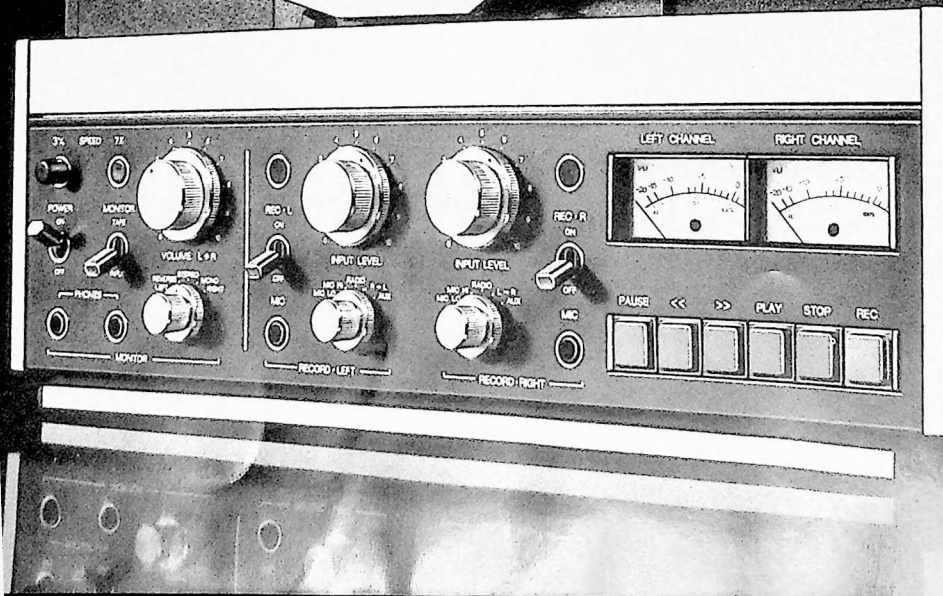
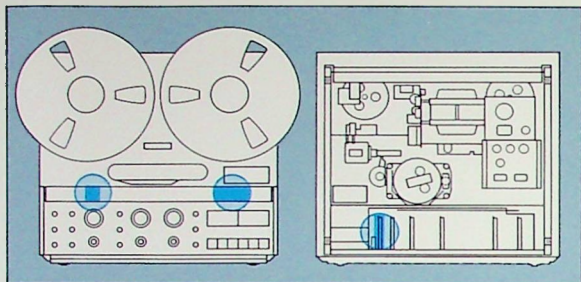


# REVOX B77-AUTO AUTOSTART



# REVOX B77-AUTO

## Autostart



### APPLICATION

The B77-AUTO versions are suited especially for the automatic recording of sporadically occurring intelligence.

The standard speed version will satisfy the highest demands on tonal quality in any surveillance application while the low speed and particularly the super low speed models are intended primarily for the automatic recording of messages passing through wire bound or wireless communication systems. The second track can be utilized for the simultaneous recording of a time signal for example.

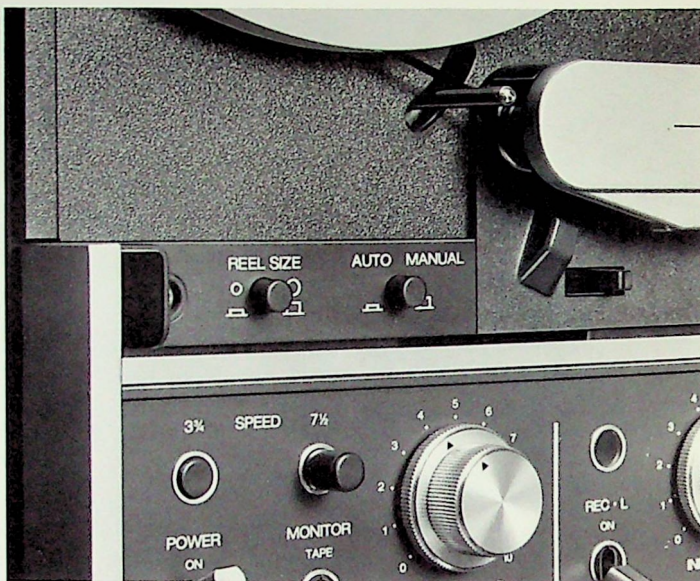
### THE CONCEPT

AUTO-START recorders are equipped with an additional circuit to initiate the recording mode whenever a signal reaches one of the machine's two recording channels. With "automatic" selected (button AUTO/MANUAL) the tape transport controls on the recorder are disabled, start and stop of the record function is then under the control of the auto-start logic. A remote control device, when connected to the recorder, will remain effective however. Separate threshold controls in each channel permit individual adjustment of the «trigger points» and their adjustment is independent of the setting of the record level controls.

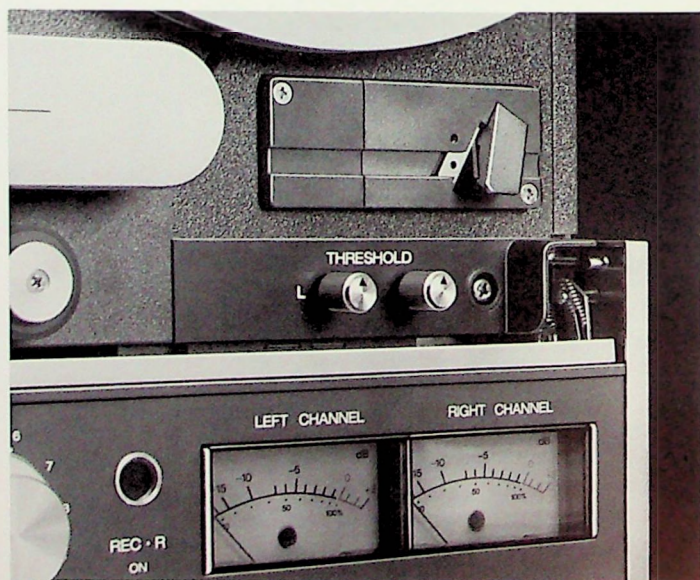
Whenever a signal reaches the recorder's inputs whose level exceeds the preset threshold, the record mode will be effected immediately (provided the record function has been preselected for the desired channel). At the cessation of the input signal, recording is maintained over a certain period of time before the machine stops to await the next command. This period of delayed stopping can be adjusted internally over the range from 1 to 10 seconds approximately.

### VARIANTS

B77-AUTO recorders are available in the speed combinations standard, low speed and super low speed in either the 2- or 4-track format. NAB equalization characteristics are used in the standard and low speed versions.



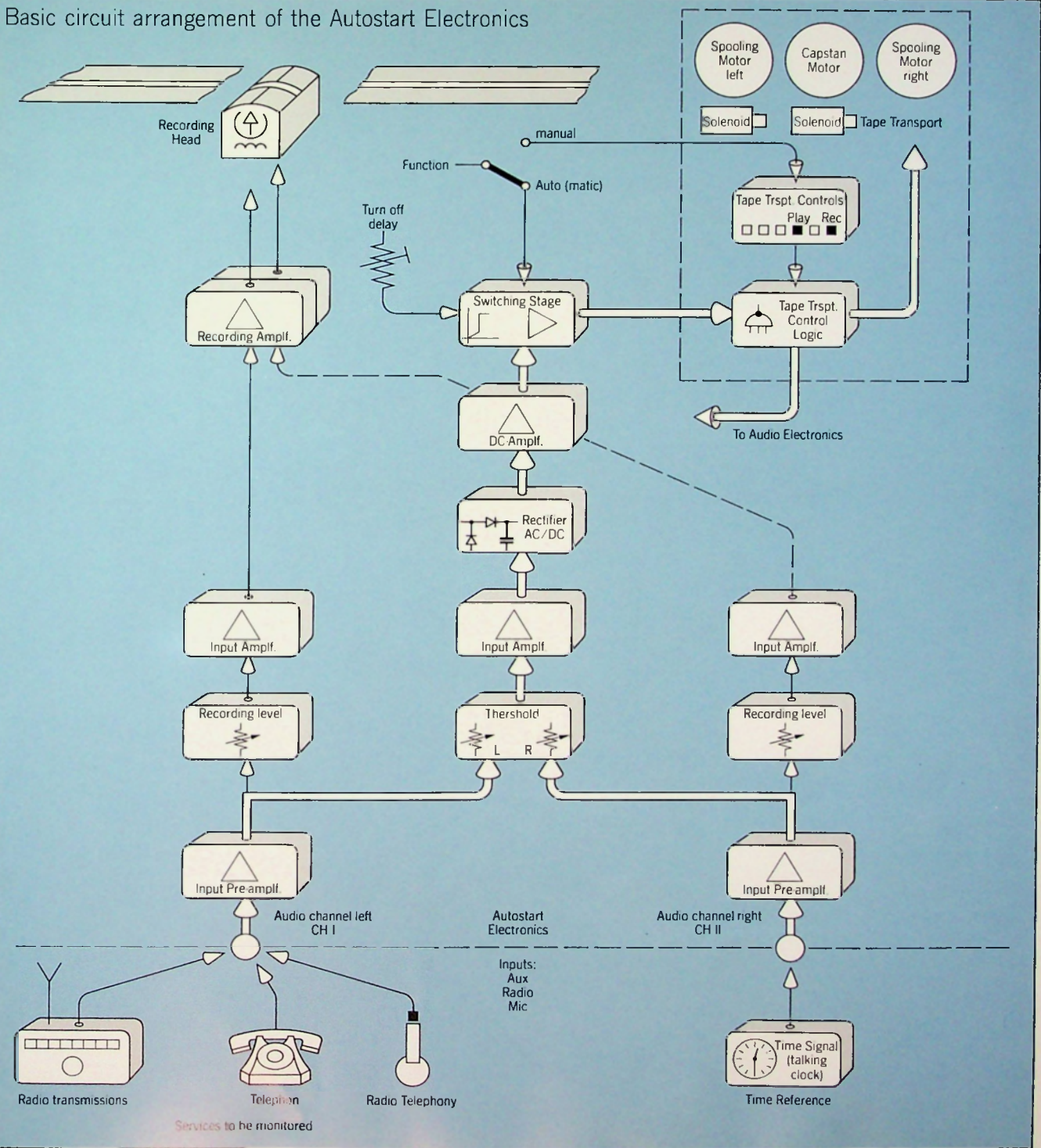
Pressing the button AUTO changes the B77 recorder from normal to automatic record activation.



The threshold for automatic record activation can be adjusted for each channel separately and independent of the setting of the record level controls.



Basic circuit arrangement of the Autostart Electronics



# REVOX B77-AUTO

## Autostart

# Technical Data

|                                                                                  | AUTOSTART (STANDARD/AUTO)                                                                                                                                                                                                                              | (LS/AUTO)                                                                                                                                                               | (SLS/AUTO)                                                                                                                                                              |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tape transport mechanism:</b>                                                 | 3-motor tape drive, 2 AC driven spooling motors, 1 AC driven capstan motor, electronically regulated                                                                                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Tape speeds:</b>                                                              | <b>3¼ ips and 7½ ips</b><br>electronic change-over<br>±0.2%                                                                                                                                                                                            | <b>1¼ ips and 3¼ ips</b><br>electronic change-over<br>±0.2%                                                                                                             | <b>1⅝ ips and 1¼ ips</b><br>electronic change-over<br>±0.2%                                                                                                             |
| Tolerance from nominal:<br>With external accessory,<br>speed variable:           | from: 2½ ... 11 ips                                                                                                                                                                                                                                    | from: 1¼ ... 5½ ips                                                                                                                                                     | (usable at 1¼ ips only)                                                                                                                                                 |
| <b>Wow and flutter:</b><br>(DIN 45507/consistent<br>with IEEE standard 193-1971) | at <b>3¼ ips</b> less than 0.1%<br>at <b>7½ ips</b> less than 0.08%                                                                                                                                                                                    | at <b>1¼ ips</b> less than 0.2%<br>at <b>3¼ ips</b> less than 0.1%                                                                                                      | at <b>1⅝ ips</b> less than 0.3%<br>at <b>1¼ ips</b> less than 0.2%                                                                                                      |
| <b>Tape slip:</b>                                                                | max. 0.2%                                                                                                                                                                                                                                              |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Reel size:</b>                                                                | up to 10.5 inch diameter (min. hub diameter 2.36 inches), tape tension switchable (for small hub diameters)                                                                                                                                            |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Winding time:</b>                                                             | approx. 135 sec for 3600 ft of tape                                                                                                                                                                                                                    |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Tape transport control:</b>                                                   | Integrated control logic with tape motion sensor provides for any desired transition between different operating modes. Contactless electronic switching of all motors. Remote control of all functions and electric timer operating are possible.     |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Equalization:</b>                                                             | <b>3¼ ips:</b> NAB 90-3180 µsec<br><b>7½ ips:</b> NAB 50-3180 µsec                                                                                                                                                                                     | <b>1¼ ips:</b> NAB 120-3180 µsec<br><b>3¼ ips:</b> NAB 90-3180 µsec                                                                                                     | <b>1⅝ ips:</b> 200 µsec<br><b>1¼ ips:</b> 120 µsec                                                                                                                      |
| <b>Frequency response:</b><br>(measured via tape, at -20 VU)                     | at <b>3¼ ips:</b><br>30 Hz ... 16 kHz +2/-3 dB<br>50 Hz ... 10 kHz ±1.5 dB<br><br>at <b>7½ ips:</b><br>30 Hz ... 20 kHz +2/-3 dB<br>50 Hz ... 15 kHz ±1.5 dB                                                                                           | at <b>1¼ ips:</b><br>40 Hz ... 10 kHz +2/-3 dB<br><br>at <b>3¼ ips:</b><br>40 Hz ... 16 kHz +2/-3 dB<br>50 Hz ... 10 kHz ±1.5 dB                                        | at <b>1⅝ ips:</b><br>60 Hz ... 4 kHz +2/-3 dB<br><br>at <b>1¼ ips:</b><br>60 Hz ... 8 kHz +2/-3 dB                                                                      |
| <b>Peak recording level:</b>                                                     | 514 nWb/m corresponds<br>to 6 dB above 0 VU                                                                                                                                                                                                            | 257 nWb/m corresponds<br>to 6 dB above 0 VU                                                                                                                             | 140 nWb/m corresponds<br>to 6 dB above 0 VU                                                                                                                             |
| <b>Level metering:</b>                                                           | VU meters in accordance with ASA C16.5 plus LED peak level indicators                                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Distortion:</b>                                                               | at 0 VU at 0 VU + 6 dB<br>(nWb/m): (257) (514)<br>at <b>3¼ ips:</b> <1% <2.5%<br>at <b>7½ ips:</b> <0.6% <1.5%                                                                                                                                         | at 0 VU + 6 dB<br>(nWb/m): (257)<br>at <b>1¼ ips:</b> <3%<br>at <b>3¼ ips:</b> <1.5%                                                                                    | at 0 VU + 6 dB<br>(nWb/m): (140)<br>at <b>1⅝ ips:</b> <3%<br>at <b>1¼ ips:</b> <3%                                                                                      |
| <b>Signal to noise ratio:</b><br>(measured via tape,<br>ASA A weighted)          | <b>Half track:</b><br>at 3¼ ips better than 64 dB<br>at 7½ ips better than 67 dB<br><b>Quarter track:</b><br>at 3¼ ips better than 60 dB<br>at 7½ ips better than 63 dB                                                                                | <b>Half track:</b><br>at 1¼ ips better than 56 dB<br>at 3¼ ips better than 58 dB<br><b>Quarter track:</b><br>at 1¼ ips better than 52 dB<br>at 3¼ ips better than 54 dB | <b>Half track:</b><br>at 1⅝ ips better than 52 dB<br>at 1¼ ips better than 52 dB<br><b>Quarter track:</b><br>at 1⅝ ips better than 48 dB<br>at 1¼ ips better than 48 dB |
| <b>Crosstalk:</b><br>(at 1000 Hz)                                                | Stereophonic: better than 45 dB<br>Monophonic: better than 60 dB                                                                                                                                                                                       |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Erase depth:</b>                                                              | at 7½ ips better than 75 dB                                                                                                                                                                                                                            | better than 75 dB                                                                                                                                                       | better than 75 dB                                                                                                                                                       |
| <b>Inputs per channel:</b>                                                       | <b>MIC</b> (unbalanced).<br>Position <b>LO</b> : 0.15 mV/2.2 kohms for 50 ... 600 ohms microphones<br>Position <b>HI</b> : 2.8 mV/1100 kohms for microphone impedances up to 20 kohms<br><b>RADIO</b> : 2.8 mV/20 kohms, <b>AUX</b> : 40 mV/220 kohms  |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Overload margin on all inputs:</b>                                            | 40 dB (1100)                                                                                                                                                                                                                                           |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Outputs per channel:</b><br>(level at 6 dB above<br>0 VU/514 nWb/m)           | <b>OUTPUT</b> : 155 V max., range of presets 26 dB, $R_L \geq 20$ kohms<br><b>RADIO</b> : 155 V max., range of presets 26 dB, $R_L \geq 20$ kohms<br><b>PHONES</b> : (2x) max. 5.6 V, short-circuit proof, optimum matching impedance 200 ... 600 ohms |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Connectors for:</b>                                                           | Remote control of tape transport functions. Remote control of variable tape speed. Slide projector (electronics optional)                                                                                                                              |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Semi-conductor complement:</b>                                                | 13 IC, 1 opto-coupler, 4 Triac, 66 transistors, 37 diodes, 5 LED, 3 full wave rectifiers, 3 relays                                                                                                                                                     |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Electric current supply:</b><br>(voltage selector)                            | 100, 120, 140, 200, 220, 240 V<br>50 ... 60 Hz, max. 80 watts                                                                                                                                                                                          |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Mains fuse:</b>                                                               | 100 ... 140 V: 1 A slow-blowing<br>200 ... 240 V: 0.5 A slow-blowing                                                                                                                                                                                   |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Weight:</b>                                                                   | approx. 37 lbs. 7 ozs (17 kg)                                                                                                                                                                                                                          |                                                                                                                                                                         |                                                                                                                                                                         |
| <b>Dimensions:</b>                                                               | 17.8 x 16.3 x 8.14 inches (452 x 414 x 207 mm) (W x H x D)<br>Required clearance for 10.5 inch reels: max width: 21.2 inches (538 mm), max height: 18.25 inches (463.5 mm)                                                                             |                                                                                                                                                                         |                                                                                                                                                                         |

## Additional Data:

|                                                        |                                      |                                         |              |
|--------------------------------------------------------|--------------------------------------|-----------------------------------------|--------------|
| <b>Threshold level for AUTO operation:</b> (AUX input) | min. 150 mV                          | <b>Starting Time:</b><br>(from standby) | max. 0.5 sec |
| <b>Turn off delay*:</b><br>(*adjustable if required)   | 1 ... 10 sec (internally adjustable) |                                         |              |

All figures quoted are minimum performance values as measured with REVOX 621 mastering tape normally exceeded by all units.

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We reserve the right to make alterations as technical progress may warrant

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