

# **MPT-400N**

## **Installation Guide**

GYR® by **SILENT  
WITNESS®**



**MPT-400N**  
**Installation Guide**

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# Contents

<b>About This Document</b> . . . . .	<b>iii</b>
Overview of Contents . . . . .	iii
Important Safeguards and Warnings . . . . .	iii
Regulatory Compliance . . . . .	iv
Warranty and Service . . . . .	iv
Terms and Definitions . . . . .	v
Typographical Conventions . . . . .	v
<b>1 Overview</b> . . . . .	<b>1</b>
Network Protocols . . . . .	1
<b>2 Configuration and Installation</b> . . . . .	<b>3</b>
Configuring the MPT-400N . . . . .	3
Installing the MPT-400N . . . . .	8
Components . . . . .	8
Connecting the MPT-400N . . . . .	10
Verifying Network Connectivity . . . . .	12
Using Telnet . . . . .	13

## Contents

## About This Document

This document describes the MPT-400N and tells you how to install and configure it.

## Overview of Contents

This document contains the following chapters:

- *Chapter 1, Overview*, introduces the MPT-400N.
- *Chapter 2, Configuration and Installation*, describes how to connect a terminal or personal computer to the MPT-400N serial port, set the configuration parameters, and then install the MPT-400N.

## Important Safeguards and Warnings

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**Caution** The installation of this equipment should be made only by certified technicians and conform to all local codes.

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You should not remove the cover of your MPT-400N.



If your MPT-400N requires repair, contact Silent Witness (see *Warranty and Service*).

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**WARNING!** The MPT-400N is intended for indoor use. To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

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**WARNING!** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

---

## Regulatory Compliance

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The CE mark on the product indicates that the system has been tested to and conforms with the provisions noted within the EN 55024 Class A Electromagnetic Compatibility Directive.

## Warranty and Service

Subject to the terms and conditions listed on the Product Warranty Card, during the warranty period Silent Witness will repair or replace, at its sole option, free of charge, any defective products returned prepaid.

In the event you have a problem with any Silent Witness product, please call the Service Department for assistance or to request a Return Authorization (RA) number.

In the U.S.A. and Canada, call 1.800.893.9513, or call +1.604.574.1523.

For international, call 00.800.2020.8080.

Be sure to have the model number, serial number, and the nature of the problem outlined for the technical service representative.

Prior authorization must be obtained for all returns, exchanges, or credits. Items shipped to Silent Witness without a clearly identified Return Authorization (RA) number may be refused.



## Terms and Definitions

This document uses the following acronyms:

Acronym	Definition
ATM	Automated Teller Machine
DVMS	Digital Video Management System
IP	Internet Protocol
TCP	Transmission Control Protocol
UDP	User Datagram Protocol

## Typographical Conventions

This document uses the following typographical conventions:

Font	What it represents	Example
Helvetica Narrow	Keys on the keyboard	Press Enter.
Lucida	Values of editable fields that are mentioned in the body text of the document for reference purposes, but do not need to be entered as part of a procedure	The IP Address field can be set to 192.100.100.001.
	Text strings displayed on the screen	The message Save and Exit displays.
<b>Lucida Bold</b>	Words or characters that you must type. The word “enter” is used if you must type text and then press the Enter or Return key.	Enter the baudrate: <b>09600</b>
<b>Gill Sans Bold</b>	Menu titles and other items you select	Select the <b>Setup</b> menu.
	Buttons you click to perform actions	Click <b>Exit</b> to close the program.
<i>Italic</i>	Placeholders: words that vary depending on the situation	Enter the <i>basic parameters</i> .
	Cross-reference to external source	Refer to the <i>DVMS User Guide</i> .
	Cross-reference within document	See <i>Overview</i> .



## Overview

The Multi-Protocol Translator 400N (MPT-400N) translates ATM/Teller transaction text on Ethernet, TCP/IP networks to asynchronous serial data stream compatible with a Digital Video Management System (DVMS). This is not a standalone product. Used in conjunction with a DVMS, it provides a monitoring solution for financial institutions that are fully network enabled.

## Network Protocols

The MPT-400N uses the following protocols:

- Internet Protocol (IP) for network communications
- Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) for connections to the serial port

The MPT-400N monitors network traffic and extracts ATM/Teller transactions that match the monitored IP addresses. These IP addresses are user-configurable and stored in the internal memory of the MPT-400N. The transaction records are then parsed and sent to the serial port that connects to a DVMS text port for record trigger and storage.

IP defines addressing and monitoring data block handling over the network. Every device connected to an IP network must have a unique IP address. This address is used to reference the specific MPT-400N.

TCP ensures that no data is lost or duplicated and that all data sent to the connection arrives correctly at the target.



## 2

## Configuration and Installation

This chapter tells you how to configure and install the MPT-400N.

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**Note** The MPT-400N must be configured before it is installed.

---

### Configuring the MPT-400N

To configure the MPT-400N:

**Step one:**  
**Physical connection**

Connect a terminal or a personal computer (PC) running a terminal emulation application to the serial port on the MPT-400N (see *Figure 2-5*). The default settings for the terminal—or emulation—is 9600 baud, 8-bit, no parity, and 1 stop bit. You can change the baud rate, if desired.

**Step two:**  
**Start Setup mode**

1. To start Setup (configuration) mode at any time, enter three xxx characters (must be lowercase). A screen similar to *Figure 2-1* displays.

**Figure 2-1 Setup Menu**

```
***** Gyrr MPT-400N Copyright 2002-2003 *****
Serial Number 6445015 MAC address 00:20:4A:64:AF:D7
Software Version 01.2 (020225)
Press Enter to go into Setup Mode
```

2. Confirm Setup mode by pressing **Enter**.

---

**Note** If you wait too long before pressing Enter, garbage characters can display on the hyper terminal. Press Enter again to re-enter Setup mode.

---

A screen similar to *Figure 2-2* appears.

**Figure 2-2 Setup Mode**

```

***** Gyrr MPT-400N Copyright 2002-2003 *****
Serial Number 6445015 MAC address 00:20:4A:64:AF:D7
Software Version 01.2 (020225)
Press Enter to go into Setup Mode

*** basic parameters
Hardware: Ethernet Auto detect
IP addr 192.168.011.141, no gateway set

***** Serial Port *****
Baudrate 19200, I/F Mode 4C, Flow 00
UDP is used
Remote Monitored IP1 : 192.168.002.214
Associated Port Number : 2
Parser protocol : Diebold 911/912
Remote Monitored IP2 : 192.168.002.005
Associated Port Number : 3
Parser protocol : Diebold 911/912
Remote Monitored IP3 : 198.068.062.100
Associated Port Number : 1
Parser protocol : Diebold 911/912
Remote Monitored IP4 : 216.022.011.005
Associated Port Number : 4
Parser protocol : Diebold 911/912

***** Gyrr MPT-400N Configuration Menu *****
0 Basic system configuration
1 Serial port/monitored IP configurations
2 Factory defaults
3 Exit without save
4 Save and exit
Your choice ?
    
```

**Step three:** On the Configuration Menu set the desired parameters by entering the appropriate number (0 to 4) to enter the second level menu screens.  
**Set system parameters**

---

**Note** Remember to store the new configurations when you are finished. This causes the MPT-400N to perform a software reset, after which the new configurations will take effect.

---

**TIP!** The entries you need to type are identified in **bold**.  
**<Enter>** indicates that you must press the Enter key.

I. Type **0** to configure the MPT-400N basic system parameters. *Figure 2-2* displays.

**Figure 2-3 Setup Menu**

```

***** Gyyr MPT-400N Setup Menu *****
      0 Basic system configuration
      1 Serial port/monitored IP configurations
      2 Factory defaults
      3 Exit without save
      4 Save and exit
                                     Your choice ? 0 <Enter>

IP Address : (192) .(168) .(101) .(221)
Set Gateway Ip Address (N) N
Netmask: Number of Bits for Host Part (0=default) (00) 8
Change telnet config password (N) Y
Enter new Password: 1234
    
```

- a. Enter the IP address assigned to you by your network administrator. This address must be unique on your network or the device will not be accessible on the network.
- b. If you have a gateway IP address, enter it in the Set Gateway field.
- c. For the netmask host bits, consult the following table:

<b>Netmask</b>	<b>Host bits to enter</b>
255.255.255.252	2
255.255.255.248	3
255.255.255.242	4
255.255.255.224	5
255.255.255.192	6
255.255.255.128	7
255.255.255.0	8
255.255.254.0	9
255.255.252.0	10
255.255.248.0	11
255.255.240.0	12
255.255.224.0	13
255.255.192.0	14
255.255.128.0	15
255.255.0.0	16

- d. Silent Witness recommends that you set the telnet password to **Y** (yes) and enter a password. Write the password down and keep it in a secure place. You will use this password to log on to the MPT-400N for remote programming purposes.

---

**Note** If you forget your password you can still access the MPT-400N locally via the serial port which has no password requirements.

---

2. Select **I** to configure the MPT-400N serial port parameters and monitored IP addresses.
  - a. Select the baudrate. The MPT-400N and attached serial device (for example, a DVMS recorder or hyper terminal) must agree on a speed or baudrate to use for the serial connection. Valid baudrates are:  
**300, 600, 1200, 2400, 4800, 9600 (default), 19200, 38400, 57600, and 115200** bits per second.

---

**Note** All the above baudrates are configured with 8 bits, no parity, 1 stop bit, and no flow control.

---

- b. Set monitored IP addresses; that is, the IP addresses for the ATM/Teller machines. Each monitored IP address has its own associated DVMS recorder port number. You must coordinate the serial port number and the IP addresses. Unused IP addresses or serial port numbers should default to zero (0).



**Example:** *Figure 2-4* provides an example for changing the IP address and serial port number of the first two monitored IPs.

**Figure 2-4 Sample Monitored IP Address Configuration**

```

***** Gyrr MPT-400N Configuration Menu *****
      0 Basic system configuration
      1 Serial port/monitored IP configurations
      2 Factory defaults
      3 Exit without save
      4 Save and exit
                                     Your choice ? 1 <Enter>

Baudrate (19200) <Enter>
Remote Monitored IP1 :192 198<Enter>.(168) 22<Enter>.(002) 10<Enter>.(214) 2<Enter>
Associated Port Number:2 3<Enter>
Parser protocol      :1
Remote Monitored IP2 :(192) 191<Enter>.(168) 69<Enter>.(002) 4<Enter>.(005) <Enter>
Associated Port Number:3 2 <Enter>
Parser protocol      :1
Remote Monitored IP3 :(198) <Enter>.(068) <Enter>.(062) <Enter>.(100) <Enter>
Associated Port Number:1<Enter>
Parser protocol      :1
Remote Monitored IP4 :(216) <Enter>.(022) <Enter>.(011) <Enter>.(005) <Enter>
Associated Port Number:4 <Enter>
Parser protocol      :1

***** Gyrr MPT-400N Configuration Menu *****
      0 Basic system configuration
      1 Serial port/monitored IP configurations
      2 Factory defaults
      3 Exit without save
      4 Save and exit
                                     Your choice ?

```

- c. Select the Parser protocol. The default is 1 for Diebold 911/912 protocols. Currently you cannot change the Parser protocol.

**Step four:** After you have set all the desired configuration parameters, enter **4** to save all changes and restart the MPT-400N. The new configuration will take effect after the MPT-400N reboots.

**Save system configuration**

To undo all changes, enter **3**.

To revert to the factory default configuration, enter **2**. This will reset all parameters to 0 default value, except the server IP and the baudrate.

## Installing the MPT-400N

When you have configured the MPT-400N, it is ready to install. Before installing, please read this entire section.

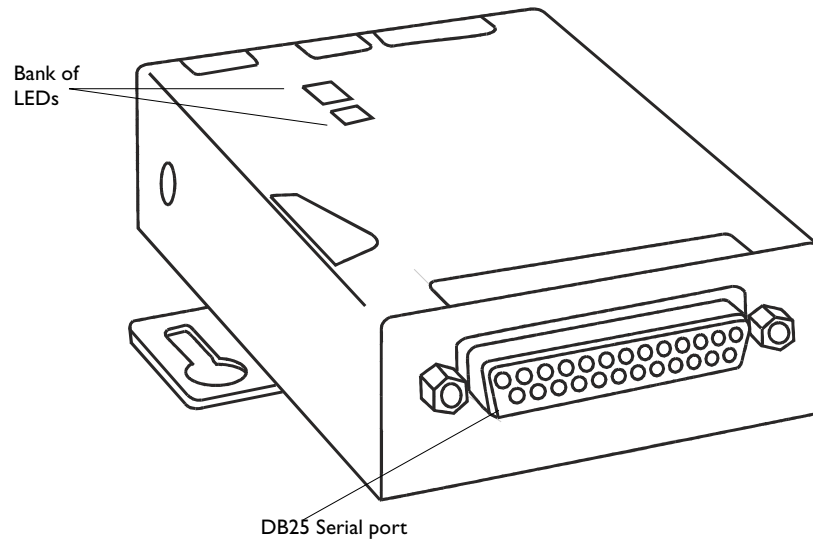
### Components

The MPT-400N has a serial port, an Ethernet port, and one 9-30 VDC power supply adapter.

#### Serial Interface

The MPT-400N has a female DCE DB25 serial port that supports RS-232 and RS-485/422 serial standards up to 115.2 Kbps. The data extracted from the network is output on this port. The text trigger to capture transactions is *Port x*, where *x* is the port number that receives the data.

**Figure 2-5 MPT-400N Rear View Showing Serial Interface**

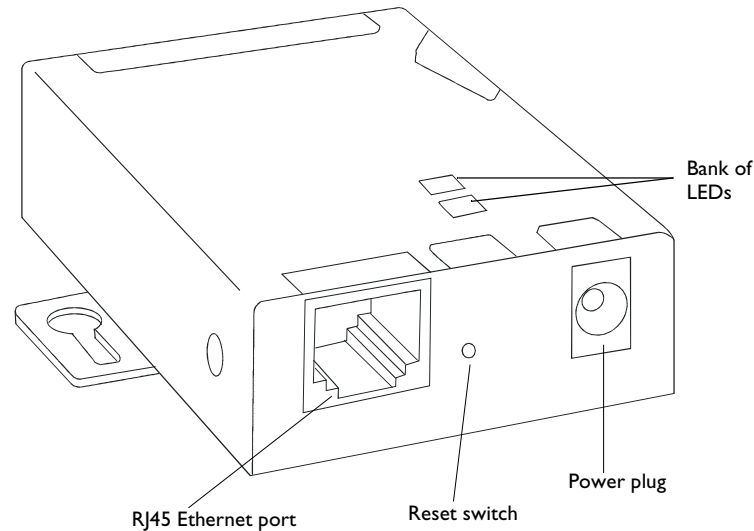


See [Figure 2-9](#) for DB25 pinouts.

## Network Interface

The MPT-400N contains a 9-30 VDC power plug, a reset switch, and an RJ45 (10Base-T) Ethernet port.

**Figure 2-6 MPT-400N Front View Showing Network Interface**



## LEDs

*Table 2-1* describes the bank of LEDs. The LEDs indicate the operational status of the MPT-400N.

**Table 2-1 Front Panel LEDs**

LED	Meaning
Link	Green indicates the MPT-400N is connected to the network.
Net TX/RX	Blinking yellow indicates that packets are being transmitted or received.
Collision	Red indicates a network collision.
Diagnostic	Solid red with Status LED blinking indicates: <ul style="list-style-type: none"> <li>• EPROM checksum error</li> <li>• RAM error</li> <li>• Network controller error</li> <li>• Duplicated IP address on the network.</li> </ul> Blinking red with Status LED blinking indicates a faulty network connection
Status	Green indicates the serial port is connected to the network.

## Connecting the MPT-400N

To connect the MPT-400N to peripherals:

1. For initial programming, connect the serial port on the MPT-400N to the serial connection on your PC. See *Figure 2-9* for the DB25 pinout.

You can use a standard straight through cable to connect your PC to the MPT-400N DB25 connector.

If you want to construct your own, the following table shows the pin connection requirement:

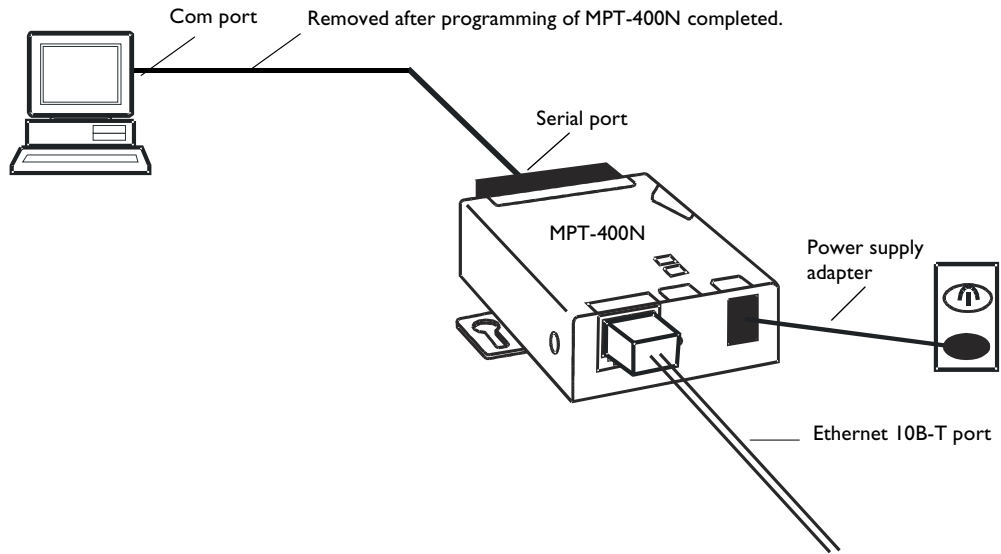
DB9 female to PC	DB25 male to MPT-400N
1	8
2	3
3	2
4	20
5	7
6	6
7	4
8	5
9	22

2. Connect an Ethernet cable to the 10Base-T Ethernet port on the MPT-400N.
3. Connect power to the MPT-400N using the 9-30 VDC power supply adapter.
4. After you have completed programming the MPT-400N and have disconnected the PC from the MPT-400N, you can now connect the MPT-400N to the Gyr by Silent Witness® analog/digital recorder. The MPT-400N kit you received includes the correct cable for your installation. Connect one end to the DB25 connector on the MPT-400N and the other end to the TEXT port(s) of the recorder.

## Configuring Via PC

Figure 2-7 shows an MPT-400N connected to the serial port on a PC.

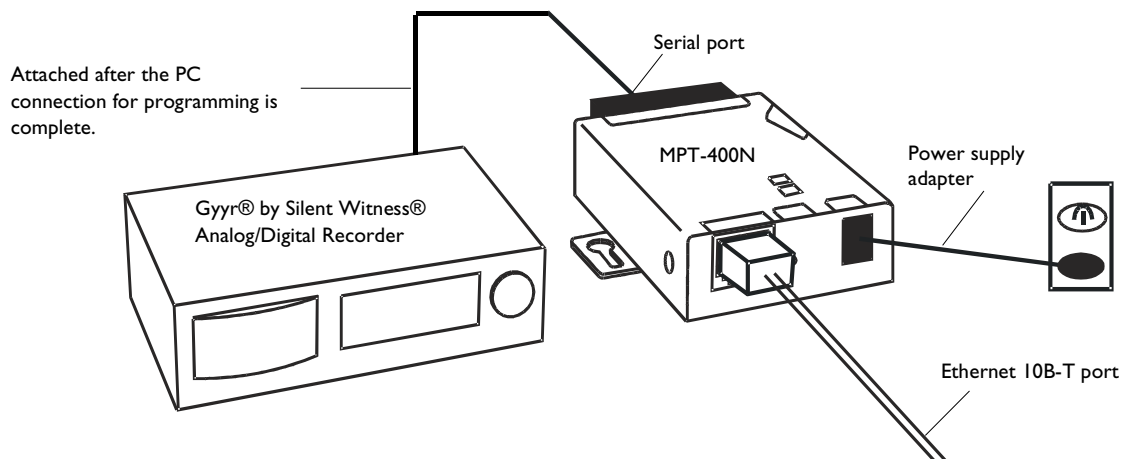
**Figure 2-7 MPT-400N to PC Installation**



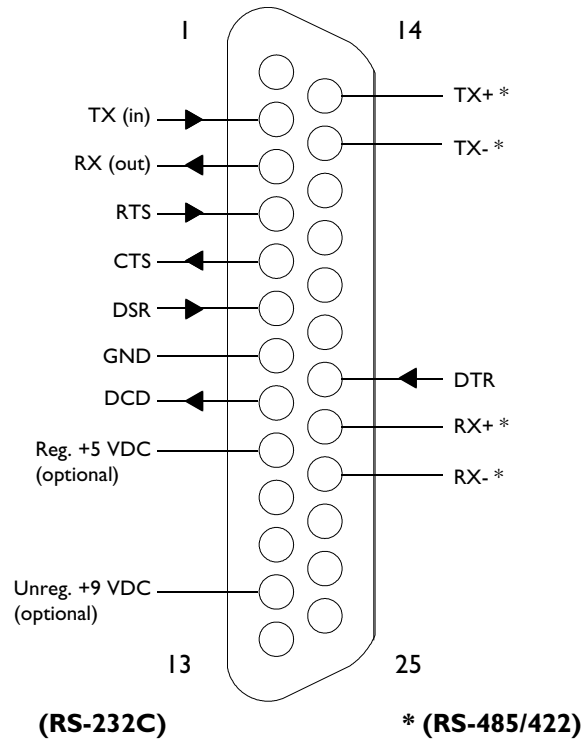
## Connecting to a Recorder

Figure 2-8 shows an MPT-400N connected to a Gyr® by Silent Witness® analog/digital recorder.

**Figure 2-8 MPT-400N to Recorder Connection**



**Figure 2-9 DB25 Serial Connector**



**Note** Only pins 2, 3, and 7 are used for normal operation.

---

**Note** MPT-400N is a DCE.

---

## Verifying Network Connectivity

Use the **ping** command to see if the MPT-400N is operational on the network.

**Example:** ping 192.168.1.221

## Using Telnet

Telnet allows you to log on to the MPT-400N and perform all configuration changes via the TCP/IP network.

To open a Telnet connection:

1. Telnet IP 9999, where

IP = The IP address of the MPT-400N you want to log on.

9999 = port number used by the MPT-400N for the Telnet connection.

**Example:** telnet 192.168.1.221 9999







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