

*Wireless Digital Packet Data
Communication for XR200 Panels*

Description

The Secure-Com II™ wireless packet modem allows XR200 Command Processor™ Panels to communicate alarm and system information to the central station over existing nationwide cellular networks.

Secure-Com II provides greater communication protection than hardwire links as there's no risk of cut phone lines. Wireless packet data communication also costs less than leased analog multiplex lines or proprietary radio networks. There's also little up front costs as Secure-Com II takes advantage of existing cellular networks and the wide base of service providers that eliminates the need to build your own network or subscribe to a proprietary alarm network.

Supervised Communication

The XR200 panel's communication format can be fully supervised by the DMP SCS-1 Receiver System. Sophisticated random check-in sequence assures that communication is maintained with the central station. Unique panel ID can be verified during every closing report to detect a panel substitution.

The Secure-Com II modem also provides a built-in TCP/IP and UDP/IP stack for ease of use and an airlink rate of 19,200 bps surpassing the 9600 bps of other methods.

XR200 Network Interface Card

The XR200 panel uses the DMP 462N Network Interface Card and simple cable connection to provide the RS-232 input to the Secure-Com II module. The XR200 panel fully supports all TCP/IP addressing.

Compact Modem

The Secure-Com II modem is compact and can be easily installed inside or in close proximity to the panel enclosure. The modem connects to the 462N card using the supplied DMP Model 392 RS-232 Data Cable. Power for the modem can be provided by the panel's battery or by the DMP Model 389 12 VDC Power Supply. A six-foot power cable is provided with the modem.

Power LED

The Secure-Com II modem also contains a built-in Power LED to indicate that DC power to the modem is in normal condition. The power LED also acts as a flashing Receive Signal Strength Indicator (RSSI).

Strength of CDPD Communication

Several differences exist between the standard cellular data transmission methods in use today and Cellular Digital Packet Data (CDPD) communication. CDPD is a packet switched network that transmits data in discrete packets rather than as a continuous stream of data. CDPD also is based on the proven *Internet Protocol* (IP) addressing for the delivery of data.



System Features

- Supports full DMP communication format
- DMP HST Communication Format is fully supervised by providing a sophisticated random check-in sequence and unique panel ID to detect a panel substitution.
- Works with XR200 Command Processor™ Panel using 462N Network Interface Card
- Operates on the public cellular CDPD network
- Fully supports TCP/IP addressing
- DMP HST Communication Format delivers full data with minimal cellular bandwidth impact
- Contains built-in TCP/IP and UDP/IP stack
- Supports CDPD Versions 1.0 and 1.1
- Transmits at 19,200 bps

Specifications

Operating Voltage	11.0 to 16.0 VDC 13.8 VDC nominal
Current	Transmit: 2.5 Amps maximum Receive: 300mA
RF Power	3 watts maximum
Frequency Range	Transmit: 824 to 849 MHz Receive: 869 to 894 MHz
Protocols	TCP, UDP, SLIP, Telnet

Ordering Information

SECURE-COM II	Wireless Packet Data Modem
386	3dB TNC Cellular Antenna
388	SECURE-COM II Mounting Clip
389	SECURE-COM II Power Supply
392	Replacement Data Cable



Secure-Com™ Cellular

Description

The Secure-Com™ cellular package allows you to connect a full function cellular phone system as either the primary or backup communications link to DMP panels. The cellular units connect to the panel's battery terminals and the backup connector of the 893 Dual Phone Line Module making installation simple.

What's included

The Secure-Com™ package consists of the following:

- a 3 watt cellular transceiver
- an interface module to accept the panel's data
- a power cable for the transceiver
- all necessary phone cables

A cellular antenna and optional handset can be purchased separately from DMP.

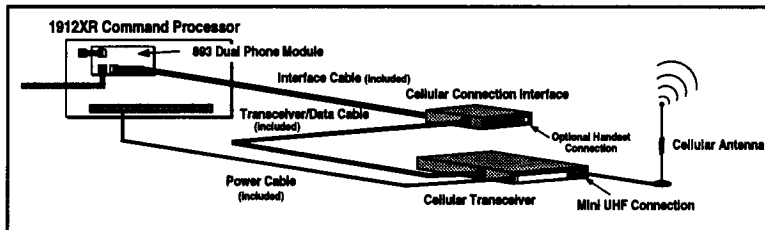


Figure 1: Secure-Com™ cellular system.

Hardware installation

1. Plug the Transceiver/Data cable from the cellular interface module into the transceiver.
2. Connect the Interface Cable between the 4-wire RJ11 jack on the interface module and the backup connector on the 893 Dual Phone Line Module.
3. Connect the antenna cable (not supplied) to the mini-UHF connector on the transceiver.
4. Install both units into the panel enclosure. See Figure 2.
5. Connect the black wire on the power cable to the negative terminal on the panel.
6. Connect the red wire on the power cable to the positive terminal on the panel.
7. Plug the power cable connector into the transceiver.

Red power LED

After applying power to the Secure-Com package, the red power LED on the cellular interface module lights steady and then flashes for five seconds. After this time, the LED goes back to steady to indicate the equipment is sensing the cellular network through the antenna and that there is sufficient power from the panel's battery.

Turning off the cellular phone

To turn off power to the cellular phone equipment, press the red LED button on the cellular interface module. Pressing it again restores power.

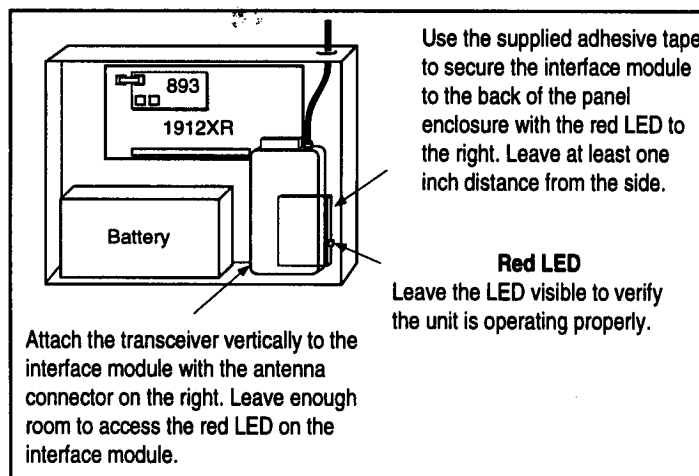
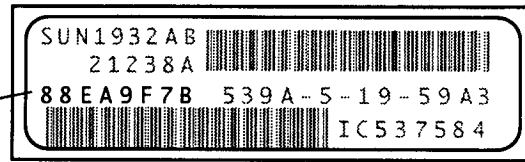


Figure 2: Installing modules in panel enclosure.

Activating cellular service

To activate the cellular service with a cellular provider, you'll need to supply the Electronic Serial Number from the transceiver. See Figure 3. The provider will assign you a cellular ID number and an area code and phone number for the cellular system. This information must be programmed into the transceiver.

Figure 3: ESN on transceiver module.



Follow the instructions in the NAM Programming Guide supplied with the cellular equipment to program the transceiver.

About Cell-Miser™ operation

The 1912XR panel with firmware version 111 or higher supports a cellular call restriction feature known as Cell-Miser. This programming option limits those calls made over a backup cellular phone line to loop alarms, Ambush, Phone Line 1 trouble, Abort, Recall Tests, and delayed events.

To use the 1912XR panel without the Cell-Miser option, program the panel's second line for DD (digital dialer). All event information will be sent over the cellular phone when the Line 1 analog line is inoperable.

To use the 1912XR with Cell-Miser, program the panel's second line for CELL.

Programming the panel

Once the cellular equipment is installed and programmed, you may need to program the DMP panel to configure it for cellular operation. If you are using the Cell-Miser option on the 1912XR, follow the programming steps below:

- 2ND LINE: NONE** SECOND PHONE LINE - This prompt allows you to specify digital dialer or cellular phone operation for the panel's backup line. You must have an 893 Dual Phone Line Module installed on the panel to use the 2nd phone line option.
- NONE DD CELL** NONE - A backup phone line is not being used.
- DD - A digital dialer or cellular phone without the Cell-Miser option is being used for backup.
CELL - A cellular phone line is being used for backup with the Cell-Miser option for restricted cellular operation (see **About Cell-Miser™ operation** above).

After you've selected CELL for the backup phone line, you can specify a recall test that will monitor the integrity of the cellular service.

- TEST FREQ: NONE** TEST FREQUENCY - Specifies a communication test interval for the 2nd phone line. This is displayed if 2ND LINE is programmed for DD or CELL.
- NONE REG 7 30** NONE - A communication test is not made on the 2nd line.
- REGULAR - A 2nd phone line communication test is made each time the regular communication test is completed.
- 7 - A test is made every 7 days at the test time programmed in the REGULAR communication test. This disregards all deferrals.
- 30 - A test is made every 30 days at the test time programmed for the REGULAR communication test. This disregards all deferrals.



894 Phone Transfer Module

Description

The 894 module automatically transfers the premises house phones over to the backup cellular phone system in the event the primary phone line fails. This capability would allow persons at the home or business to contact family, friends, or emergency authorities while the main telephone network was down.

What's included

The 894 module includes the following:

- 894 module in snap track base
- double-stick tape
- (2) 356-2 Phone Cords

893 Dual Phone Line Module

The 894 module is used with the 893 Dual Phone Line Module to allow the detection of voltage drops on the main phone line. This voltage drop detection can activate a panel output that in turn triggers the relay on the 894 module and places the house phones onto the cellular system.

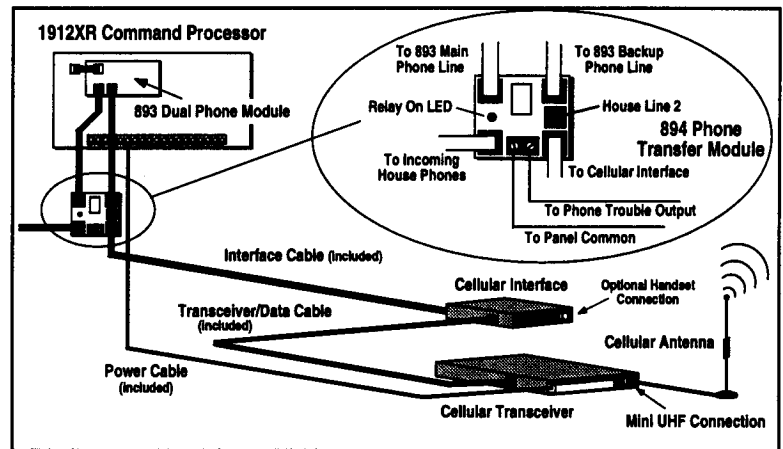


Figure 1: 894 used with Secure-Com™.

Installing the 894

1. Install the module in the panel enclosure in a convenient location. Note where the phone cords are going to terminate before attaching the module.
2. Install a 356-2 between the 893 Main phone connector and the "893 MAIN" connector on the 894.
3. Install a 356-2 between the 893 Backup phone connector and the "893 BACKUP" connector on the 894.
4. Install the Interface Cable (supplied with the Secure-Com™ cellular package from DMP) between the cellular interface module and the CELLULAR connector on the 894.
5. Install the incoming TELCO line into the TELCO/HOUSE connector on the 894.
6. Connect the output wire from the 1912XR to the positive terminal on the 894.
7. Connect a panel common wire to the negative terminal of the 894.

House Line 2

The 894 module also provides a connector that allows you to plug in a standard phone and make calls over the cellular system even while the main phone line is operable. This feature can be helpful during service calls or system maintenance. The HOUSE LINE - 2 connector is located between the cellular system connectors on the 894 module.

Programming the panel

Using the 894 module requires one programming step in addition to those made for the cellular equipment. You must program one of the voltage outputs on the 1912XR for Phone Trouble and then connect that output wire and a panel common to the two terminals on the 894 module.

Follow the programming steps below:

PH TRBL OUT: 0	PHONE TROUBLE OUTPUT - This output is turned on anytime the phone line monitor detects a voltage below 3 VDC. The output is turned off when phone voltage rises above 3 VDC. An 893 Dual Phone Line Module is required to detect the voltage drop. Enter zero to disable this output.
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Description

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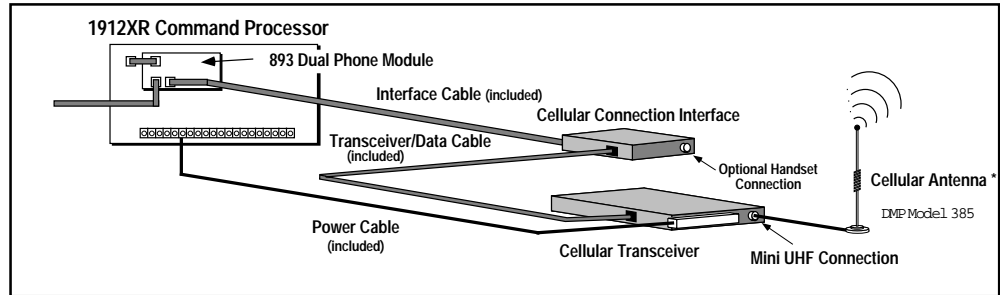


Figure 1: Secure-Com™ cellular system.

What's included

The Secure-Com™ package consists of the following:

- 3 watt cellular transceiver
- interface module to accept the panel's data
- power cable for the transceiver
- all necessary phone cables

A cellular antenna and optional handset can be purchased separately from DMP. See chart on back.

Hardware installation

1. Plug the Transceiver/Data cable from the cellular interface module into the transceiver.
2. Connect the Interface Cable between the 4-wire RJ11 jack on the interface module and the backup connector on the 893 Dual Phone Line Module.
3. Connect the antenna cable (not supplied) to the mini-UHF connector on the transceiver.
4. Install both units into the panel enclosure. See Figure 2.
5. Connect the black wire on the power cable to the battery negative terminal on the panel.
6. Connect the red wire on the power cable to the battery positive terminal on the panel.
7. Plug the power cable connector into the transceiver.

The Secure-Com system draws 200mA standby current and up to 2 Amps of current while transmitting.

Red power LED

After applying power to the Secure-Com package, the red power LED on the cellular interface module lights steady and then flashes for five seconds. After this time, the LED goes back to steady to indicate the equipment is sensing the cellular network through the antenna and that there is sufficient power from the panel's battery.

Turning off the cellular phone

To turn off power to the cellular phone equipment, press the red LED button on the cellular interface module. Pressing it again restores power.

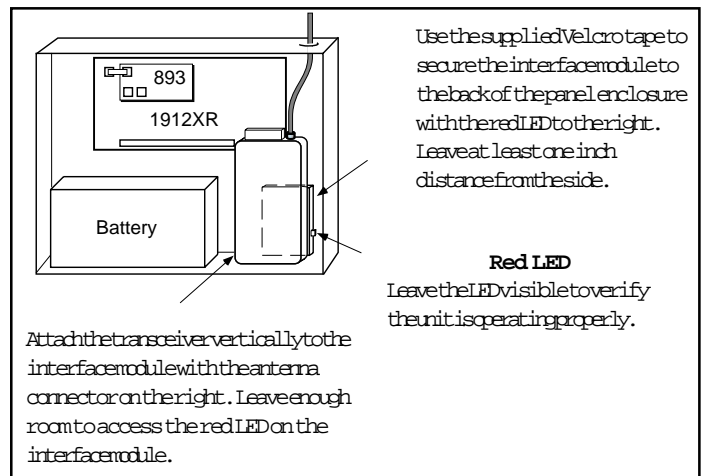
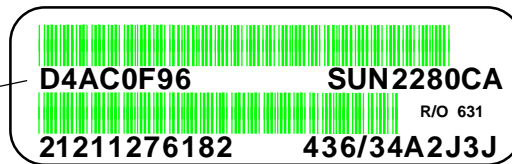


Figure 2: Installing modules in panel enclosure.

Activating cellular service

To activate the cellular service with a cellular provider, you'll need to supply the Electronic Serial Number from the transceiver. See Figure 3. The provider will assign you a cellular ID number and an area code and phone number for the cellular system. This information must be programmed into the transceiver.

Figure 3: ESN on transceiver module.



Follow the instructions in the NAM Programming Guide supplied with the cellular equipment to program the transceiver. To program a transceiver you'll need the DMP Model 380 or 381 Handset. See the chart below for the correct handset model.

About Cell-Miser™ operation

1912XR panels (firmware version 111 or higher) and all XR200 panels support the cellular call restriction feature known as Cell-Miser™. This programming option limits those calls made over a backup cellular phone line to zone alarms, Ambush, Phone Line 1 trouble, Abort, Recall Tests, and delayed events.

To use the 1912XR panel without the Cell-Miser option, program the panel's second line for **DD** (digital dialer). All event information will be sent over the cellular phone when the Line 1 analog line is inoperable. To use the 1912XR or XR200 panel with Cell-Miser, program the panel's second line for **CELL**.

Cellular Products Cross Reference Chart

The following lists compatible handsets and interfaces that can be used with Secure-Com™ transceivers.

Approximate Release Date	Standard Motorola Transceivers	Approved Motorola Handsets	Approved Motorola Interfaces
May 1995	19029NASBA	SCN2498A or SCN2497B	DMP Model 380 S1936C or S1936D
May 1995	19031WASBB	SCN2498A or SCN2497B	DMP Model 380 S1936C or S1936D
May 1995	19029WASBA	SCN2498A or SCN2497B	DMP Model 380 S1936C or S1936D
Authenticating Motorola Transceivers			
July 1996	19031WASBD (SUN183OUA)	SCN2498A or SCN2497B	DMP Model 380 S1936D
December 1996	SUN2280BA or SUN2280CA	SLN3601A or SCN2462A	DMP Model 381 S1936D

Programming the panel

Once the cellular equipment is installed and programmed, you'll need to program the DMP panel to configure it for cellular operation. Refer to the 1912XR Programming Guide (LT-0171) or the XR200 Programming Guide (LT-0196) for complete programming information.