



ATM/POS Bridge

DVRXEAP01



BOSCH

en Installation Manual

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1 Safety

Type numbers:

DANGER!



High risk: This symbol indicates an imminently hazardous situation such as “Dangerous Voltage” inside the product. If not avoided, this will result in an electrical shock, serious bodily injury, or death.

WARNING!



Medium risk: Indicates a potentially hazardous situation. If not avoided, this could result in minor or moderate bodily injury.

CAUTION!



Low risk: Indicates a potentially hazardous situation. If not avoided, this could result in property damage or risk of damage to the unit.

Read, follow, and retain all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operation.

1. Clean only with a dry cloth. Do not use liquid cleaners or aerosol cleaners.
2. Do not install unit near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. Do not block any ventilation openings.
4. Do not use the unit near water or expose to rain or moisture. Never spill liquid of any kind on the unit.
5. Unplug the unit during lightning storms or when unused for long periods. Take precautions to protect the unit from power and lightning surges.
6. Adjust only those controls specified in the operating instructions.

7. Do not overload outlets and extension cords, as this can cause fire or electrical shock.
8. Protect the plug and power cord from foot traffic or pinching, at electrical outlets, and at its exit from the unit.
9. Operate the unit only from the type of power source indicated on the label.
10. Unless qualified, do not attempt to service a damaged unit yourself. Refer all servicing to qualified service personnel.
11. Use only replacement parts specified by the manufacturer.
12. Install in accordance with the manufacturer's instructions in accordance with applicable local codes.
13. Use only attachments/accessories specified by the manufacturer. Equipment change or modification could void the user's guarantee or authorization agreement.

You can view and print the full version of this Installation Manual with Adobe Acrobat Reader, both provided on the enclosed CD-ROM. This user guide is the intellectual property of Bosch Security Systems; protected by copyright. Contact: www.boschsecurity.com

**CAUTION!**

This unit has a battery inside the enclosure. Risk of explosion if battery is replaced by incorrect type. Replace only with the same or equivalent type recommended by the manufacturer. Refer all servicing to qualified service personnel.

**NOTICE!**

Batteries must not be disposed of in household waste. Dispose of batteries only at suitable collection points and, in the case of lithium batteries, mask the poles. For further information refer to: www.boschsecurity.com/standards

**NOTICE!**

Bosch has a strong commitment towards the environment. This unit has been designed to respect the environment as much as possible.

1.1 FCC & ICES compliance

FCC & ICES Information

(U.S.A. and Canadian Models Only)

This equipment has been tested and found to comply with the limits for a **Class B** digital device, pursuant to *part 15* of the *FCC Rules*. These limits are designed to provide reasonable protection against harmful interference in a **residential installation**. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna;
- increase the separation between the equipment and receiver;
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
- consult the dealer or an experienced radio/TV technician for help.

Intentional or unintentional modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such modifications could void the user's authority to operate the equipment. If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: *How to Identify and Resolve Radio-TV Interference Problems*. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Informations FCC et ICES

(modèles utilisés aux États-Unis et au Canada uniquement)

Suite à différents tests, cet appareil s'est révélé conforme aux exigences imposées aux appareils numériques de **classe B**, en vertu de la *section 15 du règlement de la Commission fédérale des communications des États-Unis (FCC)*, et en vertu de la norme *ICES-003 d'Industrie Canada*. Ces exigences visent à fournir une protection raisonnable contre les interférences nuisibles lorsque l'appareil est utilisé dans le cadre d'une **installation résidentielle**. Cet appareil génère, utilise et émet de l'énergie de radiofréquences et peut, en cas d'installation ou d'utilisation non conforme aux instructions, engendrer des interférences nuisibles au niveau des radiocommunications. Toutefois, rien ne garantit l'absence d'interférences dans une installation particulière. Il est possible de déterminer la production d'interférences en mettant l'appareil successivement hors et sous tension, tout en contrôlant la réception radio ou télévision. L'utilisateur peut parvenir à éliminer les interférences éventuelles en prenant une ou plusieurs des mesures suivantes:

- Modifier l'orientation ou l'emplacement de l'antenne réceptrice;
- Éloigner l'appareil du récepteur;
- Brancher l'appareil sur une prise située sur un circuit différent de celui du récepteur;
- Consulter le revendeur ou un technicien qualifié en radio/télévision pour obtenir de l'aide.

Toute modification apportée au produit, non expressément approuvée par la partie responsable de l'appareil, est strictement interdite. Une telle modification est susceptible d'entraîner la révocation du droit d'utilisation de l'appareil. La brochure suivante, publiée par la Commission fédérale des communications (FCC), peut s'avérer utile : *How to Identify and Resolve Radio-TV Interference Problems (Comment identifier et résoudre les problèmes d'interférences de radio et de télévision)*. Cette brochure est disponible auprès du U.S. Government Printing Office, Washington, DC 20402, États-Unis, sous la référence n° 004-000-00345-4.

2 Description

The ATM/POS Bridge provides an interface between a digital recorder and either Automatic Teller Machines (ATM) or Point-of-Sale (POS) equipment such as cash registers. Both single- and multi-drop ATM networks are supported. This allows financial transaction data to be recorded and linked to specific camera images.

The bridge supports up to four (4) serial connections to directly connect devices to each ATM/POS bridge. The bridge also supports connection to a TCP/IP network. In this configuration, the bridge can transmit transactional data from any terminal on the same network to a digital video recorder.

2.1 Parts List

The ATM/POS Bridge package contains the following components:

- 1 ATM/POS Bridge unit
- 1 External DC power supply
- 1 Mounting kit
- 2 Connection cables
- 1 Console cable
- CD-ROM with software utilities
- Installation manual

2.2 Supported Protocols

The ATM/POS Bridge is designed to operate with many different terminals. If you have any questions regarding the suitability of the firmware for your terminal or any other questions, contact your Bosch Security Systems, Inc. representative.

3 System Overview

The following illustration shows an example of how a bridge is used in a network of digital video recorders and POS terminals.

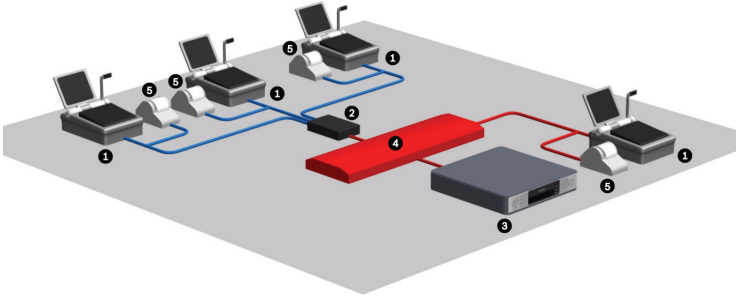


Figure 3.1 POS terminal network

1	POS Terminal	4	TCP/IP Network
2	ATM/POS Bridge	5	Printer
3	Recording Device		

The following illustration shows an example of how a bridge is used in a network of digital video recorders and ATM terminals.

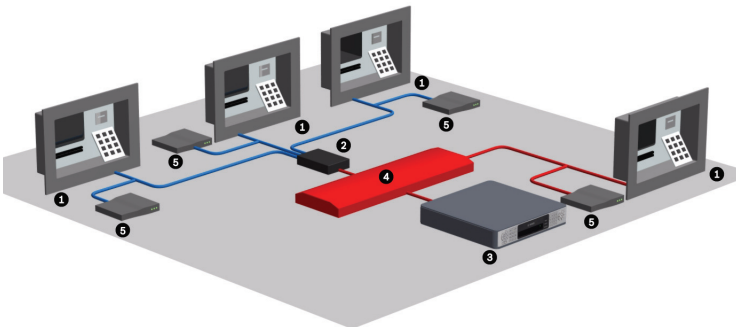


Figure 3.2 ATM terminal network

1	ATM Terminal	4	TCP/IP Network
2	ATM/POS Bridge	5	ATM Modem
3	Recording Device		

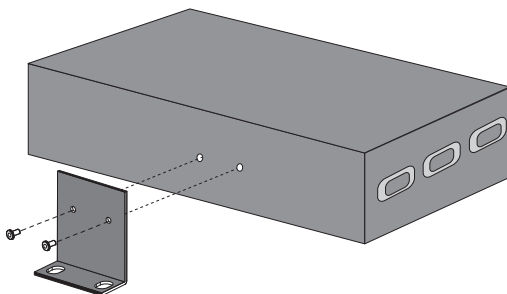
4 Installation

This section details the physical installation of the ATM/POS Bridge.

4.1 Mounting the Bridge

Determine a location where all incoming connections can reach the ATM/POS Bridge.

Using the screws provided, attach the two mounting brackets to the sides of the bridge. Secure the brackets to a solid fixture.



4.2 Making Connections to the Bridge

Use the following illustration to make the appropriate connections to the ATM/POS Bridge:

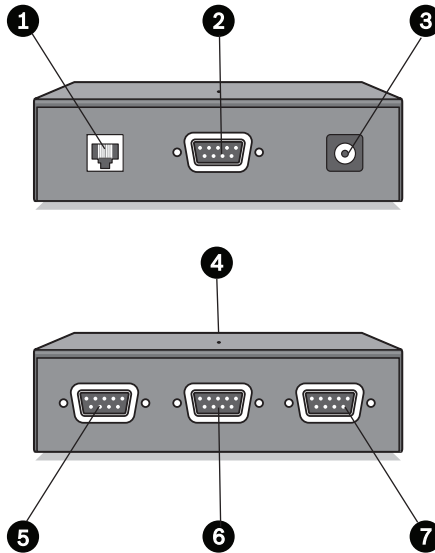


Figure 4.1 ATM/POS Bridge connectors

1	Ethernet RJ45 connector
2	COM 3 RS-232 connector (console port)
3	DC power input connector
4	Activity indicator
5	COM 4 RS485 connector
6	COM 2 RS232 connector
7	COM 1 RS232 connector

1. Connect the supplied DC power adapter unit to the DC power input connector of the bridge.
2. Connect the RJ45 connector of the bridge via a straight Ethernet CAT5 network cable to a network switch or hub that supports 10BaseT.
3. Connect your terminal to COM ports 1, 2, 3, or 4 of the bridge using the supplied cable. Refer to *Section 4.3 COM Connector Detail, page 14* for pin-out details.
Note: Choose COM port 4 on the bridge if your connection protocol is RS485.
4. Use the supplied splitter cable if the terminal device is also connected to a printer.
 - a. Remove the existing cable that connects the terminal to a printer.
 - b. Using the splitter cable, connect one male connector to the terminal.
 - c. Connect the other male connector to the printer.
 - d. Connect the cable from the bridge to the open connector on the splitter cable.
5. Refer to *Section 5 Configuration, page 15* to configure the communication and terminal settings.

4.3 COM Connector Detail

The four COM connectors on the bridge are all 9-pin SubD-type male connectors.

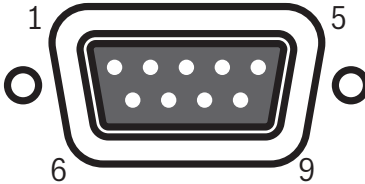


Figure 4.2 COM connector detail

Pin	COM 1 RS232	COM 2 RS232	COM 3 (console) RS232	COM 4 RS485
1				
2	Rx	Rx	Rx	D2+
3	Tx	Tx	Tx	D2-
4				
5	GND	GND	GND	GND
6				
7	RxC	RxC		
8	TxC	TxC		
9			INIT	

Note: The console cable has pin 9 connected to pin 5 (GND). When pin 9 of COM 3 (console) is at GND level on power-up, the bridge enters firmware download mode.

5 Configuration

You must configure the ATM/POS Bridge network settings to ensure proper communication on an existing TCP/IP network. This section provides configuration details using the Web-based interface.

To configure the bridge using a HyperTerminal session, refer to *Section 6 Configuration Using HyperTerminal, page 24*.

For instructions to update the ATM/POS Bridge firmware, refer to *Section A Updating Bridge Firmware, page 36*.

5.1 Configuring the Bridge for a Network Connection

The ATM/POS Bridge allows two methods to configure network settings:

- Use the Bridge Detector utility (supplied on the CD-ROM) to set the network settings (the Device Detection parameter must be set to Enable, refer to *Section 5.2.2 Network Setup, page 19*).

or

- Use a cross-over Ethernet cable to allow an APIPA-enabled workstation to connect to the bridge. The default network setting for the bridge falls within the APIPA address ranges.

5.1.1 Using the Bridge Detector Utility

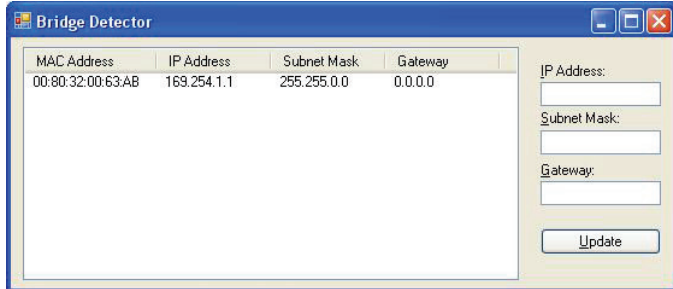


NOTICE!

Contact your local network administrator for a valid IP Address, Subnet Mask, and a Gateway IP Address.

1. Connect the supplied DC power adapter unit to the DC power input connector of the bridge.
2. Connect the RJ45 connector of the bridge via a straight Ethernet CAT5 network cable to a network switch or hub that supports 10BaseT.

- From a PC connected to the same network, launch the `BridgeDetector.exe` application, located on the CD. The PC opens the Bridge Detector window that displays the MAC Address and the default IP Address, Subnet Mask, and Gateway for the bridge.



- To change the network settings for the bridge, first select a bridge. Then, type a valid IP Address, Subnet Mask, and Gateway in the input boxes on the right side of the Bridge Detector window.
Note: The MAC Address cannot be changed.
- Click the Update button to accept the network settings and to apply these settings to the bridge.

5.1.2 Using the Direct Connection

The ATM/POS Bridge allows network configuration via an APIPA-enabled computer.



NOTICE!

Contact your local network administrator for a valid IP Address, Subnet Mask, and a Gateway IP Address.

- Ensure that the PC is configured to use DHCP.
- Connect the supplied DC power adapter unit to the DC power input connector of the bridge.
- Connect the bridge directly to a PC using an RJ45 cross-over Ethernet CAT5 network cable.
- Reboot the PC after you connect to the bridge with the cross-over Ethernet cable.

5. Launch Internet Explorer and navigate to the default bridge IP Address: 169.254.1.1

Internet Explorer displays the ATM/POS Bridge interface.

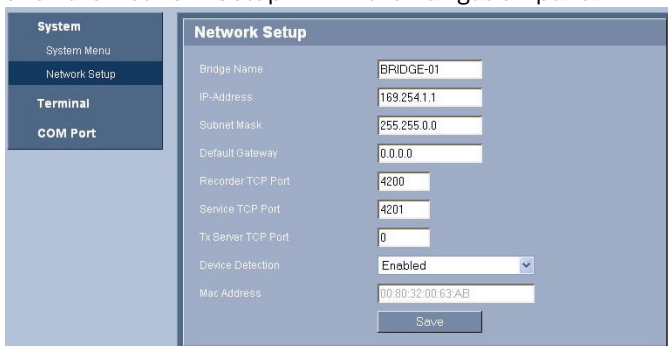


The screenshot shows the 'System Menu' interface. On the left is a navigation pane with 'System Menu' selected. The main area contains the following settings:

Setting	Value
Simulation Mode	Off
Recording Language	English
Log Level	None
Log Modules	0
Version Info	1.10.00.07(63024)/2010-8-6

Buttons for 'Restore Defaults', 'Reset Bridge', and 'Save' are visible at the bottom.

6. Click the Network Setup link in the navigation pane.



The screenshot shows the 'Network Setup' interface. On the left is a navigation pane with 'Network Setup' selected. The main area contains the following settings:

Setting	Value
Bridge Name	BRIDGE-01
IP-Address	169.254.1.1
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
Recorder TCP Port	4200
Service TCP Port	4201
Tx Server TCP Port	0
Device Detection	Enabled
Mac Address	00:00:32:00:63:AB

A 'Save' button is visible at the bottom.

7. Type an optional name for the bridge in the Bridge Name input box. This name facilitates recognition of the bridge on the network.
8. To change the network settings for the bridge, type a valid IP Address, Subnet Mask, and Gateway in the appropriate input boxes.
Note: The MAC Address cannot be changed.
9. Click the Save button to accept the network settings and to apply these settings to the bridge.

5.2 Configuring Operation via a Network

After the bridge is properly configured for network access, you can configure the COM and Terminal settings via Internet Explorer.

To access the bridge configuration page:

1. Launch Internet Explorer and navigate to the IP address for the bridge.

Internet Explorer displays the ATM/POS Bridge interface.

The screenshot shows the 'System Menu' configuration page. On the left is a navigation pane with the following items: 'System' (selected), 'System Menu', 'Network Setup', 'Terminal', and 'COM Port'. The main content area is titled 'System Menu' and contains the following settings:

- Simulation Mode: Off (dropdown menu)
- Recording Language: English (dropdown menu)
- Log Level: None (dropdown menu)
- Log Modules: 0 (text input field)
- Buttons: Restore Defaults, Reset Bridge
- Version Info: 1.10.00.07(63024)/2010-8-6 (text input field)
- Save (button)

2. Use the menu in the left pane to navigate to the various configuration pages.
3. Refer to the following sections for details about each configuration page.
4. Click Save on each page to accept the changes.

5.2.1 System Menu

The System Menu contains settings for bridge operation.

This screenshot is identical to the one above, showing the 'System Menu' configuration page with the same settings and navigation pane.

- **Simulation Mode:** Select the type of device to test the connection between the bridge and the digital recorder. Select this mode to send sample data from the bridge to the digital recorder.
- **Recording Language:** Select the language that is set on the digital recorder to ensure that characters display correctly.
- **Log Level:** Ensure that the Log Level setting is None. This setting is used for diagnostic purposes only.
- **Log Modules:** Ensure that the Log Module setting is zero (0). This setting is used for diagnostic purposes only.
- **Restore Defaults:** Resets all COM and Terminal settings to factory defaults. This button does not reset the Network settings.
- **Reset Bridge:** Reboots the bridge by cycling the power.
- **Version Info:** Displays the firmware release level for the bridge.

5.2.2 Network Setup

The Network Setup enables you to provide a label for the bridge and to configure network settings.

System	
System Menu	
Network Setup	
Terminal	
COM Port	

Network Setup	
Bridge Name	BRIDGE-01
IP-Address	169.254.1.1
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
Recorder TCP Port	4200
Service TCP Port	4201
Tx Server TCP Port	0
Device Detection	Enabled
Mac Address	00:80:32:00:63:AB
Save	



CAUTION!

Changing a parameter on the Network Setup page may interrupt the operation of the ATM/POS Bridge. Contact your network administrator before making any changes.

- **Bridge Name:** Type an optional name for the bridge in the Bridge Name input box. This name facilitates recognition of the bridge on the network.
- **IP Address:** Displays the current IP Address for the bridge. You can type a new IP Address in the input box.
- **Subnet Mask:** Displays the current Subnet Mask for the bridge. You can type a new Subnet Mask in the input box.
- **Default Gateway:** Displays the current Gateway Address for the bridge. You can type a new Gateway Address in the input box.
- **Recorder TCP Port:** Displays the TCP port number where the recorder listens for the bridge device. You can type a new port number in the input box.
- **Service TCP Port:** Displays the TCP port where the bridge listens for CLI commands. (The bridge supports CLI commands which are used to read and change settings in the bridge.)
- **Tx Server TCP Port:** Displays the TCP port number where the bridge listens for the server that receives transaction data from the POS or ATM devices on the network. You can type a new port number in the input box.
- **Device Detection:** Enables or disables the Bridge Detection utility to find the bridge on a network.

**NOTICE!**

It is recommended to disable this feature once the network settings are configured.

-
- **MAC Address:** Displays the MAC Address for the bridge. This value cannot be changed.

5.2.3 Terminal

The Terminal Setup pages allow you to configure the bridge to accept transactions from the ATM/POS devices connected to the bridge.

The screenshot shows a web-based configuration interface. On the left is a dark blue sidebar menu with the following items: 'System' (with sub-items 'System Menu' and 'Network Setup'), 'Terminal' (with sub-items 'Terminal 1', 'Terminal 2', 'Terminal 3', and 'Terminal 4'), and 'COM Port'. The 'Terminal 1' item is selected and highlighted. The main content area is titled 'Terminal 1' and contains the following fields: 'Name' (text input with 'TERMINAL-01'), 'Device' (dropdown menu with 'Transparent' selected), 'Code Page' (dropdown menu with 'PC437 (Latin I)' selected), 'Comm Channel' (dropdown menu with 'Com 1 - RS232' selected), and 'Address' (text input with '0'). A 'Save' button is located at the bottom right of the form.

- **Name:** Type an optional name for the terminal. This name facilitates recognition of the terminal on the network
- **Device:** Select the type of POS or ATM device. You can choose one of these options:
 - Specific Device: The bridge converts the characters from the terminal based on the code page setting of the terminal and the recording language selected on the bridge System menu.
 - Transparent: The bridge receives all characters from an ATM/POS terminal in a complete line without protocol conversion; then transmits the complete line to a recording device. The bridge does not perform character conversion.
 - Capture: The bridge receives all characters from an ATM/POS terminal one character at a time; then transmits an individual character to a recording device. The bridge does not perform character conversion.

- **Code Page:** Select the code page (character set for a particular language) that the ATM/POS terminal uses to encode transaction data. The selections are:
 - PC437 (Latin 1)
 - PC858 (Latin II + EURO)
 - PC737 (Greek)
 - PC775 (Baltic)
 - PC855 (Cyrillic)
 - PC857 (Turkish)
- **Comm Channel:** Select one the following channels that connects the terminal to the bridge:
 - COM 1 - RS232
 - COM 2 - RS232
 - COM 3 - RS232 (console)
 - COM 4 - RS485
 - TCP/IP Server: Select this channel if the ATM/POS terminal connects to the bridge via a TCP/IP network.
 - None
- **Address:** If the Comm Channel is set to TCP/IP, use the Address field to enter one of the following addresses:
 - 0.0.0.0: The default IP Address that instructs the bridge to accept transactions from any IP Address (or ATM/POS terminal) on the network.
 - Specific IP Address: Type the IP Address of a specific terminal to instruct the bridge to accept transactions only from that ATM/POS terminal on this Comm Channel.

5.2.4 COM Port

The COM Port page enables you to configure the four physical communication port settings on the bridge.

The screenshot shows a configuration interface for 'Com 1 - RS232'. On the left is a navigation menu with sections: 'System' (containing 'System Menu' and 'Network Setup'), 'Terminal' (containing 'Terminal 1', 'Terminal 2', 'Terminal 3', and 'Terminal 4'), and 'COM Port' (containing 'COM Port 1', 'COM Port 2', 'COM Port 3', and 'COM Port 4'). The 'COM Port 1' option is selected. The main area displays configuration options for 'Com 1 - RS232': 'Comport Mode' (Asynchronous), 'Baudrate' (9600), 'Databits' (8 bits), 'Parity' (None), 'Stopbits' (1 bit), and 'Flow Control' (Off). A 'Save' button is located at the bottom right of the configuration area.

- **Comport Mode:** Select the appropriate communication method between the bridge and the terminal:
 - Asynchronous
 - Mono synchronous
 - Bisynchronous
 - Bit Synchronous
- **Communication Parameters:** Select the appropriate settings to match the communication parameters for the terminal connected to this port:
 - Baudrate
 - Databits
 - Parity
 - Stopbits
 - Flow Control

6 Configuration Using HyperTerminal

You can configure the ATM/POS Bridge via a PC HyperTerminal session. The PC is connected to the COM 3 (console) port on the bridge via a serial connection.

For instructions to update the ATM/POS Bridge firmware, refer to *Section A Updating Bridge Firmware, page 36*.

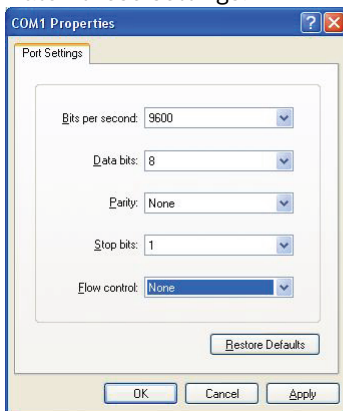
6.1 Connecting the Bridge

1. Ensure that the bridge is connected to the power supply.
2. Connect the supplied console cable to COM Port 3 (console) on the bridge.
3. Connect the other end of the console cable to a serial port on the PC.

6.2 Initiating a HyperTerminal Session

1. Launch the HyperTerminal application on the PC. This application is usually found on the Windows Start menu under the Programs -> Accessories -> Communications folder.
2. Type a name for the new HyperTerminal session and select an icon for the session, then click OK.
3. Select the appropriate COM port number on the PC that is connected to the bridge, then click OK.

4. Ensure that the settings in the COM Properties dialog box match these settings:



- Bits per second: 9600
 - Data bits: 8
 - Parity: None
 - Stop bits: 1
 - Flow control: None
5. Click OK to accept the COM properties and to start the HyperTerminal session.
 6. Refer to *Section 6.3 Configuring Bridge Operation via HyperTerminal*, page 26 for details about configuring the bridge operation via HyperTerminal.

6.3 Configuring Bridge Operation via HyperTerminal

After you establish a HyperTerminal connection between a PC and the bridge, use the menu structure to configure the bridge settings. Press the F1 key to open the System Options menu, then select 1 - Network Setup.

```

Main Menu
1 - Network Setup                >>
2 - Communication Channels      >>
3 - Terminal Setup              >>
4 - Simulation Mode             ATM
5 - Recording Language          English
6 - Service Menu                >>
0 - Exit Menu

```

6.3.1 Network Setup

The Network Setup enables you to provide a label for the bridge and to configure network settings.

```

Network Setup
1 - Bridge Name                 BRIDGE-01
2 - IP-Address                  169.254.1.1
3 - Subnet Mask                  255.255.0.0
4 - Default Gateway              0.0.0.0
5 - Recorder TCP Port            4200
6 - Service TCP Port             4201
7 - Tx Server TCP Port           0
8 - Device Detection             Enabled
   Mac Address                    00:80:32:00:63:AB
0 - Previous Menu

```



CAUTION!

Changing a parameter on the Network Setup page may interrupt the operation of the ATM/POS Bridge. Contact your network administrator before making any changes.

- **Bridge Name:** Type an optional name for the bridge in the Bridge Name input box. This name facilitates recognition of the bridge on the network.
- **IP Address:** Displays the current IP Address for the bridge. Select option 2 to enter a new IP Address.
- **Subnet Mask:** Displays the current Subnet Mask for the bridge. Select option 3 to enter a new Subnet Mask.
- **Default Gateway:** Displays the current Gateway Address for the bridge. Select option 4 to enter a new Gateway Address.
- **Recorder TCP Port:** Displays the TCP port number where the recorder listens for the bridge device. You can type a new port number in the input box.
- **Service TCP Port:** Displays the TCP port where the bridge listens for CLI commands. (The bridge supports CLI commands which are used to read and change settings in the bridge). Select option 6 to enter a new port number.
- **Tx Server TCP Port:** Displays the TCP port number where the bridge listens for the server that receives transaction data from the POS or ATM devices on the network. Select option 7 to enter a new port number.
- **Device Detection:** Enables or disables the Bridge Detection utility to find the bridge on a network.

**NOTICE!**

It is recommended to disable this feature once the network settings are configured.

-
- **MAC Address:** Displays the MAC Address for the bridge. This value cannot be changed.

6.3.2 Communication Channels

Select the Communication Channel option to configure the four physical communication port settings on the bridge.

```

Communication Channels

1 - Com 1 - RS232                >>
2 - Com 2 - RS232                >>
3 - Com 3 - RS232 (Console)     >>
4 - Com 4 - RS485                >>

0 - Previous Menu

```

Select the appropriate option to configure a specific COM port.

```

Com 1 - RS232

1 - Comport Mode                 Asynchronous
2 - Baudrate                     9600
3 - Databits                     8 bits
4 - Parity                       None
5 - Stopbits                     1 bit
6 - Flow Control                 Off

0 - Previous Menu

```

- **Comport Mode:** Select the appropriate communication method between the bridge and the terminal:
 - Asynchronous
 - Mono synchronous
 - Bisynchronous
 - Bit Synchronous
- **Communication Parameters:** Select the appropriate settings to match the communication parameters for the terminal connected to this port:
 - Baudrate
 - Databits
 - Parity
 - Stopbits
 - Flow Control

6.3.3 Terminal Setup

The Terminal Setup pages allow you to configure the bridge to accept transactions from the devices connected to the bridge.

```

Terminal Setup
1 - TERMINAL-01      (Com 1 - RS232)      >>
2 - TERMINAL-02      (Com 2 - RS232)      >>
3 - TERMINAL-03      (Com 3 - RS232 (Console)) >>
4 - TERMINAL-04      (Com 4 - RS485)      >>

0 - Previous Menu

```

Select a terminal number to configure the settings for that terminal.

```

Terminal 1
1 - Name              TERMINAL-01
2 - Device            Transparent
3 - Code Page         (null)
4 - Comm Channel      Com 1 - RS232
5 - Address           0

0 - Previous Menu

```

- **Name:** Select option 1 to type an optional name for the terminal. This name facilitates recognition of the terminal on the network
- **Device:** Select the type of POS or ATM device. You can choose one of these options:
 - Specific Device: The bridge converts the characters from the terminal based on the code page setting of the terminal and the recording language selected on the bridge System menu.
 - Transparent: The bridge receives all characters from an ATM/POS terminal in a complete line without protocol conversion; then transmits the complete line to a recording device. The bridge does not perform character conversion.
 - Capture: The bridge receives all characters from an ATM/POS terminal one character at a time; then transmits an individual character to a recording device. The bridge does not perform character conversion.

- **Code Page:** Select the code page (character set for a particular language) that the ATM/POS terminal uses to encode transaction data. The selections are:
 - PC437 (Latin 1)
 - PC858 (Latin II + EURO)
 - PC737 (Greek)
 - PC775 (Baltic)
 - PC855 (Cyrillic)
 - PC857 (Turkish)
- **Comm Channel:** Select option 4 to select one the following channels that connects the terminal to the bridge:
 - COM 1 - RS232
 - COM 2 - RS232
 - COM 3 - RS232 (console)
 - COM 4 - RS485
 - TCP/IP Server: Select this channel if the ATM/POS terminal connects to the bridge via a TCP/IP network.
 - None:
- **Address:** Select option 5 to configure the address. If the Comm Channel is set to TCP/IP, use the Address field to enter one of the following options:
 - 0.0.0.0: The default IP Address that instructs the bridge to accept transactions from any IP Address (or ATM/POS terminal) on the network.
 - Specific IP Address: Type the IP Address of a specific terminal to instruct the bridge to accept transactions only from that ATM/POS terminal on this Comm Channel.

6.3.4 Simulation Mode

Use the Simulation Mode to select the type of device to test the connection between the bridge and the digital recorder. Select this mode to send sample data from the bridge to the digital recorder.

This setting is set to Off for normal operation.

```
Main Menu
1 - Off
2 - ATM
3 - POS
0 - Previous Menu

(Currently selected)
```

6.3.5 Recording Language

Select the language that is set on the digital recorder to ensure that characters display correctly.

```
3 - French
4 - Spanish
5 - Italian
6 - Dutch
7 - Polish
8 - Portuguese
9 - Czech
10 - Danish
11 - Estonian
12 - Greek
13 - Hungarian
14 - Latvian
15 - Lithuanian
16 - Norwegian
17 - Russian
18 - Finnish
19 - Swedish
20 - Turkish
0 - Previous Menu
```

6.3.6 Service Menu

The System Menu contains settings for bridge operation.

```
Service Menu
1 - Restore Defaults
2 - Reset Bridge
3 - Diagnostics          >>
   Version Info          1.10.00.07(63024)/2010-8-6
0 - Previous Menu
```

- **Restore Defaults:** Resets all COM and Terminal settings to factory defaults. This button does not reset the Network settings.
- **Reset Bridge:** Reboots the bridge by cycling the power.
- **Diagnostics:** Select this option to perform the EEPROM diagnostic test.
- **Version Info:** Displays the firmware release level for the bridge.

7 Troubleshooting

If you are unable to capture transaction data, follow these steps:

1. Check all cable connections.
2. Check the TCP/IP network connection with the ATM/POS Bridge. Ensure that the IP Address, Subnet Mask, and Gateway Address are valid and appropriate for the network.
3. If the recorder has established communication with your bridge and you cannot capture transaction data, use the simulation mode (refer to *Section 5.2.1 System Menu, page 18*) to send sample transactions to the recorder.
4. Check the COM port settings in the bridge. If the transaction data is being recorded, but displays the wrong characters, check the COM port settings. The language setting in the bridge must be the same as the recorder language setting. Refer to *Section 5.2.1 System Menu, page 18*.
5. Check that the ATM/POS license is enabled in the recorder, if necessary.

8 Technical Data

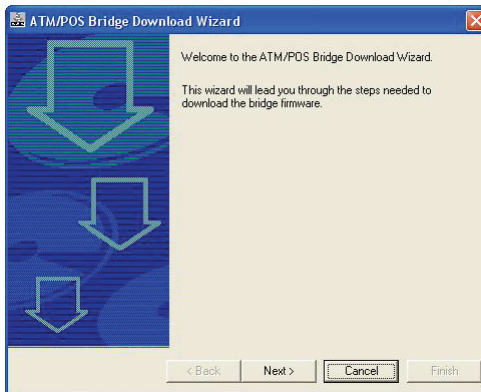
Electrical	
Power Supply	External DC power supply (supplied) Input: 100–240 VAC, 150 mA, 50/60 Hz Output: 12 VDC, 450 mA
Connector	DC jack, positive center pin, 10–30 VDC, 2 W
Mechanical	
Dimensions	152 x 110 x 35 mm (5.98 x 4.33 x 1.38 in.)
Weight	Approximately 0.6 kg (1.3 lb)
Mounting Kit	Supplied
Interface	
Ethernet	RJ45 shielded, 10BaseT
COM 1 Port	9-pin SubD male connector, RS232 synchronous or asynchronous signals according to EIA/TIA-232-F
COM 2 Port	9-pin SubD male connector, RS232 synchronous or asynchronous signals according to EIA/TIA-232-F
COM 3 Port (console)	9-pin SubD male connector, RS232 asynchronous signals according to EIA/TIA-232-F
COM 4 Port	9-pin SubD male connector, RS485 asynchronous
Environmental	
Temperature	Operating: 0°C to +45°C (+32°F to +113°F) Storage: -25°C to +70°C (-13°F to +158°F)
Relative Humidity	Operating: < 80% non-condensing Storage: < 90% non-condensing
Electromagnetic Compatibility	

EMC Requirements	USA: FCC Part 15, Class B EU: EMC directive 89/336/EEC Immunity: EN50130-4 Emission: EN55022 Class B Harmonics: EN61000-3-2 Voltage Fluctuations: EN61000-3-3
Safety	USA: UL60950 EU: EN60950 Canada: CAN/CSA - C22.2 - 60950-00

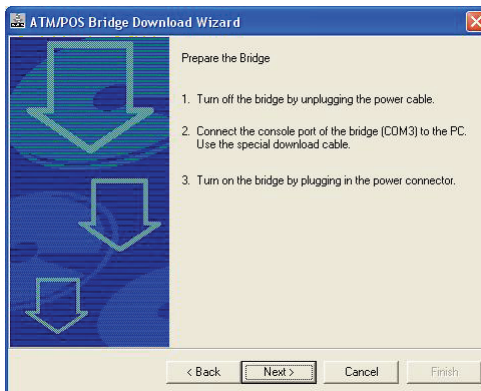
A Updating Bridge Firmware

Follow the steps below to update the firmware on the ATM/POS Bridge.

1. Download the Zip file for the ATM/POS Bridge firmware from the Bosch Security Systems Web site (www.boschsecurity.com).
2. Unzip the firmware update file into a folder on the PC that you will use to update the bridge.
3. Run the `downloadwizard.exe` file to start the update process. The PC displays the initial wizard screen.



4. Click Next to proceed to the Prepare the Bridge step.



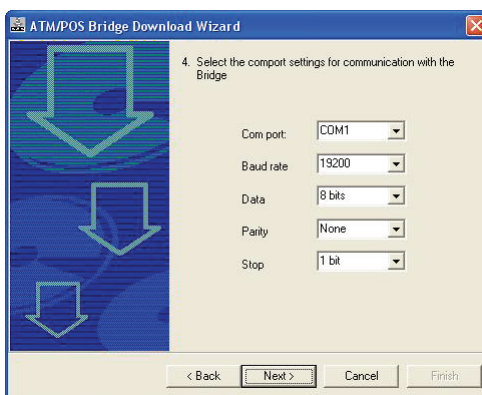
- a. Unplug the power cable from the bridge.
- b. Connect the supplied console cable to COM Port 3 (console) on the bridge and to a COM port on the PC.
- c. Connect the supplied power adapter to the bridge and to the main power.

The red LED light on top of the bridge flashes short pulses to indicate that the bridge is in download mode.

NOTICE!

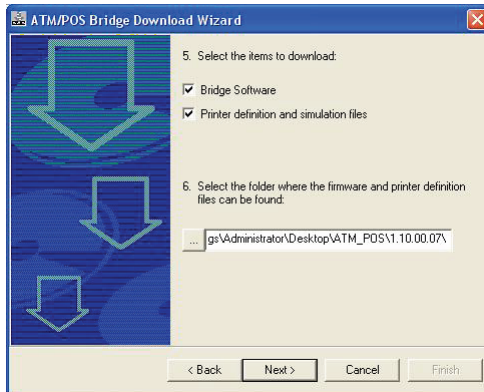
if the console download cable is attached to the PC via a low-end USB to Serial adapter, the firmware download attempt may take several attempts before it succeeds. Bosch recommends the SIIG USB to Serial serial adapter, a higher-end adapter. (Manufacturer Part number: JU-CB1S12-S3)

5. Click Next to select the PC COM port and to configure the bridge communication settings.



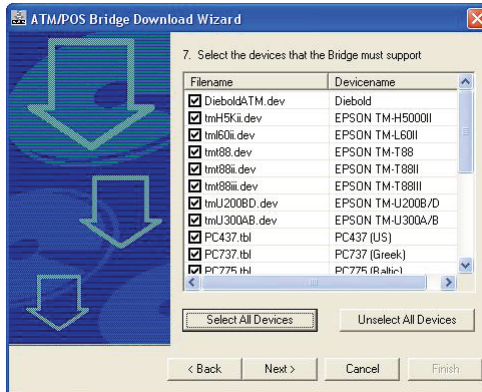
Change the settings for the Baud rate, Data, Parity, and Stop parameters to match the settings on the PC.

6. Click Next to select the download parameters.

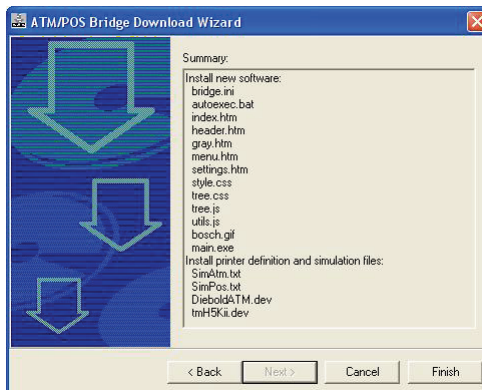


7. Click the check boxes to download the Bridge Software and the Printer definition and simulation files. A check mark indicates that the process will update the specific files.
8. Select the folder where the firmware and printer definition files are stored.
By default, the wizard searches for the file in the same directory that contains the `downloadwizard.exe` file.
9. To navigate to a different folder, click the ... button to select another directory. Then, click OK to return to the wizard.

- Click Next to select the device profiles that are stored on the bridge.



- Select individual check boxes to select specific device profiles.
 - Click the Select All Devices to select all device profiles.
 - Click Unselect All Devices to clear the check boxes for all device profiles.
- Click Next to view a summary of the download settings and to start the update process.



12. Click Finish to accept the settings and to start the firmware update. If you receive an error message, refer to *Page 41*.
13. Click Yes to overwrite the existing files on the bridge. The wizard displays a download progress screen. DO NOT interrupt the update process.
14. Click OK once the upload process is complete.
15. Disconnect the power cable and the console cable from COM Port 3 on the bridge.
16. Reconnect a serial cable from a terminal to COM Port 3, if required.

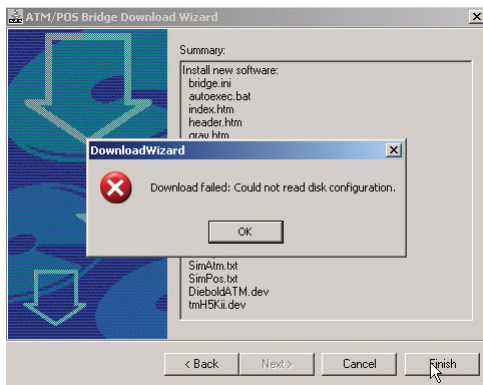
**NOTICE!**

Ensure that the console cable is disconnected from the bridge before reconnecting the power.

17. Reconnect the power cable to the bridge.

Troubleshooting Bridge Firmware Update

Use the following steps to correct the firmware settings If you receive the following error during the firmware update process:



1. Click OK to acknowledge the error.
2. Click the Cancel button to stop the process and to quite the wizard.
3. Re-launch the downloadwizard.exe file to start the update process.
4. Follow the process until you reach the communications setup wizard screen. Use the following values for the communication settings:
 - Baud Rate: 19200
 - Data: 8 bits
 - Parity: None
 - Stop: 1 bit
5. Continue through the wizard screens to start the upload process.

Bosch Security Systems, Inc.

www.boschsecurity.com

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