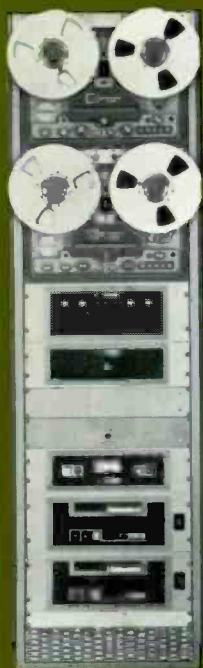# AUTOMATION SYSTEMS

... for modern broadcasting

Here are three basic automation systems which can be adapted to your present program schedule ... freeing high-priced talent from mechanical board work for more profitable broadcasting.

Automate 244

Automate 484

Automate 1007

The time insertion system capable of programming as many as 24 events each hour from 4 audio sources.
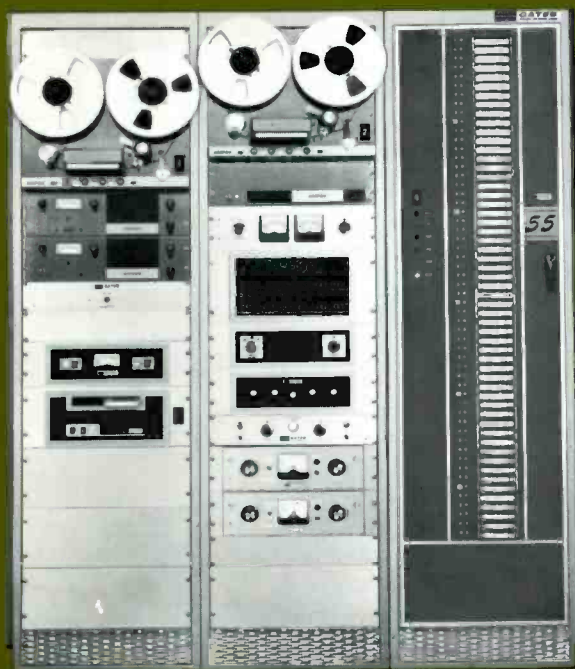
The sequence system capable of programming as many as 48 events each hour from 4 audio sources.

The **exact time** system capable of programming as many as 1000 events for an extended period of broadcasting using 7 audio sources.

AUTOMATE 244 ●●●●●●●●●●●●●●●●●●●●

Two record/playback tape decks, Magnecord 1028.

STC-9 Programmer—executes the program schedule.

Timer — provides time information to the Programmer for automatic correction of programming to "real" time.

25 Hz (cycles) filtering and generating equipment for production of automation system tapes.

Criterion professional cartridge record/playback unit for recording and broadcasting of spots, news, weather and ID's.

Criterion cartridge playback unit.

features

Easy to operate — all events are controlled by one Programmer.

Permits great flexibility in broadcast material through use of only four audio sources.

Completely compatible with commercially available program services.

Automatic time insertion of spots, news and ID's throughout program hour.

Full recording production facilities for making new tapes and cartridges for broadcast.

Choice of stereo or monaural models for use in any type station — FM, AM, AM-FM or FM stereo.

Easily expandable — can accommodate up to five more audio sources without modification.

PRODUCTION EQUIPMENT

Consisting of:

Scully 280-2 Stereo record/reproduce 14" reels.

TG-25 Hz Tone Generator.

FA-S 25 Hz Filters.

LE-Logging Encoder and Control.

CAR-13 Cartridge Recording Amplifier.

CPR-13 Cartridge Reproducer.

CAB-77-SD w/AC wiring and cabling.

> RECORDING EQUIPMENT
> SUB-TOTAL ....$ 5,400.00
>
> RECORDING EQUIPMENT
> SUB-TOTAL FULL STEREO..................$ 5,710.00
>
> RECORDING EQUIPMENT
> SUB-TOTAL MONO.............................$ 4,835.00

TOTAL EQUIPMENT STEREO MUSIC, MONO CART........$22,050.00

TOTAL EQUIPMENT STEREO...$22,860.00

TOTAL EQUIPMENT MONO...$20,800.00

●

All prices quoted are FOB Bloomington, Illinois
Subject to change without notice

●

AUTOMATION SYSTEM PRICE LIST

NOVEMBER 11, 1966

AUTOMATE 244

Consisting of:

(2) Magnecord 1028 stereo record/play.

STC-9 Simplex Programmer w/25 Hz Sensor.

TPG-9 Timer.

TG 25 Hz Tone Generator.

FA-S 25 Hz Filters.

CAR-13 Cartridge Recording Amplifier, Mono.

(2) CPR-13 Cartridge Reproducer-Mono.

CAB-77-SD Rack w/AC Wiring and all cabling.

> TOTAL SYSTEM
> (STEREO MUSIC, MONO CART)....$ 6,815.00
>
> TOTAL SYSTEM, FULL STEREO............$ 7,275.00

Optional additions and substitutions, Automate 244

CAB-77-SD Rack w/AC wiring and necessary cabling....$ 315.00

APL-M Automatic Program Logging (including encoder,
  decoder, digital clock and printer.) 3,350.00

ATC-55 Multiple Cartridge Unit (no rack needed, Mono) 2,650.00

ATC-55 Multiple Cartridge Unit, Stereo.......................... 2,850.00

CAR-23 Cartridge Recording Amplifier, Stereo..............   610.00

CPR-23 Cartridge Reproducer, Stereo...............................   900.00

MA-C Monitor Amplifier and Cue Selector, Mono..........   195.00

MA-C-S Monitor Amplifiers and Cue Selector, Stereo.....   295.00

SSA Silence Sensor Alarm and Restart............................   210.00

AP-M Audio Package including VU and AGC Amplifier....   630.00

AP-S Audio Package, as above, Stereo............................. 1,055.00

NOTE: Any addition of equipment requires additional rack space.

AUTOMATE 484

Consisting of:

Ampex AG-350-2 Stereo record/play.

TG, 25 Hz Tone Generator.

FA-S, 25 Hz Filter Assembly.

CAR-13, Cartridge Recording Amplifier, Mono.

CPR-13, Cartridge Reproducer, Mono.

Ampex AG-355-2 Stereo Reproducer.

SC-48 Simplex Programmer w/25 Hz Sensor.

AP-S, Audio Package (includes AGC amplifiers).

MA-C-S Monitor Amplifiers and Cue Selector.

TPG-48 Timer.

SSA Silence Sensor Alarm and Restart.

ATC-55 Multiple Cartridge Unit, Mono.

(2) CAB-77-SD Racks w/AC wiring and all cabling.

TOTAL SYSTEM (STEREO MUSIC, MONO CART)	$12,210.00
TOTAL SYSTEM, FULL STEREO	$12,720.00
TOTAL SYSTEM, MONOPHONIC	$10,815.00

Optional additions and substitutions, Automate 484

CAB-77-SD Rack w/AC wiring and necessary cabling	$ 315.00
APL-M Automatic Program Logging (including encoder, decoder, digital clock and printer.)	3,350.00
ATC-55 Multiple Cartridge Unit, Stereo	2,850.00
CAR-23 Cartridge Recording Amplifier, Stereo	610.00
CPR-23 Cartridge Reproducer, Stereo	900.00
Scully 280-2 SP-14 Stereo record/reproduce, 14" reels	2,565.00
Scully 270-2 Stereo, reproducer, 14" reels	1,595.00

AUTOMATE 1007

Consisting of:

(2) Scully 270-2 Stereo Reproducer.

(2) DCU 25 Hz Detector Control Unit.

(2) CPR-13 Cartridge Reproducer, Mono.

ATC-55 Multiple Cartridge Unit, Mono.

EAA External Audio Adapter, Dual Input.

SSA-1 Silence Sensor Alarm and Print Red.

SSA-2 Silence Sensor Alarm and Restart.

DC Digital Clock.

AP-S Audio Package, VU Meters and Control and 2 AGC Amplifiers.

SP-10 System Programmer Control.

SP-10 Programmer Deck.

PTC-2 Program Time Control, Time Selector.

PTC-2 Program Time Control, Fade Start.

RE Re-Entry.

LD Logging Decoder.

AMS-10 Switcher.

Audio Distribution.

Logging Printer.

(3) CAB-77-SD Racks, one with blower, System wiring and Cabling.

AUTOMATION SYSTEM SUB-TOTAL	$16,650.00
AUTOMATION SYSTEM SUB-TOTAL FULL STEREO	$17,150.00
AUTOMATION SYSTEM SUB-TOTAL MONO	$15,965.00

Optional additions and substitutions, Automate 1007

CAB-77-SD Rack w/AC wiring and necessary cabling	$ 315.00
MSC-10 Manual System Control (remote control)	595.00
CG-8 Code Generator for Automatic Program Logging	575.00
SCN Sum Channel Network to combine stereo channels	515.00
OPC-10 Overlap Program Control	995.00
MCP-10 Monitor Amplifiers and Cue Selector, Stereo	995.00
MCP-10 as above except monophonic	595.00
TA-1 Time Announce Control (requires two cart units)	330.00

Mr. Broadcaster:

In the new "Automate 244", "Automate 484", and "Automate 1007", Gates Radio Company has a program automation system for you.
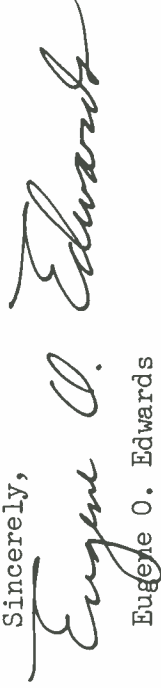
Program automation for your FM or AM station can give you the following results:

Reduce your station operating cost.
Allow more effective use of existing manpower.
Build a superior and more saleable program product.
Allow tighter control over program policy and execution.

The enclosed brochure introduces three new program automation systems. Probably one of these new systems will meet your programming needs. If not, each of them can be expanded to generate exactly the sound you want.

A Gates District Manager would like to provide assistance by helping you select the exact "Automate" for your station. If you will return the enclosed card to my attention, I will see that you receive all the assistance and information you need to select the correct program automation system.

Sincerely,

Eugene O. Edwards

Eugene O. Edwards

enc.

AUTOMATION SYSTEM

...automation in broadcasting

A basic low cost automation system with excellent programming flexibility designed for the AM or FM broadcaster serving the small to medium market. It consists of four audio sources including two Criterion tape cartridge units and two Magnecord reel-to-reel tape units. The system also provides complete facilities for recording both reel-to-reel tapes and tape cartridges for broadcast purposes.

One of the outstanding features of the Automate 244 is its simplicity of operation. It can be operated by virtually anyone after only brief instructions. ■ The two reel-to-reel tapes can be programmed in any sequence you desire. The cartridge units are used to insert ID's and spots automatically as many as 24 times every hour. ■ Spots, news, weather, and ID's can all be produced while the system is on the air and inserted as desired. This flexibility gives you that live, up-to-the-minute sound you demand in modern broadcasting. ■ The reel-to-reel tapes use sub-audible tones at the end of each selection for switching to the next programmed event. Music service tapes already have the sub-audible tones prerecorded. If you record your own music, a 25 Hz Tone Generator is provided to record this tone. Tape cartridges use the standard NAB cue tones on a separate control track for event switching.

the Control Center of

The STC-9 Programmer

ARMING LIGHT   RUN-STOP SWITCH   RESET-ADVANCE SWITCH   INDICATOR LIGHT

ROTARY SELECTOR SWITCHES   HEAD PHONE JACK   ROTARY SELECTOR SWITCHES

THUMBWHEEL SELECTORS

TIMER

The Programmer is the brain of the Automate system. All you have to do is determine the program schedule and set it up on the Programmer which, in turn automatically executes it. The great flexibility comes from the fact that the STC-9 Programmer can schedule 24 events in sequence plus additional insertions at specified times. The reel-to-reel tapes are normally used for sequential events such as music, and the two tape cartridge units are used to insert ID's, spots, news, and weather at pre-selected times. And because insertions are made automatically on time cues, you do not have to worry about the length of broadcast material.

how it works

THUMBWHEEL SELECTORS which determine event sequence. Audio sources are assigned numbers and appear in program schedule in order shown. **INDICATOR LIGHT** above each thumbwheel glows when that event is on the air, showing you exactly where you are in the program period. **ROTARY SELECTOR SWITCHES** determine the frequency of time insertion of tape cartridge sources during each hour. **ARMING LIGHT** above selector switch glows when armed for a time insertion. **RESET-ADVANCE SWITCH** allows you to recycle the programmer to the first event selected on thumbwheel selectors at beginning of a new broadcast period. "Advance" position lets you make up time by skipping next event or events. **RUN-STOP SWITCH** allows you to insert live material, such as news or bulletins, and then return to full automation. **HEAD-PHONE JACK** used for monitoring and cueing. **TIMER** provides time information to the Programmer for automatic correction of programming to "real" time.
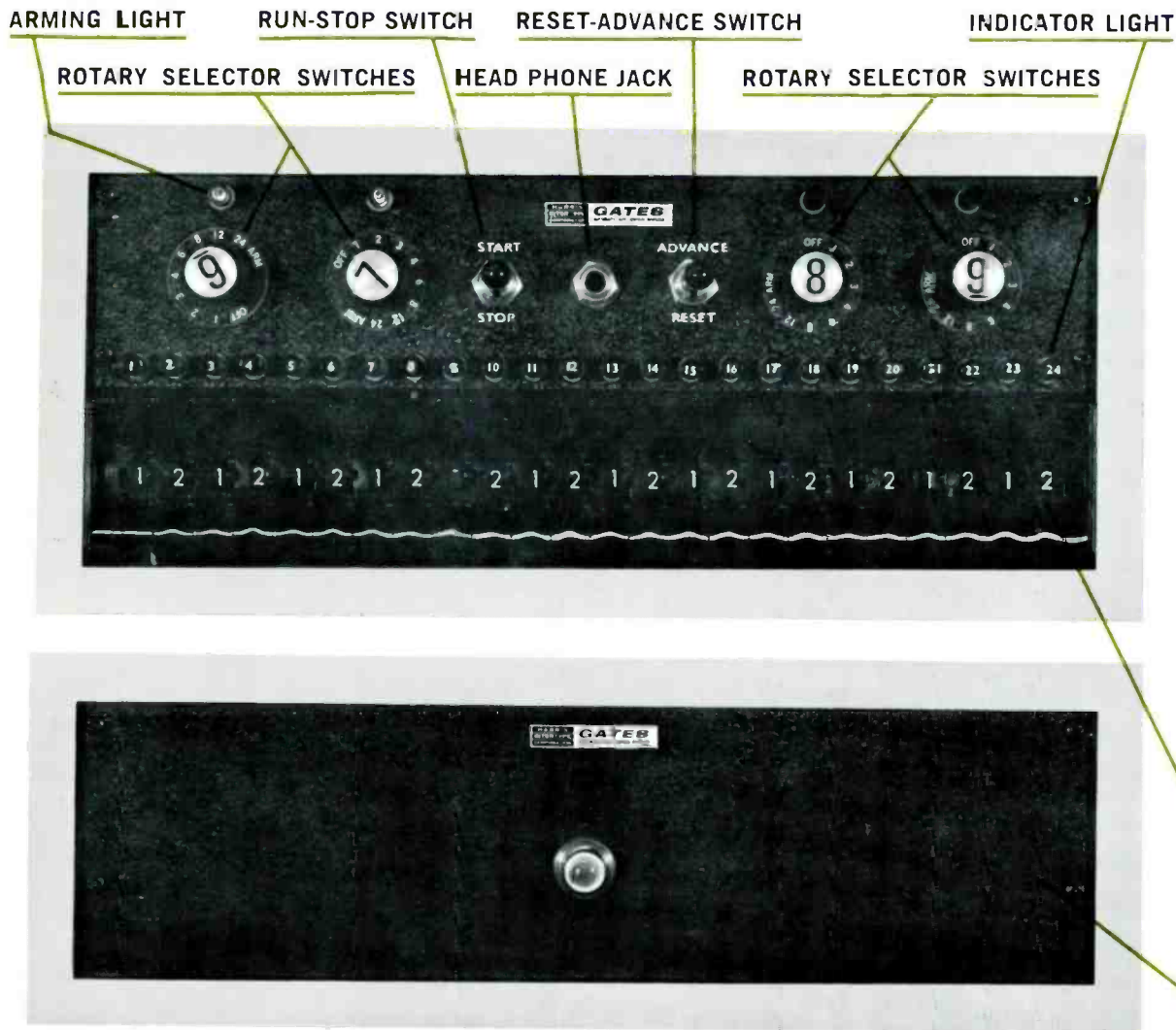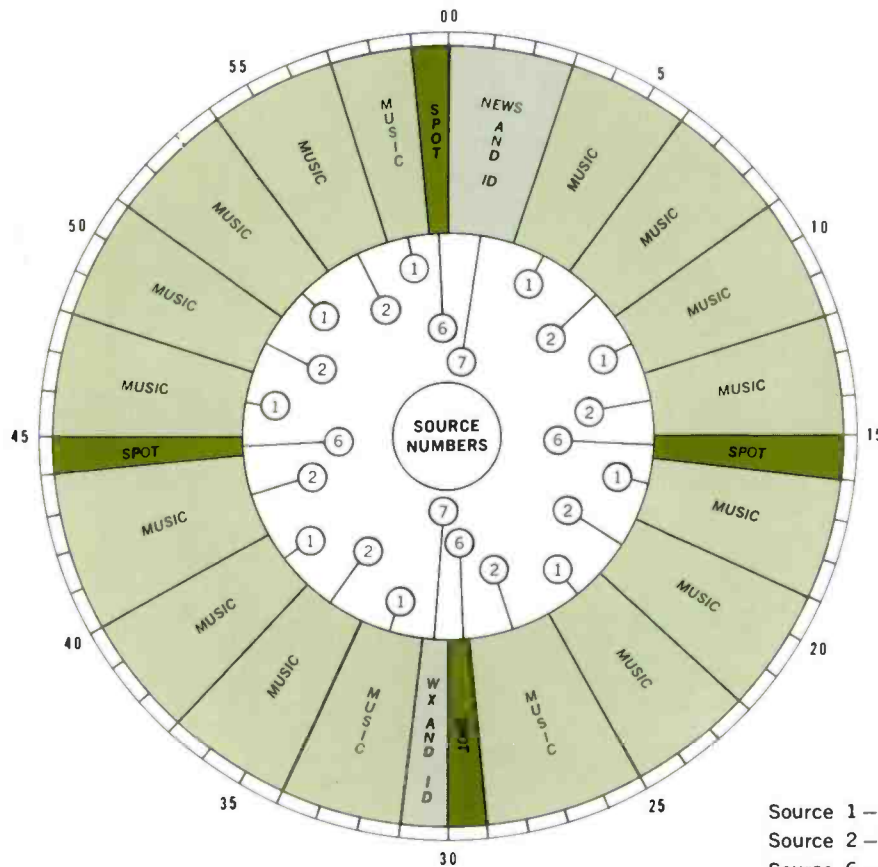
AUTOMATE 244

## and sample schedules it provides

The thumbwheel setting 1, 2, 1, 2, 2, 2, 1, 2, 1, 1, 2, 1, and rotary switches setting source 6 at 4 and source 7 set at 2 would give this schedule:

The STC-9 Programmer as shown on the opposite page (source 6 set at 12 and source 7 set at 2) would give this schedule:

TYPICAL HOUR APPROXIMATE TIMES

Source 1 — Tape Deck Music
Source 2 — Tape Deck Music
Source 6 — Criterion Spot (time insertion event)*
Source 7 — Criterion News & ID (time insertion event)*
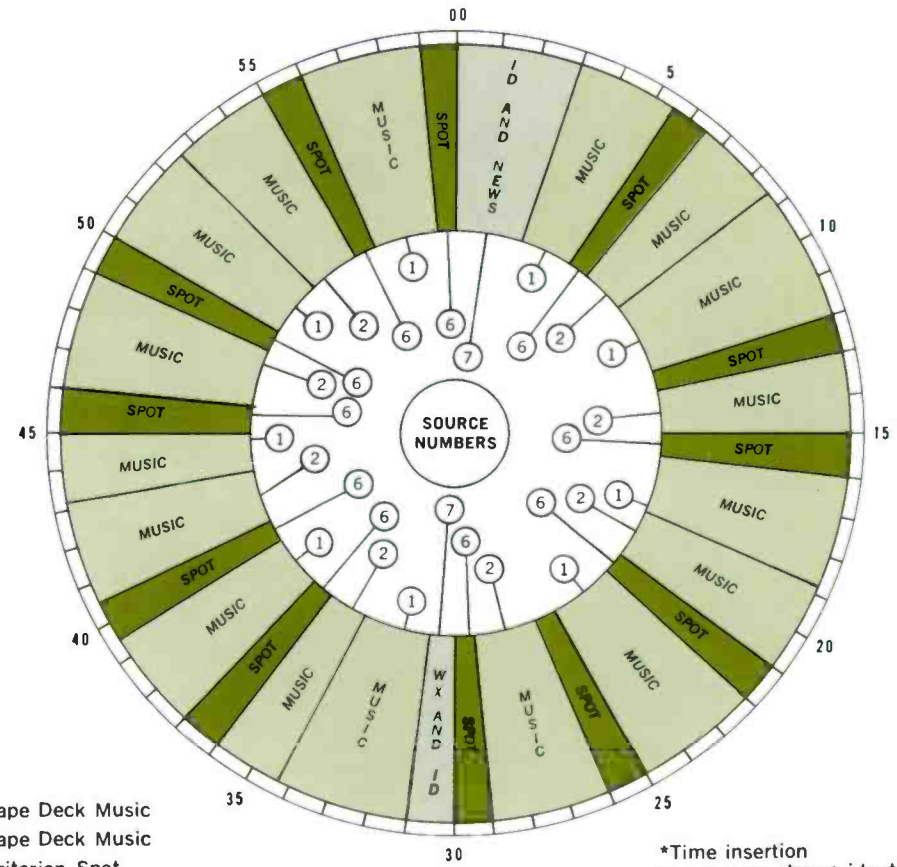
TYPICAL HOUR APPROXIMATE TIMES

*Time insertion sources are always identified on the STC-9 Programmer as 6, 7, 8, or 9, regardless of the number of tape machines in the system.
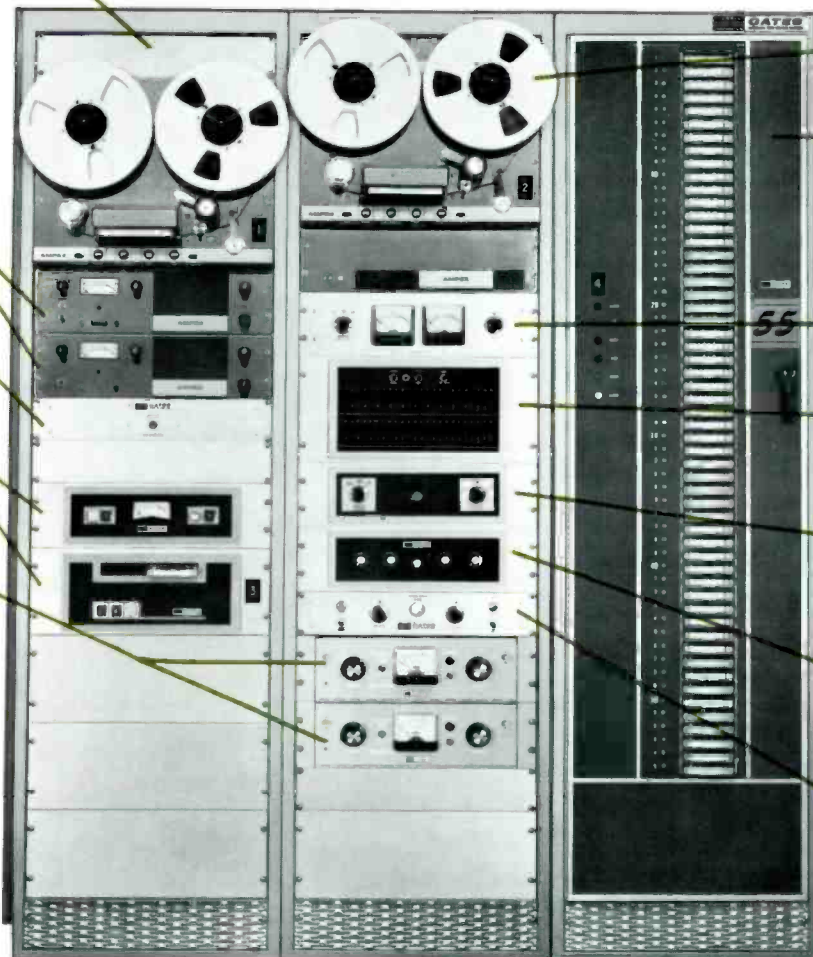
AUTOMATE 484 ●●●●●●●●●●●●●●●●●●

Record/playback tape unit, Ampex AG-350-2.

Ampex recording amplifier, for above.

25 Hz Tone Filtering and Generating equipment for recording 25 Hz cue tones on music tapes.

Criterion professional cartridge record/playback unit for recording and broadcasting of spots, news, weather and ID's.

AGC line amplifiers, enable direct feed to transmitter.

Playback tape unit, Ampex AG-355-2.

Multiple cartridge reproducer for insertions of 55 spots.

Audio control unit with VU meters.

SC-48 Programmer, executes program schedule.

Monitor amplifier and cue selector for monitoring of automation system output, and cueing of sources in automation system.

Timer, works in conjunction with programmer and enables selection of number of time corrections to be made and length of program segments.

Silence sensor alarm, monitors audio output of system and automatically selects next programmed event in event of source failure.

AUTOMATION SYSTEM

...automation in broadcasting

The Automate 484 is designed to give maximum schedule flexibility and a fast-paced live sound for the medium to large FM or AM market. ■ It consists of four audio sources: Criterion tape cartridge units, a cartridge reproducer unit that allows 55 spot insertions without changing cartridges, and two reel-to-reel tape units. ■ Events occur in sequence with the timer automatically correcting the programming at desired intervals. Spots, news, and ID's can be inserted in sequence on an approximate time basis which assures a well produced broadcast sound.

Although the Automate 484 provides excellent flexibility in programming, it is extremely easy to operate. Any member of your staff can learn to set up a broadcast schedule with only brief instructions. ■ Each event is programmed by setting a thumbwheel selector switch. Music from the two reel-to-reel tapes can be programmed in any "mix" of music as desired. Spots, ID's, news, weather, and bulletins are scheduled in the same manner, allowing you to vary the broadcast schedule as you desire to assure the "sound" you want for your station. ■ The automatic timer can be set to correct length of program on the hour, half hour, quarter hour or whenever desired. Normally, the broadcaster will schedule fill instrumental music toward the end of a time segment. As determined by the timer, the SC-48 Programmer will skip the unused selections of fill music and begin a new broadcast period on schedule. ■ The cartridge reproducer generally provides about six hours of spots without the necessity of changing cartridges, requiring a minimum of attention. The staff needs only to change news, weather and bulletins to maintain that all important sound of "immediacy." ■ Program content may be prepared while the automation system is on the air and scheduled as required. ■ The Ampex music sources are cued by means of a 25 Hz sub-audible tone. Program service tapes are already pre-recorded with this tone. The tape cartridge units use the standard NAB cue tones on a separate control track for switching events.

features

Events occur in sequence. Programming is automatically corrected to real time at desired intervals allowing great flexibility in broadcast material.

All events controlled by one easy-to-operate programmer with thumbwheel selectors.

Four audio sources allow scheduling of up to 48 events per hour. System can be expanded to accommodate five more audio sources without rewiring.

ATC-55 unit provides 55 spot insertions eliminating the need to change cartridges often or produce several spots on one cartridge.

Completely compatible with commercially available program services.

Full recording facilities for making new tapes and cartridges while system is on the air.

Choice of stereo or monaural models for use in any type station —FM, AM, AM-FM or FM stereo.

Silence Sensor Alarms and switches assure program flow in case of source failure.

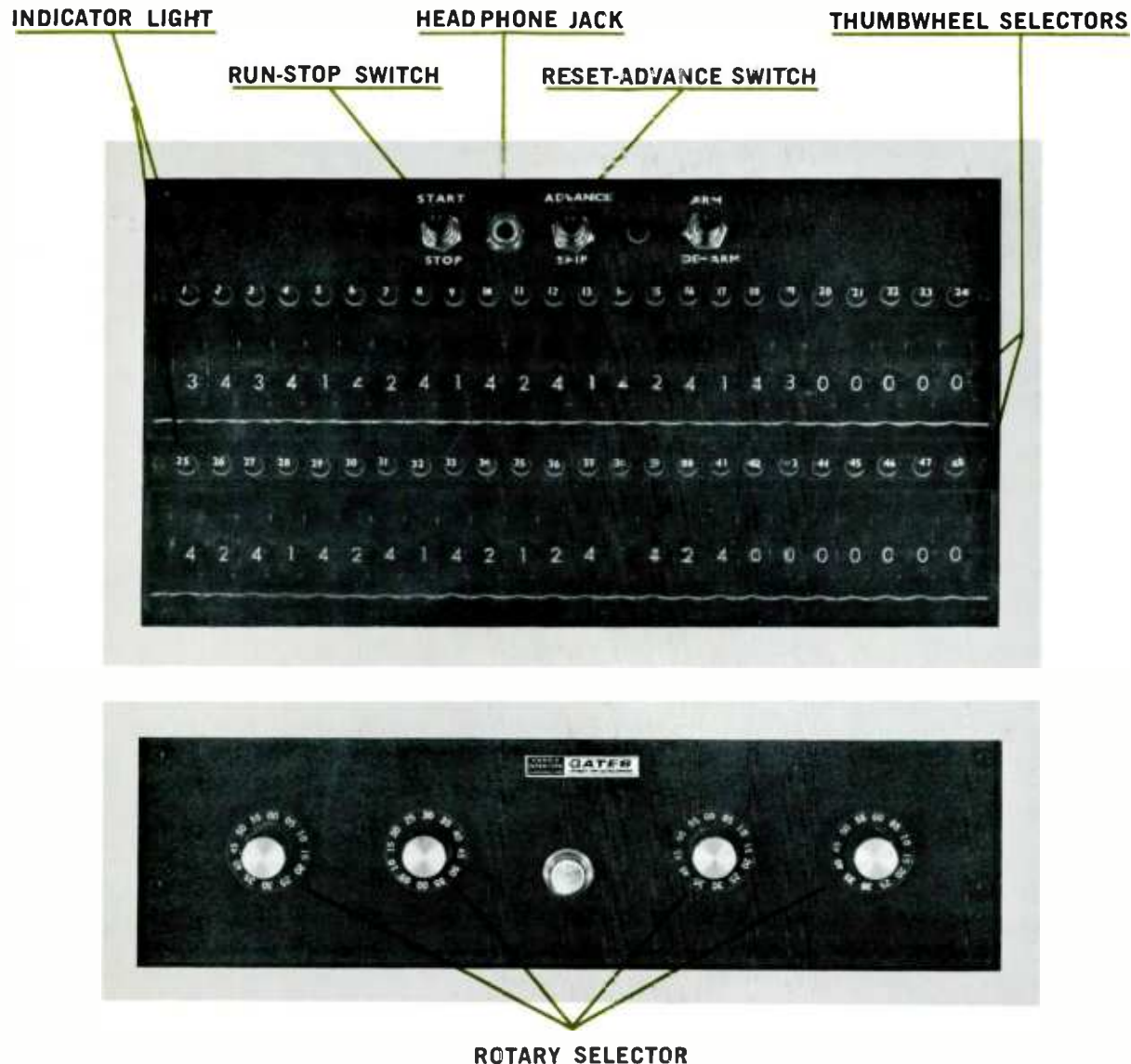Audio monitoring and "cue" selector for verification of program content.

Line-level output for direct feed to transmitter.

HARRIS INTERTYPE CORPORATION

GATES AUTOMATIC TAPE CONTROL DIVISION

SC-48/Programmer

INDICATOR LIGHT   HEADPHONE JACK   THUMBWHEEL SELECTORS

RUN-STOP SWITCH   RESET-ADVANCE SWITCH

ROTARY SELECTOR

This is the unit that directs the sequence in which the four audio sources are aired. You determine the program schedule you wish to follow. Set it up by means of the thumbwheel selectors, and the programmer performs the schedule automatically. Up to 48 events can be scheduled in a one hour segment. The system can be quickly expanded by adding as many as five more audio sources without modification of the wiring.

how it works

THUMBWHEEL SELECTORS determine the sequence in which program events will occur. Each audio source is assigned a number which appears in the typed program schedule for ease of setting up a broadcast period. **IN-DICATOR LIGHT** above each thumbwheel glows when that event is on the air, showing you exactly where you are in the program period. **RESET-ADVANCE SWITCH** allows you to recycle the programmer to the first event selected on thumbwheel selectors at beginning of a new broadcast period. "Advance" position lets you make up time by skipping next event or event series. **RUN-STOP SWITCH** allows you to insert live material, such as news or bulletins, and then return to full automation. **HEAD-PHONE JACK** for monitoring program material. **ROTARY SELECTOR** switches which determine the time within the hour the programming will be corrected to real time. These switches are marked in five minute increments.

The 48 switching events available on the SC-48 before repetition can be utilized under a number of different programming conditions. For instance, if each hour of programming required only 24 events, the SC-48 would be capable of controlling two hours of programming. Each hour, of course, could be programmed differently. ■ By the same token, four hours of different programming could be controlled on the SC-48 if only 12 switching events were required each hour.
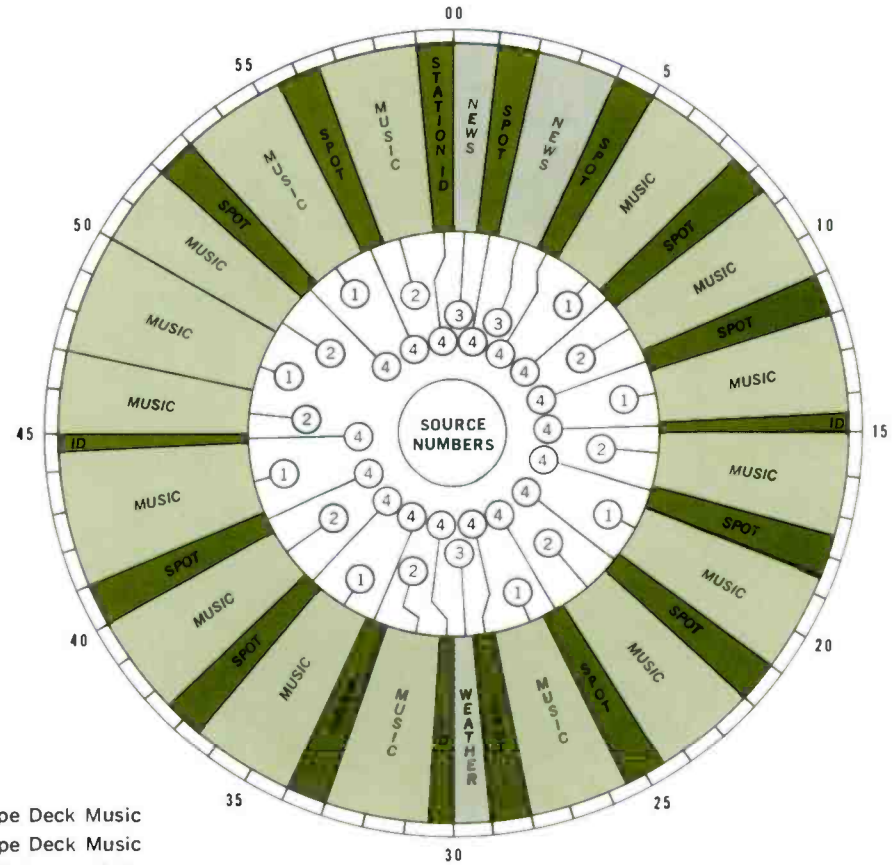
AUTOMATE 484

and sample schedules it provides

The setting 3, 4, 3, 1, 2, 1, 2, 4, 1, 2, 1, 2, 1, 4, 3, 4, 2, 1, 2, 2, 1, 4, 1, 2, 2, 1, 2, 1, 4, with remainder of the thumbwheels set at 0, on the SC-48 would execute this format:

The Programmer as set up on the adjacent page would give this format. The thumbwheel setting:
3, 4, 3, 4, 1, 4, 2, 4, 1, 4, 2, 4, 1, 4, 2, 4, 1, 4, 3, 0, 0, 0, 0, 0, 0, 4, 2, 4, 1, 4, 2, 4, 1, 4, 2, 1, 2, 4, 1, 4, 2, 4, 0, 0, 0, 0, 0, 0, 0. Selector for time corrections set at half hour and hour.
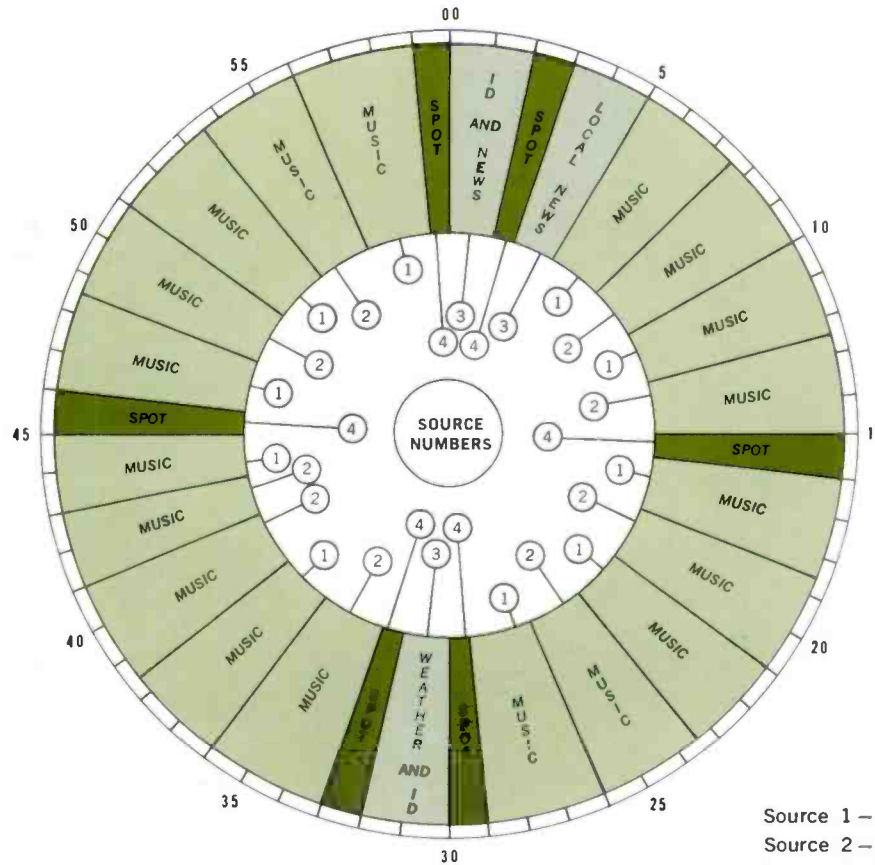
TYPICAL HOUR APPROXIMATE TIMES

Source 1 — Tape Deck Music
Source 2 — Tape Deck Music
Source 3 — Criterior Cartridge unit for news, weather & ID
Source 4 — ATC-55 Tape Cartridge Reproducer

TYPICAL HOUR APPROXIMATE TIMES

AUTOMATE 1007 ....

Two Scully reel-to-reel tape units with 14″ reels, which provide a total of six hours of unattended music operation.

Silence sensor #1 monitors output of system and automatically switches to next programmed source, in event of failure.
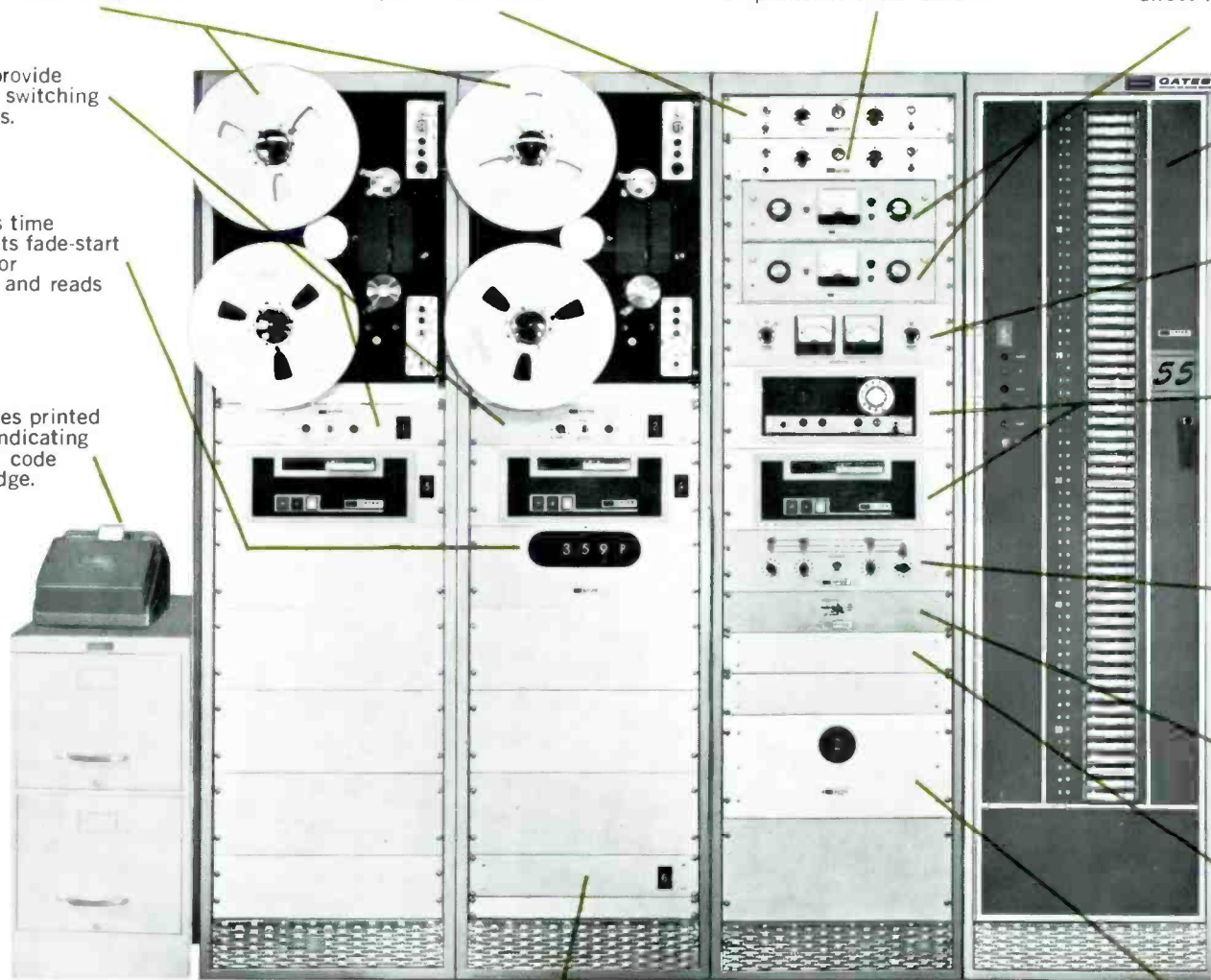
Silence sensor #2 monitors transmitter output and automatically causes red entries on printer to show "off air."

AGC Line Amplifiers, enable direct feed to transmitter.

Two 25 Hz detectors provide individual cueing and switching for related Scully units.

Cartridge reproducer unit provides storage for 55 commercials which are aired as required in sequence.

Digital clock furnishes time to logging system, alerts fade-start unit when it is time for exact time correction, and reads out real time.

VU and control panel provide indication of output level control of audio monitoring level and 25 Hz filtering.

SP-10 dial tape memory programmer (and associated cartridge deck) controls event sequence and executes program format. 1000 events can be dialed on tape unit before sequence repeat.

Logging Printer provides printed record of program by indicating time of broadcast and code number of tape cartridge.

Time selector unit, automatically scans clock and activates fade-start unit for program time correction. As many as four fades can be made each hour. System may also operate on straight sequence.

Fade-Start unit — when activated, automatically fades selection on air to start program event required at an "exact" time.

Logging decoder decodes pulsed signals from cartridge tape units and transforms them to digital information for printing on the logging printer.

External audio adapter provides input for two external audio sources such as network and studio.

Audio switcher provides all audio, control and logging switching functions necessary for operation of Automate 1007.

AUTOMATION SYSTEM

...and what it does

The Automate 1007 generates the liveliest sound to the most exacting standards.

features

Exact time programming allows automatic switching to network for news, or for live remote pick-ups.

Automatic fading when "exact time events" are scheduled. Unused events in prior program segment are automatically skipped, assuring program time accuracy without precise timing of material. Up to four fades can be made each hour.

Five audio sources in system, plus sixth and seventh external sources (network and remote) provide great flexibility in program presentation.

1000 events can be programmed, without repetition, allowing up to 16 hours of programming with over 60 events each hour, if desired.

Distinctly separate recording facilities enable production of future programs, spots, and ID's without affecting system operation.

Scully tape machines with 14" reels provide over three hours of music each.

Automatic Program Logging with digital printer unit provides exact visual verification of what cartridge was broadcast and time it was broadcast. Transmitter output failure causes printer to automatically print red entries on logging tapes.

Digital readouts indicate position in your programming. Readout on programmer shows next event to broadcast; readout on switcher shows event being broadcast.

Format can be changed simply by dialing new sequence tape cartridge or inserting another cartridge pre-recorded with desired schedule.

Specific events can be skipped during program without interfering with balance of broadcast.

Stereo or monaural models available for use in any type station FM, AM, AM-FM, or FM stereo.

Commercial cartridges are loaded in the ATC-55 in the order they are to be broadcast. Thus, the ATC-55 stack is usually an exact duplication of the commercial schedule.

Capable of programming as many as 1000 events without repetition, the system event keeps an official log for you—automatically. ■ Averaged out, the Automate 1007 can program 16 hours of broadcast material with over 60 events occurring in each hour **without repeating the pattern.** ■ There are seven audio sources—five internal and two external. The internal sources are the two reel-to-reel tape units for music, two Criterion tape cartridge units which may be used for news, weather, ID's musical intros and back announcements or specially featured musical numbers, and the ATC-55 for commercial content. The two external inputs may be utilized for network and studio origination.■ As with the other systems, events from all sources can be mixed in any sequence desired. Program time corrections can be made as often as four times each hour, if required. Unused programming (music fill) is skipped automatically at these times eliminating the need for exact timing of program content. You can go live at any time. At completion of the live material, the system goes back to automation with the mere push of a button. ■ A logging printer prints out a record of time of broadcast and the code for each event aired. This verification tape attached to your previously prepared program schedule satisfies all FCC logging requirements. ■ The reel-to-reel tape units utilize a 25 Hz subaudible tone to provide switching information. Program service tapes are already pre-recorded with this tone. The tape cartridge units and the ATC-55 use the standard NAB cue tones on a separate control track for event switching and automatic program logging pulses. External sources are controlled by the timing mechanisms in the system.

HARRIS INTERTYPE CORPORATION

GATES
AUTOMATIC TAPE CONTROL DIVISION

...the key to the virtually unlimited

SP-10/Programmer
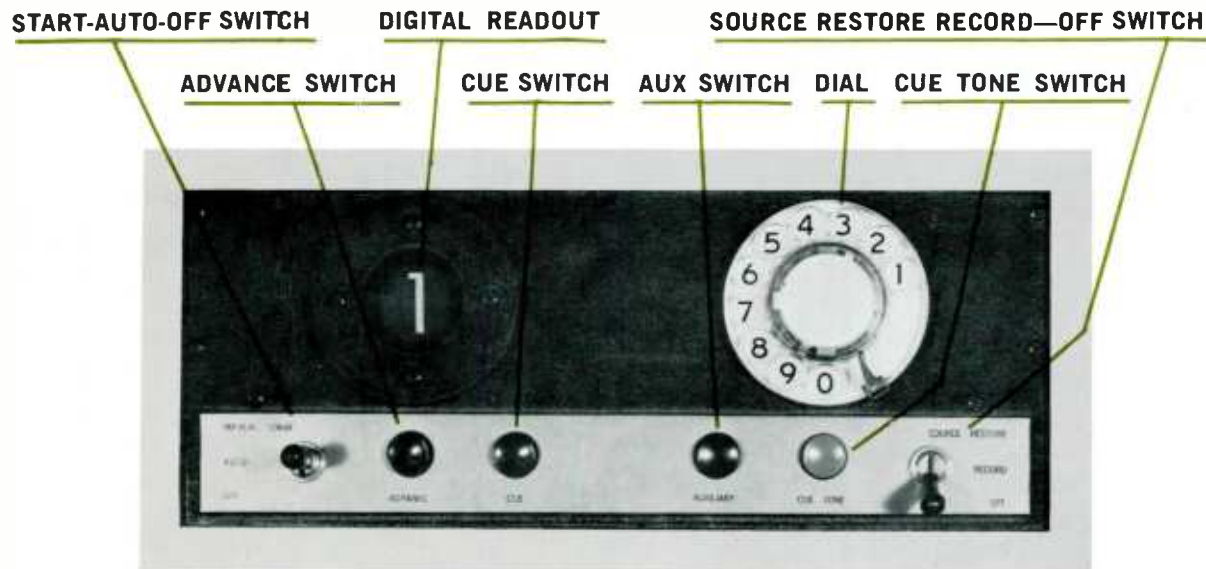
Using a dial unit and a tape cartridge transport, up to 1000 events can be programmed without repetition of program pattern. With the SP-10 controlling the sequence of the program sources, you need only dial the "sound" you want, with the assurance that it will be executed for you efficiently. The SP-10 Programmer controls the airing of five tape sources, plus the remote sources. Four more audio sources can be added to the system for an even livelier sound. No change in the wiring of the programmer is required when additional sources are added.

how it works

START-AUTO-OFF SWITCH—"Start" position begins automation sequence. "Auto" position places station on automation control. "Off" position returns system to manual control. This switch can be remoted to control room for additional flexibility in operation. ADVANCE SWITCH—Advances programmer to next scheduled event. CUE SWITCH—Cues programmer cartridge at 1 KHz tone. AUX SWITCH—Used to automatically arm the Time Selector. CUE TONE SWITCH—Applies 1000 Hz tone on cartridge as reference point for beginning of program sequence. SOURCE RESTORE RECORD—OFF SWITCH— Enables substitution of a program event any time programmer is not switching. Programmer tape cartridge may be recorded with switch in "Record" position. "Off" position returns programmer to playback mode for automation control. DIGITAL READOUT—During recording, reads out source number dialed on programmer tape to verify accuracy of dialing. When automation system is on the air, it displays the number of the next event to broadcast. DIAL—For recording program sequence.

versatility of the Automate 1007

The program sequence is dialed on the programmer cartridge in the order desired. After recording, this cartridge controls the sequence of events being broadcast in the same sequence as dialed. A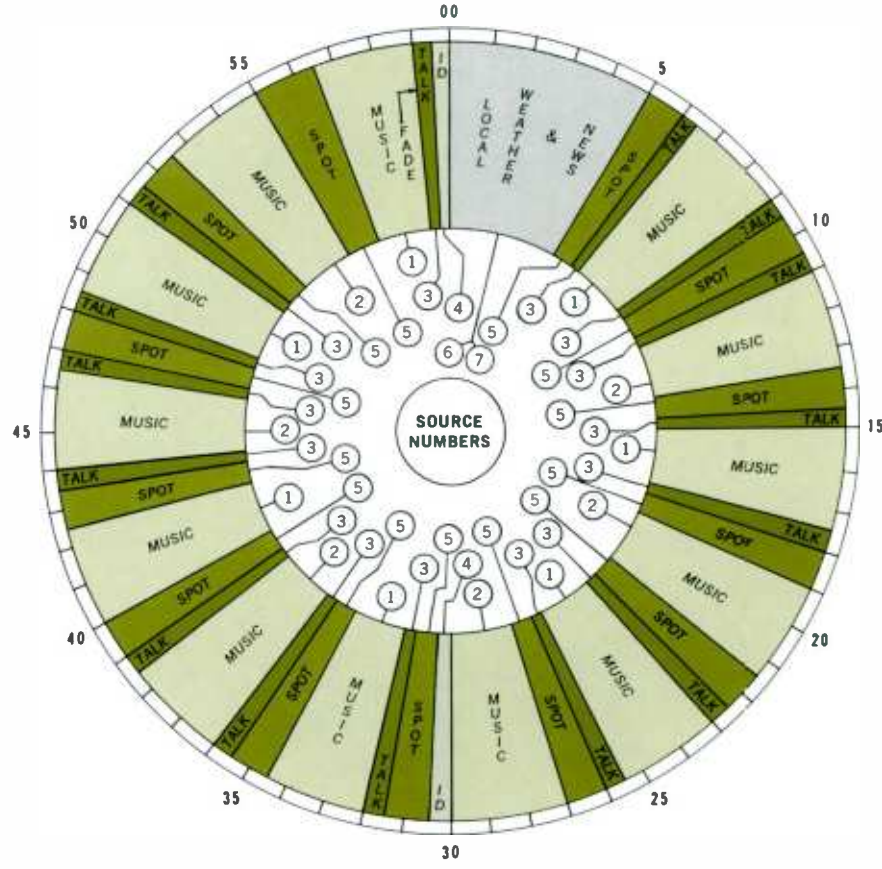lthough only one hour of typical programming is shown, enough events for over 16 hours of programming in either a "tight" or "loose" format can be stored in, and executed by, the tape cartridge programmer.

From these schedules, the flexibility of the Automate 1007 is apparent. Wide variation within an hour is possible as is variation from hour to hour. Examine your broadcast schedule, examine the capability of the Automate 1007 and you will see how easily your scheduling adapts to automation.

TYPICAL HOUR EXACT TIME
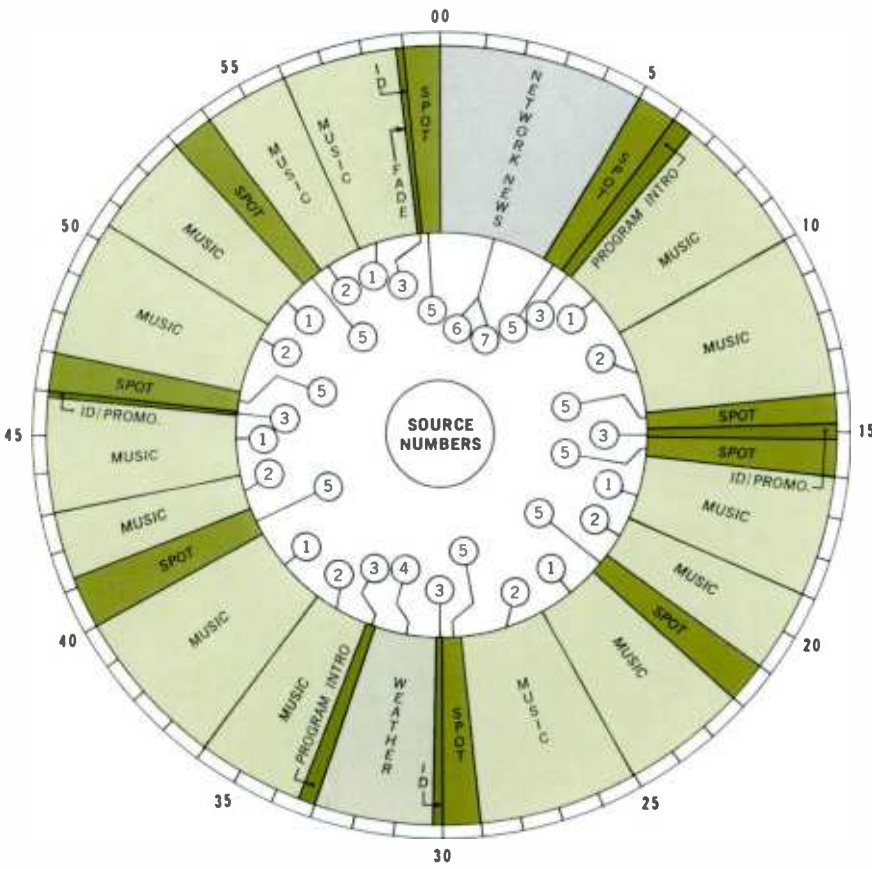
TYPICAL HOUR EXACT TIME

Source 1 — Tape Deck Music
Source 2 — Tape Deck Music
Source 3 — Criterion Cartridge Unit Promo's
Source 4 — Criterion Cartridge Unit News and Weather ID's
Source 5 — ATC-55 Spot Reproducer — spots
Source 6/7 — Exact time input for network and studio broadcast

production equipment

Scully 7½-15 ips. stereo record/playback unit.

25 Hz Tone filters for removal of sub-audible tones from program content.

Scully recording amplifiers for above.

25 Hz Tone generator for application of sub-audible tone on music tapes.

Logging encoder control for encoding five digit code number on cartridges.

Logging encoder, impulses logging code.

Criterion professional cartridge record/playback unit for recording of spots, news, weather and ID's.
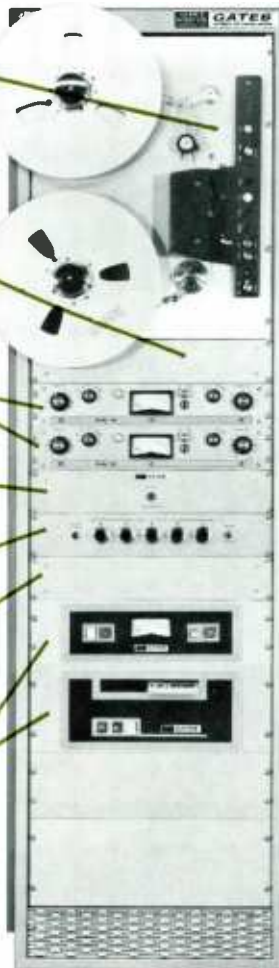
Additional capability in broadcast quality control is achieved in the Automate 1007 through its unique, independent production equipment. Reel-to-reel recordings can be produced on the Scully unit for broadcast by the automation system. Spots, news, and weather can be recorded in the cartridge units and loaded in the automation equipment as needed. Complete programs with specialized content can be produced and auditioned well ahead of their scheduled air time. As a result, you get more efficient production control, more uniformity in quality, a greater capability in format variation, and more efficient use of your talent.

automatic program logging

The program execution efficiency of the Automate 1007 makes true automation a reality. Its value to the broadcaster is enhanced by the Automatic Tape Control program logging system which automatically prints all logging information as it is broadcast. This unique performance proven system has been in use more than four years in stations throughout the country. At the right, is a reproduction of an automated station program schedule and the printed log verification provided by the Automatic Program Logging system. These two forms, signed by an operator, provide all the FCC logging requirements. Many stations have gone through license renewal utilizing ATC's method of Automatic Program Logging.

how it works

A five digit code is recorded on the control track of the tape cartridge at the same time the program material is recorded on the program track. When the event is broadcast, the impulses on the tape are decoded to operate a printer which logs the identifying code number of the program information and the length of the material. The exact broadcast time is also printed on the logging tape through a digital clock. Program content, of course, is being broadcast while decoding takes place. ■ With an optional code generator, this same decoding can be provided on reel-to-reel equipment, network and other non-cartridge sources.

Logging tape

```
300P24876
305P74824
306P10049
308P46814
312P64734
315P38444
316P00011
316P01004
318P96434
321P42434
325P58914
330P00011  9/10
330P64505
333P92844
334P10049  John Doe
337P46984
340P21134
345P82184
346P00011
346P02004
348P71334
351P03004
355P55674
400P00011
```

BROADCAST SCHEDULE AND LOG

CLASS:
ID—Station Identification
CA—Commercial Announcement (Sponsor Announced)
NCA—Non-Commercial Announcement
C—Commercial Program (Sponsor Announced)
S—Sustaining Program

FCC TYPE:
RE—Religion
I—Instructive
PA—Public Affairs
AG—Agricultural
N—News
SP—Sports
E—Entertainment

ORIGIN:
L—Live Program
R—Recorded Program
NET—Network Program

PROGRAM—ANNOUNCEMENT LENGTH:
Last digit of code number indicates length as follows:
1—10 secs.   6—5 min.
2—20 secs.   7—10 min.
3—30 secs.   8—15 min.
4—1 min.   9—30 min.
5—3 min.   0—.....

Date September 10

Broadcast Time	Scheduled Time	Program and Sponsor		Type	Signature
	PM				John Doe
	3:00	NEWS (5 Minutes)	24876	CNL	
		(FIRST NATIONAL BANK)			
		PEPSI-COLA (Min)	74824	CA	
	3:06	JOHN DOE SHOW	10049	CER	
		S & H GREEN STAMPS (Min)	46814	CA	
		FORD MOTORS (Min)	64734	CA	
		NEUMODE HOSIERY (Min)	38444	CA	
		Station ID	00011	ID	
	3:16	NEWS REMOTE (Min)	01004	SNL	
		FALSTAFF BREWING (Min)	96434	CA	
		IGA FOOD STORES (Min)	42434	CA	
		HILLS BROS. COFFEE (Min)	58914	CA	
		Station ID	00011	ID	
	3:3C	LOCAL NEWS (3 Minutes)	64505	CNL	
		(CITIES SERVICE)			
		MONTGOMERY WARD	92844	CA	
	3:34	JOHN DOE SHOW	10049	CER	
		SUNBEAM BREAD (Min)	46984	CA	
		L & M CIGARETTE (Min)	21134	CA	
		SEVEN-UP (Min)	82184	CA	
		Station ID	00011	ID	
	3:46	WEATHER REPORT (Min)	02004	SNL	
		VOLKSWAGON (Min)	71334	CA	
		Red Cross (Min)	03004	NCA	
		CARSON-PIRIE-SCOTT (Min)	55674	CA	
		Station ID	00011	ID	John Doe

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system expansion

Any of the automation systems can be expanded to provide the equipment which will generate exactly the sound you want. The exclusive "plug-in" construction enables addition of more audio sources with no changes in wiring of the system or the Programmer. Any system can be expanded up to the audio source capacity of the Programmer. ATC's Automatic Program Logging or slow speed logging can also be added to the Automate 244 and 484.

ATC 55 cartridge reproducers can be added to any of the systems as can additional Criterion cartridge reproducers, and additional tape decks. Systems can be ordered with Scully and Ampex tape decks as desired. As a result, you virtually "tailor make" an automation system which will exactly meet your particular requirements.

Whatever your automation needs in particular, or your broadcast needs in general, Gates Radio Company and its Automatic Tape Control Division has the equipment which meets them. Automatic Tape Control has been a pioneer in the automation field. Gates, with over 40 years of broadcast experience, is known for built-in quality and reliability in manufacturing. Depend on Automatic Tape Control . . . depend on Gates for the finest in broadcasting.

"The soundest sound in automation is the new sound of Gates."

HARRIS
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CORPORATION

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AUTOMATIC TAPE CONTROL DIVISION

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