USER MANUAL

MODEL 1203

High Speed Synchronous Modem Eliminator

PATTON Electronics Co.

Part# 07M1203-A
Doc# 049013UA
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SALES OFFICE
(301) 975-1000
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(301) 975-1007

1.0 WARRANTY INFORMATION

Patton Electronics warrants all Model 1203 components to be free from defects, and will—at our option—repair or replace the product should it fail within one year from the first date of shipment.

This warranty is limited to defects in workmanship or materials, and does not cover customer damage, abuse or unauthorized modification. If this product fails or does not perform as warranted, your sole recourse shall be repair or replacement as described above. Under no condition shall **Patton Electronics** be liable for any damages incurred by the use of this product. These damages include, but are not limited to, the following: lost profits, lost savings and incidental or consequential damages arising from the use of or inability to use this product. **Patton Electronics** specifically disclaims all other warranties, expressed or implied, and the installation or use of this product shall be deemed an acceptance of these terms by the user.

1.1 RADIO AND TV INTERFERENCE

The Model 1203 generates and uses radio frequency energy, and if not installed and used properly—that is, in strict accordance with the manufacturer's instructions—may cause interference to radio and television reception. If the Model 1203 does cause interference to radio or television reception, which can be determined by disconnecting the unit, the user is encouraged to try to correct the interference by one or more of the following measures: moving the computing equipment away from the receiver, re-orienting the receiving antenna and/or plugging the receiving equipment into a different AC outlet (such that the computing equipment and receiver are on different branches).

1.2 SERVICE

All warranty and non-warranty repairs must be returned freight prepaid and insured to Patton Electronics. All returns must have a Return Materials Authorization number on the outside of the shipping container. This number may be obtained from Patton Electronics Technical Service at **(301) 975-1007**. *Packages received without an RMA number will not be accepted.*

Patton Electronics' technical staff is also available to answer any questions that might arise concerning the installation or use of your Model 1203. Technical Service hours: **8AM to 5PM EST, Monday through Friday.**

2.0 GENERAL INFORMATION

Thank you for your purchase of this Patton Electronics product. This product has been thoroughly inspected and tested and is warranted for One Year parts and labor. If any questions or problems arise during installation or use of this product, please do not hesitate to contact Patton Electronics Customer Service at (301) 975-1007.

2.1 FEATURES

- Synchronous data rates to 224 Kbps
- Cable runs to 75 feet on each side of device
- Constant or RTS controlled carrier selections
- RTS-CTS delay options of 0mS or 6.6mS
- DB-25 connector on each end
- Half or full duplex
- Internal or external clocking
- No external power required
- LEDs monitor data and control signals

2.2 DESCRIPTION

The Patton Model 1203 high speed synchronous modem eliminator allows two synchronous RS-232 DTE (host) devices to communicate with each other without the need for expensive synchronous modems. Supporting selectable data rates of 7, 14, 28, 56, 112 and 224 Kbps, the Model 1203 needs no AC power or batteries for operation. The Model 1203 provides internal or external clock options and operates half or full duplex. To emulate dial-up or dedicated service, the delay between RTS and CTS can be set to either 0mS or 6.6mS. The carrier can be configured either as "constantly on" or "controlled by RTS".

Measuring only 5.3" x 2.0" x 1.2", the Model 1203 is equipped with a DB-25 connector on each end. Cable runs up to 75 feet on either side of the device (150 feet total) are possible at the optimum data rate of 64 Kbps. Tri-state LED indicators that monitor receive data, request to send and data carrier detect on each side of the device.

3.0 CONFIGURATION

The Model 1203 is equipped with four strapping options that allow configuration to a wide range of applications. To gain access to the internal straps, loosen the hex nuts on the DB-25 connectors and pry open the case between the plastic shell ears. Figure 1 shows the location of each strapping option.

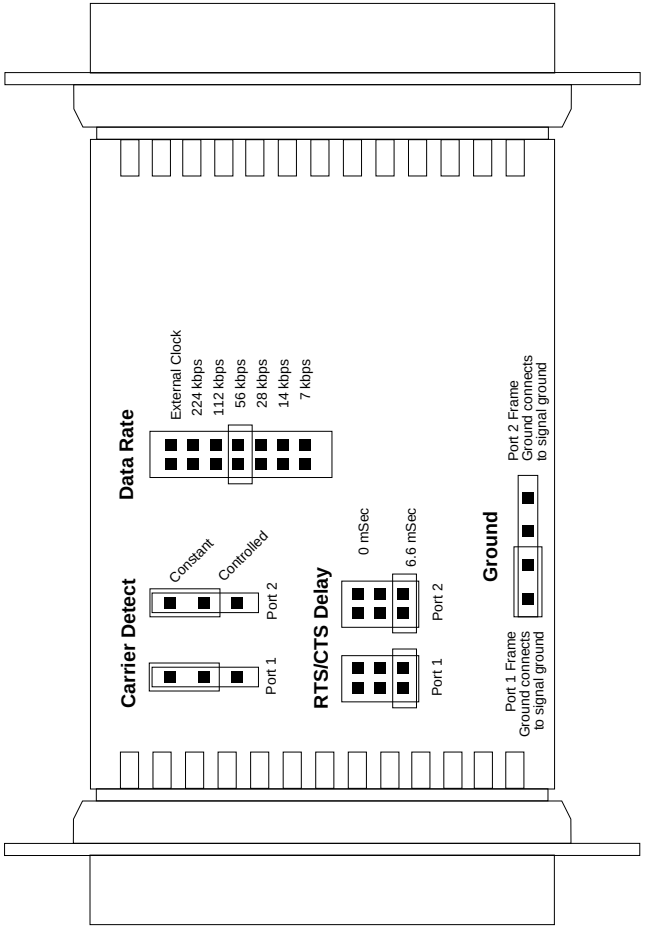


Figure 1. Strap settings for the Model 1203

3.1 DATA RATE

The data rate strap controls the rate at which data is transmitted. Adjust the strap to select one of the following options: 7, 14, 28, 56, 112 and 224 Kbps, or external clocking. If “external clocking” is selected, the Model 1203 will automatically match the clocking between your two synchronous devices. The default setting is **56 Kbps.**

3.2 CARRIER DETECT

The carrier detect straps allow you to determine whether the carrier is “constantly on” or “controlled by RTS”. By adjusting the strap, you may operate in switched carrier, multi-point and/or hardware handshaking applications. Port 1 and port 2 may be configured separately. The defaults setting is **ON** for both ports.

3.3 RTS/CTS DELAY

The RTS/CTS delay straps determine the amount of delay between the time the Model 1203 “sees” RTS and when it sends CTS. In order to emulate either dial-up or leased line modems, you can set this strap at either no delay or 6.6mS. Port 1 and port 2 may be configured separately. The default setting is **6.6mS** for both ports.

3.4 GROUND

The ground strap setting connects the protective ground from port 1 or 2 to the Model 1203’s signal ground. The default setting is **port 1**.

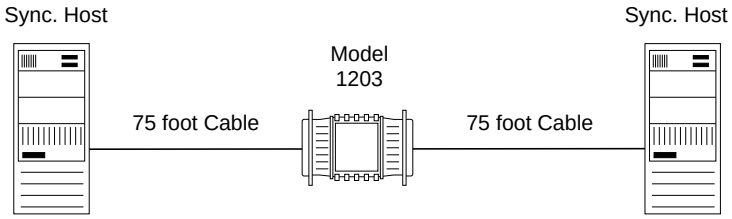
4.0 INSTALLATION

The Patton Model 1203 is very simple to install.

1. Configure according to the instructions listed in Section 3.0.

2. Turn off the computer or device to which the Model 1203 is to be connected.

3. Plug the DB-25 connectors directly into the serial ports of your RS-232 devices. If you wish to extend the distance, you may add a cable **not to exceed 75 feet on each side**.

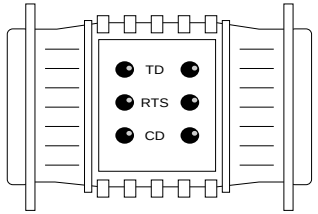


5.0 OPERATION

Once you have configured the Model 1203 properly (see Section 3.0) and plugged it into your equipment, you are ready to operate the unit. After the Model 1203 is properly installed, it should operate transparently—as if it were a standard cable connection. Operating power is derived from the RS-232 data and control signals; there is no "ON/OFF" switch.

5.1 LED Status Indicators

The Model 1203 features six front panel status LEDs that indicate the condition of the modem eliminator and the communication link. The diagram below shows the location of each of these LEDs. Following the diagram is a description of each LED's function.



- **"TD"** and **"RTS"** indicators blink with data activity.

- **"CD"** lights for an incoming signal on the line side and the resulting output signal on the RS-232.

APPENDIX A
SPECIFICATIONS

Data Rates: Strap selectable for 7, 14, 28, 56, 112 and 224 Kbps

Clocking: Strap selectable for Internal or external clock

Grounding: Protective ground (pin 1) may be strapped to signal ground (pin 7)

Range: 75 feet on either side (for a total of 150 feet) at 56 Kbps, range extends linearly for lower bit rates and decreases for higher bit rates

Functional: Emulates half or full duplex, dial-up or dedicated line

RTS/CTS Delay: Selectable per port: 0mS or 6.6mS

DCD: Selectable per port as continuous or RTS controlled

Ring Indicator: Constantly ON

Interface: EIA RS-232C/CCITT V.24

Connectors: Choice of two male or two female DB-25 RS-232 connectors

Power Supply: None required

Altitude: 0 to 10,000 feet

Humidity: Up to 95% non-condensing

Dimensions: Approximately 5.3” x 2” x 1.2”

APPENDIX B
BLOCK DIAGRAM