USER MANUAL WIKI.COM

The Schafer 900 Series

902

903

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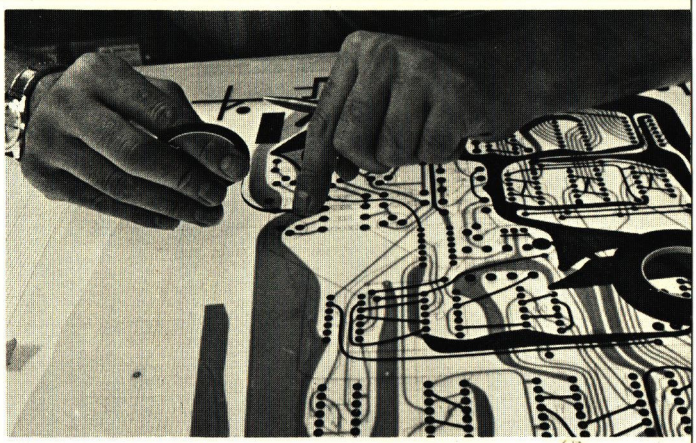

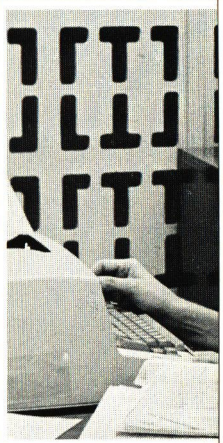

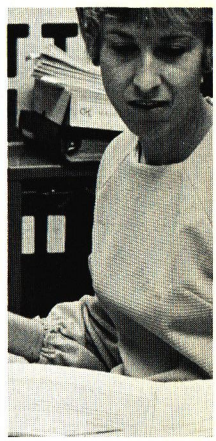

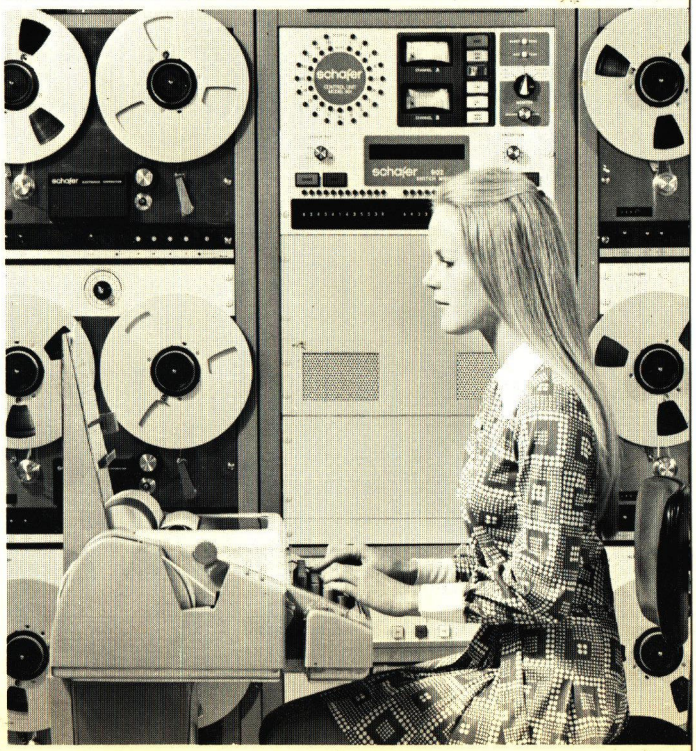

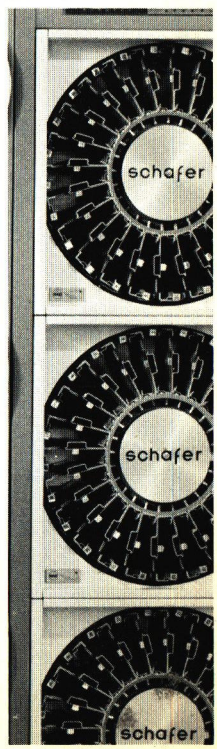

Schafer's 900 Series

Automation for Everyone

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In the 900 Series Schafer offers every radio station . . . large or small market, AM or FM or both . . . the opportunity to automate partially or completely.

The modular design of the 900 Series permits a very wide variety of automation configurations, and the capability for simplified expansion as the need arises.

Station and program format determine which of the 900 Series systems is right for a given radio station. The basic systems in the 900 Series are the 902 and 903. The numerical designation refers to the memory device employed. The 902 is a switch controlled memory and the 903 is an advanced MOS memory. Both systems employ a 901 control unit, and a variety of audio source devices as required. Both are suitable for 24 hour automation. Both offer the option of hard-copy Verified Encoded Logging. Both employ highly advanced integrated circuitry for extreme reliability and simplified maintenance.

The growing acceptance of Radio Automation

When Schafer (who began serving the radio industry in 1953) introduced automation to the radio industry back in 1956, the concept was received with raised eyebrows, some degree of resistance, and, at best, a "show me" attitude.

Today, all that has changed. Radio automation . . . AM and FM . . . has proved itself both in terms of programming and profitability. In many areas of the country the leading radio stations are automated. Sophisticated broadcasters have learned that broadcast automation can:

- ☐ Produce a consistent, saleable "sound," using the best voices in the industry for commercials, breaks, intros, and so on.
- ☐ Allow the staff more time to plan "community involvement" projects.
- ☐ Eliminate personnel problems by keeping staff requirements at a minimum.
- ☐ Allow top talent on the station to be heard at any time.
- ☐ Operate both AM and FM with no personnel increase. FM can run automated, while AM can be both live *and* automated.
- ☐ Use daytime personnel to produce program material for nighttime operation.

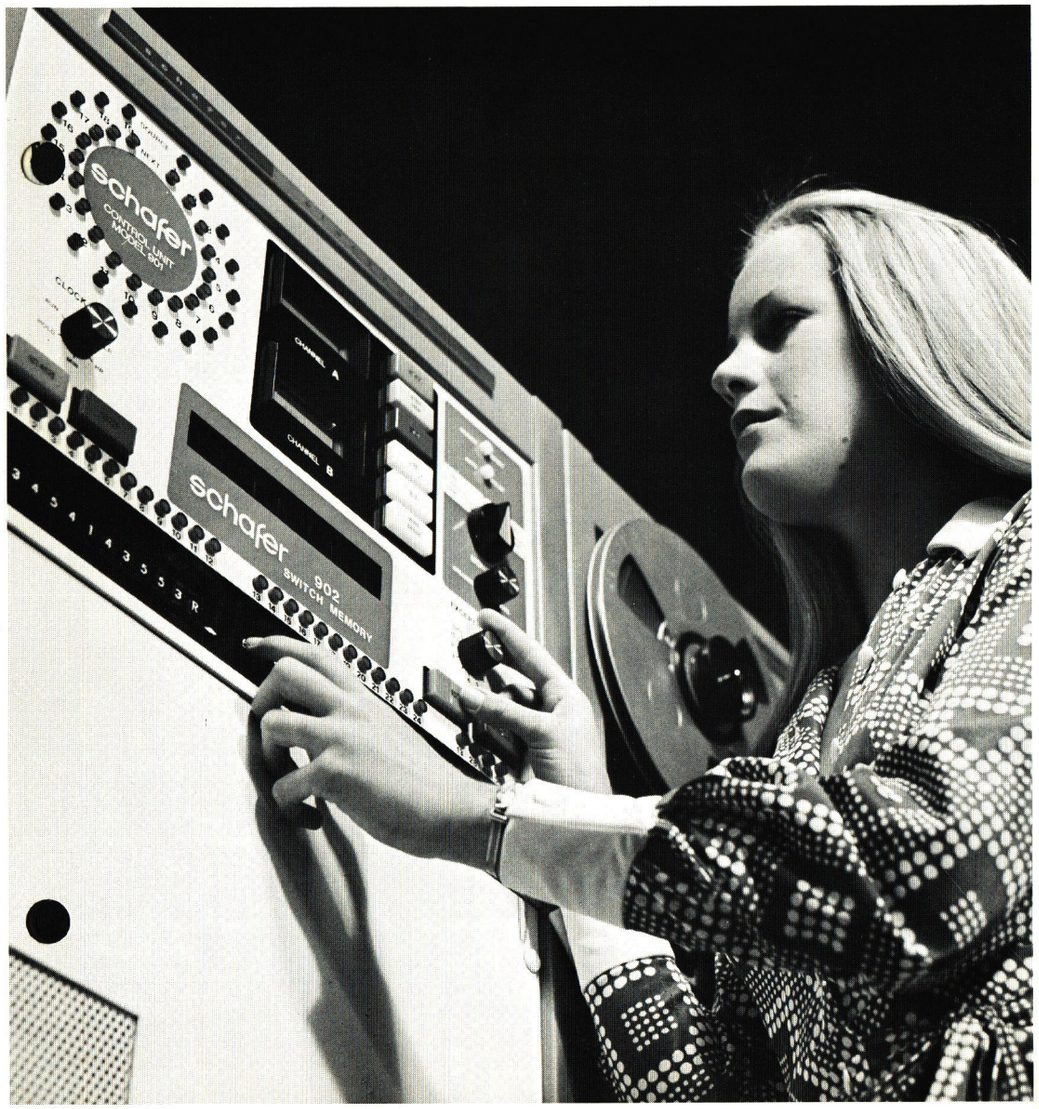
The Schafer 902

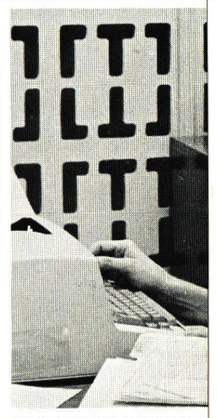
Automate now.. expand later

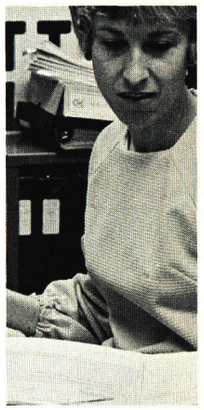
902 | 903

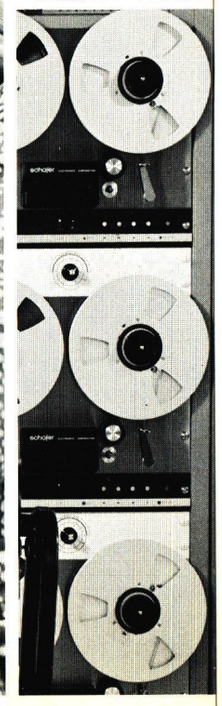
The 902 system is ideal for broadcasters who want to start with a relatively simple system. By adding reel-to-reel and cartridge equipment to the Model 902 a complete 24-hour automation system may be assembled for any programming format.

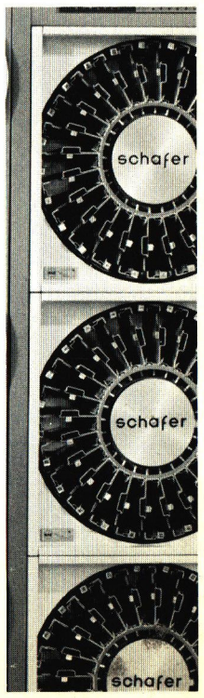
The solid state 902 with switch memory is the simplest device available for automation equipment. It is extremely reliable, and gives a visual indication of programming events. Standard formats are either one format of 24 events or two formats of 12 events each. Memory panels may be added as plug-in units when additional formats are required. A digital clock provides all of the time information for controlling formats, time insertion functions, accessory equipment and time gates.











If desired, the 902 may be expanded at a later date to the more sophisticated and flexible 903 system.

Optional features include: network join capability, alarm for silence sense, system remote control, expanded format size, cluster insertion by event or time, clear language Verified Encoded Logging, and crystal controlled clock with an accuracy of ±2 seconds per month.

Standard features include:

VARIABLE LENGTH FORMATS

19 AUDIO SOURCE INPUTS

SOLID STATE DIGITAL CLOCK WITH NUMETRON DISPLAY

INDIVIDUAL TONE SENSING ON ALL AUDIO SOURCES

SOLID STATE DIGITAL SWITCHING — AUDIO AND CONTROL

CLOSED LOOP CONTROL FOR ALL SOURCES

CONTROL THE FORMAT OR INSERT AUDIO CHANNELS BY TIME

AUDIO CLOCK CONTROL

ADJUSTABLE TIME DELAYS ON ALL REEL TO REEL CHANNELS

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AUTOMATIC CUEING FOR ALL CHANNELS

PUSH BUTTON STEREO PHASE CHECK

SILENCE SENSE

POWER SUPPLY

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903

The Schafer 903

Maximum flexibility... unlimited programming capability.

The Schafer 903 System offers broadcasters a truly new dimension in broadcast automation. All the features of the 902 System are incorporated in the 903. In addition the 903 MOS memory and keyboard display system offer what is now the ultimate in programming flexibility. With both time and format files, the broadcaster is allowed unlimited mixing of sequential and time-oriented events. The 903 offers direct time insertions of events — one for every minute of the day. Other 903 features include 400 sequential format events, random access source memory, 19 audio source inputs, a crystal controlled digital clock, network join capability and adjustable time delays on all reel-to-reel channels.

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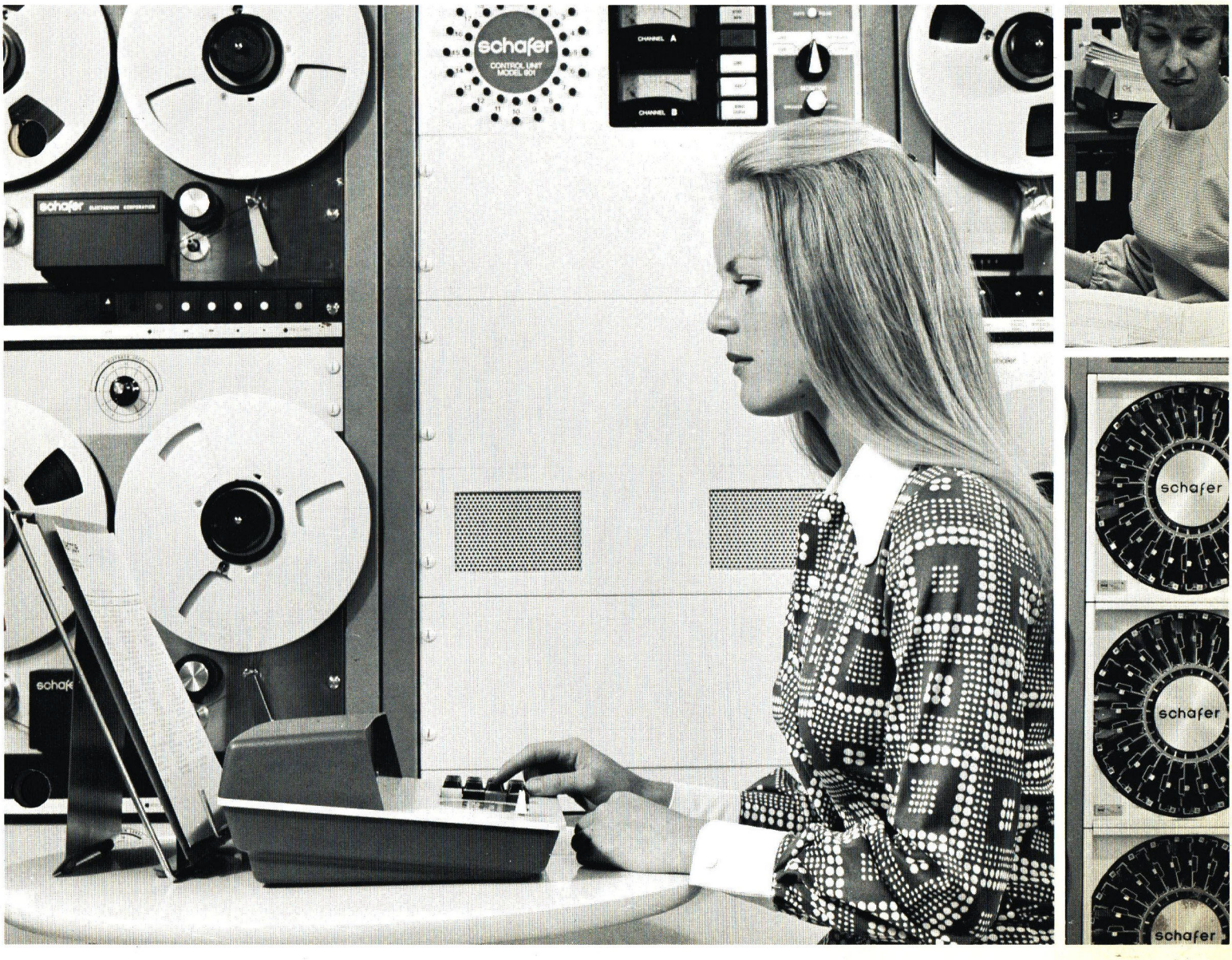

The 903 Keyboard display unit provides all of the controls necessary for programming the automation system and displaying the stored information. The digital clock display indicates the correct time at every second of the day. The status of the system may be checked at any time by using the automatic scan feature to check memory storage event by event. The display-control unit also indicates the next scheduled events from both time and format files. Information may be entered, changed or removed at any time without interfering with "on the air" operation.

Verified Encoded Logging

A popular option for users of 900 Systems, VEL provides clear language logging by taking information from each cartridge as it is played.

As each channel is played on the air the exact time is printed from information supplied by the digital clock followed by the audio source number and the encoded message. Each encoded message may contain any alphanumerical information desired. FCC logging information as well

Standard features include:

A TIME EVENT ENTRY FOR EVERY MINUTE OF THE DAY, ADDRESSABLE TO THE SECOND WHEN REQUIRED.

400 SEQUENTIAL EVENTS

CRYSTAL CONTROLLED DIGITAL CLOCK

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MOS SHIFT REGISTER MEMORY

90 MINUTE BATTERY BACK-UP FOR MOS MEMORY AND DIGITAL CLOCK

INDIVIDUAL TONE SENSING ON ALL AUDIO CHANNELS

19 AUDIO SOURCE INPUTS

CLOSED LOOP CONTROL FOR ALL SOURCES

SOLID STATE DIGITAL SWITCHING — AUDIO & CONTROL

AUDIO CLOCK CONTROL

ADJUSTABLE TIME DELAYS ON ALL REEL-TO-REEL CHANNELS

AUTOMATIC CUEING FOR ALL CHANNELS

PUSH BUTTON STEREO PHASE CHECK

SILENCE SENSE

NETWORK JOIN CAPABILITY

LIVE STUDIO CONTROL

INDIVIDUAL TRAY CONTROL OF ALL RANDOM ACCESS CARTRIDGE DEVICES

AUTOMATIC SYSTEM START AND STOP

AUXILIARY FUNCTION CONTROL CAPABILITY

Options include:

EXTENDED TIME BATTERY BACK-UP

SYSTEM REMOTE CONTROL

REMOTE MANUAL RANDOM ACCESS CONTROL

REMOTE MANUAL CONTROL FOR ALL AUDIO SOURCES

ALARM FOR SILENCE SENSE

DIGITAL CASSETTE MEMORY LOADER

PUNCHED PAPER TAPE MEMORY LOADER

as agency billing, and bookkeeping codes may be included in the encoded message.

Preparation of the encoded message is simple. The message is typed on a teletype keyboard while making a punched paper tape. When the cartridge recorder is started the message is automatically encoded on the cue track.

While the VEL system is providing the program log it may also generate a punched paper tape that may be used for billing or other bookkeeping purposes. When the VEL is connected to a carrier alarm receiver, it can provide a record of transmitter or audio failure.

With either system you choose

Whether your choice is the 902 or the 903 you can be assured of the clean Schafer sound, the efficiency and economy afforded by the most modern automation systems available to the industry.

Schafer's new facility in Santa Barbara Research Park was built specifically for the design and production of broadcast automation equipment. The most modern and reliable techniques for production and assembly are employed, and a staff of experienced creative engineers is incorporating state-of-the-art techniques and materials to assure broadcasters the ultimate in performance and reliability.

Schafer Cares

Schafer's service organization has been aptly labeled "Schafer Cares" service. Schafer is on call 24-hours a day, 7 days a week. We recognize the urgency of fast, reliable service . . . and react accordingly.

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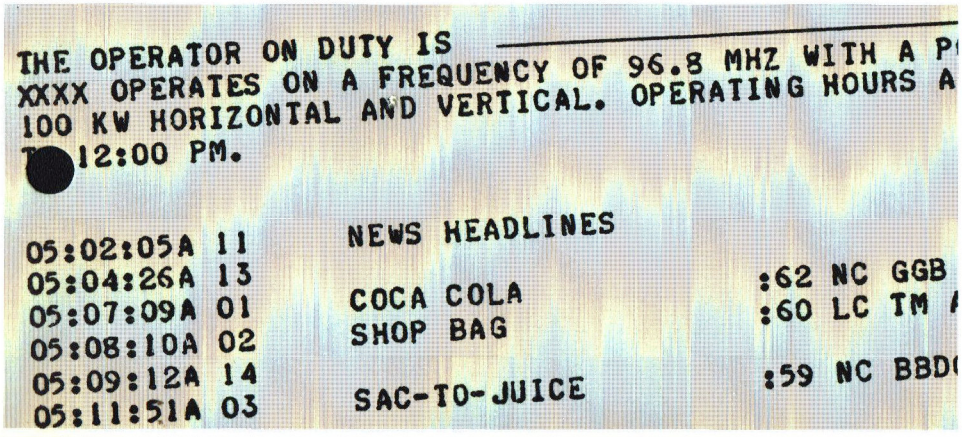

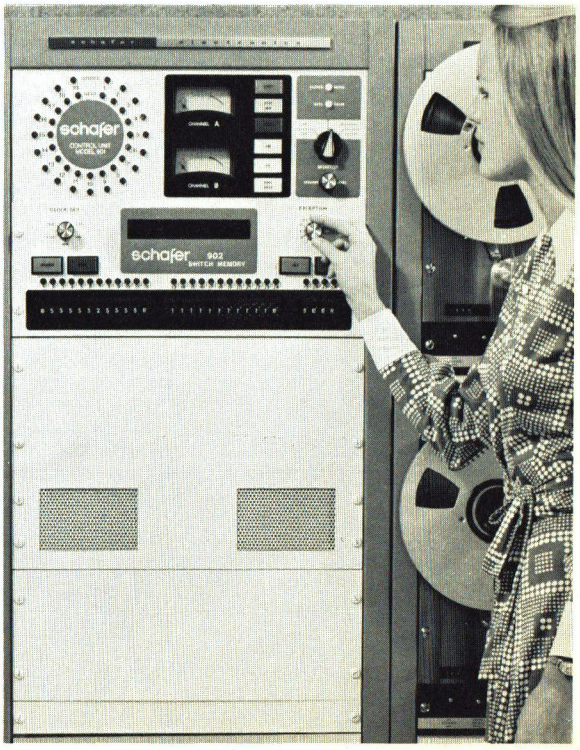

For more details . . . or a demonstration
of a 900 System, please write or call:

Schafer Electronics Corporation
75 Castilian Drive, Santa Barbara Research Park
Goleta, California 93017
(805) 968-0755

Schafer Electronics Ltd.
5824 Burbank Road, SE, Calgary,
Alberta, Canada T2H1Z3
(403) 253-0351

In Hawaii, Mexico, Puerto Rico
and the Virgin Islands contact:
Schafer International
1355 Harbor Drive
San Diego, California 92101
(714) 238-0022

For the rest of the world contact:
EMI Sound & Vision Equipment Limited
252 Blythe Road, Hayes
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The Schafer 901 Control Unit is the heart of all 900 series automation. The 901 Control Unit combines the latest design concepts and integrated circuit technology to provide a modular audio control and processing unit that is superior in every way. The 901 will faithfully reproduce all audio signals from any of up to 19 sources, as well as provide instant audio switching between reel-to-reel, cartridge tape or cassette machines. Automatic overlap of all sources is standard and is accomplished with individual plug-in interface cards with 25 Hz gates for each reel-to-reel machine, or individual 150 Hz sensing for all cartridge tape machines. As many sources as desired may be mixed on the line buss at one time.

The front panel of the 901 Control Unit contains all the necessary audio and source monitoring. Dual VU meters, stereo monitor speakers, and push-button phase check are all standard. Monitor speakers and VU meters are switchable to **Line, Cue, Audio Clock,** and **Network** for easy visual and aural level adjustments.

The 901 Control Unit also contains a silence sensing circuit with a front-panel indicator light, and internal threshold and time delay controls, as well as Schafer's exclusive **closed loop** circuit which instantaneously bypasses any deck not ready to be played by the system. **Closed loop control,** with front panel **Auto-Pulse** light, is a standard feature of all 900 systems.

Although the 901 Control Unit contains system start and stop controls, it must be used with a 900 series memory unit (such as the Schafer 902 Switch Memory) to select and provide programming commands, and time instructions.

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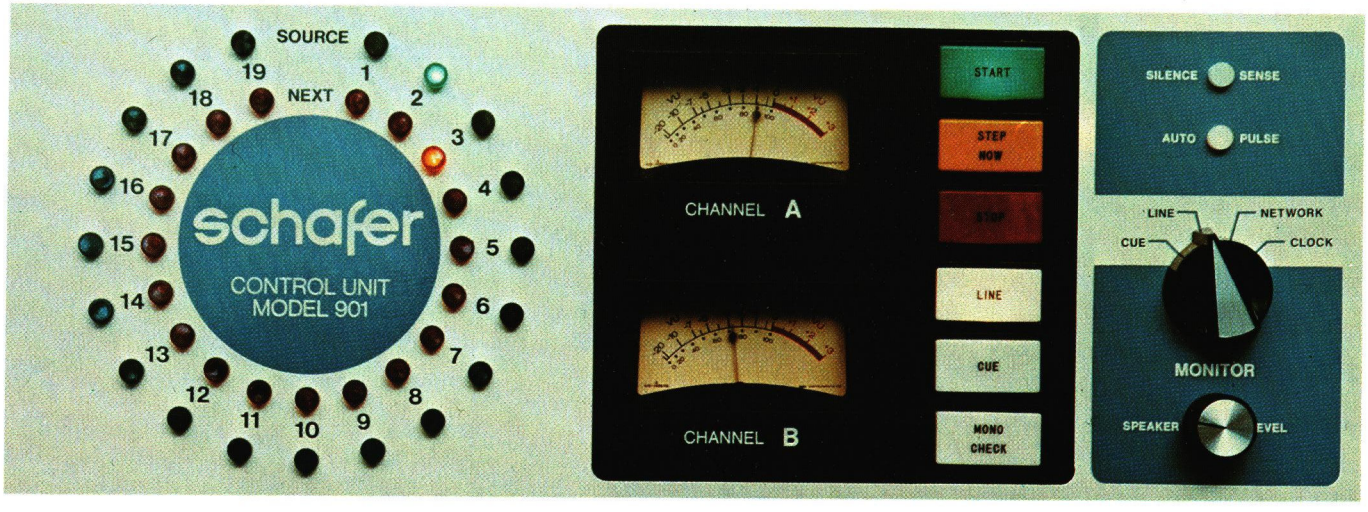

schafer 901 automation control unit

SPECIFICATIONS

MAIN CONTROLS — **Start, Stop, Step Now, Mono Check**

AUDIO MONITOR — stereo VU meters and stereo cue speakers with speaker level control switchable through monitor switch to **Cue, Line, Clock,** and **Network**

INDICATOR LIGHTS — **Source** playing (19 green lights); **Next** to play (19 amber lights); **Start** (green pushbutton); **Step Now** (yellow pushbutton); **Stop** (red pushbutton); **Line** (white); **Cue** (white); **Mono Check** (white pushbutton); **Silence Sense** (white); **Auto Pulse** (white)

AUDIO CHANNELS — up to 19

INPUTS — All with **closed loop control**

REEL-TO-REEL TAPE — 25 Hz sensing with adjustable stop delay and lockout; Roll-fill on preselected source; Fade, 1-4 sec. on preselected source

CARTRIDGE TAPE — 150 Hz contact sensing and 4 Khz logging capability standard

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STUDIO/NETWORK — Silence Sense defeat; On-air light output; Automatic Net join & leave provision

AUDIO CLOCK — Cartridge or reel-to-reel

AUDIO CHARACTERISTICS —

FREQUENCY RESPONSE: 40-15,000 Hz ±2 DB including 25 Hz filtering

DISTORTION — less than 1% at +8 DBM

LINE OUTPUT — 600 OHMS, stereo, at +4 DBM, balanced

(0 to +8 DBM output, user adjustable)

SIGNAL TO NOISE — 60 DB or more below +4 DBM, (not including audio source noise)

MONITOR SPEAKER OUTPUT — 2 watts

SILENCE SENSE — 3 seconds at -21 DBM (user adjustable 1 to 10 seconds at -20 to -45 DBM)

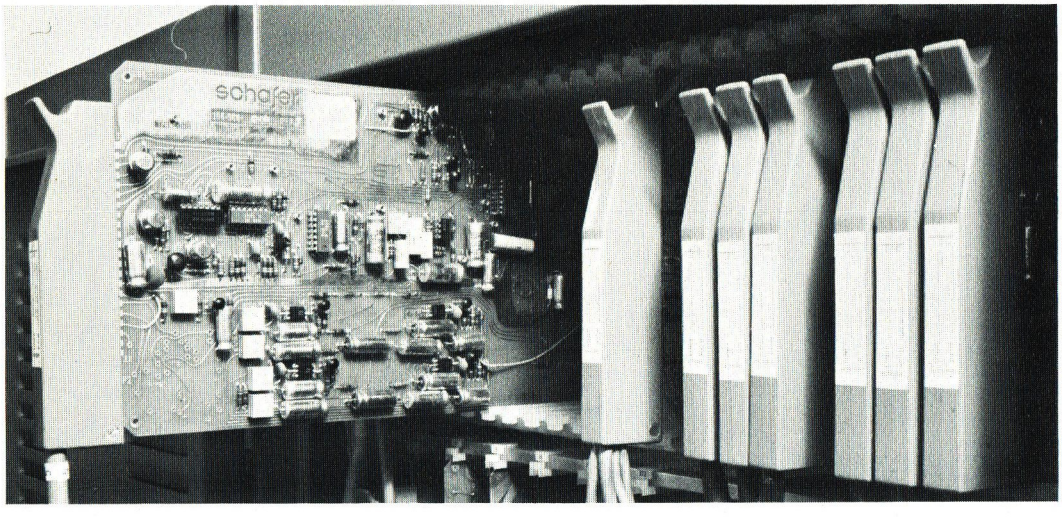
GENERAL

Power — 105-125V, 60 Hz AC. 20 AMP service (includes tape decks)
50 Hz and 230 V AC on special order

Size — 901 Control Unit: 19 inches wide x 7 inches high x 17 inches deep
Power Supply: 19 inches wide x 7 inches high x 17 inches deep
Cue Speaker Assembly: 19 inches wide x 5¼ inches high x 17 inches deep
(units fit in standard racks with minimum depth of 17 inches)

Weight — 901 Control Unit: 23 lbs. (10.4 kg)
Power Supply: 41 lbs. (18.6 kg)
Cue Speaker Assembly: 17 lbs (7.7 kg)

Control — External control with 19 select-lines required to give 901 start-level and memory advance pulses



Interface cards plug-in from the rear making expansion and servicing simple and convenient.

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For the rest of the world contact:
EMI Sound & Vision Equipment Limited
252 Blythe Road, Hayes
Middlesex UB3 1HW England

The Schafer 902 Switch Memory is the easiest to operate of any automation control system today. With the same programming simplicity as the time-tested 800 series, the Schafer 902 adds the technology of integrated circuitry to provide greater reliability than ever before possible. All relays have been eliminated, quieting the operation of the Switch Memory, and providing a faster, more positive action of the entire system. Sequential programming of up to 48 events without repetition is standard with the 902 Switch Memory, and is expandable to 72, 96, 120, or 144 events with optional rows of 24 switches, which may be added at any time.

The Schafer 902 Switch Memory uses a digital clock for format resets, insertion of any of the 10 switchable sources at specific times, or for insertion of a predetermined cluster of up to seven events using the exclusive Schafer Cluster option. Resets, single insertions, or cluster events can be programmed to be automatically readied by the digital clock at :13, :28, :43, or :58 past each hour as desired.

INSTANT ACCESS to the 902 system for programming of an immediate nature is available at any time through the first time insertion switch. Selecting the desired source, and manually pushing the **SET** button gets INSTANT ACCESS of that source before the next regularly scheduled event. Pushing the **CANCEL** button manually cancels the INSTANT ACCESS event.

FEATURES

Digital-readout clock
Provisions for up to 17 audio sources
Selectable resets for quarter-hour, half-hour, or one-hour formats
Modular expandability of up to 144 events without repetition
INSTANT ACCESS to system for timely programming
Exclusive EXCEPTION control

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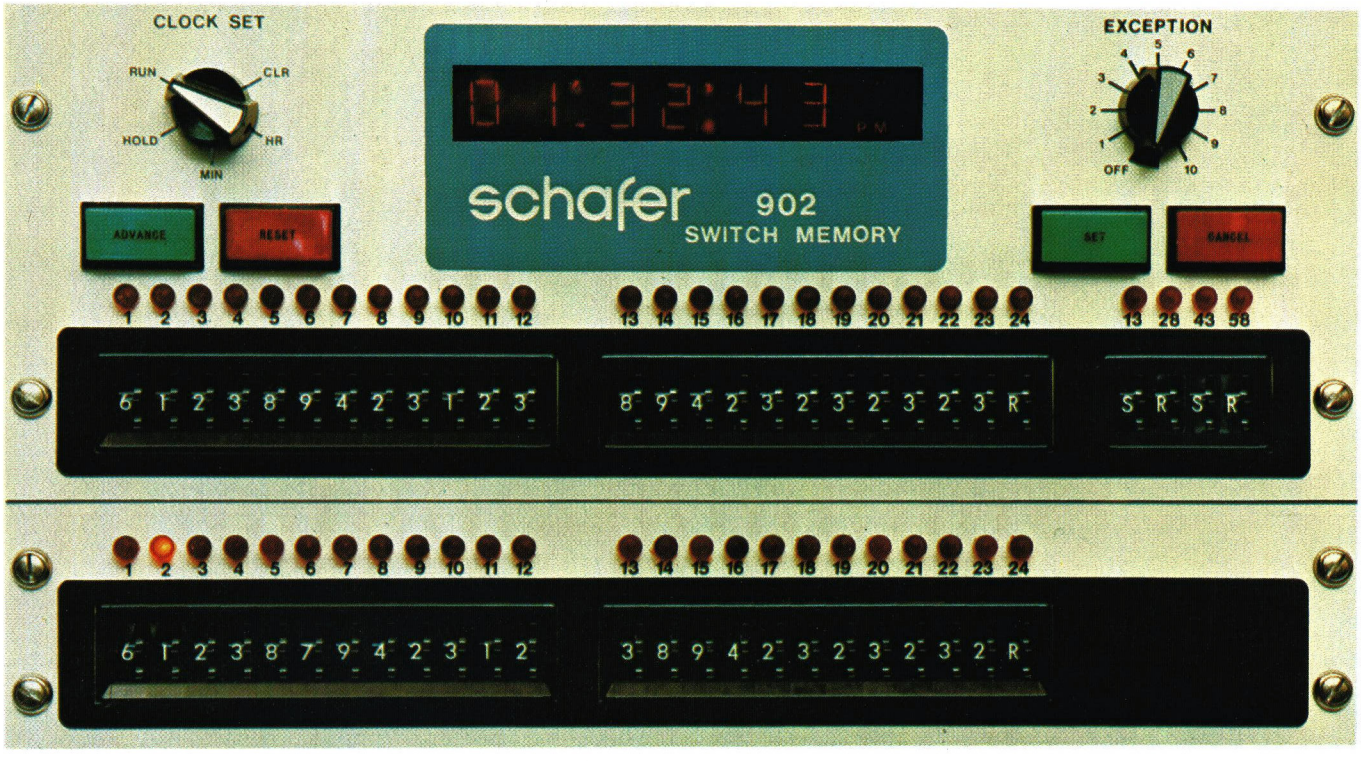

schafer 902 switch memory

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SPECIFICATIONS

AUDIO SOURCES

10 selectable (up to 19 with RAS/MOS option)

EVENTS

48 sequential, standard (72, 96, 120, or 144 optional)

CLOCK INSERTION

:13, :28, :43, and :58 after each hour

DIGITAL CLOCK

Displays hours, minutes and seconds
60 Hz. line time base standard (crystal controlled, optional)

FRONT PANEL CONTROLS

CLOCK SET — Used to set digital clock
EXCEPTION — May be used to program one additional event before format reset
ADVANCE — Manually advances through sequence of events programmed on thumbwheel switches
RESET — Resets sequence of events to first thumbwheel switch position
SET — Arms system for **instant access**
CANCEL — Cancels **instant access**
MEMORY SWITCHES — Selects sequence of Events to be played; includes S (skip), R (reset), and audio sources 1-10 on each thumbwheel switch

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INDICATOR LIGHTS

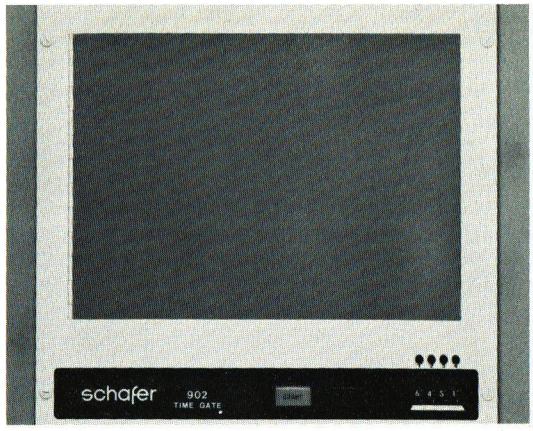
48 sequence-lights — shows source next-to-play
4 clock insertion lights — shows when **instant access** has been manually activated, or individual source (or cluster option) has been activated by digital clock

GENERAL

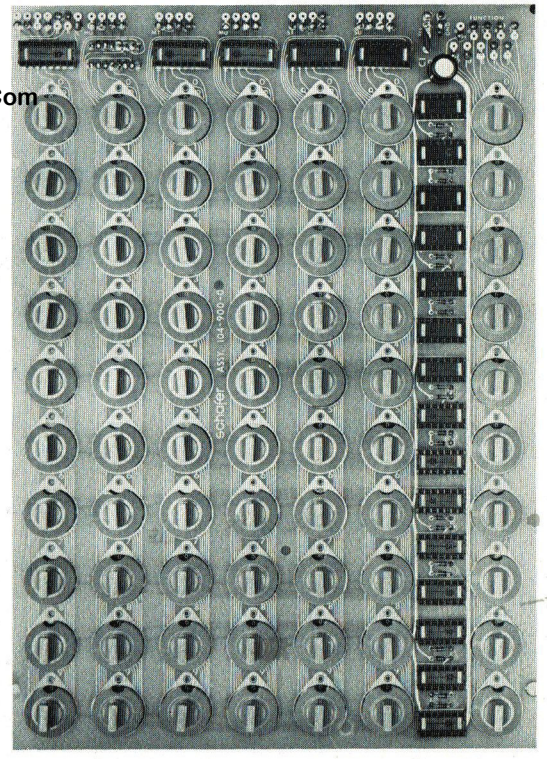
Power — from 900 system power supply
902 dimensions — 19 inches wide, 10½ inches high, 17 inches deep
Weight — 18 lbs. (8.2 KG)

OPTIONS

TIME GATE — for Network join or other external station functions
REMOTE CONTROL — of system functions
VEL — automatic printout logging system



The 902 TIMEGATE is used to join Network, or perform up to 10 other exact-time functions.



Inside the Schafer 902 timegate are controls for hours, minutes and seconds and the function to be performed.

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The Schafer 903 keyboard-control MOS memory provides complete programming control of up to 19 individual sources for as long as 24 hours in advance. Versatility to run even the most complex formats is the key to the 903. With it's unique two-section memory, the 903 can be programmed for up to 600 recyclable format events, or groups of events, in the **Format** area, and still provide for up to 1440 events of commercial material to be inserted into the format at specific times each hour from the **Time** area. The Schafer 903 two-section memory assures complete programming control by separating programming elements from day-to-day traffic functions. Your **Program Director** has control of the **Format** section of the 903...Your **Traffic Director** controls the **Time** (or commercial) section. There is never any chance of inadvertently erasing any program or commercial part of your format! Extended programming capability is optionally available through Schafer's punch tape memory extender, which provides automatic loading of either format or commercial material for hours or days in advance.

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FEATURES

- Digital-readout crystal controlled clock
- Provisions for up to 19 audio sources of which 9 may be random access
- Built-in Network join and leave capability, including provisions for back-timed music fill, and commercial adjacencies
- Automatic system start and stop
- Provisions for control of up to 10 external station functions
- DC powered memory with 60 minute fail-safe battery backup
- **Link** command for controlled clusters of format or time events
- **Now** command for activation of any system function at a specific second (used to start net join sequence, etc.)

schafer 903 MOS memory

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SPECIFICATIONS

AUDIO SOURCES
19 selectable, including 9 random access

TIME EVENTS
1440 — one for every minute in 24 hours. Network join and leave standard

FORMAT EVENTS
600 standard

AUXILIARY FUNCTIONS
16-key keyboard with selectable display standard

KEYBOARD CONTROLS
NEXT — shows next event on display
OTHER — changes display to show other memory area
KEYBOARD — activates keyboard for entry
AUTO — scans through memory (display only)
CLEAR — changes display to show "0000"
ENTER — enters command into memory
ADVANCE — advances display one step
ADVANCE COLUMN — advances display to show random access sources
DISPLAY RATE — changes rate of display when using AUTO

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KEYBOARD INDICATORS
TIME OF DAY — digital clock (actual time)
ADDRESS CODE — shows day, hour, and minute for **Time** file, or sequence number in **Format** file, as selected
AM/PM/FOR — indicates whether display is showing **AM, PM**, or **Format**
SOURCE/FUNCTION — indicates which audio source is in, or being entered in, memory; or which non-audio command has been given (ex: system start, format change, system stop)
SPOT/SEC — indicates random access source tray number or exact second function to be performed
NOW/NEXT/LINK — shows whether audio source is to play next, or is linked in a cluster of events, or if a function is to be performed at a specific second.

GENERAL
Power — from 900 system power supply
903 chassis — 19 inches wide, 7 inches high, 22 inches deep
Random access control chassis — same as 903 chassis
Keyboard — 13 inches wide, 5 inches high, 11 inches deep
Weight: 903 chassis — 13 lbs. (5.9 KG)
RAS chassis — 13 lbs. (5.9 KG)
Keyboard — 5 lbs. (2.3 KG)
Control cable — from 903 keyboard to rack chassis: 15 feet (longer lengths up to 25 feet, optional)

OPTIONS
VEL Verified encoded logging with English printout
MEMORY EXTENDER automatically loads both format and commercial materials in advance for unattended operation
REMOTE CONTROL provides system controls from studio or other location
EXPANDED MEMORY MODULES may be added to provide additional format locations and extra days of time events. Up to 6 additional memory modules may be added to provide 7 days of advance programming.

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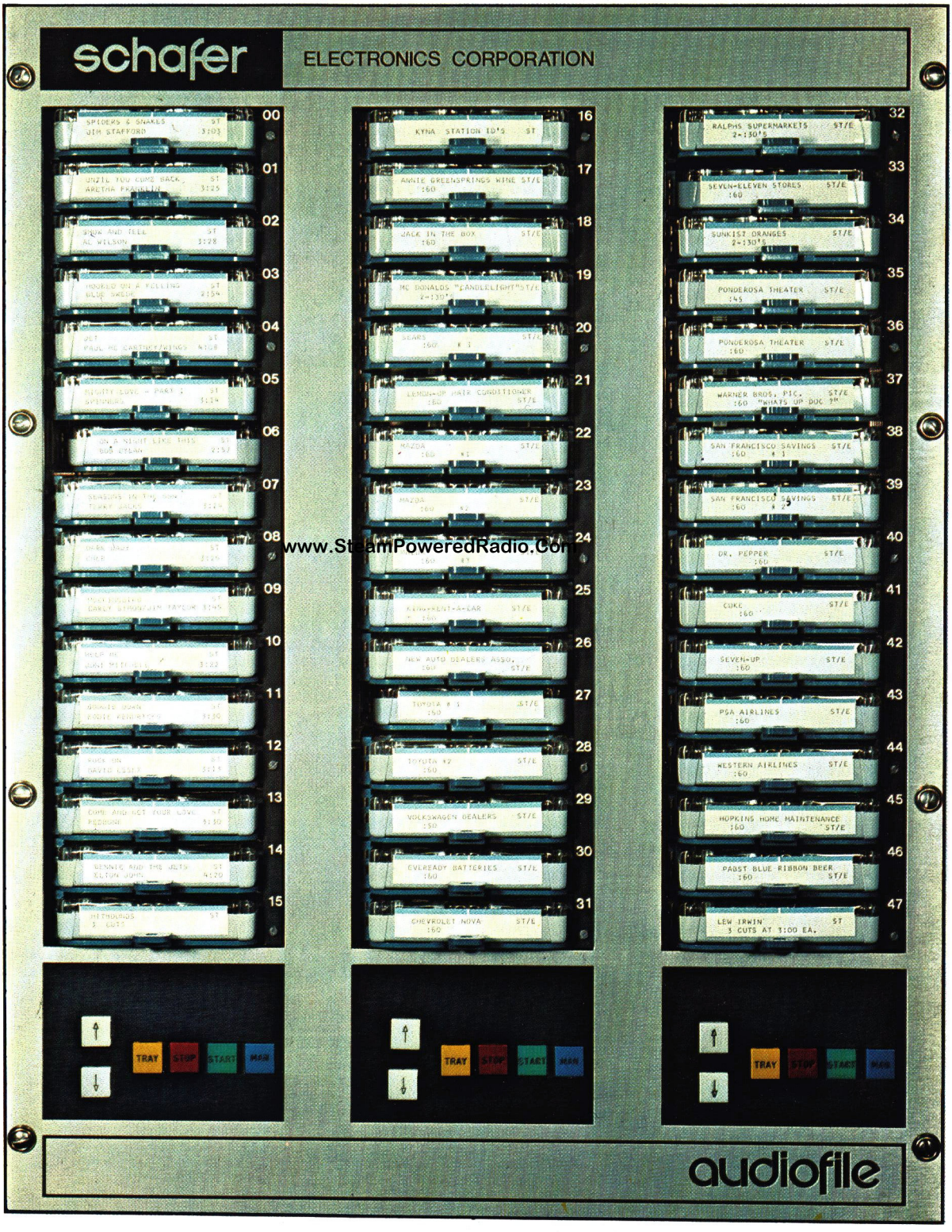

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schafer audiofile

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FEATURES

- All electronic switching
- Three complete playback systems
- Unlimited overlap of audio from up to three cartridges
- Rugged aerospace construction
- End of secondary tone removes audio from line buss in each module
- Transformer balanced output with separate cue buss
- Quick, easy loading

The Schafer AUDIOFILE is an extremely flexible multiple cartridge playback system with compact design and the ability to play commercials, music selections, or other program elements with unlimited overlap of audio from up to three cartridges simultaneously. The standard 48-tray AUDIOFILE consists of three modules, each with trays for 16 NAB size "A" cartridges. Each module contains its own high quality synchronous motor, precision drive shaft, metal-face laminated head assembly, integrated circuit preamplifier, photoelectric positioner, audio switching electronics, and 150 Hz secondary tone sensor. The beginning of the 150 Hz tone starts the next event; the end of the 150 Hz tone removes audio from the line buss and transfers it to a separate cue buss.

The AUDIOFILE meets or exceeds NAB specifications, assuring the same exacting reproduction as the best single-play cartridge decks. Simple adjustments for azimuth, zenith, and head height are provided, as well as low and high frequency equalization for each module. A record head "dummy" and 3 tape guides are also standard in each playback module to minimize wow, flutter, and tape skew.

The AUDIOFILE is available in either stereo or mono, in configurations of 48, 32, or 16 trays. Remote control provisions for all front-panel functions are provided for use with automation, or in a studio operation.

SPECIFICATIONS

MECHANICAL:

CAPACITY — 48 trays, NAB type "A" cartridges (16 or 32 on special order)

HEADS — Metal face, laminated. NAB standard stereo or mono configuration, as ordered

MOTORS — Tape Drive: synchronous, with precision drive shaft. Support bearing always at pinch-roller location.
Tray: Continuous action high torque reversable.

TAPE SPEED — 7 ½ IPS, standard

WOW AND FLUTTER — 0.2% Maximum

CUE TIME — Maximum: 8 seconds. (end of cartridge to next ready)

CONTROLS — **UP**: Moves playback assembly up; **DOWN**: Moves playback assembly down; **TRAY**: Moves cartridge from storage to ready position, or from ready to storage position; **STOP**: stops cartridge; **START**: starts cartridge; **AUTO/MANUAL:** allows remote control from automation or front-panel control. In **MANUAL** position, audio is only on cue buss.

START TIME — 0.1 second

STOP TIME — 0.1 second

REMOTE CONTROL — all front-panel controls and indicators

POWER REQUIREMENTS —
115 V AC ±10%; 60 Hz., 100 watts
(50 Hz. on special order)

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WEIGHT — 48 tray, 100 pounds (46 Kg.)

SIZE — 19 inches wide, 24½ inches high, 16 inches deep

ELECTRICAL:

FREQUENCY RESPONSE —
40 to 15,000 Hz, +1, -3 DB, line

EQUALIZATION — NAB Standard (CCIR on special order). Adjustable high and low frequency compensation.

OUTPUT —
Line, 600 ohm, +4 dbm, transformer balanced
Cue, 600 ohm, +4 dbm, transformer balanced
(Line and Cue levels independently user-adjustable)

DISTORTION — Less than 1% at +4 dbm; less than 2% at +14 dbm.

SIGNAL TO NOISE RATIO — unweighted
Mono, 45 db or more below program
Stereo, 42 db or more below program

SEPARATION — More than 50 db at 400 Hz.

CUE TONES — NAB STANDARD: 1 Khz Primary tone; 150 HZ Secondary tone; 8 Khz Tertiary tone (optional). Also 4 Khz tone sensor for Schafer VEL logging.

schafer Electronics Corporation

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For the rest of the world contact:
EMI Sound & Vision Equipment Limited
252 Blythe Road, Hayes
Middlesex UB3 1HW England

schafer PB 720 professional playback deck

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FEATURES

- Glass bonded high density ferrite heads
- Three speeds
- Plug-in head assembly
- Oversize Capstan
- Tape index counter
- Positive action solenoid operation

The Schafer PB-720 tape reproducer is a professional three motor, three speed tape deck specifically designed to provide exacting reproduction of prerecorded tapes.

Straightforward design, simplicity of operation, and front panel access to all electronic adjustments make the Schafer PB-720 the best intermediate-priced professional tape reproducer available.

Longer head life is assured because the PB-720 uses glass bonded high density ferrite heads which resist wear from tape abrasion. Playback level controls for each channel are conveniently located behind a sliding door beneath the tape deck. Playback equalization controls are accessable from the front panel by removing the knob on the sliding door. Electronic circuitry is all the latest integrated circuit design.

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SPECIFICATIONS

MECHANICAL:

HEADS — high density ferrite, glass bonded playback

MOTORS — hysteresis synchronous capstan drive; 6 pole induction-torque take-up and supply reels

REEL SIZES — up to 10½ inch NAB hubs

TAPE WIDTH — standard ¼ inch

TAPE SPEEDS — 3¾, 7½, 15 IPS
Dual capstan motor provides two basic speeds. 3¾, 7½ IPS standard, or with exchanged capstan sleeve and pinch roller, 7½, 15 IPS standard.

WOW AND FLUTTER — 15 IPS: .02%
7½ IPS: .03%
3¾ IPS: .06%

CONTROLS — Tape motion is controlled by five pushbuttons: **edit, rewind, fast forward, stop** and **play. Cue** switch defeats tape lifters. **Reel** switch selects standard or large NAB Hub tension.

STARTING TIME — 0.5 seconds to reach operating stability

REWIND/FAST FORWARD TIME — approx. 90 seconds 2400 ft. 10 inch reel

POWER REQUIREMENTS —
100/117/200/220/240V, 50/60 Hz, 190 watts

WEIGHT — 80 pounds, unmounted (36.3 KG)

SIZE — 19 inches wide, 19¼ inches high

ELECTRICAL:

FREQUENCY RESPONSE —
7½, 15 IPS: 40 to 15,000 Hz ±2 DB
3¾ IPS: 50 to 7,500 Hz ±2 DB

EQUALIZATION — NAB standard (CCIR on special order)

OUTPUT — Line, 600 OHM +4 DBM

DISTORTION — Less than 1% at operating level

SIGNAL TO NOISE RATIO —
7½, 15 IPS, 54 DB or more
3¾ IPS, 52 DB or more
peak record level to unweighted noise, 2 track stereo

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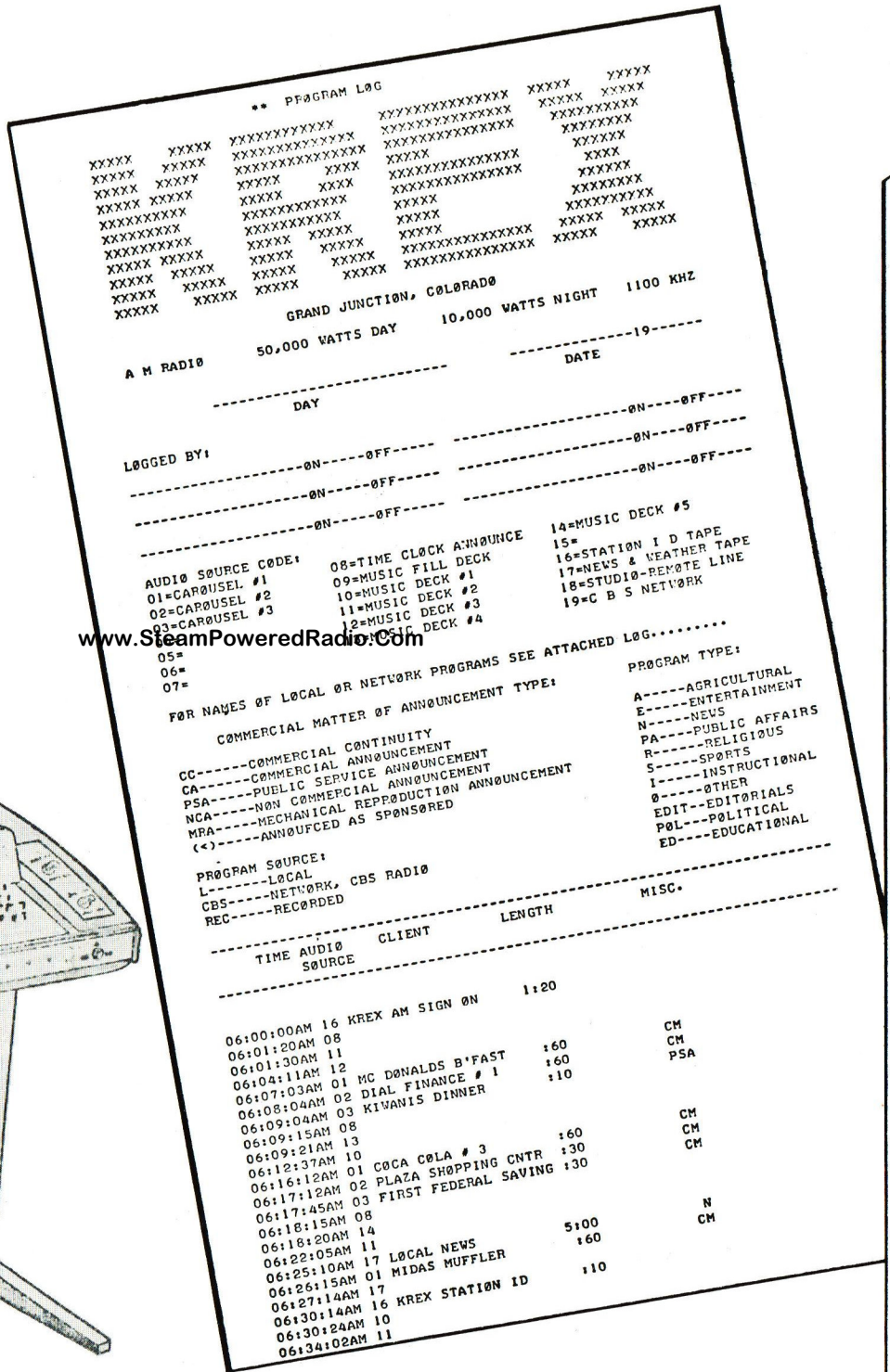

** PRØGRAM LØG

GRAND JUNCTIØN, CØLØRADØ

A M RADIØ 50,000 WATTS DAY 10,000 WATTS NIGHT 1100 KHZ

DATE ----------19------

DAY

LØGGED BY:

----------ØN-----ØFF-----

AUDIØ SØURCE CØDE:
01=CARØUSEL #1
02=CARØUSEL #2
03=CARØUSEL #3
04=
05=
06=
07=
08=TIME CLØCK ANNØUNCE
09=MUSIC FILL DECK
10=MUSIC DECK #1
11=MUSIC DECK #2
12=MUSIC DECK #3
13=MUSIC DECK #4
14=MUSIC DECK #5
15=
16=STATIØN I D TAPE
17=NEWS & WEATHER TAPE
18=STUDIØ-REMØTE LINE
19=C B S NETWØRK

FØR NAMES ØF LØCAL ØR NETWØRK PRØGRAMS SEE ATTACHED LØG.....

COMMERCIAL MATTER ØF ANNØUNCEMENT TYPE:

CC------CØMMERCIAL CØNTINUITY
CA------CØMMERCIAL ANNØUNCEMENT
PSA-----PUBLIC SERVICE ANNØUNCEMENT
NCA-----NØN CØMMERCIAL ANNØUNCEMENT
MRA-----MECHANICAL REPRØDUCTIØN ANNØUNCEMENT
(<)-----ANNØUFCED AS SPØNSØRED

PRØGRAM TYPE:
A-----AGRICULTURAL
E-----ENTERTAINMENT
N-----NEWS
PA----PUBLIC AFFAIRS
R-----RELIGIØUS
S-----SPØRTS
I-----INSTRUCTIØNAL
Ø-----ØTHER
EDIT--EDITØRIALS
PØL---PØLITICAL
ED----EDUCATIØNAL

PRØGRAM SØURCE:
L------LØCAL
CBS----NETWØRK, CBS RADIØ
REC----RECØRDED

TIME	AUDIØ SØURCE	CLIENT	LENGTH	MISC.
06:00:00AM	16	KREX AM SIGN ØN	1:20	
06:01:20AM	08			CM
06:01:30AM	11			CM
06:04:11AM	12			PSA
06:07:03AM	01	MC DØNALDS B'FAST	:60	
06:08:04AM	02	DIAL FINANCE # 1	:60	
06:09:04AM	03	KIWANIS DINNER	:10	
06:09:15AM	08			CM
06:09:21AM	13			CM
06:12:37AM	10		:60	CM
06:16:12AM	01	CØCA CØLA # 3	:30	
06:17:12AM	02	PLAZA SHØPPING CNTR	:30	
06:17:45AM	03	FIRST FEDERAL SAVING		
06:18:15AM	08			N
06:18:20AM	14		5:00	CM
06:22:05AM	11		:60	
06:25:10AM	17	LØCAL NEWS		
06:26:15AM	01	MIDAS MUFFLER	:10	
06:27:14AM	17			
06:30:14AM	16	KREX STATIØN ID		
06:30:24AM	10			
06:34:02AM	11			

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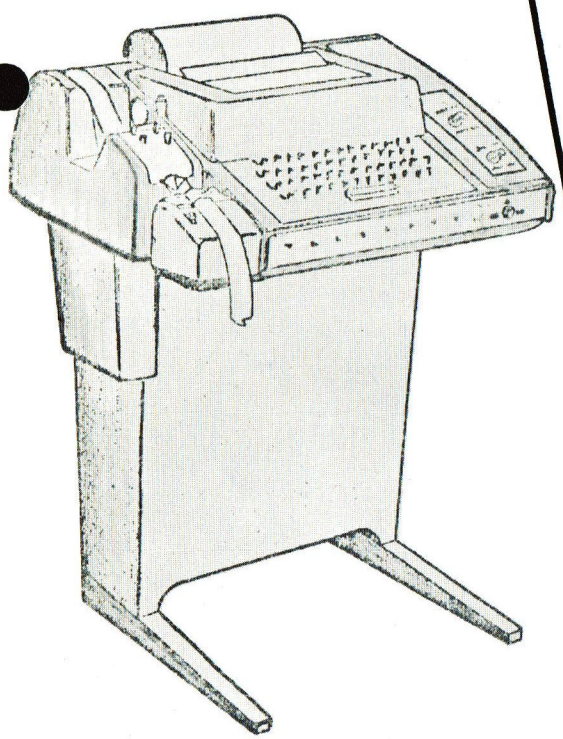

schafer VEL

verified encoded logging

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The Schafer VEL, Verified Encoded Logging system, uses advanced technology to provide automatic English language logging for all Schafer 900 series automation systems.

Encoding information on each cartridge to be printed out on the logger as the cartridge plays on-the-air is a simple process which may be done by any station personnel. First, the necessary information (sponsor's name, length of spot, commercial matter or PSA) is typed on a Teletype. With the paper tape punch "on" a paper tape is automatically generated as the information is typed. Second, the paper tape is loaded into the paper tape reader on the Teletype and the Teletype machine is put in the "line" mode. Third, the cartridge tape machine is started. Automatically, the paper punch tape transfers the information to the cue track of the cartridge. Every time that cartridge plays on-the-air an exact time is printed on the logger and the encoded material is printed out in clear language. When a program source plays (such as a reel-tape music selection) that does not contain encoded information, the VEL logger prints only the time and source number. The Schafer Verified Encoded Logging system provides complete program logging for each period of station operation directly from the automation system, and when signed by each operator on duty, becomes the station's official FCC log.

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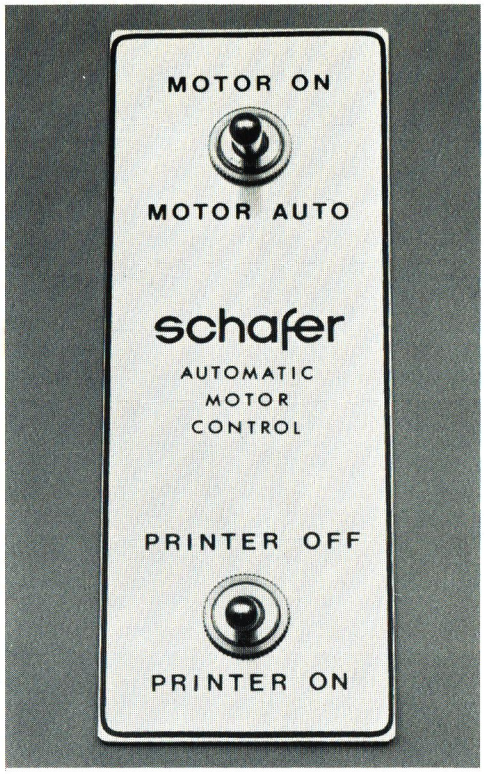
The Schafer VEL logger may also be connected to a transmitter RF monitor. Loss of carrier will cause the logger to print an exact time and code to indicate transmitter failure. When carrier is restored, an exact time and code are again printed, providing an exact record of the duration of the failure satisfying FCC requirements.

While the VEL logger is printing the log, a paper punch tape may also be made simultaneously for use in a data processing system to prepare billing, or for preparation of statistical reports for FCC license renewal.



Schafer's exclusive motor control turns the Teletype on only when needed assuring less maintenance and longer life.

SPECIFICATIONS

INPUT — standard Teletype with paper tape punch and reader, or optional CRT display with keyboard.

OUTPUT — Schafer special motor controlled Teletype with paper-tape punch and reader. Teletype motor runs only when needed. Silent EXTEL printer also available.

ENCODING — Typed on input Teletype paper tape punch. Automatically transferred to cue track of cartridge with Teletype in "line" mode and paper tape in tape reader. Starting cartridge recorder automatically activates paper tape reader.

TYPE OF ENCODING — 4 Khz tones in ASCII code

CHARACTERS PER LINE — up to 54

NUMBER OF LINES PER MESSAGE — unlimited

EXACT TIME SOURCE — automation digital clock

POWER REQUIREMENTS — 115 V AC, 60 Hz
(50 Hz on special order)

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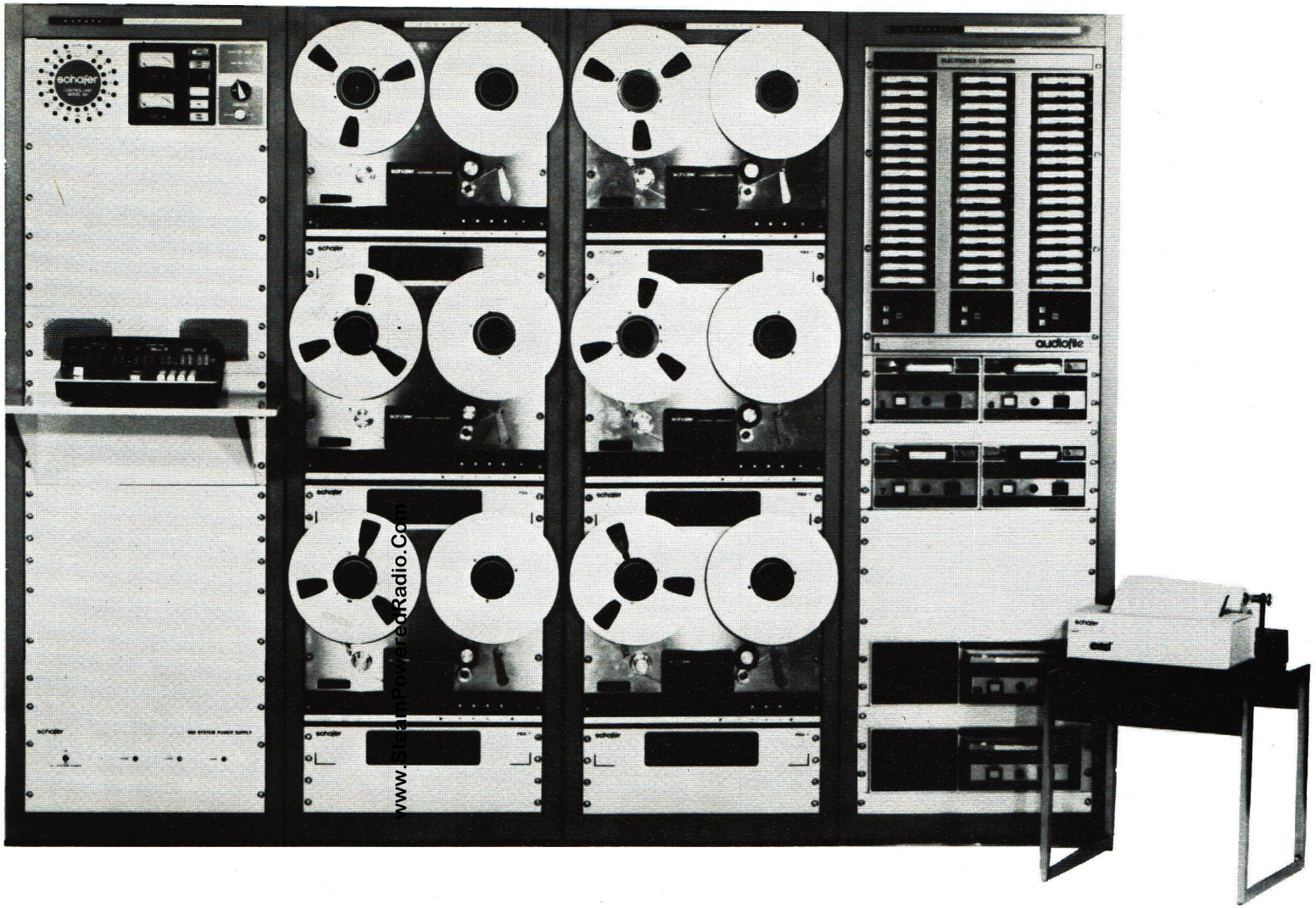

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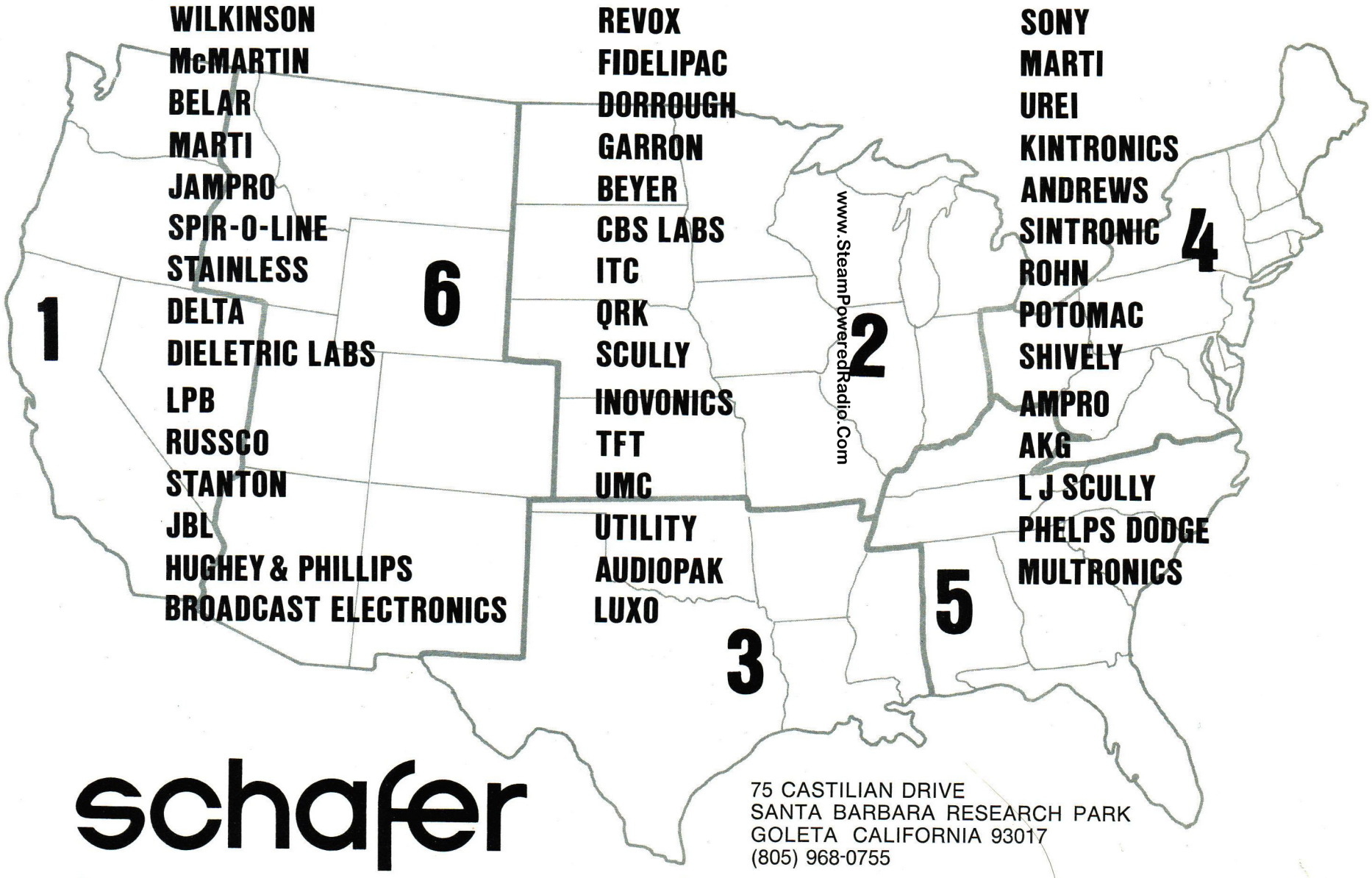

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