



# Installation Instructions

Audio, Alarm

Ver. 2.0

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October 2006

Accessory  
Development

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*These Installation Instructions supersede all previous versions.*

## SUBJECT

**ALARM KIT - P/N 65 12 0 403 658**

## MODEL

3 Series Sedan (E90):                      Select Vehicle Production 03/05 – On\*  
3 Series Coupe (E92):                      Select Vehicle Production 06/06 – On\*

\* Vehicle must have optional alarm pre-wiring (SA 5GA), which is 100% option for US spec vehicles.

**SUGGESTED INSTALLATION TIME:      1.5 HOURS\*\***

\*\* Suggested installation time includes re-coding of the vehicle only for this retrofit kit. This time is based on a vehicle that is at the current software level and does not require any updates. Before installing this accessory into the vehicle, the vehicle should be checked for software updates. If updates are available the vehicle should be programmed prior to installing this accessory. **If vehicle is under warranty, the costs of programming prior to retrofit should use defect code 72 60 93 02 00.**

Please refer to SI B09 05 01 for latest BMW approved Retrofit coding procedures.

Please refer to SI B01 09 06 – Defect Code for Programming Prior to Accessory Retrofit

**Total installation time may vary depending on vehicle options and equipment.**

The instructions below are developed for BMW vehicles and are not to be compared to any other existing instructions for vehicles other than BMW. No methods other than those specified in this document are to be used for installation in BMW vehicles. Left and right are determined from the driver's seat.

Carefully read all instructions and supplements before proceeding with the installation. Reference should be made to TIS for instructions dealing with a stock part of the vehicle but not stated in detail in these instructions.

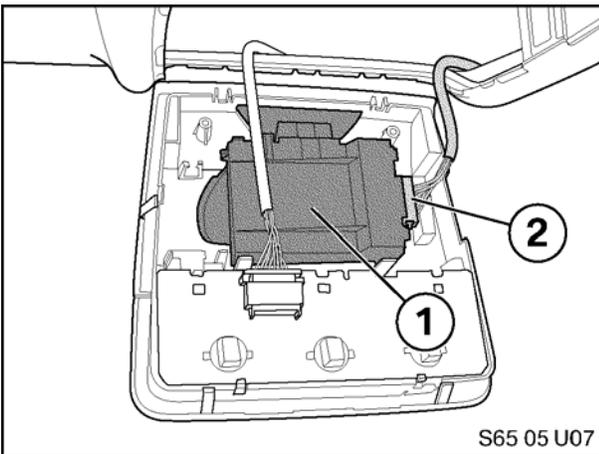
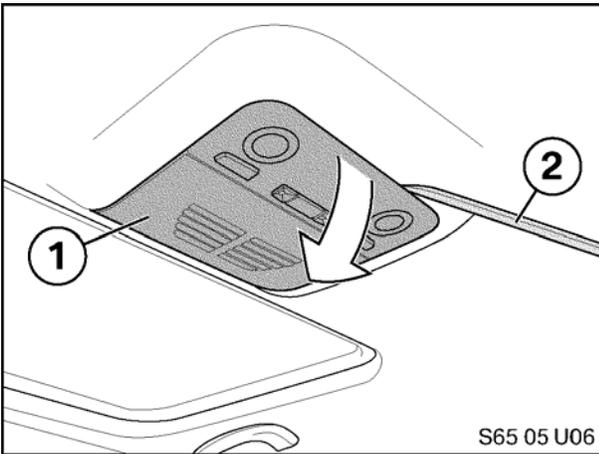
The instructions were complete and up to date at time of publication; however, changes to the vehicle or installation may have occurred. Please report any problems or changes noted with the installation to BMW Technical Hotline, along with VIN, date of manufacture and as much detail as possible.

**★ ★ DO IT RIGHT THE FIRST TIME, ON TIME, EVERY TIME ★ ★**

**PARTS INFORMATION****Contents of Kit - P/N 65 12 0 403 658**

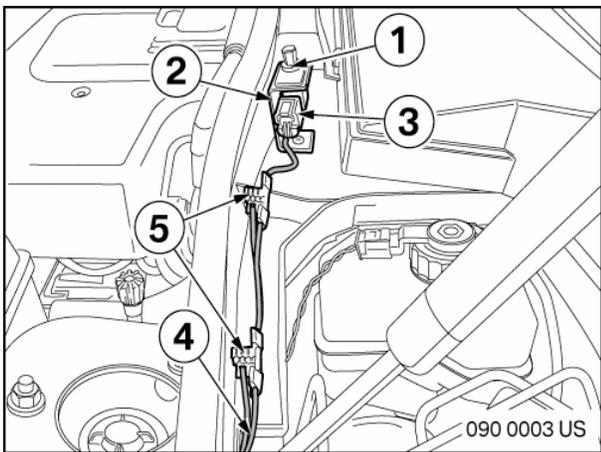
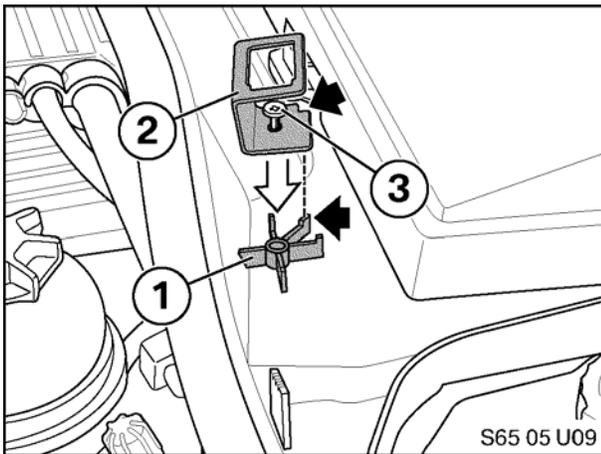
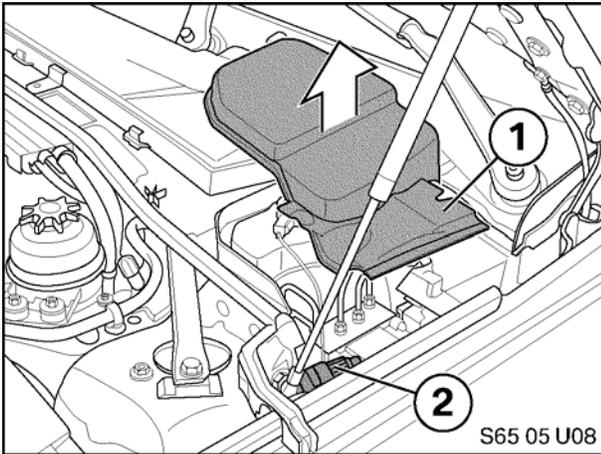
<b>Description</b>	<b>Qty</b>	<b>BMW Part Number</b>
Bracket for hood switch	1	61 31 6 932 791
Mounting plate	1	65 75 6 936 588
Bracket Alternate Power Siren	1	65 75 6 940 124
Alternate Power Siren/Tilt Sensor	1	65 75 9 117 900
Screw ST 4.8x13	1	07 11 9 901 202
Ultrasonic Module	1	65 75 6 963 651
Hood Switch	1	61 31 8 352 229
Hex Nut M6 w/captive washer	4	07 12 9 904 008
Screw M6x18 w/washer	2	07 11 9 904 093

### Interior Ultrasonic Module Installation



1. Disconnect negative battery terminal.
2. Pry off ceiling light cover (1) from headliner using plastic pry tool (2).
3. Install ultrasonic module (1) into ceiling light as shown.
4. Connect 8-position black connector (2) to ultrasonic module (1).
5. Reinstall ceiling light cover to headliner.

## Hood Switch Installation



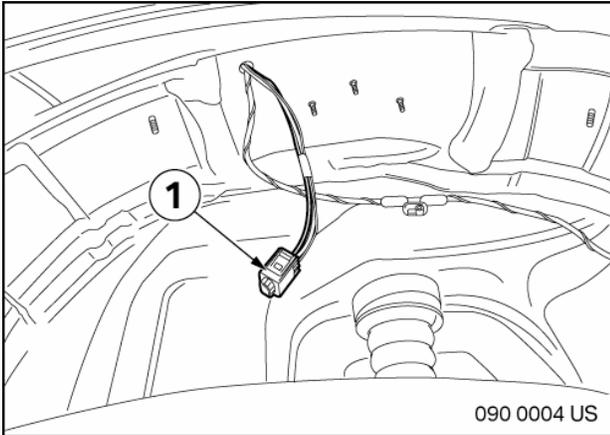
1. Remove cover (1) by LH hood strut area.
2. Locate 3-position black hood switch connector and harness (2). Remove securing tape.
3. Position hood switch bracket (2) to mounting location (1) and secure in place with ST 4.8 x 13 screw (3).

**Note:** Make sure “corner notch” on bracket faces rearward and fits into base mounting tab as shown.

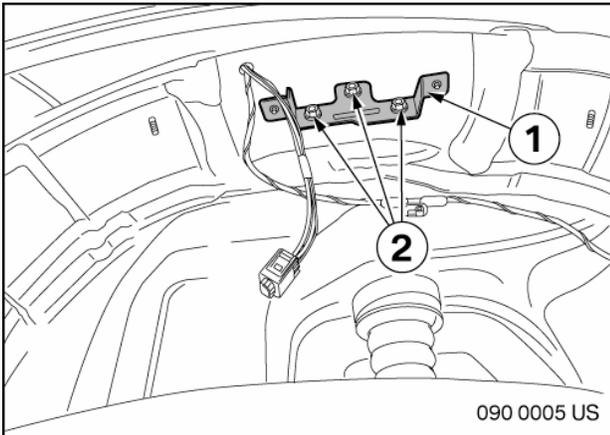
4. Insert hood switch (1) into hood switch bracket (2).
5. Connect hood switch connector (3) to hood switch (2).
6. Secure hood switch harness (4) by pushing cable clips (5) into mounting tabs.
7. Reinstall cover.

## Alternate Power Siren/Tilt Sensor Installation

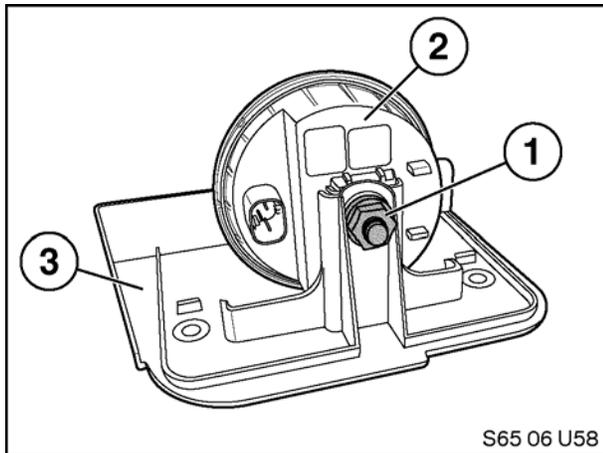
1. Remove LH rear wheel.
2. Remove LH rear wheel arch cover. See TIS 51 71 041
3. Locate 3-position black siren connector (1) in upper LH wheel arch area. Remove securing tape.

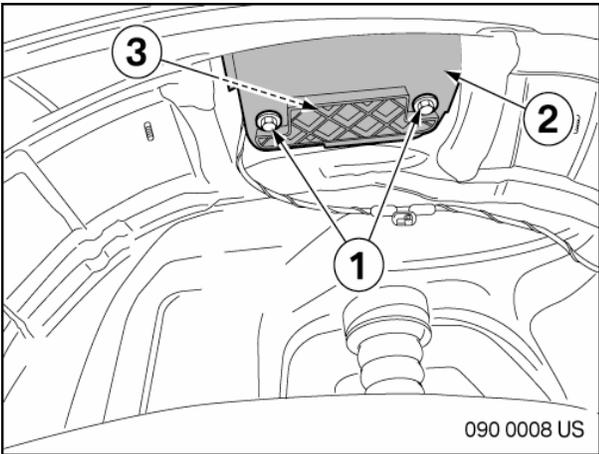
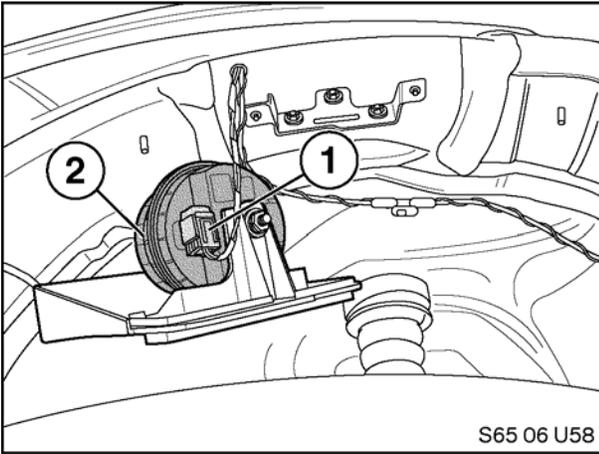


4. Install siren bracket (1) over threaded studs and secure in place with M6 hex nuts (2)



5. Position siren (2) to mounting plate (3) and secure in place with M6 hex nut (1).





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6. Connect 3-position black connector (1) to siren (2).
7. Push harness retainer into access hole on siren bracket to keep harness properly positioned.

8. Use M6x18 hex screws (1) to secure mounting plate (2) to bracket (3).
9. Reinstall LH rear wheel arch cover.
10. Reinstall LH wheel.

**Installation complete.**

**Please complete retrofit coding procedures on the next page.**

**RETROFIT CODING**

**Note: Please refer to SI B09 05 01 for latest Progman retrofit procedure before starting vehicle coding.**

Reconnect negative battery terminal.

Retrofit DWA (alarm system) using Progman 23.xx or later.

*Follow approved CIP Retrofit procedures until Retrofit selection appears then:*

**Program session**

Program selection:

- **Select** "Load SW"

Have control modules been replaced on this car?

- **Select** "No"

Screen will appear stating "Fitted control modules are being determined, followed by Select control module to be processed"

- **Select** "Retrofits"

Screen will appear stating "Selecting Retrofits"

- **Select** "Retrofits"

Screen will appear stating "Retrofits have been added"

- **Select** "DWA"

Screen will appear stating "Select sub function for retrofits or cancel with arrow in navigational column"

- **Select** "Added"

Screen will appear stating "Retrofitting Antitheft alarm system selected"

- **Select** "Continue"

Screen will appear stating "The voltage is being tested; vehicle context is being checked again" followed by "Measures plan is being determined"

Screen will appear stating "A measures plan has been created and accepted. It takes 1 minute to execute this measures plan"

- **Select** "Start"

Screen will appear stating "The CKM values are being saved"; "The GM control module \_\_\_\_\_"; "The CKM values are being restored"

Final Report

- **Select** "Finish"

To determine if DWA code number K302 is in vehicle order (VO)

- **Select** "Change"
- **Select** "Vehicle"
- **Select** "Complete encoding"

Screen will appear stating "You start coding the entire vehicle with the following functions"

- **Select** "Continue"

Screen will appear stating "Should coding of the entire car be started now?"

- **Select** "Yes"

Screen will appear stating "Measures Plan is being determined"

Screen option will appear showing Measures Plan, DWA option code number K302 should be the last number listed in the vehicle order.

- Select "Print" if a printed copy of measures plan is desired.
- Select "End" **NOTE: DO NOT SELECT ACCEPT**

Upon completion of anti-theft alarm system coding, conduct alarm system test to verify functionality of alarm system.

**PERSONAL PROFILE SETTINGS**

Personal Profile Settings allow the customer to modify select settings for the Alarm system.

**For vehicles with optional Navigation (SA 609)**

Settings can be selected via iDrive menu.

*Please refer customer to Vehicle Owner's Manual "Personal Profiles" and "Alarm" sections for more information.*

**For vehicles without Navigation**

Depending on vehicle production the visual and audio confirmation settings can or can not be modified.

All settings are set to active by default.

*Please refer customer to Vehicle Owner's Manual "Alarm" section for more information.*

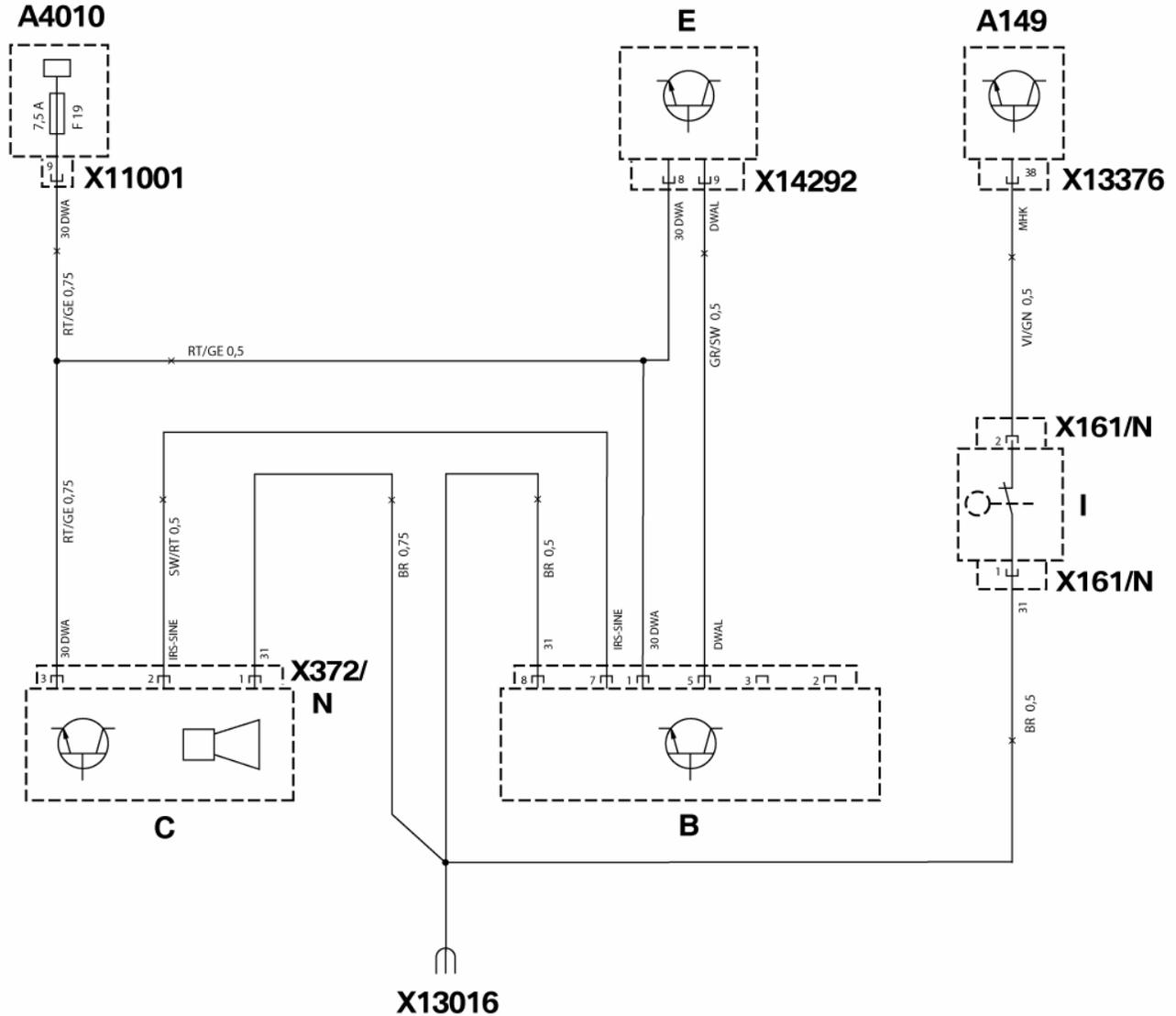
**FUNCTIONAL TEST**

Upon completion of retrofit coding, verify that alarm system is working correctly by going through the following action and response steps in order listed to ensure alarm system is functioning properly.

<b>Action</b>	<b>Response</b>
<p>Lock vehicle and arm alarm system with remote key by pressing the round "Roundel" button on remote key.</p> <p>Vehicle is locked and alarm system armed but alarm status LED flashes rapidly for about 20 times, then flashes normally at 3 second intervals.</p>	<p>All doors, hood and trunk lock at same time and interior sensor is activated. Alarm status LED on rearview mirror will start flashing approximately once every 3 seconds indicating properly functioning alarm system.</p> <p>This indicates a secure point (i.e. a door, the trunk or hood) is not secure or interior sensor is not properly connected. Locate and correct cause of secure point fault and retry locking vehicle and arming alarm system with remote key.</p>
<p>Check functionality of hood switch.</p> <p>Lock vehicle and arm alarm system with remote key.</p> <p>Push down on hood switch contact point.</p> <p>If alarm siren fails to sound, verify siren/tilt sensor is properly connected and repeat above procedure.</p>	<p>Open vehicle hood. Pull up on hood switch contact point to place hood switch in "test mode". This action simulates that hood is closed to alarm control module while vehicle hood is physically open.</p> <p>Verify that alarm status LED on rearview mirror is flashing normally at 3 second intervals.</p> <p>This task should result in alarm siren sounding! Press "arrow" button on remote key to disarm alarm.</p>
<p>Unlock vehicle and disarm alarm system with remote key. Close vehicle hood. Open driver's door and sit in driver's seat. Place key in ignition. Open all door windows. Exit vehicle and close driver's door.</p> <p>Verify that all doors, hood and trunk are closed and secure.</p> <p>Lock vehicle and arm alarm system with remote key.</p> <p>Wait about 2 minutes for interior sensor to fully recognize interior parameters of vehicle.</p> <p>Pass your arm through driver's door open window towards center console area in an attempt to activate alarm interior sensor.</p>	<p>All doors, hood and trunk lock at same time and interior sensor is activated. Alarm status LED on rearview mirror will start flashing approximately once every 3 seconds indicating properly functioning alarm system.</p> <p>This task should result with alarm siren sounding! Press "arrow" button on remote key to disarm alarm.</p>

**FUNCTIONAL TEST (CONTINUED)**

<b>Action</b>	<b>Response</b>
<p>Alarm status LED on rearview mirror flashes once every 3 seconds indication properly functioning alarm system, but alarm siren will not sound when passing your arm through driver's door open window towards center console area in an attempt to activate alarm interior sensor.</p> <p>A modified vehicle order has been installed.</p>	<p>Contact BMW Technical Hotline stating problem. It may be necessary for a modified vehicle order file be sent to you for loading into the vehicle's vehicle order to initiate proper function of alarm system.</p> <p>Verify that alarm system is working correctly by going through the above action and response steps.</p>

**ALARM SYSTEM CIRCUIT DIAGRAM**

090 0009 US

**Alarm System Circuit Diagram Legend**

<b>A149</b>	CAS control module
<b>A4010</b>	Fuse holder
<b>E</b>	Interior mirror
<b>B</b>	Ultrasonic module
<b>C</b>	Emergency-current siren
<b>I</b>	Hood switch
<b>N</b>	Black 3-pin
<b>X161</b>	3-pin black plug, to hood switch <b>I</b>
<b>X372</b>	3-pin plug, black to emergency-current siren <b>C</b>
<b>X11001</b>	15-pin black plug, to fuse holder <b>A4010</b>
<b>X13016</b>	Joint connector, terminal 31 tap
<b>X13376</b>	41-pin black plug, to CAS control module <b>A149</b>
<b>X14292</b>	10-pin black plug, to interior rear view mirror

**Cable Colors**

<b>BL</b>	Blue
<b>BR</b>	Brown
<b>GE</b>	Yellow
<b>GN</b>	Green
<b>GR</b>	Grey
<b>OR</b>	Orange
<b>RT</b>	Red
<b>SW</b>	Black
<b>VI</b>	Violet