

REEL SIZE AND REEL KNOBS

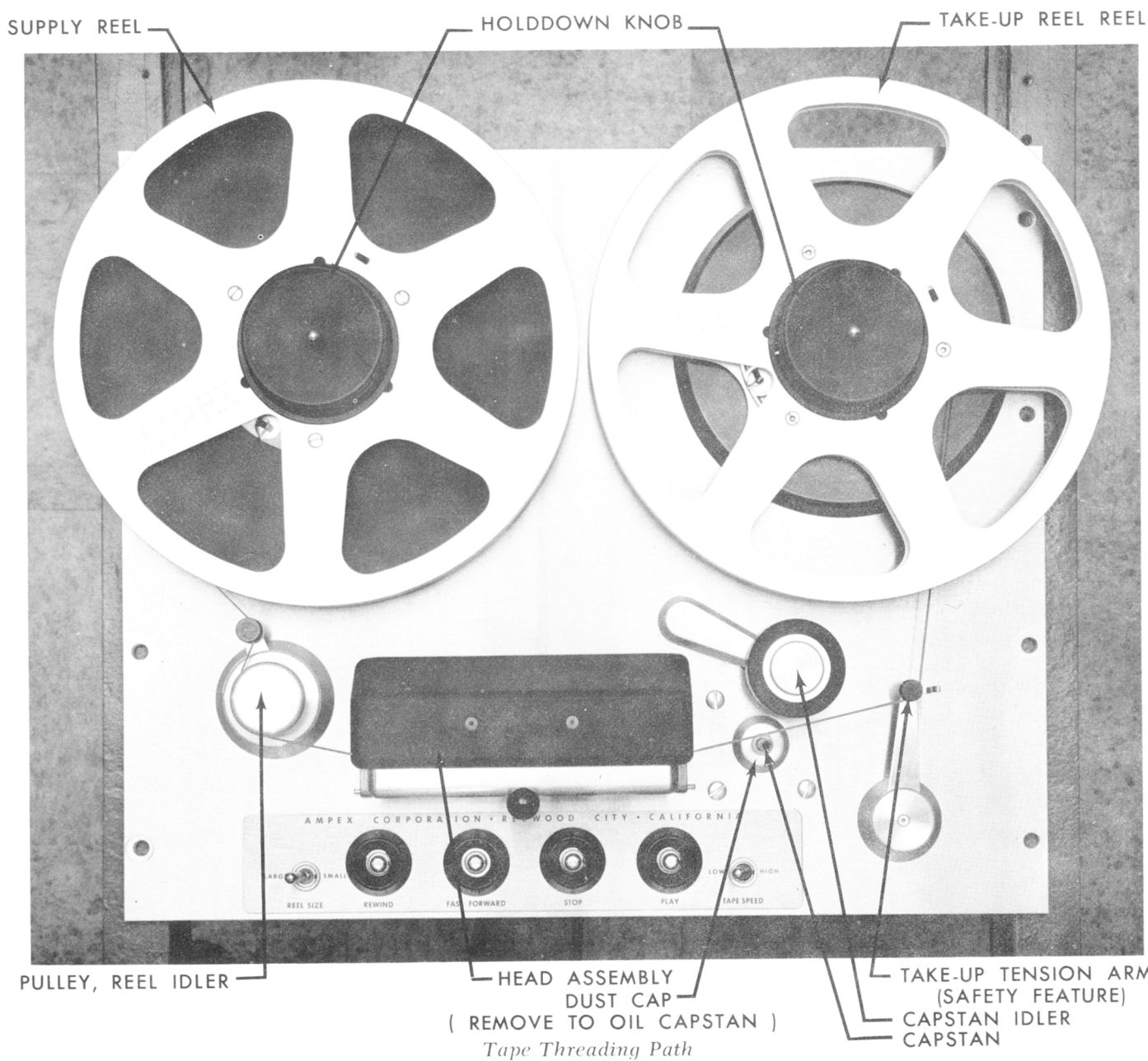
The reproducer is equipped to handle either the NAB 10½ inch reel of tape or the smaller EIA 5 inch and 7 inch reel sizes. REEL SIZE switch (S504) changes tape tension appropriately for the reel size used. To use large 10½ inch reels on console models, editing knobs (Catalog Number 1917-00) have been provided. Rack mounted equipment is supplied with holddown knobs (Catalog Number 9093-00) for 10½ inch reels. On all models, EIA reels (5 inch or 7 inch) are positioned on the turntables, so that the reels engage the turntable pins and holddown knobs (Catalog Number 30971-01) are provided with each machine to hold these reels in place.

TAPE THREADING

NOTE

In the LARGE reel position both the rewind and take-up reels must be NAB type, and in the SMALL reel position both reels must be EIA.

Thread the tape along the path indicated in the Tape Threading Path illustration. *Do Not* loop the tape to the hub in such manner



that it will not come free of the reel at the end. This would prevent safety switch S501 from causing the capstan idler to disengage from the capstan, and might result in a flat being worn on the capstan idler wheel. (Any adhesive material accumulated on the reel hub may also keep the tape from coming free at the end of the reel, and should therefore, be removed with solvent.)

POWER

On monaural models, power is supplied

through power switch S201 on the control strip, which must be turned on to operate the electronic and mechanical assemblies.

On stereophonic models the power switch S301 on the power panel turns on the Tape Transport and Channel No. 1 Reproduce Amplifier only. Switch S302 on the power panel turns on Channel No. 2 Reproduce Amplifier only. Both power switches must be in the on position for stereophonic operation. The mechanical assembly and electronic assembly are individually fused by the 3 ampere fuse (F101)

in the tape transport and the 1 ampere fuse (F102) in the electronic assembly.

SPEED SWITCH

The Tape Speed switch S502 determines the speed of the Capstan Drive Motor and thus the tape speed.

TAPE MOTION

The tape motion is controlled by means of four pushbuttons labelled REWIND, FAST FORWARD, STOP, and PLAY.

PLAY: The tape is set into motion at the speed selected by the TAPE SPEED switch when PLAY button S505 is pressed. *The tape must be completely stopped before instituting this mode.* The PLAYBACK GAIN adjustments are factory-set to give a +4 vu output from tapes recorded at the AMPEX-recommended operating level (approximately 1% distortion point).

FAST FORWARD: The equipment can be started in fast forward, or switched to fast forward from any of the operating modes, by pressing FAST FORWARD button S505.

REWIND: The equipment can be started in rewind, or switched to rewind from any of the operating modes, by pressing REWIND button S507.

NOTE

In using either FAST FORWARD or REWIND mode, it is desirable to remove the tape from direct contact with the head by opening the head housing gate. This will reduce wear on the head and prevent the oxide coating on the tape from depositing on the head and impairing its performance.

STOP: To stop the tape while it is moving in any mode, press the STOP button S502. (The equipment will stop automatically if the tape should break or run off either reel.)

HALF TRACK OPERATION

Half-track pre-recorded tapes may be reproduced on those models equipped with half-track heads in the following manner: The tape is threaded and the equipment operated as described under TAPE THREADING and TAPE MOTION. Only the upper half of the tape will be reproduced. To reproduce the second or lower half of the tape, the full reel, now on the take-up turntable, should be removed, turned over and placed on the tape supply turntable. Place an empty reel on the take-up turntable. Again thread the tape and operate the equipment as noted.

When using stereophonic equipment (for reproducing half-track or full track pre-recorded tapes) disconnect or otherwise disable the output of the lower Reproduce Amplifier. The machine is then operated as described above.

FULL TRACK OR STEREOPHONIC OPERATION

To reproduce Stereophonic pre-recorded tapes, Channel No. 1 is normally connected to the left speaker system and Channel 2 is connected to the right speaker system. Both reproduce amplifiers must be connected to an output.

EDITING AND CUEING TECHNIQUE

Indexing the tape as in editing or cueing, or when approaching the end of the reel, is simplified by holding down a combination of buttons. Tape motion can be reduced by holding down the FAST FORWARD and REWIND buttons simultaneously, and then alternating between the two to control tape direction. When the desired point is reached, the STOP button should be held down until the other buttons are released.

CAUTION

Never press the STOP and PLAY buttons in rapid sequence when the tape is traveling at high speed in the REWIND or FAST FORWARD modes. This would almost invariably stretch, or even break, the tape since it does not allow sufficient time for the tape to stop before the capstan idler locks it to the capstan.

REMOTE CONTROL

For remote operation, remove dummy plug P502P from receptacle J502S and connect the remote control unit (See TAPE TRANSPORT MECHANISM-REMOTE CONTROL).

SUMMARY OF CONTROLS AND SWITCHES

<i>Item</i>	<i>Schematic Reference Symbol</i>	<i>Location</i>	<i>Function</i>
TAPE SPEED	S503	Tape transport control cluster	Determines speed of the capstan drive motor by selecting high or low speed winding.
Real Size Large-Small Switch	S504	Tape Transport	Adjusts tape tensioning circuitry for the reel size used. The switch is closed when (LARGE position) NAB 10 $\frac{1}{2}$ inch reels are used. In the SMALL position the switch is open, connecting resistance R502 in series with the torque motors, thereby reducing holdback and take-up tension.
Power On-Off Switch	Monaural	Power Panel	Supplies AC power to the Tape Transport and Reproduce Amplifier (indicated by a neon light).
Power On-Off 2 Switches	Stereophonic	Power Panel	Supplies AC power to the Tape Transport and to each Reproduce Amplifiers (indicated by two neon lights).
Play Button	S505	Tape Transport Control Cluster	Controls tape motion in the reproduce (PLAY) modes. Interlocked with rewind and fast forward modes.
Rewind Button	S507	Tape Transport Control Cluster	Controls the rewind relay. Connects full AC power to the rewind (supply) motor and places resistor R504 in the AC circuit to the takeup motor when this button is pressed.
Fast Forward Button	S506	Tape Transport Control Cluster	Controls the fast forward relay. Connects full AC power to the takeup motor and places resistor R504 in the AC circuit to the rewind motor when this button is pressed.
Stop Button	S502	Tape Transport Control Cluster	When this button is pressed, the brake solenoids and all relays are de-energized.