

QUICK REFERENCE GUIDE SEAR II CONFIGURATION AND HYPERTERMINAL SETUP Document No. SIG-QG-08-04-001A.1

SEAR II – HyperTerminal Setup

- 1) Connect serial cable from PC COM port 1 to SEAR II User port.
- Go to: Start > All Programs > Accessories > Communications > HyperTerminal.

Connection Description	? ×
New Connection	
Enter a name and choose an icon for the connection:	
Name:	
My Sear II	
lcon:	
冬 🤤 🌭 🖾	2
ОК Са	ncel

- Enter name for connection for example, 'My Sear II', click the OK button.
- 4) Connect using COM1, click the OK button.

Connect To	? 🗙	
My Sear II		
Enter details for the phone number that you want to dial:		
Country/region:	Canada (1) 💌	
Area code:	780	
Phone number:		
Connect using:	COM1 💌	
	OK Cancel	

5) Set up baud rate as shown below, click **Apply**, then click **OK** button.

COM1 Properties	? 🛛
Port Settings	
Bits per second:	57600
Data bits:	8
Parity:	None
Stop bits:	1
Flow control:	None
	Restore Defaults
ОК	Cancel Apply

6) Apply power to the SEAR II then type **CtrI-L** to connect to the SEAR II unit.

SEAR II - Step 1 - Comm. Setup (New unit only)

- 1) On SEAR II front panel, press **COMM SETUP**.
- Verify the following settings (press ENTER after each is displayed):

Parameter	Value
SITE TYPE	Collector
SITE (ATCS) ADDRESS (X's match GEO)	7.103.XXX.XXX.02.01
OFFICE (ATCS) ADDRESS (Not reg. now)	2.XXX.XX.XXXX
POLL ID	1
MODE	Gen/ATCS
WAMS XID	DISABLED
OFFICE COMM. DEVICE	MCM (RS232)
MCM (RS232) PORT	AUX
FIELD DEVICE	None
USER PORT BAUD	57600
USER PORT DATA BITS	8
USER PORT PARITY	None
USER PORT STOP BITS	1
USER PORT FLOW	Nono
CONTROL	None
AUX PORT BAUD	9600
AUX PORT DATA BITS	8
AUX PORT PARITY	None
AUX PORT STOP BITS	1
AUX PORT FLOW CONTROL	None
COMM PORT BAUD	9600
COMM PORT DATA BITS	8
COMM PORT PARITY	None
COMM PORT STOP BITS	1
COMM PORT FLOW CONTROL	None
SAVE CHANGES	YES

 At YES prompt following 'SAVE CHANGES' press ENTER. SEAR II display should show 'Saving Config.' and connection with Hyper Terminal should now be possible.

SEAR II - Step 2 - Uploading Application (LLW, LLB, CDL)

Uploading the Ladder Logic to the SEAR II

 On the SEAR II terminal interface Main menu display, select D) Application. The following Application menu will appear.

CR Vew Cal Trader teb C CR Vew Cal Trader teb C CR Vew Cal Trader teb C CR Vew Cal Trader teb Replication Application App Block Contents File Size FileName B) Upload File to SEAR B) Upload File to SEAR C) Print/Capture CDL D) Frase Application File E) Compiler Log F) Site Setup G) Exit Site Setup G) Exit
Application App Block Contents Nownload File to SFAR File Size FileName B) Upland File from SEAR File Size FileName B) Upland File from SEAR CDL C) Print/Capture CDL DD D) Erase Application File CDL F) Site Setup C12.11w G) Exit Site Setup Complete Engine Code Stream USER
Hickler Codeline Fri 08:19 11-12-2004 - Application App Block Contents Download File from SEAR File Size FileName B) Upload File from SEAR File Size FileName D) Erase Application File CDL) 2353 Bitset004.cdl D) Erase Application File CDL) 2353 Bitset004.cdl E) Compiler Log File Setup F) Site Setup Site Setup Complete G) Exit Site Setup Complete
Application App Block Contents Application App Block Contents B) Upload File to SEAR (5) Print/Capture CDL (5) Compiler Log (5) Exit File Size FileName CDL) 2353 Bitset004.cdl LLW) 206 CI2.llw LWW 206 CI2.llw Site Setup G) Exit
Application App Block Contents 1) Download File to SEAR File Size FileName B) Upload File from SEAR File Size FileName C) Print/Capture CDL CDL) 2353 Bitset004.cdl D) Erase Application File LLW) 206 CI2.11W F) Site Setup HIB 11960 EDSIVP.LLB G) Exit Site Setup Complete Engine Code Stream USER
I) Download File to SEAR File Size FileName B) Upload File from SEAR CDL) 2353 Bitset004.cdl C) Print/Capture CDL CDL) 2353 Bitset094.cdl D) Erase Application File LLW) 206 CI2.llw CDL) Site Setup CDL 1090 FILB F) Site Setup ATF) G) Exit Site Setup Complete Engine Code Stream USER
B) upload file from Schik CD Print/Capture CDL D) Erase Application File E) Compiler Log F) Site Setup G) Exit CDL) 2353 Bitset004.cdl CDL) 2353 Bitset004.cdl LLW) 206 CI2.llW LLB) 11960 EOSIVP.LLB ATF) < <emptv>> Site Setup Complete Engine Code Stream USER</emptv>
D) Erase Application File E) Compiler Log F) Site Setup G) Exit LLB) 11960 EDSIVP.LLB ATF) < <chvptv>> Site Setup Complete Engine Code Stream USER</chvptv>
E) Compiler Log LLB 11960 EUSIYP,LLB F) Site Setup ATF) < <emptv>> G) Exit Site Setup Complete Engine Code Stream USER</emptv>
6) Exit Site Setup Complete Engine Code Stream USER
Site Setup Complete Engine Code Stream USER
Engine Code Stream USER
Download HPP File (overwrite existing file)

- 2) Select A) Download file to SEAR.
- 3) Use the arrow keys to select LLW, LLB or CDL, then press **ENTER**.

Note: Download LLW and LLB first then the CDL last, as it requires a System Setup.

 Press ENTER on the SEAR II keypad when prompted. If LLW is selected the following message is displayed: 'Waiting for LLW download'. Proceed to the next step (5).



5) On HyperTerminal **Transfer** menu, select **Send File...**

🏶 MY SEARII - HyperTerminal		
File Edit View Call	Transfer Help	
	Send File	
	Receive File	
	Capture Text	
Nichter Hu	Send Text File	LL
	Cashina ta Duistan	
A A	Capture to Printer	

On Send File message box, click the Browse... button.

🗱 Send File			<u>?</u> ×
Folder: H:\			
<u>F</u> ilename:			
			<u>B</u> rowse
<u>P</u> rotocol:			
Zmodem with Crash Recove	ry		•
Ser	d	<u>C</u> lose	Cancel

- 7) Select the LLW, LLB or CDL file to be uploaded, then click the **Open** button.
 - **Note:** The file selection screen does not filter the file extensions by type; therefore, care must be taken so the proper type of file is selected based on the option entered at the prompt (LLW, LLB, or CDL).



 On the Send File message box, select the Zmodem with Crash Recovery protocol, then click the Send button.

🕮 Send File 🔗 🔀
Folder: C:\SEARII\NV Logic\Smart\Smart2
Eilename:
C:\SEARII\NV Logic\Smart\Smart2\EOSTYP.LL\
Protocol:
Zmodem with Crash Recovery
Send Close Cancel
Zaug Zaug Cauca

9) The selected file is transferred to the SEAR II.

Zmodem wi	ith Crash Recovery file send for MY SEA	RII
Sending:	C:\SEARII\NV Logic\Smart\Smart2\EOSTY	P.LLW
Last event:	Sending	Files: 1 of 1
Status:	Sending	Retries: 0
File:		4k of 7K
Elapsed:	00:00:02 Remaining:	Throughput:
	[Cancel <u>c</u> ps/bps

10) When transfer is complete, the following message is displayed.

Segment to download: LLW
Waiting for LLW downloaddone.
File Name: EOSTYP.LLW
File Size: 6620
LLW CRC : C249
Updating application blockdone.
Download successful.

- 11) Repeat steps 2 to 10 for LLB or CDL.
 - **Note:** If a CDL file is uploaded to the SEAR II, the next step (Site Setup) needs to be performed to have the unit operational again.

SEAR II - Step 3 - Site Setup

- 1) On the SEAR II front panel, press the **SITE SETUP** button.
- 2) Verify the following settings per the location plan (press **ENTER** after each is displayed):

Parameter	Value
DATE/TIME	MM-DD-YYYY HH:MM:SS
AUTOMATIC DTS ADJUSTMENT	YES
TIME ZONE?	EASTERN
SITE NAME?	"LOCATION"
MILEPOST	123.45
DOT #?	12345A
TESTER TYPE?	WAYSIDE
DATE FORMAT?	mm-dd-yyyy
TEMP. FORMAT?	Celsius
INDICATE HOLD	0
SITE TYPE?	Collector
SITE (ATCS) ADDRESS	7.103.XXX.XXX.02.01 (See Plan)
OFFICE (ATCS) ADDRESS	2.103.000.000 (default)
POLL ID	1
MODE	Gen/ATCS
WAMS XID	DISABLED
OFFICE COMM. DEVICE	MCM (RS232)
MCM (RS232) PORT	AUX
RADIO ATCS ADDR?	7.103.XXX.XXX.01.01 (See Plan)

FIELD COMM. DEVICE?	None	
USER PORT BAUD	57600	
USER PORT DATA BITS	8	
USER PORT PARITY	None	
USER PORT STOP BITS	1	
USER PORT FLOW	None	
CONTROL	None	
AUX PORT BAUD	9600	
AUX PORT DATA BITS	8	
AUX PORT PARITY	None	
AUX PORT STOP BITS	1	
AUX PORT FLOW	None	
CONTROL	None	
COMM PORT BAUD	9600	
COMM PORT DATA BITS	8	
COMM PORT PARITY	None	
COMM PORT STOP BITS	1	
COMM PORT FLOW	None	
CONTROL	None	
Please wait CompilingNo	te (On error see next section)	
RESET NAMES/MODULES? YES		
Please wait CompilingNo	te (On error see next section	
EDIT DIGITAL INPUTS?	NO	
EDIT BATTERIES?	NO	
EDIT RELAYS?	NO	
EDIT INDICATOR LEDS?	NO	
EDIT TEST LEDS?	NO	
GEO_BOX_1 ATCS ADDR?	LEAVE AT THE DEFAULT	
GEO_BOX_1 CTL OFFSET?	LEAVE AT THE DEFAULT	
GEO_BOX_1 CTL SIZE?	LEAVE AT THE DEFAULT	
GEO_BOX_1 IND OFFSET?	LEAVE AT THE DEFAULT	
GEO_BOX_1 IND SIZE?	LEAVE AT THE DEFAULT	
Note: You will be prompted for the previous 5 lines for each		
GEO boxes installed		
ULCP SWT OFFSET?	LEAVE AT THE DEFAULT	
ULCP LED OFFSET?	LEAVE AT THE DEFAULT	
Saving Configuration		

Please Wait Compiling...**Note:(On error see next section)** The values listed here are for demonstration only. Actual values may vary depending on CDL and location type.

INSTALL ULCP, WAITING FOR SERVICE MSG

Using a small tool, press the ULCP service button .



INSTALLED should appear on the SEAR display.

DISABLE AC POWER, THEN HIT ENTER.

Note: For a GEO setup you don't need to disable the AC power, just press ENTER and then press EXIT instead of waiting for 180 seconds.

SETTLING...(for 180 seconds)

BANK_1 (Hit Enter if correct)

Battery input will indicate 0.0, just press enter BANK_2 (Hit Enter if correct)

Battery input will indicate 0.0, just press enter BANK_3 (Hit Enter if correct)

Battery input will indicate 0.0, just press enter TURN AC POWER ON, THEN HIT ENTER.

Just press Enter.

NO MONITORED LAMPS

SEAR II is now ready!

SEAR II - Compiling Error

 If, while doing a Site Setup the message 'Compiling Error' is displayed, look at the Compiler logs to gather more information on what caused the error. To access the logs select **D**) Application from the Main menu.



2) Then select **E) Compiler Log** from the Application menu.

 GEO - HyperTerminal Bie Edit Yew Çal Yansfer Help D D 20 20 20 201 	
SHAKE Poplication A) Download File to SEAR B) Upload File from SEAR C) Print/Capture CDL D) Erase Application File P Site Setup G) Exit List compiler messages_	Hon 14:22 05-09-2006 App Block Contents File Size FileName CDL) 40251 snake 025.cdl LLW) 12126 SNMKE LLW AIF) < Site Setup Complete Engine Code Stream Disabled

3) If the message 'COULD NOT COMPILE -NO FREE RAM' is displayed, the SEAR II should be powered OFF and ON by temporary removing J1 (Power/Echelon) connector to clear the RAM. The Site Setup should be attempted again. Compiler Log - compiled from Site Setup

Compile time: Mon 05-08-2006 08:35:32

Compiling Site Setup Compiled Section(s) Successfully! Compiling Definitions Compiled Section(s) Successfully! COULD NOT COMPILE - NO FREE RAM

Hit any key to continue

Note: The following message will confirm that compiling was successful.

Compiler Log - compiled from start-up

Compile time: Mon 05-08-2006 12:46:56

Compiling Site Setup Compiling Definitions Compiling Logic Compiled Section(s) Successfully!

Hit any key to continue

SEAR II – Loading Executive

- To load new executive software into the SEAR unit, connect using HyperTerminal (see SEAR II – HyperTerminal Setup)
- Restart the SEAR and get ready to select 1 while the SEAR is booting:

🗣 WAG - HyperTerminal	
Ele Edit View Gal Transfer Help	
D 🗳 🐲 💈 i D 🔁 🗃	
F) Configuration () Monitor H) Incident Storage I) Repair History J) Passthrough K) Change Possword I) Versions H) System N) Exit Hit any key to continue	
Boot Monitor Version 9V642-A01.C SEAR II Bootingrsion number lesting data buspassed. Testing address buspassed. Checking the executive CRCvalid (076FCD9E) Boot Ontions (Valid Executive)	
1. Download Executive 2. Run Debugger 3. Run Executive Choice > _	

- Follow the on-screen directions from the HyperTerminal Transfer menu select Send File and then restart the SEAR once the transfer is complete.
- Always re-run site setup after loading a new executive. Ensure 'Indicate Refresh' is set to 60 seconds under site setup.