RRC-1

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Data Comm for Business, Inc.
PO Box 6329
Champaign, IL 61826-6329
(217) 897-6600
www.dcbnet.com

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1. DESCRIPTION

The DCB RRC-1 is an RS-232 to RS-530 interface converter, ideal for use with the DCB SR and SPL series multiplexers. Other equipment that may be converted includes terminals, personal computers, bridges, routers, work stations, etc. The RRC-1 will work with any terminal device that has an RS-232 interface and must connect to communications equipment with a RS-530 interface.

The RRC-1 is powered by a wall mounted power supply and is designed to replace unreliable non-powered interface converters. The RRC-1 will operate at data rates up to 256Kbps. The RRC-1 has a DB-25 female connector for the RS-232 connection to terminal devices and a DB-25 male connector for connection to the RS-530 communications device.

The RRC-1 is very easy to install. There are no switches to set, nothing to configure. Apply power, attach devices to be linked, and installation is complete. All standard control signals and clocks are converted. The single LED on the faceplate is the power indicator.

FEATURES

- Easy to install
- Speeds to 256Kbps
- DB-25 connectors
- No switches to set

2. SPECIFICATIONS

2.1 General

Interface
- Synchronous only
- RS-232 DB-25S connector connects to terminal device
- RS-530 DB-25P connector connects to communications equipment

Signals
- Transmit Data, Receive Data, Transmit Clock, Receive Clock, Request to Send, Clear to Send, Data Set Ready, Data Terminal Ready, Data Carrier Detect, External Transmit Clock

2.2 Environmental

Operation: 0 to 65° C, 10 to 85% relative humidity
Storage: -40 to 85° C, 10 to 85% relative humidity

2.3 Physical / Electrical

120 VAC, 3 watts
Wall mount power transformer
7” x 5 1/4” x 1 1/2”
1 lb.

3. INSTALLATION

3.1 Unpacking

The following is included with each unit:

- Unit and external power supply
- Manual
- Information regarding warranty, maintenance contracts and repair

3.2 Location

Place the unit in a clear area where you can reach rear panel to connect the cables. The unit has an external power supply that requires a 120 VAC outlet.

3.3 Setup

No setup is required.

3.4 Connections

Connect the RS-530 communications equipment (DSU) port to the RS-530 port on the RRC-1. See section 5 for interface information.

Connect the RS-232 port to the terminal device (multiplexer).

Plug in the power supply. The power indicator on the front panel should illuminate.

4. CONTROLS AND INDICATORS

4.1 Indicators

Indicator	Condition	Meaning
POWER	ON	Power is applied to the unit.

5. INTERFACE SIGNALS

5.1 Port Interface

5.1.1 RS-232 Port (DB-25S)

Pin	Signal	In/Out
1	Frame Ground	-----
2	Transmit Data	IN
3	Receive Data	OUT
4	Request to Send	IN
5	Clear to Send	OUT
6	Data Set Ready	OUT
7	Signal Ground	-----
8	Data Carrier Detect	OUT
15	Transmit Clock	OUT
17	Receive Clock	OUT
20	Data Terminal Ready	IN
24	External Transmit Clock	IN

5.1.2 RS-530 Port (DB-25P)

Pin	Signal	In/Out
1	Frame Ground	-----
2	Transmit Data	OUT
3	Receive Data	IN
4	Request to Send	OUT
5	Clear to Send	IN
6	Data Set Ready	IN
7	Signal Ground	-----
8	Data Carrier Detect	IN
9	Receive Clock Return	IN
10	Data Carrier Detect Return	IN
11	External Tx Clock Return	OUT
12	Transmit Clock Return	IN
13	Clear to Send Return	IN
14	Transmit Data Return	OUT
15	Transmit Clock	IN
16	Receive Data Return	IN
17	Receive Clock	IN
19	Request to Send Return	OUT
20	Data Terminal Ready	OUT
22	Data Set Ready Return	IN
23	Data Terminal Ready Return	OUT
24	External Transmit Clock	OUT

6. TROUBLESHOOTING

6.1 General Approach

When troubleshooting problems, a rational plan can save you many hours of frustration. The following is a brief outline of standard troubleshooting procedures.

1. Gather the facts to determine the exact nature of the problem.
2. Draw a picture of the system showing the equipment at both the host and remote ends and the phone lines or in-house wiring. Use this as a reference to note your observations, test steps and test results. A picture keeps you focused and often saves duplicate effort.
3. Record the front panel indications before changing anything. This is an important part of fact gathering
4. If you change anything, change only one thing at a time.
5. Use the built-in test functions, especially the loopback tests. Record your results.

7. WARRANTY

This DCB product is warranted to be free of defects in materials and workmanship for two years. Data Comm for Business, Inc. will repair or replace any equipment proven to be defective within the warranty period. All warranty work is F.O.B. Dewey, IL. This warranty is exclusive of abuse, misuse, accidental damage, acts of God or consequential damages, etc. DCB liability shall not exceed the original purchase price.

All equipment returned for repair must be accompanied by a Returned Material Authorization (RMA) number. To receive an RMA number, call (217) 897-6600 between the hours of 8 AM and 5 PM central time. Equipment must be shipped prepaid to DCB and will be returned at DCB's expense.

Ship returned items to:

Data Comm for Business
2949 CR 1000E
Dewey, IL 61840

Data Comm for Business, Inc.
PO Box 6329
Champaign, IL 61826-6329

Tel (217) 897-6600
Fax (217) 897-1331
Email support@dcbnet.com