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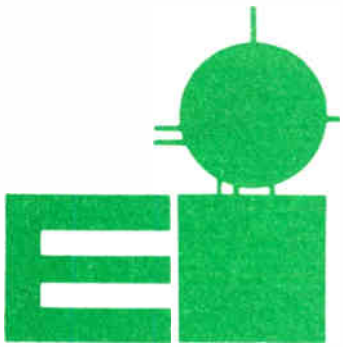

COMMON POINT®

A MONTHLY NEWSLETTER FOR BROADCASTERS

50 cents per copy

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Dial Telephone Remote Control and The FCC

By: John E. Leonard, Jr. President
GENTNER RF PRODUCTS

Some readers of Common Point have contacted me regarding the article presented here earlier this year on dial telephone remote control of broadcast transmitters. The question that has come up, and I am sure is in the minds of many readers is...
CAN IT REALLY BE DONE LEAGALLY?

The answer to this can be complex or it can be very simple. The simple answer is...
YES!!!!!

In this answer is, however, some underlying facts and assumptions. The first of these is a consideration of "legally".

With the FCC and the Rules and Regulations, "legally" can be considered a strong word. The Rules and Regulations are just that. They are NOT laws. They are guides from a regulatory body, not a law enacted by Congress. They do exist under the Communications Act of 1937. Let's not spend a lot of time on this point, but go on to the "meat-of-the-matter".

In November of 1984 the FCC, with Docket 84-110, drastically changed their requirements for remote control operation of a broadcast transmitter. That included ALL broadcast transmitters, AM, FM AND TV. This occured as a segment of the deregulation of broadcasting. In general, what happened is that we are no longer told how to do it. We're now not even told what to do.

This does NOT mean that you do not have to have remote control. It is, somewhat, left to you as the licensee as to what and how you will do it.

Two points that are not even directly related to how and what will be remote controlled have to be recognized.

These are -
Operator, EBS

There is no way you can have a transmitter on the air and not have a human operator at the studio, transmitter or a remote control point. This need is in the Rules, but more importantly, it stems from the Communications Act of 1937.

There is no way you can have a transmitter on the air and not comply with the EBS monitoring requirements for national alerts. Yes, participation in EBS is voluntary, but monitoring and going off the air duri a declared national alert are NOT voluntary.

Given we have to have an operator, it is implied that an operator have knowledge of how what he is controlling is operating. Here, we used to have detailed ways to accomplish this control. What transmitter parameters should be metered, what controls to have, and even how to cause the whole thing to shut-down if it wasn't working. Docket 84-110 eliminated all of this. The requirement for fail safe, the requirement of meters to match the transmitter meters, and the requirement of power raise/lower control were all eliminated.

Of course, we're no longer told how often to take meter readings. We don't even have to take meter readings.

With Docket 84-110 all we have to do is cease operation three hours from when we learn we can not observe the transmitter.

Before going further, it needs to be observed that the new remote control rules do NOT tel us that we have to do it any differently that we always have. What they do is enable you, as the licensee, to determine what observation your transmitter needs to insure you that its operating as it should. Taking meter readings every half-hour or every three hours never insured that the transmitter was operating properly. It only created a record, if done in a timely and correct manner, that could show that there appeared not to be a problem.

With the VRC-1000 we included metering capability not because it is an FCC requirement, but because meter readings are the best way available with current transmitters of making sure things are OK.

What dial telephone transmitter remote control has done is present information in a verbal manner just like we have been used to having from remote control systems for the last 30+ years.

You still have to have an operator and observe EBS needs.

One additional point that must be presented relates to possible interpretation of control. Fail safe was clearly

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Leonard - cont'd from pg. 1

eliminated from the Rules. If there's a national EBS alert (and your station is a non-participation station) or a call comes from the FCC saying your interfering with life and death communications, you should have a means of ceasing radiation. In a dial telephone environment, suppose you could not get the transmitter control system on the phone and thus not be able to turn it off. An alternate means of ceasing radiation could be desirable. This thought has come from john Reiser, Mass Media Policy and Rules. To do this, is again, not in the Rules, but makes sense and can be accomplished in many ways. Examples include an audio silence sensor, squelch relays on STL receivers, and the like.

We will answer any questions on this point and assist you in any way possible, but the best way to understand the Rules is to have a copy. Thus, the following are the only remote control Rules currently in existance.

*****

Radio Futures Committee Sets Mission and Goals

WASHINGTON, June 16. -- The Radio Futures Committee, a joint committee a joint committee of the National Association of Broadcasters and the Radio Advertising Bureau, held its first meeting Monday in Washington, DC, and adopted a statements of its mission and goals.

The mission is "to enhance the perception and awareness of radio."

The goals to be met in fulfilling that mission are: to increase the public's consciousness of radio, to increase radio's revenue share, to increase understanding by public officials and opinion leaders of the radio industry and its service to their communitites, and to increase the pride and professionalism of those in the radio industry.

The committee is co-chaired by NAB Radio Board Chairman Bev E. Brown, owner/manager, KGAS, Carthage, TX, and RAB Finance Committee Chairman Steven Berger, vice president, radio, Nationwide Communications, Columbus, OH.

*****

Editor's Notebook

In case you feel that one or more issues of Common Point didn't reach you, let me explain that Common Point took the entire summer off! There were no issues in July and August. We published a September issue, but because of technical difficulties in setting up our new Common Point Want Ad section, there was no October issue either. So maybe you did receive all available issues after-all!

Thanks for all your return cards from September and especially all the good comments regarding articles by Metz, Shepler, Persons and Bragg..they are much appreciated. Speaking of Dave Metz, he has left his position as C.E. at KWPC/KFMH in Muscatine, Ia and has moved to upstate New York. The real surprise is that he is no longer in radio, but selling some making equipment for a living and doing a very good job of it. He will be continuing writing for Common Point.

For those people wondering whatever happened to his first installment of "Building a Skimmer", that was run out of sequence in the May issue..then in June we ran "Remote Control part IV" which should have been the article for May, confused? Obviously so were we! Anyway "Building a Skimmer part II was run in the last issue (Sept.)

Don't miss John Leonards special Common Point article this month regarding the legalities of "Dial-up Remote Control." Its a good one.

From Mike, Mims, myself and the whole gang at Electronic Industries, Happy Thanksgiving!

Bob Stroebel, Editor

*****

Happy Thanksgiving

COMMON POINT READINGS

Shepler Says. .

by John Q. Shepler
Technical Consultant

NICE STUDIO FURNITURE

By: John Shepler

It's easy to build a superb looking studio even if you have no talent with saws and hammers.

A short while ago I helped a station rebuild their main control room. The place was a mess. Someone had simply fastened a kitchen counter top to a wall, propped it up with two by fours, and plopped the board, turntables, and cart machines on top. Wiring snaked around the announcer's chair to a rack which held the reel recorder and mod monitor. It was your typical ugly studio.

Rather than just replace the aging console, we gutted the place. The owner of the building put in new carpet and then the furniture was brought in. No homemade kludges this time - we hired a real carpenter and it really showed.

You would be surprised how good you can make a studio look for the price of a cheap tape recorder. Just about any town, no matter how small, has at least one carpenter who can build a plywood frame to your specs and cover it with attractive woodgrain laminate. You don't need solid oak or even kitchen cabinet style construction.

First, decide how you want the equipment arranged. Is your operation sit-down or stand-up? Do you need an interview table or will a simple "U" shaped console work best? Measure the dimensions of the room you will be using and draw a scale outline on graph paper. Then make paper cutouts to scale of major equipment and furniture. Move them around on paper until everyone is happy.

Once you have the plan, call in your carpenter to make the final measurements. The cabinets may have to be made in pieces to fit through the doorways. You bolt them together later.

The final touches are yours. Drill all wiring holes with special wood bits or circle saws to avoid cracking the veneer. Neatly bundle or stable the wires where they will not be damaged or seen. Leave enough slack so that you can move equipment around for maintenance.

One major advantage of working with a good carpenter is that you can create a very clean layout by designing the furniture to accommodate the recorders and control board you have on hand. It is possible to keep everything within arm's reach and yet have enough table space so that papers and coffee cups aren't laying all over the equipment.

Recently, companies have started up to produce equipment furniture specially designed for broadcasters. You should check into these to see if they can also meet your needs.

*****

Ratings & Research:
Where Should We Be Going?

What's happening now and what the future may hold for ratings and programming research were among top interests for standing room-only crowd at Thursday programming Radio '87 session on ratings & research. Panelist Bill McClenaghan, Capital Cities/ABC, NYC, reviewed Arbitron's early measurement days and noted that when it started measuring FM, it put that medium "on the map" and agencies started to buy. He said Arbitron has improved its service over the years, but others, notably Birch, have been able to challenge it successfully by using a backdoor approach -- starting small and gradually expanding.

*****

ENGINEERING INFORMATION

In these days of non-ionizing RF radiation hazard sensitivities by all concerned, I thought it might be prudent to investigate just how dangerous the field in and around our STL dishes might be. There is some reason to be concerned.

While it is quite safe to remain behind the STL dish, being out in front of the dish is a different story. For many of you that may not be a reality if it is tower mounted, but if you have the dish mounted on a roof and can walk in front of it -BEWARE!!!

The density of the field in front of the dish is dependent on the amount of power fed to the dish. 10 watts can generate a hazardous power density depending on the size of the dish. There is an area in front of the dish in the near field of the antenna where the maximum power density occurs. This is approximately halfway from the dish surface to the point where the far field is fully formed. It is obviously a broad area, not just a definite point.

The far field is also known as the Fraunhofer zone and is the area where field intensity starts to drop at the normal inverse square law distance.

If you're still with me, let's look at the fields we can expect in front of those STL dishes.

10 watts - 950 Mhz applied to dish feed

Dish Diameter	Distance to Max. Power Density	Max. Field-mw/cm2
4'	3.5'	3.2
6'	7'	1.6
8'	14'	.8
10'	21'	.5

Keep in mind that numerous RF hazard studies have been done in the vicinity of 950mhz in the ISM band. The fields at the sides of the dish are approximately 10db down from the point of max density while those behind are down 20db. Anytime there are fields above 1mw/cm2 there is cause for concern.

(This material derived from September 1985, Communication News, pages 29-33, by Charles McMurrow of Booz, Allen, & Hamilton).

*****

How to Convert to the NRSC Standard

As many AM stations are discovering, using the new NRSC standard significantly increases the quality of AM broadcasting, reduces interference, and leads the way to a new generation of AM radio receivers.

The necessary modification is to your AM station's main audio processor. This is the device that appropriately conditions your sound and feeds it to the AM transmitter. Because audio processors vary from station to station, the particular modification for your individual audio processor depends on (1) the age of the processor and (2) whether the manufacturer of the processor is supplying NRSC modification kits. The first thing to do is to identify the manufactuer of your station's main audio processor.

1. If you have a CRL, Gregg, Orban, or Texar audio processor. Contact the manufactuer or your broadcast equipment supplier. NRSC modification kits are available for all AM audio processors manufactured by these companies. The cost is typically less than $400 but will depend on your model of audio processor and especially, whether you broadcast in mono or stereo.

2. If you have any other audio processor (e.g., Aphex, Audimax/Volumax, Stalevel, DAP, Inovonics, etc.). You must buy a device that will enable your station to broadcast with the NRSC standard without purchasing a brand-new audio processor. These devices, called NRSC "post processors," are available from several manufacturers: CRL, Energy-Onix, and Inovonics. Contact these companies or your broadcast equipment supplier. The cost will be less than $700 but more if you broadcast in AM stereo.

So far, 158 AM stations nationwide have implemented the NRSC standard and modification kits have been shipped to nearly 200. If you are serious about improving the technical quality of the AM industry, the NRSC standard must be implemented as soon as possible.

*****

OOPS WE GOOFED

The last issue of Common Point featured an ad for the Max-Z remote unit with an incorrect price of $639.00 it should have been $896.50.

We wish to appolagize for the error and any inconvience it may have caused you.

Electronic Industries Inc.

NEW!!

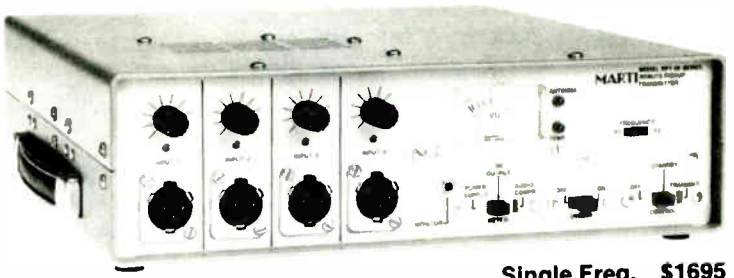
MARTI

MODEL RPT-30

REMOTE PICKUP BROADCAST TRANSMITTER

RPT-30 FEATURES

- ★ 20% more output power, 52% smaller, 40% lighter.
- ★ Subaudible encoder.
- ★ FM compressor-limiter.
- ★ Illuminated VU meter.
- ★ Dual-frequency capability.
- ★ Four balanced microphone mixing inputs, one switchable to balanced line level.
- ★ Flashing LEDs indicate antenna VSWR problems and over-temperature conditions.
- ★ FCC approved.
- ★ Continuous duty-broadcast quality.



Single Freq. $1695
Dual Freq. $1725

The MODEL RPT-30 is a light, compact, but powerful transmitter designed for remote pickup broadcast service. It will operate in **continuous duty** while providing **broadcast quality** audio when used with the MARTI CR-10 or AR-10 receivers. Operating from internal regulated power supply or external 11 to 13.5V. DC (negative ground) power, the RPT-30 delivers high performance in mobile, portable or fixed station applications. The RPT-30 is designed to operate with other Marti equipment to function in mobile repeaters, fixed automatic repeaters, base stations and transmitter to studio links (TSL). Four balanced inputs with mixing are provided. Input number four may be switched to balanced line level if desired. Other advanced features include a high performance FM compressor/limiter, subaudible encoder, dual frequency operation, illuminated meter, warning lights for antenna VSWR and temperature.

	System Specifications			
Type Emission	Receiver Model No.	System Freq. Response ±1.5 DB	Dist. %	S/N Ratio DB*
25F3	AR-10/150, CR-10/150	50-7,500	2	50
50F3	AR-10/450, CR-10/450	50-10,500	2	53
25F3	AR-10/450, CR-10/450	50-7,500	2	50
10F3	AR-10/450, CR-10/450	50-3,000	2	40
50F3	AR-10/450, CR-10/450	50-15,000	2	55

SPECIFICATIONS

NEW!!

Frequency Range and Maximum Power Output ..... 140-180 MHz - 45 Watts
200-260 MHz - 40 Watts
280-340 MHz - 35 Watts
400-480 MHz - 30 Watts
RF Connector SO-239
Operating Temp. Range ..... -10°C to +45°C
Modulation (Specify) ..... 10F3 (± 1.5 KHz Deviation)
25F3 (± 4 KHz Deviation)
50F3 (± 8 KHz Deviation)
Channels (Frequencies) ..... Two frequencies selected by switch. Freq. separation 1.1% max.
Frequency Stability ..... Mobile .0005% Base .00025% (above 400 MHz)
Spurious Emission ..... Meets FCC Requirements
Audio Inputs ..... Four Balanced microphone (150 ohm) inputs (XLR3) with mixing controls. One input switchable to balanced line level at mic. No 4 input and "D" connector on rear.
Modulation Control ..... Broadcast quality Compressor/Limiter built in.
Encoding ..... Subaudible tone (27 Hz.) encoder built in.
Metering/Indicators ..... Illuminated meter indicates audio compression, relative RF output, relative supply voltage. Flashing LED's indicate "Antenna" (VSWR) and high "temp."
Controls ..... (4) input level, meter sw., encode sw., power sw., frequency sw., monitor jack.
Power Requirements ..... 110-125 V. 50-60 Hz. (220 V. 50 Hz. available on special order) DC operation on 11-13.5 V negative ground.
Accessory Connector ..... 9 pin "D" connector for DC power, remote control, encode, line level input.
Weight ..... 12.4 lbs. net, 16 lbs. shipping wt.
Dimensions ..... 11.5 in. wide x 3.5 in. high x 13.3 in. deep

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

RPT-30 ACCESSORIES

Part Number	Description	Price
Crystal	Factory installed with original order - second frequency of DF	$30.00
MCD-70C	Microphone with 3-pin XLR-3 plug, 14' cord	$80.00
MCD-70D	Microphone with 3-pin XLR-3 plug, 9' coil cord	$80.00
TR-3	Antenna relay for RPT 30 for 2-way operation	$35.00
700-251	Mobile mounting kit for RPT-30, 4 mtg. fasteners with DC power plug, fuse & cable	$48.60
586-073	12' microphone cable for push-to-talk control of 700-251 mobile kit (requires MCD-70B mic.)	$18.00
586-074	DC power plug, fuse, cable for RPT-30	$19.50
585-037-1	Fixed repeat cable, CR-10 to RPT-30	$27.50
585-037-2	Mobile repeat cable, AR-10 to RPT-30	$27.50
700-253	Rack mounting kit for RPT-30	$19.50

ELECTRONIC INDUSTRIES INC.

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NAB Conditionally Supports FCC Plan For Nighttime Operation by Daytimers

WASHINGTON, July 30. -- The National Association of Broadcasters has told the Federal Communications Commission that it conditionally supports its plan to allow certain Class III daytime radio stations, and certain other daytimers on domestic clear channels, to broadcast at night. The Class III proposal originally was requested to 1986 by NAB and the Association for Broadcast Engineering Standards.

While urging the Commission to implement these proposals, NAB asked in its filing that the nighttime authority be granted on an "interim" basis because of the Association's growing concern over the increased amount of interference on the AM band. It said the stations should conform with the interference protection standards the Commission adopts following its current overall review of AM technical rules which the FCC initiated on July 16. NAB recommended that the FCC should make its rule change effective immediately upon the release of its decision or upon its publication in the Federal Register.

Additionally, NAB supports the agency's proposals to:

-- Exempt from the "minimum operating schedule" rules those daytimers obtaining nighttime authority in this proceeding, as well as those previously granted such authority for operation on the foreign clear channels;

--Cease its authorization of new daytime--only AM stations;

--Reduce the minimum power requirements for Class III stations on regional channels;

--Reclassify as Class III facilities those Class IV stations currently operating on regional channels.

*****

Florida Ad Tax Facing Ballot Test; NAB To Help Fund Anti-Tax Effort

Residents of Florida may decide the fate of that state's controversial tax on advertisers -- a tax Florida Association of Broadcasters (FAB), NAB, RTNDA, major advertisers and other groups have strongly opposed. Gov. Bob Martinez said last week he'll call for a state referendum on the tax, which has cost state tens of millions of dollars in lost conventions money since 5% levy was signed into law last spring (and took effect July 1). Dozens of media groups have cancelled proposed meetings/conventions within Sunshine State as long as tax is in effect; NAB is on record as excluding Florida as site for any future NAB meetings until tax is repealed.

Last week, Exec Committee approved additional $50,000 in funding to FAB for its anti-tax efforts, and also promised up to $50,000 in matching funds should FAB raise full $1 million it's hoping to achieve itself. (NAB does not normally fund state efforts, but Execs said ad tax issue has national implications)...Martinex plans to call for legislative special session in Tallahassee in September. If special session (which could decide to address tax directly and not prolong issue) okays placing question on ballot, voters will decide issue during March 8 "Super Tuesday" state presidential primary.

*****

YOUR HEADQUARTERS FOR ELECTRO-VOICE PROFESSIONAL MICROPHONES

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Shock-mounted
Variable-D® Cardioid
$204.00

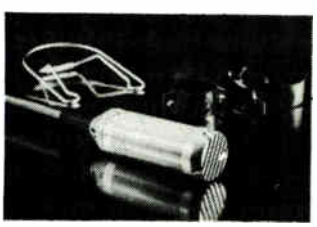
RE20
Variable-D®
Cardioid
$360.00

644
SOUND SPOT®
DUEL-Z
DYNAMIC
$188.00

RE15
VARIABLE-D®
SUPER-CARDIOD
$189.00

RE50
Omnidirectional
Noiseless, Hand-held
$108.00

RE55
Omnidirectional
$179.00



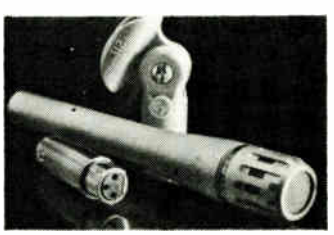
RE85
Noiseless Lavalier
$109.00

635A
Omnidirectional
$74.00

PROFESSIONAL CONDENSER MICROPHONE SYSTEMS

CO15P
Omnidirectional System
$219.00

CS15P
Single-D Cardioid System
$190.00



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CARDIOD DYNAMIC
WITH SWITCH
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PROFISSIONAL
MICROPHONE
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$374.00

Features
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- Phantom power
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Power Amplifiers
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ANTENNAS
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AUDIO CONSOLES
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Electro Voice/Tapco
Howe
LPB
Micro-Trak
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Ramko
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Shafer
Shure
Soundcraft
Tapecaster
Tascam
TOA
Urei

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Audisar
Sescom
Stancor

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Aphex
ATI
Broadcast Electronics
CRL
DBX
Dorrough
Energy-Onix
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Inovonics
JBL/Urei
LPB
Marti
Modulation Sciences
Orban Optimod
Ramko
Symetrix
Texar
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Valley People

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Audisar
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Shure
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Sanyo
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Tascam/Teac
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Nakamichi

EBS EQUIPMENT
Gorman-Redlich
TFT

FM TRANSLATORS
Robert Jones by Tepco

FM EXCITERS & STEREO GENERATORS
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Broadcast Electronics
Modulation Sciences
Optimod
TFT

HEADPHONES
AKG
Astrolite
Koss
R-Columbia
Sennheiser
Shure
Telex

JACK PANELS & PATCH CORDS
ADC
Gentner
Switchcraft
Symetrix
Tascam
Trimm

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Crown
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Numark
Sennheiser
Shure
Sony
Technics
Turner/Telex

MICROPHONES-WIRELESS
H. M. E.
Nady
Shure
Telex
Vega

MICROPHONE STANDS & ARMS
AKG
Atlas
Atus
Audio-Metric
Electro Voice
Luxo
Shure

MONTIORS
Belar
Delta
Gorman-Redlick
Inovonics
Potomac
TFT

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Quam
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Potter-Brumfield
Sigma
SSAC
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Celwave (Antennas)
GLB (Preselectors)
Marti
Scala (Antennas)

REMOTE CONTROL
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Delta
Gentne
Marti
Potomac
Symetrix
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STUDIO-TRANSMITTER LINK
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Eagle Hill

TAPE CARTRIDGE MACHINES
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Otari
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Broadcast Electronics
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Garner
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TAPE RECORDERS & PLAYERS
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Otari
Revox
Studer
Tascam/Teac
Tape-A-Thon
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TELEPHONE INTERFACES
Audio-Metrics
Comrex
Elgin
ESE
Gentner
Russco
Symetrix
Telex
Tellabs
Zercom

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Autogram
B & K
Coaxial Dynamics
Digi-Max
Electro Impulse
Fidelpac
Fluke
Potomac
Sennheiser
Simpson
Tektronix
Xedit

TONE ARMS
Audio-Metrics
Audio Technica
Broadcast Electronics
LPB
Micro-Trak
Russco
Technics

TOWERS & ACCESSORIES
Duro-Test (Beacons)
Fortworth
Kintronics
Micro-Trak (controls)
Pi-Rod
Rohn
SSAC (flashers)

TUBES & TRANSISTERS
Amperex
Econco
Eimac
General Electri
National
NTE
Phillips
RCA
(and All Major Brands)

TURNTABLES
Broadcast Electronics
Numark
QRK
Rek-O-Kut
Russco
Technics

TURNTABLE CARTRIDGES & STYLI
AKG
Audio Technica
Pickering
Shure
Stanton
Technics

TURNTABLE PREAMPS
ATI
Audio-Metrics
Broadcast Electronics
Micro-Trak
Radio Systems
Ramko
Russco
Shure
Stanton

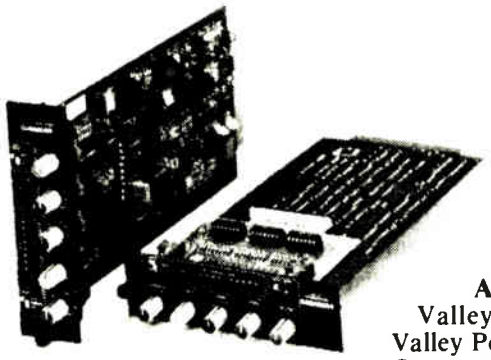
TRANSMISSION LINE & CABLE
Andrew
Belden
Cablewave

TRANSMITTERS-AM
CCA
LPB

TRANSMITTERS-FM
Broadcast Electronics
CCA
Energy-Onix
Q.E.I.

WEATHER RADAR & EQUIPMENT
Gorman-Redlich
Rodco
Si-Tex (Radar)
Taylor (Instruments)

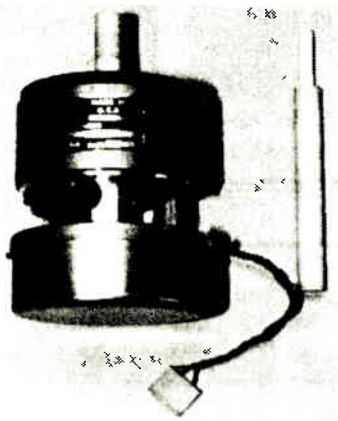
E.I. Spotlights On NEW PRODUCTS



Audio signal processor

Valley International (formerly Valley People) recently introduced its Commander, the sixth addition to its 800 series line of modular audio signal processors.

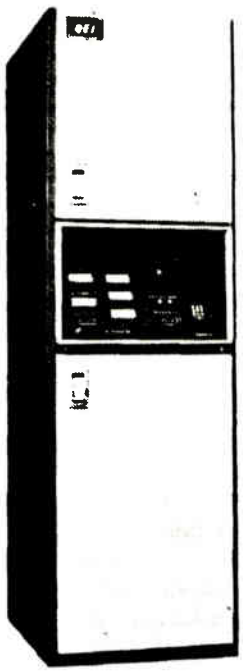
Proprietary symmetrical release coupling circuitry allows it to compress the audio signal for precise dynamic range control with complete freedom from noise level recovery.



Ceramic shafts for motors

AMP Services now has available new ceramic shafts for capstan motors, which it offers in conjunction with MCI capstan and reel motor remanufacturing and head relapping.

Motors receive new precision sealed bearings and brushes, commutator resurfacing, and more.



FM Transmitters

QEI's new FMQ-series FM transmitters are available in 3.5 kW, 5 kW and 10 kW models.

Each model is designed for quick field conversion to higher power levels.

The 10 kW model requires no more rack or floor space than the lower power versions —each is housed in a single 24" wide rack cabinet.

Each model employs a single tube in a grounded-grid design not requiring neutralization. The IPA section is a new modular solid state design.

The Sunshine Stations Between the Nations

by Bill Bragg

Thanks to a packet of donated material from Mr. John D. Price, this is the story of Dr. John R. Brinkley and his two "Border-blaster" stations -XER and XERA.

Dr. Brinkley began his controversial medical practice in 1923 on KFKB in Milford, Kansas. After a series of legal battles with the AMA and the Federal Radio Commission he was forced out of business until 1931. "You're only as good as your glands," Dr. Brinkley would say, and his attempts to replace human glands with those of a goat caused him no end of trouble.

After building a hospital in Del Rio and his own station in Villa Acuna, Mexico, Dr. Brinkley was back on the air, via XER with a power of 75,000 watts. Using a phone line, the broadcasts originated in Kansas, and the Doctor continued his practice until the Mexican government closed him down. After pulling some strings in Mexico City, Station XERA was established in 1938, and it was business as usual with a power of 500 KW. The transmitter was built by J. O. Weldon of Dallas, and using 320A tubes and a special antenna, the station is thought to have had an E.R.P. of 850 KW. The signal covered the entire country and completely blanked out WBZ in Boston. The towers buzzed with a deathly blue arc, and local citizens were unable to turn off their lights.

Goat glands made Dr. Brinkley a wealthy man, with an annual income of a million dollars. His mansion in Del Rio had a $20,000 pipe organ, and he wore $150,000 worth of diamonds on his person. His airplane was parked next to a fleet of 10 Cadillacs, and his private yacht required a crew of 21. The operation came to an end in 1941, when the Mexican government seized the transmitter. Dr. Brinkley died in 1942.

Using the old XERA site, station XERF is still on the air with 250 KW. Broadcasting from Ft. Worth, the friendly voice of Bill Mack can be heard nightly from 12:30 to 4:00 a.m. CST on ANY radio turned to 1570 KH. Bill's performing wardrobe is on exhibit at The National Broadcast Museum in Dallas, Texas.

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DESCRIPTION

LogiConverter is a logic interface unit that facilitates remote control of studio equipment. LogiConverter creates SPDT relay outputs from opto-isolated logic-level inputs. Four channels of control are provided. They can operate independently for 'start-only', or in pairs for 'start-stop' operation. Each channel can be user-programmed to generate momentary or maintained relay closure outputs with several modes of input control.

INSTALLATION

Connection to the four LogiConverter inputs is via the 'D' connector. All inputs are opto-isolated. Input voltages should be between 5 and 24 vdc. For connection to equipment that provides 'open collector' (ground-sink) interface, connect the '+' input to any terminal marked '+ 12V' on the D connector. Connect the '–' input terminal to the open collector, and connect any LogiConverter GND terminal to the emitter. All LogiConverter relay outputs are connected via the 12-terminal barrier strip on the unit.

PROGRAMMING

LogiConverter has 24 possible modes of operation...read carefully!

The four input/output channels can operate independently (start-only) or in pairs (start-stop). If start-stop pairs are selected, channels 1 and 2 are paired, and channels 3 and 4 are paired. The various modes are determined by 8 'dip switches' within the unit, referred to as SW1 through SW8. (See parts layout.) The functions of SW1 through SW8 are detailed below:

SW1 Selects input mode of Chan. 1
SW2 Selects input mode of Chan. 2
SW3 Selects output mode of Chan. 1
SW4 Selects output mode of Chan. 2
SW5 Selects input mode of Chan. 3
SW6 Selects input mode of Chan. 4
SW7 Selects output mode of Chan. 3
SW8 Selects output mode of Chan. 4

The first four switches (SW1-SW4) affect channels 1 and 2: SW5-SW8 affect channels 3 and 4 identically.

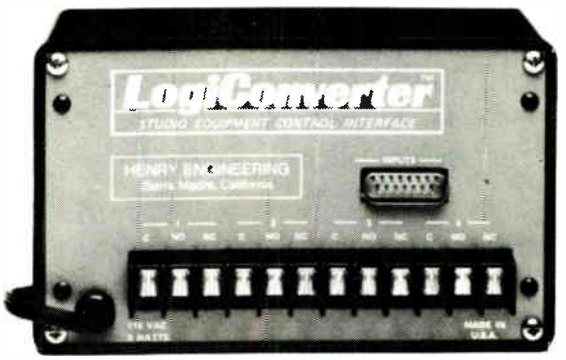
Each channel has an 'input mode' switch associated with it. Chan. 1 has SW1, and Chan. 2 has SW2. Since channels 1 and 2 can operate as a pair, these switches affect both inputs.

For independent (start-only) operation, Both SW1 and SW2 must be OFF. An input at Chan. 1 will produce an output at Chan. 1; an input

Cont. to pg. 12

LogiConverter™

STUDIO EQUIPMENT CONTROL INTERFACE



LOGICONVERTER is an interface unit that facilitates remote control of broadcast studio equipment. It eliminates the incompatibility often encountered when a broadcast console is used to provide remote start/stop control of peripheral equipment, e.g., cart machines, CD players, tape recorders, etc. LogiConverter converts TTL/CMOS or 'open-collector' console outputs to relay closures for remote interface that is *compatible, reliable* and *isolated*. It (a) isolates the control circuitry and (b) translates the logic to best suit the device being controlled. All LogiConverter inputs are *opto-isolated*; outputs are SPDT (Form C) relay contacts. The unit can be user programmed via internal 'dip switches' to generate either momentary or maintained outputs from various inputs, with 24 input/output combinations possible. LogiConverter will control up to 4 circuits, and can provide start-only or start-stop outputs from a single input signal.

- ALL INPUTS ARE OPTO-ISOLATED
- ALL OUTPUTS ARE RELAY-ISOLATED
- USER-PROGRAMMABLE LOGIC TRANSLATION
- COMPATIBLE WITH TTL/CMOS/OPEN-COLLECTOR LOGIC
- INPUTS/OUTPUTS CAN BE MOMENTARY OR MAINTAINED
- START-ONLY OR START-STOP FROM SINGLE INPUT SIGNAL

HENRY ENGINEERING
Sierra Madre, California

Henry Engineering is pleased to announce a new product: LogiConverter!

LogiConverter is an 'engineering problem solver'. It's the solution to interfacing incompatible studio equipment: consoles, cart machines, CD players, skimmer cassette decks, reel-to-reel recorders, etc, etc.

Have you ever had a customer gripe because he couldn't connect the 'remote start' output of his console to operate the skimmer deck? Or that the R-R recorder wouldn't interface with the 'open collector' remotes on the board? LogiConverter is the solution!

LogiConverter converts those unuseable 'logic' outputs to relay contacts, for remote control that is compatible, reliable, and isolated. It works with any console...and makes remote control work with anything. One unit will handle up to four channels of control. It's easy and inexpensive.

Please take a moment to read the brochure. I have also included a copy of the users manual. If you need more information, just call.

LogiConverter is IN STOCK NOW. List price: $195.00.

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Cont'd from pg. 12

at Chan. 2 will produce an output at Chan. 2. There is no interaction.

These are two modes of paired (start-stop) operation: Non-Latching and Latching. If Non-Latching is selected, an input at Chan. 1 will cause an output at Chan. 1. Removing the input from Chan. 1 will cause an output at Chan. 2. This mode is recommended for maintained input signals only. To select this mode, SW1 should be OFF and SW2 should be ON. The Chan. 2 input is not used with this mode.

If Latching operation is programmed, an input at Chan. 1 will cause an output at Chan. 1. Additional inputs to Chan. 1 will produce no output; an input at Chan. 2 must be applied to reset the latch, which will also cause an output at Chan. 2. To select this mode, SW1 and SW2 must be ON.

Each channel has an 'output mode' switch: Chan. 1 has SW3 and Chan. 2 has SW4. If SW3 is OFF, the Chan. 1 output relay will produce a momentary closure. If SW3 is ON, the relay closure will be maintained for the duration of the input signal. SW4 affects Chan. 2 in the same way, as does SW7 for Chan. 3 and SW8 for Chan. 4.

"D" CONNECTOR PIN-OUTS FOR ALL INPUTS

Pin 1 - Input 1, +
Pin 2 - Input 1, –
Pin 3 - Input 2, +
Pin 4 - Input 2, –
Pin 5 - Input 3, +
Pin 6 - Input 3, –
Pin 7 - Input 4, +
Pin 8 - Input 4, –
Pin 9 - +12V
Pin 10 - GND
Pin 11 - +12V
Pin 12 - GND
Pin 13 +12V
Pin 14 - GND
Pin 15 - +12V

All inputs: 5-24vdc, 200ms length minimum.

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Cont. to pg. 14

NAB Exec Committee: Future Technology, Hall of Fame, Music Licensing

NAB Exec Committee announced initial plans Wednesday for forum for NAB officers to hear from experts on leading edge of tomorrow's communications, on what broadcast industry must do to take full advantage of future technology. "NAB must take the leadership role in charting the course of broadcasters as we look to the future," said Joint Board Chairman Wally Jorgenson, Jefferson-Pilot Communications, Charlotte, NC. He cited flat satellite antennas, fiber optics and new radio technology amoung timely issues that NAB will closely follow for the benefit of its members and the industry. "Futures Retreat" will likely be conducted in early '88...Also at its monthly meeting last week, Exec Committee broadened role of current NAB Radio Hall of Fame to include television inductees. New name: Broadcaster Hall of Fame ...Exec Committee agreed to help reorganize structure of All-Industry Radio Music Licensing Committee, at the request of licensing committee.

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AM Stereo Receivers...Types and Models

From time to time we are asked where AM stereo receivers can be obtained. Here is a list of AM stereo receivers we obtained from Motorola and Kahn. If you are interested in any of these receivers, ask for one from your local automotive electronics retailer or automobile dealer.

Manufacturer	Type or Model Number	Notes
AMC/Jeep/Renault	Electronic Tuning Receivers	Automobile
Acura	Standard on Legend	Automobile
Alpine		Australia
American Audio	ET-8602	Automobile
Audi		Automobile
Audiovox	CPDGQ	Chrysler Equivalent
	GMADGQ	GM/Delco Equivalent
Becker		Automobile
Blaupunkt	Tucson SQR06, Berlin TQR07	Automobile
Brentwood	CR70, CR75	Automobile
Carver	2000 Professional Series	Home Receiver
	TX11A	Digital Tuner
Clarion	990E, 8900RT, 8925RT, 9425RT	Automobile
	AUDIA Series 200, 200E	
Concord	HPL-550	Automobile
Eurovox	MCC2301R, MCC233OR	Automobile (Australia)
Ford/Lincoln/Mercury	E5VY - 18806B, C, E	Dealer Option
	E5TZ - 18806B, C, E	
	E5ZZ - 18806B, C, E	
Chrysler/Plymouth/Dodge	4311687, 4311686 (RAN)	AM Stereo automatically
	4311102, 4311103 (RAY)	included in all new domes-
	4322827, 4311828 (RAL)	tically built Chrysler Corp.
		vehicles having FM stereo.
GM/Delco	UX-1, UT-4, YE-2	Available as factory or
		dealer-installed option on
		most GM cars and trucks.
		Standard on some models.
Grundig	UC-436	Automobile
Kahn Consumer Products		Home Tuner
Kenwood	KRC-8001	Automobile
Kraco	ETR-1090, ETR-1084	Automobile
Majestic	MCR 84900	Automobile
Marantz	SR-440, SR-640, SR-840, SR-940	Home Receivers
Mazda	Standard in RX7	Automobile
Mercedes	Grand Prix	Automobile
Mitsubishi	DX4, JX3, MX4	Automoile
	DAR56	Home Receiver
Nissan	Maxima	Standard
Omnivox	CR620	Automobile
Peconic		Automobile
Pioneer		Australia
Pro-Line		Tuner
Radio Shack	TM-152 (31-1967)	Home Tuner
	12-1923	Automobile
Rolls Royce		Automobile
Saab	Standard in 900 Turbo SR	Options in others
Sansui		Australia
Sanyo		Portable
Sharp	RG-B914 (Bk)	Automobile
Sherwood	CRD-180, CRD-210 CRD-350	Automobile
Sony	XRA-37	Automobile
Soundtech	ST850	Automobile
Sparkomatic	SR-420, SR-425, SR-430	Automobile
Sunkyong	SIR-7900, SIR-8100	Automobile
Toyota	5625 (MR2), 5627 (Cressida)	Standard
	1626 (Supra/Celica GTS)	Also available on other vehicles
Volkswagon	SC-99 ETR, SC-73 ETR	For Golf and GTI
Volvo		Automobile

High Definition TV Moves Forward

WASHINGTON, Aug. 28. -- The National Association of Broadcasters' High Definition Television Task Force has approved expenditures for the first portion of its comprehensive feasibility study and implementation plan. They were approved at its meeting yesterday following a presentation of a detailed timetable by NAB's Science and Technology Department.

The presentation involved concurrent work in seven areas of activity, including propagation tests, standards development, spectrum studies and demonstrations. The Task Force subsequently recommended funding for specific projects which will require approximately $200,000 through the first quarter of 1988. The recommendation draws upon the reserve of $700,000 over two years which was established in June by NAB's Board of Directors for HDTV projects.

NAB Television Board member and Task Force Chairman William G. Mall, president/CEO, Harte-Hanks Television, San Antonio, TX, said:

"These initial funds are required to move forward quickly in this area of great significance to terrestrial broadcasters and to be responsive to the Notice of Inquiry recently issued by the FCC.

"Both aspects of this undertaking--the development of information and standards on high definition television and the protection of spectrum to accommodate the technology which is ultimately developed--are absolutely vital. The NAB funding is expected to be supplemented by substantial contributions of manpower and equipment from the television industry, which will be coordinated by the Task Force."

The Task Force plans to meet again in approximately two months. At that time, in its oversight role, one of the items on its agenda will be to review suggestions of its technical subcommittee which is planning and monitoring the individual activities of the overall effort.

NAB's Executive Committee approved the Task Force's recommendation, noting that these were the types of expenditures contemplated by the NAB Board when it established the reserve.

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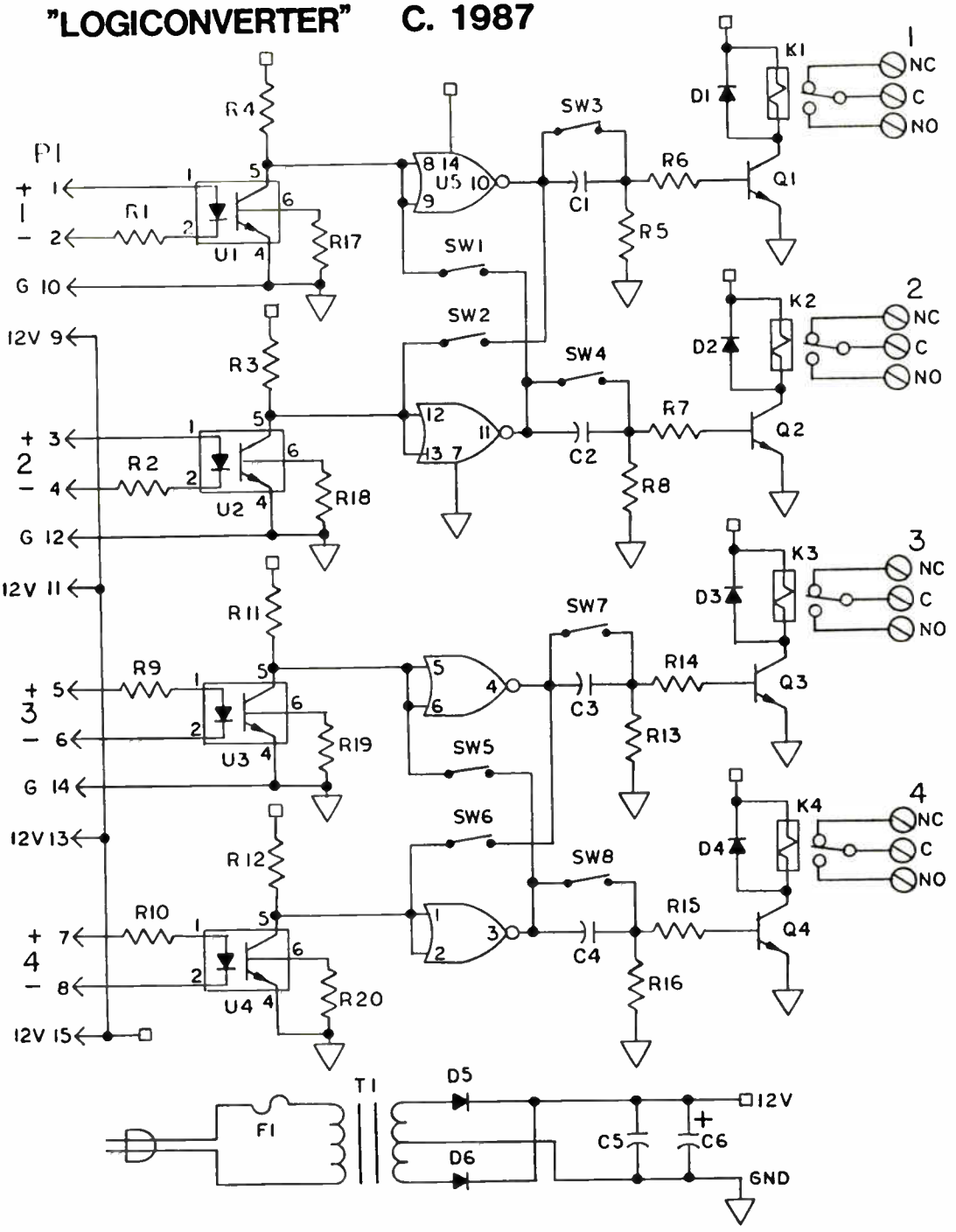
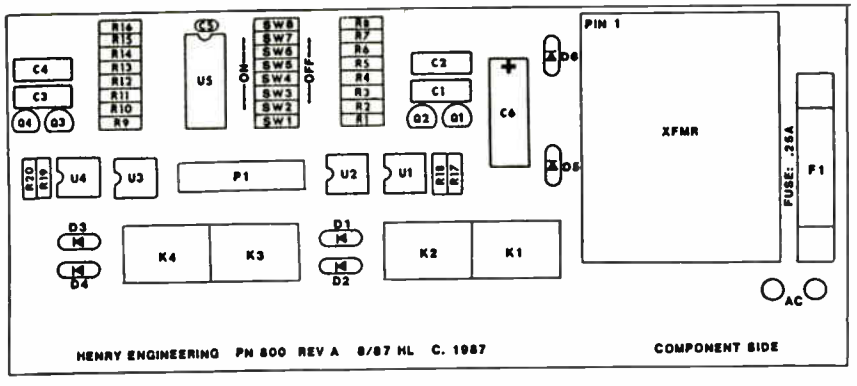
"LOGICONVERTER" C. 1987





PARTS LIST:

R1,2,9,10	1K
R3,4,11,12	10K
R5-8, 13-16	100K
R17-20	1MEG
C1-C4	1.0uf
C5	.1 uf
C6	470uf
D1-D6	1N4004
F1	.25amp
K1-K4	12v RELAY
Q1-Q4	2N4401A
U1-U4	4N25
U5	CD4011B

EI Want Ads

WANTED TO SELL

Two Carousels, Best Offer. M. Lange, WZDM, 1309 Old Orchard Rd., Vincennes, IN 47591. 812-886-5012.

McMartin B910 Exciter with stereo card and some spares on 102.9 MHz. $1,000 P. Jellison, WBLY/WAZU, 117 S. Fountain, Springfield, OH 45502. 513-324-5643.

Rust Remote Control unit, Best Offer. M. Lange, WZDM, 1309 Old Orchard Rd., Vincennes, IN 47591. 812-886-5012.

ERI 25kw Iso-Coupler on 102.9 MHz. Can be re-tuned. $2,000. P. Jellison, WBLY/WAZU, 117 S. Fountain, Springfield, OH 45502. 513-324-5643.

Tower, 309', 24" face, will support 6-bay FM Antenna & 3" line, insulated for AM, beacons included, Approx. 10 yrs. old, insulated for AM. You take down, $3000. P. Jellison, WBLY/WAZU, 117 S. Fountain, Springfield, OH 45502. 513-324-5643.

Audio Metrics S-220 tone arm, new, but not packaged, $29.95 as is. Call E.I. 800-558-0222 or 800-445-0222.

Tellabs 4425 Dual Repeat Coil Card, New, $44.00. Call E.I. 800-558-0222.

STL Azimuth & Level Set Test Cart, 12,500 Hz, NAB format, stereo, Audiopak A-2 cart, new, $15.00. Call E.I. 800-558-0222.

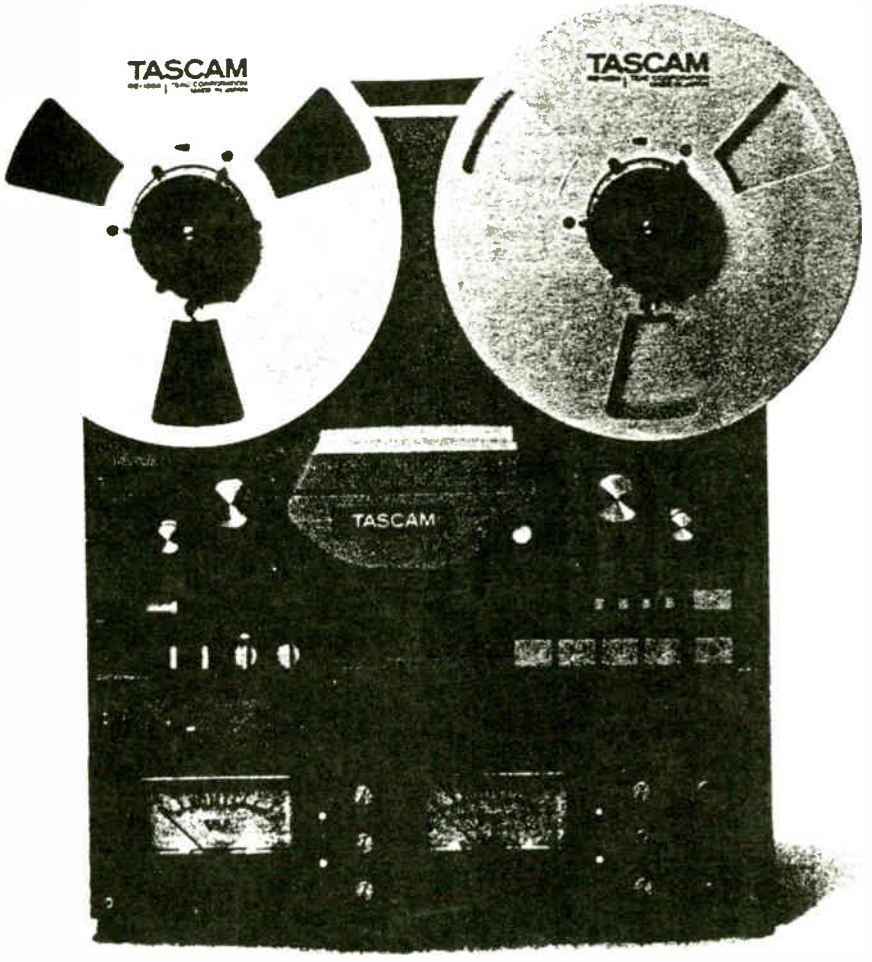
STL Q Track Test Cart with primary, secondary and tertiary tones at standard level, 500 ms. bursts, Audiopak A-2 cart, New, $20.00. Call E.I. 800-558-0222 or 800-445-0222.

Bud RC-7758 casters, extra-heavy-duty type for Bud Series 60, 2000, and Concorde cabinet racks, ball-bearing 3¼" wheels of hard tread composition, 200 lbs. load rating, 4-hole mtg. $6.00 each. Call E.I. 800-558-0222. (6 left).

Broadcast Electronics 5302 3-deck mono playback with cue tones, new, $3150 Call E.I. 800-558-0222.

FOR SALE: Septemation X-7 Automation System, 8 track cassette decks, computer for air play, computer for production, Nakamichi cassette deck for production like new..great for satelite, 19,000 new -will deal. Phil Bausch, KTTT, Columbus NE 68601, (402) 564-2866.

On time. On budget. On air.



The Tascam 42B makes other 2-track recorders seem downright slow.

That's due in part to an ingeniously accurate tape handling system, and in part to Tascam's unique head technology. (Its heads provide sync response fully equal to repro, so you don't waste time rewinding to make audio decisions.)

And because the 42B probably offers more features per dollar than any equivalent machine, it makes everything else seem downright expensive, too. (+4 dBm balanced inputs and outputs, plus easy-access calibration are just a few of its standard features.)

For more information, call or write about the Tascam 42B today. It's a new and vastly improved way to keep meeting your deadlines.

And your budgets.

TASCAM

CALL

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