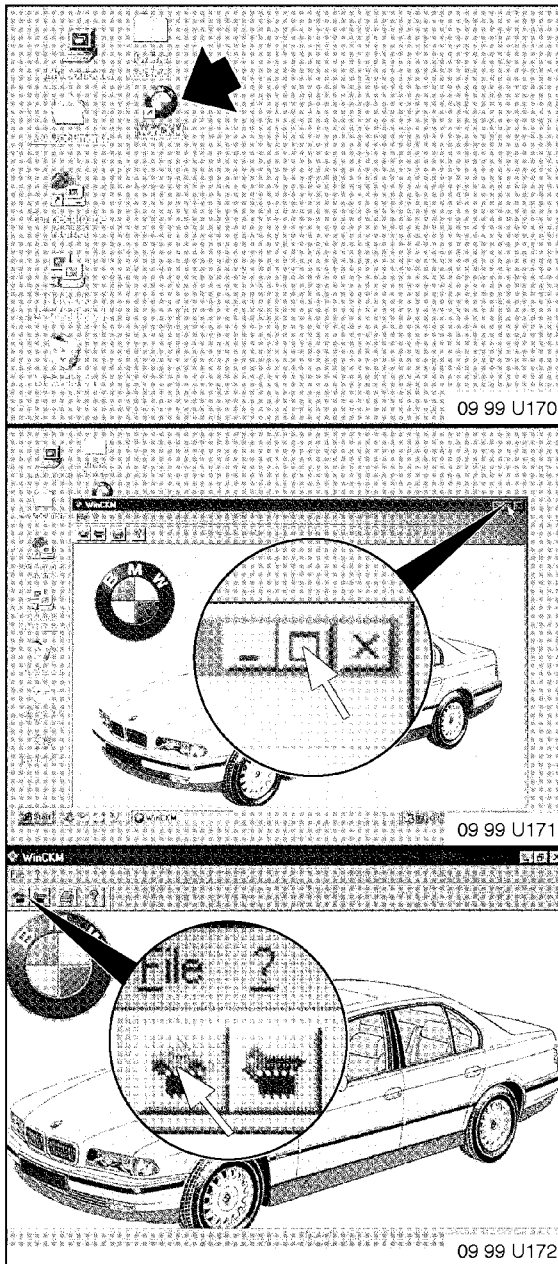
\* Remote key must be used to lock, then unlocked the vehicle after programming to set this option.

<b>Heating/Air Conditioning/Ventilation</b>			
<b>Blower</b>			
Set fan power	raise =normal lower	The normal setting provides a direct correlation between blower speed and displayed blower speed wedge in the IHKA control panel. “Raise” increases, “lower” reduces the speed. Speed changes are not indicated on the IHKA display.	3
<b>Flaps</b>			
Open ventilation in warm-up stage	=yes no	Vents open during engine warm-up (if active)	3
Close footwell when cooling	=yes no	Footwell vents are closed when system is in AUTO mode and cooling (if active). This position will optimize A/C cooling performance.	3
Close defroster when cooling	=yes no	Defroster vents are closed when system is in AUTO mode and cooling (if active). This position will optimize A/C cooling performance.	3
Flaps after KL 15 on	yes =no	Default “manual” control of the vents will be activated by switching the ignition on	3
Correction Set Temperature	+3 degrees +2 degrees +1 degree = not active -1 degree -2 degrees -3 degrees	The temperature setting in the display can be corrected by the said amount. When positive correction is selected, actual temperature in the vehicle is higher then the IHKA display indicates. The opposite is true for the “-“ ranges.	3
Air Conditioning on at:	ignition on =with A/C button	The A/C compressor is switched on with the ignition, or only when the “snow flake” is pressed.	3
Automatic blower function	active =not active	The fan blower speed is initially operated in the AUTO mode when the ignition is switched on (if active).	3

x 753: E53, E38, E39, E46 '99 & '00 Model Year; 75: E38, E39 prior to 9/98

## Attachment #2 to BMW Car/Key Memory Programming Procedure

### Detailed Car Memory Programming Procedure All Selectable Options

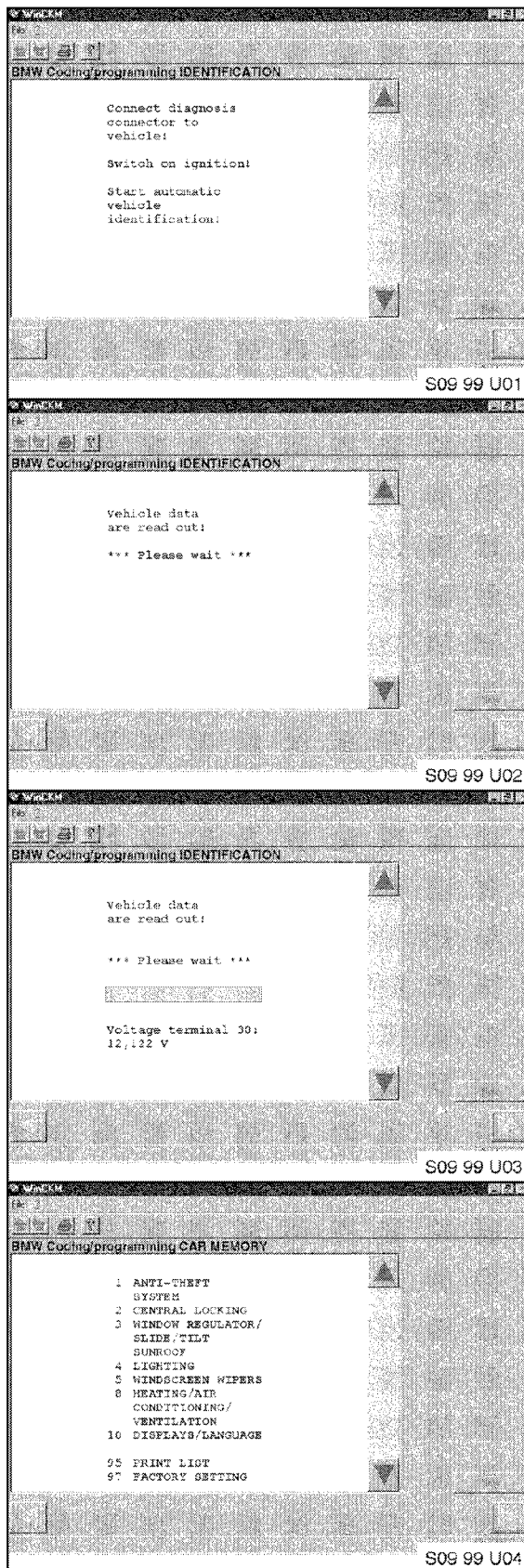


From the Windows 98 Desk Top select (touch the icon using screen pen): **WinCKM**

Maximize **WinCKM** screen by clicking on the middle button in the right, top corner of the window.

In order to select “**Car Memory**”, click on the top, left hand side button (red car symbol).

**Vehicles equipped with hi-fi DSP audio system, must have the radio turned “ON”.**  
**On 5, 7 series and X5 vehicles, before starting programming make sure that the trunk lock is not set to “valet” (horizontal) position. Leaving trunk lock in “valet” position can cancel some of the programming options.**



Follow the instruction: connect diagnostic plug to the vehicle, switch on ignition.

To start automatic identification, press green "continue" arrow (right, lower corner of the screen).

Identification process has been initiated.

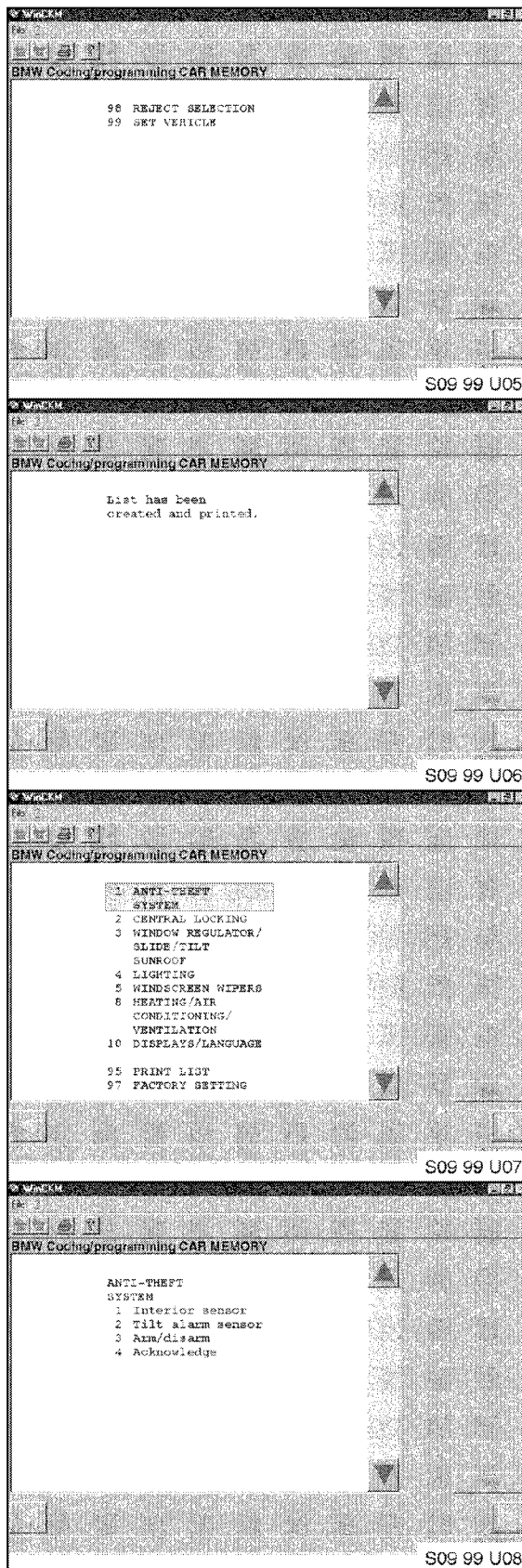
Automatic vehicle identification can take up to 45 seconds.

During that process, a bar progress indicator is displayed on the screen.

After successful vehicle identification, the menu screen will be displayed with a list of all detected control systems capable of "Car Memory" configuration.

**Important:**

The scope of vehicle programming in "Car Memory" depends on the level of equipment installed in the vehicle.



By pressing “down”, green arrow two more menu selections (“**REJECT SELECTION**” and “**SET VEHICLE**”) are displayed.

### Important:

Due to the variations in vehicles hardware and software, it is recommended that “**Print List**” be selected prior to programming. “**Print List**” will give an overview of the options for that specific vehicle.

To print the list of options, select “**95 Print List**”

and then press “continue”, green arrow button (lower, right corner of the screen).

The following pages will describe all available options in “Car Memory”

Highlight the selection

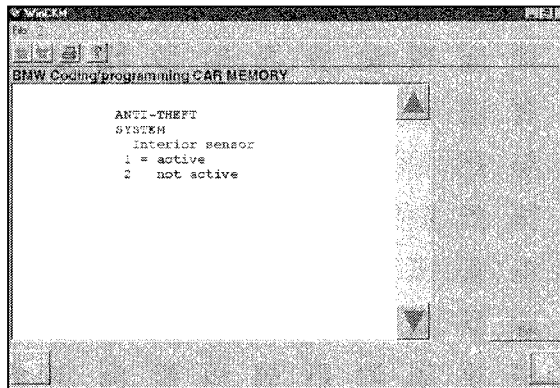
### **1 Anti-Theft System (DWA)**

and then press “continue”, green arrow button (lower, right corner of the screen).

Following four selections are available:

1. **Interior sensor** (USIS or FIS)
2. **Tilt sensor** (NAG)
3. **Arm/disarm** (by means of lock and/or remote control-FZV)
4. **Acknowledgment** of arming/disarming

To select any of these options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



S09 99 U09

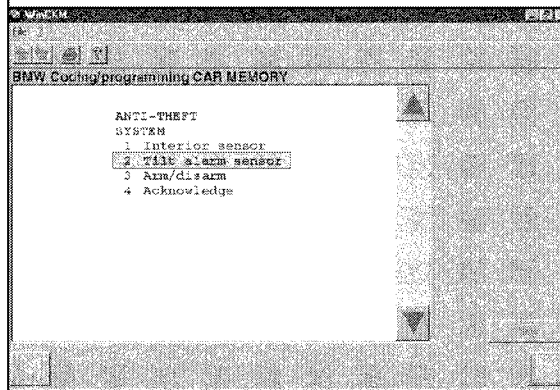
### Anti-Theft System Interior Sensor

This selection is recommended when live animals are frequently locked in the vehicle. Factory setting is “active”.

To disable the interior ultrasonic/radio sensor select:

**2 not active**

and then press “continue”, green arrow button (lower, right corner of the screen).

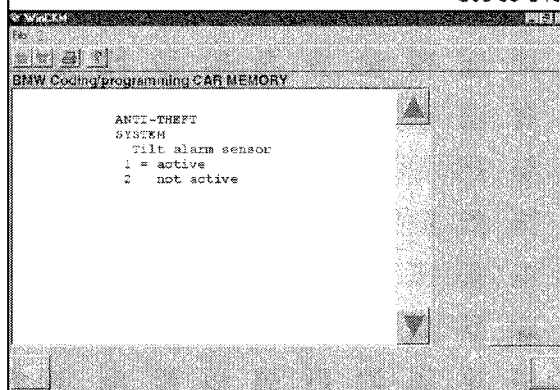


S09 99 U10

### Anti-Theft System Tilt Alarm Sensor

To select that option, highlight the line, and then

press “continue”, green arrow button (lower, right corner of the screen).



S09 99 U11

### Anti-Theft System Tilt Alarm Sensor

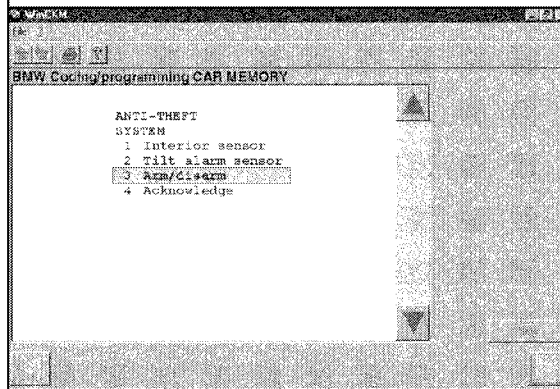
This selection is recommended when vehicle is frequently parked in duplex garages.

Factory setting is “active”.

To disable the tilt alarm sensor select:

**2 not active**

and then press “continue”, green arrow button (lower, right corner of the screen).



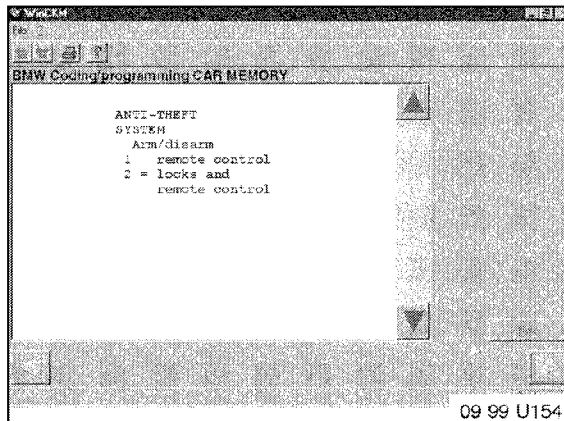
09 99 U153

### Anti-Theft System Arm/Disarm

To select that option, highlight the line, and then

and then press “continue”, green arrow button (lower, right corner of the screen).



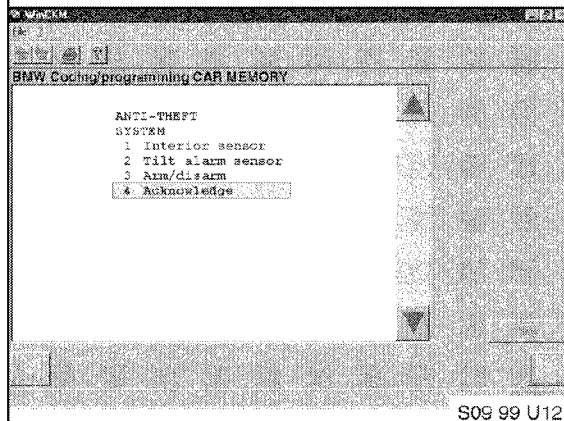


### Anti-Theft System Arm/Disarm

Two options are available:

1. **Remote control**
2. **Locks and Remote control**

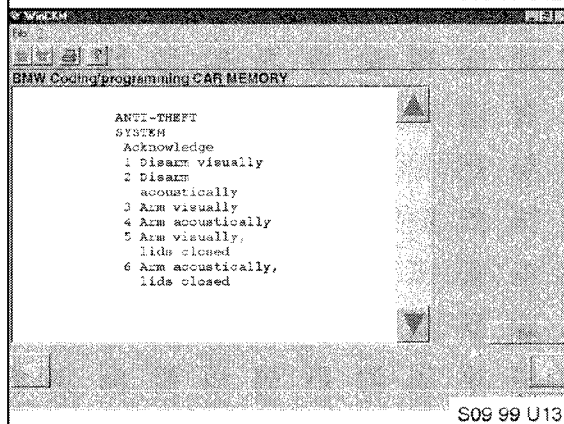
Factory setting is “Lock and Remote Control”, which activates/deactivates alarm system when using locks or remote control. It is recommended not to change this option.



### Anti-Theft System Acknowledge

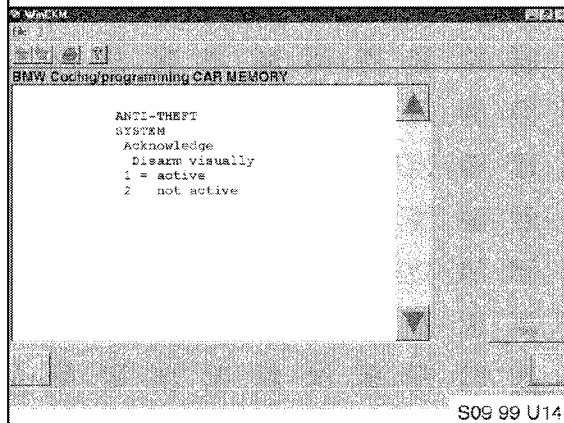
To select that option, highlight the line and then

and then press “continue”, green arrow button (lower, right corner of the screen).



### Anti-Theft System Acknowledge

Those options allow to customize confirmation of arming/disarming of DWA alarm system.

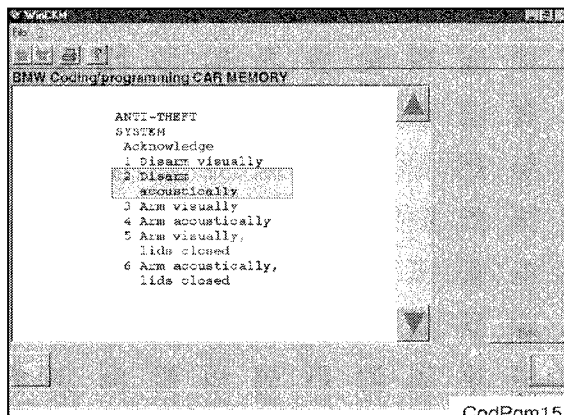


### Disarm visually

Disarming of the alarm system is confirmed by a brief blinking of turn signal lights when selected active. Factory setting is “active”.

To select one of the options, highlight the line

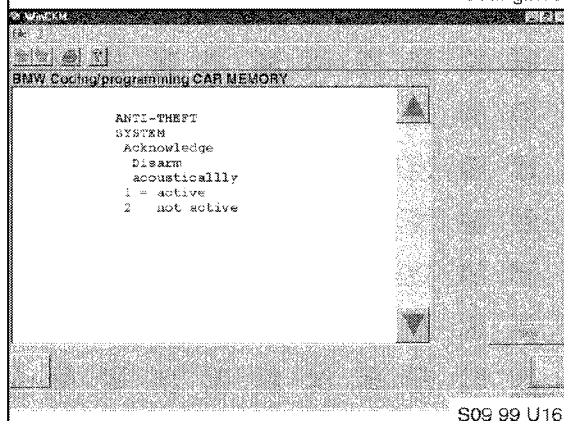
and then press “continue”, green arrow button (lower, right corner of the screen).



### Disarm acoustically

Disarming of the alarm system is confirmed by a brief siren signal when selected active.  
To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen)..

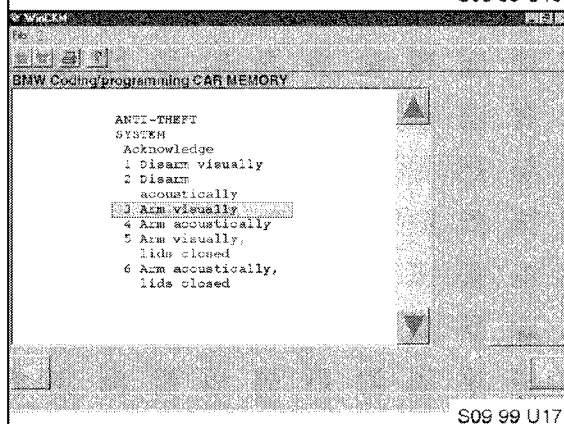


### Disarm acoustically

Factory setting is “active”.

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

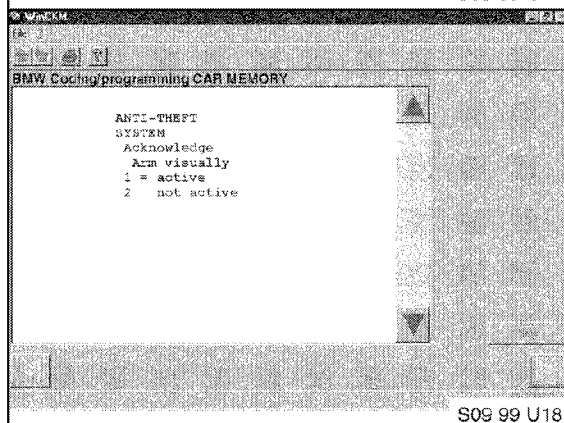


### Arm visually

Arming of the alarm system is confirmed by a brief blinking of turn signal lights when selected active.  
Factory setting is “active”.

To select the option, highlight the line

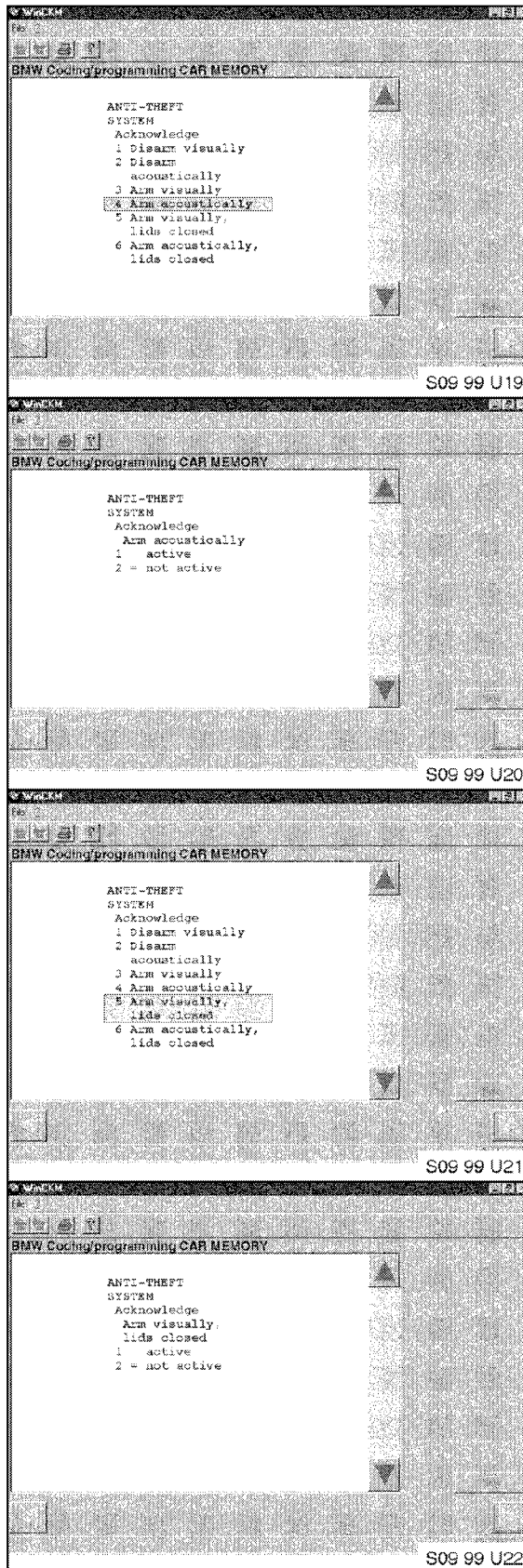
and then press “continue”, green arrow button (lower, right corner of the screen).



### Arm visually

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



### Arm acoustically

Arming of the alarm system is confirmed by a brief siren signal when selected active.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Arm acoustically

Factory setting is “active”.

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Arm visually, lids closed (E46, 323i and 328i only)

Arming of the alarm system is confirmed by a brief blinking of turn signal lights as soon as hood/trunk are closed, when selected active. Factory setting is “not active”.

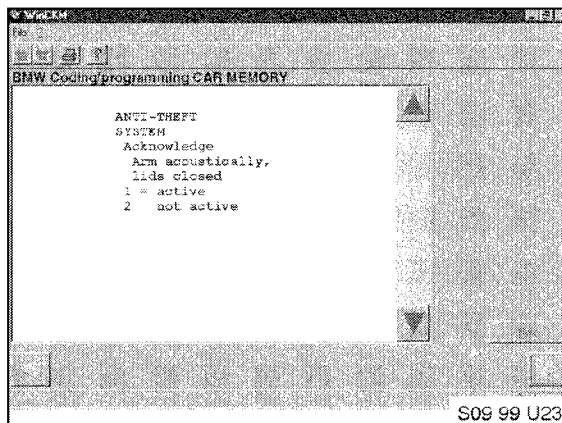
To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Arm visually, lids closed (E46, 323i and 328i only)

To select one of the options, highlight the line

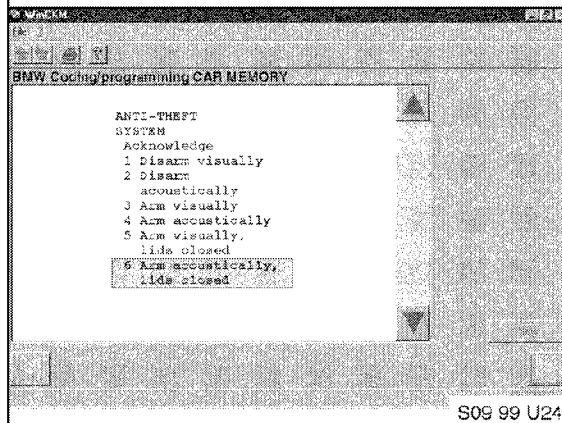
and then press “continue”, green arrow button (lower, right corner of the screen).



**Arm acoustically, lids closed (E46, 323i and 328i only)**

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

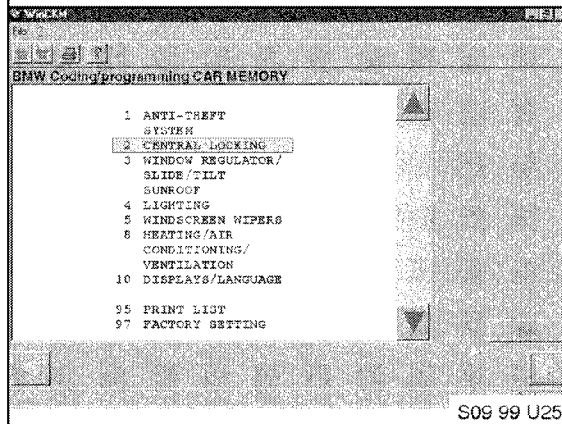


**Arm acoustically, lids closed (E46, 323i and 328i only)**

Arming of the alarm system is confirmed by a brief siren signal as soon as hood/trunk are closed, when selected active. Factory setting is “active”.

To select the option, highlight the line

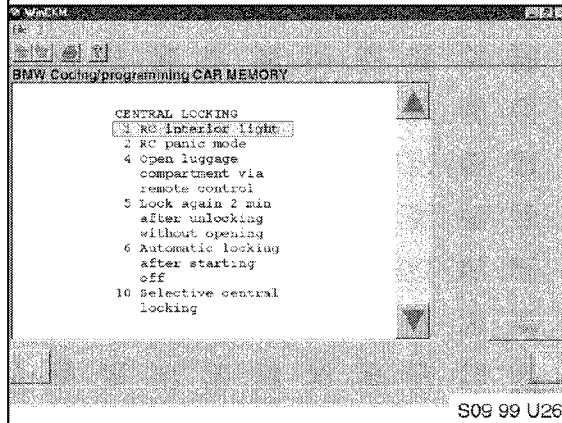
and then press “continue”, green arrow button (lower, right corner of the screen).



## Central Locking System

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

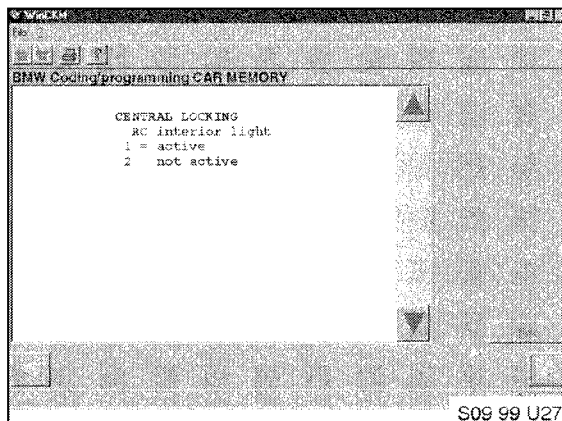


## Central Locking System RC (Remote Control) interior light

The interior light is switched on if the car is locked /unlocked using remote control, when selected active. Factory setting is “active”.

To select the option, highlight the line

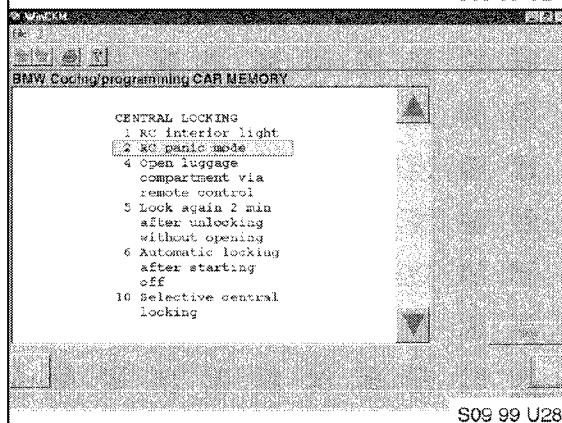
and then press “continue”, green arrow button (lower, right corner of the screen).



### Central Locking System RC (Remote Control) interior light

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

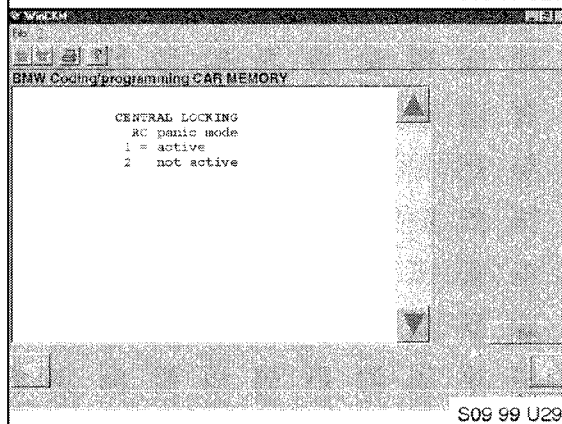


### Central Locking System RC (Remote Control) panic mode

Pressing and holding the trunk release button on the key with the alarm activated, will trigger panic mode, when option is active. Factory setting is “active”.

To select the option, highlight the line

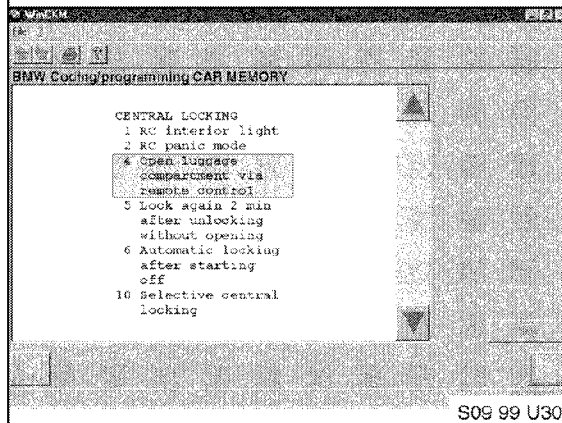
and then press “continue”, green arrow button (lower, right corner of the screen).



### Central Locking System RC (Remote Control) panic mode

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

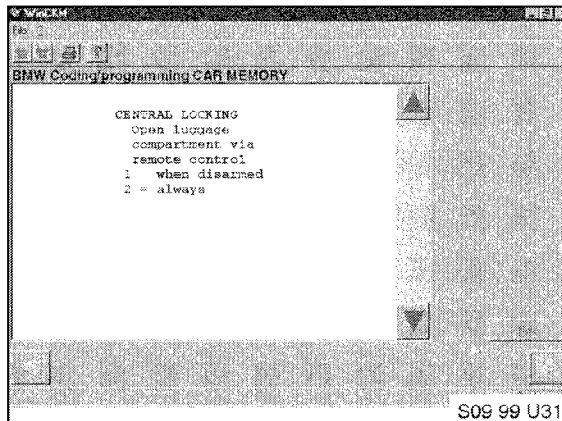


### Central Locking System Open luggage compartment via remote control

Trunk can only be opened with the corresponding button on the key with remote control, when vehicle is unlocked (alarm disabled), or at any time (always). Factory setting is “always”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

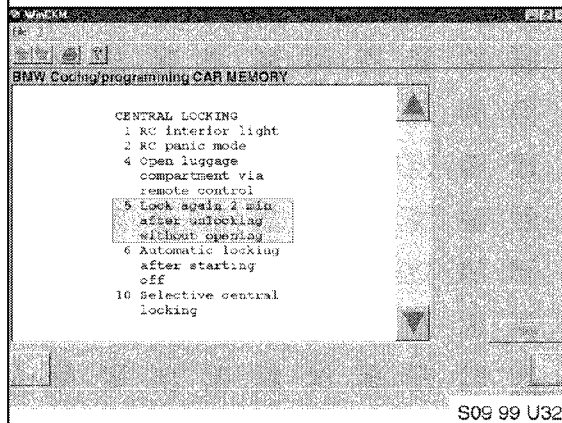


### Central Locking System

#### Open luggage compartment via remote control

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



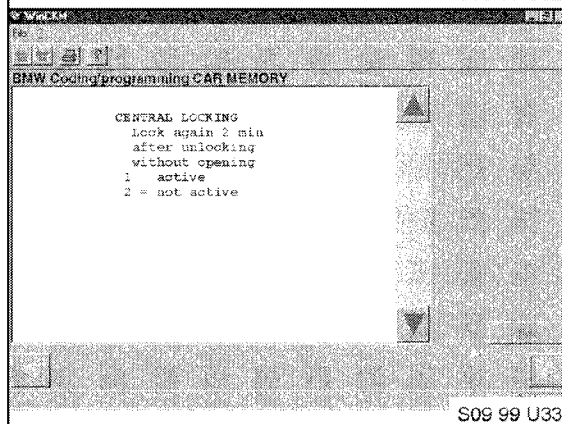
### Central Locking System

#### Lock again 2 min after unlocking without opening

Vehicle is going to be locked again (and alarm armed), if the doors or trunk are not being opened during the 2-minute period after unlocking. Factory setting is “not active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

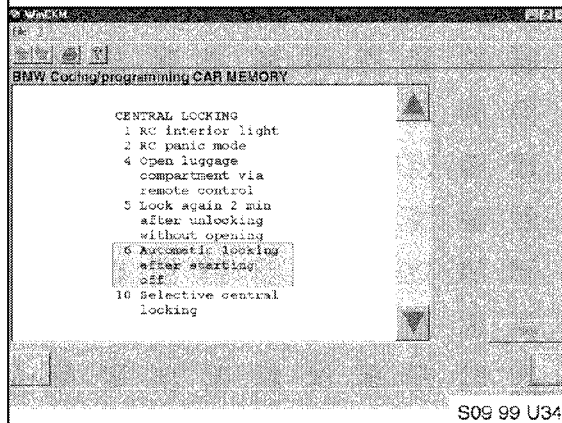


### Central Locking System

#### Lock again 2 min after unlocking without opening

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



### Central Locking System

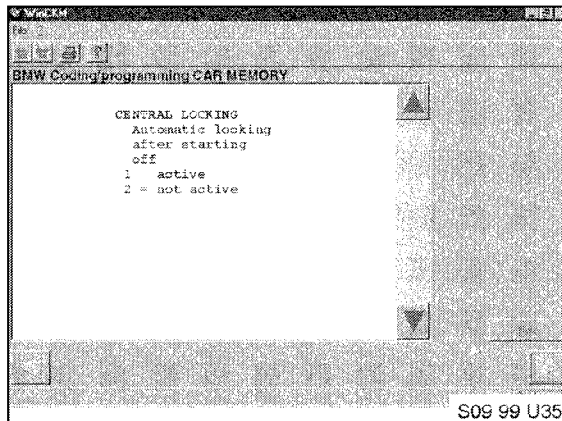
#### Automatic locking after starting off

All locks are going to be automatically locked after the speed exceeds 5 mph. Option selectable for 5 and 7 series vehicles (E39, E38) prior to 9/98 production.

For vehicles from 9/98 production, selecting that option in “Car Memory” activates the function only when locks are opened manually (key in the lock). For activation with remote control go to “Key Memory”.

To select the option, highlight the line and then press “continue”, green arrow button.





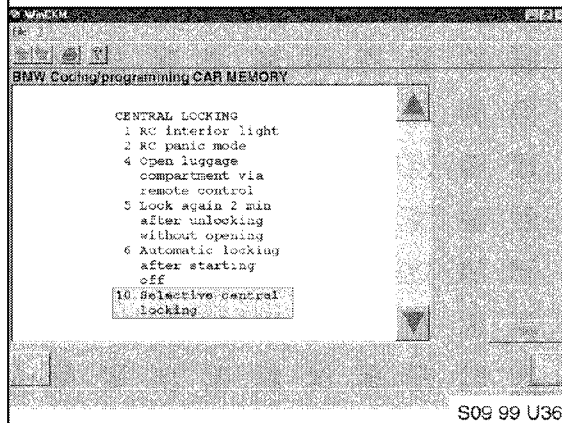
### Central Locking System

#### Automatic locking after starting off

Factory setting is “not active”.

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

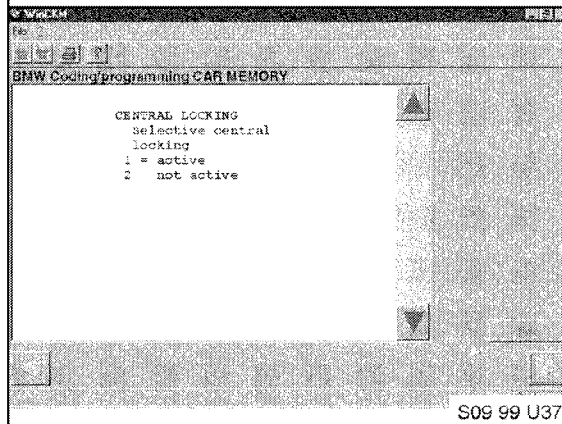


### Central Locking System

#### Selective central locking

When active, the first press on the “unlock” key button opens only drivers door. Second press unlocks all other locks. Option selectable for 5 and 7 series vehicles (E39, E38) prior to 9/98 production. For vehicles from 9/98 production, selecting that option in Car Memory activates the function only when locks are opened manually (key in the lock). For activation with remote control, go to “Key Memory”.

To select the option, highlight the line and then press “continue”, green button.



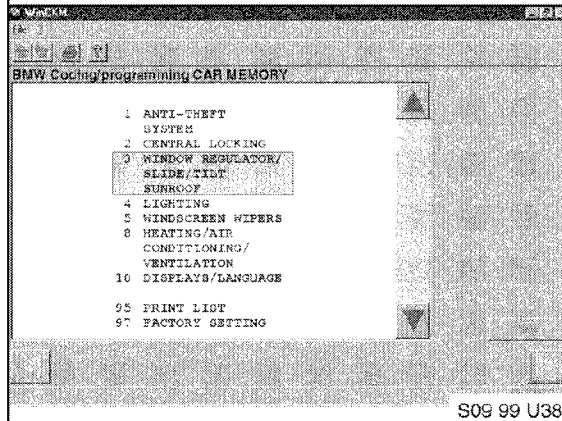
### Central Locking System

#### Selective central locking

Factory setting is “active”.

To select one of the options, highlight the line

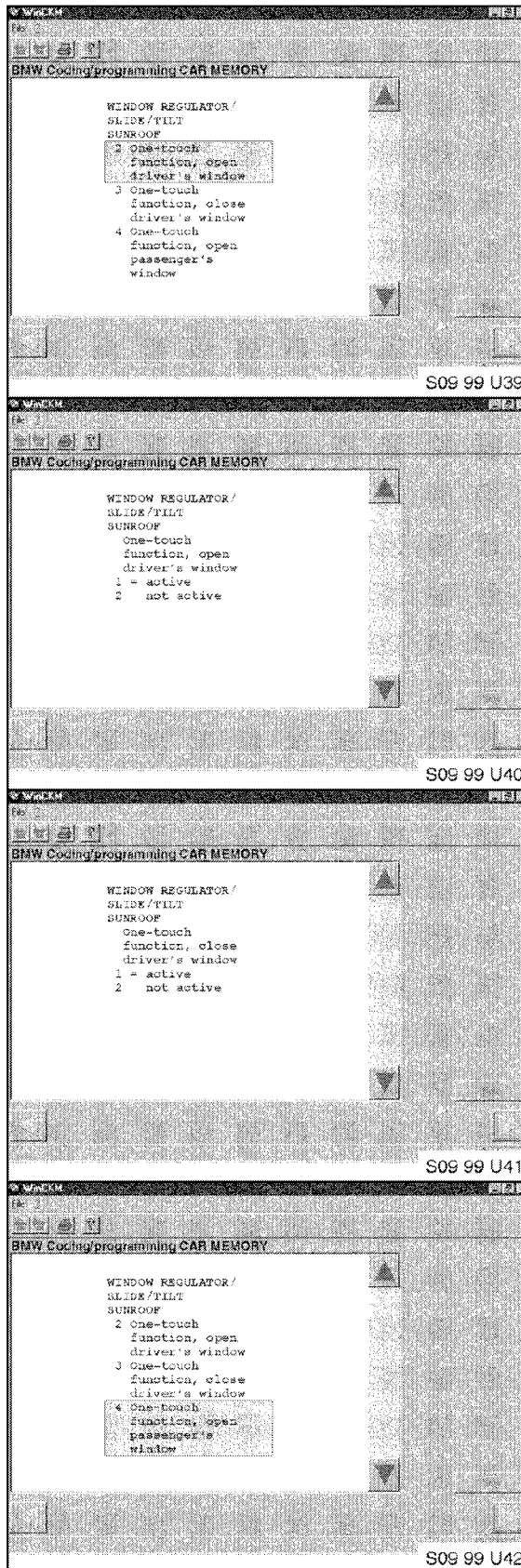
and then press “continue”, green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof One-touch function, open driver's window

Single strike of window switch in “down” direction, opens the window completely when function is activated. Factory setting is “active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Window Regulator/Slide/Tilt Sunroof One-touch function, open driver's window

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Window Regulator/Slide/Tilt Sunroof One-touch function, close driver's window

Single strike of window switch in “up” direction, closes the window completely when function is activated. Factory setting is “active”.

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

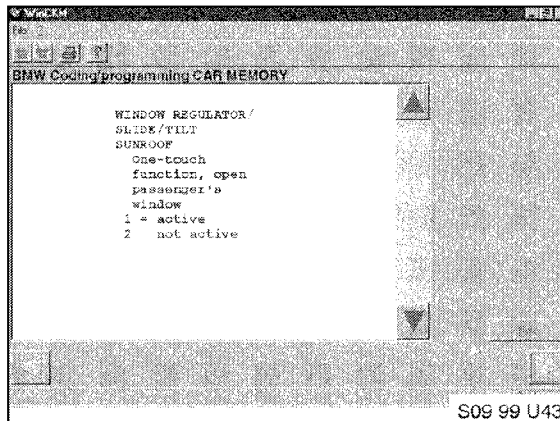
### Window Regulator/Slide/Tilt Sunroof One-touch function, open passenger's window

Single strike of window switch in “up” direction, opens the window completely when function is activated. Factory setting is “active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

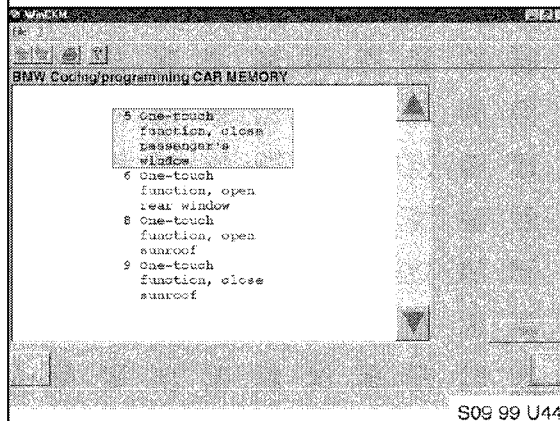




### Window Regulator/Slide/Tilt Sunroof One-touch function, open passenger's window

To select one of the options, highlight the line

and then press "continue", green arrow button (lower, right corner of the screen).

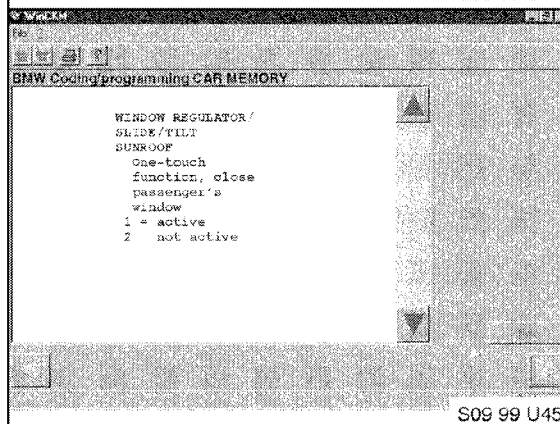


### Window Regulator/Slide/Tilt Sunroof One-touch function, close passenger's window

Single strike of window switch in "up" direction, closes the window completely when function is activated. Factory setting is "active".

To select the option, highlight the line

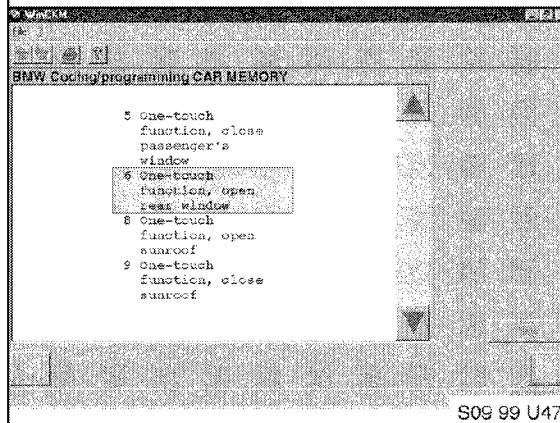
and then press "continue", green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof One-touch function, close passenger's window

To select one of the options, highlight the line

and then press "continue", green arrow button (lower, right corner of the screen).

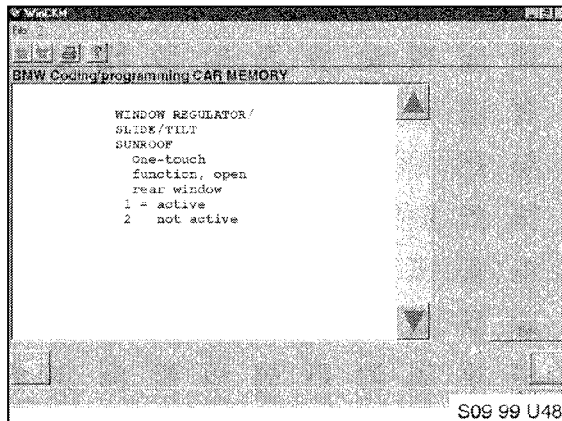


### Window Regulator/Slide/Tilt Sunroof One-touch function, open rear window

Single strike of window switch in "down" direction, opens the window completely when function is activated. Factory setting is "active".

To select the option, highlight the line

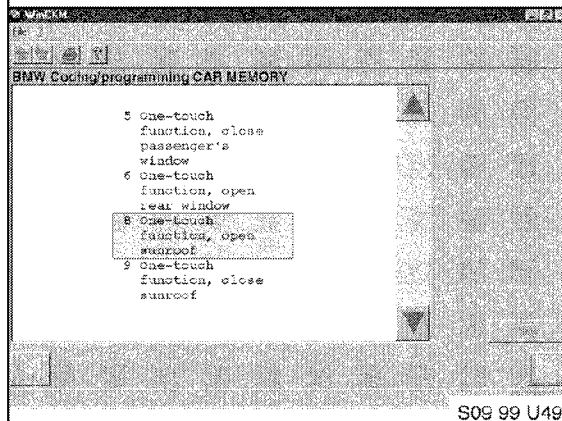
and then press "continue", green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof One-touch function, open rear window

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

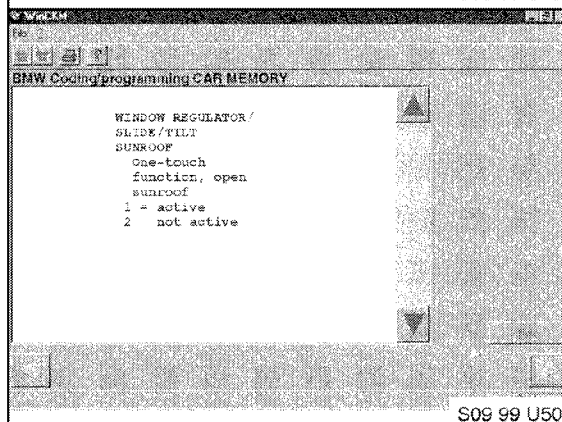


### Window Regulator/Slide/Tilt Sunroof One-touch function, open sunroof

Single strike of sunroof switch in “open” direction, opens the sunroof completely when function is activated. Factory setting is “active”.

To select the option, highlight the line

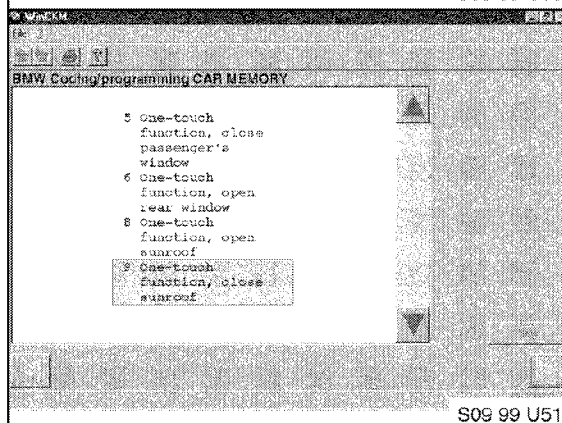
and then press “continue”, green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof One-touch function, open sunroof

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

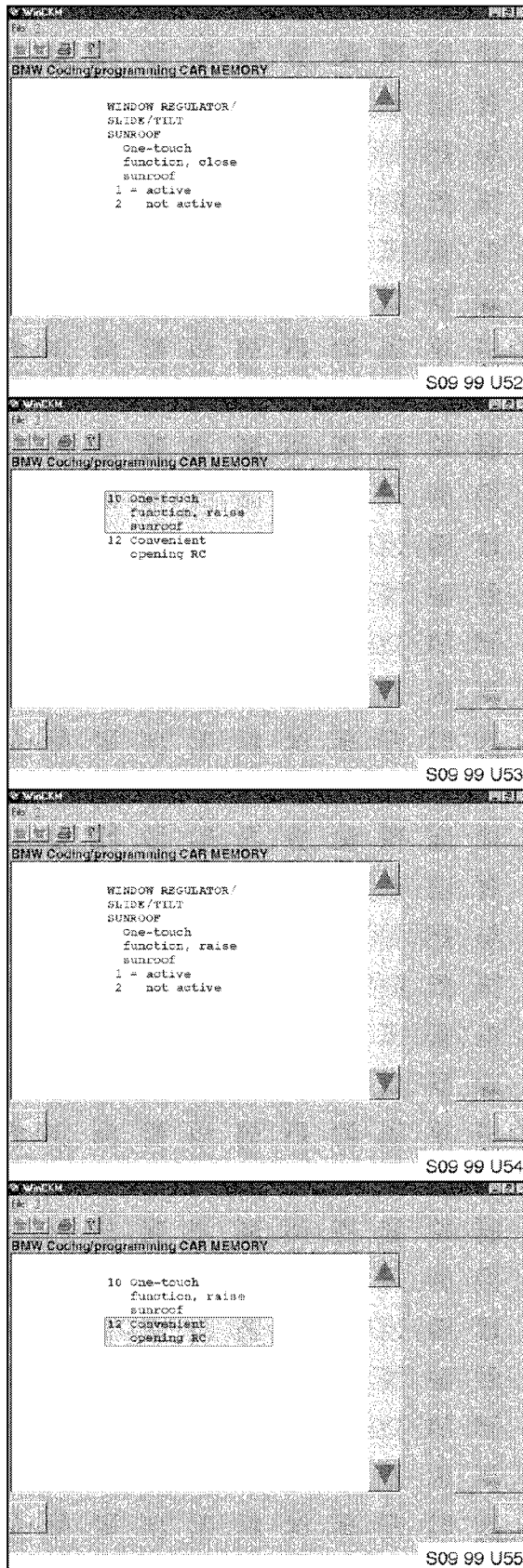


### Window Regulator/Slide/Tilt Sunroof One-touch function, close sunroof

Single strike of sunroof switch in “close” direction, closes the sunroof completely when function is activated. Factory setting is “active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof One-touch function, close sunroof

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Window Regulator/Slide/Tilt Sunroof One-touch function, raise sunroof

Single strike of sunroof switch in “tilt” direction, raise the sunroof completely when function is activated. Factory setting is “active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Window Regulator/Slide/Tilt Sunroof One-touch function, raise sunroof

To select one of the options, highlight the line

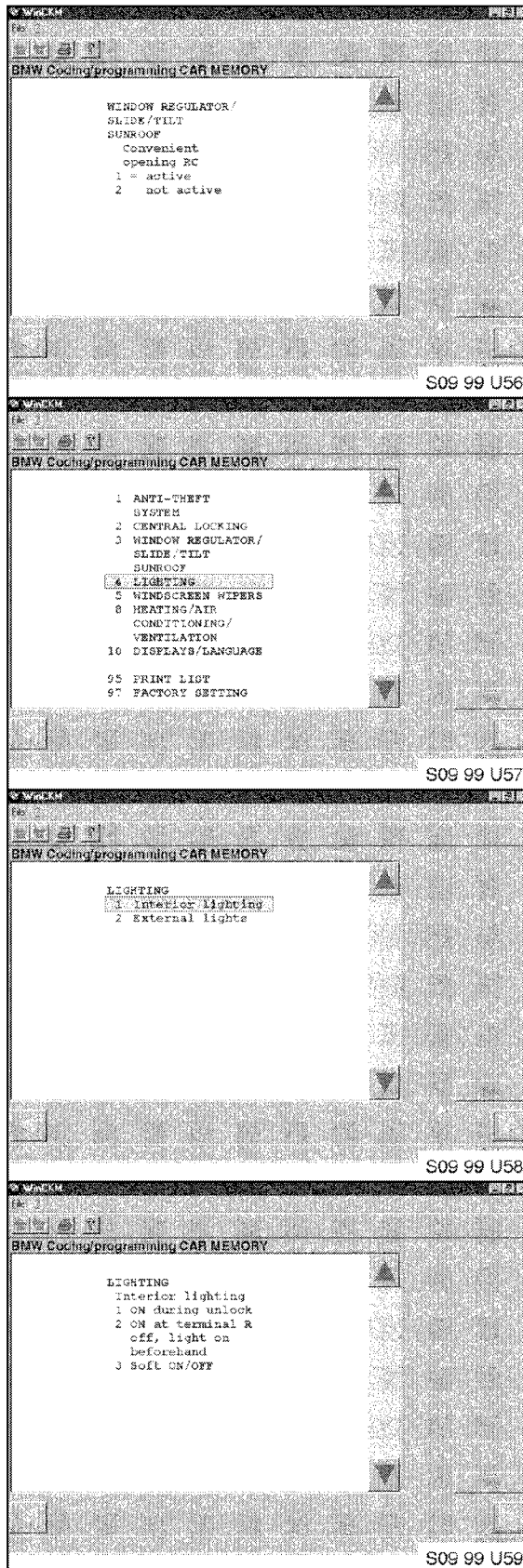
and then press “continue”, green arrow button (lower, right corner of the screen).

### Window Regulator/Slide/Tilt Sunroof Convenient opening RC (Remote Control)

Windows and sunroof can be opened by pressing and holding the “unlock” button on the key, when function active. Factory setting is “active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



### Window Regulator/Slide/Tilt Sunroof Convenient opening RC (Remote Control)

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Lighting

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Lighting

There are two selection in that category:

### Interior Lightning and Exterior Lights

To select one of the options, highlight the line

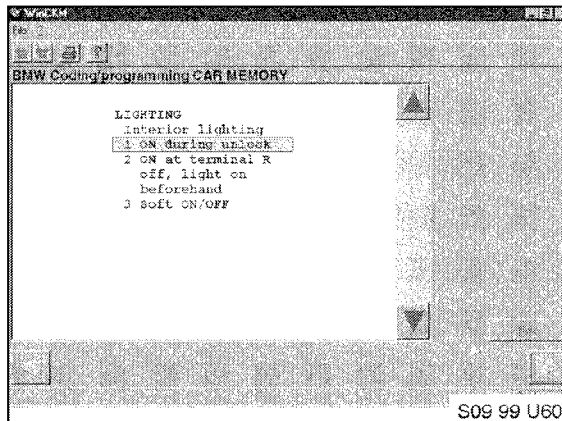
and then press “continue”, green arrow button (lower, right corner of the screen).

### Lighting Interior Lightning

Following choices are selectable:

1. ON during unlock
2. ON at terminal R off, light on beforehand
3. Soft ON/OFF

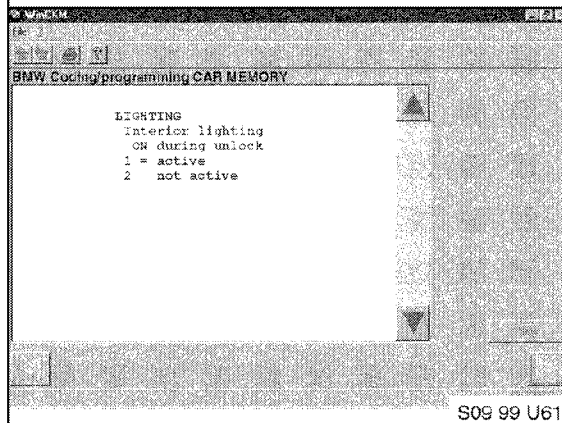
To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



### Lighting Interior Lightning ON during unlock

The interior light is turned on when the vehicle is mechanically unlocked (if function is “active”). Interior light is always switched on when using remote control. Factory setting is “active”. To select the option, highlight the line

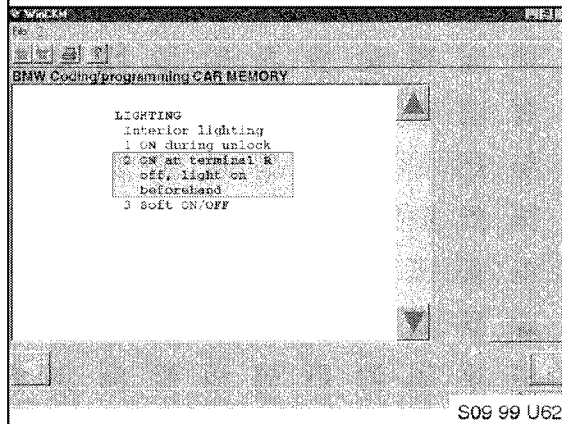
and then press “continue”, green arrow button (lower, right corner of the screen).



### Lighting Interior Lightning ON during unlock

To select one of the options, highlight the line

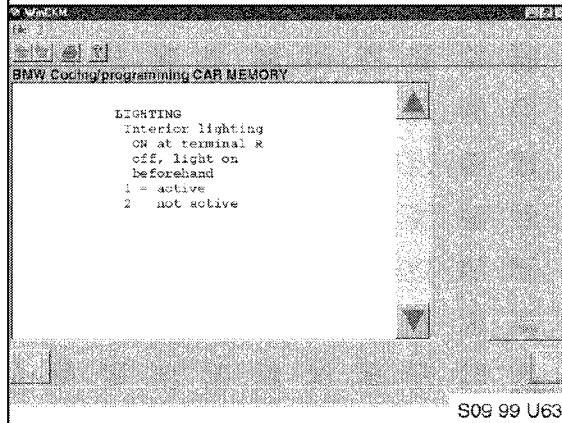
and then press “continue”, green arrow button (lower, right corner of the screen).



### Lighting Interior Lightning ON at terminal R off, light on beforehand

The interior light automatically turns on when ignition is switched off after driving with headlights on, when function is active. Factory setting is active. To select the option, highlight the line

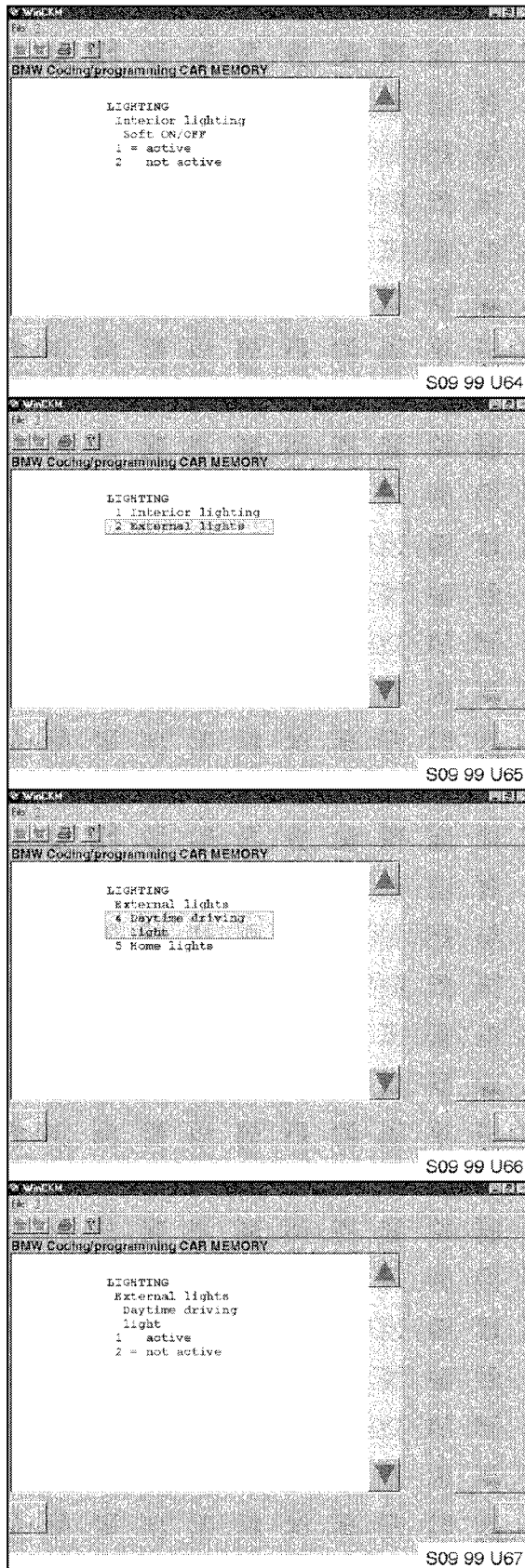
and then press “continue”, green arrow button (lower, right corner of the screen).



### Lighting Interior Lightning ON at terminal R off, light on beforehand

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



### Lighting Interior Lightning Soft ON/OFF

The interior light is softly dimmed when turned on/off, when function is active. Factory setting is active.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

### Lighting External Lights

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

### Lighting External Lights

Following choices are selectable:

1. **Daytime driving lights**
2. **Home lights**

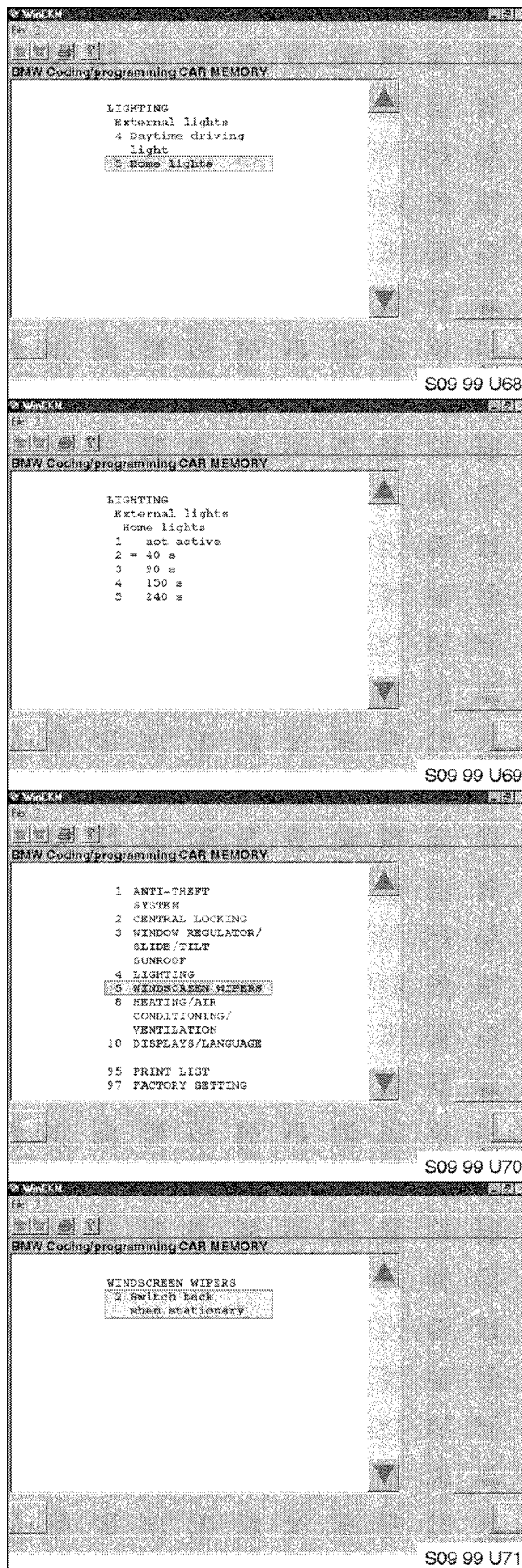
To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

### Lighting External Lights Daytime driving lights

Daytime driving lights are turned on when the ignition switch is turned on (if function is active). Factory setting is “not active”.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).





## Lighting

### External Lights

#### Home Lights

When the ignition is turned off, and high beams switch is activated momentarily (high beams “flash”), the driving lights are turned on for 40 seconds (if active). The time duration is programmable for 40/90/150/240 seconds on 5, 7, series & X5 vehicles (on 3 series it is set to 40 seconds). Factory setting is “not active”. To select the option, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

## Lighting

### External Lights

#### Home Lights

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

## Windscreen Wipers

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

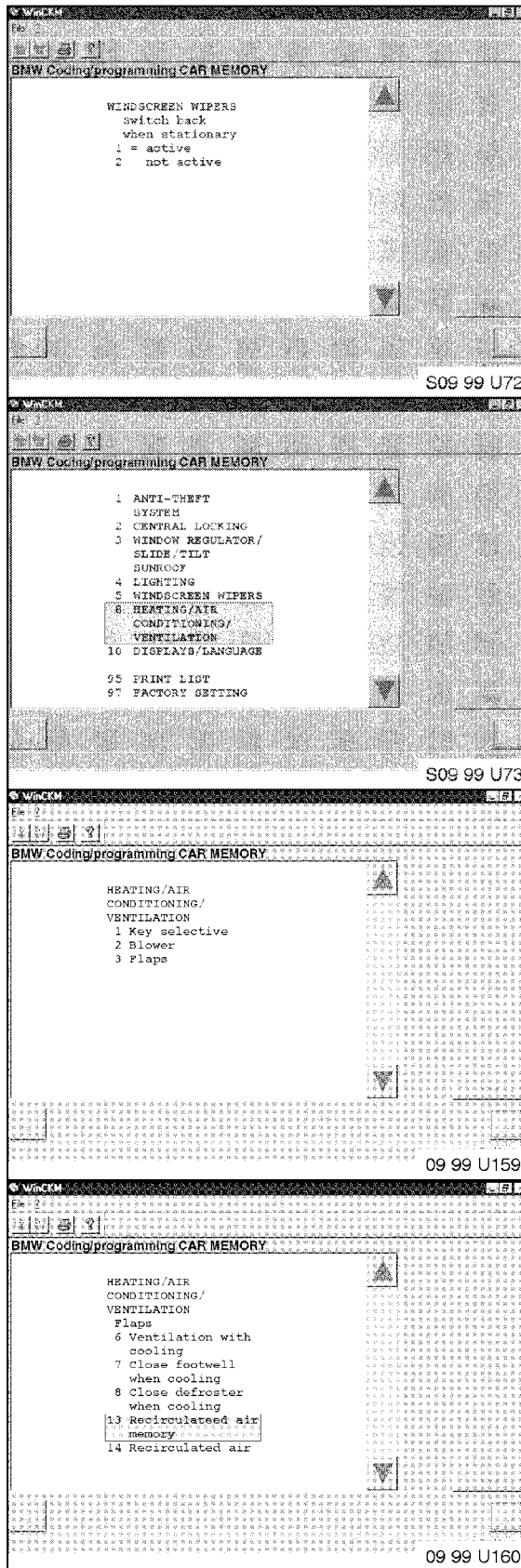
## Windscreen Wipers

### Switch back when stationary

Wipers are switched from speed 1 to intermittent, or from speed 2 to speed 1 when the vehicle comes to stop (if active). Factory setting is “active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



## Windscreen Wipers

### Switch back when stationary

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

## Heating /Air Conditioning/Ventilation

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

## Heating /Air Conditioning/Ventilation

The following selections are available:

- 2 Blower**
- 3 Flaps**

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

## Heating /Air Conditioning/Ventilation

### Flaps

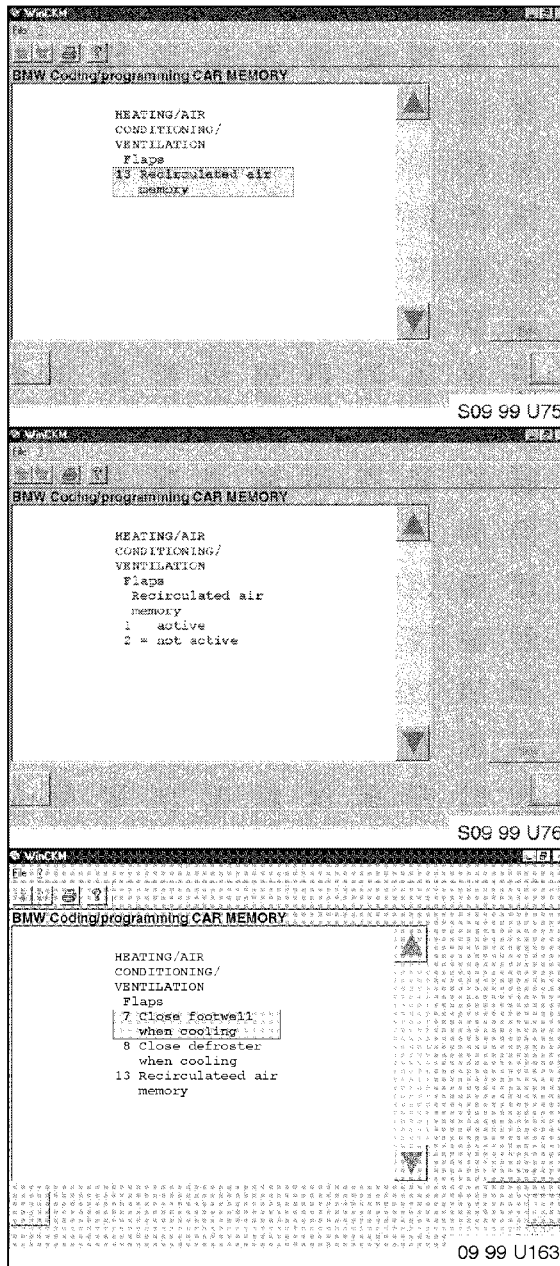
The following selections are possible:

- 6 Ventilation with cooling**
- 7 Close footwell when cooling**
- 8 Close defroster when cooling**
- 13 Recirculated air memory**
- 14 Recirculated air**

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).





### Heating /Air Conditioning/Ventilation Flaps Recirculated air memory

Air recirculation is retained after restarting the engine. Factory setting is “not active”.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

### Heating /Air Conditioning/Ventilation Flaps Recirculated air memory

To select one of the options, highlight the line

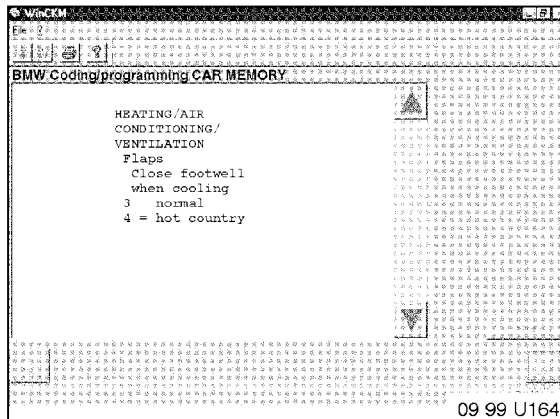
and then press “continue”, green arrow button (lower, right corner of the screen).

### Heating /Air Conditioning/Ventilation Flaps Footwell closed when cooling

Function available only for 7, and 5 (from 9/98 prod.) series vehicles (for 3 series E46, see Key Memory/Heating, AC).

Footwell vents are closed when system is in AUTO mode and cooling (AC on), if feature is active. This setting will enhanced A/C performance, by diverting more cooled air towards center vents.

To select the option highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

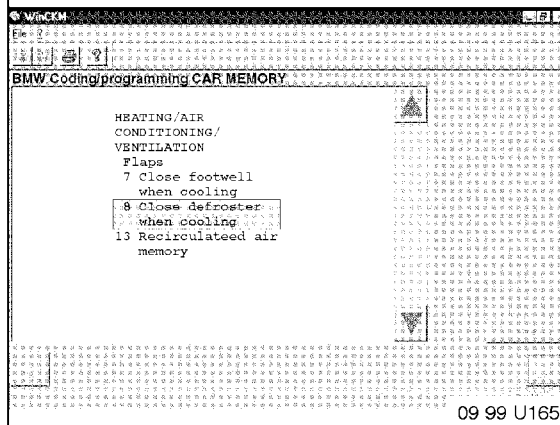


## Heating /Air Conditioning/Ventilation Flaps Footwell closed when cooling

Factory setting is “hot country”.

To deactivate the function (not recommended),  
highlight “normal” line

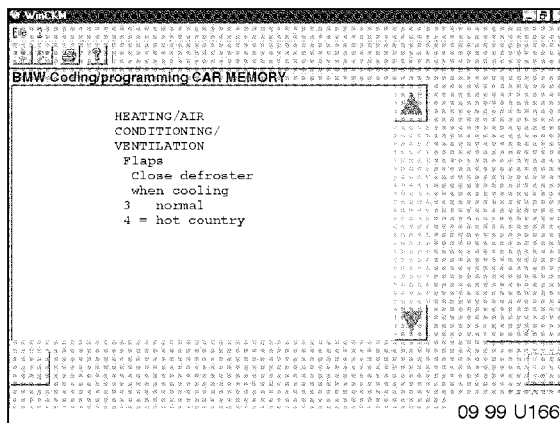
and then press “continue”, green arrow button  
(lower, right corner of the screen).



## Heating /Air Conditioning/Ventilation Flaps Defrost closed when cooling

Function available only for 7, and 5 (from 9/98  
prod.) series vehicles (for 3 series E46, see Key  
Memory/Heating, AC). Defrost vents are closed  
when system is in AUTO mode and cooling (AC  
on), if feature is active. This setting will enhance  
A/C performance, by diverting more cooled air  
towards center vents.

To select the option highlight the line  
and then press “continue”, green arrow button  
(lower, right corner of the screen).

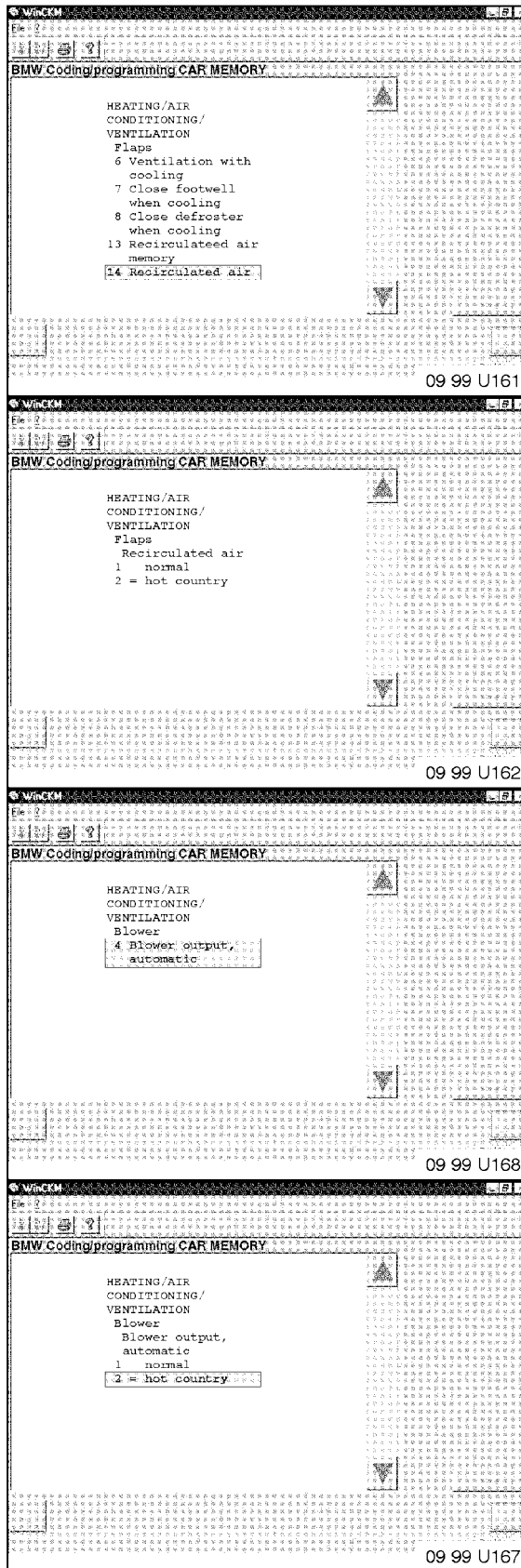


## Heating /Air Conditioning/Ventilation Flaps Defrost closed when cooling

Factory setting is “hot country”.

To deactivate the function (not recommended),  
highlight “normal” line

and then press “continue”, green arrow button  
(lower, right corner of the screen).



## Heating /Air Conditioning/Ventilation Flaps Recirculated air

Interior air is recirculated when cooling in “hot country” setting to enhanced A/C performance (7 series vehicles only).

To select the option highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

## Heating /Air Conditioning/Ventilation Flaps Recirculated air

Factory setting is “hot country”.

To deactivate the option (not recommended), highlight “normal” line

and then press “continue”, green arrow button (lower, right corner of the screen).

## Heating /Air Conditioning/Ventilation Blower Blower output automatic

Function enhances blower speed output in cooling mode, when “hot country” setting is selected (5 series only).

To select the option, highlight the line

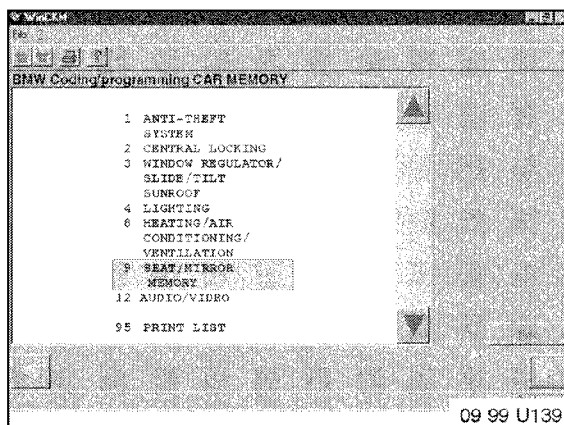
and then press “continue”, green arrow button (lower, right corner of the screen).

## Heating /Air Conditioning/Ventilation Blower Blower output automatic

Factory setting is “hot country”.

To deactivate feature (not recommended), highlight “normal” line

and then press “continue”, green arrow button (lower, right corner of the screen).



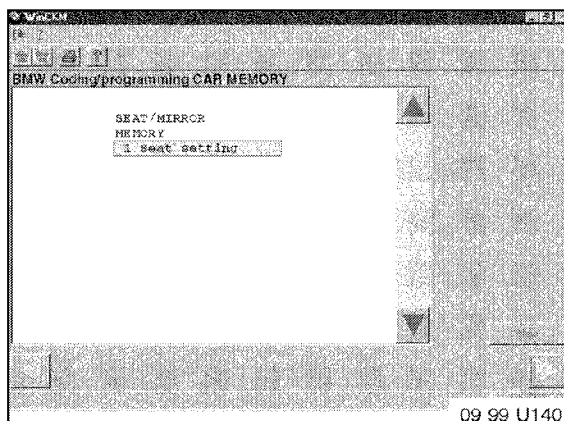
## CAR MEMORY

### Seat/Mirror Memory

Function available on vehicles from '99 model year on (mirror memory on 3 series-E46 from 9/99 production).

The automatic seat adjustment is activated by a specific key being used (vehicle has to be equipped with seat memory). Setting in Car Memory defines when the actual adjustment starts: on pressing the unlock button on remote key, or when opening the door.

To select the option, highlight the line and then press "continue", green arrow button.



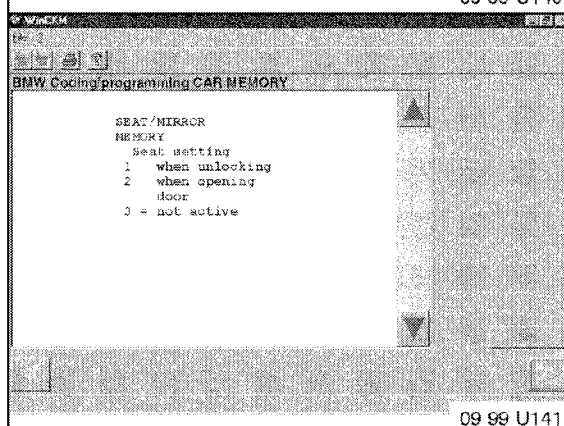
### Seat/Mirror Memory

The following selection is available:

#### Seat setting

To select the option, highlight the line

and then press "continue", green arrow button (lower, right corner of the screen).



### Seat/Mirror Memory

#### Seat setting

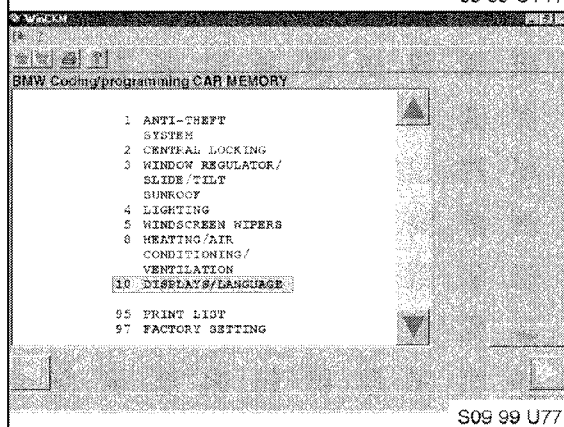
The following choices are available:

1. when unlocking (with remote control)
2. when opening door
3. not active

Factory setting is "not active".

To select one of the options, highlight the line

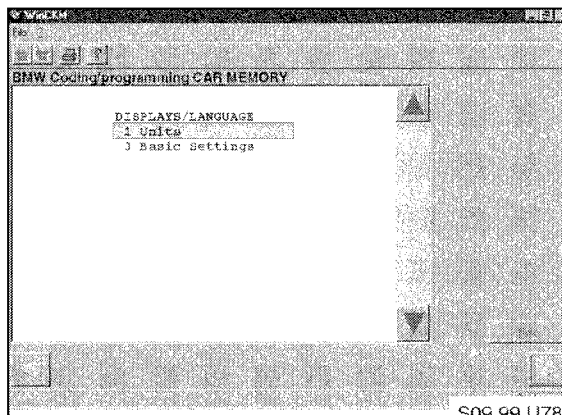
and then press "continue", green arrow button (lower, right corner of the screen).



### Display/Language

To select the option, highlight the line

and then press "continue", green arrow button (lower, right corner of the screen).



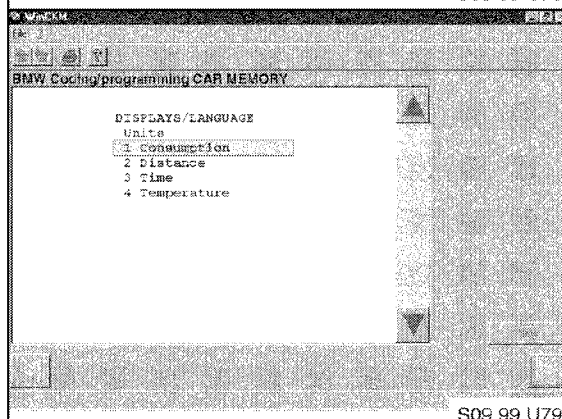
## Display/Language

The following choices are selectable:

1. **Units**
2. **Basic Settings**

To select the option, highlight the

and then press “continue”, green arrow button (lower, right corner of the screen).



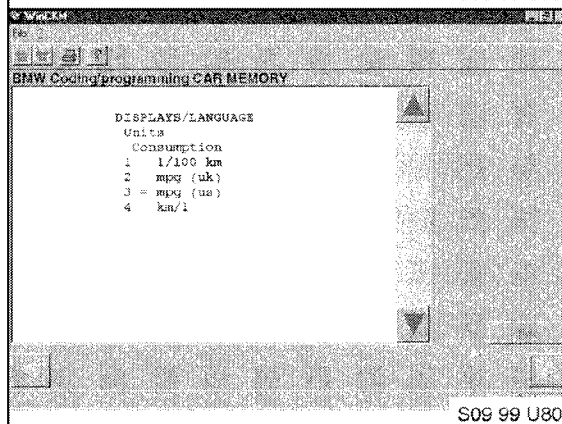
## Display/Language

### Units

The following choices are selectable:

1. **Consumption**
2. **Distance**
3. **Time**
4. **Temperature**

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



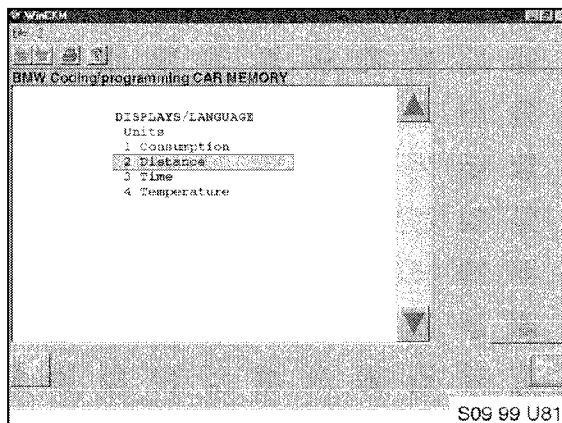
## Display/Language/Units

### Consumption

These selections will change fuel consumption display units in: Instrument Cluster, Board Monitor, or Multifunctional Information Display (MID). The following choices are selectable:

1. **l/100 km**
2. **mpg (UK)**
3. **mpg (US)**
4. **km/l**

Factory setting is “mpg (US). To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



## Display/Language

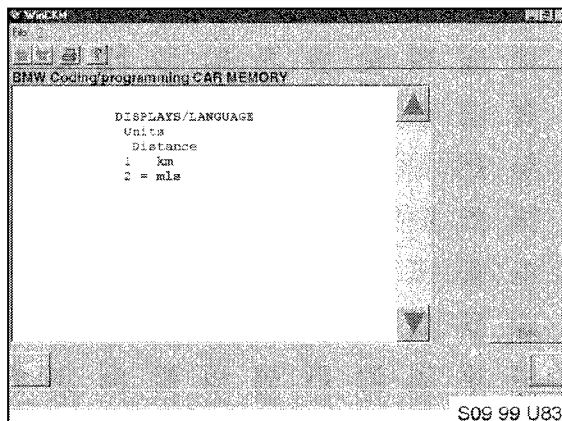
### Units

### Distance

That selection will change distance display units in: Instrument Cluster, Board Monitor, or Multifunctional Information Display (MID).

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



## Display/Language

### Units

#### Distance

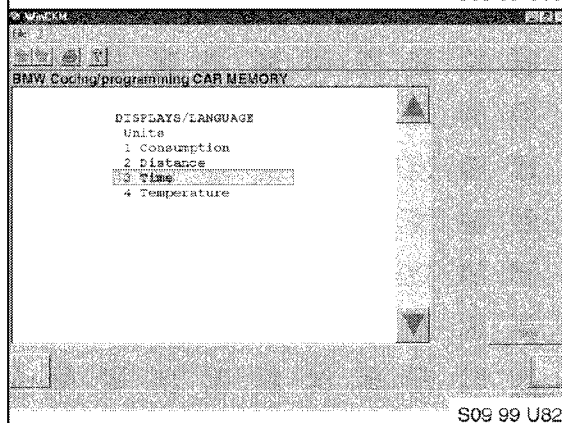
The following choices are selectable:

1. km
2. mls

Factory setting is “mls”.

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



## Display/Language

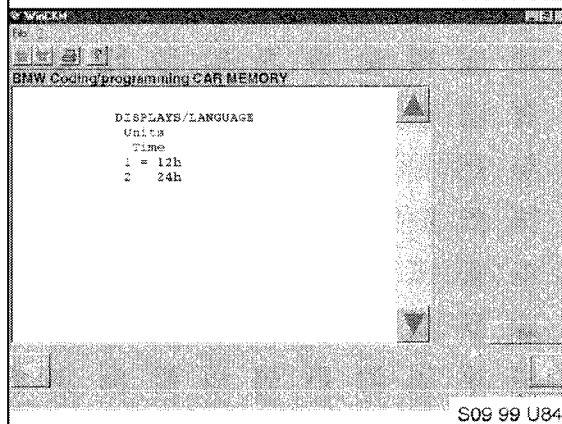
### Units

#### Time

That selection will change time display format in: Instrument Cluster, Board Monitor, or Multifunctional Information Display (MID).

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



## Display/Language

### Units

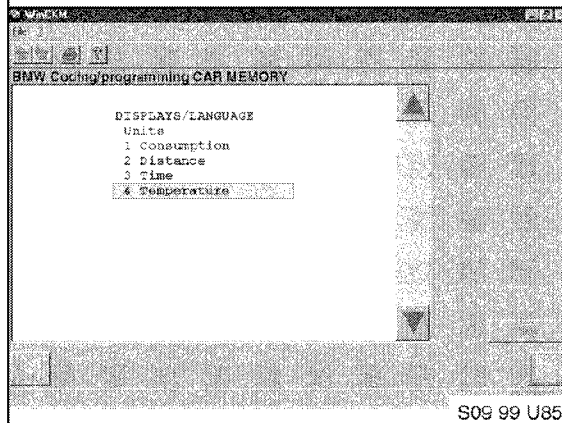
#### Time

The following choices are selectable:

1. 12h
2. 24h

Factory setting is “12h” format.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



## Display/Language

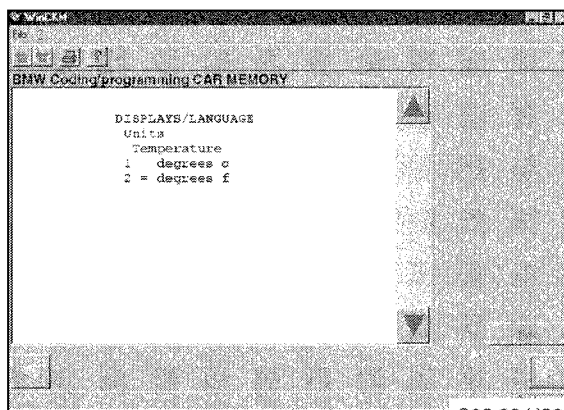
### Units

#### Temperature

That selection will change temperature display unit in: Instrument Cluster, Board Monitor, or Multifunctional Information Display (MID).

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



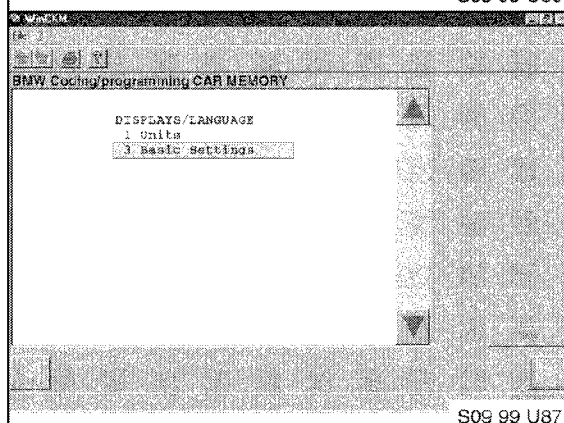
## Display/Language Units Temperature

The following choices are selectable:

1. degrees C
2. degrees F

Factory setting is “degrees F”.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

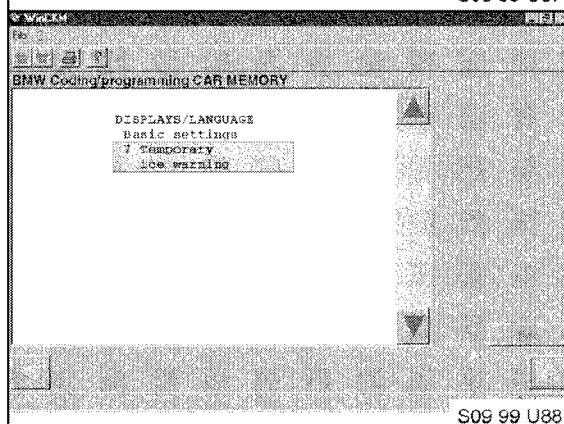


## Display/Language Units Basic Settings

That feature pertains to acoustic warning when temperature drops below 36 degrees F.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



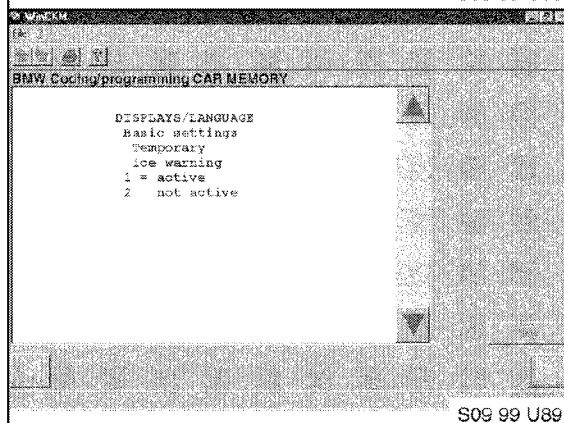
## Display/Language Units Basic Settings Temporary ice warning

Audible warning is activated when temperature reaches 36 degrees F (if feature active).

Factory setting is “active”.

To select the option, highlight the line

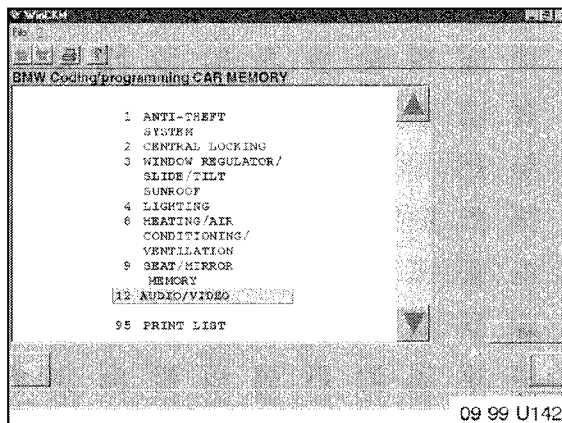
and then press “continue”, green arrow button (lower, right corner of the screen).



## Display/Language Units Basic Settings Temporary ice warning

To select one of the options, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).

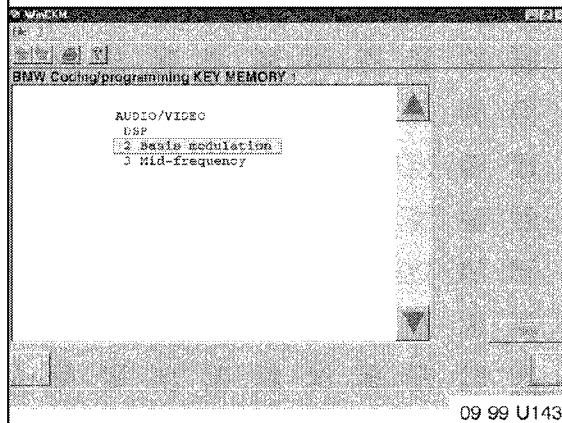


## Audio/Video

Selection available only on 5, and 7 series vehicles (E39, and E38) from '99 model year equipped with hi-fi DSP amplifier.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).



## Audio/Video

The following options are available:

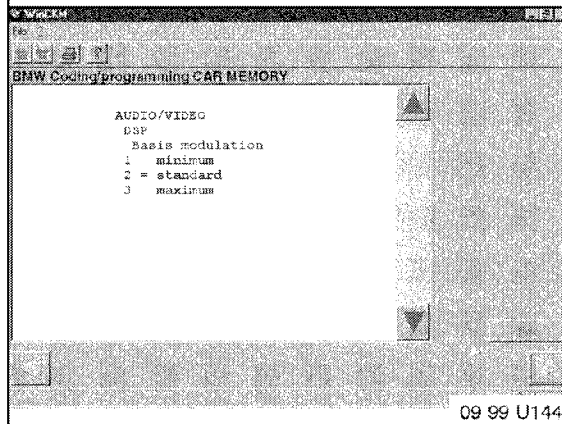
### DSP

**2 Basic Modulation**

**3 Mid-frequency**

Above option allows to customize to some extend, audio level and mid frequency range of audio system.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



## Audio/Video

### DSP

#### Basic Modulation

The following choices are available:

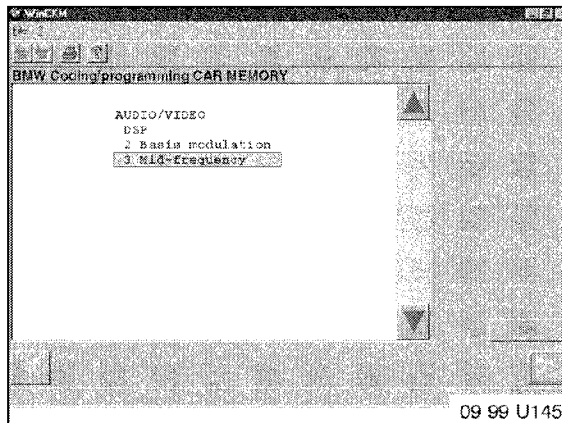
**1. minimum**

**2. standard**

**3. maximum**

By selecting one of the options, the base audio level can be increased or decreased. Factory setting is “standard”.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).



## Audio/Video

### DSP

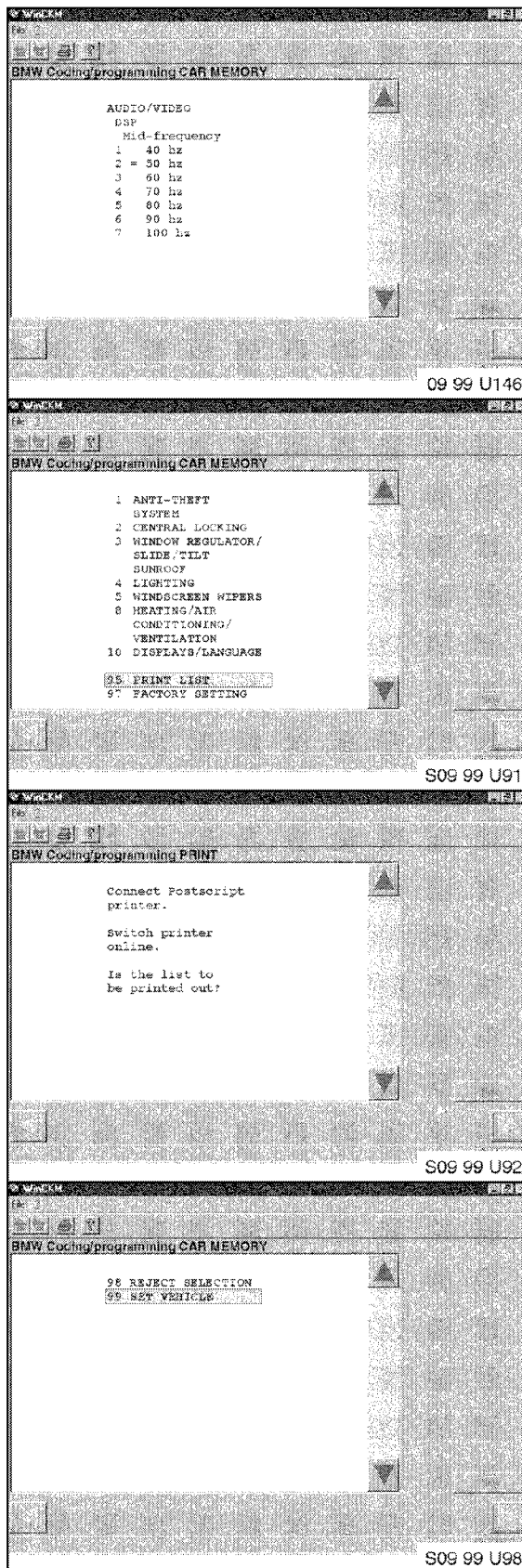
#### Mid-frequency

By selecting the option, the median frequency level of DSP amplifier can be shifted towards lower, or higher frequencies.

To select the option, highlight the line

and then press “continue”, green arrow button (lower, right corner of the screen).





## Audio/Video DSP Mid-frequency

The following mid-frequencies are selectable:

**40 Hz, 50Hz, 60 Hz, 70 Hz,  
80 Hz, 90 Hz, 100 Hz**

The factory setting is “50 Hz”.

To select one of the options, highlight the line and then press “continue”, green arrow button (lower, right corner of the screen).

**Important:** Due to the variations in hardware and software of the vehicles, it is recommended that “Print List” is selected prior and after programming. “Print List” will give an overview of the available Car and Key Memory options for that specific vehicle.

In order to print the list of selections, highlight:

**95 Print List**

and then press “continue”, green arrow button (lower, right corner of the screen).

Follow the instructions, connect the printer to the computer

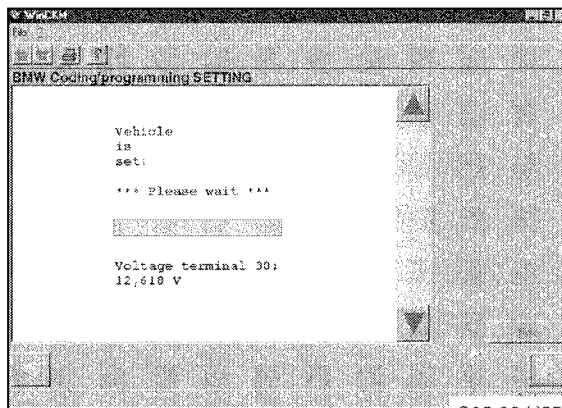
and then press “continue”, green arrow button (lower, right corner of the screen).

When all of the required “Car Memory” configuration changes are entered, scroll down to the bottom of the main menu, and select:

**99 Set Vehicle**

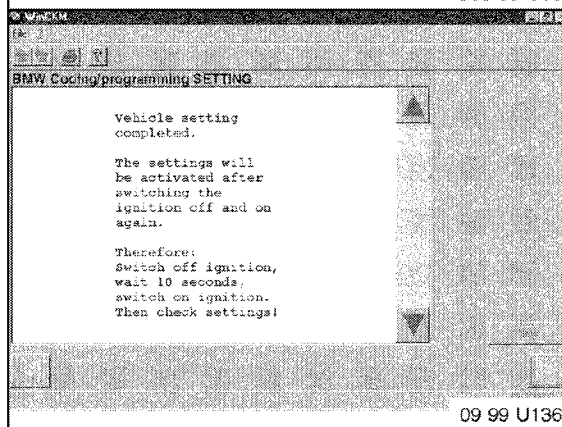
and then press “continue”, green arrow button (lower, right corner of the screen).

After a moment, all configuration changes are being displayed. Please, check the displayed list against the owner’s selection sheet to make sure that all of the choices are included.



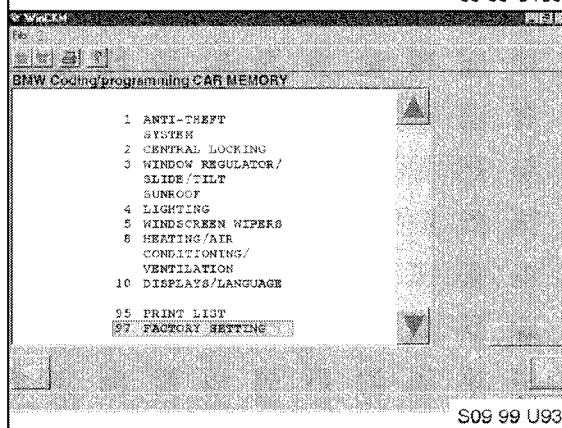
To continue, press the green arrow button. The display will request to cycle the ignition. Turn the ignition switch off, then switch back on.

Press “**Yes**” to continue. A bar progress indicator will be displayed. This portion of the configuration process varies in duration based on the total number of selections.



When the display changes to “**Vehicle setting completed**”, turn the ignition off for 10 seconds and turn it back on again (as prompted by the command).

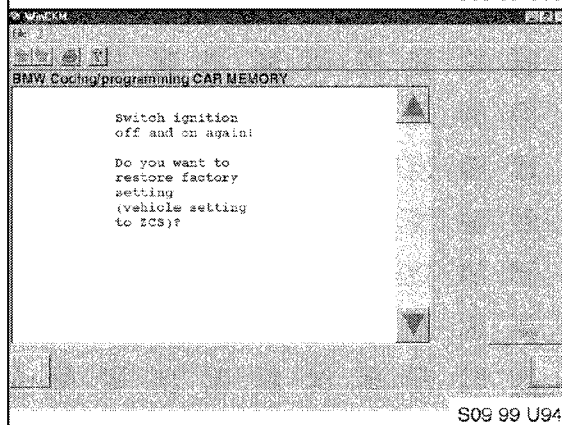
**Verify the configuration changes by activating the new functions.**



If vehicle Car Memory selections have to be restored to the original, factory settings, then highlight:

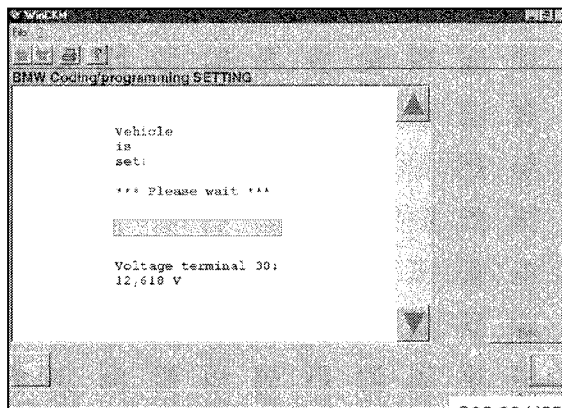
## 97 Factory Settings

and then press “continue”, green arrow button (lower, right corner of the screen).

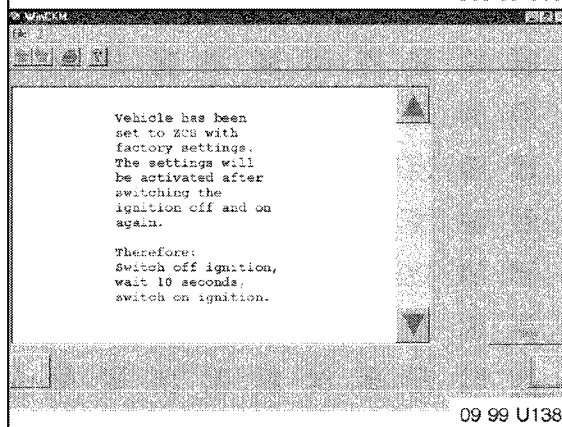


The display will request to cycle ignition for confirmation of selected option.

Turn the ignition switch off, then switch back on. Press “**YES**” button to continue.

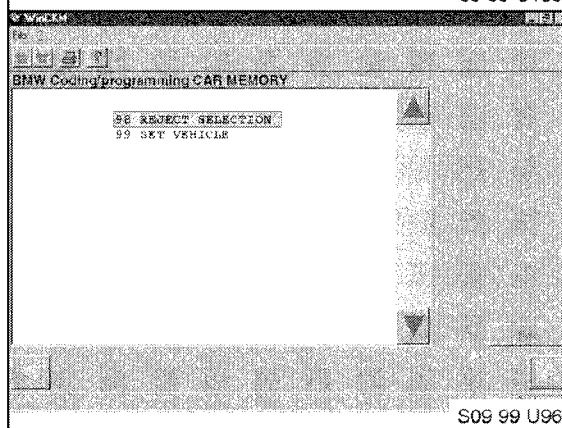


During the configuration a bar progress indicator will be displayed on the screen.



When the display changes to **“Vehicle has been set to ZCS with factory settings”**, turn the ignition off for 10 seconds and turn it back (as prompted by screen command).

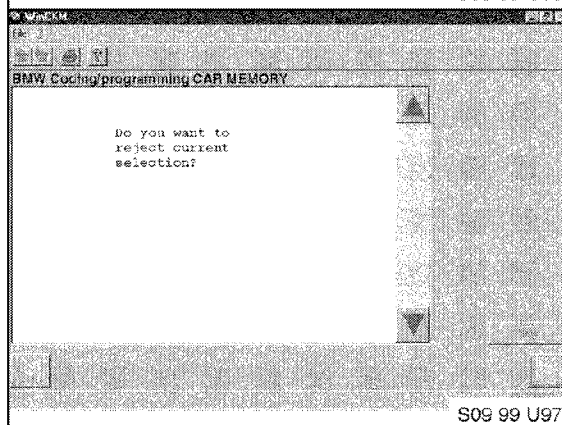
Factory settings for Car Memory has been restored



In case the selected options are not corresponding to the choices from the customer’s selection list, then highlight:

## 98 Reject Selection

and then press “continue”, green arrow button (lower, right corner of the screen).



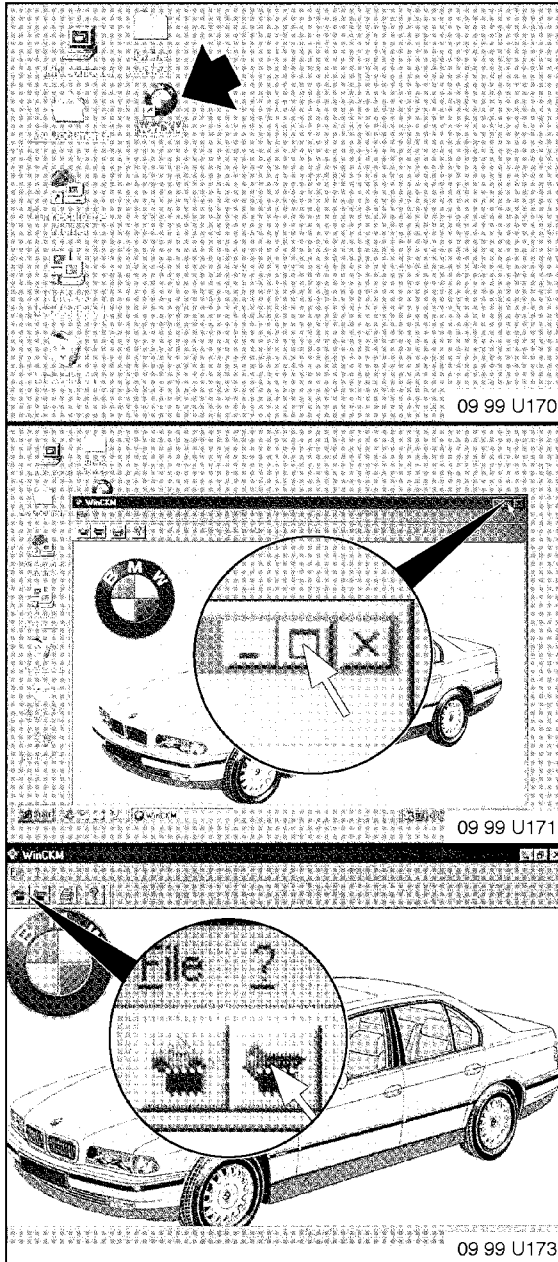
Next screen will ask you to confirm rejection. Acknowledge your selection by pressing:

**“YES”** button.

Selected changes in Car Memory are going to be rejected.

## Attachment #3 to “BMW Car/Key Memory” Programming Procedure

### Detailed Key Memory Programming Procedure All Selectable Options

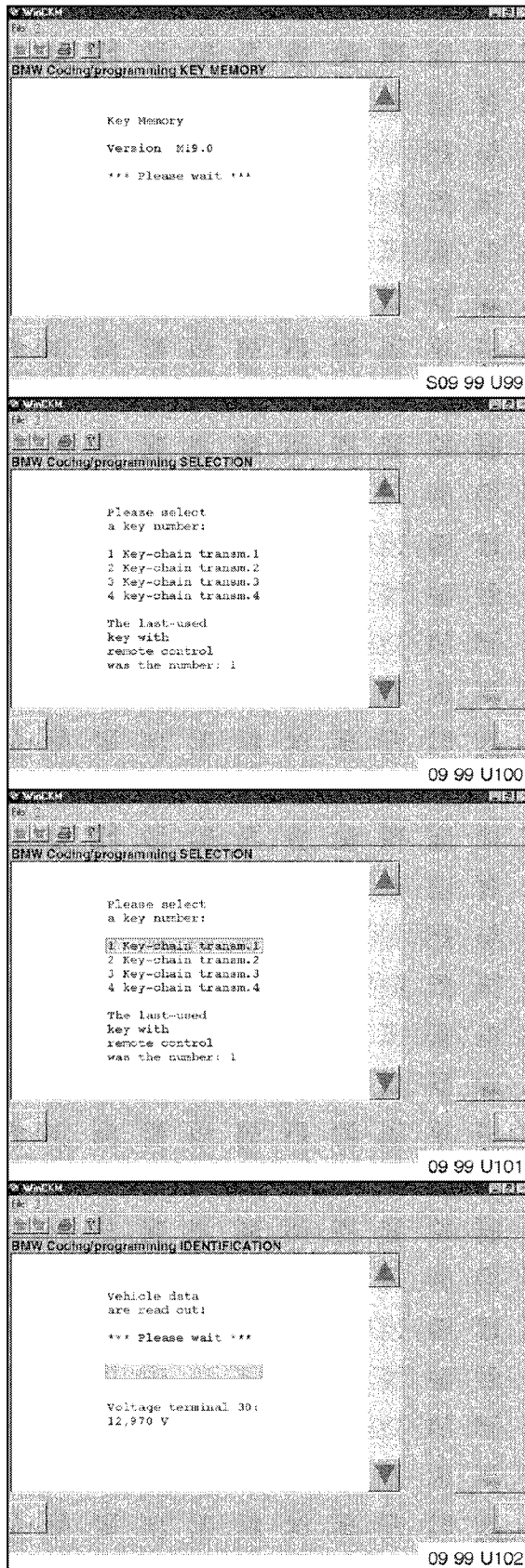


From the Windows 98 Desk Top select (touch the icon using screen pen): **WinCKM**

Maximize **WinCKM** screen by clicking on the middle button in the right, top corner of the window.

From the main menu **WinCKM** screen, select: **“Key Memory”** (click on the second button from the left, in the top corner of the screen - yellow key symbol).

**Vehicles equipped with hi-fi DSP audio system, must have the radio turned “ON”.**  
**Before starting programming, make sure that the trunk lock is not set to “valet” (horizontal) position. Leaving trunk lock in “valet” position can cancel some of the programming options.**



Wait a few seconds, for the next screen to appear.

After a short period of time the system will display a key number selection list (only two remote keys are supplied with new vehicle).

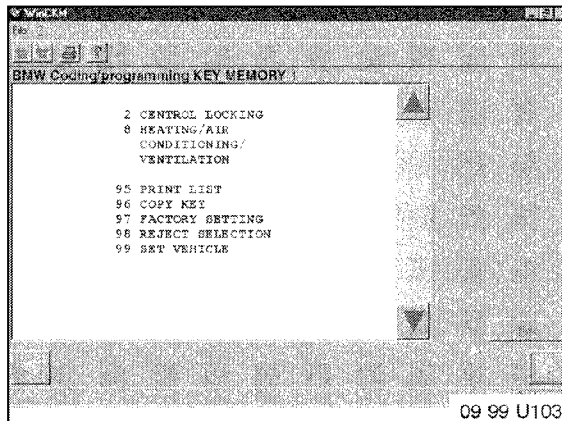
The display also shows the identification number of the last used key (helpful to identify the key later, when labels are misplaced or missing).

Using the owner's selection list, highlight the key for "Key Memory" assignment

and then press "continue", green arrow button to start automatic vehicle identification.

Automatic vehicle identification can take up to 45 seconds.

During that process, a bar progress indicator is displayed on the screen.



After successful vehicle identification, the menu screen will be displayed with a list of all detected control systems capable of “Key Memory” configuration.

**Important:**

The scope of vehicle programming in “Key Memory” depends on the level of equipment installed in the vehicle.

The following two selection are available:

**Central Locking**

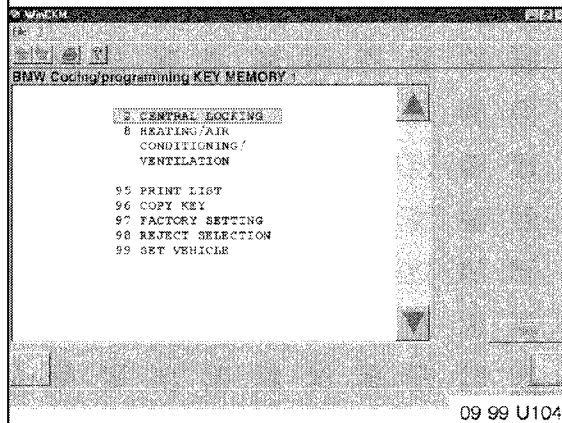
and

**Heating/Air Conditioning/Ventilation**

(3 series, E46 only)

To select the option, highlight the appropriate line

and then press “continue” green arrow button (lower, right corner of the screen).



**Central Locking**

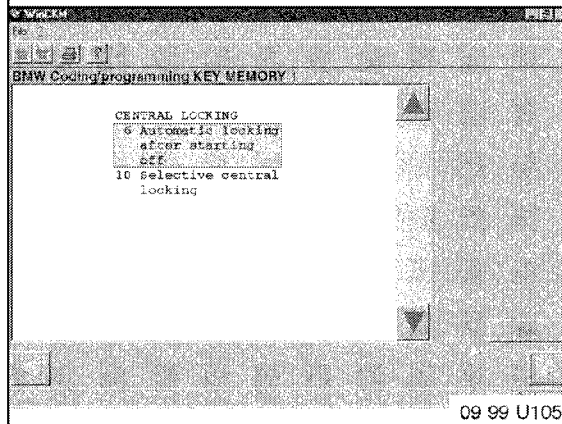
The following options are available:

**6 Automatic locking after starting off**

**10 Selective central locking**

To select one of the options, highlight the appropriate line

and then press “continue” green arrow button (lower, right corner of the screen).



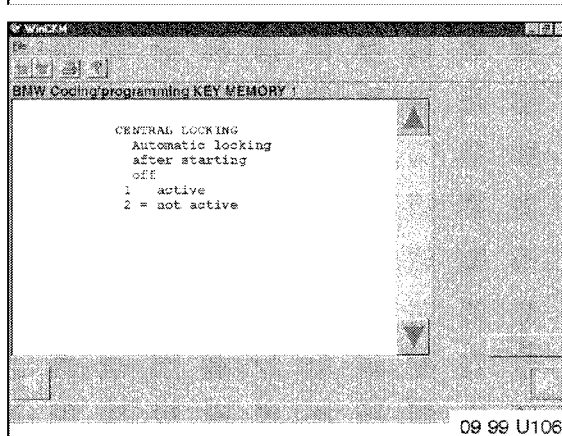
**Central Locking**

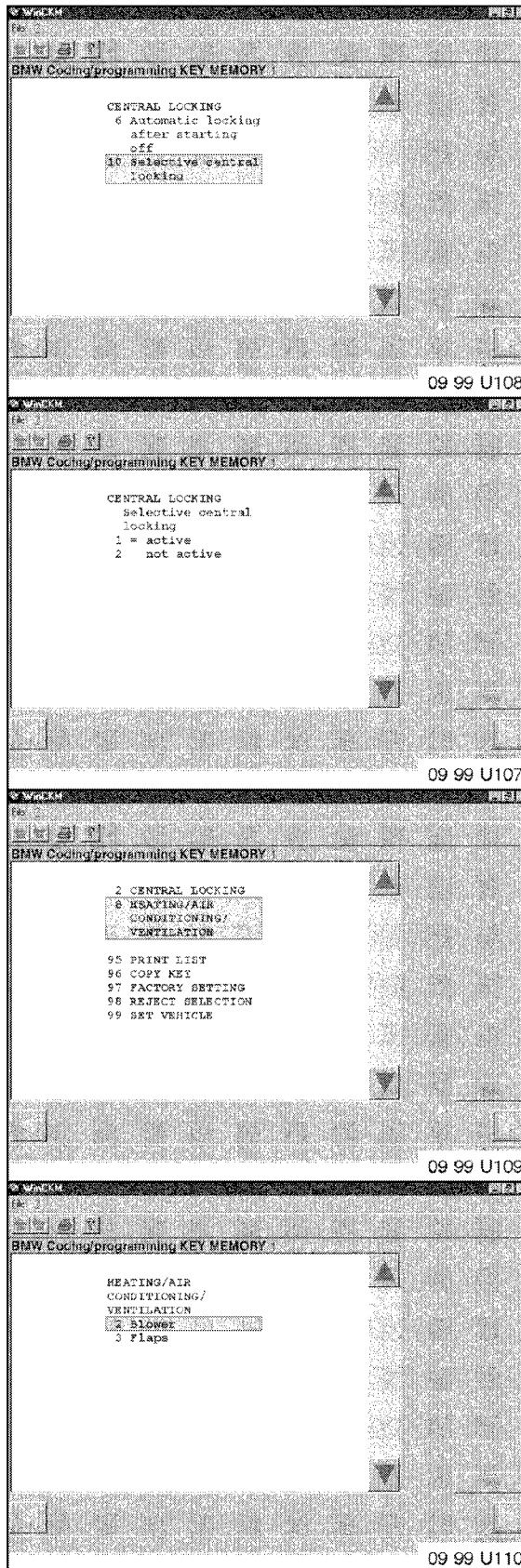
**Automatic locking after starting off**

All locks are going to be automatically locked after the speed exceeds 5 mph (if active).

Option available for 3, 5, and 7 series vehicles from '99 model year (for 5, and 7 series vehicles prior to 9/98 production, see Car Memory, Central Locking). Factory setting is “not active”.

To select one of the options, highlight the appropriate line and then press “continue” green arrow button (lower, right corner of the screen).





### Central Locking Selective central locking

When active, the first press on the unlock button in the key opens only driver's door. Second press unlocks all other locks.

Option available for 3, 5, and 7 series vehicle from '99 model year (for 5, and 7 series vehicles prior to 9/98 production, see Car Memory, Central Locking).

To select the option, highlight the appropriate line and then press "continue" green arrow button (lower, right corner of the screen).

### Central Locking Selective central locking

Factory setting is "active".

To select one of the options, highlight the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).

### Heating/Air Conditioning/Ventilation

This selection in Key Memory is available only for 3 series (E46 vehicles). 5, 7 series and X5 vehicles have some of the HVAC options assigned to Car Memory.

To select the option, highlight the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).

### Heating/Air Conditioning/Ventilation

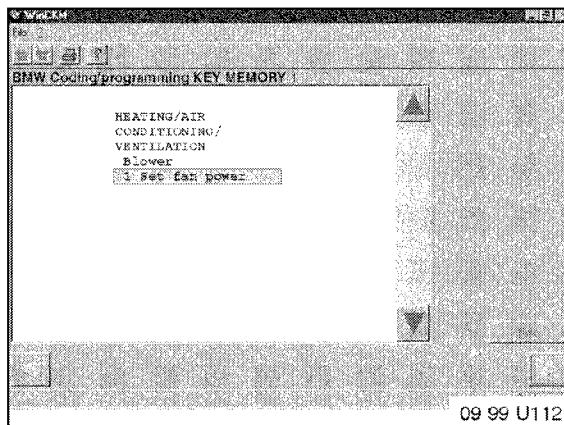
The following options are available:

- 2 Blower**
- 3 Flaps**

To select one of the options, highlight the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).

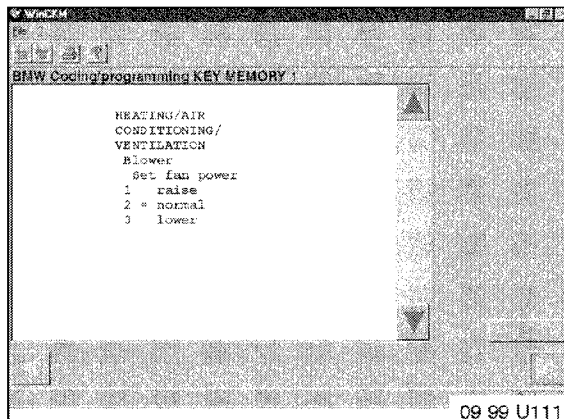




### Heating/Air Conditioning/Ventilation Blower Set fan power

This function allows to customize blower fan speed. The normal setting provides direct relation between blower speed and displayed blower speed wedge in the control panel. "Raise" increases, "Lower" reduces the speed (changes are not being indicated by the display).

To select the option, highlight the line and then press "continue" green arrow button (lower, right corner of the screen).



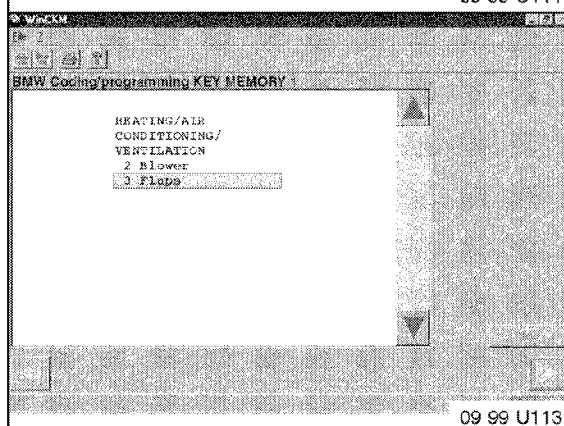
### Heating/Air Conditioning/Ventilation Blower Set fan speed

The following options are possible:

1. **raise**
2. **normal**
3. **lower**

Factory setting is "normal".

To select one of the options, highlight the appropriate line and then press "continue" green arrow button (lower, right corner of the screen).

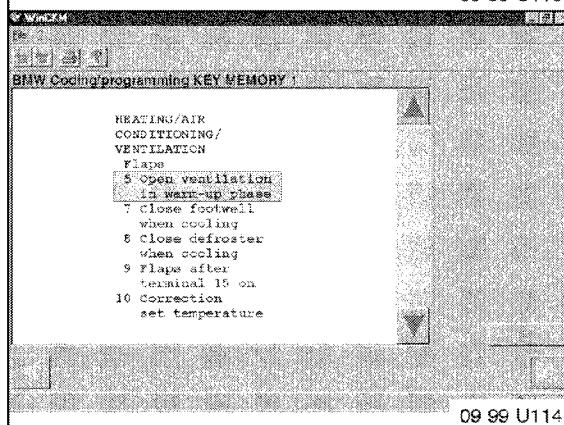


### Heating/Air Conditioning/Ventilation Flaps

Following options allow to customize: air flow function, temperature setting, compressor activation and automatic blower function of the HVAC system.

To select the option, highlight the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).



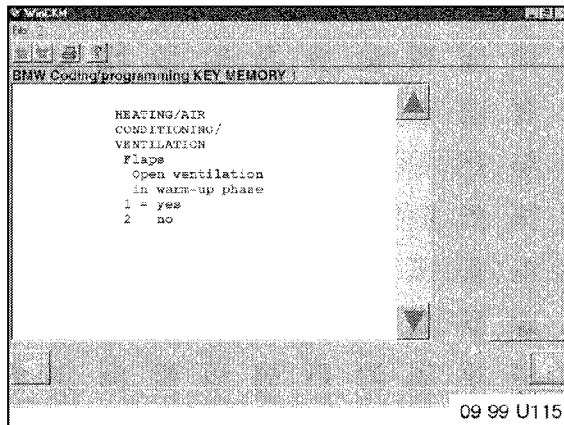
### Heating/Air Conditioning/Ventilation Flaps

The following options are available:

6. **Open ventilation in the warm-up phase**
7. **Close footwell when cooling**
8. **Close defroster when cooling**
9. **Flaps after terminal 15 on**
10. **Correction set temperature**
11. **Air conditioning on at**
12. **Automatic blower function**

To select one of the options, highlight the appropriate line and then press "continue" green arrow button (lower, right corner of the screen).





### Heating/Air Conditioning/Ventilation Flaps

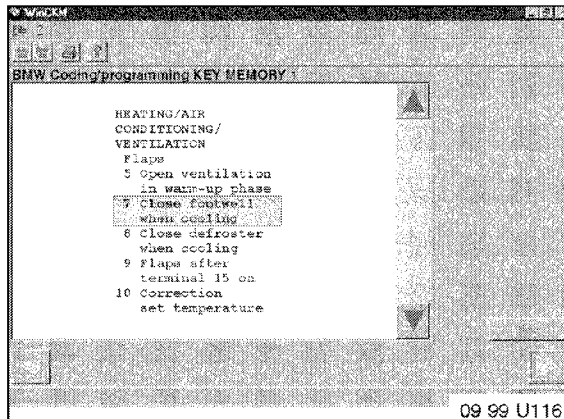
#### Open ventilation in the warm-up phase

Center vents are opened during engine warm-up stage (if active), before the set temperature is reached. That feature accelerates the heating of driver's hands and upper body.

Factory setting is "yes".

To select one of the options, highlight the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).

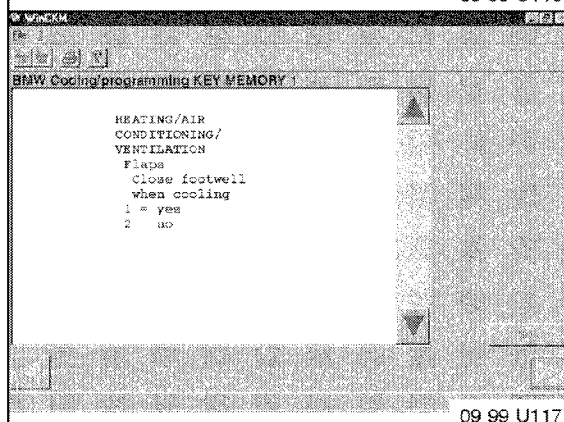


### Heating/Air Conditioning/Ventilation Flaps

#### Closed footwell when cooling

Footwell vents are closed when system is in AUTO mode and cooling (A/C on), if feature active. This setting will enhanced A/C cooling performance, by diverting more cooled air towards center vents.

To select the option, highlight the appropriate line and then press "continue" green arrow button (lower, right corner of the screen).



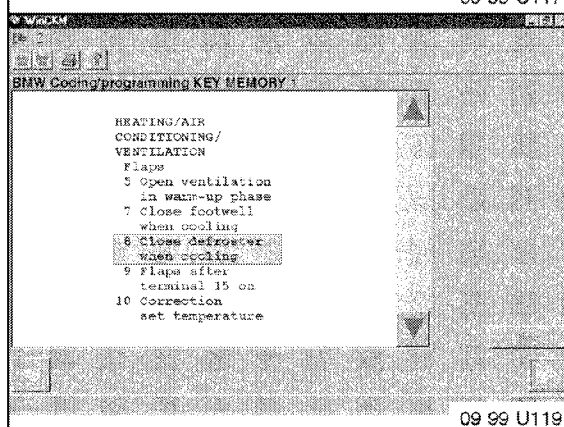
### Heating/Air Conditioning/Ventilation Flaps

#### Closed footwell when cooling

Factory setting is "yes".

To select one of the options, highlight the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).

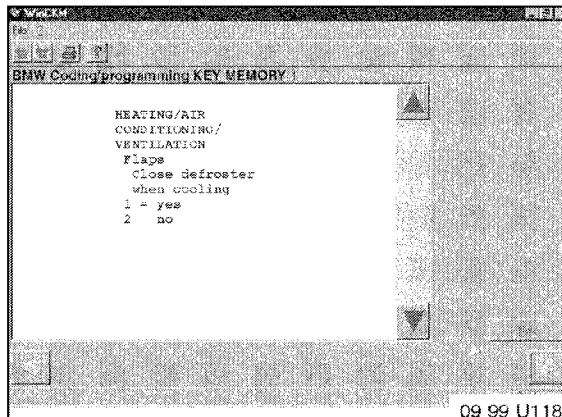


### Heating/Air Conditioning/Ventilation Flaps

#### Closed defroster when cooling

Defroster vents are closed when system is in AUTO mode and cooling (A/C on), if feature active. This setting will enhanced A/C cooling performance, by diverting more cooled air towards center vents.

To select the option, highlight the appropriate line and then press "continue" green arrow button (lower, right corner of the screen).

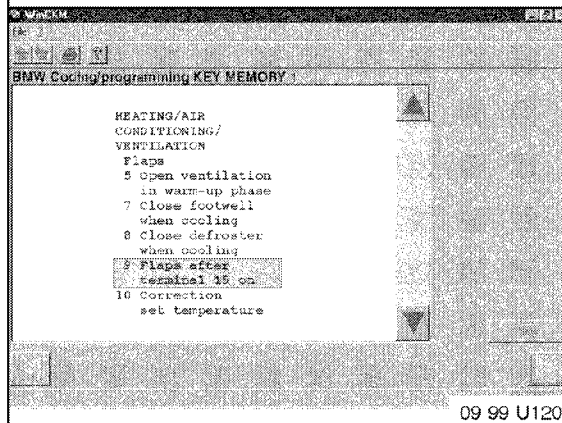


### Heating/Air Conditioning/Ventilation Flaps Closed defroster when cooling

Factory setting is "yes".

To select one of the options, highlight the appropriate line

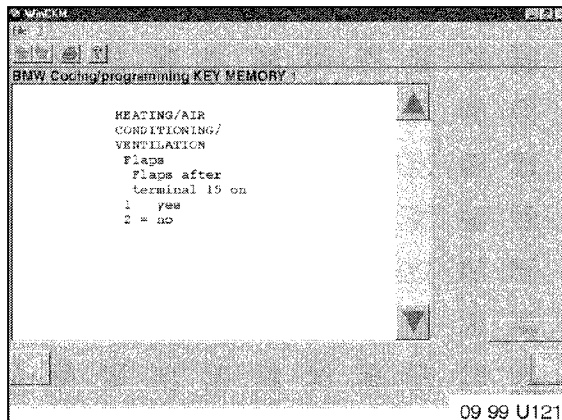
and then press "continue" green arrow button (lower, right corner of the screen).



### Heating/Air Conditioning/Ventilation Flaps Flaps after terminal 15 on

If active, an "automatic" air vent distribution is always selected when the ignition is switched on (LED on AUTO button lights up). In "inactive" mode, system will default to the last selected air vents settings (before ignition was turned off).

To select the option, highlight the appropriate line and then press "continue" green arrow button (lower, right corner of the screen).

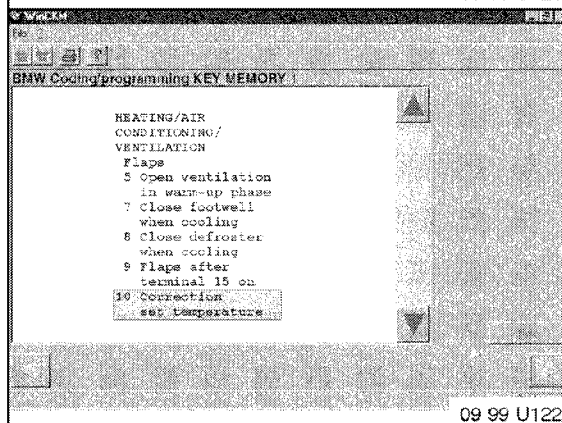


### Heating/Air Conditioning/Ventilation Flaps Flaps after terminal 15 on

Factory setting is "no".

To select one of the options, highlight appropriate line

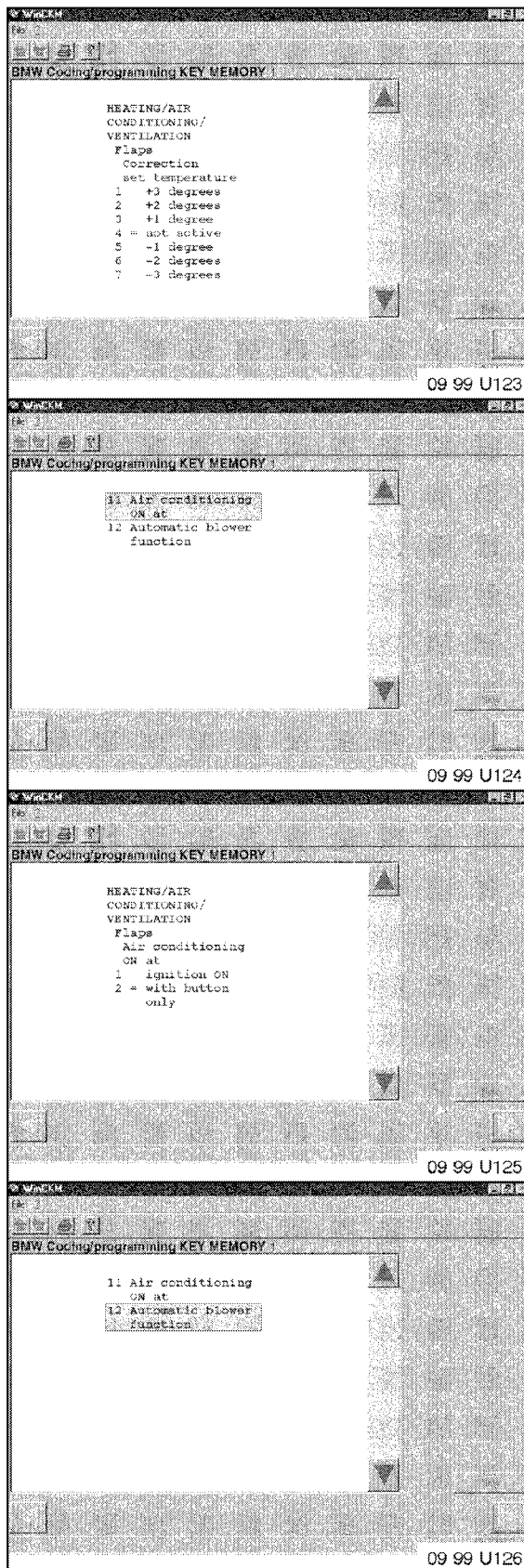
and then press "continue" green arrow button (lower, right corner of the screen).



### Heating/Air Conditioning/Ventilation Flaps Correction set temperature

The temperature setting in the display can be corrected by a certain amount (to accommodate the customer's subjective requirements). When positive correction is selected, the actual temperature in the vehicle is higher than indicated by display. The opposite is true for the negative range of selections.

To select the option, highlight appropriate line and then press "continue" green arrow button (lower, right corner of the screen).



### Heating/Air Conditioning/Ventilation Flaps Correction set temperature

Factory setting is “not active”.

To select one of the options, highlight appropriate line

and then press “continue” green arrow button (lower, right corner of the screen).

### Heating/Air Conditioning/Ventilation Flaps Air Conditioning on at

The A/C compressor can be switched on automatically with the ignition “ON”, or when the “snow flake” button is pressed.

To select the option, highlight appropriate line

and then press “continue” green arrow button (lower, right corner of the screen).

### Heating/Air Conditioning/Ventilation Flaps Air Conditioning on at

Factory setting is “with button only”.

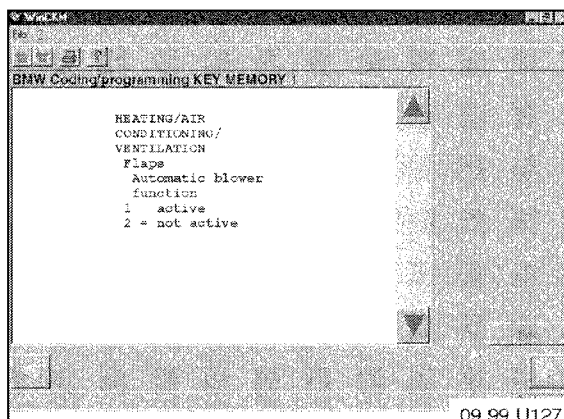
To select one of the options, highlight appropriate line

and then press “continue” green arrow button (lower, right corner of the screen).

### Heating/Air Conditioning/Ventilation Flaps Automatic blower function

If the function is active, the automatic blower speed program is always effective, as soon as the ignition is turned on (AUTO is displayed in the control panel).

To select the option, highlight appropriate line and then press “continue” green arrow button (lower, right corner of the screen).



## Heating/Air Conditioning/Ventilation Flaps

### Automatic blower function

Factory setting is "not active".

To select one of the options, highlight appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).

When all of the required "Key Memory" configuration changes (for one, specific key) are entered scroll down to the bottom of the main menu screen. Five selections are available:

- 95 Print List
- 96 Copy Key
- 97 Factory Settings
- 98 Reject Selections
- 99 Set Vehicle

Select:

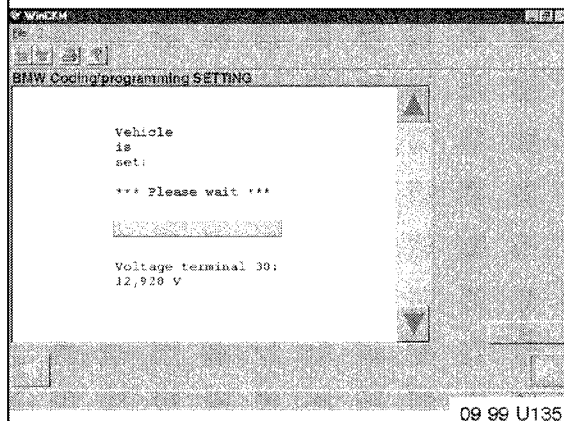
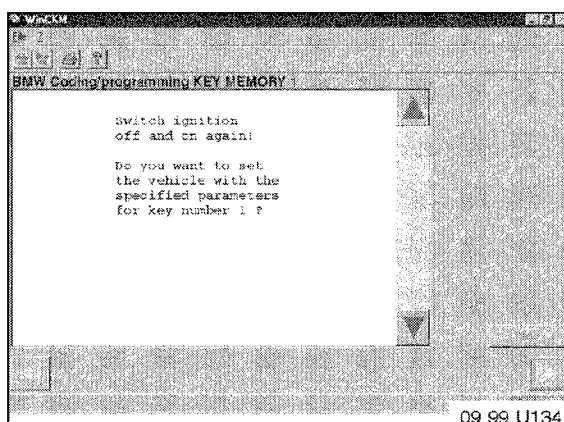
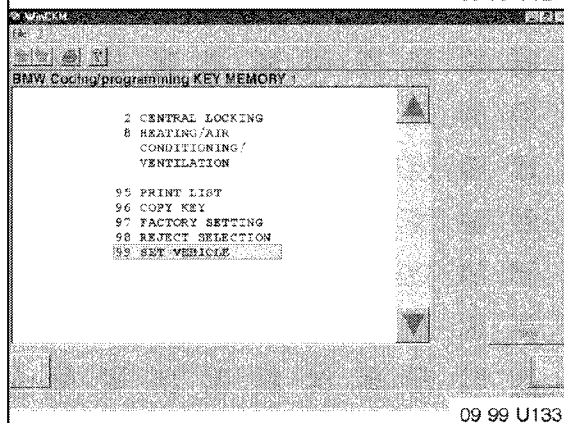
- 99 Set Vehicle

and then press "continue" green arrow button (lower, right corner of the screen).

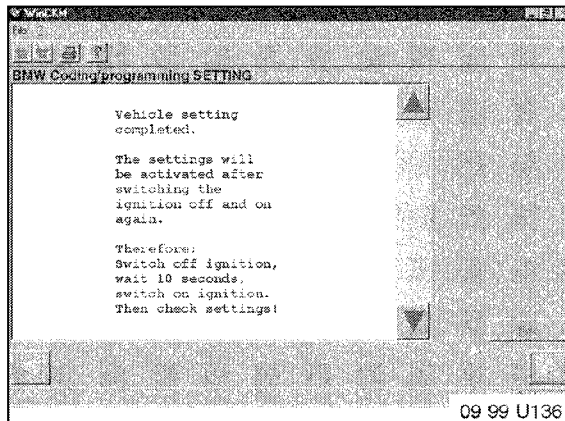
After selecting "99 Set Vehicle", all configuration changes are being displayed. Check the displayed list against the owner's selection sheet to make sure that all of the choices are included. Print that list and place it in the vehicle file for future reference.

To continue, press the green arrow button. The display will request to cycle ignition, to confirm selected changes.

Turn the ignition switch off, then switch back on. Press "YES" button to continue.



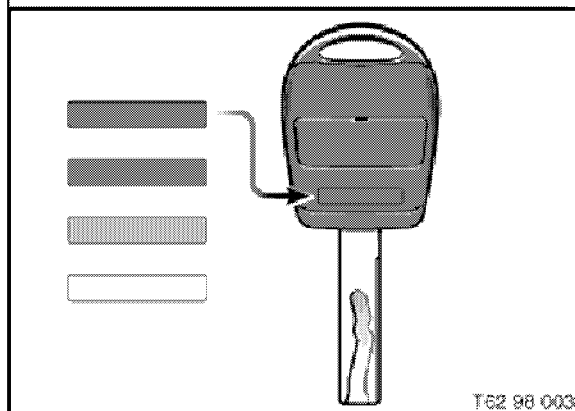
During a configuration process, a bar progress indicator is displayed on the screen.



When the display changes to **“Vehicle setting completed”**, turn the ignition off for 10 seconds and turn it back (as prompted by screen command).

**Verify the configuration changes by activating new functions.**

A separate programming procedure must be carried out for the second key.



To identify keys, attach color label at the back of each key (labels are supplied with the vehicle).

Recommended labeling:

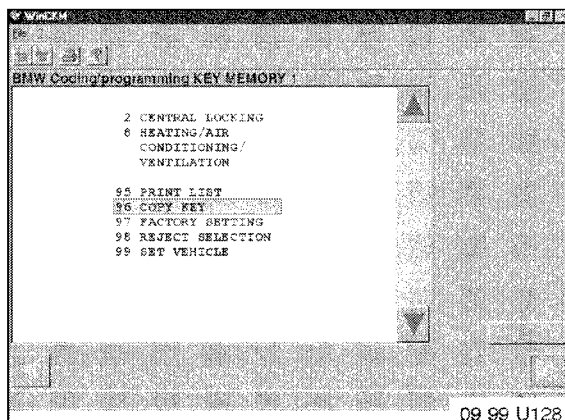
Key 1- Red

Key 2- Blue

If additional keys were ordered:

Key 3- Grey

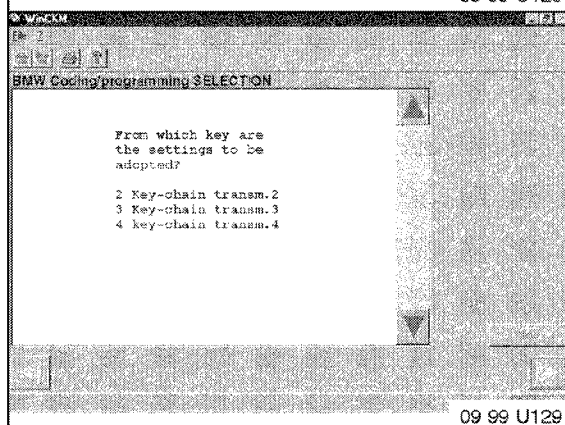
Key 4- Green



If the customer's selections for the second key are identical as for the first one, then highlight:

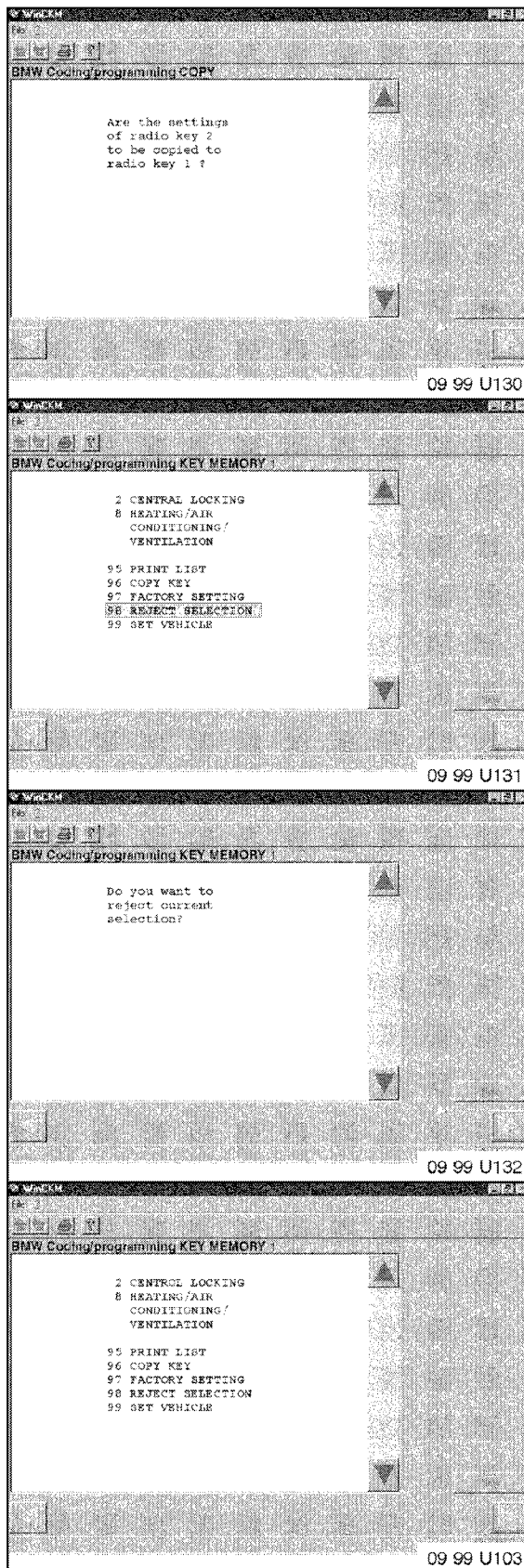
## 96 Copy Key

and then press "continue" green arrow button (lower, right corner of the screen).



Identify the key, from which the programming to be copied was assigned, by highlighting the appropriate line

and then press "continue" green arrow button (lower, right corner of the screen).



And then acknowledge the selection by pressing **“YES”** button.

The **“Key Memory”** selections assigned to key number X, will be copied to key number Y.

In case the selected options are not corresponding to the choices from the customer’s selection list, highlight:

#### 98 Reject Setting

and then press ”continue” green arrow button (lower, right corner of the screen).

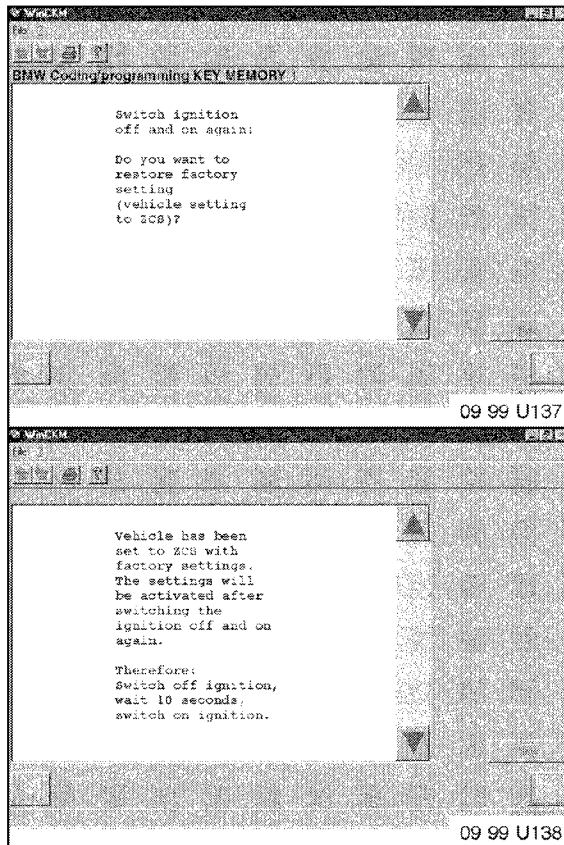
And then acknowledge your selection by pressing **“YES”** button.

The changed selection in **“Key Memory”** will be rejected.

In case, vehicle’s **“Key Memory”** selections have to be restored to the original, factory settings, then highlight:

#### 97 Factory Settings

and then press ”continue” green arrow button (lower, right corner of the screen).



The display will request to cycle ignition, to confirm selected changes.

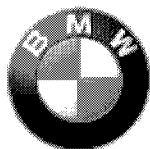
Turn the ignition switch off, then switch back on. Press **“YES”** button to continue.

When the display changes to **“Vehicle has been set to ZCS with factory settings”**, turn the ignition off for 10 seconds and turn it back (as prompted by screen command).

Factory settings of **“Key Memory”** for that particular key, has been restored

# **SOFTWARE**





This Service Information bulletins supersedes S.I. 09 03 98 **dated July 2000.**

Changes to this revision are identified by a black bar.

## SUBJECT

### **Configuration of "Car Memory/Key Memory" in E38, E39, E46, E53, and E52 Vehicles with DIS CD 24.0**

## MODEL

E38, E39, E46, E53, E52

## SITUATION

**Important:** Due to the variations in hardware and software, it is recommended that "Print List" is selected prior to programming. "Print List" will give an overview of the available Car and Key Memory options for that specific vehicle.

Car Memory Options	page 3
Key Memory Options	page 8
Programming Procedure	page 9

Introduced for the first time on 1999 E46 models, "Car Memory/Key Memory" is an additional step towards customization of a vehicle according to owner's individual preferences. Those features are incorporated in ZCS Coding/Programming and the scope of customization depends on the equipment installed in the vehicle.

Diagnostic Software since version 16.1 (DIS/MoDiC III) allows for the selection of "Car Memory" choices in E38 and E39s produced prior to 9/98 depending on the vehicle hardware/software status. "Key Memory" is not available for E38 and E39s produced prior to 9/98.

Diagnostic Software 24.0 (DISPlus/MoDiC III) includes the following new features/changes in the "Car Memory" programming:

- "New Generation Radio, key selective" - available on E39 and E53 with NG radios

Please initial and route to the following for information before filing

<input checked="" type="checkbox"/>	Service Manager	<input checked="" type="checkbox"/>	Warranty	<input checked="" type="checkbox"/>	Service Technicians - Initial Below					
<input checked="" type="checkbox"/>	Service Advisor		Parts Mgr.							
<input checked="" type="checkbox"/>	Service Advisor		Body Shop							
<input checked="" type="checkbox"/>	Shop Foreman		PDI Dept.							

## ★ ★ FIX IT RIGHT THE FIRST TIME, ON TIME, EVERY TIME ★ ★

For administrative convenience and to reduce costs, this bulletin may contain repair procedures for authorized BMW car centers and/or authorized BMW SAV centers. All references to SAVs and/or the X5 are ONLY intended for authorized BMW SAV centers. Furthermore, ONLY BMW SAV centers are authorized to perform repair and service work on SAVs.

- “Convenience opening with RC” - since version M 23.0 convenient opening with remote control (widows and soft top) is not available on E46 convertible and E52 (Z8) vehicles. Convenient opening is still possible on these vehicles when using mechanical lock.

“Car Memory” includes functions which are activated regardless of the vehicle key being used.

“Key Memory” contains functions which can be different depending on the vehicle key used. The vehicle key is identified during “unlocking”, only when remote control is used (functions are inoperative during “manual” unlocking). Up to four different keys for the E46, E53, E52 vehicles, and two keys for the E38 and E39 can be customized (upon delivery, the customer is provided with two remote control transmitters).

The table below summarizes the most important options of the “Car/Key Memory” program **which should be discussed with the customer during the sales consultation.**

#### **Car Memory**

Daytime Driving Lights  
Pathway Lighting  
DWA Acknowledgment Configuration

#### **Key Memory**

Last Seat Position  
Last IHKA (Climate Control) Settings  
Selective Central Locking  
Automatic Door Locking (after 5.0 mph)

**Note:** The “Key Memory” seat position feature is activated through “Seat/mirror” selection in “Car Memory”. The stored position will be called up as soon as the customer unlocks the vehicle with the remote control key. The seat memory function by pressing the “M” button on the seat operates independently of the “Car/Key Memory” settings. The “mirror memory” function on E46 vehicles is available since 09/99 production.

The IHKA temperature and air distribution key-specific settings feature is already activated for each remote control key at the factory.

**The customer must be informed about possible choices before delivery by filling out a selection sheet** (attached). The questionnaire is a three-part form: one copy stays with the customer, one goes to sales department, and the last to service department. According to the customer choices, the vehicle should be customized during the QC 1. Selection changes during the ownership period are not reimbursable under warranty. The customer should not be charged for the programming. Individualizing your customer’s vehicle is an important contribution to a positive customer experience.

“Car & Key Memory M24.0”, allows a printout of the functions which can be programmed in the vehicle. The list will contain the actual settings and the available settings, as well as the factory defaults. This list can be printed out under the heading “Print List” in the “Car & Key Memory M24.0” program.

Any additional items contained in the below table may also be programmed, but we recommend that they should be discussed with customers at a later date during a service consultation and upon customer request or inquiry.

The table below itemizes **all** available “Car Memory/Key Memory” options for the E38, E39, E46, E53, and E52 vehicles.

The “=” symbol denotes the factory default settings (factory delivery condition).

The symbols: ⑦⑤③⑧× denote availability on all Model Year 1999 (and later) of E38’s, E39’s, E46’s, E52’s (Z8), and E53’s (X5).

The symbols: ⑦⑤ denote availability on E38’s and E39’s produced prior to 9/98.

<b>CAR MEMORY OPTIONS</b>			
<b>Anti Theft System (DWA) (available only on vehicles with DWA Alarm System)</b>			
Interior sensor	=active not active		<b>3 8</b>
Tilt Alarm Sensor	=active not active		<b>3 8</b>
Arm/Disarm by means of:	remote control =locks and remote control (FZV)		<b>7 5 3 8 X</b> , ⑦⑤
Arm/Disarm Acknowledgment	Disarm visually	Disarming of the DWA system is confirmed by a brief blinking of turn signals when active.	<b>7 5 3 8 X</b> , ⑦⑤
	Disarm audibly	Disarming of the DWA system is confirmed by a brief siren signal when active.	<b>7 5 3 8 X</b> , ⑦⑤
	Arm visually	Arming of the DWA system is confirmed by a brief blinking of turn signals when active.	<b>7 5 3 8 X</b> , ⑦⑤
	Arm audibly	Arming of the DWA system is confirmed by a brief siren signal when active.	<b>7 5 3 8 X</b> , ⑦⑤
	Arm visually, doors/lids closed E46, E52 only	Arming of the DWA system is confirmed by a brief blinking of turn signals as soon as hood/trunk are closed, when active.	<b>3 8</b>
	Arm audibly, doors/lids closed E46, E52 only	Arming of the DWA system is confirmed by a brief siren signal as soon as hood/trunk are closed, when active.	<b>3 8</b>
Acknowledgment without DWA (E46 only)	active =inactive	If "active" is selected, locking/unlocking of a vehicle is confirmed by a brief blinking of turn signals. Note: fault code "07 anti-theft alarm system" will be set in the GM module.	<b>3</b>

<b>Central Locking</b>			
Remote Control-interior light	=active not active The interior lighting is switched on when vehicle is locked via remote control. On E38, E39, E53 vehicles, the second press on the "Locking" button within 15 seconds will deactivate the DWA ultrasonic, and tilt sensors.		<b>7 5 3 8 X</b> , ⑦⑤
Release rear window from inside (E46 sport wagon)	active =inactive When "active" rear tailgate window is operated by the "trunk" release switch in the driver's footwell. If "inactive", the switch operated rear hatch lock.		<b>3</b> sport wagon
Remote Control-panic mode	=active not active		<b>7 5 3 8 X</b> , ⑦⑤

**7 5 3 8 X**: E38, E39, E46, E52, E53 from '99 Model Year; ⑦⑤: E38, E39 prior to 9/98

Remote Control-trunk opening (E46, E52 only)	when disarmed =always Trunk can be open with corresponding button on the RC key at any time or only when the vehicle is unlocked.	3 8
Relock 2 minutes after unlocking without door opening	active =not active Vehicle will automatically be relocked two minutes after being inadvertently unlocked once (when doors or trunk were not opened).	7 5 3 8 X
Automatic locking after start (5 mph)	active =not active Function effective with remote control for E38, E39 prior to 9/98 production. On E38, E39, E46, E52, and E53 after '99 production setting, operates after opening the vehicle manually at the lock (to set this function with remote control, see Key Memory/Central Locking).	7 5 3 8 X-manual locking 7 5-remote locking
Selective central locking	=active not active When active, the first time vehicle is unlocked only the driver's door is unlocked. Function effective with remote control for E38, E39 prior to 9/98 production. <b>On E38, E39, E46, and E53 after '99 production, this function only applies to manual unlocking via the lock</b> (to set this function with remote control, see Key Memory/Central Locking).	7 5 3 X-manual 7 5-remote
Entrance aid/selective central locking (E46 coupe, convertible, E52)	=Selective central locking inactive When active, the first time vehicle is unlocked only the driver's door is unlocked. <b>This function only applies to manual unlocking via the lock</b> (to set this function with remote control, see Key Memory/Central Locking).	8 3 coupe, convertible

#### Window Regulators/Sunroof

Convenience opening Remote Control	=active not active When active, windows and sunroof (or soft top) can be opened by pressing and holding the "unlock" button on remote key. <b>This function is not available (with remote control) on E46 convertible and E52 (Z8) vehicles. Convenient opening feature in these vehicles works only when locks are operated manually (key inserted in door lock).</b> NOTE: On E46 convertibles only windows are activated in manual "convenience opening" mode, if the soft top storage box is retracted ("space saving" feature).	7 5 3 8 X, 7 5
Convenience opening without hinged windows Remote Control (E46 coupe)	active =not active When setting is active, the rear quarter windows are not opened with convenient opening function	3 coupe
"One Touch" Driver's window close (auto)	=active not active	7 5 3 8 X, 7 5

up)	("Single Strike Function close driver's door window")	
<b>7538X</b> : E38, E39, E46, E52, E53 from '99 Model Year; ⑦⑤: E38, E39 prior to 9/98		
"One Touch" Driver's window open (auto down)	=active not active ("Single Strike Function open driver's door window")	
"One Touch" Passenger window close (auto up)	=active not active ("Single Strike Function close passenger's door window")	<b>7538X</b> , ⑦⑤ (excluding:E46 convertible and E52)
"One Touch" Passenger window open (auto down)	=active not active ("Single Strike Function open passenger's door window")	
"One Touch" Rear windows close (auto up)	=active not active ("Single Strike Function close rear windows")	<b>7538X</b> , ⑦⑤ (excluding:E46 convertible and coupe)
"One Touch" Rear windows open (auto down)	=active not active ("Single Strike Function open rear windows")	<b>7538X</b> , ⑦⑤
"One Touch" sunroof close (auto close)	=active not active ("Single Strike Function close sunroof")	<b>7538X</b> , ⑦⑤
"One Touch" sunroof open (auto open)	=active not active ("Single Strike Function open sunroof")	<b>7538X</b> , ⑦⑤
"One Touch" raise sunroof	=active not active ("Single Strike Function raise sunroof")	<b>73</b> , ⑦
Open window by touching central switch	=active not active	<b>3</b> E46 convertible, <b>8</b>

<b>Lighting</b>			
Interior Lighting ON during unlock (E46, E52 only)	=active not active	The interior light is turned on when unlocking mechanically (if active).	<b>38</b>
Interior Lighting ON at KL R off, if headlights were on (E46, E52 only)	=active not active	The interior light automatically turns on when ignition is switched off after driving with headlights on (if active).	<b>38</b>
Interior Lighting Soft On/Off	=active not active	The interior light is dimmed when turned on/off (if active).	<b>7538X</b> , ⑦⑤
External Lights Daytime driving lights	active =not active	Daytime driving lights are turned on when the ignition switch is turned on	<b>7538X</b> , ⑦⑤
External Lights Pathway Lighting ("home" lights)	=not active 40 seconds 90 seconds 150 seconds 240 seconds	When the ignition is turned off, and high beams switch is activated momentarily (high beams "flash"), the driving lights are turned on for 40 seconds (if active). The time duration is programmable for 40/90/150/240 seconds on E38, E39 and E53 only	<b>7538X</b>

**7538X**: E38, E39, E46, E52, E53 from '99 Model Year; ⑦⑤: E38, E39 prior to 9/98

<b>Heating/Air Conditioning/Ventilation</b>			
Key Selective	=active not active	The IHKA temperature and air distribution key-specific settings will be recalled when set to “active”.	<b>5X</b>
<b>Flaps</b>			
Air recirculation memory	active =not active”	Air recirculation is retained after restarting. This function is not key dependent.	<b>753X</b> , ⑦⑤
Cooling output	normal =hot country	IHKA programming enhanced to produce more cooling output when selected to “hot country”. (Footwell and defrost vents closed to allow more center vent air for maximum cold air.)	<b>753</b>

<b>Windscreen Wipers</b>			
Switch back when stationery	=active not active	Wipers are switched from speed 1 to intermittent, or from speed 2 to speed 1 when the vehicle is stationary (if active).	<b>7538X</b> , ⑦⑤
Rain Sensor	=active not active	The rain sensor can be deactivated on E46 vehicles only	<b>3</b>

<b>Seat/Mirror Memory</b>			
Seat Settings  (Mirror memory is available on E46 vehicles since 09/99 production)	when unlocking when opening a door =not active	The automatic seat adjustment is activated by the specific key being used if the vehicle is equipped with seat memory. Setting in Car Memory defines when the actual adjustment starts: when pressing unlock button on remote, or when opening the door.	<b>753X</b>
Mirror memory, automatic curb parking function (only E46 since 09/99 production)	active =inactive	The position for the passenger-side exterior mirror for the automatic parking function can be stored for each key individually. If “active” is selected and the mirror adjustment switch is set to “passenger-side”, the passenger-side mirror will be automatically moved to the pre-selected position when in reverse gear. To store the “pre-set” position, adjust manually passenger-side mirror while reverse gear is engaged. If “active” is selected and the mirror switch is set to “driver’s-side”, the automatic parking function is deactivated. If “inactive” is selected and the mirror adjustment switch is set to “drive’s-side”, the passenger-side mirror is automatically moved to the lowest possible position when in reverse gear. Selecting the “passenger-side mirror” with the adjustment switch, deactivates the automatic parking function.	<b>3</b> from 09/99

**7538X**: E38, E39, E46, E52, E53 from '99 Model Year; ⑦⑤: E38, E39 prior to 9/98

Displays/Language			
Units	Consumption	l/100 km mpg(UK) =mpg(US) km/l	753X, ⑦⑤ without NAV
	Distance	km =mils These selections will change unit's display in Instrument Cluster, Board Computer, or A/C Control Module (temperature).	753X, ⑦⑤ w without NAV
	Time	=12h 24h	753X, ⑦⑤ without NAV
	Temperature	degrees C =degrees F	753X, ⑦⑤ without NAV
<b>NOTE:</b> Language change is carried out in Conversion section of ZCS Coding under IKE/Kombi. On vehicles with Top Nav System, two selections (out of five choices) can be done. Then customer can chose one of the two from Board Monitor through "Set" submenu.			
Language Text Display	=English (US,UK,Cdn) French Italian Spanish German Japanese Gulf States	Text can be displayed in the different languages: The clock must be reset after setting this function.	75X, ⑦⑤ without NAV
Basic settings Temporary ice warning (E46 only)	=active not active	When function is "active", and if ambient temperature drops below 37°F, the acoustic ice warning sounds and the ambient temperature display flashes for a few seconds. Then the display returns to the previous status. When function is "not active", and if ambient temperature drops below 37°F, the acoustic ice warning sounds and the ambient temperature is permanently displayed.	③

Audio/Video			
New Generation Radio - Key selective	=active not active	The Key Memory can be activated/deactivated for the radio settings in Car Memory. If selected "active": tone, volume, last audio source (radio, cassette, CD), and the last radio station tuned will be recalled according to the vehicle key which is being used. NOTE: The NG radios (C53 -cassette MID, and CD53 in-dash CD) were introduced 09/00 in E39, and 10/00 in E53 vehicles.	5X

7533X: E38, E39, E46, E52, E53 from '99 Model Year; ⑦⑤: E38, E39 prior to 9/98

## KEY MEMORY OPTIONS

<b>Central Locking*</b>			
Automatic door locking after driving*	active =not active	Doors are automatically locked when speed exceeds 5.0 mph (if active)	⑦⑤③ sedan, ✕, ⑦⑤
Selective central locking	=active not active	First press of the “unlock” button opens driver door only, second press opens remaining doors (if active). When feature not active, first press opens all doors.	⑦⑤③ sedan, ✕, ⑦⑤
Entrance aid/selective central locking	=selective central locking inactive	First press of the “unlock” button opens driver door only, second press opens remaining doors (if active). When feature is “inactive”, first press opens all doors.	⑧, ③ convertible, coupe
Unlock, remote (E46 sport-wagon only)	=rear window rear lid	Open the tailgate or rear window by pressing the button on the remote control key.	③ sport-wagon

\* Remote key must be used to lock, then unlocked the vehicle after programming to set this option.

<b>Heating/Air Conditioning/Ventilation</b>			
<b>Blower</b>			
Set fan power	raise =normal lower	The normal setting provides a direct correlation between blower speed and displayed blower speed wedge in the IHKA control panel. “Raise” increases, “lower” reduces the speed. Speed changes are not indicated on the IHKA display.	③
<b>Flaps</b>			
Open ventilation in warm-up stage	=yes no	Vents open during engine warm-up (if active)	③
Flaps after KL 15 on	yes =no	Default “manual” control of the vents will be activated by switching the ignition on	③
Correction Set Temperature	+3 degrees +2 degrees +1 degree = not active -1 degree -2 degrees -3 degrees	The temperature setting in the display can be corrected by the said amount. When positive correction is selected, actual temperature in the vehicle is higher then the IHKA display indicates. The opposite is true for the “-” ranges.	③
Air Conditioning ON at:	ignition ON =with A/C button	The A/C compressor is switched on with the ignition ON, or only when the “snow flake” button is pressed.	③
Automatic blower function	active =not active	The fan blower speed is initially operated in the AUTO mode when the ignition is switched on (if active).	③

⑦⑤③⑧✕: E38, E39, E46, E52, E53 from '99 Model Year; ⑦⑤: E38, E39 prior to 9/98



## **PROCEDURE**

### **Important:**

The "Car/Key Memory" program can be run by using DISPlus or MoDiC III with up-to date software version loaded (Programming CD V 24.0 or higher).

If "Error in Program Run" is displayed when programming any functions of the "Car/Key Memory" program, the fault memory should be interrogated with a "Quick Test" and any faults stored should be first rectified. No faults are to be stored in the control units when changing the "Car/Key Memory" options. Also, "Error in Program Run" will be displayed if control modules used for "Car and Key Memory" are not coded correctly.

Connect a battery charger to the vehicle to ensure adequate battery voltage during the procedure. If battery voltage drops below 11.8 V, the programming procedure will be terminated. Vehicles equipped with DSP must have the radio turned "**ON**".

### **Car Memory procedure:**

From Coding/Programming selection of the DISPlus Tester or MoDiC III, select "CAR MEMORY".

1. After a short period of time the menu screen will be displayed with a list of all detected control systems capable of Car Memory configuration.
2. Using the owner's selection list, enter the system selected for customization. If other features are to be programmed, the "Print List" feature should be selected.
3. From the system submenu select the function to be altered.
4. Make the appropriate selection (activation/deactivation). The following symbols may be displayed next to the selection choice:

"=" - sign indicates present status

"\*" - sign indicates factory default (when present vehicle selection is different)

">" - sign indicates entered change in selection.

5. After pressing the "continue" arrow, the system will accept the change in selection and the CAR MEMORY main menu will be displayed. If additional changes are required, enter the appropriate system and repeat steps from above.
6. When all of the required CAR MEMORY configuration changes are entered, scroll down to the bottom of the main menu. Three selections are available:

"97" - brings back the factory setting in all systems

"98" - rejects entered changes

"99" - set changes

After selecting "99 SET VEHICLE", all configuration changes are being displayed. Check the displayed list against the owner's selection sheet to make sure that all of the choices were included. Print the list and place it in the vehicle service file for future reference.

To continue, press the arrow button. The display will request to cycle the ignition. Turn the ignition switch off, then switch back on. Press "Yes" to continue. A bar progress indicator is displayed along with current battery voltage. This portion of the configuration process varies in duration based on the total number of selections.

**Important:**

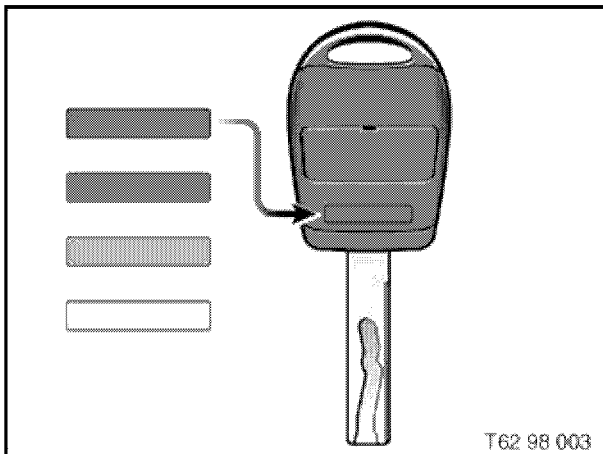
Observe the battery voltage level during the configuration. A low voltage condition will terminate the process or will incorrectly configure the vehicle.

When the display changes to "Vehicle setting completed", turn the ignition off for 10 seconds and turn it back on again. Verify the configuration changes by activating new functions.

**Key Memory Procedure:**

From Coding/Programming selection of DISPlus Tester or MoDiC III, select "KEY MEMORY".

1. After a short period of time the system will display a key number selection list (only two remote keys are supplied with new vehicle). The display also shows the identification number of the last used key (helpful to identify the key if later on the labels are misplaced or are missing).
2. Using the owner's selection list, select the key for Key Memory assignment, and press arrow to continue. System is going to scan for all available key memory functions for the specific key. If other features are to be programmed, the "Print List" feature should be selected.
3. From the system main menu select function to be altered. Following procedure steps are similar to the CAR MEMORY procedure.
4. A separate programming procedure must be carried out for the second key. To identify keys, attach color label at the back of each key (labels are supplied with the vehicle).

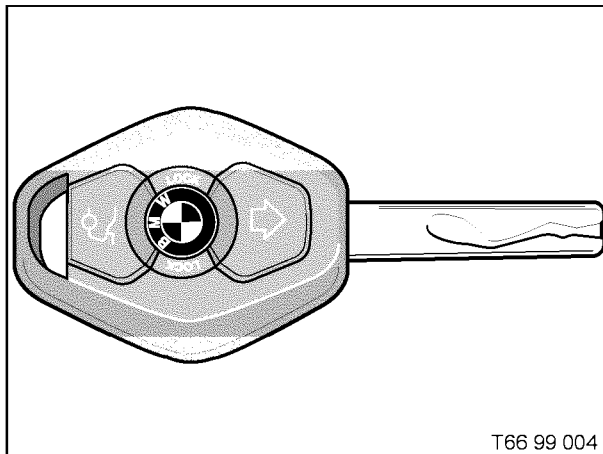


Recommended labeling (illustration shows the old style of key, prior to 09/99):

Key 1- Red  
Key 2- Blue

If additional keys were ordered:

Key 3- Grey  
Key 4- Green



For the new style of key (from 09/99), labeling procedure is similar.

**Note:**

If the additional remote control keys have been ordered, they have to be initialized along with two original keys. To initialize the keys, proceed as follows:

1. Enter the vehicle and close the doors.
  2. Briefly (max. 5 seconds) turn the ignition on and off again.
  3. Remove key; press and hold "unlock" button. While holding "unlock" button, rapidly press "lock" button 3 times within a period of 10 seconds.
  4. Release "unlock" button. The LED flashes slowly for a maximum of 10 seconds.
  5. The central locking system activates and releases all locks in rapid succession to indicate that the initialization procedure has been successful. If LED continues to flash or if the locking system fails to respond, the initialization procedure will have to be repeated.
  6. To initialize additional remote control keys (make sure that no more than 30 seconds elapse between each initialization procedure) repeat steps 3 and 4.
- Note: The ignition does not have to be cycled on/off for additional key initialization.

The initialization sequence defines the numbering of the keys in "Key Memory" program. The first key to be initialized automatically receives number one and should be labeled accordingly.

**Important:**

Key numbers in "Key Memory" programming may be different from key numbering sequence used in EWS system (EWS number is permanently assigned to a key, while the "Key Memory" number can be changed with the next initialization).

**PARTS INFORMATION**

"Car & Key Memory Customer Selection" forms can be ordered by calling Sales Support Services (Literature Dept.) at 1-732-225-2800 between 8:45 AM and 4:45 PM EST.

<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
ZUS3077	Car & Key Memory Customer Selection Form	1=pkg of 50

**WARRANTY INFORMATION**

For information only.

## BMW Car & Key Memory

### Customer Selection Form

The following Car/Key Memory custom configuration choices are available on the vehicle you have purchased (scope of the selection depends on equipment options of your vehicle).

“Car Memory” includes programmed functions activated regardless of the vehicle key being used.

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Please read the following selections and check the appropriate box. The factory default settings (factory selections) are underlined. If you choose not to make any new selections, your vehicle will be delivered with the default values.

Customer Name:

Vehicle Identification Number:

BMW Center Name:

BMW Center No.

<b>Car Memory</b>			
<b>System</b>	<b>Function</b>	<b>Selection</b>	<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----	Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
Daytime Driving Lights	<u>Not active</u> ----- - Active	-----	The low intensity hi-beams stay on with the ignition switched on (tail lights are off).
Pathway Lighting	Not active ----- - <u>Active</u>	-----	When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beams “flash”) with ignition turned off.
Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----  -----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing “unlock” button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).

Key Memory				
System	Function	Selection K1    K2		Customer Benefit
Central Locking- Automatic locking after pulling away	<u>Not active</u> ----- - Active	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 2.5 mph. (Doors can be unlocked from inside at any time).
Selective Central Unlocking	Not active ----- - <u>Active</u>	----	----	When feature is active, the first time the “unlock” button is pressed, only the driver’s door is unlocked. The second press releases all locks.
Climate Control Settings	<u>Always active</u>	N/A		The last Automatic Climate Control settings (temperature, air distribution, fan speed) when the particular key was used, are reactivated with next usage of the same key. This is a “Key Memory” feature permanently assigned to each key.

Technician Confirmation (Delivery Check)

Sales Specialist Confirmation

Customer (Acknowledgement)

Date

Date

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# FORMS

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BMW Center No.

<b>Car Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
Daytime Driving Lights	<u>Not active</u> ----- - Active	-----		The low intensity hi-beams stay on with the ignition switched on (tail lights are off).
Pathway Lighting	Not active ----- - <u>Active</u>	-----		When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beams “flash”) with ignition turned off.
Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing “unlock” button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
<b>Key Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
		<b>K1</b>	<b>K2</b>	
Central Locking- Automatic locking after pulling away	<u>Not active</u> ----- - Active	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 2.5 mph. (Doors can be unlocked from inside at any time).
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Climate Control Settings	<u>Always active</u>	N/A		The last Automatic Climate Control settings (temperature, air distribution, fan speed) when the particular key was used, are reactivated with next usage of the same key. This is a “Key Memory” feature permanently assigned to each key.

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Vehicle Identification Number:

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BMW Center No.

<b>Car Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
Daytime Driving Lights	<u>Not active</u> ----- - Active	-----		The low intensity hi-beams stay on with the ignition switched on (tail lights are off).
Pathway Lighting	Not active ----- - <u>Active</u>	-----		When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beams “flash”) with ignition turned off.
Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing “unlock” button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
<b>Key Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
		<b>K1</b>	<b>K2</b>	
Central Locking- Automatic locking after pulling away	<u>Not active</u> ----- - Active	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 2.5 mph. (Doors can be unlocked from inside at any time).
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BMW Center No.

<b>Car Memory</b>				
System	Function	Selection		Customer Benefit
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren "chirp", signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
Daytime Driving Lights	<u>Not active</u> ----- - Active	-----		The low intensity hi-beams stay on with the ignition switched on (tail lights are off).
Pathway Lighting	Not active ----- - <u>Active</u>	-----		When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beams "flash") with ignition turned off.
Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing "unlock" button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
<b>Key Memory</b>				
System	Function	Selection K1    K2		Customer Benefit
Central Locking- Automatic locking after pulling away	<u>Not active</u> ----- - Active	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 2.5 mph. (Doors can be unlocked from inside at any time).
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Climate Control Settings	<u>Always active</u>	N/A		The last Automatic Climate Control settings (temperature, air distribution, fan speed) when the particular key was used, are reactivated with next usage of the same key. This is a "Key Memory" feature permanently assigned to each key.

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<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
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Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing “unlock” button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
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<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
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BMW Center No.

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<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
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Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing “unlock” button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
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<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren "chirp", signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
Daytime Driving Lights	<u>Not active</u> ----- - Active	-----		The low intensity hi-beams stay on with the ignition switched on (tail lights are off).
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Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing "unlock" button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
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DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren "chirp", signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
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Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing "unlock" button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
<b>Key Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
		<b>K1</b>	<b>K2</b>	
Central Locking- Automatic locking after pulling away	<u>Not active</u> ----- - Active	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 2.5 mph. (Doors can be unlocked from inside at any time).
Selective Central Unlocking	Not active ----- - <u>Active</u>	----	----	When feature is active, the first time the "unlock" button is pressed, only the driver's door is unlocked. The second press releases all locks.
Climate Control Settings	<u>Always active</u>	N/A		The last Automatic Climate Control settings (temperature, air distribution, fan speed) when the particular key was used, are reactivated with next usage of the same key. This is a "Key Memory" feature permanently assigned to each key.

Technician Confirmation (Delivery Check)

Sales Specialist Confirmation

Customer (Acknowledgement)

Date

Date

Date

## BMW Car & Key Memory

### Customer Selection Form

The following Car/Key Memory custom configuration choices are available on the vehicle you have purchased (scope of the selection depends on equipment options of your vehicle).

“Car Memory” includes programmed functions activated regardless of the vehicle key being used.

“Key Memory” contains functions which can be different depending on the vehicle key used.

Please read the following selections and check the appropriate box. The factory default settings (factory selections) are underlined. If you choose not to make any new selections, your vehicle will be delivered with the default values.

Customer Name:

Vehicle Identification Number:

BMW Center Name:

BMW Center No.

<b>Car Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
DWA Alarm Confirmation	<u>Arm/Disarm acoustically and visually</u> ----- - Arm/Disarm visually only	-----		Alarm acknowledgment can be both visual and audible (siren “chirp”, signal lights flash), or only visual. (Available only on vehicles equipped with optional DWA Alarm System).
Daytime Driving Lights	<u>Not active</u> ----- - Active	-----		The low intensity hi-beams stay on with the ignition switched on (tail lights are off).
Pathway Lighting	Not active ----- - <u>Active</u>	-----		When active, the driving lights remain on for about 40 seconds after the high beam switch is activated momentarily (high beams “flash”) with ignition turned off.
Seat Memory- Automatic driver's seat position	<u>Not active</u> ----- - When unlocking ----- - When driver's door is opened	-----	-----	The automatic driver's seat adjustment is activated by the specific key being used. The adjustment starts: when pressing “unlock” button, or when opening driver's door. (Available only on vehicles equipped with electric power seats).
<b>Key Memory</b>				
<b>System</b>	<b>Function</b>	<b>Selection</b>		<b>Customer Benefit</b>
		<b>K1</b>	<b>K2</b>	
Central Locking- Automatic locking after pulling away	<u>Not active</u> ----- - Active	----	----	Increased feeling of security from doors being automatically locked after exceeding speed of 2.5 mph. (Doors can be unlocked from inside at any time).
Selective Central Unlocking	Not active ----- - <u>Active</u>	----	----	When feature is active, the first time the “unlock” button is pressed, only the driver's door is unlocked. The second press releases all locks.
Climate Control Settings	<u>Always active</u>	N/A		The last Automatic Climate Control settings (temperature, air distribution, fan speed) when the particular key was used, are reactivated with next usage of the same key. This is a “Key Memory” feature permanently assigned to each key.

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