

RF-232 Users Manual
Model 0104

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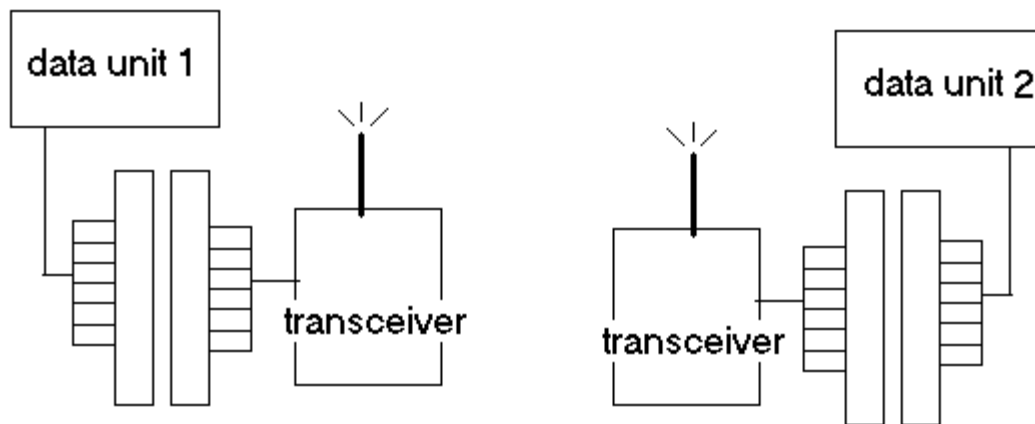
Overview

The RF-232 allows for Bidirectional RS-232 communication at a maximum rate of 33.6Kbps in half-duplex mode. The range depends on conditions but the system will allow communications distances up to 500 feet outdoors.

Each transceiver has a Rf level output which can be used to monitor signal strength. The inputs to the system are 5V TTL level logic so direct connection to a computer via RS-232 port requires a signal level converter.

Because noise and varying signal strength will effect data transmission, it is up to the user to determine a transmission protocol that will ensure detection of errors or poor signal strength.

SETTING UP THE SYSTEM



The diagram above shows the basic setup for the system. Data unit 1 and 2 communicate to each other through their RS-232 ports that are connected to the transceivers. Each Data Unit must provide +5V power and ground to the transceivers and well and the control and data signals. Below is the connector pin out for the transceivers.

15 Pin Connector

| | |
|-----------------------------------|----------------------------------|
| Pin 1..... gnd | Pin 10.....RXen (receive enable) |
| Pin 2..... Rx (receive data) | Pin 12.....TX (transmit data) |
| Pin 5..... +5V | Pin 14..... Rf signal level |
| Pin 6..... gnd | |
| Pin 7..... Txen (transmit enable) | |

NOTES:

- 1) To Transmit: set Rxen low and let Txen float
- 2) To Receive: set Txen low and let Rxen float
- 3) TX and RX are TTL level logic, use a level converter to connect to the RS-232 port of a computer.

Data Transmission Notes

There are many factors that will effect transmission ranges and data errors. Below are some guidelines that will help minimize data errors and maximize range.

- 1) Provide a clear +5V power to transceiver
- 2) Use a 18 gauge or better ground connection to the transceiver ground pins.
- 3) Mount transceiver with the highest line of sight view to the other transceiver.
- 4) Use the Rf signal level output to notify your system when the signal strength drops below usable levels.

Instructions to the User

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.

This equipment has been certified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate the equipment.