

## RC45 ANSI X3.64 Terminal

The RC45 ANSI X3.64 terminal is designed for asynchronous communication via a V.24 interface or the multidropped RcCircuit terminal network.





The RC45 ANSI X3.64 terminal is used for asynchronous, character-oriented communication. This form of communication is supported by a wide range of host computers, including RC Computer's own RC39 Supermicro.

#### Characteristics

- 7 or 8 bit character set
- 5 national and one multinational character set included
- Semi-graphic character set
- Slave and relay printout as well as local copying of screen image to printer
- Communication speed up to 19200 bit/sec.
- XON/XOFF and DTR communication control
- 25 lines, one used as status line
- Configurable line length of 80 or 132 characters
- Soft scroll or line scroll
- 35 programmable function keys, 2 strings each
- Configurable top and bottom margin

- Easy typing of characters with accents
- Start/stop function controlling image scrolling
- Built-in printer connection
- Full duplex communication with optional local echo
- Character or blockwise data transmission
- Built-in configuration program for the setting of default values
- Setup mode for dynamic change of functional and operating parameters

#### Configuration Program

The built-in configuration program is used for the setting of default values:

- Nationality and related character set
- Screen intensity and contrast
- Cursor presentation
- Automatic screen time-out
- Inverse video
- Alarm volume
- Keyboard click and volume

- Printer character set and printout format
- Communication port (V.24 or RcCircuit)
- RcCircuit address
- Communication parameters (speed, number of data bits, number of stop bits, parity)
- XON/XOFF and/or DTR communication control
- 7 or 8 bit character set
- National or US-ASCII character set
- Character or blockwise data transmission
- Local echo
- Characters per line, 80 or 132
- Line scroll or soft scroll
- Automatic line feed at end of line
- Form feed interpreted as line feed or erase screen
- Insertion of carriage return at end of line

#### Setup Mode

The following functional and operating parameters may be set up during communication with the host computer:

- Screen intensity and contrast
- Keyboard click and alarm volume
- Cursor presentation
- Screen time-out
- Compact printout format
- Character or blockwise data transmission
- National or US-ASCII character set
- Conversion of lower-case letters to upper-case letters during typing
- 80 or 132 characters per line
- Line scroll or soft scroll
- Origin mode (stating whether line number is counted from the top margin or the first physical line)
- Logical lock of keyboard
- Supervisory mode (received codes are written as readable characters, or received codes are interpreted)
- Local communication (typed in characters are not sent, but echoed locally)



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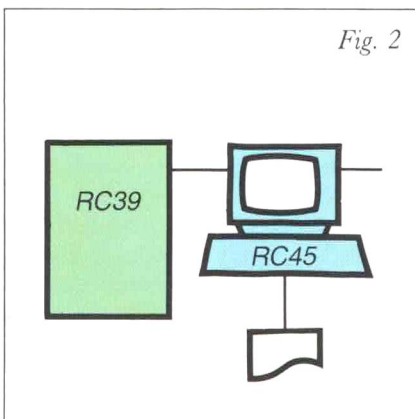
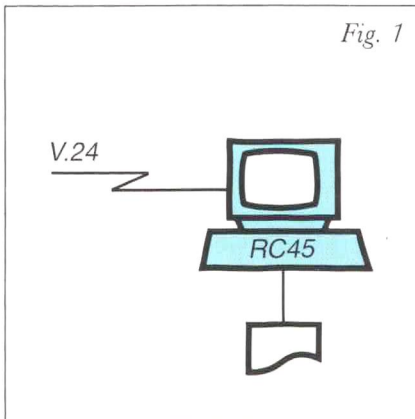


Fig. 1: Stand alone RC45 ANSI X3.64 terminal with V.24 communication.

Fig. 2: RC45 ANSI X3.64 terminal on multidrop terminal network, and RC39 multi-user computer.

## ANSI X3.64

ANSI X3.64 is a standard for asynchronous, character-oriented communication between terminals and host computers. Many industrial products are based on this standard.

RC Computer's ANSI X3.64 terminal incorporates the following standard functions and special functions:

- BEL - Audible alarm
- BS - Back Space
- CBT - Cursor Backward Tabulation
- CHT - Cursor Horizontal Tabulation
- CPR - Cursor Position Report
- CR - Carriage Return
- CUB - Cursor Backwards
- CUD - Cursor Down
- CUF - Cursor Forwards
- CUP - Cursor Position
- CUU - Cursor Up
- DA - Device Attribute
- DCH - Delete Character
- DCS - Device Control String (when initializing programmable keys)
- DL - Delete Line
- DMI - Disable Manual Input
- DSR - Device Status Report
- DSRP - Device Status Report Printer
- ECH - Erase Character
- ED - Erase in Display
- EL - Erase in Line
- EMI - Enable Manual Input
- ENQ - Enquiry (about terminal type)
- FF - Form Feed
- HT - Horizontal Tabulation
- HTS - Horizontal Tabulation Set
- HVP - Horizontal and Vertical Position
- ICH - Insert Character
- IL - Insert Line
- IND - Index
- KAM - Keypad Application Mode
- KNM - Keypad Numeric Mode
- LF - Line Feed
- LSxx - Lock Shift (select character set)
- MC - Media Copy (control of copying of screen image, slave printout and relay printout to printer)

- NEL - Next Line
- RC - Restore Cursor
- RI - Reverse Index
- RIS - Reset to Initial State
- RM - Reset Mode (see SM)
- SC - Save Cursor
- SCS - Select Character Set
- SGR - Select Graphic Rendition (high intensity, underlining, blink, low intensity background, inverse video, invisible)
- SI - Shift In (select character set)
- SM - Set Mode (Keyboard Action, Control Representation, Send/Receive, Line Feed/New Line, Auto Wraparound, Origin, Column and Keypad Mode)
- SO - Shift Out (select character set)
- SSx - Single Shift (select character set)
- STBM - Set Top and Bottom Margins
- TBC - Tabulation Clear
- VT - Vertical Tabulation



### Applications

The combination of V.24 and RcCircuit communication ports and ANSI X3.64 standard functions supplemented with DEC VT100 and VT220 functions make the RC45 ANSI X3.64 terminal suitable for a wide range of applications.

The RC45 ANSI X3.64 terminal can communicate with RC Computer's own supermicro, RC39, either via the V.24 interface or via RcCircuit. The terminal also offers the feature of communication with other host computers such as the DEC-produced VAX computers.

The many programmable keys make the RC45 terminal specially suitable for RC39 applications. This also applies for applications based on other types of computers. On the whole, a wide range of terminal types may be emulated simply by function key programming.

The programmable function keys may be initialized from a computer, and from the keyboard directly. The submitted text strings are stored in RC45's non-volatile memory.

### Options

Several options are available for the RC45 ANSI X3.64 terminal, including RC4515, which is a special RC851 emulator used in communication with RC Computer's RC8000 minicomputer.

### Models

The basic version of the RC45 ANSI X3.64 terminal incorporates a V.24 communication port and parallel Centronics printer port.

The RC45 ANSI X3.64 terminal may be supplied with an adapter for connection with RcCircuit, used when connecting a large number of terminals with the RC39 multi-user supermicro.

The RC45 ANSI X3.64 terminal comes in two versions: amber screen (negative screen, amber characters on dark background) or paper white screen (positive screen, black characters on white background). Apart from the general appearance, the two screens differ as regards number of characters per line. The amber screen features 80 or 132 characters per line (defined by the user), whereas the paper white screen always features 80 characters per line.