

# Model 268

## RS-232 Optical Isolator

Reference Manual

0315-0098 Rev. D

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### FCC Compliance

**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 a 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 the 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 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

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## Table of Contents

- [1.0 General Description](#)
  - [2.0 Specification](#)
  - [3.0 Operation](#)
  - [4.0 Connector Pin Assignment](#)
  - [5.0 Power](#)
  - [6.0 Help](#)
-

# 1.0 General Description

The Model 268 Optical Isolator provides a complete full-duplex (including control signal) electrical isolation channel between two RS-232 devices. This isolation is an important consideration if a system uses different power sources, has noisy signals or must operate at different ground potentials.

## 2.0 Specification

### Interface

Conforms to EIA RS-232D and CCITT V.24 specifications. Pins 2 and 3 (Transmit and Receive Data), Pins 4 and 5 (Request to Send and Clear to Send; Pin 20, Data Terminal Ready and Pin 8, Data Carrier Detect can be used instead of RTS and CTS by reconfiguring internal jumpers), Pin 7 (Signal Ground).

### Connectors

DTE = DB-25F, DCE = DB-25M

### Data Rate

0 to 19,200 Bps

### Isolation

1,500 VAC

### Power

None required - derived from incoming data signals and control signals (must be at least 5 VDC).

### Size

2.25 in W x 6.76 in L x 1 in H

### Environment

0 to +50° C , 5% to 95% RH (no condensation)

## 3.0 Operation

The Model 268 has been designed so that the user need only connect their equipment to the proper DB-25 on the Model 268. The male DB-25 connector is a DCE port and connects to a

DTE device, such as a terminal or PC. The female DB-25 DTE port is connected to a DCE interface, such as a dial-up modem. The direction of each signal is shown in Figure 1.

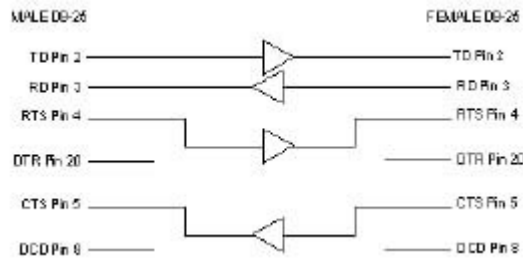
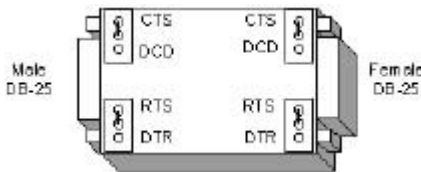


Figure 1: Signal Directions

The Model 268 has the option of reconfiguring which control signal is used. DTR can be selected instead of RTS and DCD instead of CTS. To reconfigure the unit remove the four screws located on the top of the unit. The jumpers are located near each DB-25, as shown in Figure 2, and can be set according to the needs of your system. Once the jumpers are set, replace the cover, making sure that the end marked DCE is facing the male DB-25.



## 4.0 Connector Pin Assignment

Pin	EIA	CCITT	Name
2	BA	103	Transmit Data
3	BB	104	Receive Data
4	CA	105	Request to Send
5	CB	106	Clear to Send
7	AB	102	Signal Ground
8	CF	109	Data Carrier Detect
20	CD	108.2	Data Terminal Ready

## 5.0 Power

The Model 268 incorporates micro power DC-to-DC converters that generate the necessary power for operation. There are two sets of these circuits, one for each port, that power the unit even if only TD, RD and ground are connected. These lines should be at least \_5 VDC in the quiescent state with the Model 268 connected.

## 6.0 Help

If you require assistance, please visit our [Technical Support Center](#).

## Warranty

TELEBYTE warrants the equipment to be free from defects in material and workmanship, under normal and proper use and in its unmodified condition, for 12 months, starting on the date it is delivered for use. TELEBYTE's sole obligation under this warranty shall be to furnish parts and labor for the repair or replacement of products found by TELEBYTE to be defective in material or workmanship during the warranty period. Warranty repairs will be performed at the point of manufacture. Equipment approved for return for warranty service shall be returned F.O.B. TELEBYTE factory and will be redelivered by TELEBYTE freight prepaid, except for non-continental U.S.A. locations. Non-continental deliveries will be sent COD freight plus import/export charges.

*The above warranty is in lieu of all other warranties, expressed or implied, statutory or otherwise, including any implied warranty of merchantability or fitness for a particular purpose. TELEBYTE shall not be liable for any damages sustained by reseller or any other party arising from or relating to any equipment failure, including, but not limited to consequential damages nor shall TELEBYTE have any liability for delays in replacement or repair of equipment.*

Out of warranty equipment may be returned to the Greenlawn, NY customer service facility prepaid as described above. Return shipping charges will be billed to the customer. The repaired unit will have a 90-day warranty. In those cases where "NO TROUBLE" is found, a reduced charge will be billed to cover handling, testing and packaging.

Whether in or out of warranty, a Return Material Authorization (RMA) number is necessary and can be obtained by visiting our [Technical Support Center](#). Reference the RMA number on the