

# CSD 4100 Voice/Data Terminal

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Powerful Protection for Sensitive Voice/Data Transmissions



Technical  
Communications  
Corporation

# TECHNICAL COMMUNICATIONS

*The CSD 4100 Voice/Data Terminal provides secure voice and data communications in one integrated package. It works both as a full-featured telephone for voice calls and as a smart modem for data applications.*

As part of the TCC family of secure products, the CSD 4100 communicates with the CSD 3600 Telephone Device. The CSD 4100 is compact and light enough to carry with you when you travel. Developed in conjunction with the U.S. Government's STU-III program, the CSD 4100 is designed to protect the domestic and international communications of businesses and governments.

## **One Product for Two Jobs.**

If you need both secure voice and secure data, the CSD 4100 can save you money. You won't need to clutter your

desk with a secure phone and a secure modem.

## **Cost-saving Transmission Over Public or Private Switched Networks.**

The CSD 4100 is designed to secure both voice and data transmissions over any public or private switched network. You won't need an expensive, dedicated transmission path to ensure security. Data can be transmitted at speeds of 2.4, 4.8 and 9.6 kbps asynchronous or synchronous voice at 2.4 and 4.8 kbps.

## **Interoperability with other CSD Devices.**

The CSD 4100 not only communicates with STU-III's, but also the CSD 3600.

## **Protection for Facsimiles, E-mail and Computer Communications.**

Protection for facsimiles, electronic mail and computer communications using the RS-232 port. Whether you're accessing a computer database, sending a fax or using e-mail, you can be sure that even your most sensitive information is protected.

## **Superior Voice Quality with Security You can Count on.**

In the past, making a secure telephone call has meant compromising voice quality. That's not the case with the CSD 4100. Our design insures that the voice quality of your secure calls will be comparable to that of your clear (non-secure) phone calls.

The terminal uses a powerful, TCC proprietary algorithm to encrypt your voice. You can count on this digital

# CORPORATION CSD 4100 TERMINAL

encryption process to make your conversation inaccessible to illegal wiretapping.

## Comprehensive Service and Support.

The TCC product hotline provides a single point of contact for comprehensive service and technical support. A phone call, can resolve a question, place an order, troubleshoot problems and more. Repairs are hassle-free. If your terminal fails, we'll send a replacement after receipt of the defective device. And we stand behind the CSD 4100 with a full one-year warranty with an optional one-year extension or four-year extension.

## Feature-rich.

The CSD 4100 was designed with features and functions that lead the secure terminal market and support the special needs of our customers.

- **Speakerphone.** A built-in speakerphone gives you hands-free operation for both secure and regular telephone calls.
- **Easy installation/operation.** Regardless of your application, the CSD 4100 is easy to set up, operate and install. You plug in the power cord and a telephone cord, and connect the unit to your PC, facsimile machine or computer. Operation is simple, and no special training is required. The menu structure makes it easy to change default parameters.
- **Remote operation.** For data applications, you can control your CSD 4100 remotely from any fax, PC or computer that is connected to its RS-232 data port. Remote commands are based on the Hayes® Smartmodem 2400™ command set.

- **Access Control.** The CSD 4100 is equipped with a unique Security Access Control System (SACS) that brings unmatched flexibility to applications requiring security. SACS allows you to establish a secure, closed network and to control access for both voice and data communications. You can control access for secure phone calls or facsimile transmissions and protect data stored on a PC or host computer. You simply program a list of authorized user IDs into your CSD 4100. SACS automatically screens incoming calls, comparing the IDs of the caller to those on your list. Unauthorized attempts are disconnected before the caller has access. As an additional security feature, the CSD 4100 provides the information you need to maintain an audit trail of all attempts to access your network whether successful or not.
- **Compatibility.** The CSD 4100 is compatible with the CSD 3600.

## Specifications

### Information protected

- Sensitive and/or proprietary

### User community

- International governments and agencies
- Multinational corporations
- Legal and financial organizations
- High-tech manufacturing industries

### Security features

- TCC proprietary encryption algorithm
- Auto-answer, auto-secure
- Secure dialing
- Display dialing for authentication identification
- Non-error propagating
- Plain text inhibit
- Secure Access Control System (only available with the optional Key Management System)

### Key management

- Basic
  - Negotiated session key
- Key Management System (optional)
  - Secret Key
  - Authenticated Key Certificate

### Voice modes

- Clear voice
- Secure voice
  - 4.8 kbps full-duplex RCELP (CSD 3600 mode only)
  - 4.8 kbps full-duplex CELP
  - 2.4 kbps full-duplex LPC10e
  - 2.4 kbps half-duplex LPC10e

### Telephone features

- Speakerphone: clear and secure
- On-hook dialing with speakerphone
- Speakerphone volume control
- Pulse or tone dialing
- Last number redial
- Repertory dialing (32 numbers on single line / 20 numbers on multiline)
- Programmable pause
- Dial tone detect
- Switch hook flash
- Automatic disconnect
- Ringer volume control
- Ringer cutoff
- Handset volume control

- Microphone mute (disconnects microphone on both handset and speakerphone)
- 2-line by 16-character Liquid Crystal Display (LCD)
- PABX compatible
- Multiline 4150 for use with 1A key systems (optional terminal)

### Secure data operational modes

- 9.6 kbps full-duplex sync/async
- 4.8 kbps full-duplex sync/async
- 2.4 kbps full-duplex sync/async
- 2.4 kbps half-duplex sync

### Modem characteristics

- Near/far echo cancellation
- Frequency offset compensation
- 9.6 kbps: CCITT V.32 secure; sync/async; full duplex with optional trellis coding
- 4.8 kbps: CCITT V.32 secure; sync/async; full duplex
- 2.4 kbps: CCITT V.26 bis secure; sync/async; full duplex
- 2.4 kbps: CCITT V.26 bis secure; sync; half duplex
- Input level: 0 to -43 dBm
- Output level: adjustable, 0 to -15 dBm
- Automatic rate fallback from 9.6 and 4.8 kbps to 2.4 kbps
- Remote control using Hayes AT commands.

### Interfaces

- External power supply
- EIA RS-232 data port with a 25-pin D-connector
- RJ11/RJ13 telephone jack to connect to public or private switched network, PABX or key system
- A/A1 leads (for use with key telephone systems)

### Physical characteristics

- 8.6" w x 3.25" h x 10.7"d (21.8cm x 8.25 cm x 27.2 cm)
- 10 lbs. (4.5 kg)

### Environmental

- Operating temperature: 40° to 100° F (4.5° to 38° C)
- Storage temperature: -40° to 150° F (-40° to 66° C)
- Relative humidity (storage): 5% to 95 %, noncondensing

### Power

- External power supply auto-ranging, 90-253 VAC
- Input frequency: 47-63 Hz
- Input power dissipation: 22 watts

### Equipment interoperability

- CSD 4100™ & CSD 3600™

### Equipment Compatibility

- Data devices with RS-232 output
- Digital facsimile using RS-232 port interface

### Compliance with standards

- FCC Part 15, Subpart J, Class B
- FCC Part 68
- UL 1459
- EN 55022:1994
- EN 50082-1:1992
- EN 60950:1992
- MIL-STD-1472 Acoustical Noise, Curve NC-35
- EMC/EMI MIL-STD-461C
- UL/TUV/CSA/CE (power supply)
- ESD 20 kV

### Warranty

- 12 months standard
- 12-month extension or 4-year conversion
- Post-warranty service available

### Options

- Multiline model 4150 (five lines and hold; to be used with 1A key systems)
- Secure conference bridge up to 16 parties
- Soft carrying case
- Push-to-talk handset
- Four-wire/two-line adapter
- Key Management System
- Uninterruptible Power Supply (UPS)

### Note:

Specifications subject to change without notice. US Department of Commerce regulations apply for export and use.

### Trademarks:

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