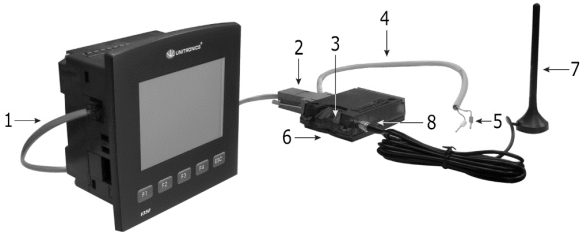
The GSM-17J-3G Modem Kit: Cinterion ,EHS6T

This kit enables your SMS-enabled OPLC to communicate via cellular networks.
The kit, GSM-17J Modem Kit, contains a Cinterion EHS6T GSM modem and related hardware.
The modem can communicate via GSM, GPRS + TCP/IP at 850/900/1800/1900 MHz.

Connection

The figure below shows you how to assemble the different elements of the Cinterion EHS6T GSM modem, and how to connect the modem to an OPLC.



Component Identification

#	Description	Notes
1	Communication cable, controller to modem	Vision, Samba, Unistream, M90/91 series: This is the RS232 programming cable for the controller. Jazz Jazz does not comprise an embedded communication port. Add-on ports are available by separate order. Use the communication cable supplied with the Add-on port
2	9 pin male adapter p/n MJ10-22-CS76	
3	LED	
4	Power supply cable	
5	End of power supply cable	Orange wire + striped orange & white wire—positive, blue wire—negative.
6	SIM Slot	
7	GSM antenna	
8	GSM antenna connector	Located on modem

SIM Slot

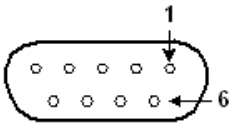
The SIM-with the circuit side facing upwards- is inserted by gently pushing it into the SIM card holder until it snaps hold.

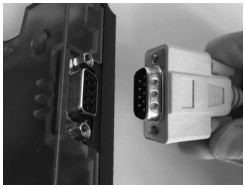
The SIM can be removed from the card holder by using a flat object such as screwdriver to carefully press the inserted SIM until it snaps out again.

Modem RS232 port pin-out

D-type 9 pin female connector:

Pin	Description	Direction
1	DCD (Data Carrier Detect)	O
2	RxD (Receive Data)	O
3	TxD (Transmit Data)	I
4	DTR (Data Terminal Ready)	I
5	GND (Signal Ground)	–
6	DSR (Data Set Ready)	O
7	RTS (Request to Send)	I
8	CTS (Clear To Send)	O
9	RING (Ring Indicator)	O





LED: Status Indication

EHS6T has two LEDs indicating the operation status through the device casing:

A green LED indicates whether the modem is correctly powered and ready to operate.

A yellow LED indicates the various operation states.(User configuration depend)

Technical Specifications

Modem

Power voltage range	8 - 30VDC
Status indication	Green/Yellow LED
SIM card	3V and 1.8V SIM card
GSM frequency	850/900/1800/1900 MHz
Weight	130g (4.58 oz.)
Dimensions	115 x 86 x 26mm (4.52” x 3.38” x 1.02”)
Operational temperature	-30 to 65°C (-22 to 149°F)
Storage temperature	-40 to 90°C (-40 to 194°F)
Antenna connector type	SMA female

Antenna

Antenna frequency	Quad band GSM:850/900/1800/1900/2100 MHz

Unitronics product sold hereunder can be used with certain products of other manufacturers at the user’s sole responsibility.

The information provided is subject to change without notice.

Modem initialization*

1. Preparing the modem as described below initializes it so that it is compatible with Unitronics PLCs.

2. Connect the modem to a PC, using a cable comprising the full RS232 pinout, either supplied in the modem kit or supplied by the modem manufacturer.

   Note that using a cable that does not comprise the full RS232 pinout will cause the process to fail.

Prepare the PLC modem:

3. Open VisiLogic/U90Ladder.

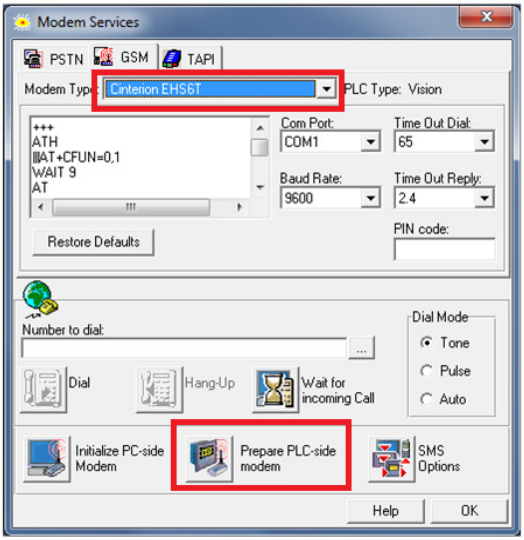
4. Open Connection>Modem Services, and select the modem type.
   If required, you can edit other parameters: Com Port, Baud Rate, Time Out, and Time-Out Reply: use the drop down boxes. If SIM has PIN code: click to enter the number.

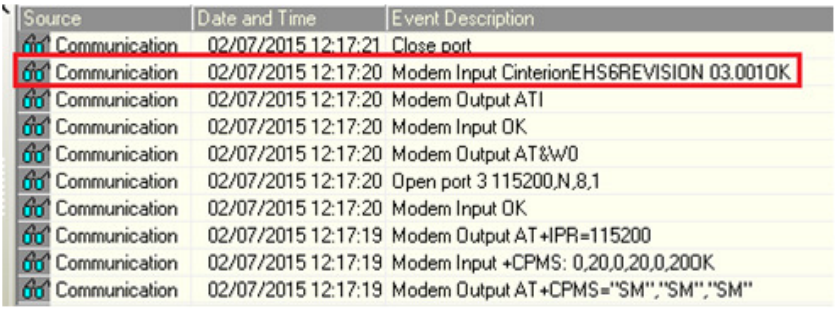
5. Click the Prepare PLC-side Modem button; dialog box opens.

6. When all parameters are set, click the Init Modem button; the PC establishes communication with the modem and initializes it.

7. Now you can connect the modem to the PLC using the 9 Pin connector MJ10-22-CS76 via cable 4 wires.

   *It is not required to prepare the modem while using Unistream.





Source	Date and Time	Event Description
Communication	02/07/2015 12:17:21	Close port
Communication	02/07/2015 12:17:20	Modem Input CinterionEHS6REVISION 03.001OK
Communication	02/07/2015 12:17:20	Modem Output ATI
Communication	02/07/2015 12:17:20	Modem Input OK
Communication	02/07/2015 12:17:20	Modem Output AT&W0
Communication	02/07/2015 12:17:20	Open port 3 115200,N,8,1
Communication	02/07/2015 12:17:20	Modem Input OK
Communication	02/07/2015 12:17:19	Modem Output AT+IPR=115200
Communication	02/07/2015 12:17:19	Modem Input +CPMS: 0,20,0,20,0,20OK
Communication	02/07/2015 12:17:19	Modem Output AT+CPMS="SM","SM","SM"

Note that the EHS6T model firmware should be 3.001.

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