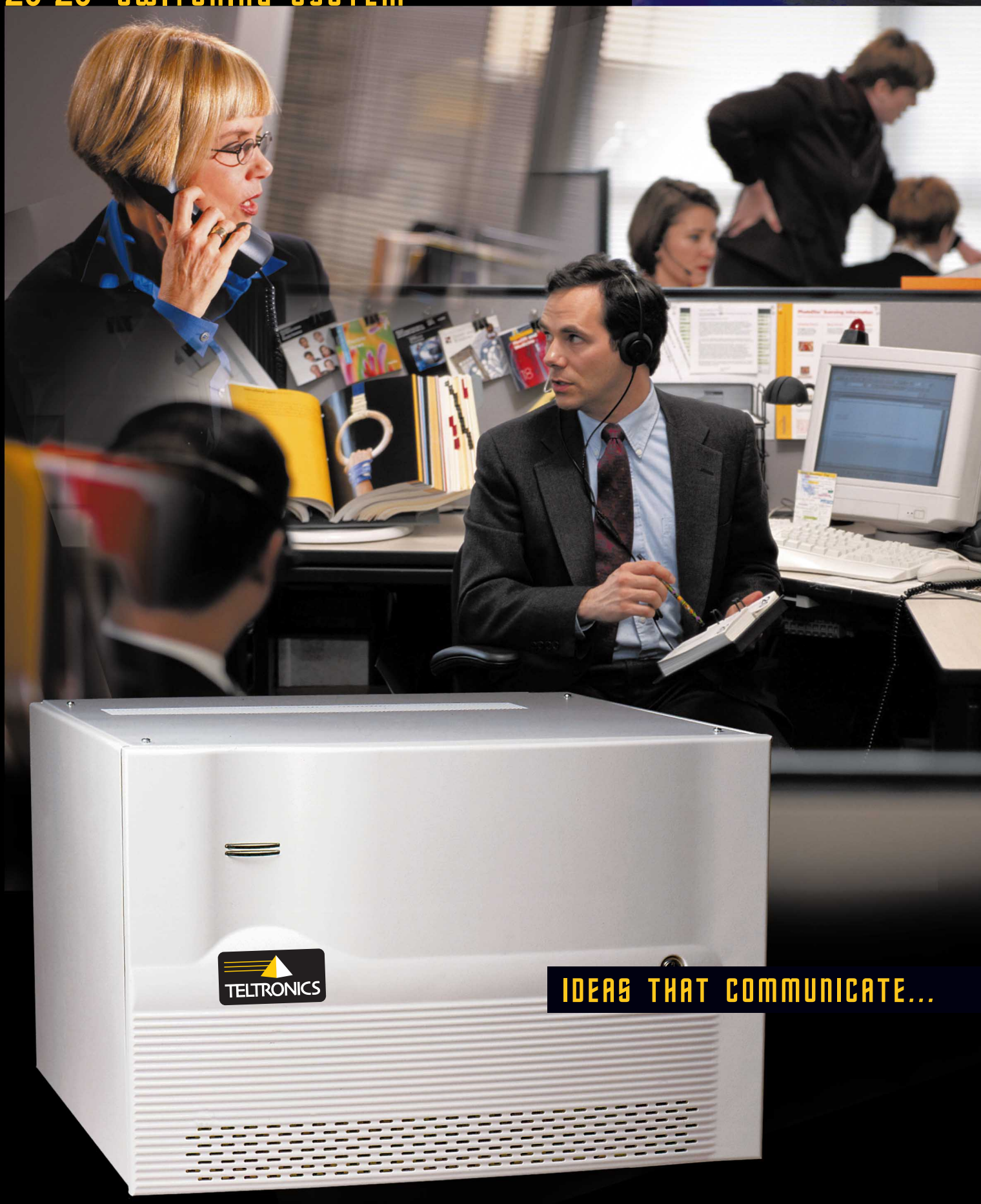
20-20® SWITCHING SYSTEM

TELTRONICS



IDEAS THAT COMMUNICATE...

Around the world, businesses from banking and health care to utilities and manufacturing, count on the performance of the 20-20 IXP

When you purchase the 20-20 IXP, you gain a total communications package. The 20-20 IXP is a fully integrated, voice/data switching system capable of supporting the most demanding networking and stand-alone private switching system requirements.

Scaling from under 256 ports to almost 10,000, the 20-20 IXP efficiently meets the communications needs of small businesses to large corporations.

The power and flexibility of the 20-20 IXP's proven digital architecture have earned a loyal following in businesses and government agencies worldwide. More than 20,000 of the 20-20 IXP communications systems are now in operation around the world—including companies such as: utilities, manufacturing, retail, government, health care, call centers, high security and financial institutions.

Growing to Meet Your Needs

The 20-20 IXP's highly flexible and modular architecture, coupled with Teltronics' experience and expertise in telecommunications, enables us to customize the product to adapt to a wide range of evolving applications.

The software-driven, modular system architecture anticipates and grows to meet your business needs. The universal port architecture takes full advantage of its nearly 10,000 ports allowing any port to be used as either a line, trunk, or common service unit and transport either voice, data or both. With this type of flexibility, system expansion is accomplished at a minimal expense.

Private Switching Systems

A single platform that supports multiple applications simultaneously, the 20-20 IXP is a powerful, cost-effective telecommunications system. With the 20-20 IXP, you get all the telecommunications services a modern office requires, including a full range of screening and other sophisticated call handling capabilities.

When GazProm, the largest supplier of natural gas in the world and the largest company in Russia, needed to upgrade their analog telecommunications network to a digital network, they chose the 20-20 IXP because of its ability to provide flexible interfaces to the existing Russian network.

Integrated Automatic Call Distribution

The 20-20 IXP's innovative, integrated Automatic Call Distribution (ACD) software provides faster service for your customers and higher call volume when call center-type services are required.

The ACD's additive queuing feature dramatically increases the speed of service and ensures that a caller is served quickly. Similarly, the intelligent queue (I.Q.) factor smooths out call load peaks during heavy traffic hours.

As part of the ACD feature, the 20-20 IXP supports up to 384 simultaneously active agents. And with the ACD Management System, you have a Windows-based management system with up to 32 supervisors.

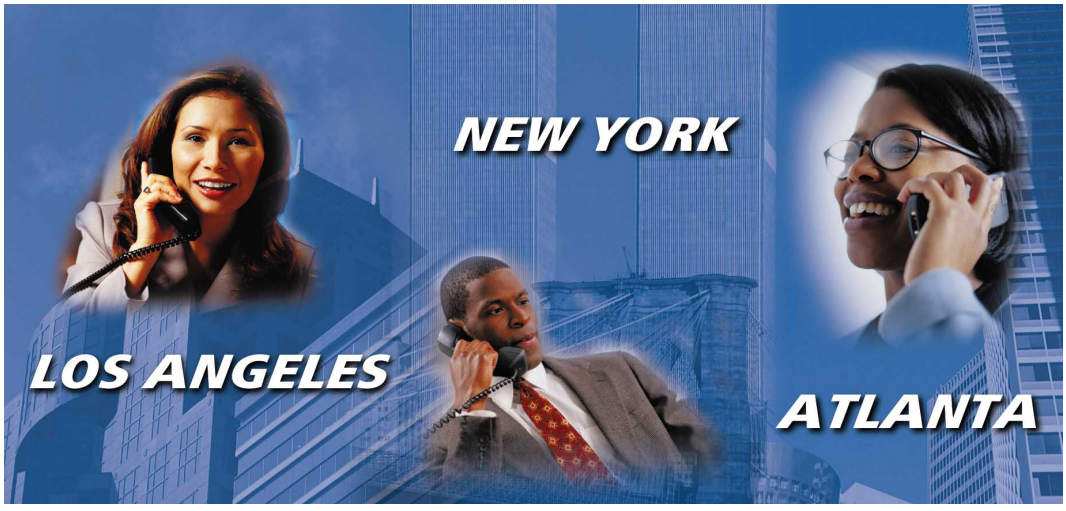
Real Time Conferencing

Today's business world often demands collaboration among numerous individuals either at one or many locations and the 20-20 IXP's conference calling features make this complex communication easy. The sophisticated system offers three conferencing options:

- Preset - Up to 63 parties are automatically called and conferenced when a predefined access code is dialed
- Progressive - Parties are sequentially added to the call by the originator
- "Meet-Me Conferencing" - All parties call a given conference number at a predetermined time.

When you choose the 20-20 IXP, you get a communications system that:

- Grows to meet your needs
- Meets the highest reliability standards
- Features ergonomically designed telephone sets
- Offers conferencing, CTI, voice/data capabilities, and more



With the 20-20 IXP your office will gain unsurpassed communications functionality

Global Interfaces

The 20-20 IXP offers global flexibility through a range of worldwide standard interfaces. It supports both the North American Mu-Law and International ITU-T A-Law PCM multiplex standards. A broad range of global signaling protocols such as

- DTMF
- GS/LS
- R2MFC
- E&M (pulsed and continuous)
- MFR1
- Dial pulse
- ISDN
- T1
- E1, and more are available.

Adding plug-in units and new configuration information to the system database tables allows you to easily adapt to new telecommunication requirements.

Providing new levels of control and efficiency

Enterprise Networking

Software Defined Networking enables you to enjoy enhanced services such as call forwarding, callback, name and number display across the network and much more. This network connection markedly improves the functionality of a private switched network, and provides a seamless communications network that:

- Shares advanced calling features among switches, regardless of location
- Maintains network-wide centralized directories
- Offers a selection of call features that is unsurpassed in the industry.

Software Defined Network provides advanced features throughout the network

Switch Management

The 20-20 IXP offers 256 classes of service, enabling you to specify features and line accessibility right down to an individual extension. This capability allows you to:

- Route calls to the lowest cost long distance carrier depending on the day and time
- Protect against fraud by restricting long distance calls to specific regions
- Assign floating privileges that travel with your users

Switch Management Features

System and database administration are easily controlled through the system administration terminal either locally or remotely. And a guided configuration editor makes changes simple by providing prompts and "help" explanations for each step of operation. The system provides real-time, detailed information on operating conditions, status, and major and minor system alarms via a central system alarm terminal or printer.

The 20-20 IXP has built-in flexibility with a secondary database, which enables you to set up a second operating mode, separate from your normal operations. For example, you can covert to a more restrictive, higher-security mode on weekends. The secondary database also allows you to try out new settings before implementing the changes for the entire system.

Along with extensive system monitoring, the switch is equipped with fault surveillance, and has the capability to immediately detect and report a fault. In addition, any fault in the common equipment is isolated, and the system switches to the standby device automatically. This dynamic maintenance system ensures smooth, dependable service.

Record Collection

In all 20-20 IXP configurations, you can collect and record up to 50,000 records of extension-to-extension calls and outgoing phone calls on the internal disk drive. This high volume of record collection insures accountability even in the event of a billing system failure.

The 20-20 IXP also offers a complete maintenance history, allowing the system administrator to identify who has been working on the system and what changes were made including the date and time.

With over 5,000 help screens

to assist you, the 20-20 IXP

is easy to operate

You define the environment

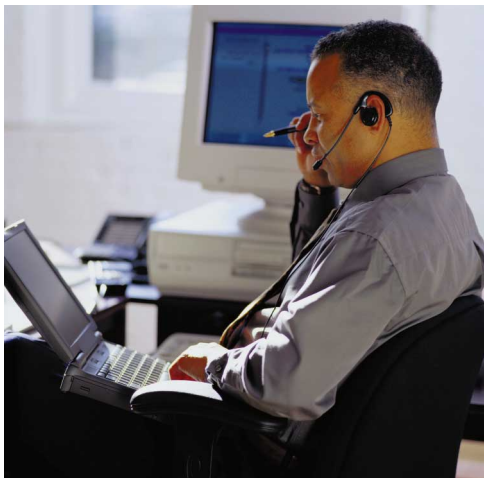
and build applications

that meet your needs

Computer Telephone Integration (CTI)

CTI technology links switch, computers and the telephone to provide tailored communications. The 20-20 IXP's CTI solutions provide fast call handling, high reliability and broad flexibility in interfacing with networks and computer systems.

And when you add the Integrated Network Server (INServer), you get the world's best CTI application environment using Microsoft NT tools, including Microsoft's TAPI-based service creation environment. The Integrated Server plugs directly into the switch and interfaces with the communications platform. You get TCP/IP access to multiple CTI interfaces.



The ClearCom family of phones

offers unsurpassed functionality

and versatility

The ClearCom family of phones offers a wide variety of features that can be configured to help users optimize their communications environment for their own specific information needs

Well Designed and Easy to Use Office Phones and Attendant Workstation

The telephone is perhaps today's single most critical business tool. With the Clearcom™ phones and the Attendant Workstation your office gains unsurpassed communications functionality and versatility.

ClearCom

The ClearCom family of phones were developed to take advantage of the latest technology advancements in digital design. They provide increased line capacity, attractive styling, adjustable base and wall mounting. The phone is ergonomically designed to maximize the use of the handset which makes those long conference calls comfortable.

Each key can be assigned a line or a feature. Line appearances can be shared with other ClearCom phones offering true multi-line or "keyset" emulation. Each line appearance has a visual indicator above the key to identify whether the line is ringing (amber light), busy (red or green based on use) or on HOLD (flashing green or red).

The Clearcom phone's comprehensive list of features will satisfy the most demanding communications needs.

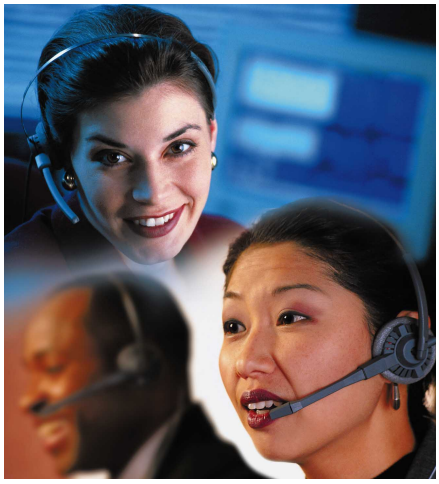
Attendant Workstation

Designed for ease of use and convenience, the 20-20 IXP Attendant Workstation offers call processing capabilities far beyond those found in any other attendant console. You have complete call information at your fingertips.

Incoming and outgoing call information, is presented clearly on the display screen, allowing the operator to quickly locate critical data. The 20-20 IXP can support up to 16 Attendant Workstations per system.

When operators need to locate the phone numbers of particular employees, they can use the on-line directory. Capable of providing 50,000 names and telephone numbers, the on-line directory is accessed by simply typing in all or part of the name of the desired party. The directory is always current because changes are automatically updated.

By using ISDN messaging, the Attendant Workstation can provide seamless directory services for a network of geographically separated 20-20 IXP switches.



The 20-20 IXP Attendant Workstation offers advanced call processing capabilities.

The Attendant Workstation can also be configured for efficient use by visually impaired operators, by relying on tones to indicate incoming calls, recalls, directory functions, and other operations.

Call management enhanced by:

- Logically organized CRT display screen
- Quick access keyboard
- One-touch commands
- On-line directory access for up to 50,000 names
- Tone notification for the visually impaired

Top Reliability

The 20-20 IXP was designed as a high-throughput switch, making it robust and reliable. In fact, the switch's mean time between failure (MTBF) is one of the highest in the business. This high reliability led the United States Federal Aviation Administration to select the 20-20 IXP switch as the basis for its air traffic control voice communications system – an application where down time can be no more than 3 seconds per year.

When your services depend upon the performance of a single platform, you naturally want to be sure it's dependable. The U.S. Federal Aviation Administration selected the 20-20 IXP for just that reason.

Engineered for high reliability and performance

TELTRONICS

Specifications

Expansion:
- Available with single or redundant Common Control Modules

Power Consumption:
- 230/115VAC, 50/60 Hz or -48VDC
- Each Common Control Module requires up to 1000 Watts (256 ports)
- Each Telephony Module requires up to 1000 Watts (256 ports)

Operating Temperature:
- 10 to 40 degrees Celsius (50 to 104 degrees Fahrenheit)

Relative Humidity:
- Storage - 5 to 95%, non-condensing
- Operating - 20 to 80%, non-condensing

Dimension:
- Width - 24 inches (48.5 cm)
- Height - 23.75 inches (62.25 cm) (14 RMS)
- Depth - 15.75 inches (56 cm)
- Weight (per module) - 45 pounds (61 kg)

Rack Mounting Specification:
- EIA 19" Relay Rack w/1.75" center holes
- Each shelf requires only 9U

Teltronics, Inc. is dedicated to excellence in the design, development and manufacture of electronics equipment and applications software systems that enhance the performance of telecommunications networks. The Company develops telephone switching systems and software, call center systems and 911 public safety communications centers. Teltronics provides remote maintenance hardware and software solutions to help enterprise telcom managers and regional telephone companies effectively monitor and maintain their telecommunications systems. The Company also serves as a contract-manufacturing partner to customers nationwide.

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Part Number 956 270-02 Rev A