# AUDIOTRONICS

CASSETTE TAPE RECORDER
SERVICE DATA
Designed. Engineered and Manufactured by Audiotronics

**MODEL 162**


## SPECIFICATIONS

### EXTERNAL CONTROLS

Volume Control: . . . . . Slide Type Pot.
Tone Control: . . . . . Slide Type Pot.
Switches: . . . Record Mode (Momentary)
ALC Defeat (ON/OFF Slide)
Monitor (ON/OFF Slide)
Power (ON/OFF Push Sutton)

JACKS, AUDIO

External Microphone Input ¼" Standard, Imp. 500 Ohms
Auxiliary Input:..3.5mm Min; Imp.-100K, Sensitivity 100 MV
Headset/Speaker: .¼" Standard, For Headset Listening Or 8 Ohm Speaker
Line Out: . 3.5mm Min

### GENERAL

Power Requirements . 120V RMS. 50/60Hz, 16W AC
Power Output . . 1 O/l 8 Watts; Per ANSI PH 7-2-74
Signal to Noise Ratio . . 45 dB Unweighted
Wow & Flutter . . Less Than 0.2%
Recording System . . AC Bias, AC Erase
Bias Frequency . *50 KHz.* Approx.
Tape Speed 1⅞ IPS (4.76 CM/SEC)
Tape Format..... 2 Track
fast Forward/Rewind Time 80 Sec/C60 Cassette
Frequency Response 40-10,000 Hz ± 3dB
Speaker 10" Oval Dual Cone
Dimensions 6½" X 14" X 10" (16.5 *cm* X 35.6 cm X 25.4 cm)
Weight 12½ Lbs (5.67 KG)

*'All specifications subject to change without notice.*

## SERVICE GUIDE

The Audiotronics 162 tape recorder is designed to be virtually maintenance free. However, during normal operation, dust, dirt, tape residue and evaporating oil forms a scum which builds on the heads, belts, idlers and capstan and degrades the recorder's performance. The following maintenance suggestions are recommended:

A. Heads should be cleaned monthly, during heavy usage, or at regular intervals.

B. Pressure rollers and capstan should be checked routinely and cleaned of any residue build-up.

C. Drive belts, idlers and pulleys should be checked yearly for wear and cleaned (or replaced) as needed.

D. Smooth movement of recorders' mechanical components insures dependable operation. All sliding parts which come in contact with each other should be cleaned and re-lubricated.

CAUTION: Avoid excessive oiling and prevent any lubricant from contacting belts, idlers or capstan.

E. Check bias adjustment (see AC bias) during any major routine maintenance.

F. Check azimuth adjust (see azimuth adjustment) during any major maintenance or cleaning of head.

G. During normal use Erase and Record/Play Heads may become magnetized. This causes distorted sound and noisy recordings. Run a head demagnetizer (Degausser) slowly across the head to effectively eliminate any residual magnetism on the head.

### 1.0 AC BIAS

A. Place VTVM across resistor R51.

B. With recorder in record mode, adjust R73 (bias control) for 3.5 mv rms across R51. This provides recommended 350 $\mu$a bias current.

NOTE! Due to normal variance in head resistance, above method is recommended to maintain peak performance in the recorder.

C. The AC bias current should be adjusted whenever play/record head is changed, or during routine maintenance, for optimum performance.

### 2.0 AZIMUTH ADJUST

A. Low sound output, especially in high frequency, is usually a result of incorrect head azimuth.

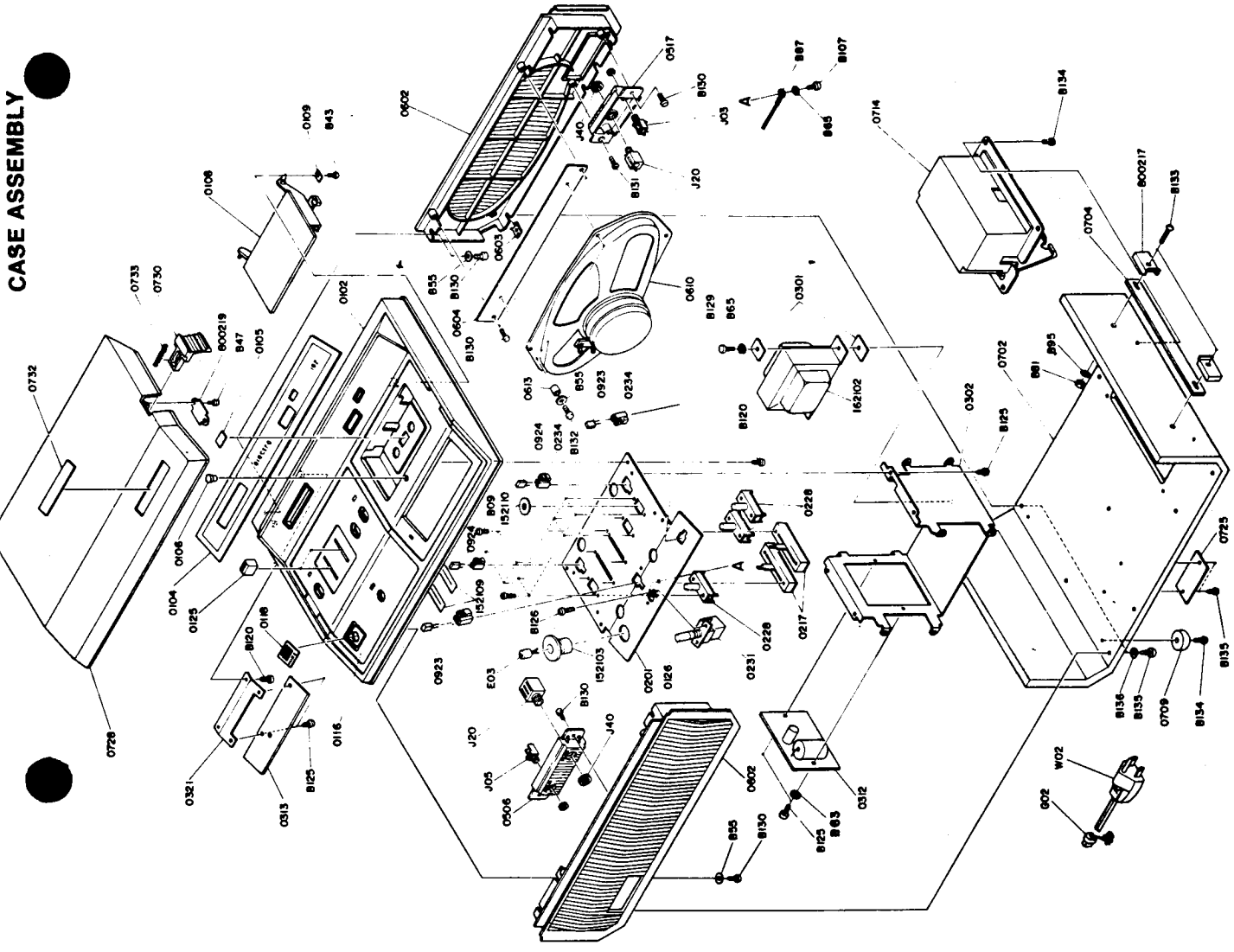
B. Observe recorder's output on a scope or R.M.S. meter.

C. Adjust record/play head H16, during play mode, for maximum output using a standard pre-recorded azimuth tape. Any frequency between 6.3KHz and 10KHz is acceptable with 10KHz being recommended to insure peak performance.

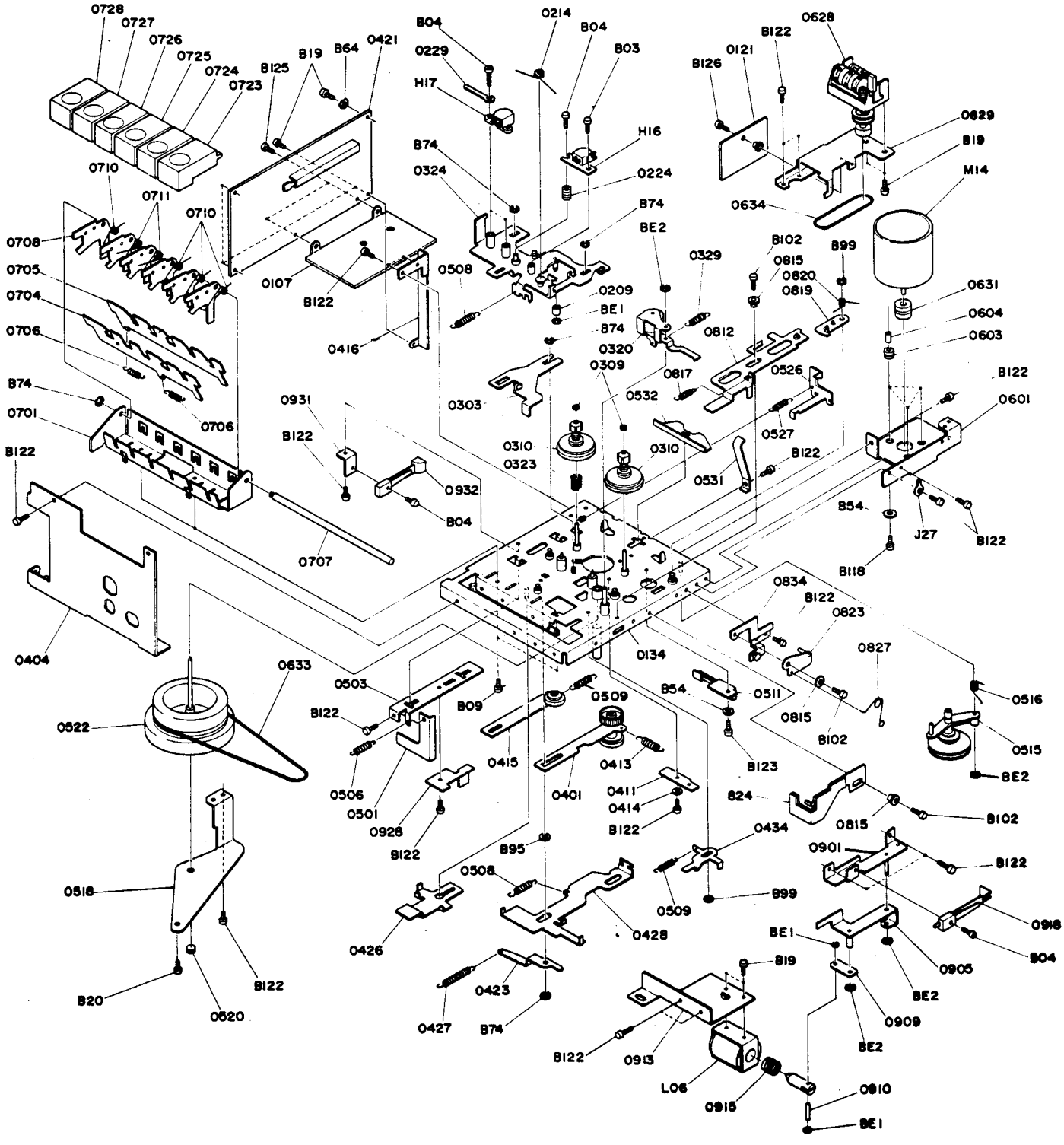
D. The head adjusting screw is accessible through small hole, on the top panel, immediately below the cassette door.

E. Azimuth adjustment is made whenever a record/play head is changed and during routine maintenance for optimum performance.

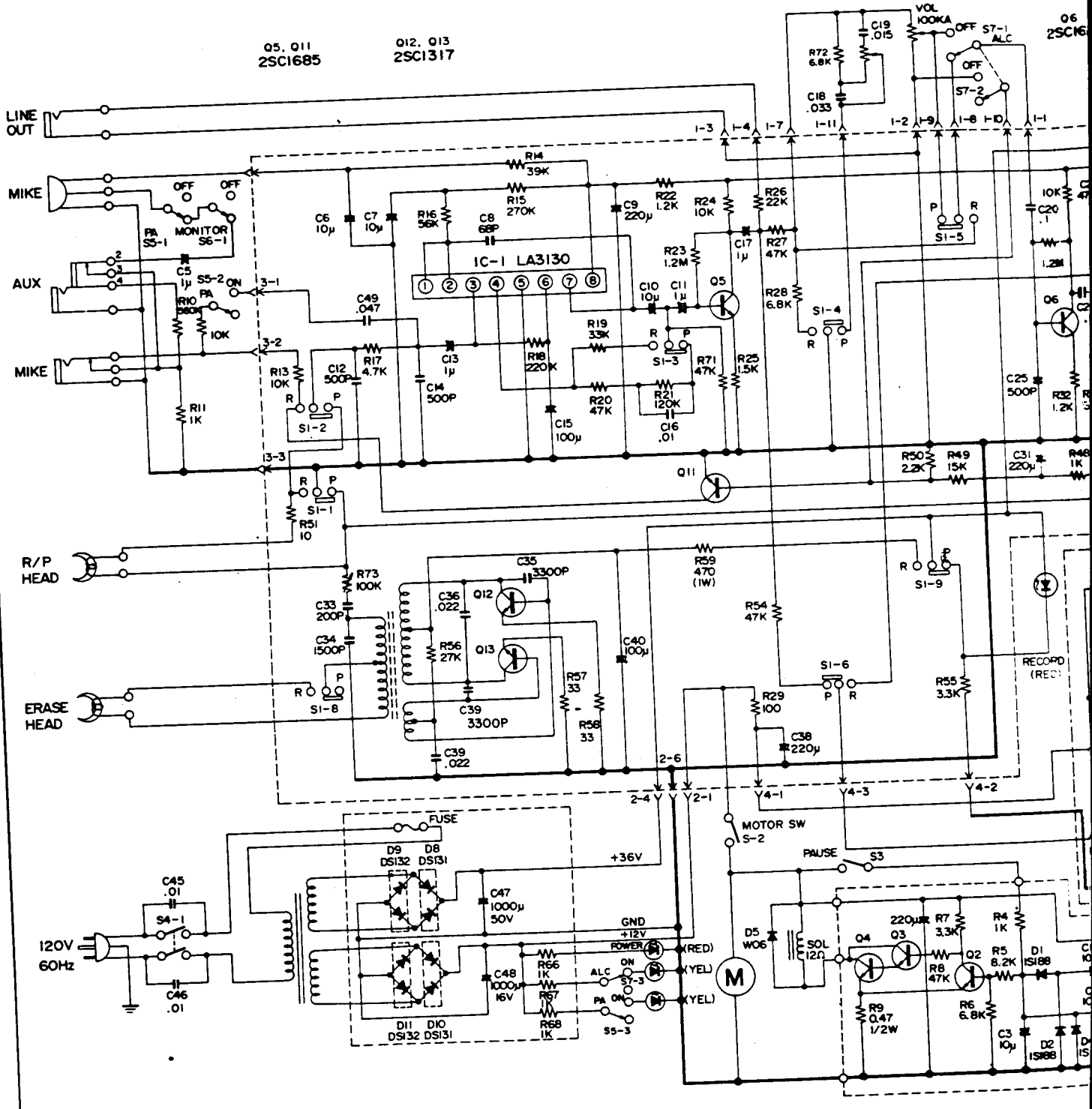
CASE ASSEMBLY



# MODEL 162 TAPE TRANSPORT



# MODEL 162 SCHEMATIC



# MODEL 162 SCHEMATIC