

TASCAM Series 70 Recorder/Reproducer

We've taken a unique approach to the design of the Series 70 so that, depending on your application, the unit can be configured to best meet your needs. In short, you define the Series 70 by application, rather than the other way around. Your choices are expanded rather than restricted, but you pay no penalty in performance.

Series 70 Transport

The common denominator in every Series 70 is the tape transport, and it represents a major price/performance breakthrough. Now, for perhaps the first time, you can afford a 1/2" tape transport built for exacting performance and

smooth tape handling, and with these important features:

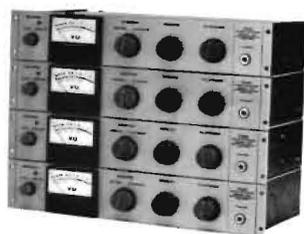
- Spill-proof logic circuit (remote controllable.)
- Plug-in relays.
- Precision indirect capstan drive with 2-speed hysteresis synchronous motor.
- Heavy-duty 6-pole asynchronous torque motors.
- Scrape filter roller.
- Complete cue and edit system.
- High density ferrite heads for extra long wear.
- Plug-in head nest for quick conversions in 1/4" tape width track formats.

Series 70 Electronics

The electronics gives the Series 70 its wide versatility. You choose the electronics according to your application. For example, you may be interested strictly in an economical tape machine for direct recording. If so, Model 501 electronics with mic preamps, line amplifiers, balanced lines in and out, Cannon connectors, etc., most fits your needs. If, however, you plan to use the Series 70 cabled in close proximity to a Model 10 Mixing Console for mastering, you don't need mic preamps or line amplification, for example, on the tape machine. In that case Model 701 electronics are for you.



*Series 70 with
Model 501 Electronics*



Model 501 electronics are equipped with built-in mic pre-amp, line amplifier, internal power supply, overdub, Cannon connectors, and 2-circuit jack headphone output. Two-position meter control allows selective monitoring of tape signal or output level determined by reproduce level control.



*Series 70 with
Model 701 Electronics*

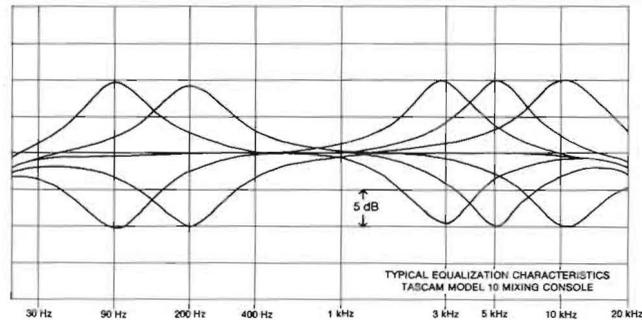
The economical Model 701 electronics are for applications where mic preamps, headphone outputs, and +24 dBm out are not required. However, in-line transformers can be easily added and line out amplifiers can be outboarded.



(CONSOLE OPTIONAL)

Model 10 Mixing Console Specifications

| | Hi-Z (Unbalanced) | Lo-Z |
|--|---|--|
| MIC INPUTS: | | |
| Impedance | 30K Ohms | Nominal 200 Ohms, balanced or unbalanced |
| Sensitivity | -60 dB (600 to 10K Ohm source) | -70 dB |
| Attenuation A. B. | 3-position switch at 0, 20, & 40 dB Feedback attenuator range continuously variable, 0 to 20 dB | |
| Maximum Input Levels | With Max. Attenuation +20 dB | With Min. Attenuation -30 dB |
| | With Max. Attenuation +10 dB | With Min. Attenuation -40 dB |
| LINE INPUTS: | | |
| Sensitivity | Nominal 0.1 V RMS | -13 dBm |
| Impedance | 50K Ohm | 600 Ohms, balanced or unbalanced |
| Attenuation | Sensitivity control range continuously variable, 0 to -20 dB | |
| Maximum Input Levels | 5 V RMS | +10 dBm |
| LINE OUTPUT LEVEL: | Nominal .3 V RMS (-10 dB) into 10K Ohms or higher | Nominal +4 dBm (adjustable) |
| HEAD ROOM: | 20 dB over rated output level | |
| MONITOR OUTPUT LEVEL: | Nominal 1 V RMS into 10K Ohms or higher | |
| SIGNAL-TO-NOISE RATIO, OVERALL (INPUT TO OUTPUT): | One input - Greater than 65 dB, WTD | |
| FREQUENCY RESPONSE: | 8 to 12 inputs - Greater than 55 dB, WTD | |
| FILTERS: | 30 Hz-20 kHz ± 2 dB (Not more than -4.5 dB at 20 Hz and 40 kHz) | |
| EQUALIZATION: | Hi-Pass 12 dB/octave attenuation at 40 Hz and 100 Hz Lo-Pass 12 dB/octave attenuation at 5 kHz and 10 kHz (See graph) Peak and dip type; ± 10 dB, continuously variable Hi-Band 10 kHz Mid-Band 3 kHz and 5 kHz, Switchable Lo-Band 90 Hz and 200 Hz, Switchable | |



| | |
|---|--|
| CROSSTALK: | Greater than 50 dB |
| DISTORTION, OVERALL (INPUT TO OUTPUT): | 0.3% THD Maximum |
| FADER ATTENUATION: | Greater than 60 dB |
| FADER INTERACTION: | Less than 1 dB |
| SEND AND RECEIVE DATA: | |
| Echo Send Level | Continuously variable to nominal .1 V RMS (-20 dB) into 10K Ohms or higher |
| Echo Receive Sensitivity | Continuously variable to nominal .1 V RMS (-20 dB); High Z |
| Auxiliary Echo Send Level | Continuously variable to nominal .1 V RMS (-20 dB) into 10K Ohms or higher |
| Auxiliary Echo Receive Sensitivity | Continuously variable to nominal .1 V RMS (-20 dB); High Z |

| | Hi-Z (Unbalanced) | Lo-Z |
|-------------------------------|---|--|
| Accessory Send Level | Nominal .1 V RMS (-20 dB) into 10K Ohms or higher | |
| Accessory Receive Sensitivity | Nominal .1 V RMS (-20 dB) High Z | |
| TAPE REPRODUCE INPUTS: | Hi-Z (Unbalanced) | Balanced or unbalanced; Specify 600 Ohms or bridging |
| VU METERS: | 4-inch "A" Scale with fast-acting LED peak indicator | |
| LED PEAK INDICATOR LAMP: | Trigger level adjustable; factory calibrated at +10 VU | |
| POWER REQUIREMENTS: | 117 V AC; 50-60 Hz; 25W | |
| DIMENSIONS: | Height 11 3/8" (without pedestal base) Width 40" Depth 29 3/4" Weight Approx. 95 lbs. in 8-input configuration without pedestal base | |

Series 70 Specifications

All Series 70 specifications based on use of 3M #203 tape

| | | |
|---|---|--|
| FREQUENCY RESPONSE: | | |
| Reproduce & Overall | 40 Hz-18 kHz ± 2 dB at 15 ips | 40 Hz-15 kHz ± 2 dB at 7 1/2 ips |
| SIGNAL-TO-NOISE RATIO, Overall | Full Track: | greater than 65 dB, WTD greater than 56 dB, UNWTD |
| | Half Track: | greater than 63 dB, WTD greater than 54 dB, UNWTD |
| | Quarter Track: | greater than 59 dB, WTD greater than 52 dB, UNWTD |
| INSTANTANEOUS SPEED VARIATION: (Measured with calibrated flutter tape) | 0.05% WTD RMS (NAB) at 15 ips | 0.07% WTD PEAK (ANSI) at 15 ips |
| | 0.08% WTD RMS (NAB) at 7 1/2 ips | 0.15% WTD PEAK (ANSI) at 7 1/2 ips |
| CROSSTALK: | Overall: 50 dB at 1 kHz channel to channel | 48 dB at 100 Hz |
| DISTORTION: Record and Reproduce (without tape) | Less than 0.5% THD at +10 VU | |
| SPEED ACCURACY: (through 3600 feet) | 99.5% | |
| EQUALIZATION: | NAB | |
| ERASURE: (400 Hz at +10 VU reference) | Greater than 65 dB | |
| RECORD LEVEL CALIBRATION: | Referenced to 185 nWb/m | |
| | 501 ELECTRONICS | 701 ELECTRONICS |
| INPUT IMPEDANCE: | Mic: Nominal 200 Ohms, balanced or unbalanced | Mic: None |
| | Line: 600 Ohms, balanced or unbalanced | Line: 50K Ohms, unbalanced |
| LINE OUTPUT LEVEL: | +4 dBm (adjustable) | Nominal .3 V RMS (-10 dB), unbalanced; into 10K Ohms or higher |
| HEADROOM (without tape): | 20 dB over rated output level | |
| HEADPHONE OUTPUTS: | Standard 2-circuit jack, 10K Ohms, minimum load | None |
| POWER REQUIREMENTS: | 117 V AC; 60 Hz; nominal 200 W | |

We reserve the right to make changes in our specifications without notice.

