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NAVCOM TECHNOLOGY

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Notices

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Use of this Document

This User Guide is intended to be used by someone familiar with the concepts of *GPS* and satellite surveying equipment.

Note indicates additional information to make better use of the product

Indicates a caution, care, and/or safety situation.

Revisions to this User Guide can be obtained in a digital format from *support.navcomtech.com*

Chapter 1

Install Utility Overview

Install Utility is designed to make the uploading of software into NavCom Technology, Inc. GPS products user friendly. By answering a few questions, the software for all of the internal hardware modules will be updated. The user also has the flexibility to upload the software for any single module if desired.

New software will normally be distributed via email along with the Install.EXE executable, and an Install.INI file. The EXE and the INI file must reside in the same folder and it is suggested that the software and/or options/license files be placed in the same folder.

It is important to isolate previous versions of the EXE, and INI files. Although the EXE file most likely will not change, the INI file is specifically written for the version of software supplied with the Install program. It is recommended that a unique folder be created that will hold each different version of software received. This also will allow the reinstallation of a previous version for troubleshooting purposes if required.

After clicking on the Install Utility icon, the utility automatically reads the available serial ports (i.e RS-232 ports) from the Windows registry. You will then be allowed to configure the Install Utility to conform to the PC COM Port of your choosing. After the connection between the receiver and the PC has been established, the Install Utility will automatically read the receiver configuration and display it in the main Install Utility window.

You will then be allowed to browse to the folder where the new software is stored and update your receiver software, your receiver options, and/or your StarFire[™] license.

Receiver Setup Parameters

Install Utility does not require any unique receiver settings. Any configuration that has been set in the receiver prior to the upload will be restored after the upload is complete.



Chapter 2

Establishing Communications & Software Upload

Getting Connected

In order to execute Install Utility double click on the icon. Once Install Utility is active communications with the GPS system must be established by pressing the Configure COM Port button on the main Install Utility window, see Figure 1.

Install Software Utility					_ 🗆 ×
Receiver Status	Ve	rsion 0.6 Cor	nfigure COM Port	Refresh	Exit
Receiver Type: Non	e Digital Serial	Number: None	Con	nested No	ne
Bootblock Software: Non	e RE Serial	Number: None	Bas	id Rate: No	ne
GPS Software: Non	e LBM Serial	Number: None			
IOP Software: Non	e LBM Communic	ation ID: None			
LBM Software: Non	e LBM Hardware Conf	iguration: None			
Receiver Options: None					
LBM License In Use: Non	8				
LBM License Back Up: Non	ð				
lless lesses	Activ	rities:			
Fre Directory: C:\GPSIS Wo	aking\Utilities\	17: Initial Baud R 17: Available GP 17: Available LBN	late = 19200 S Software: sh/149, M Software: LBM0_1	21.Bin V149, 9.Hex V0,9	21
Install Software	Instal Options/License 10:45 10:45	17: Available IUH 17: Initial Baud R	ate Instal GPS Eng	Hex V2,3 ine = 11520	
Cancel	Receiver Options 10:45	17: Initial Baud R	late Instal LBM Engi late Instal IOP Engi	ne = 19200 ne = 19200	
	EBM License				
					-

Figure 1: Install Utility Main Window Initial View

A new window will appear as seen in Figure 2 that will allow you to choose the PC Com port that the receiver is connected to. We have implemented an Auto Baud Detect feature that will allow for quick protocol connection between the PC, and the GPS receiver.

Install Utility automatically reads the available serial ports (i.e RS-232 ports) from the Windows registry, and displays them in a pop-up window. Choose the Com Port that you will be using to control the GPS receiver. Once the connection is established the receiver options, and software version information will be displayed in the main Install Utility window as shown in Figure 3.

рс сом с	_ 🗆 ×	
Device nam	ne: COM1	•
<u>0</u> K	<u>C</u> ancel	Apply

Figure 2: PC COM Port Configuration

🆺 Install Software Ut	ility					
			Version O	.6 Configure C	OM Port	Refresh Exit
Receiver Status						
Receiver Type:	BlackBox GIS	Dig	ital Serial Number.	15154-3	Con	nected: COM1
Bootblock Software:	BootBlockV1.7		RF Serial Number	15443-0	Bau	d Rate: 115200
GPS Software:	149,21	LE	M Serial Number:	288		
IDP Software:	2,3	LBM C	ommunication ID:	0		
LBM Software:	0,9	LBM Hardw	are Configuration:	3002		
Receiver Options:	25 Hz Nav50 Hz Radio PowerRadi	Data…L1 & L2…∖ oHopping Patter	VAASRTCM Ba n = 0	ise/RoverRTK	Base/Rove	r1000 mW Max
LBM License In Use:	PreciseCalendar 1	limeActive0x	8000 : World Wid	e Start 07/0	2/2003En	d: 07/02/2004
	None					
			Activities:			
User Input			11:30:07: Got B	30 Len 16		-
File Directory: C:VGPS	IS Working/Utilities\		11:30:07: Got I 11:30:07: Got I	36 Len 162 31 Len 59		
1			11:30:08: Got I	30 Len 16		
Instal Software	Install Op	tions/License	11:30:08: Got I	36 Len 162		
Cancel	Recei	ver Options	11:30:09: Got	30 Len 16		
			11:30:09: Got I	36 Len 162		
	LBM L	cense	T SULUE: Got I	si Len 59		
						•

Figure 3: Install Utility Main Window Port Configuration View



Module Software Upload Procedure

At this point in the Receiver Status area of Figure 3, you can review all of the options available to your particular receiver. The Activities area shows which messages are being output from the receiver, and will show upload status information during the process. If you also have an Options file that will upgrade your receiver options, or a StarFire[™] LBM license file for upload check the appropriate box as seen in Figure 3. Click on the Browse icon to path your way to the new software files.

To initiate the software update process, click on the Install Software button, and the window in Figure 4 will appear. Confirm the software version installed into the receiver, and the version you want to load into the receiver. Click the check box next to each version of software you want to load, and click Install. This window will also allow the end user to opt-out of loading any software by clicking Cancel.

🚹 Install Software Confirmation 💦 🗖 🖂 🗙					
Current Software: GPS: 149,21	LBM: 0,9	IOP: 2,3			
Available Update S GPS: 152,21	ioftware: LBM: 0,9	IOP: 2,4			
Select software to I	be installed: -				
GPS	🗖 LBM	IOP IOP			
Install	<u></u>	Cancel			

Figure 4: Software Confirmation

If any of the three major software versions are already installed, as in Figure 3 LBM software, a dialog box will appear stating that a version equal to or greater is presently in the receiver. Click Yes if you want to load the version anyway, or No if you want to move on to the next module for upload.

If for some reason a module cannot be uploaded, an error dialog will appear indicating that an error occurred during the update process. At the end of the upload process, an information dialog box will appear similar to Figure 5 indicating which modules were uploaded successfully, and that the receiver needs to be power cycled. Those modules that did not upload successfully will not be listed.



Figure 5: Successfully Load Software Modules

The main Install Utility window should auto-refresh and display the newly loaded software versions, if it does not click the Refresh button, see Figure 3.



Options & LBM License Upload Procedure

Similar to the software update procedure, the receiver options, and LBM license information can also be uploaded via the Install Utility. To initiate the options/license upload process, click on the Install Options/License button in Figure 3, and the window in Figure 6 will appear. Confirm the options to be installed in the receiver. If you are comfortable with the information provided, click Install. The options update happens very quickly, and when finished will inform the end user via a message dialog box.

Install Optoins/Lice	nse Confirmatio	on	
Receiver Options:	<u>Current</u>	<u>Update:</u>	LBM License: Corrent Issue Date: 07/02/2003 03:19:12
Nav Rate:	25 Hz	25 Hz	Update Issue Date : Unknown
Data Rate:	50 Hz	50 Hz	
Waas:	Yes	Yes	
RTCM Base:	Yes	Yes	
RTCM Rover:	Yes	Yes	
RTK Base:	Yes	Yes	
RTK Rover:	Yes	Yes	
Max Radio Power:	1000 mW	1000 mW	
Radio Hopping Pattern:	0	0	Install Cancel

Figure 6: Options Confirmation

The main Install Utility window should auto-refresh and display the newly loaded software versions, if it does not click the Refresh button, see Figure 3.