

Chapter 2

INTRODUCTION

There are a few procedures that must be performed before installing the 289H LSS monitor. They pertain primarily to obtaining central office equipment bay locations, telephone facilities or network IP routing information for the monitor, power leads, power fuse locations, etc.

Many of the procedures can be performed while the 289H equipment order is being processed; others must be completed before ordering the 289H. This section discusses items that need to be considered during the site planning process.

BEFORE ORDERING

Below are some pre-ordering tasks associated with a 289H LSS installation :

1. Determine the total number of devices that will be monitored by the 289H LSS. You will need to identify all the devices on both dedicated and subscriber pairs.

This information is needed to place an ordering the following:

- Standard Dedicated Relay Card (50 devices on dedicated pairs).
 - Sparton Dedicated Replacement Cards (each card accommodates 36 devices on dedicated pairs). The SPDR card connects directly to an existing Sparton dedicated block's A, B or C cable.
 - Subscriber Relay Cards (each card accommodates 25 devices on subscriber pairs, or a combination of subscriber and dedicated pairs).
 - Connector blocks (for terminating device pairs).
 - Connector cables (providing the connection from the connector block(s) to the 289H chassis).
2. Make arrangements with the central office engineer to obtain the exact equipment bay location for the new 289H chassis. This information, as well as power and wiring specifications, are generally provided on a central office work order.

Note: It is necessary to determine where the equipment will be installed so that connector cables of the appropriate length can be ordered.
 3. Identify the exact location for installation of the 289H connector block(s). Once again, this information must be obtained from the central office engineer.

4. Determine the approximate distance from the connector block location to the 289H monitor. This distance estimate must take into consideration the necessary slack required to route connector cables vertically and horizontally from the connector block to the 289H chassis.

System Studies Incorporated provides standard connector cables in lengths varying from 2 feet to 250 feet. Appendix 1 identifies the various cables and provides System Studies product numbers for ordering.

- The number of cables required depends upon the type of block being used and the number of devices being monitored.

The standard connector blocks provided by System Studies are described and illustrated in Section 1 of this manual. When wired to maximum capacity, dedicated connector block 9800-6055 requires four cables, and subscriber connector block 9800-6056 requires eight cables (four for connecting subscriber device circuits to the 289H chassis and four for completing the auxiliary jumper arrangements, when applicable.) Additional information describing the use of cables is provided in Section 4 of this manual.

- In larger offices several connector blocks may be required. Before ordering blocks, please take into consideration the number of dedicated and subscriber device circuits that will be cut over to the 289H. Also, make note of any planned, future device installations that will increase the monitoring requirements in the office.

To assist in planning for the new installation, a 289H Loop Surveillance System Installation Planning Form (Attachment 2-1) has been included at the end of this section. If you intend to install additional 289H monitors, Attachment 2-1 will help you to organize the important information necessary to order the equipment. Please photocopy this form, fill out as much of the information as possible, and FAX it to System Studies at (831) 475-9207.

If you would like additional copies of the Installation Planning Form (123TS-4), please contact our Documentation Department at (800) 247-8255 or (831) 475-5777.

BEFORE ASSEMBLY

1. Make sure that communications facilities are assigned for use with the 289H monitor. For a 289H that will use modem communications, this means a telephone line terminating in a standard modular connecting block (type RJ-11C in most operating companies). Included in the 289H LSS Installation Kit is a 6-foot telephone cord with a RJ-11 connector on each end.

A 289H monitor equipped with the LAN Controller Card requires a network connection. Please contact your network administrator to obtain a local IP address, Port number, Gateway address and Subnet address for the 289H LAN Controller. He/she will also need to supply a Cat. 5 Ethernet cable to connect the controller card's RJ-45 connector to the local network hub.

To program the LAN Controller Card, you will need a Windows computer with a DB-9 serial connection and the HyperTerminal communications application (or equivalent).

System Studies supplies a standard DB-9 male/female serial cable (P/N 9800-6002) to connect the computer to the 289H LAN Controller Card.

Note: Please refer to Section 5, page 5-9 for detailed information on setting up the LAN Controller Card with the 289H LSS and PressureMAP software.

2. Arrange for a -48 volt DC (filtered) power supply to the 289H LSS monitor. The 289H LSS monitor operates with power in the range of 44V DC to 56V DC.

Note: Power must include a one and one third (1.3) amp fuse.

3. Make sure the ground wire used with the power connection is common to the stored program office ground, not the outside ground. It is essential that the filtered battery has the same potential as the central office equipment. The size and gauge of the power and ground conductors should be compatible with existing operating company practices. However, System Studies does not recommend the use of a conductor larger than 16 gauge or smaller than 22 gauge to power the 289H monitor.
4. Request horizontal and vertical frame positions for the 289H equipment. This information, along with power and wiring specifications, is provided by the central office equipment engineer. A central office miscellaneous equipment work order typically contains this required information.

Note: System Studies Incorporated can be contracted to prepare a work order (installation drawing) and perform the installation procedure. If this service is requested, personnel must be designated to provide System Studies with the central office information necessary to prepare the installation drawing.

Required information includes the following:

- Fuse location of the -48 volt power supply
- Equipment bay and fuse holder number
- Size and gauge of the power and ground wires
- Location (bay and position identification) of 289H connector block(s)
- Location (equipment rack and position) designated for 289H chassis

If all the requirements listed above for ordering the 289H equipment and preparing the central office site have been fulfilled, the time required to install the 289H monitor and cut over devices from an existing system will be greatly reduced.

Note: System Studies Incorporated's contracted installation service includes not only the placement of all 289H equipment and required components, but also assistance in the rewiring (or cutover) of device circuits to the new 289H connector blocks and the conversion of existing office data to the 289H LSS format. In addition, the service includes testing the new 289H equipment and selected device pairs to ensure that the 289H office is properly set up and fully operational.

Additional information regarding the pricing and scheduling of this Installation Service can be obtained by contacting the System Studies Incorporated Sales Department at (800) 247-8255 or (831) 475-5777.

289H/289H-M Loop Surveillance System Installation Planning Form

Staff

Company _____

Contact _____

Address _____

Telephone # _____

FAX # _____

Office (Installation Location)

Office Name _____

Location _____

C.O. Equipment Engineer _____

Address _____

Telephone # _____

FAX # _____

PressureMAP Data

PMAP Version _____

System Number _____

PMAP Telephone # /
IP Address _____Assigned 289H/289H-M
Telephone # / IP Address _____

System Configuration Data

Power Source -48 DC Required (filtered CO battery preferred)

Fuse Panel Location _____

Assigned
Equipment Bay Location _____

Assigned Cross Connect
Block Frame Location _____

Number of Devices on
Subscriber Lines _____

Number of Devices on
Dedicated Lines _____

Type of Office Switch _____

Distance (Cable Length) Between 289H/289H-M
and Connector Block _____