

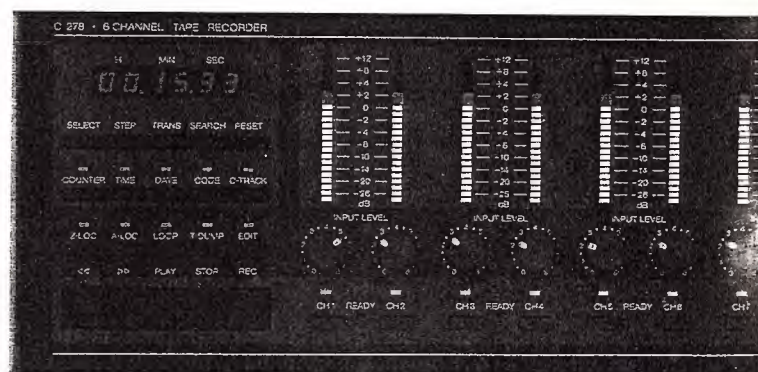
# C270 SERIES

## Professional Tape Recorders



**REVOX**

# Pro P



# Performance Engineered into Every Part

## Features and Capabilities for Professional Users

### Transport Functions

Constant tape tension on both supply and take-up spooling motors. A single sensor provides full servo control for one hand editing, shuttle and play mode. This, in combination with an advanced capstan motor design, provides precise tape tension control, regardless of reel size.

DC servo "hall effect" capstan motor assures fast acceleration. The capstan motor is only activated when required. Typical dead stop to full speed time is 1/10 of a second.

Real Time counter showing hours, minutes and seconds

True AUTOLOCATOR with Zero, Address and Search locate modes allows precise locate to cue.

3 tape speeds—3 3/4 (9.5), 7 1/2 (19) and 15 ips (38 cm/s)—for 2, 4 & 8-channel machines, with any pair selectable for quick changes in the field. Special low-speed versions of 4 & 8-channel machines with speeds of 15/32 (1.19), 15/16 (2.38) and 1 7/8 ips (4.75 cm/s).

Edit mode that allows one-hand cueing under full servo control

Built-in RS 232 serial port provides control access to all transport and audio commands

External port for capstan motor control in sync applications

Selectable library wind

Tape dump mode

Optical End-of-Tape Sensor

Built-in variable speed allows -33% to +50% range

Fader start circuitry standard

Rack mount adapters and NAB adapters included

### Audio Electronics and Sonic Quality

Dolby HX Pro® Headroom Extension and proprietary phase compensated audio electronics

Seamless and gapless punch-in and punch-out

Integral scrape-flutter filter in head assembly

Plug-in record and reproduce equalizers for optimal performance and easy speed conversion

Adjustable Mute-to-Play time of audio output from 50 to 990 msec

3 peak LED indicators: +6, +9 & +12 dB (C270)

Internal monitor speaker & headphone output with individual, stereo or mono channel selection

Transformer balanced inputs and outputs

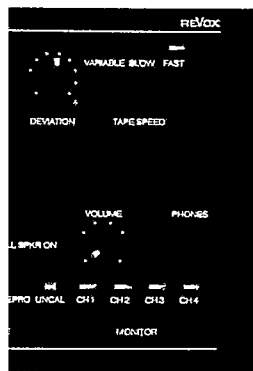
Selectable record inhibit

Fully modular audio electronics allows quick interchange of individual circuits

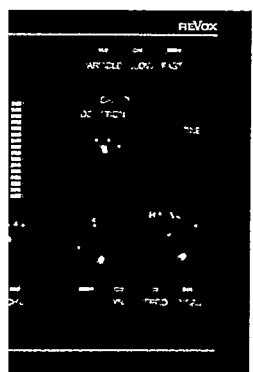
Front access to all audio electronics even while rack mounted

Optional microphone inputs available on 2-channel machine

**C274**  
**1/4" 4-channel**



**C278**  
**1/2" 8-channel**



In addition to the features and capabilities standard on every recorder in the C270 series, the 4 and 8-channel machines have these special capabilities:

- Internal logging time and date code generator and reader capable of searching and locating to any time directly.
- LED bar graph meters that read both peak and VU program levels simultaneously.
- Auto Reverse Playback mode allowing continuous playback in both directions of pre-recorded 1/4-track stereo tapes (on C274 4-channel machine only)
- SMPTE time code applications

# formance from an Entire Line

For the professional user who requires superior audio quality combined with overall value, the C270 series presents Studer Revox design and engineering integrity in a variety of recording formats.

The C270 1/4" 2-channel recorder, the C274 1/4" 4-channel recorder, the C278 1/2" 8-channel recorder. Every machine in the C270 line comes with all the standard features and capabilities that professionals need—*standard.*



**COMPREHENSIVE PROFESSIONAL TRANSPORT FEATURES.** The 2-channel, 4-channel and 8-channel machines all have 3 tape speeds—3 3/4 (9.5), 7 1/2 (19) and 15 ips (38 cm/s)—any pair of which can be selected and quickly changed in the field. The 4 and 8-channel recorders also come in low speed versions, especially suited for logging applications, with speeds of 15/32 (1.19), 15/16 (2.38) and 1 7/8 ips (4.75 cm/s). Constant tape tension on both spooling motors, one-hand servo controlled cueing, built-in varispeed (-33% to +50%), an integral scrape-flutter filter in the head assembly and a true AUTOLOCATOR with Zero, Address and Search locate functions allowing for precise search to cue—

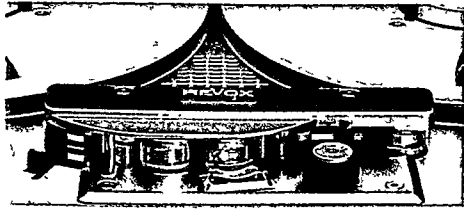
these are just a few of the features standard in the C270 series of recorders.

**PROFESSIONAL AUDIO ELECTRONICS.** Dolby HX Pro® Headroom Extension and proprietary phase compensated audio electronics, seamless and gapless punch-in and punch-out, plug-in EQ cards for easy service and speed conversion, plus

superior audio performance are part of the C270 concept of a pro performer, and standard features on every machine.

**RUGGED QUALITY, EASY TO MAINTAIN.** The C270 is built with characteristic Studer Revox attention to its service and maintenance throughout a long working life.

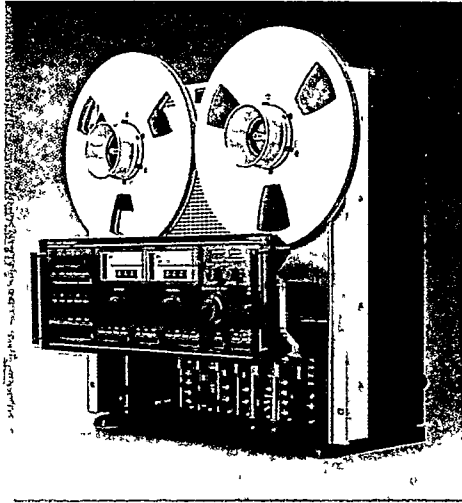
Fully modular audio electronics—all front-accessible, even in rack-mount configuration—and a rugged die-cast deckplate, head assembly and chassis tell you that this sophisticated series of pro performers shares the same construction values that define all Studer Revox tape recorders.



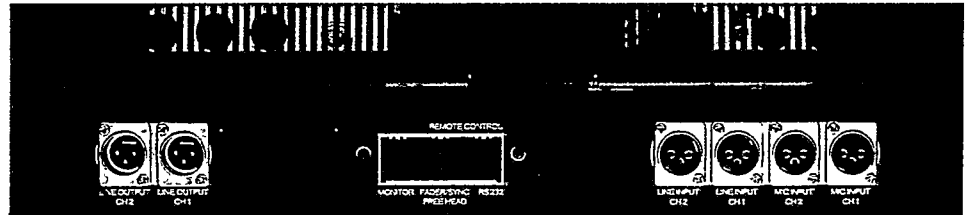
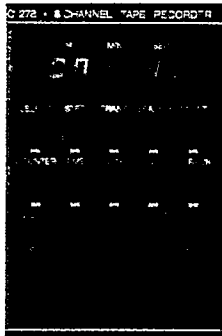
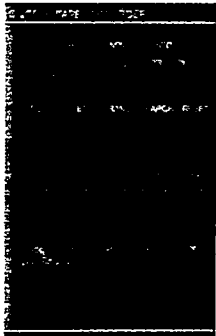
Scrape-flutter filters with precision ceramic edge guides are incorporated into the head assemblies of all C270 series recorders.

The heads are base-mounted on a cast aluminum headblock and surrounded by Mu-metal head shields. The play head is totally shielded against hum in the play mode.

The heads themselves are constructed of an extremely tough alloy—Revodur—specially developed by Studer Revox, manufacturer of the finest tape heads in the world for over 35 years.



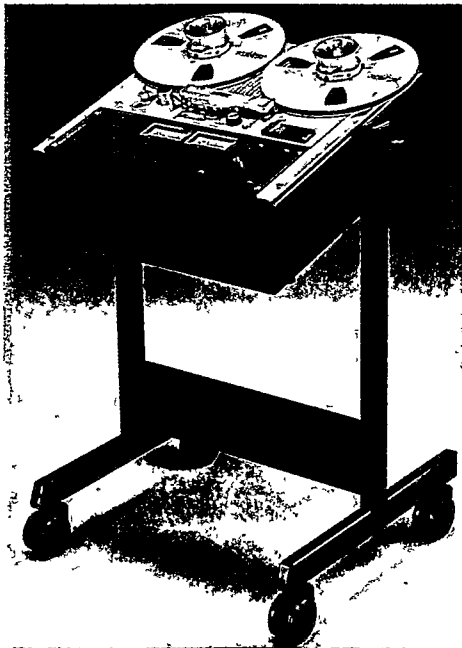
The front panel of the C270 series is dual hinged for easy access to all modular control cards and opens to two positions: one for alignment and one for service. The full range of audio adjustments is easily accessible, even when the machine is rack-mounted.



For easy interconnection, all input and output connectors are included on the rear panel. In addition to the necessary XLR connector, 3 DIN plugs are provided for the fader-start, sync, monitor and RS 232. The built-in RS 232 serial port on all the recorders in the C270 series allows for full-function computer control. All protocol information is provided.

The C270 operating panel is versatile yet elegantly simple. Full access to all tape motion modes and complete autolocator control is provided.

In addition to the machine and autolocator controls, the operating panel of the C274 and C278 also provides control of the internal code track system. When activated, the code track will record on either track 4 or 8, any two of the following: time, date, counter or external code via the RS 232 port. It is then possible, using the autolocator search mode, to locate any particular point.



An attractive, sturdy, tilting floor console with heavy duty casters and brakes is available for all C270 series machines and may also be used to support other units, such as the C279 Mixing Console.

#### PERIPHERALS

- Serial/parallel remote interface for 2-channel version only (not required on 4 and 8-channel machines)
- Transport remote control with Counter Reset and Zero Locate
- Autolocator with full transport and audio channel remote control

## BROADCAST



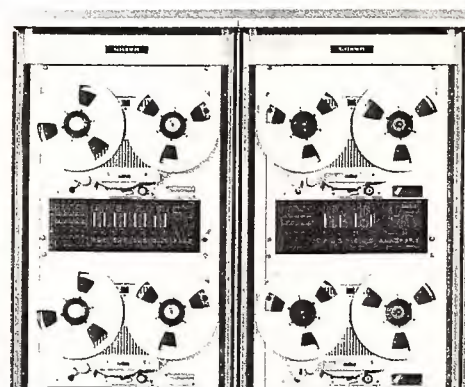
*Broadcast, on-air and production.* Superior audio quality and simple, elegant control layout make the C270 ideally suited for both on-air and broadcast production. The C270 defines a new category of full-featured professional recorders.

## VIDEO-POST



*Video post-production.* Satisfying the ever-more demanding needs of the video post-production facility, the C278 brings Studer Revox quality to the small, multi-channel machine. Synchronization is easily accomplished using SMPTE Time Code, while Dolby HX Pro® and phase compensated audio electronics provide the ultimate in sound quality.

## LOW-SPEED/LOGGING



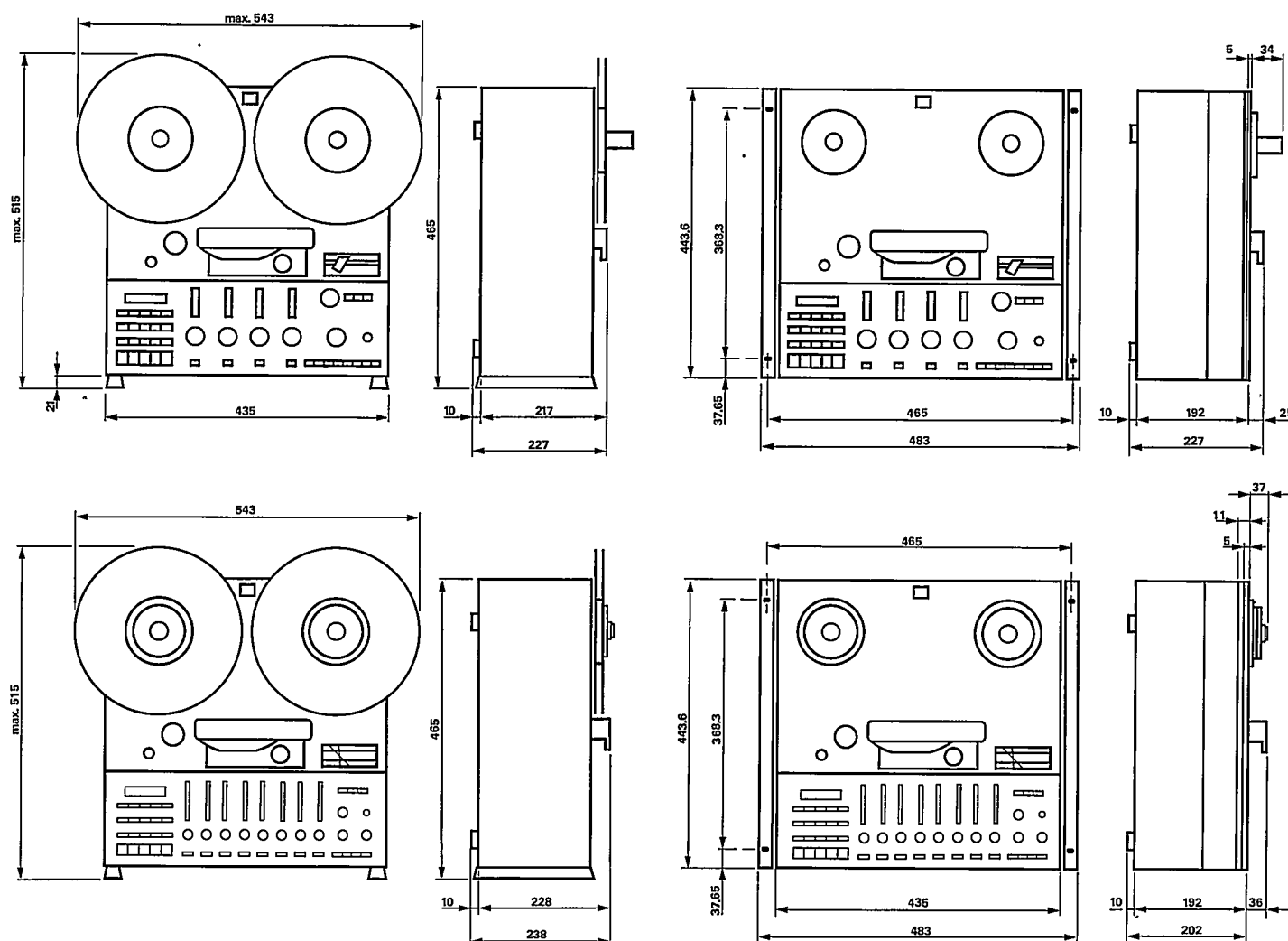
*Low-speed and logging applications.* Versions of the C278 and C274, available in speeds as low as 15/32 ips (1.19cm/s), provide more than 24 hours of continuous recording on one reel of tape. An internal time and date code generator and reader records this data automatically, allowing full search to time via the Autolocator. Dolby HX Pro® assures optimal recording quality, especially at these low speeds.

## STUDER REVOX

- Australia: Chatswood, Tel. (02) 417-4700
- Austria: Wien, Tel. 473465 & 473309
- Benelux: Heijen/NL, Tel. (08851) 96260
- Canada: Toronto, Tel. (416) 4232831
- France: Paris, Tel. 47235588
- Germany: Loeffingen, Tel. (07654) 803-0
- Hong Kong: Hong Kong, Tel. 8989366
- Italy: San Maurizio al Lambro, Tel. (22) 537853
- Japan: Tokyo, Tel. 3703417
- New Zealand: Auckland, Tel. (9) 4797889
- Singapore: Singapore, Tel. 2507222
- South African Republic: Johannesburg, Tel. 789-1670/71/72
- South Korea: Seoul, Tel. (02) 7368442/3 & 7392768
- Spain: Madrid, Tel. 5192416
- Sri Lanka: Moratuwa, Tel. 505395
- Taiwan: Taipei, Tel. 3214454-7
- Thailand, Bangkok, Tel. 2522209/10
- United Kingdom: Boreham Wood, Tel. (081) 9530091
- USA: Nashville, Tel. (615) 2545651
- Distribution Worldwide: REVOX ELA AG  
Althardstrasse 146, CH-8105 Regensdorf, Tel. 01/8402671.

\*HX Pro headroom extension originated by Bang and Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.

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C 274

C 278

- Type C 274 Logging: \_\_\_\_\_ 4-Channel tape recorder; 1/4" tape path  
 C 278 Logging: \_\_\_\_\_ 8-Channel tape recorder; 1/2" tape path
- Tape deck: \_\_\_\_\_ 3-Motor transport, 2 controlled AC spooling motors,  
 1 Hall-commutated capstan motor, electronically controlled.
- Tape speeds: \_\_\_\_\_ 15/32 / 15/16 ips, 15/16 / 1 7/8 ips; 15/32 / 1 7/8 ips  
 selectable via internal DIP switches.
- Tolerance of nominal speed: \_\_\_\_\_  $\pm 0.2\%$
- Varispeed range: \_\_\_\_\_  $-33\%$  to  $+50\%$  of nominal speed
- Wow and flutter:  
 (weighted according to DIN 45507): \_\_\_\_\_ at 15/32 ips  $< 0.7\%$   
 at 15/16 ips  $< 0.3\%$
- Varispeed off: \_\_\_\_\_ at 1 7/8" ips  $< 0.15\%$
- Tape slip: \_\_\_\_\_ max.  $0.2\%$
- Start-up time (accord. to DIN): \_\_\_\_\_ max. 300 ms at 1 7/8 ips
- Winding time C 274: \_\_\_\_\_ approx. 130 s for 1100 m tape  
 C 278: \_\_\_\_\_ approx. 170 s for 1100 m tape  
 Slower winding speeds selectable with DIP switch
- Tape deck control: \_\_\_\_\_ microprocessor-controlled logic including tape end sensor, tachometer status, and tape  
 tension arm position. Tape dump and fader start possible.

Tape counter: \_\_\_\_\_ Real-time indication in hours, minutes and seconds corresponding to the selected tape speed.  
Accuracy: 0.25%  
Zero locator, address locator and LOOP mode possible.

Equalization: \_\_\_\_\_ 15/32 ips 400–3180 us  
15/16 ips 200–3180 us  
1 7/8 ips 120–3180 us  
Plug-in modules for reproduce amplifier

Frequency response (with tape –20 VU): \_\_\_\_\_ at 15/32 ips: 80 Hz ... 4 kHz +2/–3 dB  
at 15/16 ips: 30 Hz ... 8 kHz +2/–3 dB  
at 1 7/8 ips: 30 Hz ... 15 kHz +2/–3 dB

Out meters: \_\_\_\_\_ 200 nWb/m correspond to 0 dB indication Bargraph 21-LED array, combined VU/PEAK, without pre-emphasis

Distortion (k3 @ 333 Hz): \_\_\_\_\_ 15/16 ips: <3.0% (200 nWb/m)  
15/32 ips: <3.0% (257 nWb/m)  
1 7/8 ips: <3.0% (257 nWb/m)

Signal-to-noise ratios: \_\_\_\_\_ liner / A-weighted IEC179  
15/32 ips: >40/45 dB (200 nWb/m)  
15/16 ips: >45/50 dB (257 nWb/m)  
1 7/8 ips: >47/52 dB (257 nWb/m)

Channel separation @ 1 kHz: \_\_\_\_\_ Between adjacent tracks: > 50 dB

Erase depth @ 1 kHz: \_\_\_\_\_ Better than –75 dB

Inputs per channel (0 dBu = 0.775 V) XLR: \_\_\_\_\_ LINE IN: line balanced without transformer, input resistance > 50 kohm  
CAL: –10 dBu ... +10 dBu @ 257 nWb/m factory set to 0 dBu  
UNCAL: max. sensitivity 50 mV @ 257 nWb/m, regardless of the CAL SETTING

Outputs per channel: \_\_\_\_\_ LINE OUT: line balanced without transformer (Z out = 150 ohm)  
Level adjustable with jumpers in 3 steps: –10/0/+4 dBu @ 257 nWb/m  
min. load 600 ohm  
Max. level: +22 dBu into 600 ohm balanced load +18 dBu into 600 ohm unbalanced load

Jack socket diam. 6.3 mm: \_\_\_\_\_ PHONES: max. 9 V; (6.4 V @ 257 nWb/m) Ri = 75 ohm, short-circuit-proof

8-pin DIN socket: \_\_\_\_\_ MONITOR: 0.775 V @ 257 nWb/m Ri = 1 kohm

Peripheral connections: \_\_\_\_\_ RS 232: (serial interface) on 7-pin socket for manual remote control or external locator.  
PARALLEL REMOTE: (parallel remote control) to 25-pin D-connector  
FADER/SYNC: Access to fader start  
MONITOR: audio of the monitor branch, incl. external 24 VDC supply

Power requirements (voltage selector): \_\_\_\_\_ 100 V, 120 V, 140 V, 200 V, 220 V, 240 V  
50 ... 60 Hz,  
C 274: max. 125 W  
C 278: max. 135 W

Power fuse: \_\_\_\_\_ 100–140 V: 2.5 A slow, 200–240 V: 1.25 A slow

Power inlet: \_\_\_\_\_ 3 poles with protective ground

Weight: \_\_\_\_\_ C 274: 23 kg including rack mount brackets  
C 278: 25 kg including rack mount brackets

Overall size (W x H x D) w/o pads: \_\_\_\_\_ C 274: 483 x 444 x 227 mm including brackets  
C 278: 483 x 444 x 240 mm including brackets

Housing dimensions (W x H x D): \_\_\_\_\_ C 274: 434 x 464 x 227 mm without brackets  
C 278: 434 x 464 x 240 mm without brackets

Max. width (with reels): \_\_\_\_\_ 543 mm

Max. height (with reels): \_\_\_\_\_ 515 mm

All audio data refer to tape type: \_\_\_\_\_ Ampex 705

Subject to change