IRM2/LM™
IRM2 LOCAL MANAGEMENT
USER'S MANUAL

CABLETRON SYSTEMS, P.O. BOX 5005, ROCHESTER, NH 03867-5005

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CONTENTS

CHAPTER 1

INTRODUCTION

Welcome to Cabletron Systems' **IRM2/LM™ – Local Management for the Cabletron Systems IRM2** User's Manual. We have designed this manual to serve as a simple reference guide for using IRM2/LM. Local Management for the IRM2 provides complete control of your IRM2 through the Console Port on the module. You should read through this manual to gain a full understanding of Local Management for the IRM2.

1.1 USING THIS MANUAL

Chapter 1, **Introduction**, discusses the capabilities of Cabletron Systems' Local Management for Cabletron Systems' IRM2. The chapter also includes a list of related manuals.

Chapter 2, **Getting Started**, lists procedures for accessing Local Management for the IRM2. This chapter includes the procedures for communicating with Local Management through the IRM2's Console port.

Chapter 3, **The Device/Board/Port Counters Screen**, describes statistical information concerning your IRM2, its boards, and its ports.

Chapter 4, **Using the Community Names Option**, describes the Community Names Option. Instructions are provided on how to control access to the IRM2 and designate which workstations will receive alarms from the device.

Chapter 5, **Using the IRM2 Setup Option**, describes the IRM2 Setup Option. Procedures are provided in this chapter on how to use options for setting the: IP Address, current date, current time, modem baud rate, device lock, statistics refresh time, and restoration of factory defaults for your IRM2.

Chapter 6, **Using the Port Association Option**, discusses the Port Association Screen and its options.

We assume that you have a general working knowledge of Ethernet or IEEE 802.3 type data communications networks and their physical layer components.

1.2 GETTING HELP

If you need additional support related to Cabletron Systems' Local Management for the IRM2, or if you have any questions, comments, or suggestions concerning this manual, feel free to contact Cabletron Systems' Technical Support at:

By phone	(603) 332-9400 Monday-Friday; 8am - 8 pm EST
By CompuServe®	GO CTRON from any !
By Internet mail	support@ctron.com

1.3 ABOUT IRM2 LOCAL MANAGEMENT

The IRM2/LM provides unique management and control capabilities for the IRM2 module. You can access Local Management either through a VT™ 200 or 300 series terminal, or terminals running emulation programs for these series terminals, or through a Hayes compatible modem.

With IRM2 Local Management, you have the tools to manage the IRM2 and its attached segments. For example, you can enable and disable ports and set device parameters such as IP address, SubNet Mask, Default Gateway, current date and time, modem baud rate, statistical counters, refresh time, and enable or disable factory default settings.

You can also use Local Management to view a full array of statistics to the port level, including the number of:

bytes received	runt packets
packets	no resource errors
received collisions	misaligned packets
transmit collisions	CRC errors
OOW collisions	giant packets

Since the IRM2 is an SNMP compliant device, you can also set community names for the devices attached to your IRM2. These community names serve four purposes:

- They provide a security. The IRM2 authenticates any SNMP request, and only responds to those requests that have a community name contained in the IRM2 community name table.
- They allow you to set which network management workstations receive traps from the IRM2.
- They allow you to control Read, Read/Write, and Superuser access to your device.
- They allow you to set Local Management passwords.

1.4 RELATED MANUALS

Use the following guide to supplement the procedures and other technical data provided in this document. Where appropriate, we reference procedures contained in the following guide but do not repeat them.

Cabletron Systems' **Intelligent Repeater Module (IRM-2) Installation Guide**

1.5 SUGGESTED READING

Chapter 5, **Using the Setup Option**, contains changeable options that pertain to subnetworking. Since a detailed description of subnetworking is beyond the scope of this manual, we suggest you read the following book to supplement and/or enhance your general understanding of subnetting, subnet masking, and the use of the default gateway

Comer, Douglas E. Principles, Protocols, and Architecture. 2nd ed. Vol.1, Internetworking with TCP/IP. New Jersey: Prentice Hall, 1991.

CHAPTER 2
GETTING STARTED

This chapter lists procedures for accessing IRM2 Local Management for the IRM2. Information is provided on required terminal and cable configurations for connecting to the IRM2's Console port. Information is also provided on accessing Local Management through a modem.

2.1 LOCAL MANAGEMENT FROM A TERMINAL

To access Local Management for the IRM2, you must attach a VT 200 or 300 series terminal, or terminals running emulation programs for these series to the 9 pin port labeled CONSOLE on the IRM2.

2.1.1 Terminal Configurations

Use the following terminal configurations requirement to set up for the local management CONSOLE port. When using a Digital Equipment Corporation (DEC™) VT 200 or 300 series terminal, press **F3** to access the Setup Directory. When using a terminal emulator, refer to your equipment user manual for setup procedures.

Display Set-up Menu

Columns	80 Columns
Controls	Interpret Controls
Auto Wrap	No Auto Wrap
Text Cursor	No Cursor

General Set-up Menu

Mode	(VT220) VT200, 7 Bit Control (VT320) VT300, 7 Bit Control
Cursor Keys	Normal Cursor Keys

Communications Set-up Menu

Transmit	Transmit=9600
Receive	Receive=Transmit
XOFF	any option
Bits Parity	8 bits, No Parity
Stop Bit	1 Stop Bit
Local Echo	No Local Echo
Port	(VT220) EIA Port, Data Leads Only (VT320) DEC-423, Data Leads Only
Transmit	any option
Auto Answerback (VT 320)	No Auto Answerback

Keyboard Set-up Menu

Keys	Typewriter Keys
Auto Repeat	any option
Keyclick	any option
Margin Bell	Margin Bell
Warning Bell	Warning Bell
Auto Answerback (VT 220)	No Auto Answerback

2.1.2 Cable Configuration

Access Local Management by using an RS232 cable. This cable connects the terminal to the IRM2 CONSOLE port.

The required pin configuration for a cable with a 25 pin or a 9 pin connector at the terminal end of the cable, and a 9 pin connector at the IRM2 end of the cable, is as follows:

9 Pin Male Connector (IRM2 End)	**to**	**25 Pin Female Connector (Terminal End)**
Pin 3 (Receive)	to	Pin 2 (Transmit)
Pin 2 (Transmit)	to	Pin 3 (Receive)
Pin 5 (Ground)	to	Pin 7 (Ground)
Pin 7 (Request to Send)	to	Pin 5 (Clear to Send)
Pin 8 (Clear to Send)	to	Pin 20 (Data Terminal Ready)

9 Pin Male Connector (IRM2 End)	to	9 Pin Female Connector (Terminal End)
Pin 3 (Receive)	to	Pin 3 (Transmit)
Pin 2 (Transmit)	to	Pin 2 (Receive)
Pin 5 (Ground)	to	Pin 5 (Ground)
Pin 7 (Request to Send)	to	Pin 8 (Clear to Send)
Pin 8 (Clear to Send)	to	Pin 7 (Return to Send)

2.1.3 Accessing Local Management

This procedure assumes that a 9 to 25 pin RS232 cable is connecting the terminal to the IRM2.

To access Local Management:

1. Plug the 9 pin end of the RS232 cable into the RS232 port labeled CONSOLE on the IRM2.
2. Plug the 25 pin end of the RS232 cable into the COMM port on the terminal.
3. Turn the terminal on. The IRM2 Password Screen will appear.
4. Enter your **Password**. (The factory default password is the Return key).

Note: *If you enter a Superuser name at the Community Names Screen (see Chapter 4), the password becomes the Superuser name. If you enter more than one Superuser name, you may use any of these names as the password.*

5. Press **Return**. The IRM2 SNMP Local Management Screen, Figure 2-1, appears on the terminal.
6. Use your arrow keys to select the **MAIN** option at the bottom of the screen and press **Return**. The DEVICE/BOARD/PORT COUNTERS Screen, Figure 2-2, appears.

You may now use IRM2 Local Management.

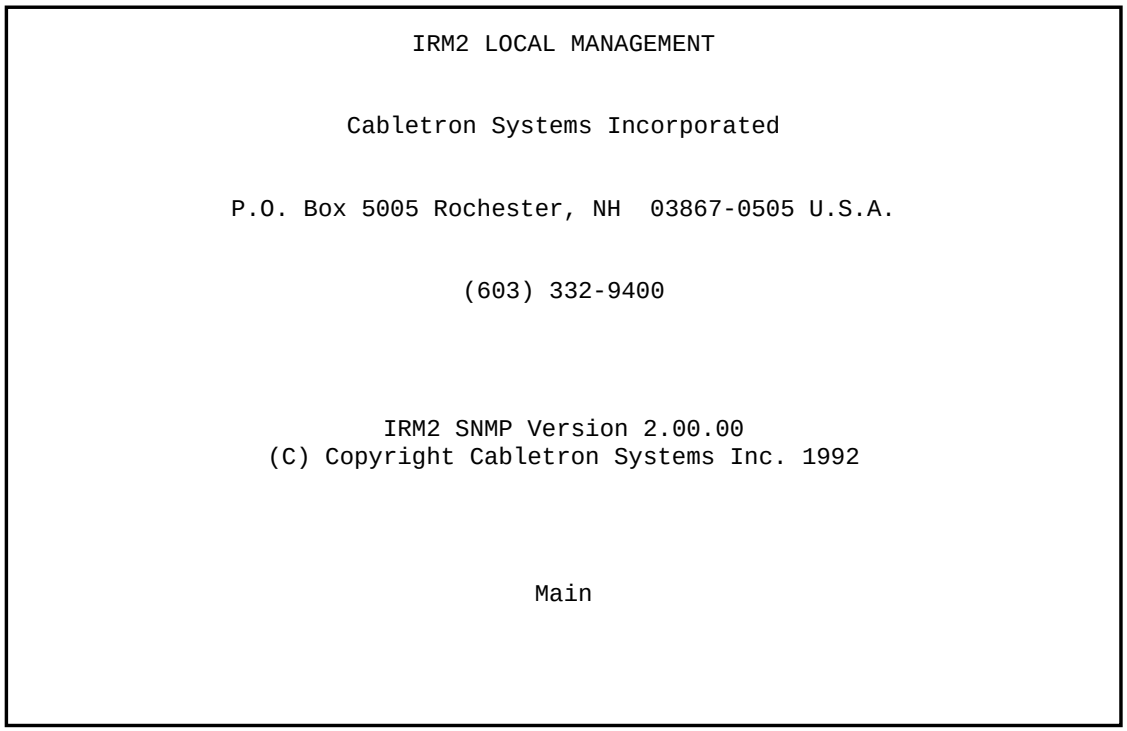

Figure 2-1 IRM2 SNMP Local Management Screen

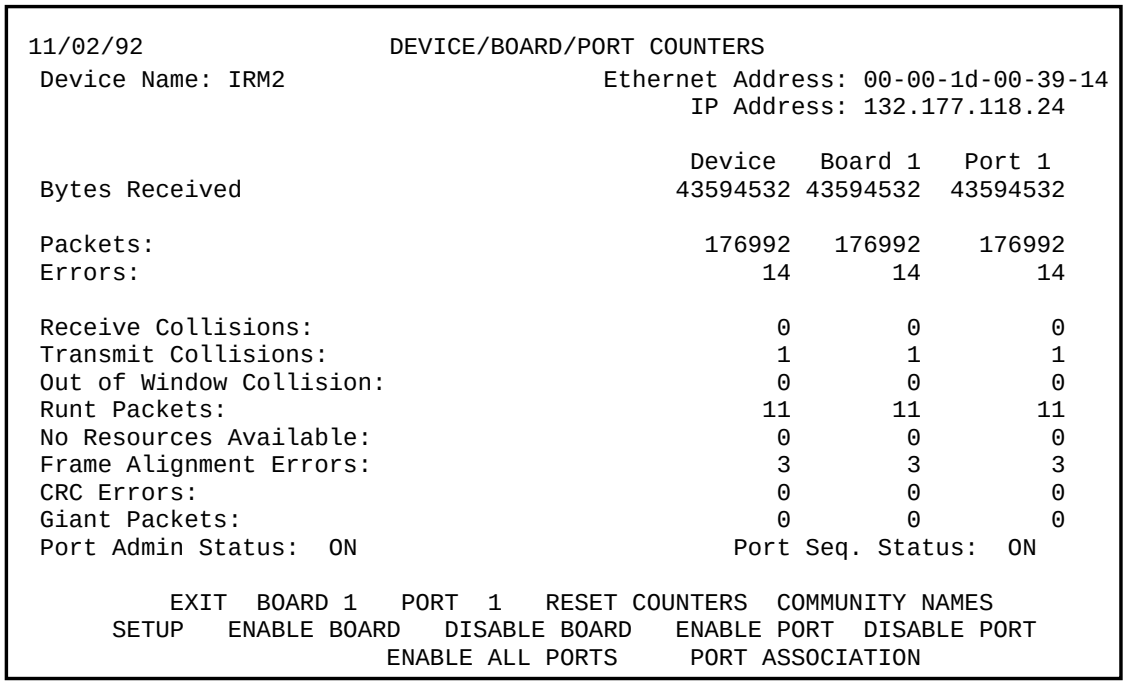

Figure 2-2 Device/Board/Port Counters Screen

2.2 LOCAL MANAGEMENT THROUGH A MODEM

To access IRM2 Local Management through a modem, you must use a Hayes, or Hayes compatible, modem meeting the AT Command Set. To access, as with the terminal, attach the modem to the 9 pin port labeled CONSOLE on the IRM2.

2.2.1 Cable Configuration

Access Local Management by a RS232 cable. This cable connects the terminal to the IRM2 Console port.

The pin out for a cable with a 25 pin or a 9 pin connector at the terminal end of the cable, and a 9 pin connector at the IRM2 end of the cable, should be configured as follows:

9 Pin Male Connector (IRM2 End)	**to**	**25 Pin Female Connector (Modem End)**
Pin 2 (Transmit)	to	Pin 2 (Transmit)
Pin 3 (Receive)	to	Pin 3 (Receive)
Pin 5 (Ground)	to	Pin 7 (Ground)
Pin 7 (Request to Send)	to	Pin 20 (Data Terminal Ready)
Pin 8 (Clear to Send)	to	Pin 8 (Data Carrier Detect)

2.2.2 Accessing Local Management

Before accessing Local Management through a modem, you must perform the following:

- Use a terminal to set the Modem Baud Rate option on the Setup screen, if the desired baud rate is different from the IRM2 default setting of 9600. Refer to Section 2.1, **Local Management From a Terminal** and Chapter 5, **Using the Setup Option**.
- Set the Modem Modem Switch on the front panel of the IRM2 to the **On** position. Off is the default for Terminal. (See Figure 2-3.)

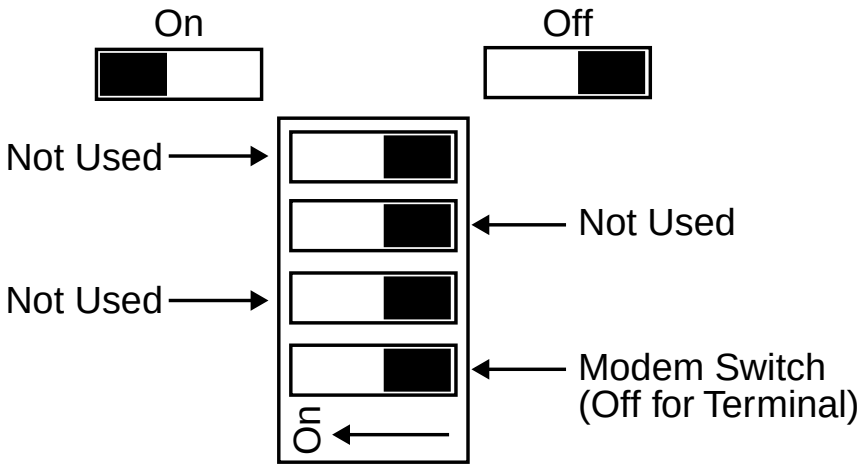

Figure 2-3 Front Panel Switches

Modem access to Local Management:

1. Plug the 9 pin end of the RS232 cable into the port labeled CONSOLE on the IRM2.
2. Plug the 25 pin end of the RS232 cable into the port on the modem.
3. Turn the modem on.
4. Dial into the modem connected to the IRM2. The IRM2 Password Screen appears once your connection is established.
5. Enter your **Password**. (The factory default password is the Return key).

Note: *If you enter a Superuser name at the Community Names Screen (See Chapter 4), the password becomes the Superuser name. If you enter more than one Superuser name, you may use any of these names as the password.*

6. Press **Return**. The IRM2 SNMP Local Management screen, Figure 2-1, appears on the terminal.
7. Press **Return**. The DEVICE/BOARD/PORT COUNTERS screen, Figure 2-2, appears.

You may now use IRM2 Local Management.

CHAPTER 3

DEVICE/BOARD/PORT COUNTERS

The IRM2 DEVICE/BOARD/PORT COUNTERS Screen is the main access screen for IRM2 Local Management. This screen provides descriptive information about the network traffic passing through the IRM2.

3.1 DEVICE/BOARD/PORT COUNTERS SCREEN

The DEVICE/BOARD/PORT COUNTERS Screen, Figure 3-1, allows quick scanning of statistical information concerning the MMAC™, boards, and ports associated with the IRM2. You can view the number of bytes received, the total number of packets, the total number of receive and transmit collisions, and the number of errors, and the Port Administration and Segmentation Status.

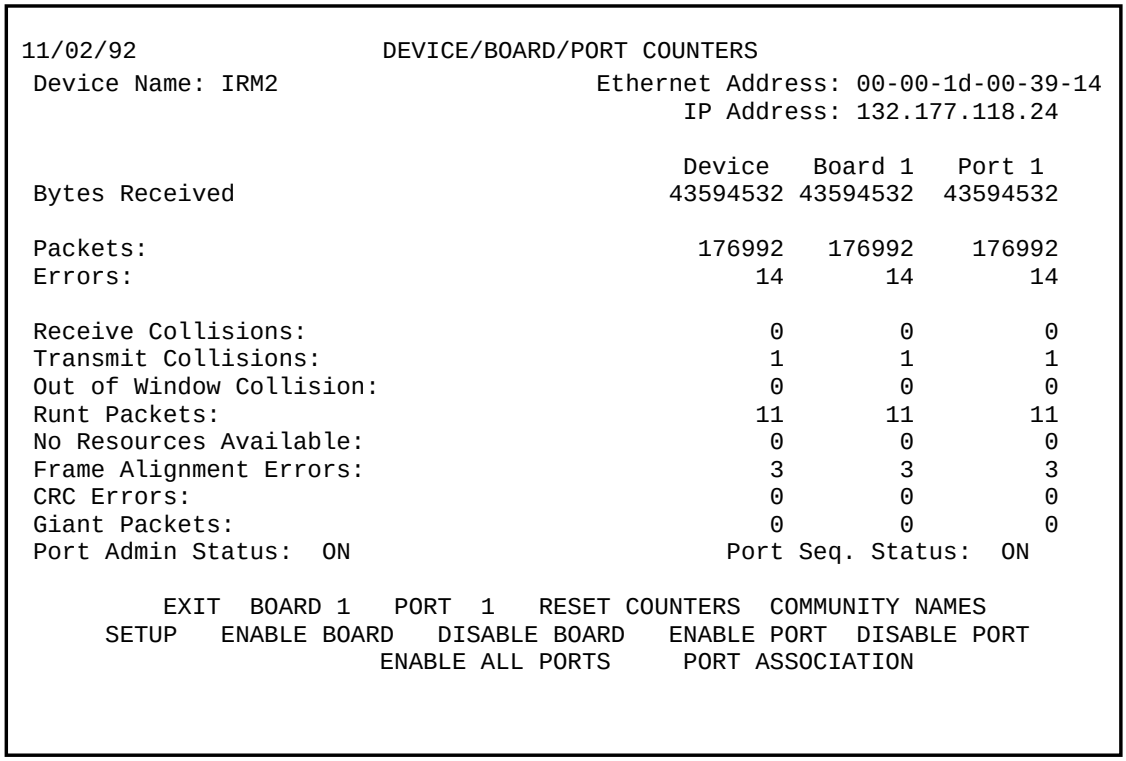

Figure 3-1 Device/Board/Port Counters Screen

Total errors are further broken down into the following categories:

- Out of Window Collisions
- Runt Packets
- No Resources Available
- Frame Alignment Errors
- CRC Errors
- Giant Packets.

In addition to viewing the above-mentioned information, the DEVICE/BOARD/PORT COUNTERS screen allows you to perform the following functions:

- Reset all counter information associated with the MMAC to 0
- Enable or Disable an individual board
- Enable or Disable an individual port
- Enable all ports
- Configure port association.

You can also view Third-Party MIMs using the DEVICE/BOARD/PORT COUNTERS screen. Device statistic counters for the whole MMAC include Third-Party MIM activity for Bytes Received, Packets, and Errors as well as the board and port statistics for these categories. Only Port 1 displays the Third-Party MIM data, providing statistics for all port activity on the board. Command options that function with Third-Party MIMs are: EXIT, BOARD X, PORT X, and RESET COUNTERS.

3.1.1 Displaying the Desired Board/Port

When the DEVICE/BOARD/PORT COUNTERS Screen first appears, it displays Device (IRM2), Board 1, and Port 1 information.

To view counter information for another board or port:

1. Using the arrow keys, highlight the desired option, **BOARD X** or **PORT X**, at the bottom of the screen.

2. Press the **shift** and + keys (increase), or just the - key (decrease), until reaching the board/port number you wish to view.

3. Press **Return**. Counter information associated with the selected board/port appears.

3.1.2 Device/Board/Port/Counters Screen Fields

The following briefly explains each field in the DEVICE/BOARD/PORT COUNTERS Screen. Counter information is displayed separately on the screen for the whole Device (IRM2), the selected board, and the selected port.

Bytes Received:
Displays the number of bytes received.

Packets:
Displays the total number of packets received or transmitted.

Errors:
Displays the total number of errors detected.

Receive Collisions:
Displays the number of collisions received.

Transmit Collisions:
Displays the number of collisions generated during transmission.

Out of Window Collisions:
Displays the number of collisions out of the standard collisions window (51.2 μs) due to a network problem.

Runt Packets:
Displays the number of runt packets received from the network. A runt packet is one that is less than the minimum Ethernet frame size of 64 bytes not including preamble.

No Resources Available:
Displays the number of times the IRM2 is too involved in the repeating process to accurately classify received packets (i.e. Runt, CRC, Giant, etc.) This error has no effect on the throughput of the device or its ability to repeat.

Frame Alignment Errors:
Displays the number of errors due to misaligned packets.

CRC Errors:
Displays the number of packets with bad Cyclical Redundancy Checks (CRC) received from the network.

Giant Packets:
Displays the number of packets received whose size exceeded 1518 data bytes, not including preamble.

Port Admin. Status:
Displays the Administrative status of the Port. The two possible status messages are ON or OFF.

Port Seg. Status:
Displays the segmentation status of the Port. The two possible status messages are ON or SEG (Segmented).

3.1.3 Using the Reset Counters Option

The Reset Counters Option allows you to reset all gathered counter information to 0.

To reset the Device, Board, and Port counters:

1. Use the arrow keys to highlight the **RESET COUNTERS** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. All counters will be reset to 0.

3.1.4 Using the Enable Board/Disable Board Option

The Enable and Disable Board options allow you to enable or disable the board that is displaying statistics at the DEVICE/BOARD/PORT COUNTERS screen.

To enable or disable the Board:

1. Use the arrow keys to highlight the **ENABLE BOARD** or **DISABLE BOARD** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. The Board is now either enabled or disabled as desired.

3.1.5 Using the Enable Port/Disable Port Option

With the Enable and Disable Port option, you can enable or disable the port that is displaying statistics at the DEVICE/BOARD/PORT COUNTERS screen.

To enable or disable a port:

1. Use the arrow keys to highlight the **ENABLE PORT** or **DISABLE PORT** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. The Port is now either enabled or disabled as desired.

3.1.6 Using the Enable All Ports Option

With the Enable All Ports option, you can enable all the ports you are managing with IRM2/LM.

To enable all the ports for the device:

1. Use the arrow keys to highlight the **ENABLE ALL PORTS** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. All Ports for the device are now enabled.

3.2 OTHER COMMAND OPTIONS

The DEVICE/BOARD/PORT COUNTERS screen provides access to additional management screens. To access any of these screens use your arrow keys to highlight the desired selection and press. The following chapters provide details regarding these screens, their options, and how to use them.

Additional management options:

EXIT
Selection of this option to exit IRM2 Local Management to the Password Screen.

COMMUNITY NAMES

Select this option to reach the Community Names screen. This screen allows you to designate community names for the devices attached to your IRM2. You can also designate the SNMP Compliant Network Management Workstations that you want to receive alarms from the IRM2. Community names authenticate a SNMP request, since the IRM2 only responds to community names contained in the community name table. In addition, any community name assigned Superuser access also acts as a password to Local Management.

SETUP

Select this option to reach the Setup screen. This screen allows you to set parameters relating to the IRM2. Using Setup, you can view/change the IP address, modem baud rate, security mode (locked or unlocked), statistical counters refresh time, and enable or disable the factory default settings for the IRM2.

PORT ASSOCIATION

Select this option to reach the Port Association screen. This screen allows you to toggle either the AUI Port or the Fiber Optic Link Port to function as a repeater (the IRM2 automatically sets the non-repeater port to OFF).

CHAPTER 4

USING THE COMMUNITY NAMES OPTION

The Community Names Option allows you to decide the type of access (Read Only, Read/Write, or Superuser) SNMP workstations have to the IRM2, and which workstations you want to receive alarms from the device. You can also change the password or add new passwords to the device by entering new Superuser names or altering existing Superuser names.

4.1 COMMUNITY NAMES SCREEN

To access the Configure Community Names Screen:

1. Use the arrow keys to highlight the **COMMUNITY NAMES** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. The Community Names Screen, Figure 4-1, appears.

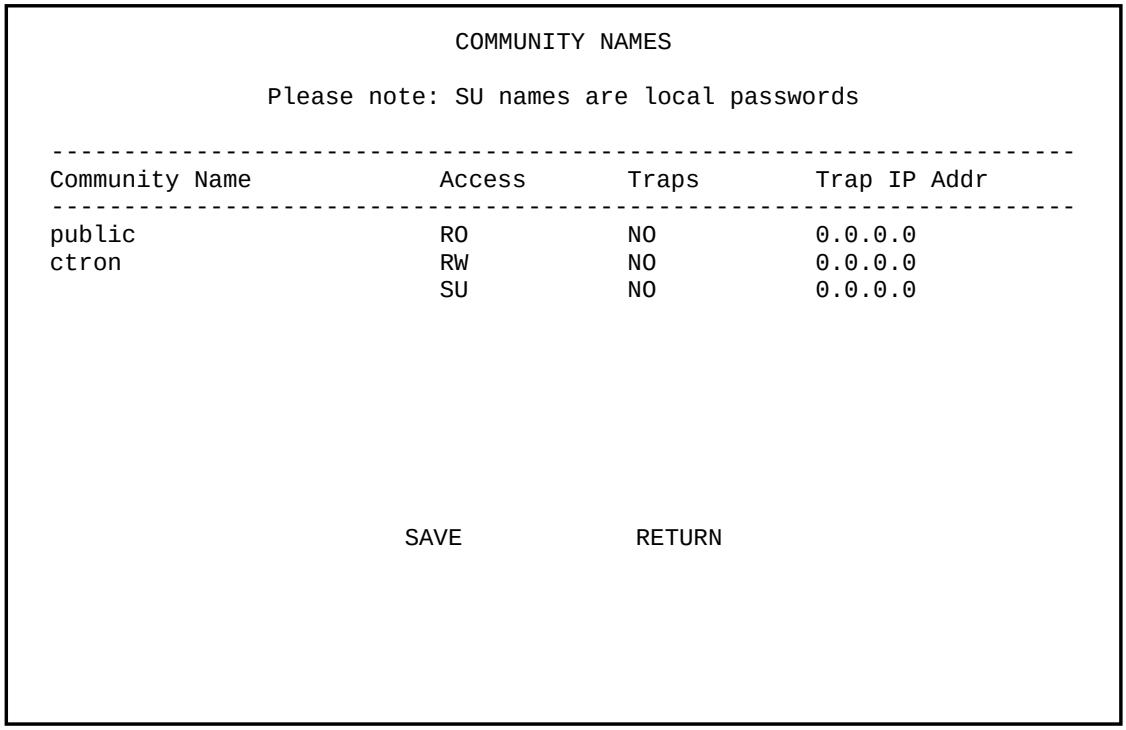

Figure 4-1 Community Names Screen

4.1.1 Community Names Screen Fields

The following briefly explains each field on the Community Names screen.

Community Name
Displays the user defined IRM2 access name assigned to SNMP Compliant Network Management Workstations.

Access
Indicates the access status of the workstations. The possible conditions are:

RO (Read only)	Read only access to the IRM2.
RW (Read/Write)	Read/Write access to the IRM2. These workstations can read and write to the IRM2, but cannot change the IP address or the Community Names.
SU (Superuser)	Superuser access to IRM2. These workstations have Read/Write and can change all parameters including the IP Address and Community Names. Multiple Superusers can be assigned IRM2 access. In addition, any Community Name given Superuser Access acts as a password to Local Management.
NA (No Access)	No access to the IRM2.

Traps
Indicates whether or not the IRM2 sends alarms to the workstations**.**

Trap IP Addr
Indicates the IP address of the workstation(s) that receive alarms from the IRM2.

4.1.2 Editing the Community Names Screen

Caution: *Changing the factory default Superuser Name (the Return Key) changes the password to Local Management. Any community names assigned Superuser Access are your passwords to Local Management. These entries are sensitive to upper and lower case.* ***Be sure to remember them, and the way you typed them.***

To make changes to the Community Names screen:

1. Use the arrow keys to highlight the appropriate Community Name field.
2. Enter the desired Community Name of the workstation (up to 31 characters).
3. Press **Return**. The **Access** field is highlighted.
4. Press **Return** until the appropriate selection appears. Pressing the Return key sequentially toggles RO, RW, SU, and NA.
5. Using the arrow keys highlight the **Traps** field.
6. Press the **Return** key until the desired selection appears. Pressing the Return key alternately toggles from YES and NO. YES allows the IRM2 to send alarms to the workstation identified in the IP address field. NO stops the IRM2 from sending alarms to the workstation.
7. Use the arrow keys to highlight a **Trap IP Addr** field.
8. Enter the workstation IP address into the field using dotted decimal notation. The format for this notation is XXX.XXX.XXX.XXX, with the value of XXX ranging from 0 to 254.
9. Use the arrow keys to highlight the **SAVE** command at the bottom of the screen.
10. Press **Return**. You return to the IRM2 DEVICE/BOARD/PORT COUNTERS screen and the message “Modified Screen Information Has Been Saved!” appears.

Alarm designations and access modes are now implemented for altered workstations.

CHAPTER 5
USING THE SETUP OPTION

The Setup option allows you to set your IRM2 Device Name, IP Address, SubNet Mask, Default Gateway, modem baud rate, current date and time, security mode (locked or unlocked), statistical counters refresh time, and enable or disable the factory default settings.

The IRM2 saves all of these options in the battery backup memory when you power down, except for the factory default settings which always default to DISABLED on power up.

5.1 SETUP SCREEN

To access the Setup Option:

1. Use the arrow keys to highlight the **SETUP** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. The Setup Screen, Figure 5-1, appears.

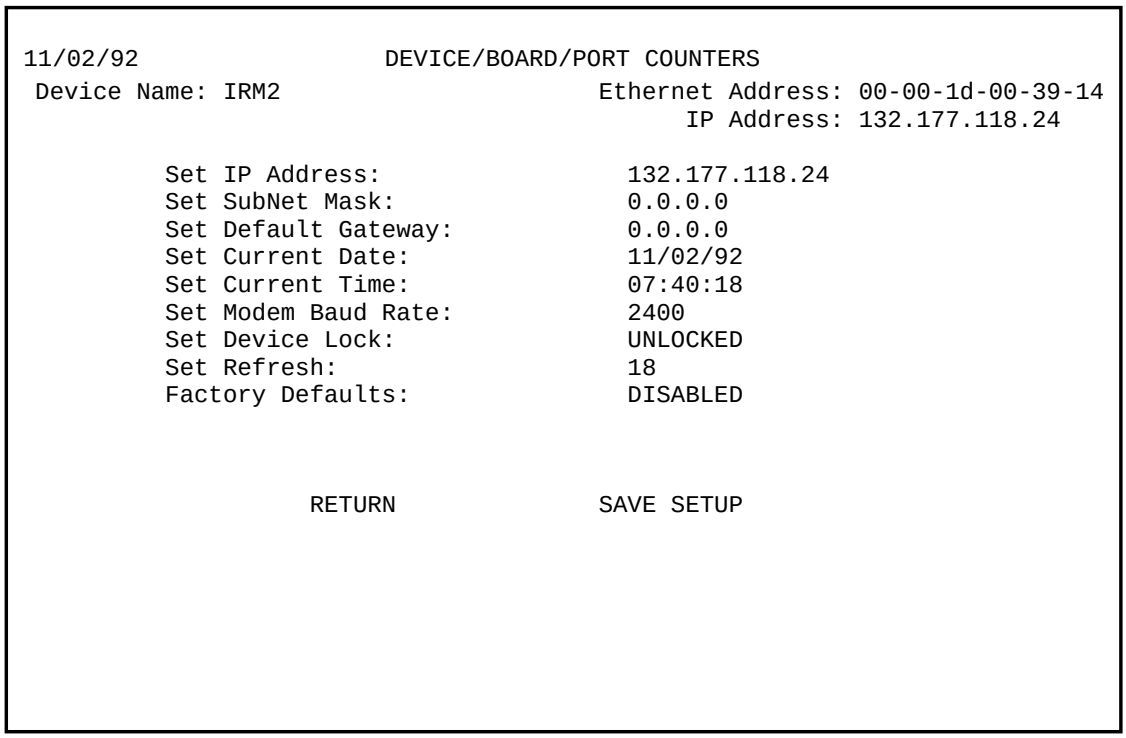

Figure 5-1 Setup Screen

5.1.1 Setup Screen Fields

The following briefly explains each field on the Setup screen.

Date
Displays the IRM2 internal date setting.

Time
Displays the IRM2 internal time setting (in 24 hour format).

Device Name
Displays the name assigned to the device. The default name is IRM2.

Ethernet Address:
Displays the IRM2 Ethernet address in a hexadecimal format XX-XX-XX-XX-XX-XX, with XX ranging from 00-FF.

IP Address:
Displays the IP address of the IRM2 in dotted decimal notation.

Set IP Address:
Displays the current IP address of the IRM2.

Set SubNet Mask:
Displays the IRM2 SubNet Mask in dotted decimal notation.

Set Default Gateway
Displays the IRM2 Default Gateway in dotted decimal notation

Set Current Date:
Displays the current IRM2 date setting.

Set Current Time:
Displays the current IRM2 time setting (in 24 hour format).

Set Modem Baud Rate:
Displays the current Modem Baud Rate setting.

Set Device Lock:
Displays whether the device is in locked or unlocked mode.

Set Refresh:
Displays the number of seconds before the statistical counters refresh in the DEVICE/BOARD/PORT COUNTERS screen.

Factory Defaults:
Displays whether the IRM2 factory defaults are enabled or disabled.

5.1.2 Changing the Device Name

To change the Device Name:

1. Use the arrow keys to highlight the **Device Name** field.
2. Enter the desired text (up to 20 characters). If you enter too many characters, the error message "Too Many Characters Entered" appears on the screen.
3. Press **Return**.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup screen.
5. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.3 Using the Set IP Address Option

To set the Set IP Address:

1. Use the arrow keys to highlight the **Set IP Address** field.
2. Enter the address into the field using dotted decimal notation. The format for this entry is XXX.XXX.XXX.XXX, with values of XXX ranging from 1-254.
3. Press **Return**. If you enter an illegal IP Address in step 2 the error message “Illegal Information Entered” appears on the screen.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup Screen.
5. Press **Return**. The message “Modified Screen Information Has Been Saved!” appears on the screen.

5.1.4 Using the Set SubNet Mask Option

***Note**: Consult your Network Administrator prior to setting the SubNet Mask.*

The SubNet Mask defines how your IRM2 treats SNMP trap IP destination addresses in its Community Names table. Use the Set SubNet Mask option in conjunction with the Set Default Gateway option.

Set the SubNet Mask when:

- workstations in the Community Names table reside on a different subnet (i.e., across a gateway or router), and you want these workstations to receive SNMP traps.

Use the SubNet Mask factory default setting of 0.0.0.0 when:

- all trap designated workstations are on the IRM2 subnet.

Using the SubNet Mask, the IRM2 logically determines one of two possible locations, wither **on** or **not on** its own subnet, for each trap IP destination address in its Community Names table. If the address is **on** its own subnet, the IRM2 transmits directly to the workstation with that address. If the address is **not on** its subnet, the IRM2 transmits to the workstation with that address combined with the router IP address in its default gateway.

To set the SubNet Mask:

1. Use the arrow keys to highlight the **Set SubNet Mask** field.
2. Enter the mask into the field using dotted decimal notation. The format for this entry is XXX.XXX.XXX.XXX, with value of XXX ranging from 0-255.
3. Press **Return**. If you enter an illegal mask in step 2, the error message "Illegal Information Entered" appears on the screen.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup screen.
5. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.5 Using the Set Default Gateway Option

***Note**: Consult your Network Administrator prior to setting the Default Gateway.*

The Default Gateway is the IP address of the network connection (gateway or router) used in forwarding management information from the IRM2 (e.g., SNMP traps) to a network management station. Use the Default Gateway option in conjunction with the Set SubNet Mask option.

Set the Default Gateway option when:

- workstations in the Community Names table reside on a different subnet (i.e., across a gateway or router), and you want these workstations to receive SNMP traps.

Use the Default Gateway factory default setting of 0.0.0.0 when:

- all trap designated workstations are on the IRM2 subnet.

To set the Default Gateway:

1. Use the arrow keys to highlight the **Set Default Gateway** field.
2. Enter the desired address into the field using dotted decimal notation. The format for this entry is XXX.XXX.XXX.XXX, with value of XXX ranging from 1-254.
3. Press **Return**. If you enter an illegal mask in step 2, the error message "Illegal Information Entered" appears on the screen.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup screen.
5. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.6 Using the Set Current Date Option

To set the current date:

1. Use the arrow keys to highlight the **Set Current Date** field.
2. Enter the date into the field in a **mmddyy** format.
3. Press **Return**. If you enter an illegal date in step 2, the error message "Illegal Information Entered" appears on the screen.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup screen.
5. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.7 Using the Set Current Time Option

To set the current time:

1. Use the arrow keys to highlight the **Set Current Time** field.
2. Enter the time into the field in 24 hour **hh:mm:ss** format.
3. Press **Return**. If you enter an illegal time in step 2, the error message "Illegal Information Entered" appears on the screen.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup Screen.
5. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.8 Using the Set Modem Baud Rate Option

To set the Baud Rate for an attached modem:

1. Use the arrow keys to highlight the **Set Modem Baud Rate** field.

2. Press the **Return** key until the appropriate selection appears. (This field sequentially displays the following allowable baud rate values: 300, 600, 1200, 2400, 4800, 9600, 19200.)
3. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup Screen.
4. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.9 Using the Set Device Lock Option

The device lock option, when enabled, prevents the access of any new source address access to the IRM2 through its station ports (a point-to-point port). If the new address is not one of those already in the source address database for that port, the IRM2 turns that port off.

To set the device lock:

1. Use the arrow keys to highlight the **Set Device Lock** field.
2. Press the **Return** key until the appropriate selection appears. (This field toggles between LOCKED and UNLOCKED.)
3. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup screen.
4. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.
5. If you have just unlocked the device you must also reenable the boards. Refer to Section 3.1.4, **Using the Enable Board/Disable Board Option**, to do so.

5.1.10 Using the Set Refresh Option

To set counter reset time (in seconds):

1. Use the arrow keys to highlight the **Set Refresh** field.
2. Enter the value (2-99) into the field.

3. Press **Return**. If you enter an illegal time in step 2, the error message "Illegal Information Entered" appears on the screen.
4. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup screen.
5. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

5.1.11 Using the Set Factory Defaults Option

To enable the factory defaults:

1. Use the arrow keys to highlight the **Set Factory Defaults** field.
2. Press the **Return** key until the desired selection appears. (This field toggles between ENABLED and DISABLED.)
3. Use the arrow keys to highlight the **SAVE SETUP** option at the bottom of the Setup Screen.
4. Press **Return**. The message "Modified Screen Information Has Been Saved!" appears on the screen.

***Note**: The factory default for this field is DISABLED. Once you leave the Setup screen and then return to it, even after being saved as ENABLED, this field reads as DISABLED.*

CHAPTER 6

USING THE PORT ASSOCIATION OPTION

The Port Association Option allows you to set which port on the front of the IRM2, the AUI Port or Fiber Optic Link Port, acts as the repeater port.

6.1 PORT ASSOCIATION SCREEN

To access the Port Association Option:

1. Use the arrow keys to highlight the **PORT ASSOCIATION** option at the bottom of the DEVICE/BOARD/PORT COUNTERS screen.
2. Press **Return**. The Port Association Screen, Figure 6-1, appears.

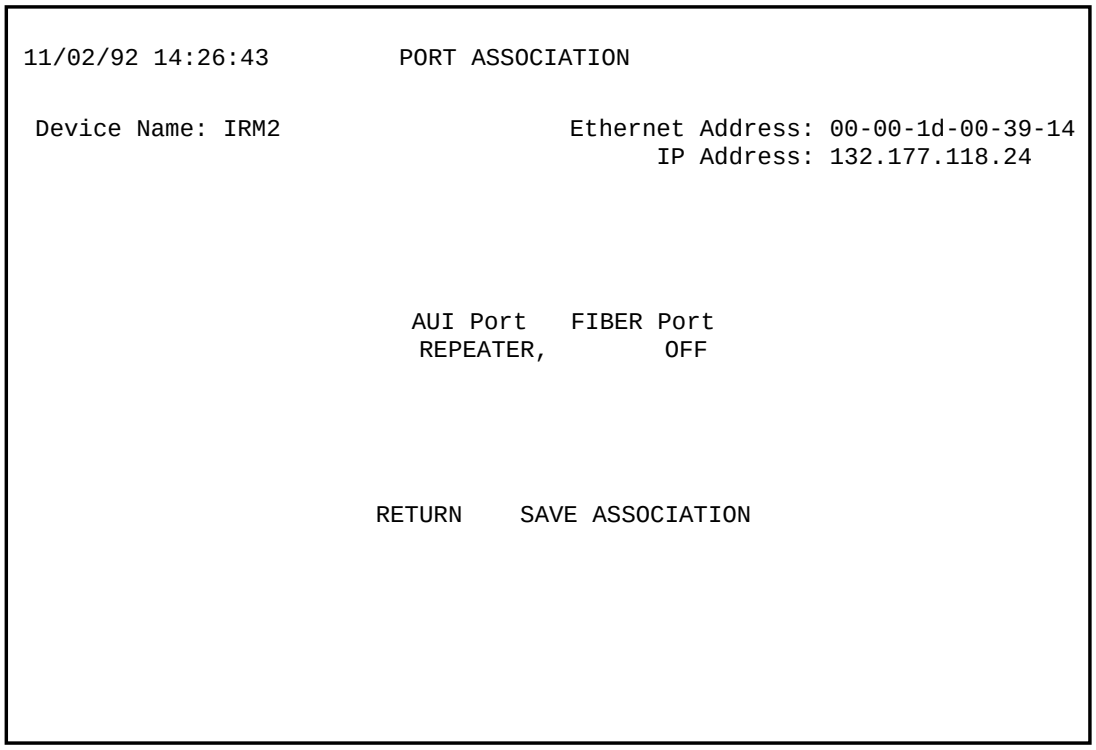

Figure 6-1 Port Association Screen

6.1.1 Port Association Screen Fields

The following briefly explains each field on the Port Association Screen.

Device Name:
Displays the name assigned to the IRM2.

Ethernet Address:
Displays the Ethernet address of the IRM2 in the hexadecimal format XX-XX-XX-XX-XX-XX, with XX ranging from 00-FF.

IP Address:
Displays the IP address of the IRM2 in dotted decimal notation.

AUI Port, FIBER Port
Displays the port association configuration the IRM2 is currently using. The available configurations are:

REPEATER, OFF	Indicates that the AUI Port is acting as the repeater and the Fiber Port is off.
OFF, REPEATER	Indicates that the AUI Port is off and the Fiber Port is acting as the repeater.

6.1.2 Changing the Port Association

To change the Port Association:

1. Use the arrow keys to highlight the toggle selection **Repeater, Off** just below the **AUI Port, FIBER Port** field.
2. Press the **Return** key until the desired selection appears. This is a toggle field that alternately displays the available configuration choices mentioned above.
3. Highlight the **SAVE ASSOCIATION** option at the bottom of the Port Association Screen.
4. Press **Return**. The message “Modified Screen Information Has Been Saved!” appears.

The Port Association changed to the desired configuration.