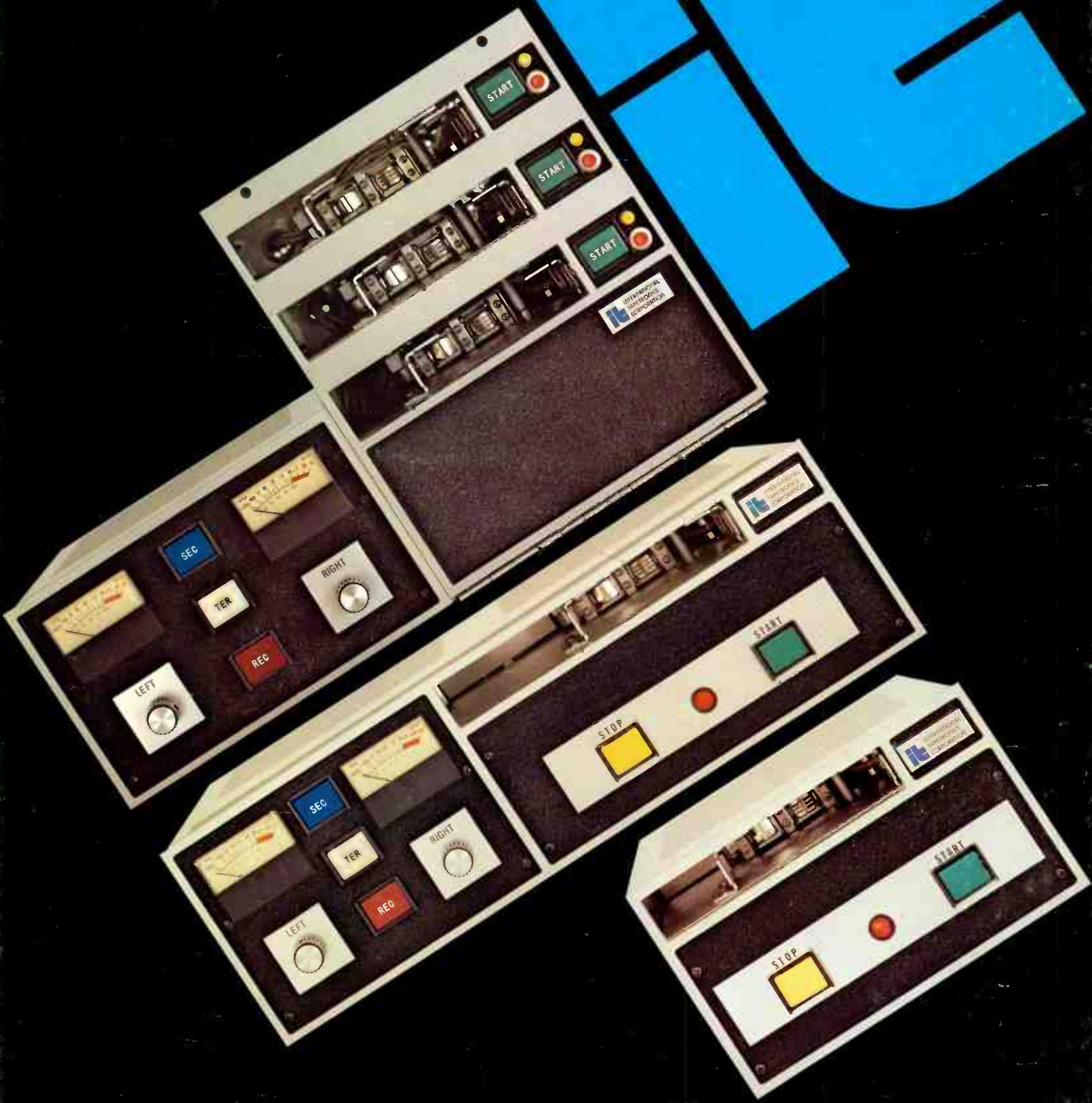
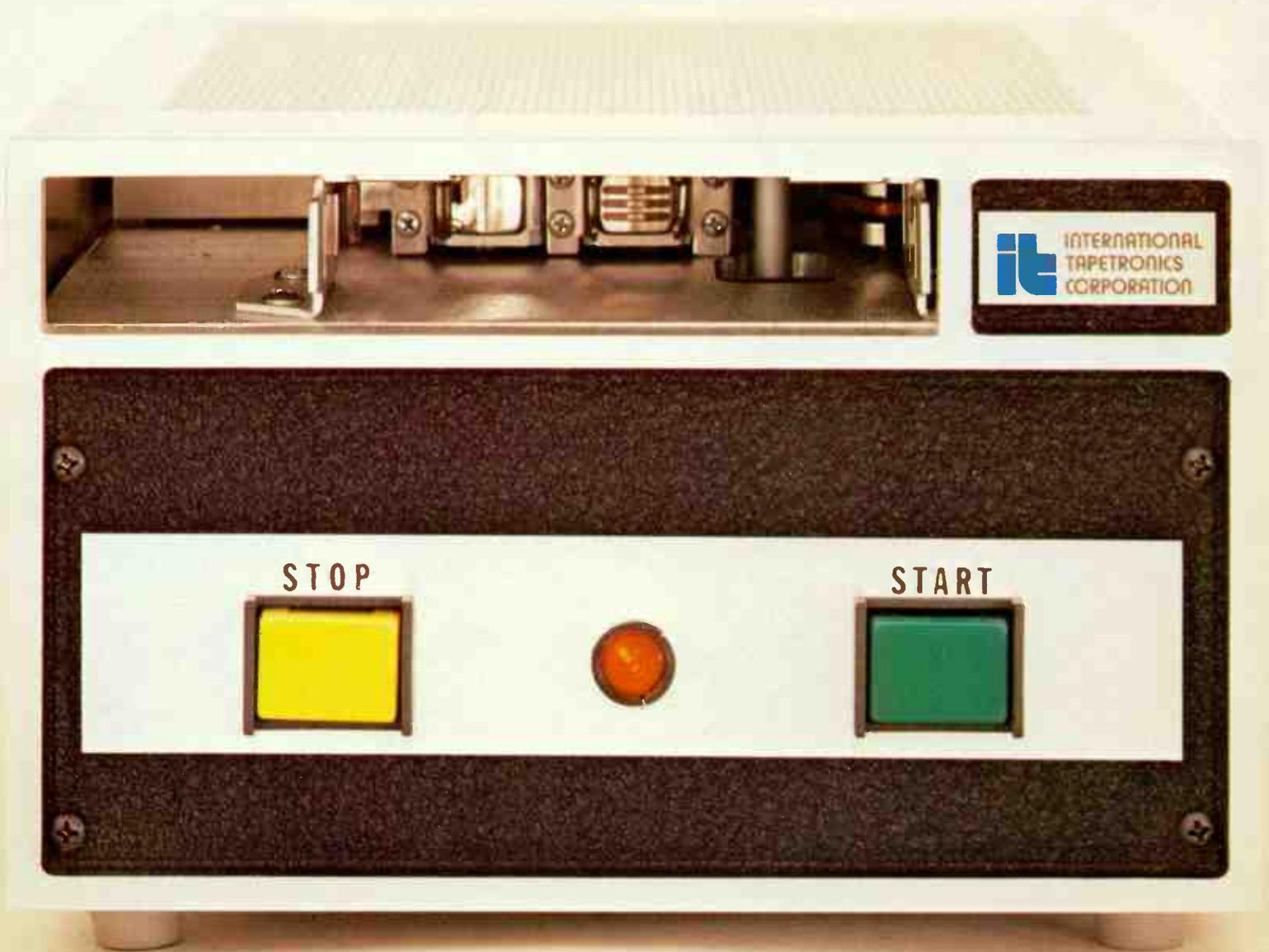


# IF





The SP Reproducer is the most widely used cartridge machine in the broadcast industry. More than 8,000 are in use today. It is ruggedly built, totally dependable. This compact machine uses NAB "AA" and "BB" size cartridges.

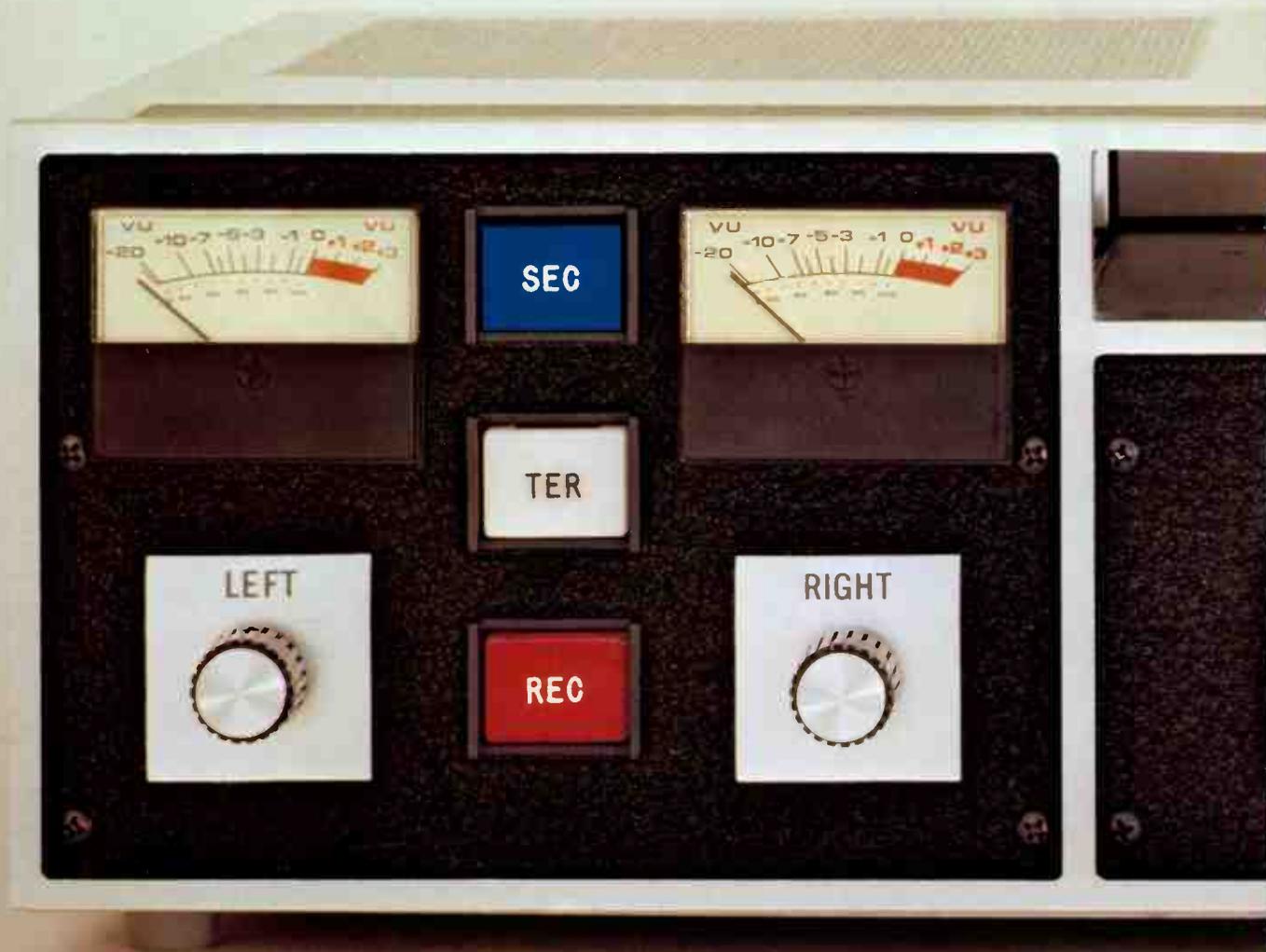
# SP/WP



WP Series Reproducers accept the NAB "AA", "BB" and "CC" size cartridges, and have provision for accepting recording amplifier electronics for ready conversion to recorder/reproducer.

For more than a decade — broadcasters have purchased more ITC machines than any other brand. The Record: Three out of five broadcast cartridge machines sold world wide are ITC machines — 60%! Over 25,000 Premium Line cartridge machines are in use today. Every year, 500 additional stations become ITC customers. The state of the art has changed dramatically in the last decade, and the Premium Line has evolved with the times. Today, Premium Line machines employ many revolutionary features, including ITC's new playback head, head module, cartridge guidance system and pressure roller. The philosophy of the Premium Line remains the same: evolution, dependability, ruggedness, simplicity and serviceability. Today, broadcasters have both new and well established reasons for choosing ITC Premium Line cartridge machines.

The  
ITC  
Premium  
Line takes  
another  
giant  
step  
forward



The RP Series Master Recorder-Reproducer combines the playback features of the SP/WP with the RA Series recording amplifier to provide a compact recorder/reproducer offering those features most

# RP &

wanted by broadcasters. The RPD Series provides the additional capability of program delay.



# RPD



The RPD provides a third head and two separate playback systems, including amplifier, VU meter, output transformer, and output connector. This separate "Delay" system avoids loss of audio quality.

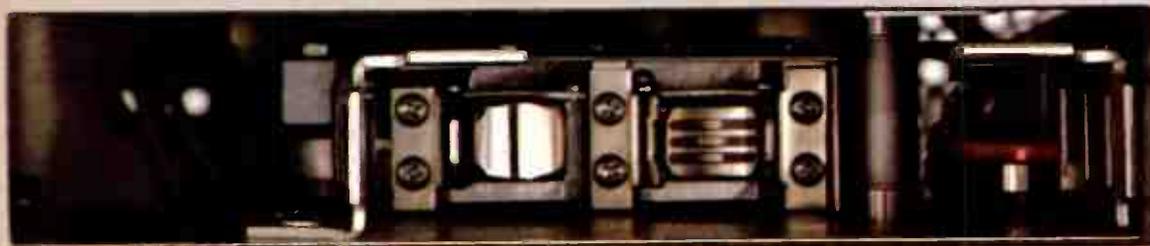
# 3D & WRA

The 3D Series provides three cartridge reproducers in the space ordinarily taken by two, and at less than the cost of three SP machines. All three decks may be operated at once, supplying independent

audio and control information.

Add the WRA Series Recording Amplifier and the bottom deck of the 3D machines functions as a complete recorder/reproducer.





**it** INTERNATIONAL  
TAPETRONICS  
CORPORATION



### **Synchronous Motor System**

A powerful, high-quality direct-drive capstan motor. Dynamically balanced with permanently lubricated ball bearings. Results: highly stable speed accuracy, minimum wow and flutter and no lubrication.



### **Vapor-Honed Capstan Shaft**

The large-diameter shaft is formed of hardened steel, chrome plated and microscopically roughened to enhance pulling force.

# Evolutionary:

Outstanding features common to the ITC Premium line of cartridge machines.



### **Stable, Machined-Aluminum Deck**

The Premium Line deck is milled from half-inch thick, solid aluminum tool plate. Unlike die castings, which may take years to stabilize, it will not warp or groove. The thick plate is machined on numerically controlled mills for absolute precision and uniformity. The deck is then anodized to harden the cartridge slide surfaces and to provide a durable, attractive finish. This heavy-duty deck plate gives Premium machines their exceptional rigidity.

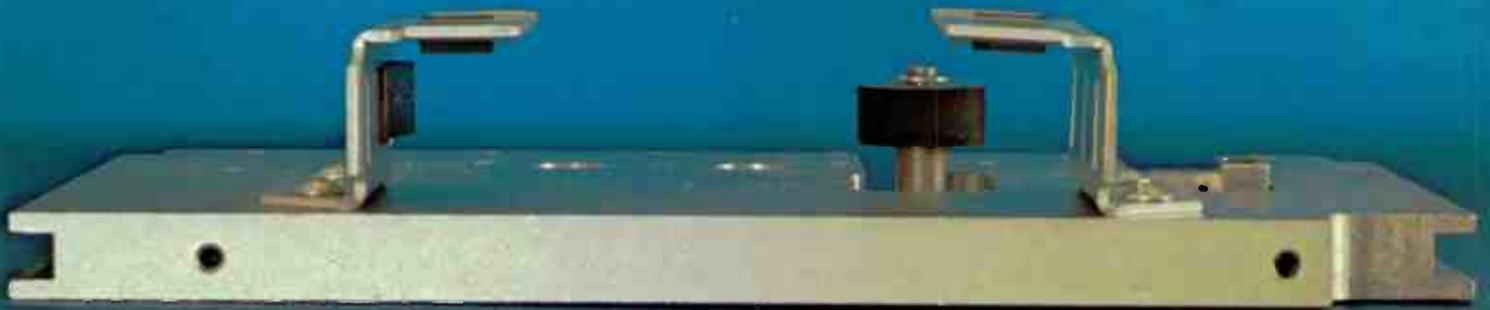
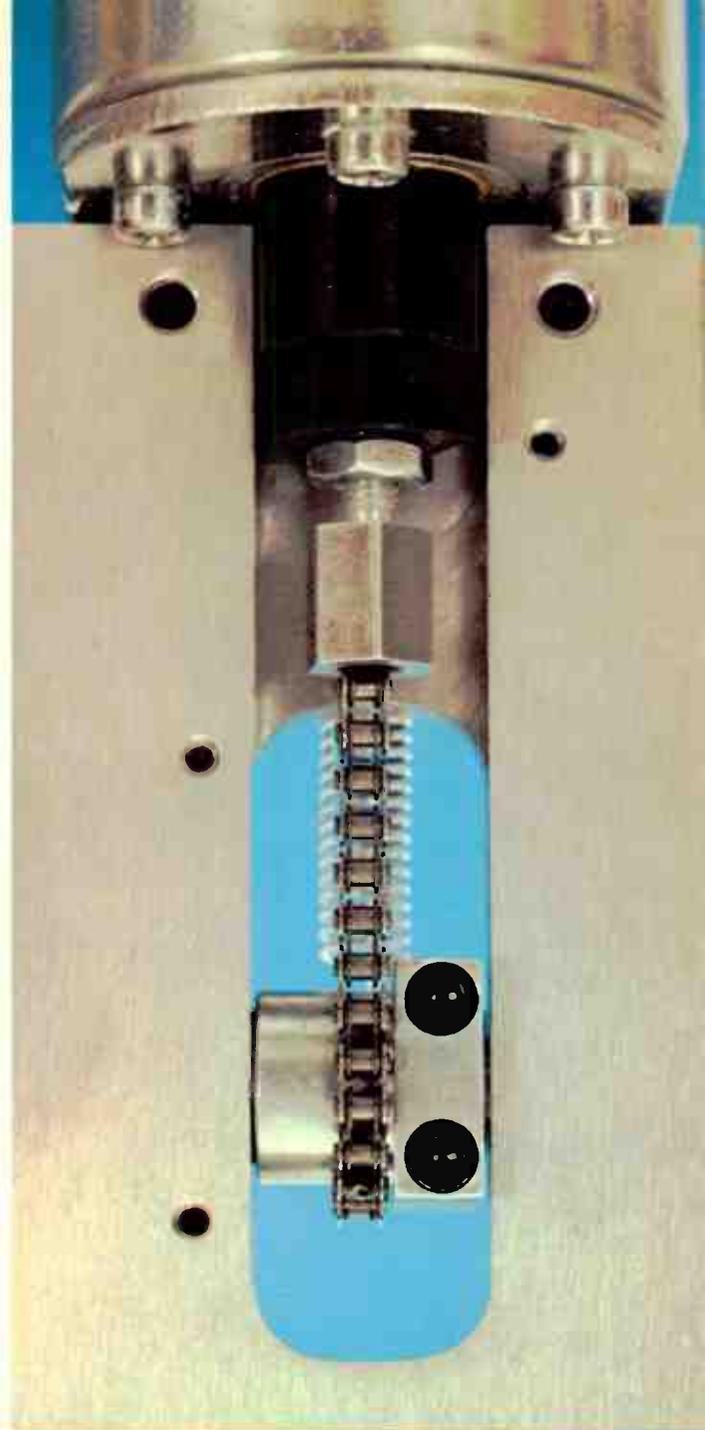
### Air-Damped Solenoid

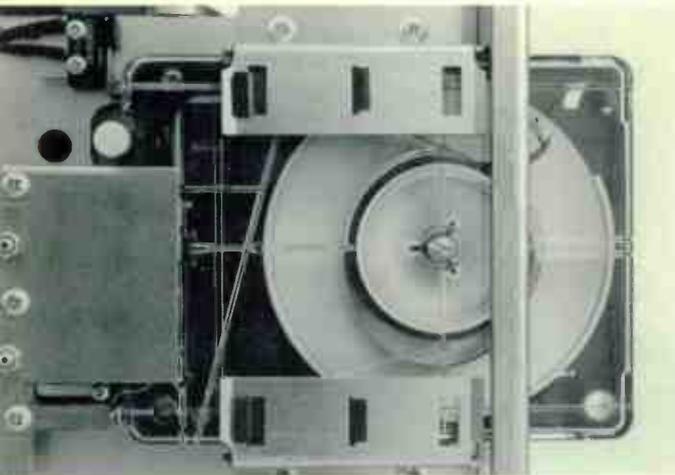
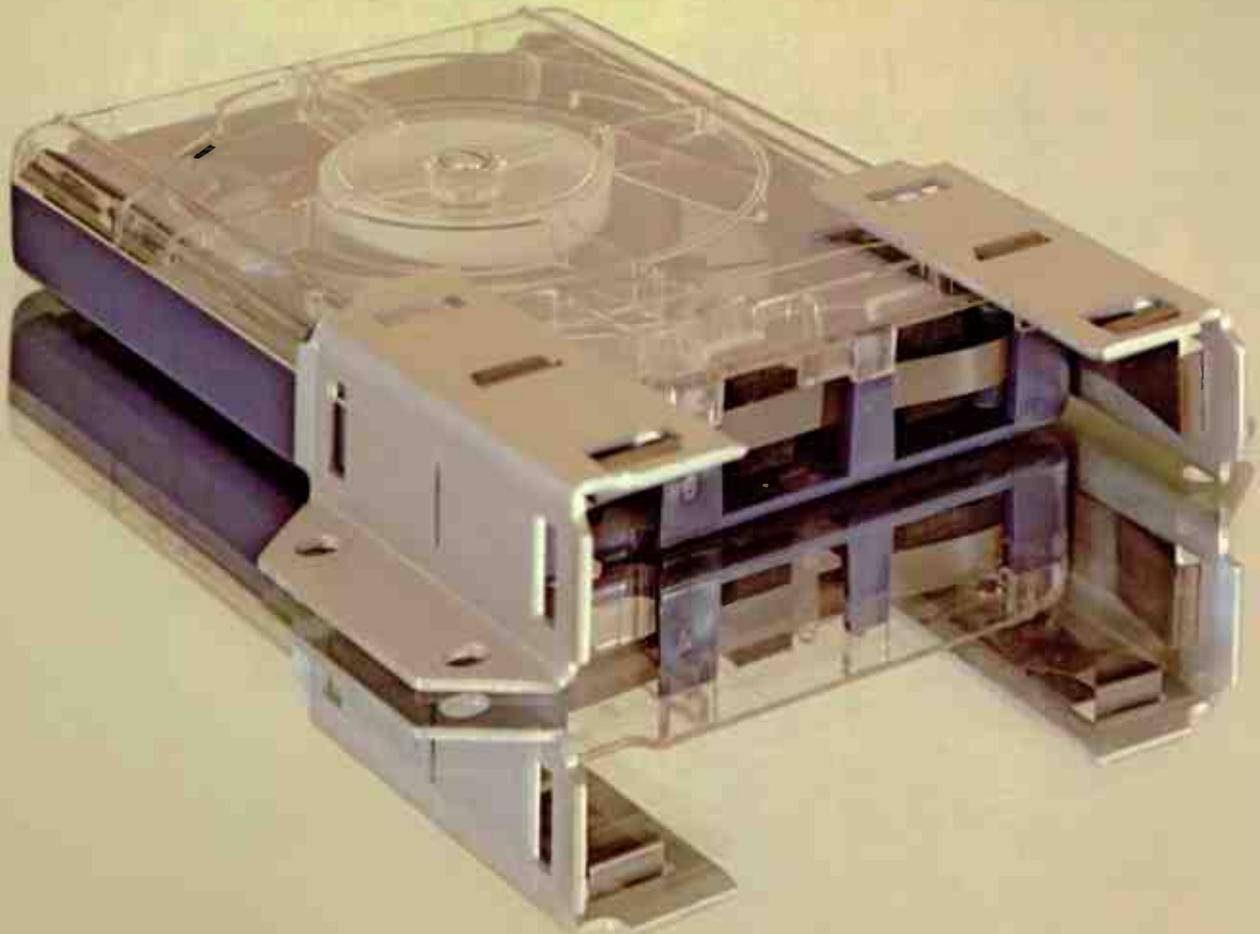
A powerful, whisper-quiet, electro-mechanical system that provides consistent positioning of the pressure roller for tape drive. The plunger is Teflon®-coated to eliminate the need for lubrication or cleaning. The mechanical linkage between solenoid and pressure roller is a chain and sprocket design — simple, with a minimum of parts.



### Improved Electronics

Improved electronics optimize the performance of Premium Line playbacks. The squelch circuit in the amplifier has been improved. Carbon film resistors used in audio circuits improve noise performance. The PC boards are single-sided, with improved, single-turn potentiometers. Components are spaced to permit easy repair. Plug-in PC cards are used extensively.





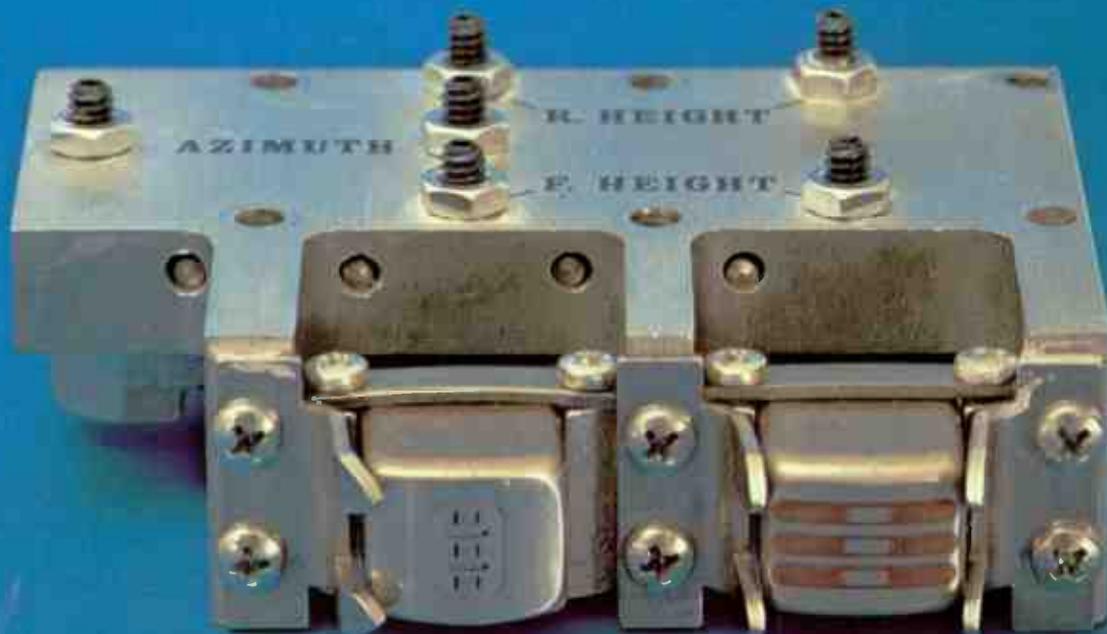
### Cartridge Positioning Mechanism

The cartridge guidance systems puts its pressure on the load-bearing outer rails of the cartridge. This holds the cartridge firmly in position without distorting the cartridge and altering tape travel. A side-pressure spring on the left side pushes the cartridge to the proper side location. The system assures precise, rigid alignment of the tape to head, even when cartridge insertion is hurried or careless. The result is accurate and repeatable azimuth alignment, essential for improved stereo phase performance.

### Improved Pressure Roller

The pressure roller is formed of an advanced 525K rubber compound. It provides twice the pulling power of ordinary rollers and extended life. The roller holds its durometer even under the highest humidity. It will not crack or dry out, and is impervious to commonly used cleaning chemicals.





### Removable Head Module

A true center-pivot head module, designed with rotational axis on the exact vertical and horizontal centerline of the heads. All three head adjustments — height, zenith and azimuth — are made independently and have individual locks. Locking one adjustment does not alter the others. These adjustments are on steel-ball pivots which, combined with a longer azimuth arm, permit much finer tuning.



### Unique Head Design

This exclusive, ITC-designed, long-life reproduce head is cylindrically shaped, rather than hyperbolic. Mu-Metal laminations are surrounded by epoxy filler impregnated with aluminum oxide particles for shielding and durability. The core windows are wider than conventional designs. The result is greatly improved frequency response without any low end bumps.



# Specifications

## SP, WP, RP, RPD, 3D, AND WRA SERIES CARTRIDGE EQUIPMENT

### POWER:

#### SP, WP, & RP SERIES:

117 volts, 60 Hz, 77 watts typical.

#### 3D & WRA SERIES:

117 volts, 60 Hz, 144 watts typical.

### TAPE SPEED:

7-1/2 inches per second. Direct drive hysteresis synchronous motor with electrolyzed shaft and instrument-type permanently lubricated ball bearings.

### WOW & FLUTTER:

0.2% or less, NAB weighted using a prerecorded tape with a flutter content not exceeding 0.025% NAB weighted.

### TIMING ACCURACY:

0.1% or better.

### AUDIO OUTPUT IMPEDANCE:

600 ohms balanced. May be strapped for 150 ohms.

### AUDIO OUTPUT LEVEL:

+18 dBm maximum before clipping. Normal operating range: \* -10 to +8 dBm. External audio pads required for lower levels to prevent deterioration of signal-to-noise ratio.

### AMPLIFIER DISTORTION:

0.5% THD or less. In accordance with 1975 NAB standard.

### SYSTEM DISTORTION:

2.0% THD or less — record to playback at 0 VU recording level.\*

### NOISE:

50 dB or better from 1 kHz at 0 VU recording level.\*

### CROSS TALK BETWEEN CHANNELS:

50 dB or better at 1 kHz.

### FREQUENCY RESPONSE:

±2 dB 315 to 15,000 Hz; +3, -2 dB 50 to 315 Hz record to playback at -10 VU recording level.\*

### EQUALIZATION:

NAB (1964 Standard). High frequency equalization controls included in reproducer and recording amplifier.

### HEAD CONFIGURATION:

NAB. Two tracks for monophonic, three tracks for stereophonic. Separate record and reproducer heads permit monitoring while recording.

### CUE SIGNALS:

NAB. Primary (stop) Cue, 1 kHz, standard; automatically applied at start of recording (may also be defeated and applied at user's discretion). Secondary Cue 150 Hz, and Tertiary Cue, 8 kHz, optional; may be applied during recording process or during playback. Individually adjustable oscillator for each tone. Reproducer utilizes adjustable tuned circuit detector for each tone and furnishes relay contact closure for external control.

### AUDIO INPUT IMPEDANCE:

600 ohm balanced terminating standard. 15K ohm balanced bridging may be selected by jumpers.

### AUDIO INPUT LEVEL:

-20 to 0 dBm; accepts higher level by changing input pad.

### METERING:

Taut-band movement with "A" scale. Internal meter switch allows selection for metering the following: Program Bias, Peak Recording Level, Normal Recording Level, Program Play, Cue Play, and Cue Bias.

### BIAS OSCILLATOR:

Push-pull, 82 kHz; individual gates and level controls for program (separate left and right in stereophonic units) and cue.

### TAPE CAPACITY:

#### SP & 3D SERIES:

NAB size AA and BB cartridges. 2 seconds to 16 minutes with 1 mil lubricated tape at 7-1/2 IPS.

#### WP & RP SERIES:

NAB size AA, BB, and CC cartridges. 2 seconds to 31 minutes with 1 mil lubricated tape at 7-1/2 IPS.

### START TIME:

100 ms with minimum solenoid air damping.

### STOP TIME:

100 ms with minimum solenoid air damping.

### AMBIENT OPERATING TEMPERATURE RANGE:

50°F. to 131°F.; 10°C to 55°C.

### REMOTE CONTROL:

All indicators and switch controls except meter switch and power indicator. Also provides cue track audio input and output for logging applications.

### EXTERNAL CONNECTORS:

Latching type. Mating connectors furnished.

### MOUNTING:

Table top mounting standard. Rack mounting adapters optional. Machines require following vertical space for rack mounting and proper ventilation:

**SP, WP, RP & WRA SERIES:** 7 inches

**3D SERIES:** 12.25 inches

DIMENSIONS:	Width	Depth	Height - Add for Feet
SP Series:	8.5 in.	11.0 in.	5.25 in. .375 in.
WP & RP Series:	17.5 in.	11.0 in.	5.25 in. .375 in.
3D Series:	8.5 in.	12.875 in.	10.5 in. .625 in.
WRA Series:	8.5 in.	11.0 in.	5.25 in. .375 in.

### WEIGHT:

SP Series:	23 pounds	3D Series	41 pounds
WP Series:	28 pounds	WRA Series	12 pounds
RP Series:	39 pounds		

\*All measurements made using Capitol Q17 tape or equivalent, and referenced to 1 kHz recorded at 160 nWb/m in accordance with 1975 NAB standard.

Specifications subject to change without notice.

# Tech Service

by those  
who know your  
equipment best



STEVE WATERS

And, we are here, with the parts and knowledge to repair or rebuild your machine.

A phone conversation between your people and ours will usually identify the problem. And, diagnosing by phone, we can often have the needed part on its way the same day.

ITC tech service helps keep Premium line machines in top operating condition, with minimum down time.

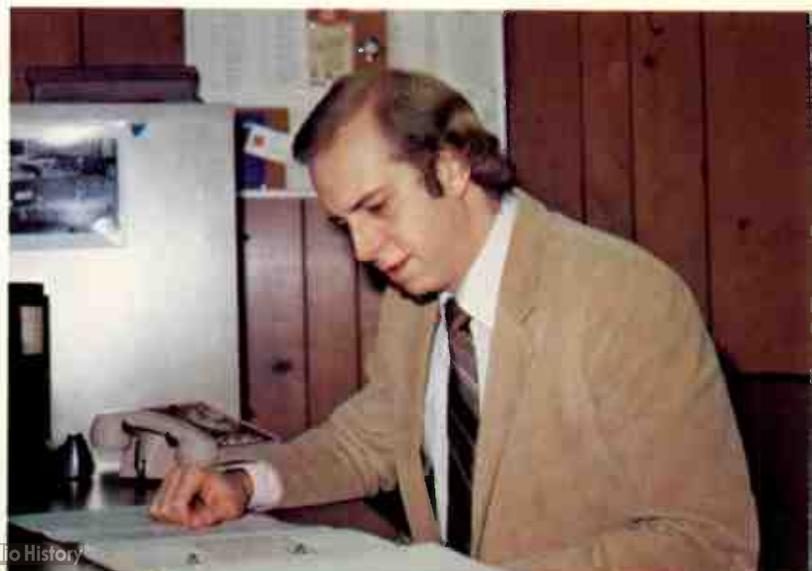
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Our direct-marketing staff knows your needs and can expertly recommend the ideal equipment match.

ITC machines are protected by a 24 month warranty, featuring free parts replacement and no-charge factory labor when required.

We offer a 30 day trial order. If, after 30 days, you are dissatisfied, the machine may be returned for a full refund.



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To place a no-risk order call

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## **it** Premium Line

### **SP Series Reproducers**

#### **SP-0001**

Monophonic with 1 kHz primary cue

#### **SP-0002**

Stereophonic with 1 kHz primary cue

#### **SP-0003**

Monophonic with 1 kHz, 150 Hz and 8 kHz cues

#### **SP-0004**

Stereophonic with 1 kHz, 150 Hz and 8 kHz cues

### **WP Series Reproducers**

#### **WP-0003**

Monophonic with 1 kHz, 150 Hz and 8 kHz cues

#### **WP-0004**

Stereophonic with 1 kHz, 150 Hz and 8 kHz cues

### **RP Series Recorder/Reproducers**

#### **RP-0001**

Monophonic with 1 kHz primary cue

#### **RP-0002**

Stereophonic with 1 kHz, primary cue

#### **RP-0003**

Monophonic with 1 kHz, 150 Hz and 8 kHz cues

#### **RP-0004**

Stereophonic with 1 kHz, 150 Hz and 8 kHz cues

### **RP Delay Series Recorder/Reproducer/Delay**

#### **RPD-0013**

Monophonic with 1 kHz primary cue, 150 Hz secondary cue, and 8 kHz tertiary cues

### **3D Series Reproducers**

#### **3D-0001**

Monophonic with 1 kHz primary cue

#### **3D-0002**

Stereophonic with 1 kHz, primary cue

#### **3D-0003**

Monophonic with 1 kHz, 150 Hz and 8 kHz cues

#### **3D-0004**

Stereophonic with 1 kHz, 150 Hz and 8 kHz cues

### **WRA Series Recording Amplifiers**

#### **WRA-0001**

Monophonic with 1 kHz primary cue

#### **WRA-0002**

Stereophonic with 1 kHz primary cue

#### **WRA-0003**

Monophonic with 1 kHz primary, 150 Hz secondary cue, and 8 kHz tertiary cues

#### **WRA-0004**

Stereophonic with 1 kHz primary, 150 Hz secondary cue, and 8 kHz tertiary cues

Two year warranty on parts and factory labor.

30 day guarantee of satisfaction.

5% discount for payment prior to shipment.

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The **evolutionary**  
ITC Premium Line!”

John Schaab, Broadcast Salesman