

## WARRANTY BULLETIN

Wb10-36A



DATE : DECEMBER 2010 SECTION : 06 - Electrical



EXPIRATION: DECEMBER 2012

SUBJECT : REPROGRAMMING OF I/O-A & I/O-B MODULES FOR IMPLEMENTATION OF THE ESSENTIAL FUNCTIONS TO OPERATE THE VEHICLE (BASIC LIMP-HOME FUNCTIONS)

REVISION A THIS WARRANTY BULLETIN SUPERSEDES PREVIOUS VERSION.

Connector RES3 may be used instead of RES4 if more accessible.

### APPLICATION

Models affected	Vehicles affected
<ul style="list-style-type: none"> <li>- H3-41, H3-45 Coaches</li> <li>- H3-45 VIP Motorhomes</li> </ul> <p>Model Year : 2009 – 2011</p>	<p>VIN  </p> <p>Vehicles</p> <p>2PCH334959C71 <b>1378</b>                      2PCH3349XAC71 <b>1686</b>            2PCV334958C71 <b>1382</b>                      2PCH33491AC71 <b>1687</b>            2PCVS3495BC71 <b>1683</b>                      2PCV33493BC71 <b>1694</b>            2PCH33496AC71 <b>1684</b></p> <p>and</p> <p>from 2PCH33496AC71 <b>1555</b> up to 2PCH33490AC71 <b>1678</b> incl.</p> <p><i>Vehicle serial numbers 2PCH33499BC711695 and subsequent will have the subject of this bulletin accomplished prior to delivery.</i></p>
<ul style="list-style-type: none"> <li>- X3-45 Coaches</li> </ul> <p>Model Year : 2009 - 2010</p> <hr/> <ul style="list-style-type: none"> <li>- XLII-45 Motorhomes</li> <li>-XLII-45 Entertainer's</li> </ul> <p>Model Year : 2009 – 2011</p>	<p>Vehicles</p> <p>2PCG334939C72 <b>9566</b>                      2PCG334969C72 <b>9593</b>            2PCY334999C72 <b>9592</b>                      2PCW334959C72 <b>9595</b></p> <p>and</p> <p>from 2PCG33496AC72 <b>9873</b> up to 2PCWS3498BC72 <b>9972</b> incl.</p> <p><i>Vehicle serial numbers 2PCYS3499BC729973 and subsequent will have the subject of this bulletin accomplished prior to delivery.</i></p>
<p><b>This bulletin does not necessarily apply to all the above-mentioned vehicles, some vehicles may have been modified before delivery. The owners of the vehicles affected by this bulletin will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned.</b></p>	

## DESCRIPTION

On the vehicles affected by this bulletin, a reprogramming of the multiplex modules is necessary to permit usage of the Basic Limp-Home Functions mode (essential functions to operate the vehicle) if a CAN network or CECM module failure occurs. The KVASER communication interface will be required to perform the reprogramming.

This reprogramming is required on all vehicles equipped with I/O-A & I/O-B modules having the following part number:

I/O-A part #564101

I/O-B part #564075

**FAILURE CAUSE:** Following the introduction of new I/O modules, it has been determined that the essential functions to operate the vehicle (basic limp-home functions mode) in case of CECM or CAN network failure was not implemented.

**FAILURE CONSEQUENCE:** Without the possibility to use the essential functions of the basic limp-home mode, a vehicle with faulty CECM or CAN network cannot be started and brought back on its own power.

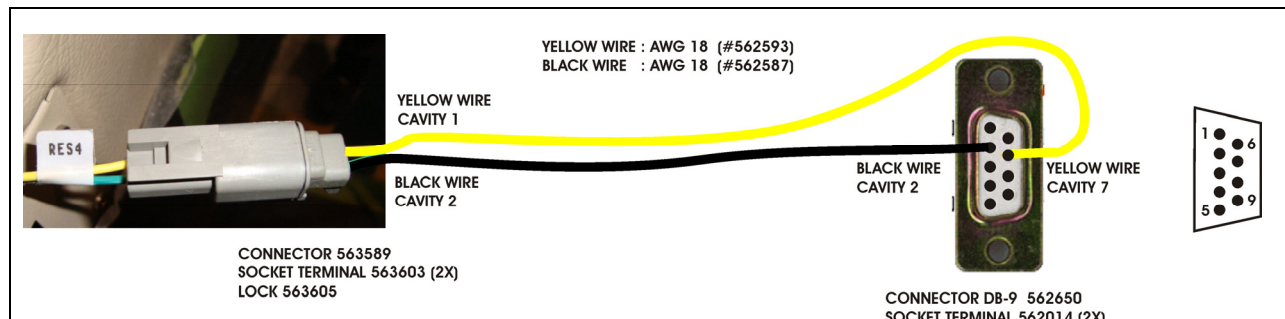
## MATERIAL

The Kvaser communication interface (Prevost #685535) is necessary. One unit is available in your service center.



KVASER COMMUNICATION INTERFACE

An interface harness must be made (see image below) and used to connect the Kvaser communication interface to RES4 connector located next to the dashboard multiplex modules (**RES3 in the rear electrical compartment may be used if more accessible**). Stow this harness with the Kvaser communication interface. It will be required for the reprogramming of other vehicles.



## PROCEDURE



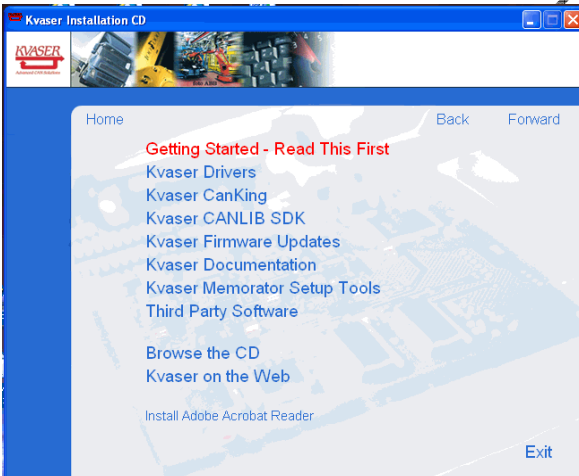
### DANGER

Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

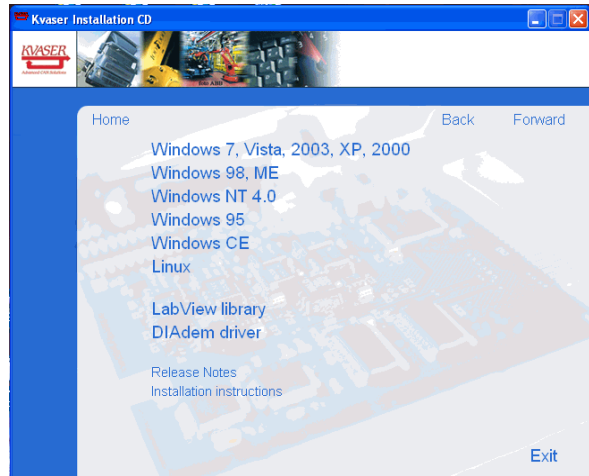
1. It's essential to update the current CECM multiplex program on all vehicles equipped with slide-outs prior to the I/O-A & I/O-B modules reprogramming.
  - a) For XLII MTH series, update with program version PV06100036P06 or later version if existing.
  - b) For VIP series, update with program version PV06100032P20 or later version if existing.
2. Prepare Kvaser communication interface. It is necessary to install the Kvaser communication interface driver on your computer in order to use it. You can obtain the Kvaser driver either from the CD included with the Kvaser communication interface or from the Prevoost Service Portal.

### Driver from the CD

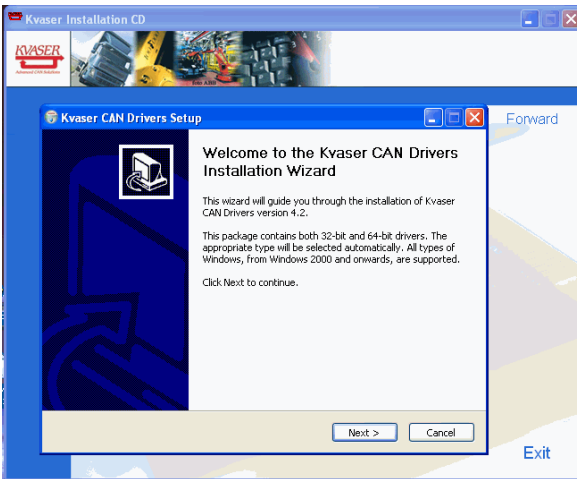
- a) Insert the CD in your computer.
- b) Run the installation program. It will copy the driver files to your hard disk.



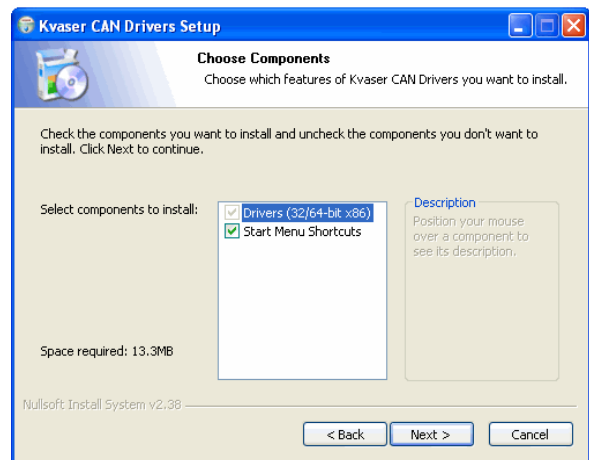
- c) Click on « Kvaser Drivers ».



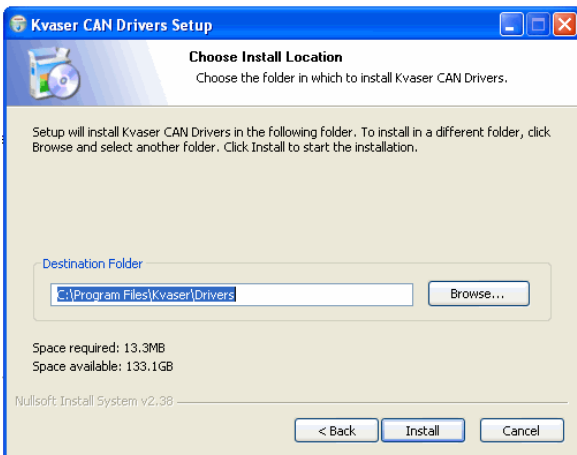
- d) Select your computer operating system « WINDOWS 7, VISTA 2003, XP, 2000 ».



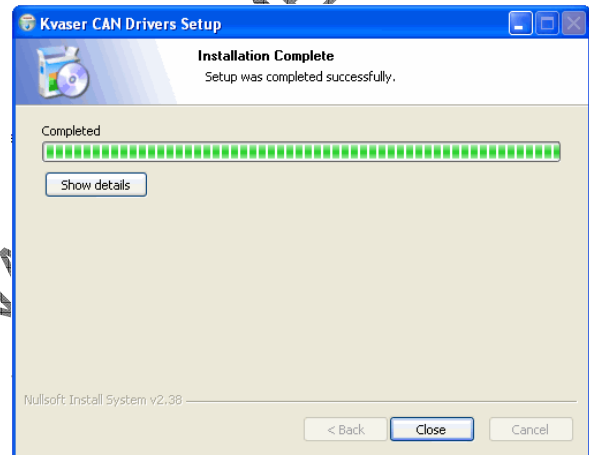
e) The Installation Wizard window will appear. Click on « Next » to continue.



f) Click on « Next ».



g) Setup will install the driver files in «C:\Programme Files\Kvaser\Driver ». Click on «Install» to accept this destination folder.



h) The installation process will continue.



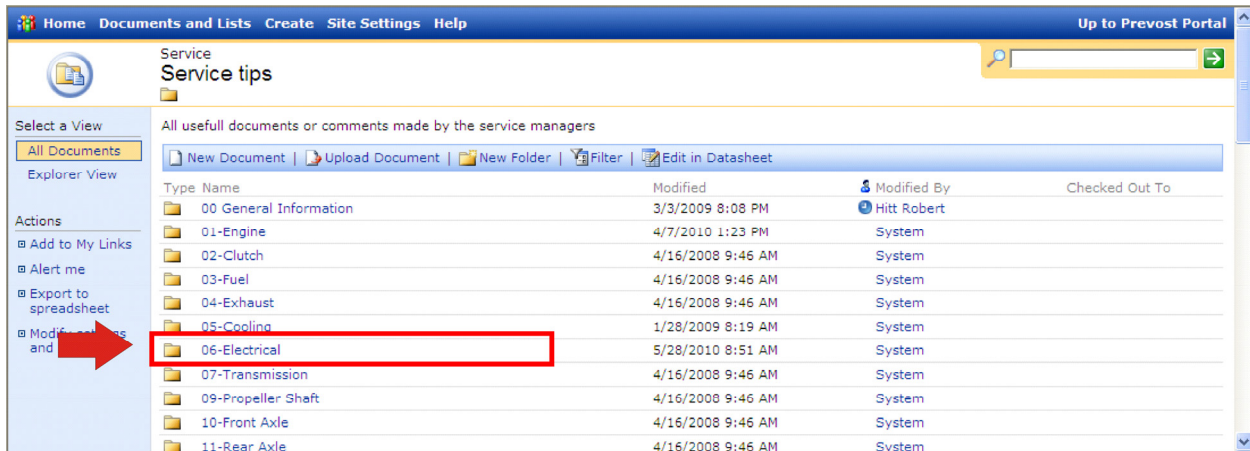
i) Once completed, click on « Exit » to close the installation program.

## Driver from the Prevost Service portal

- a) Download the Kvaser communication interface driver **kvaser\_drivers\_w2k\_xp.exe** from Prevost Service Portal under: *Service tips/06-Electrical/06A-Multiplex/AROS I\_O module update for limp home problem*. Save the driver (kvaser\_drivers\_w2k\_xp.exe) on your computer.

**NOTE:** To gain access to the Prevost Service portal, you will need to use your UB number and current password.

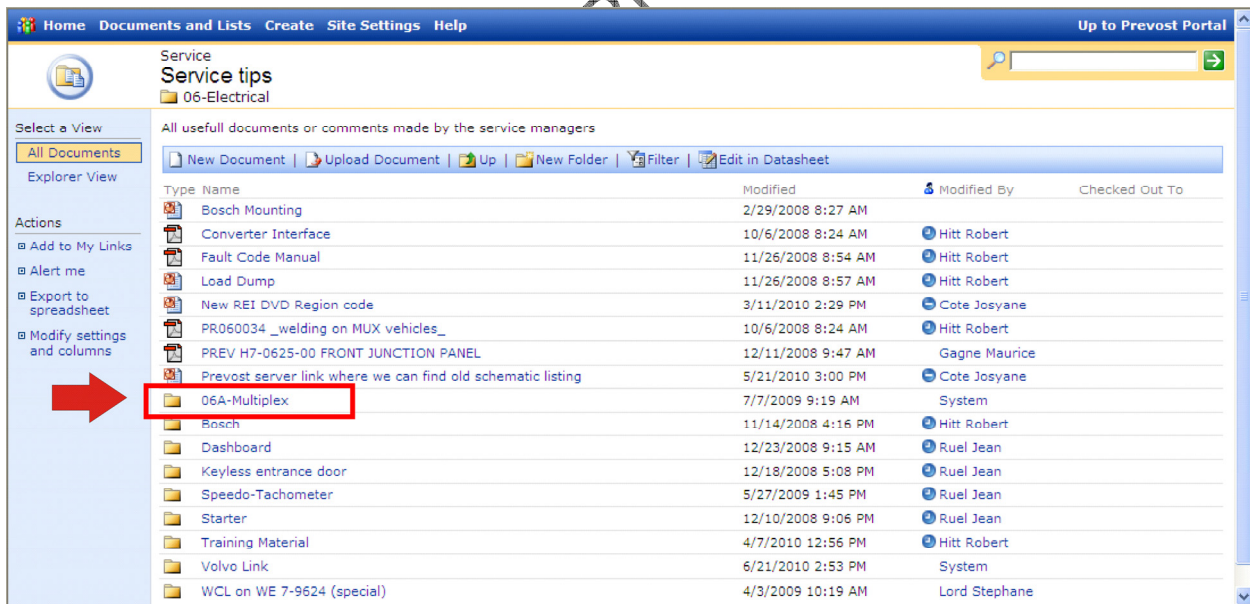
User name = vcnlubxxxxx



The screenshot shows the 'Service tips' page with a table of folders. The '06-Electrical' folder is highlighted with a red box. A red arrow points to the 'Modify settings and columns' link in the left sidebar.

Type	Name	Modified	Modified By	Checked Out To
Folder	00-General Information	3/3/2009 8:08 PM	Hitt Robert	
Folder	01-Engine	4/7/2010 1:23 PM	System	
Folder	02-Clutch	4/16/2008 9:46 AM	System	
Folder	03-Fuel	4/16/2008 9:46 AM	System	
Folder	04-Exhaust	4/16/2008 9:46 AM	System	
Folder	05-Cooling	1/28/2009 8:19 AM	System	
Folder	06-Electrical	5/28/2010 8:51 AM	System	
Folder	07-Transmission	4/16/2008 9:46 AM	System	
Folder	09-Propeller Shaft	4/16/2008 9:46 AM	System	
Folder	10-Front Axle	4/16/2008 9:46 AM	System	
Folder	11-Rear Axle	4/16/2008 9:46 AM	Svstem	

- b) Click here to open this folder.

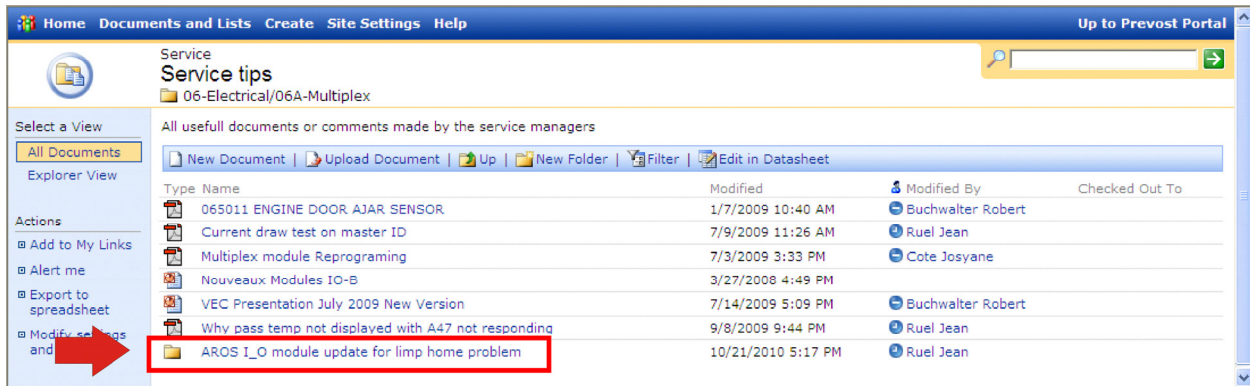


The screenshot shows the '06-Electrical' folder with a table of documents and folders. The '06A-Multiplex' folder is highlighted with a red box. A red arrow points to the 'Modify settings and columns' link in the left sidebar.

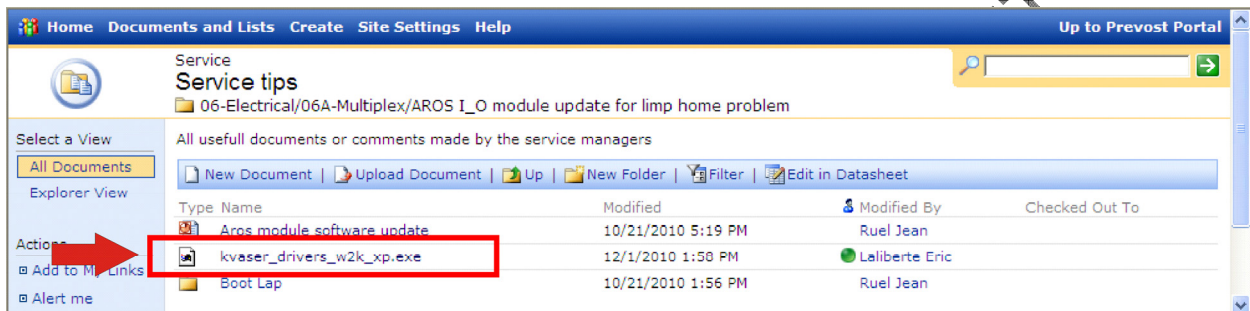
Type	Name	Modified	Modified By	Checked Out To
Document	Bosch Mounting	2/29/2008 8:27 AM		
Document	Converter Interface	10/6/2008 8:24 AM	Hitt Robert	
Document	Fault Code Manual	11/26/2008 8:54 AM	Hitt Robert	
Document	Load Dump	11/26/2008 8:57 AM	Hitt Robert	
Document	New REI DVD Region code	3/11/2010 2:29 PM	Cote Josyane	
Document	PR060034_welding on MUX vehicles_	10/6/2008 8:24 AM	Hitt Robert	
Document	PREV H7-0625-00 FRONT JUNCTION PANEL	12/11/2008 9:47 AM	Gagne Maurice	
Document	Prevost server link where we can find old schematic listing	5/21/2010 3:00 PM	Cote Josyane	
Folder	06A-Multiplex	7/7/2009 9:19 AM	System	
Folder	Bosch	11/14/2008 4:16 PM	Hitt Robert	
Folder	Dashboard	12/23/2008 9:15 AM	Ruel Jean	
Folder	Keyless entrance door	12/18/2008 5:08 PM	Ruel Jean	
Folder	Speedo-Tachometer	5/27/2009 1:45 PM	Ruel Jean	
Folder	Starter	12/10/2008 9:06 PM	Ruel Jean	
Folder	Training Material	4/7/2010 12:56 PM	Hitt Robert	
Folder	Volvo Link	6/21/2010 2:53 PM	System	
Folder	WCL on WE 7-9624 (special)	4/3/2009 10:19 AM	Lord Stephane	

- c) Click here to open this folder.





d) Click here to open this folder.



e) Click on the driver file. A dialog box will open, click on « Save » and save on your computer desktop.

f) Look for the new file icon on your desktop. Select the icon and then press F2 key in order to change the file name. Delete file name extension « .abc » as shown on the table below.

BEFORE	AFTER NAME CHANGE
kvaser_drivers_w2k_xp.exe.abc	kvaser_drivers_w2k_xp.exe

g) Now, double click the file icon to install the driver on your computer. Follow the Installation Wizard instructions. The installation process is identical to steps e, f, g & h of « Driver from the CD » section.

- On your computer, create a folder named BOOT LAP. Once again, on the Prevost Service Portal, download the files (4) located in Boot Lap and save in your computer own BOOT LAP folder. Files are identified as follows :

*Tips for the files download: Right click on the file and select « Save target as... » in the pop-up menu.*

boot_lap.exe
IO_Aros_All_SSW.bat
IOA_ssw_21520623_r9b
IOB_ssw_21520625_r9b

- Once saved on your computer, change the file names (2 files only). Delete file name extension « .abc » as shown on the table below.

BEFORE	AFTER NAME CHANGE
boot_lap.exe.abc	boot_lap.exe
IO_Aros_All_SSW.bat.abc	IO_Aros_All_SSW.bat

- Plug the Kvaser communication interface USB connector to your computer.
- Place the ignition switch to the OFF position.
- Inside front electrical compartment, unplug all connectors from CECM module and Master ID.



- Inside engine compartment, set the rear start selector switch to NORMAL.



9. Inside the R.H. side dashboard, next to multiplex module A47 & A48, locate CAN network connector RES4 (**or RES3 in the rear electrical compartment**). Disconnect the terminating resistance from connector RES4 and then connect RES4 to the interface harness. Connect the other end of interface harness to Kvaser communication interface.
10. Place the ignition switch to the ON position.
11. Before going on with the next step, make sure that all the previous steps were properly done, if not, many hours would be required to perform a long recovery procedure.
12. Double click on **IO\_Aros\_All\_SSW.bat** found in your computer BOOT LAP folder in order to start reprogramming.
13. A DOS window will open, showing reprogramming of first module, then reprogramming will pause. When prompted (*Press any key to continue...*), press a key to continue with the next module, and so on, up to module A53.

**NOTE**

The reprogramming sequence is as follows:

A41→A42→A43→A55→A49→A44→A45→A46→A47→A48→A54→A50→A51→A52→A53→A56\*→A57\*→A58\*→A59\*    \*= slide-out modules

<pre> C:\WINDOWS\system32\cmd.exe Module Information SYSTEM SW PARAMETERS PAR&lt; 0&gt; HW partnumber = 70395973 PAR&lt; 1&gt; HW serial number = 03300544 PAR&lt; 2&gt; PBL part number = 2116268 PAR&lt; 3&gt; SW ID = 21349215 PAR&lt; 4&gt; ECU type = 4741200 PAR&lt; 5&gt; Application ID = 70378760 PAR&lt; 6&gt; Application Date = 20100830 PAR&lt; 7&gt; ECU error state = 0000002b Used time: 0 seconds  C:\Documents and Settings\ruej00\My Documents\E Press any key to continue . . . </pre>	<p>SW ID=software ID</p> <p>I/O-A : 21349215 will be replaced by 21520623</p> <p>I/O-B : 21349218 will be replaced by 21520625</p>
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```

C:\WINDOWS\system32\cmd.exe
Module Information
SYSTEM SW PARAMETERS
PAR< 0> HW partnumber = 70395973
PAR< 1> HW serial number = 03300544
PAR< 2> PBL partnumber = 21185205
PAR< 3> SW ID = 21349215
PAR< 4> ECU type = 494f4108
PAR< 5> Application ID = 70378760
PAR< 6> Application Date = 20100830
PAR< 7> ECU error state = 0000002b
----- POWER UP THE MODULE -----

Data in CBL ORGs
Data in CBL ORGs
ORG< 1> PBL part number = 000021185205
Data in CBL ORGs
ORG< 2> HW id number = ffffffff
Data in CBL ORGs
ORG< 3> HW serial number = ffffffff
Data in CBL ORGs
ORG< 4> HW configuration = 000000003101
Data in CBL ORGs
ORG< 5> SBL program = d52fee0c00f6
Data in CBL ORGs
ORG< 6> Local parameters = ffffffff
Data in CBL ORGs
ORG< 7> NET config = 4e455400bb4
Data in CBL ORGs
ORG< 8> Application = 720c00411028
Used time: 0 seconds

C:\Documents and Settings\ruej00\My Documents\Boot_Lap>boot_lap.
OR_ssw_21520623_r9b.mot
MT CAN tool for K... LAPCANcard Feb 12 2010
Hex file file load OR_ssw_21520623_r9b.mot:
segblk baseadr=000 start=F0000 end=f0004
Loading ECU 43 0xf0000 - 0xff00031...
MALLOC 0x00c0000-0x00fbffff
MALLOC 0x00fd000-0x00fffff
MALLOC 0x00fe000-0x00fffff
MALLOC 0x00ff000-0x00fffff
Loading Block 0x00fb0000 - 0x00fb0001
2
Loading Block 0x00fc0000 - 0x00fc0001
2
Loading Block 0x00fd0000 - 0x00fdd3f2
36612

```

MODULE BEING REPROGRAMMED

```

C:\WINDOWS\system32\cmd.exe
Module Information
SYSTEM SW PARAMETERS
PAR< 0> HW partnumber --TIMEOUT!--
PAR< 1> HW serial number = 03300826
PAR< 2> PBL partnumber = 01125005
PAR< 3> SW ID = 21520623
PAR< 4> ECU type = 494f4108
PAR< 5> Application ID = ffffffff
PAR< 6> Application Date = ffffffff
PAR< 7> ECU error state = 8000002b
Used time: 0 seconds

C:\Documents and Settings\ruej00\My Documents\Boot_Lap>pause
Press any key to continue . . .

```

PAUSE FOLLOWING THE REPROGRAMMING OF FIRST MODULE

NEW PROGRAM IDENTIFIED

PREVIOUS

14. If a module is missing (slide-out modules on a coach for example), the DOS window will show WAITING FOR RESPONCE. Press ESCAPE to skip the elapsed timer and the reprogramming of the missing module. Press any key to continue with the next module. This sequence may be required a few times for other missing modules.

DOS WINDOW DISPLAYS « WAITING FOR RESPONSE » BECAUSE OF A MISSING MODULE

```
C:\WINDOWS\system32\cmd.exe
Module Information
SYSTEM SW PARAMETERS
PAR( 0)   HW partnumber   --TIMEOUT!--
PAR( 1)   HW serial number --TIMEOUT!--
PAR( 2)   PBL partnumber  --TIMEOUT!--
PAR( 3)   SW ID           --TIMEOUT!--
PAR( 4)   ECU type        --TIMEOUT!--
PAR( 5)   Application ID   --TIMEOUT!--
PAR( 6)   Application Date --TIMEOUT!--
PAR( 7)   ECU error state  --TIMEOUT!--
-----
          POWER UP THE MODULE
18 s - waiting for response
```

15. The reprogramming process will carry on up to the last module. The reprogramming software will stop and close by itself. The DOS window will close.
16. Once completed, disconnect the communication interface from RES4. Reinstall the network terminating resistance on RES4 connector.
17. Inside rear electrical compartment, trip circuit breaker CB2 (XLII MTH) or CB6 (H3, VIP, X3).
18. Inside front electrical compartment, reconnect CECM & Master ID.
19. Inside rear electrical compartment, reset circuit breaker CB2 (XLII MTH) or CB6 (H3, VIP, X3).
20. Allow enough time for the CECM to reprogram the modules (2 to 3 minutes). When CAN is replaced by the outside temperature in the instrument cluster LCD display, the entire process is complete (on 2011 vehicle, the display will show message « Mux Auto-programming I/O module please wait... » during reprogramming).
21. Perform a test to check proper functioning of the “essential functions to operate the vehicle” mode (Basic Limp-Home Functions). To do so, disconnect the CECM.
  - Check if center and rear marker lights are turned on with ignition switch to the ON position.
22. In « Diagnostic » menu of message center display, check if diagnostic troubleshooting codes exist for « ELECTRICAL SYSTEM ». Make sure no active codes remain. Clear all inactive codes.

## WARRANTY

This modification is covered by Prevo's normal warranty. We will reimburse you 0.75 hour (3/4) of labor upon receipt of the replaced parts and a completed A.F.A. form on which you must specify as per "Warranty Bulletin 10-36".