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# M. W. Persons and Associates

BROADCAST AND SPECIAL ENGINEERING CONSULTANTS  
406 CEDARDALE LANE ROUTE 8  
BRainerd, MINNESOTA 56401  
PHONE (218) 829-1326



PROGRAMMER 3

The Programmer 3 is the latest in a series of highly successful "Live Assist" radio music programming aids. The Programmer allows stations to take advantage of music formats which have been recorded on reel to reel tape for automation systems. Up to four reel to reel tape decks and the Programmer 3 control head are all that is needed to make a complete system.

Gone are the days of an air person playing his favorite music at the same time each day regardless of what the station's format calls for. Operators won't, by accident, play the same songs as the previous operator played the hour before. Also, the quality of taped music is excellent. No record scratches are heard and the tapes always cue to the exact beginning of each song. There is no chance of running the music at the wrong speed. Most companies that record music on tape also send reels of new music every week or ten days so that the station playing it always has ALL of the newest music.

The Programmer 3 has the following features:

1. Stereo level controls for each deck that can be wired directly to program and cue buses of the studio console. No additional console input controls or positions are needed to wire the Programmer 3 system to a console.



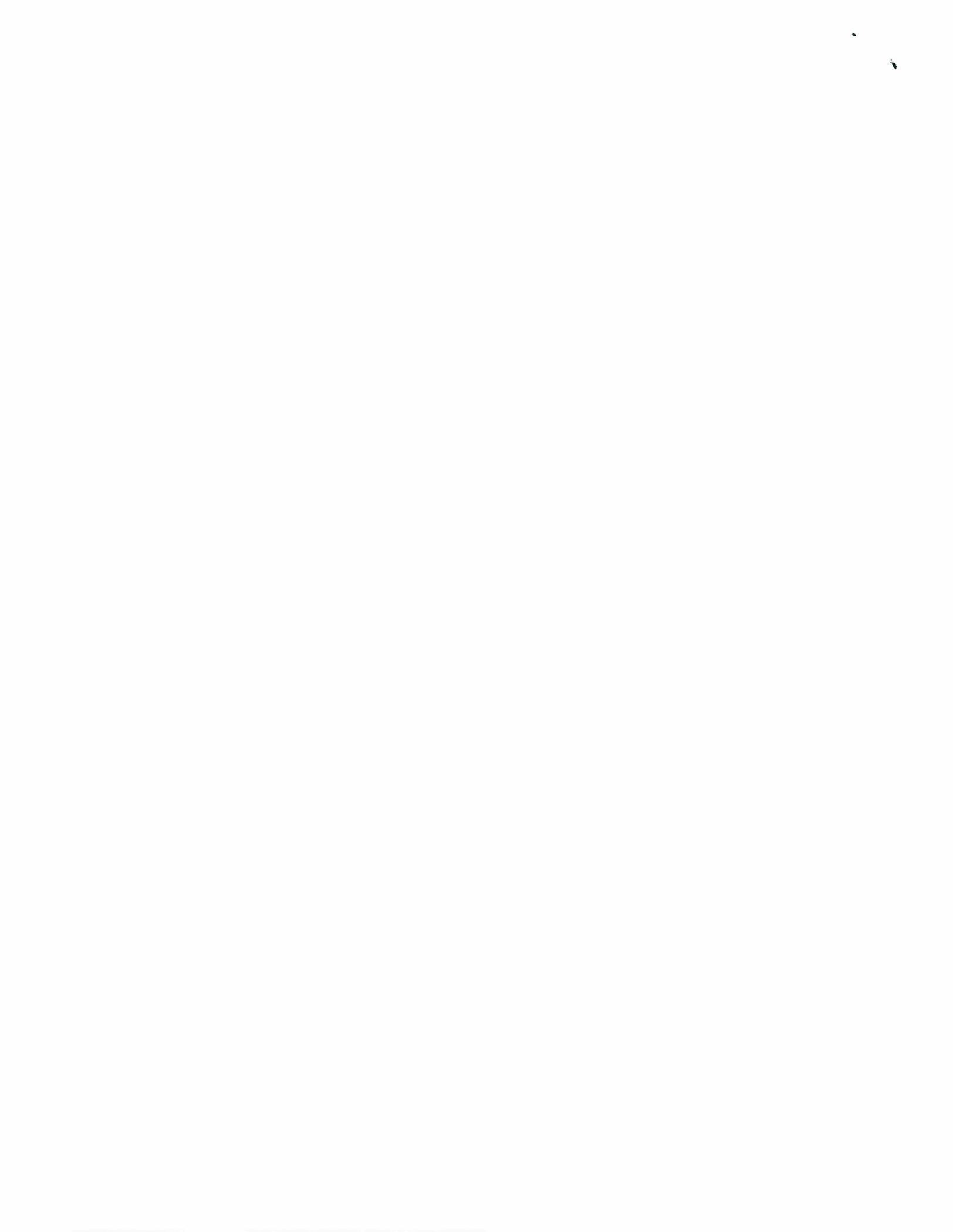
2. The Programmer 3 can be run stereo or monaural and can sum left and right stereo channels to make monaural.
3. A memory circuit allows the operator to select the music deck he will play next by touching the "next play" button of that deck. That button and the common "next play" button will light. (See center bottom button in photograph) The system then stands ready. When the operator has finished running his commercials, weather, etc., he pushes the common play button and the selected deck starts. He does not have to remember which deck is next, the Programmer 3 does it for him.
4. The auto "One-Step" switch allows the Programmer 3 to segue to the next preset deck automatically.
5. The minutes/seconds timer resets to zero and starts counting up each time a deck is started. This allows the announcer to talk over an instrumental intro on a song right up to the vocal portion.
6. A white light tells the operator which deck is playing and an amber cue light tells the operator when the 25 Hz cue tone is coming across during the last second of the song. The operator can start speaking with confidence when he sees the amber light knowing for sure that the song is ending.
7. All logic is contained in the Programmer 3 control head.
8. The Programmer 3 is designed to be directly compatible with Otari ARS-1000 reel to reel decks. Other decks can be incorporated into the system upon request.

Costs are as follows:

Programmer 3 control head	\$ 770.00
Recommended spare parts kit	\$ 77.71
Cabeling between control head and each deck \$0.41/ft.	
50 ft. of cabeling for 4 decks	\$ 82.00
Otari ARS-1000 Decks	approx. \$1,565.00 each
Equipment rack to hold up to three tape decks	approx. \$ 280.00 free standing \$ 460.00 wall mount

Thirty Day Delivery

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Viewpoint—

## Live-Assist Radio

*Due to the competitive nature of radio syndication and automation, the programming philosophies that come into play are almost as many and varied as the companies that promote them. In this article, RadioActive does not necessarily endorse the recommendations and suggestions that are mentioned. They are offered only as one side of a highly controversial programming argument.*

by Jane Kindred

Since the debut of the original automation system for radio over twenty years ago, two ostensibly diametrically opposed theories of broadcasting have developed. One viewpoint proclaims that nothing will ever be able to replace the spontaneity and audience rapport of live radio, while the other advocates completely automated programming for professional polish and lowered costs. In the past few years, however, a third thesis has emerged which could benefit large and small markets alike. Progressive broadcasters have developed a combination of live radio and automation which is fast becoming an eminently viable alternative to either of the major philosophies—live-assist radio. There are several modes of live-assist programming, one of which may be perfect for your station.

Station managers and program directors historically have been faced with the problem of fluctuating music flow with each jock turnover, and that can happen with great frequency, particularly in small and medium market "training ground" stations. Many such stations, while they still want live, local air talent, want more management control over their sound.

The logical move in such cases is to switch to pre-programmed, unannounced music. Board announcers then simply push a button to start the music tape, glance at the accompanying script to find out which song is coming up, how long an intro they have to talk-over and what sort of ending it has, in case they want to back-announce it. In this way, the DJ still does what he does best—communicate with his local audience and develop his own unique air personality—while the station's sound remains consistent.

The program director doesn't have to worry about his jocks playing their own favorite "losers" and he doesn't have to plead with them, as the program director on "WKRK" does with Dr. Johnny Fever, to "please play at least one song, this morning, that's on the playlist". He can spend more time on special programs and production, and have time left over to cart a few extra cuts to be plugged into the pre-programmed format—something that has received local notice even though it hasn't hit the national charts, or something by a local artist on his way

up—something, that is, which no music syndicator could be expected to do, since they must program "by the book" for hundreds of stations all over the world, and something no local program director would want them to do, since he's the only one who knows his individual market and audience well enough to program such special material.

Another form of live-assist radio that's gaining popularity is a combination of unannounced pre-programmed music reels to be used throughout the daytime hours and announced pre-programmed music for use after 6 p.m. The advantage of using the announced tapes in nighttime slots is obvious—it cuts payroll costs and, more important, it keeps the quality of the station's sound up to the highest standards even in the "off" shifts that very few announcers would want to work.

A variation on the above method of live-assist programming, of particular interest to larger market stations, is the use of announced pre-programmed service for midnight to six, weekends, and holidays, as a supplement to their own live programming. Such stations look for a localized, personality approach to announced tapes and, of course, they want proven talent that has worked in markets like Los Angeles, St. Louis, Seattle, Chicago, etc., so that they can be sure that program quality will equal their own high standard.

In addition to high technical quality, reliable service, and free programming consultation, there are a number of other things to look for when choosing syndicated programming for your station. You'll want a well-balanced format—one in which the majority of cuts in the basic music library would fit any radio market, regardless of its size or location. And you'll want a format that's expertly programmed with careful weekly research. In other words, look for a format upon which you can always depend.

If your format is adult contemporary or country, for example, you'll want an all-hit, all-original-artist format with no "surprises", such as waking up some morning to the sound of The Chipmunks on your clock radio (and, what's worse, knowing that you're going to hear those Chipmunks every time that tape comes up in the rotation).

If you're running AOR, you'll undoubtedly want mass-appeal music that

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**“Progressive broadcasters have developed a combination of live radio and automation which is fast becoming an eminently viable alternative....live assist radio.”**

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will reach as wide a demographic as possible, but you'll also want a format that uses **all** of the best cuts from the best albums, evenly distributed. You'll also want enough reels to offer at least **70 different new album cuts** at all times, in addition to your basic music library.

Beautiful music stations will want to take care to choose a format that offers a well-balanced flow of tempos and artists, with not too much "custom" music to bring listener complaints that "all their songs sound exactly alike."

When considering announced formats, look for one with a "personality" approach that offers localized copy service material to be custom-voiced by the program's announcer periodically, preferably once every month. When properly used, such a service can make your station sound "live" all the time. For instance, if your music, ID's, local station promos, news and weather intros, and even your sign-off are voiced by the same announcer, the continuity is such that your listeners are sure that the DJ is on the board, at that moment, in your station. They're used to hearing the news and the spots being done by someone other than the program announcer, but something like "hope all you folks over in Near City are enjoying our music on the Joe Doaks show tonight," or "The news is coming up next, but I'll be back with more

music, so stay right there," would be jarring and disorienting if it were in a voice other than that of the person announcing the music.

In choosing any syndicated format, be sure that there are no jarring, inappropriate cuts, novelty numbers, etc., in the basic music library. Such selections cannot stand up to frequent repetition and will rapidly draw listener complaints and tuneouts. You'll find it much easier, when you want to add an old Andy Griffith specialty number, a heavy metal cut, a thirties jazz selection or The Chipmunks, to simply cart it yourself and plug it into the rotation occasionally.

Here are a few more items which your selection checklist might include:

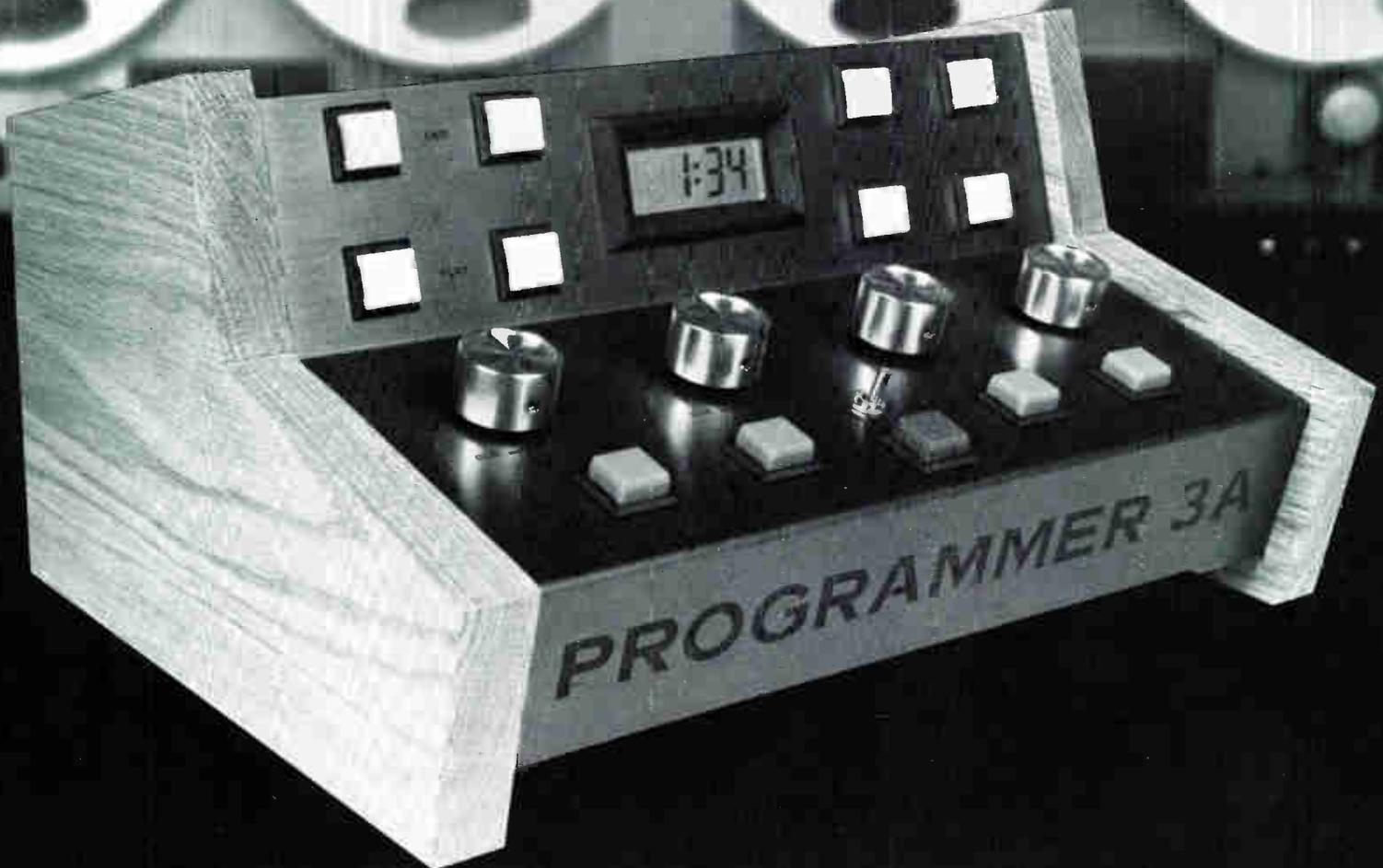
- 1) Will you be permitted to splice out any song that you feel is offensive to your local audience or that you feel doesn't belong in your format?
- 2) Are there any charges for replacement of tapes damaged due to equipment malfunction or operator error in your station?
- 3) Are there any hidden extras, such as "tape charges?"
- 4) If your contract period lasts for more than one year, will you be able to change formats if you wish? It could be more than a little aggravating, to say the least, if you find, in 8 or 9 months, that you need a format change only to discover that you're locked into your old format for 1 or 2 more years.

The material available for live-assist programming is varied and, on the whole, quite good. There are more than a dozen well-known syndicators from which to choose, each offering from one to ten different formats. And, no matter which mode of live-assist radio you select, you'll be combining the best of both worlds—the programming control and easy operation of automation and the spontaneity and community rapport of live radio. Radio is getting better all the time, and it will continue to do so through enterprising talent, becoming even more involved in local communities, and constantly working toward improving and professionalizing an on-air sound. □

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# LIVE ASSIST



## The Best of Two Worlds

Use reel to reel music tapes in a live radio format with the Programmer 3A Live Assist Controller.

# PROGRAMMER 3A

## “LIVE ASSIST CONTROLLER”

The Programmer 3A is the latest in a series of highly successful “Live Assist” radio music programming aids. The Programmer 3A allows stations to take advantage of music formats which have been recorded on reel to reel tape for automation systems. Up to four reel to reel tape decks can be controlled by the Programmer 3A.

**Audio:** New conductive plastic stereo level controls resistively sum audio from each source. Optoisolators silently gate audio on and off for each source as it is used. Outputs can be wired mono or stereo directly to program and cue buses of a studio console eliminating the need for additional console inputs.

**Memory:** A memory circuit allows the operator to select the music deck he will play next by touching the “next play” button for that deck. That button and the “common next play” button will light. [See center bottom button in photograph.] The system then stands ready. When the operator has finished running his commercials, weather, etc., he pushes the common play button and the selected deck starts. He does not have to remember which deck is next, the Programmer 3A does it for him.

**Auto:** The auto “One-Step” switch allows the Programmer 3A to segue to the next preset deck automatically.

**Timer:** The minutes/seconds timer resets to zero and starts counting up each time a deck is started. This allows the announcer to talk over an instrumental intro on a song right up to the vocal portion.

**Logic:** White lights tell the operator which deck is playing and amber lights tell the operator when a 25Hz cue tone is coming across during the last second of a song. The operator can start speaking with confidence when he sees the amber light knowing, for certain, that the song is ending.

**Dimensions:** 11 ¼” wide, 5 ⅞” high, 9 ¼” deep, 10 ¾” deep with rear connectors.

**Power:** 24VDC at 200MA maximum is required to run the Programmer 3A Controller. This power is available from the tapedecks it is controlling. An optional power supply is available for systems with tapedecks that do not have 24VDC available.

**Compatibility:** The Programmer 3A is directly compatible with Otari ARS-1000DC and Revox PR99 playback only decks. It is also compatible with ITC 750 and 770 playback decks using the ITC 25Hz tone detector and a 25Hz filter. Any reel to reel tape deck can be interfaced using a 25Hz tone detector and notch filter from M. W. Persons and Associates.

**Warranty:** One year limited

Manufactured By:

**M. W. PERSONS AND ASSOCIATES**

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New Address After 9/1/83

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## The Programmer 3A is:

A Live Assist Controller. It interfaces music sources with the live operator. Those sources can include any combination of the following in mono or stereo:

Reel to Reel  
Cassette  
Cartridge

The operator touches one button and the Programmer 3A remembers which source is to be played next. It starts that source when the common next play button is pushed. In the auto mode, the Programmer 3A will automatically start the next event when the first ends. The timer resets to zero and starts counting up when a source is started.

The Programmer sums audio and can be wired to make a console four inputs larger. The client does not need to purchase a larger console to add four music sources. The Programmer will mix stereo to mono when required.

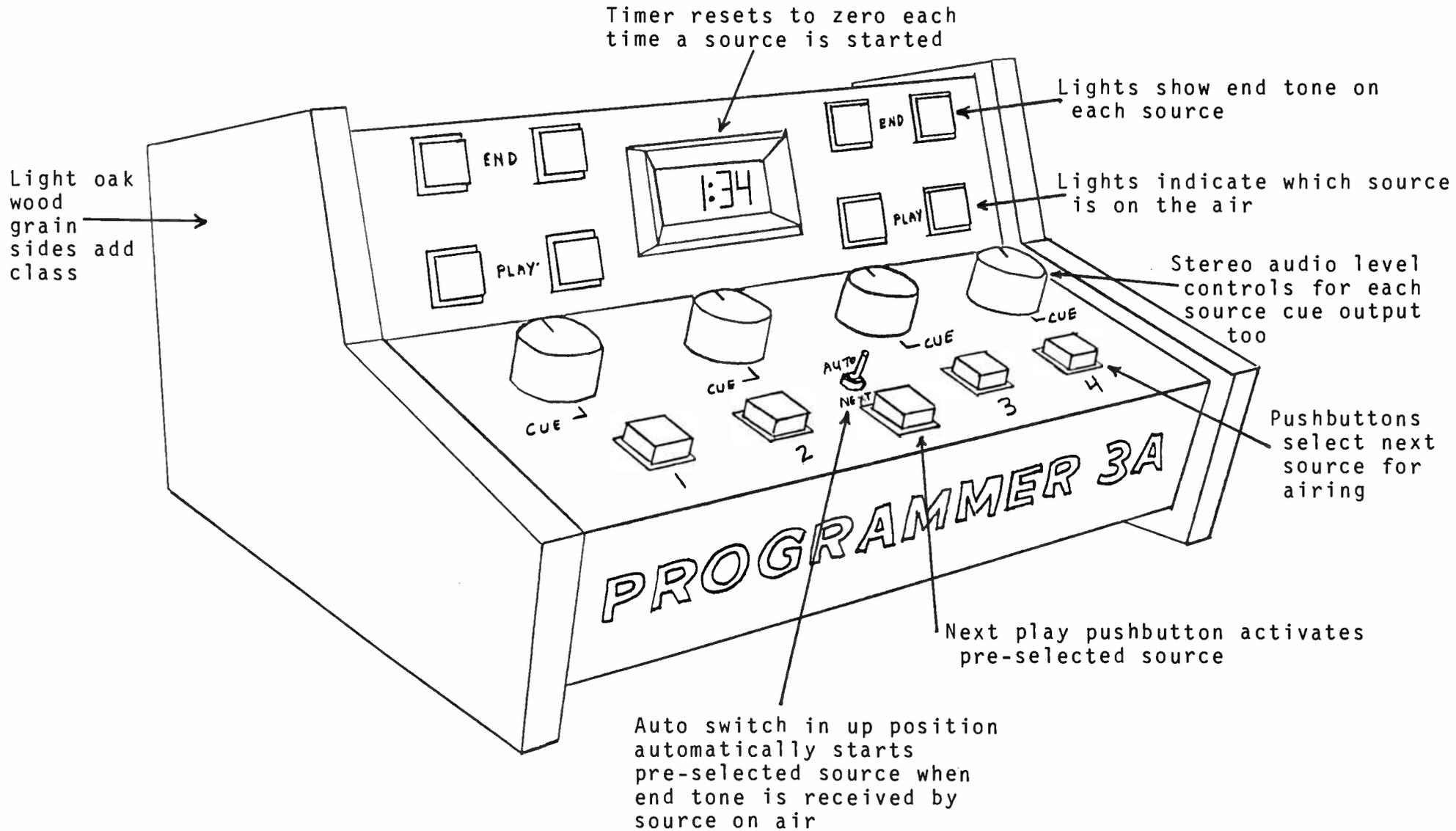
At least one station owner found that he could save a lot of money by having one announcer run his AM and FM formats. He did this by purchasing two Programmer 3A controllers with auto sequence options. The Programmers continuously go thru all source inputs in a 1-2-3-4 sequence until the operator interrupts the sequence to insert commercial announcements, etc.

When ordering, specify what machines will be used as source inputs so that necessary documentation can be provided to the customer.

We will be glad to work with the customer to make sure his needs are satisfied.



PROGRAMMER 3A LIVE ASSIST CONTROLLER





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## PROGRAMMER 3A AUTO SEQUENCE OPTION

The Auto Sequence Option gives the Programmer 3A the ability to automatically and continuously program sources in a pre-determined sequence. The option is normally wired to give a 1-2-3-4-1-2-3-4-etc. sequence of events. The option monitors the END (E.O.M.) signals and automatically presets the next upcoming event in the 1-2-3-4 order. This allows for six hours or more of walk-away time while the Programmer 3A handles the programming. A cartridge playback or playbacks can be connected to one source input in a format where three music decks are played, then a cartridge or two, then more music.

The Auto Sequence Option consists of a five transistor circuit mounted piggy-back on the Programmer 3A's logic board. In addition, the two position AUTO toggle switch on the front of the Programmer is changed to a three position switch. In its center position, the Programmer is used as a live assist where the operator pre-sets each music deck and then pushes the common start button to start the selected deck. In the down position of the AUTO switch, the Programmer will automatically sequay to the next selected deck when the END light from the previous deck is turned on. The up position of the AUTO switch gives full automation operation in the 1-2-3-4 sequence. To get the sequence going, start one deck, then present the next by touching its next play memory button. When the first deck stops, the Programmer will start the second deck and automatically preset the third. To stop auto sequencing, just move the three position toggle switch to its center position. The Programmer 3A will wait for further commands at the end of the source that is playing. Auto sequence operation can be started anywhere in the sequence and interrupted anywhere in the sequence. However, the sequence must follow a 1-2-3-4-1-2-3-4-etc. order. An operator can skip ahead in the sequence by touching a next play memory button for the deck he wants to play next. The Programmer 3A will pick up the sequence at that point and continue on.



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## P R I C E L I S T

August 18, 1986

### PROGRAMMER 3A

Programmer 3A Controller	\$ 990.00
SP-1 Recommended Spare Parts Kit	\$ 69.00
Standard Cabling Kit (Four 40 foot cables)	\$ 92.00
Odd Length Cabling (Cables are #22 6 conductor and one shielded pair)	\$ 0.46/ft/cable
Auto Sequence Option	\$ 250.00
Slave Option (Two Programmer 3A units connected together for eight source inputs)	\$ 250.00

### 25 Hz TONE PROCESSOR

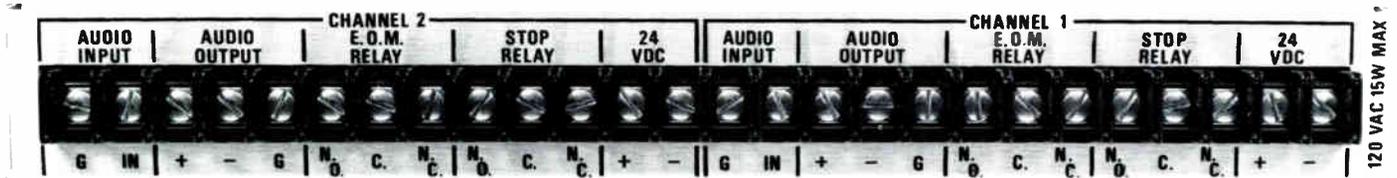
25Hz Tone Processor	\$ 390.00
Optional Output Transformers Installed	\$ 87.00/pr
Optional Active Balanced Outputs	\$ 75.00/pr
Optional Active Balanced Inputs	\$ 75.00/pr
Optional Front Panel Level Controls with Knobs Installed	\$ 51.00/pr
SP-2 Recommended Spare Parts Kit	\$ 36.00



# 25Hz TONE PROCESSOR\*



\*Dual 25Hz Tone Detectors and Dual Program Amplifiers with 25Hz Notch Filters.



Not just a pretty face. The 25Hz Tone Processor is versatile, easy to connect, and reliable.

# 25Hz TONE PROCESSOR

Designed and built to fill a need in the radio broadcast field, the 25Hz Tone Processor performs all tone handling functions required to interface a reel to reel recorder with an automation or live assist system. One 25Hz Tone Processor will handle one stereo or two monaural tape decks. Each 25Hz Tone Processor consists of two 25Hz tone decoders tied to two program amplifiers with 25Hz notch filters.

The 25Hz tone detectors offer accurate false-free recognition of tones. The stop delay timers are precise and repeatable. The program amplifiers utilize NE5533N high slew rate low distortion low noise opamps for transparent performance. All logic outputs are relay contacts for interfacing with any tape deck and system. Ingoing and outgoing terminations are brought to a convenient, clearly marked, terminal strip at the rear.

## SPECIFICATIONS

**Gain:** 4 DB loss to 16 DB gain adjusted by screwdriver trim controls or optional front panel controls with knobs

**Input Impedance:** 20K ohms resistive

**Output Impedance:** 600 ohms unbalanced. Output transformers optional

**Output Level:** +17 DBM into 600 ohm load before clipping

**25Hz Tone Sensitivity:** Adjustable -30 DBM to +10 DBM

**25Hz Tone Depth:** Greater than 40 DB typically 50 DB

**25Hz Notch Width:** 3Hz at 6 DB points. 6Hz at 3 DB points

**Frequency Response:**  $\pm 0.5$  DB 30Hz to 30KHz

**Signal to Noise Ratio:** 78 DB. Typically 80 DB unweighted

**Harmonic Distortion:** .1% max at +17 DBM. .03% typical

**4:1 Intermodulation Distortion:** 0.1% max at +15 DBM. .03% typical

**Power Requirements:** 120 VAC 50-60Hz 15 watts

**Power Available:** 24 VDC 50 MA on rear terminals for outboard devices such as the Programmer  
3A Live Assist Controller

**Dimensions:** 19" wide, 1 $\frac{1}{4}$ " high, 8 $\frac{3}{4}$ " deep, rack mounted

**Warranty:** One year limited

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## The 25Hz Tone Processor is:

A Dual 25Hz detector and dual program amplifier/25Hz notch filter. It will accurately detect tones and remove them from the programming.

One unit will convert a remote controllable reel to reel machine into the equivalent of an Otari ARS-1000DC or Revox PR99 reproduce only machine. One unit will convert two mono reel to reel machines.

Some users are interfacing cassette machines with the 25Hz Tone Processor.

The Processor was designed as a reel to reel playback interface for automation or live assist.

There are several automation systems using the 25Hz Tone Processor as a program amplifier. The 25Hz filter is only 6Hz wide at the 3 DB points allowing good bass response of the audio. This is far better than the usual 50Hz high pass filter that removes ALL bass. Maximum output per channel is +17 DBM or +23 DBM with the active balance output option.

A number of stations are using the 25Hz Tone Processor as a 25Hz detector and filter on satellite networks.

Logic outputs are "C" contact relays to interface with anything.

Options include transformer balanced outputs, active balanced inputs, and active balanced outputs.

We will be glad to work with the customer to make sure he gets the correct options to satisfy his needs.



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