

Appendix B

Trimble Galaxy only

HyperTerminal may be used to communicate with the INMARSAT (see section 6.2). Close the SatComm program before starting HyperTerminal. There should be an icon labeled INM.ht in the HyperTerminal menu, which starts a session configured for communication with the INMARSAT. Double click on it to start the program.

All communications with the INMARSAT must start with the keystrokes [alt]+0155 which echoes to the screen as >. Hold the alt key down while typing the numbers on the keypad (not the number row below the function keys). The commands are case sensitive.

Be careful to distinguish between the numeral 0 and the letter O. Quotation marks should be typed in the command, where indicated. The parenthesis used is the {, often called a curly bracket or a brace.

Versions 3.0 and higher of the SatComm program set the IMN (if entered in the SatComm.ini; see section 6.3.2), auto login and auto scan parameters each time the program is executed. This discussion is included for troubleshooting INMARSAT communication problems.

Setting IMN

Query [alt]+0155\TNLC\?IMN{ }
asks the transceiver for its IMN.

Response >\TNLC\\$IMN{“*mobile number*”}
If it has an IMN, it will report the number

If the mobile number is an empty string, then enter the IMN using:

Command [alt]+0155\TNLC\\$IMN{“*mobile number*”}

It is a good idea to verify correct entry by repeating the query, after entering new information.

Setting Auto Login and Auto Scan

Auto Login and Auto Scan configure the transceiver to login to the satellite constellation and find the correct ocean area every time the transceiver is turned on or powered up.

Auto Login

Query [alt]+0155\TNLC\?LMO{ }

Response >\TNLC\ \$LMO{ *value* }

If the *value* is 0, then it is set properly. Otherwise, set the unit to auto login by issuing:

Command [alt]+0155\TNLC\ \$LMO{0}

It is a good idea to verify correct entry by repeating the query, after entering new information.

Autoscan

Query [alt]+0155\TNLC\?ASC{ }

Response >\TNLC\ \$ASC{ *value* }

If the *value* is 0, then it set properly. Otherwise, set the unit to auto scan by issuing:

Command [alt]+0155\TNLC\ \$ASC{0}

Checking Status

Query [alt]+0155\TNLC\?INF{ }

Response >\TNLC\ \$INF{ “*signalStrength; loginState; loginNcs; lockState; activity; msgCount msgType; currNCS; latitude; longitude; fixTime; posFixSource; fixStatus; cog; sog; cogsogSource; dceFlags*” }

Where the response for each parameter is an ASCII decimal.

signalStrength: An integer in the range of 0 – 3072. It may be used as a relative measure of the current signal to noise ratio. For proper transceiver messaging this value should be 576 or greater.

<i>loginState</i>	1	Logged out
	2	Logging out
	4	Logging in
	8	Logged in
	16	Logout failed
	32	Login failed
<i>loginNcs</i>	NCS id number of the network coordination station the transceiver is currently logged into (one per ocean area)	
<i>lockState</i>	Signal lock state. This is an attribute of the received signal that can be used to indicate the following conditions:	
	0	No lock
	1	Phase locked
	2	Frame synchronization
<i>activity</i>	Indicates various transceiver activities, like transmitting a message, receiving a message, etc. The following activities are defined:	
	1	Idle
	2	Logging in
	4	Logging out
	8	Receiving EGC message (Reserved)
	16	Receiving a message
	32	Transmitting a message
	64	Transmitting a distress alert
	512	Performance verification text
	2048	Forced clear
	4096	Message status requested
	4098	Performance verification test setup
	4099	Transmitting a distress message
	4103	Power-down sequence
	8192	Transmitting data report
	16384	Acknowledging a poll
	32768	NCS scan in progress
<i>msgCount</i>	Number of messages ready to be transferred to the computer. Messages may be transferred by using [alt]+0155\?M,	
<i>msgType</i>	The type of the next message to be transferred to the computer.	
	2	EGC
	3	Data
	5	FleetNet (EGC)
	6	SafetyNET (EGC)

- 10 Transceiver-event report
- 12 Receive Log
- 13 Transmit Log
- 14 EGC Log
- 16 EGC message of unknown type
- 19 Poll command data
- 20 User defined poll data
- 21 Data Log status
- 22 Data Log download

currNCS Identification number of the network control station the transceiver is tuned to.

latitude degrees; minutes; min/1000; hemisphere
hemisphere 0 – North 1 – South

longitude degrees; minutes; min/1000; hemisphere
hemisphere 0 – East 1 – West

fixTime hour; minute; second UTC time base

posFixSource source of position fix

- 0 GPS
- 1 NMEA
- 2 Manual
- 4 No source, system not initialized yet

fixStatus Status to position fix

- 0 Position good
- 1 Position stale 1 minute
- 2 Position stale 4 hours
- 3 Position stale 24 hours

cog Course over ground

sog Speed over ground

cogsogSource Source of the cog/sog data

- 0 GPS
- 1 NMEA
- 2 Manual
- 4 No source, system not initialized yet

dceFlags Each bit or range of bits in this parameter represents a flag or a value that gives the computer additional information that is not contained in the previously described parameters.

Note: This section has been translated from the Galaxy INMARSAT-C/GPS DCE Interface Specification version 4.0 manual.

Close HyperTerminal. If the system is ready to go into standard operation, the SatComm program can be restarted by double-clicking on its desktop icon.