



CROWN

INTERNATIONAL
TAPE RECORDERS



CROWN

WHO IS CROWN ?

Just People -- people who have a company potluck dinner at Thanksgiving time, sing "HAPPY BIRTHDAY" to each other, have long hair, short hair, ride motorcycles and fly airplanes. Ordinary people -- HARDLY!! Ordinary people would not work night and day after a devastating fire to rebuild the factory. Ordinary people would not be as totally committed to perfection as the CROWN people are. Our reputation keeps us committed to manufacturing the world's finest audio equipment.

Who is CROWN? Reputable people making a reputable product



Innovation and value has always kept CROWN one step ahead. In 1951 our president, Mr. Clarence Moore, began the organization in a farm shed behind his home. Drawing from his vast experience as a short wave consultant and amateur radio operator, he began to design and experiment. Many years as a missionary in the tropic zone taught him the value of a rugged, uncompromising product, a value that remains foremost to CROWN today.

The business grew and now has become one of the most innovative companies in the audio industry. CROWN was among the first in four channel recording, first to manufacture a silicon solid-state recorder and first with electro-magnetic braking.

CROWN realized the importance of experience and what it can do to shape an innovative future. That's something you can count on!!!

Value is a tape machine that has the best long term specifications possible and a machine that is the easiest in the industry to service. All of CROWN's efforts go into making a machine that has a minimum life expectancy of ten years under heavy 18 hour a day industrial use. With less use and preventative maintenance, this life can be greatly extended.

When maintenance is required, all major assemblies are removable and may be returned to a CROWN warranty service station or the factory.



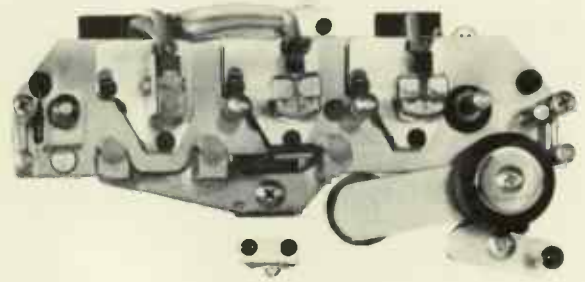
CROWN has long felt the need for a diversified tape recorder product line. Despite the many different styles and prices, every CROWN recorder has the same level of professional quality. This design and manufacturing philosophy extends throughout the entire line. The 800 transport, the 700 transport, the CX series electronics and the SX series electronics all carry the mark of craftsmanship. Listed on the next page are the different styles of equipment. General specifications are shown on page 7.

WHAT THE EXPERTS SAY

"In addition to delivering phenomenal performance, it incorporates numerous features and refinements that place this machine in a class by itself." --- "Tape tensions have been drastically reduced, editing has been greatly simplified." --- "Rugged enough to withstand a parachute drop." --- "at 7 1/2ips it (wow and flutter) was 0.07%, and 15 ips 0.05% a remarkable achievement, living up to the manufacturers claims." --Audio Magazine, April, 1968--

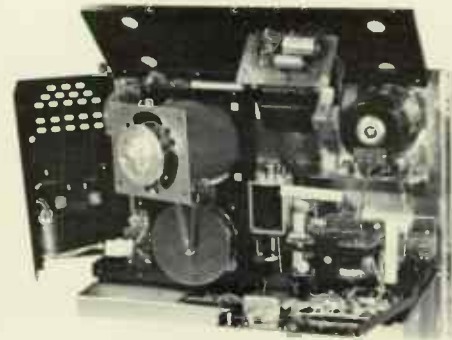
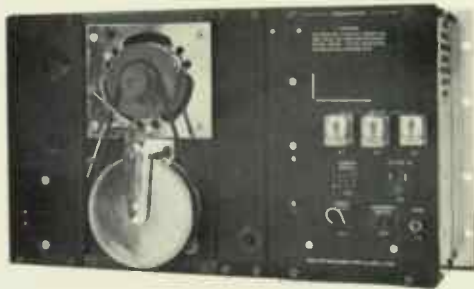
WARRANTY AND SERVICE

CROWN's warranty protects both the heavy industrial user as well as the serious audiophile. All parts, excluding normal wear items such as heads, drive belt and lamps are guaranteed for three years from date of purchase. All labor is guaranteed for 90 days. CROWN's comprehensive warranty protects your investment. Service is available in the United States from factory authorized warranty service stations or directly from the factory in Indiana. Extensive parts inventories are maintained solely for immediate customer service.



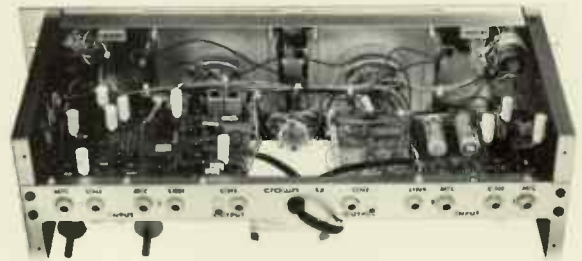
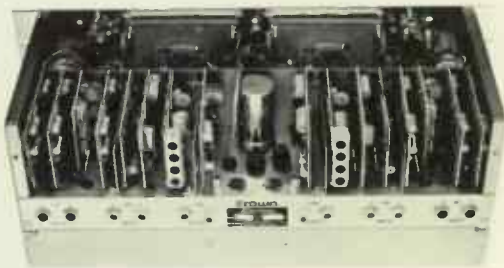
REMOVABLE CROWN HEAD ASSEMBLIES

Rugged long life head assemblies featuring hardened, plated steel guide posts, exclusive swing arm glass tape rods, and hyperbolic heads with solid precision three point, shock absorbing head mounting. CROWN uses no springs or levers to control head alignment. Also used are molded cables and a long-life nylon bristle pressure brush.



BEHIND IT ALL

A rear view of the Pro 800 reveals CROWN's dedication to long term reliability. A synchronous drive motor is coupled to a massive four pound flywheel assembly via a low flutter neoprene belt. Note how easily a belt can be replaced. Supporting the capstan flywheel is a massive cast aluminum, machined bearing housing. All rear and side anodized panels are easily removed exposing the plug-in reel motors and solenoid assemblies. A continuously variable speed drive motor is available as an accessory. The only relays in the transport are on the rear panel.



CX ELECTRONICS

An anodized plate covers the CX electronics. Removal of that plate exposes the plug-in cards for individual circuit functions; record amps, bias oscillators, line output amps and even the power supply. Head leads from the transport plug into the electronics assembly via military style Winchester connectors. Input connections are by phone jacks and output connections are by either pin or phone jacks. Cannon XLR connectors for inputs and outputs are available as an accessory.

SX ELECTRONICS

An anodized plate covers the SX electronics with its simplicity of design. All circuit functions are on four cards which are rigidly mounted to the chassis. Head leads are connected directly to the printed circuit cards via reliable AMP connectors. The input and output jacks are identical to the CX assembly. In-line balancing transformers with cannon XLRs are available as an accessory. The SX and the CX have identical electrical specifications

PLUG IN FIELD REPLACEMENT ASSEMBLIES

Even the most reliable tape transport in the world may occasionally need service. This is why CROWN designs tape recorders that allow almost 100% replacement of parts in the field. A few of those parts are: reel motors, the hysteresis synchronous drive motor, printed circuit boards, switches, heads, solenoids, power panels, capstans and belts. Most assemblies can be replaced with little or no dismantling of the machine.



TRANSPORTS

Pro 800 Transport

- ★ Computer Logic Control. Prevents tape breakage by providing fool-proof operating controls.
- ★ Feather touch push-button mode controls.
- ★ Photo-cell, automatic shut-off in all modes.
- ★ Take-up reel motor shut-off switch for editing.
- ★ Motor shut off switch (electronics remain on).
- ★ Cue lever for controlling tape-to-head contact.
- ★ Professional styling and color combinations.
- ★ Fully remote controllable.
- ★ Patented electro-magnetic brakes.



Pro 700 Transport

- ★ Simplified version of the Pro-800
- ★ Mechanical interlocking push button mode controls.
- ★ Automatic shut off at end of play mode.
- ★ Play and stop modes remote controllable.
- ★ Mechanical specifications and head assembly identical to the Pro 800 transport.
- ★ Patented electro-magnetic brakes.



ELECTRONICS

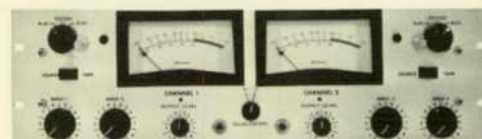
CX Series

- ★ Plug-in modules for all functions.
- ★ Built in remote record for no thumps on tape at beginning or end of record mode.
- ★ Echo controls built in.
- ★ Front panel bias adjustment.
- ★ 3-speed equalization.
- ★ Treble and bass controls with "flat" detents.
- ★ Available with 600 or 250 ohm balanced XLR cannon inputs and outputs as an accessory.



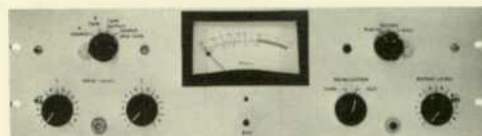
SX Series

- ★ All circuit functions on four permanently mounted printed circuit cards.
- ★ Record mode interlock.
- ★ Rear panel bias adjust.
- ★ Two speed equalization.
- ★ Simplified circuitry.
- ★ External balancing transformers available as accessories.



SX Mono Series

- ★ Same as SX above.
- ★ Bridging or 250 ohm balanced rear panel mixing mic inputs.
- ★ 2 unbalanced mixing line inputs.
- ★ Balanced and unbalanced line outputs.
- ★ Headphone output jack.



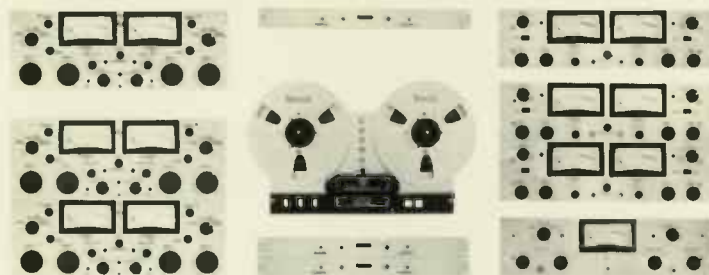
SP Player

- ★ SX Type of construction.
- ★ Play only electronics.
- ★ 3-speed equalization.
- ★ Front panel level adjustments.
- ★ Unbalanced low impedance output.
- ★ 600 ohm balanced output.



800 SERIES RECORDER

MODEL CODE



SX 2 CHANNEL

- SX-822 2 channel, 1/2 track stereo, 19" x 15 3/4", 48 lbs. \$1495
- SX-822-P4C 2 channel, 1/2 track stereo record/play, with 4 channel, 1/4 track stereo play, 19" x 17 1/2", 53 lbs., \$1895
- SX-824 2 channel, 1/4 track stereo, 19" x 15 3/4", 48 lbs., \$1495
- SX-824-P4C 2 channel, 1/4 track stereo record/play, with 4 channel, 1/4 track stereo play, 19" x 17 1/2", 53 lbs., \$1895

SX MONO

- SX-811 1 channel, full track mono, 19" x 15 3/4", 43 lbs., \$1495
- SX-812 1 channel, 1/2 track mono, 19" x 15 3/4", 43 lbs., \$1395

SP 4 CHANNEL

- SP-844 4 channel, 1/4 track stereo player, 19" x 14", 50 lbs., \$1440

SP 2 CHANNEL

- SP-822 2 channel, 1/2 track stereo player, 19" x 12 1/4", 45 lbs., \$1195
- SP-824 1/4 track stereo player, 19" x 12 1/4", 45 lbs., \$1195

CX 4 CHANNEL

- CX-844 4 channel, 1/4 track stereo, 19" x 24 1/2", 64 lbs.,

2495
~~\$2995~~

CX 2 CHANNEL

- CX-822 2 channel, 1/2 track stereo, 19" x 17 1/2", 52 lbs. \$1995
- CX-824 2 channel, 1/4 track stereo, 19" x 17 1/2", 52 lbs., \$1995

SX 4 CHANNEL

- SX-844 4 channel, 1/4 track stereo, 19" x 21", 56 lbs.

2495
~~\$2395~~

ACCESSORIES FOR THE 800 SERIES

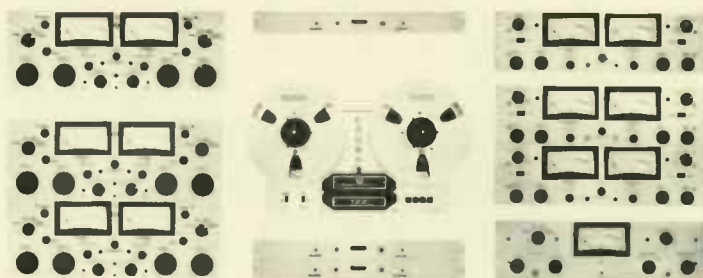
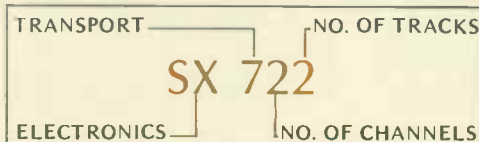
QUANTITY USED ON:

MODEL #	DESCRIPTION	COST	2 ch CX	4 ch CX	2ch SX	4ch SX	SX Mono	SP	ORDER
TS - 2	Two channel trac · sync 1-3/4" high. Allows any record head channel to act as play head.	\$140	1	2	N/A	N/A	N/A	N/A	
CX - 2	High input impedance mic pre-amp board (60dB gain) use with dynamic mics.	45	Up to 4	Up to 8	N/A	N/A	N/A	N/A	
CX 2L	Same as above except 25dB gain use with most condenser mics.	20	Up to 4	Up to 8	N/A	N/A	N/A	N/A	
LOZ-4 MIC STRIP	Four, factory installed 250 ohm balanced mic transformers and two 600 ohm balanced output transformers. Provides phantom power for condenser mics, use with CX-2 or CX - 2L, inputs and outputs via cannon XLR.	100	1	2	N/A	N/A	N/A	N/A	
600Z4 LINE STRIP	Same as LOZ-4 except has four 600 ohm balanced line inputs in place of mic transformers. Has two 600 ohm balanced line outputs. Inputs and outputs via cannon XLR.	100	1	2	N/A	N/A	N/A	N/A	
VSD-5	Five speed front panel push button speed select. Electronic servo controlled motor system.	850	1	1	1	1	1	1	
RC-50	Remote control with 4 lighted push buttons and remote record facility includes 20 ft. of cable.	85	1	1	1*	1*	1*	1*	

NOTE: All CX-800 machines now come with remote record modification to electronics as standard equipment. All CX Electronics are equipped with CX-6 boards are standard equipment. All machines come with professional HAP 10 1/2 reel adaptors. *Remote record feature is inoperative on SX-800 series.

700 SERIES RECORDER

MODEL CODE



CX 4 CHANNEL

CX-744 4 Channel, 1/2 track stereo, 19" x 24 1/2", 59 lbs. \$2495

CX 2 CHANNEL

CX-722 2 channel, 1/2 track stereo, 19" x 17 1/2", 47 lbs., \$1495

CX-722-P4C 2 channel, 1/2 track stereo record/play, with 4 channel, 1/4 track stereo play, 19" x 19 1/4", 52 lbs., \$1895

CX-724 2 channel, 1/4 track stereo, 19" x 17 1/2", 47 lbs., \$1495

CX-724-P4C 2 channel, 1/4 track stereo record/play, with 4 channel, 1/4 track stereo play, 19" x 19 1/4", 52 lbs., \$1895

SX 4 CHANNEL

SX-744 4 channel, 1/4 track stereo record/play, 19" x 21", 51 lbs., \$1995

SX 2 CHANNEL

SX-722 2 channel, 1/2 track stereo, 19" x 15 3/4", 43 lbs., \$1095

SX-722-P4C 2 channel, 1/2 track stereo record/play, with 4 channel, 1/4 track stereo play, 19" x 16 1/2", 49 lbs., \$1495

SX-724 2 channel, 1/4 track stereo, 19" x 15 3/4", 43 lbs., \$1095

SX-724-P4C 2 channel, 1/4 track stereo record/play 1/4 track stereo play, 19" x 16 1/2" 49 lbs., \$1495

SX MONO

SX-711 1 channel, full track mono, 19" x 15 3/4", 42 lbs., \$1095

SX-712 1 channel, 1/2 track mono, 19" x 15 3/4", 43 lbs., \$ 995

SP 4 CHANNEL

SP-744 4 channel, 1/4 track stereo player, 19" x 15 3/4", 49 lbs., \$ 995

SP 2 CHANNEL

SP-722 2 channel, 1/2 track stereo player, 19" x 14", 41 lbs., \$ 695

SP-724 2 channel, 1/4 track stereo player, 19" x 14", 41 lbs., \$ 695

ACCESSORIES FOR THE 700 SERIES

MODEL #	DESCRIPTION	COST	QUANTITY USED ON					SP	ORDER
			2ch CX	4ch CX	2ch SX	4ch SX	SX Mono		
TS - 2	2 channel trac sync 1 3/4" high. Allows any record head channel to act as play head.	\$140	1	2	N/A	N/A	N/A	NA/	
CX - 2	High input impedance mic pre-amp board amp board (60dB gain) use with dynamic mics.	45	Up to 4	Up to 8	N/A	N/A	N/A	N/A	
CX - 2L	Same as above except 25dB gain. Use with most condenser mics.	20	Up to 4	Up to 8	N/A	N/A	N/A	N/A	
LOZ-4 MIC STRIP	Four, factory installed 250 ohm balanced mic transformers and two 600 ohm balanced outputs transformers. Provides phantom power for condenser mics, use with CX-2 or CX -2L, inputs and outputs via cannon XLR.	100	1	2	N/A	N/A	N/A	N/A	
600Z4 LINE STRIP	Same as LOZ-4 except has four 600 ohm balanced line inputs in place of mic transformers. Has two 600 ohm balanced line outputs. Inputs and outputs via cannon XLR.	100	1	2	N/A	N/A	N/A	N/A	
RC 7A	Modification to transport. Provides remote start and stop. Connector provided on rear of machine. Customer provides switches.	15	1	1	1	1	1	1	
CL	Cue lever lifts tape to and from heads to facilitate editing. (Installed)	25	1	1	1	1	1	1	
VSD - 5	Five speed front panel push button select. Electronic servo control motor system.	850	1	1	1	1	1	1	

NOTE: All machines are equipped with professional HAP 10 1/2 reel adaptors as standard equipment.

GENERAL ACCESSORIES FOR ALL MACHINES

MODEL	DESCRIPTION	PRICE	ORDER	MODEL	DESCRIPTION	PRICE	ORDER
W	Portable case, panel size 14", 9 lbs.,	\$ 52		7P	7" High 2 lbs.	\$ 10.00	
X	Portable case, panel size 17½", 11 lbs.,	\$ 59		EAP	Brushed aluminum panel with EDIT-ALL tape splicing block centrally mounted 1¼" high. 1 lb.	\$ 20.00	
Y	Portable case, panel size 21", 13 lbs.,	\$ 69		SR-1	Speed reducer 1 7/8 (no equalization)	\$ 25.00	
Z	Portable case, panel size 28", 18 lbs.,	\$ 79		SR-2	Speed reducer 1 7/8 and 15/16 (no equalization).	\$ 50.00	
	All portable cases have full size removable front and back covers. Exterior in black tweed with chrome plated hardware.						
YC	Equipment console styled in Walnut grained formica, panel space 21", weight 115 lbs. Easily movable on ball casters, foot locks for stable location.	\$295		50 P 60	50 & 60 cycle conversion	\$ 75.00	
19C	Oiled walnut cabinet 21½" w x 21¾" h x 10" d. Panel space 19¼" high 15 lbs.	\$ 70		SMIT	250 ohm balanced mic transformer (female XLR to phono jack) 2 lbs.	\$ 25.00	
TC	Tape counter 4 digit push button reset mounted in separate 1¼" high panel brushed aluminum. 2 lbs.	\$ 39		SBIT	20,000 ohm balanced bridging transformer (female XLR to phono jacks.) 2 lbs.	\$ 25.00	
1P	Filler panels, match recorder 1¼" high	\$ 5.00		SLOT	600 ohm balanced output transformer (male XLR to phono jack) 2 lbs.	\$ 20.00	
3P	Includes 4 black washers and oval head screws. Use to fill in space in cabinets etc. 3½" high 1 lb.	\$ 7.50		D-60	Stereo Amplifier 30 watt per channel continuous power into an 8 ohm load 1¼" high 19" rack mount 10 lbs.	\$249.00	
5P	5¼" High 1½ lbs.	\$ 7.50		HC	Head cleaner, Crown's special formula 1 qt.	\$ 6.00	
				CO	Oil, CROWN's special formula 2 oz.	\$ 1.50	

GENERAL SPECIFICATIONS AND FEATURES

Model	Standard Speeds-IPS	Overall Record-Play-Hz+2dB			S/N Ratio-dB			Erase & Cross Talk	Model	Standard Speeds-IPS	Overall Record-Play-Hz+2dB			S/N Ratio-dB*			Erase & Cross Talk
		15IPS	7½IPS	3¼IPS	15IPS	7½IPS	3¼IPS				15IPS	7½IPS	3¼IPS	15IPS	7½IPS	3¼IPS	
SX811	7½ - 3¼ - 15-7½	40-30K	20-20K	10-10K	60 - 60 - 55	60	SX711	7½ - 3¼	40-30K	20-20K	20-10K	60 - 55	60				
SX812	7½ - 3¼ - 15-7½	40-30K	20-20K	20-10K	60 - 60 - 55	60	SX712	7½ - 3¼	40-30K	20-20K	20-10K	60 - 55	60				
SX822	7½ - 3¼ - 15-7½	30-30K	20-20K	20-10K	60 - 60 - 55	60	SX722	7½ - 3¼	30-30K	20-20K	20-10K	60 - 55	60				
SX824	7½ - 3¼ - 15-7½	40-30K	20-25K	20-15K	60 - 60 - 55	50	SX724	7½ - 3¼	40-30K	20-25K	20-15K	60 - 55	50				
SX822-P4C	7½ - 3¼ - 15-7½	40-25K	20-20K	20-10K	60 - 60 - 55	60	SX722-P4C	7½ - 3¼	40-25K	20-20K	20-10K	60 - 55	60				
SX824-P4C	7½ - 3¼ - 15-7½	40-25K	20-25K	20-15K	60 - 60 - 55	50	SX724-P4C	7½ - 3¼	40-25K	20-25K	20-15K	60 - 55	50				
SX844	7½ - 3¼ - 15-7½	40-25K	20-25K	20-15K	60 - 60 - 55	50											
CX822	15 - 7½ - 3¼	30-30K	20-20K	20-10K	60 - 60 - 55	60	CX722	15 - 7½ - 3¼	30-30K	20-20K	20-10K	60 - 60 - 55	60				
CX824	15 - 7½ - 3¼	40-30K	20-25K	20-15K	60 - 60 - 55	50	CX724	15 - 7½ - 3¼	40-30K	20-25K	20-15K	60 - 60 - 55	50				
CX844	15 - 7½ - 3¼	40-30K	20-25K	20-15K	60 - 60 - 55	50	CX722-P4C	15 - 7½ - 3¼	40-25K	20-20K	20-10K	60 - 60 - 55	60				
SP800	15 - 7½ - 3¼	50-15K	50-15K		60 - 60 - 55		CX724-P4C	15 - 7½ - 3¼	40-25K	20-25K	20-15K	60 - 60 - 55	50				
							CX744	15 - 7½ - 3¼	40-30K	20-25K	20-15K	60 - 60 - 55	50				
							SP700	15 - 7½ - 3¼	50-15K	50-15K	See note 9	60 - 60 - 55					

- SX-800 standard speeds: 7½ and 3¼ IPS. 15 and 7½ IPS available, no charge, specify if desired.
- SX-700 optional 15 - 7½ speeds \$25.00
- 1 7/8 or 15/16 IPS add \$50.00 plus SR - 1 or SR - 2.
- CX, 3 speed machines have 7½ - 3¼ front panel speed shift. Specify 15IPS - 7½ FPS (no charge).
- Machines NAB equalized with Scotch 207. Other tapes with sample \$25.00, CCIR available.

OUTPUTS

CX and SX, two outputs per channel, pin and phone jack. 600 ohm unbalanced 1.4 volts for "0" level. Maximum dynamic range ceiling 14 volts. Two phone jack outputs on front panel for 600 ohm stereo phones.

CONTROLS

2ch CX: Four input mixers (two per channel), two output level controls, three speed equalization switch, two output mode controls (source, tape, source and tape). Two locking record mode controls (record, erase current, bias current). Two red record pilot lights. Two 5" edge lighted, calibrated, VU meters, Push button record mode.

2ch SX: Four input mixers (two per channel), two output level controls, two speed equalization switch, two output mode switches (source, tape). Two locking record mode controls (play, record, bias). Red record light in meter. Two 5" edge lighted, calibrated VU meters.

800 T: Four feather touch pushbutton mode controls, reel size, master power, 2 position speed shift, edit/cue lever, right reel motor shutoff.

700 T: Four mechanical pushbutton mode controls, reel size, master power, 2 position speed shift.

- Third harmonic distortion, 1KHz "O" VU less than 1% at 7.5IPS*, second harmonic distortion at 1KHz 0.3%. Total harmonic distortion less than 1.2% THD.
- Signal to noise measured below 3% THD, 400Hz, -3dB 30Hz to 20KHz, Scotch 203, NAB standard (1965). For Scotch 207, 3% distortion reference add 3dB to signal to noise figures.
- Signal to noise ratio of CX and SX electronics significantly better than best available tape.
- NAB standard test tape used. SP player capable of wider bandwidth.

INPUTS

SX and CX electronics have 2 mixing inputs per channel. (two mic or two lines or one of each). SX microphone sensitivity -66dbm (0.4mv) min. for "0" level. SX line sensitivity -25 dbm (45 mv) min for "0" level. CX microphone sensitivity with CX-2 accessory -66dbm for "0" level. CX and SX impedances are 100K ohms unbalanced unless accessory balancing transformer are ordered. (SX;SMIT,SBIT,SLOT. CX: LOZ-4,600Z-4). Maximum input level on CX and SX limited only by rotation desired on input control. Inputs will not clip from signal overload.

MECHANICAL

Speed: 99.8% or 1.8 seconds in 15 minutes, wow and flutter 15 ips 0.05%, 7½ ips 0.09%, 3¼ ips 0.18%, RMS .5Hz to 250Hz wide band. Stop time 1 inch, play mode at 7½ ips. Three seconds in high speed modes. No adjusting, non-mechanical electromagnetic brakes. 60 second high speed rewind time (2400' 10½ reels). Wow and flutter spec met in 3 seconds. Solenoid operated capstan pinch roller. Power 140 watts, 117 VAC 60Hz, 50Hz available. 700T 10½", 35 lbs; 800T 10½", 40 lbs; CX 7", 12 lbs; SX 5¼", 8 lbs; SXM 5¼", 8 lbs; SP 1¼", 6 lbs. All units 19" rack mount not over 6¼" deep.



CROWN

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