RC890/RC891 Control Unit

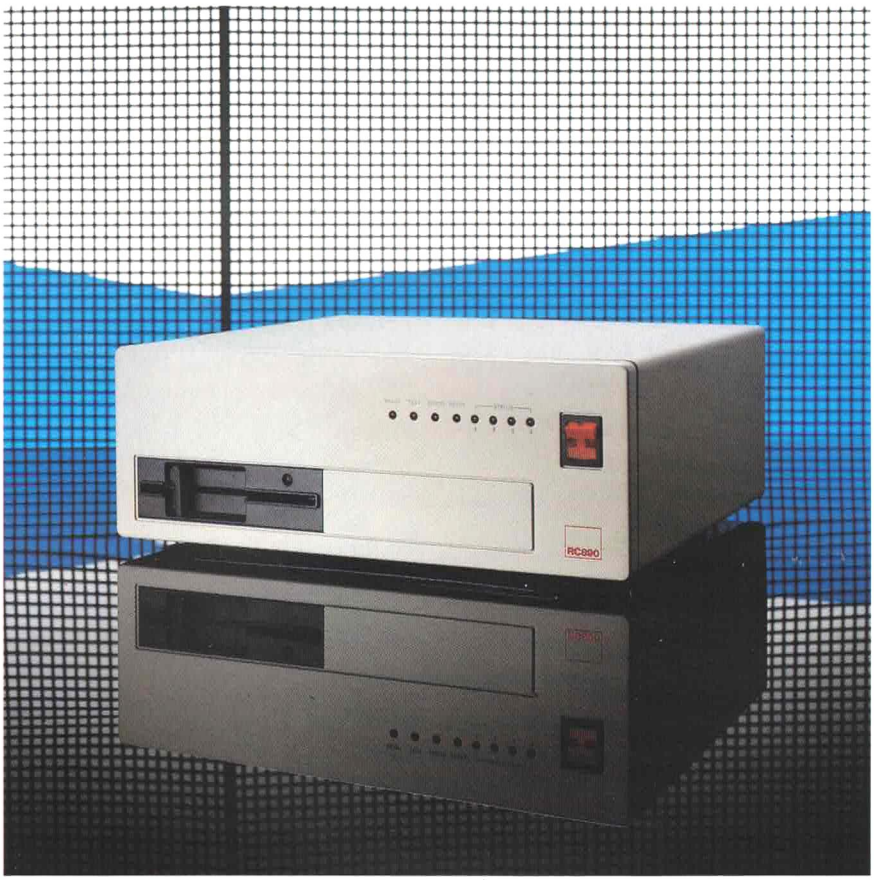
The RC890 control unit functions as an IBM 3274 cluster control unit with a V.24 or X.21 host communication interface.

RC890 comes with both BSC and SNA/SDLC communication and incorporates connections for 32 terminals and 32 printers.

RC890 offers simultaneous dual host communication. The connected RC45 terminals, as well as other RC terminals, may run simultaneous sessions with both host computers.

RC890 is also available with a local area network connection, and may thus control the IBM 3270 communication for the connected microcomputers. This version is named RC891 and features the same communication facilities as RC890.

The RC890 communication programs are loaded from the built-in disk drive, which also functions as program library for the connected terminals.



RC Computer

The RC890 control unit is primarily designed for emulation of cluster control units of the IBM 3274 type, but is equally suited as basic unit for communication in general (byte synchronous as well as bit synchronous). In connection with future communication programs this feature enables communication with system types other than the IBM 3270 based.

The RC45 keyboard and screen are similarly designed for multi-system communication.
The RC890 control unit performs the function of cluster control unit for connected terminals and printers (each terminal incorporates as standard a printer connection). RC891, which incorporates a local area network connection, may also control connected RC micro-computers.

An RC890 communication port with BSC communication may serve up to 64 devices. RC890 with SNA/SDLC communication may serve up to 128 devices. In this connection a device is logically speaking a display terminal or a printer, one physical RC45 terminal may, however, function as two logical devices (display terminals) at the same time, each running a 3270 session.

Product Interconnection
RC890 may be inserted instead of an RC855 IBM 3270 CU/Display Station, thus adding new possibilities to the cluster, such as SNA/SDLC communication, more work stations and more host computer connections.

The RC Computer systems architecture ensures that new system components such as RC890 and RC891 can be used in a wide range of applications featuring terminals as well as micro-computers.

Interconnected RC891's
Interconnection of two or more RC891's, each featuring a cluster of terminals, using the RC Computer local area network provides the connected terminals and microcomputers with a wide range of host connections, as each RC891 incorporates one or two communication ports.
This ensures that future increases in the number of work stations may be made within the existing systems architecture.

Local Host Computers
RC891 incorporates connection to several RC39 supermicros and RC8000 minicomputers via a local area network.

The RC45 terminals are normally connected directly to an RC39 supermicro, but in configurations featuring several RC39 supermicros, the RC891 and the local area network may give access to all the RC39 supermicros connected to the network.

Similarly, an RC891 with local area network may function as connection between the RC45 terminals and the RC8000 minicomputers connected to the local area network.

Communication Characteristics
RC890 emulates IBM 3274 Model 51C, and may have one or two communication lines to host computers.
Each communication line is configurable for:
- V.24 BSC communication
- X.21 BSC communication (to the RC3800 concentrator)
- V.24 SNA/SDLC communication or
- X.21 SNA/SDLC communication (IBM's Short-Hold-Mode/ Multiple Port Sharing)

Each communication line may have its own character set and related conversion tables, corresponding to the ones used by the host computer.

The speed of V.24 connections is modem controlled, max. 9600 bps. The transmission rate may be increased to 19200 bps by means of a special option for RC890.

The maximum speed of the X.21 Datex network is 9600 bps.
When the SNA/SDLC control program is used, RC890 functions as a PU type 2 supporting the LU session types 1, 2 and 3 (SCS printer, terminal and 3270 printer).

In relation to the host computer, the connected terminals and printers function as IBM 3278 model 2A terminals and IBM 3286 printers.

Terminal Characteristics
The RC45 terminal screen and keyboard are designed for ANSI X3.64 (VT100) and IBM 3270 communication. The keyboard design enables operation of the RC45 as a VT100 terminal and an IBM 3180 model 1 terminal. Extra PA-keys and a USM function are also available.

The RC45 terminal programs are loaded from the RC890 diskette. The following programs are available:
- ANSI X3.64 (VT100) terminal program
- RC851 emulator program
- IBM 3270 emulator program
- Combined IBM 3270 and ANSI X3.64 emulator program
- Terminal configuration program

The ANSI X3.64 terminal program is used for character-oriented (VT100) communication. The communication is effected via the terminal's own V.24 port, or via the RC Computer terminal network, RcCircuit.

The IBM 3270 emulator program actually constitutes two logical 3270 display terminals with each their own screen image. The user may change between the two screen images by pressing one single key. This enables simultaneous communication with two IBM 3270 application programs.

The combined IBM 3270 and ANSI X3.64 emulator program enables simultaneous communication with an IBM application program and a computer with character- oriented (VT100) communication.

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Printers
Each of the RC45 terminals in the cluster may have a printer connected. Each printer is available to the host computer (host computers) and to all the 3270 terminals in the cluster (screen image copies). The RC890 configuration may allow one, the other or both applications for each printer.

A printer connected to an RC45 terminal with combined IBM 3270 and ANSI X3.64 emulator program may be used by the host computers of both emulators.

Configuration
The RC890 control unit comes with a diskette containing all the necessary communication programs, conversion tables and a description of the present configuration.

The configuration description contains the menus that can be displayed when a terminal is turned on. The menus make it easy for the user to choose the right emulator program, connection to the right host computer and the right application program.

One terminal in the cluster has the privilege of making corrections in the configuration description. A new printer or terminal in the cluster may easily be inserted in the description. Status line texts and menu texts are similarly adaptable to individual needs, e.g. application names.

Connections
RC890 uses one of the two 2-wire twisted pair cables constituting the RC Computer terminal network RcCircuit. This is used as a multipoint/polled network featuring a transmission rate of 250 Kbps, one cable being used for 3270 communication, the other for character-oriented communication with the RC39 multi-user computer. RcCircuit features a maximum length of 1500 metres.

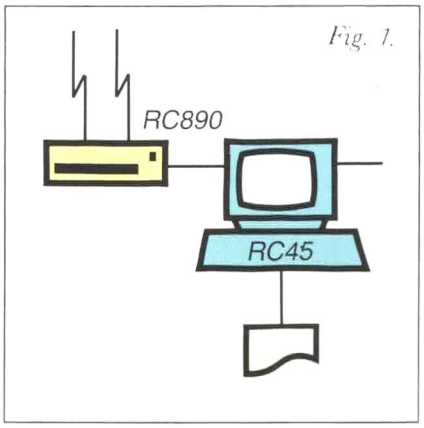

Fig. 1: The RC890 cluster control unit can serve up to 32 terminals and 32 printers.

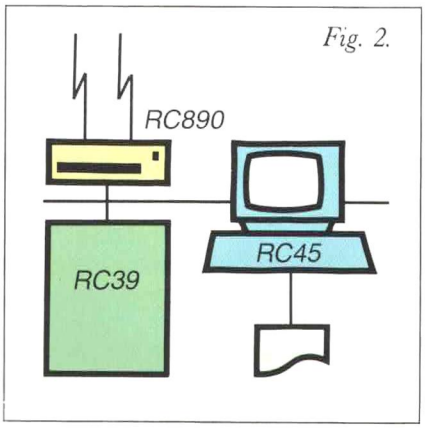

Fig. 2: The terminals in the cluster may choose between communication with XENIX applications on RC39 and 3270 communication via RC890.

RC891 may furthermore be connected to a local area network, either RcMicronet (1 Mbps) or Ethernet (IEEE 802.3) (10 Mbps), both based on the CSMA/CD technique.

Models
The RC890 control unit comes in three different models for 8, 16 and 32 terminals, respectively. The largest model incorporates two communication ports to host computers.

The RC891 control unit is a special version of RC890. As is the case with RC890, RC891 comes in three models as described above, but incorporates an RcMicronet connection.

Options
A number of options are available for extended functionality. The options include storage extension, dual host connections or 19200 bps communication, RcMicronet connection, Ethernet connection, and conversion to X.21 with SNA/SDLC communication.

Coax cables may be used in connection with 3270 communication instead of a twisted pair cable.

Standards Compliance
VDE 871B, FTZ, Demko.

Ambient Temperature
10-30°C.

Humidity
20-80% RH, non-condensing.

Power Supply
220/240VAC±10%, 50 Hz
150W (540kJ/h).

Dimensions
Height 15 cm, Width 38 cm, Depth 34 cm.

Weight
10 kg.

RC Computer

Contents are subject to alterations.

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