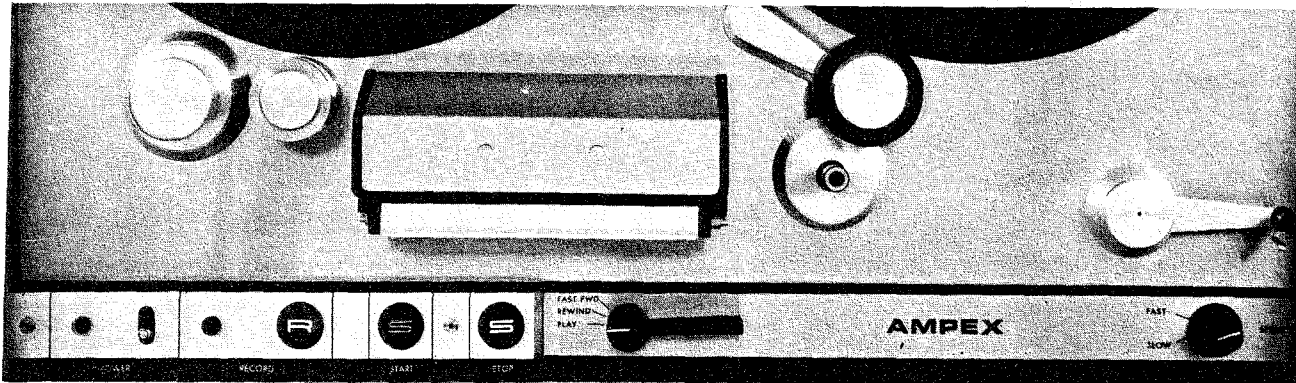


OPERATION

3.1 OPERATING CONTROLS AND INDICATORS

3.1.1 Tape Transport (See Fig. 3-1)

POWER toggle switch	Controls application of a-c power to tape transport and all electronic assemblies.
RECORD pushbutton	Places pre-selected channels in the record mode. Has no effect unless the electronic record selector is in the READY position and tape is in motion in the play mode.
RECORD indicator light	Illuminated when equipment is operating in the record mode.
START pushbutton	Starts tape in motion in the mode selected by the mode selector switch.
STOP pushbutton	Stops tape motion in any mode. Drops out record function when applicable.
Mode Selector rotary switch	Selects mode -- Play, Rewind, or Fast Forward -- in which tape motion will be placed by the START pushbutton.
SPEED rotary switch	Selects FAST or SLOW tape speed. Electronic equalization automatically changed with speed selection.



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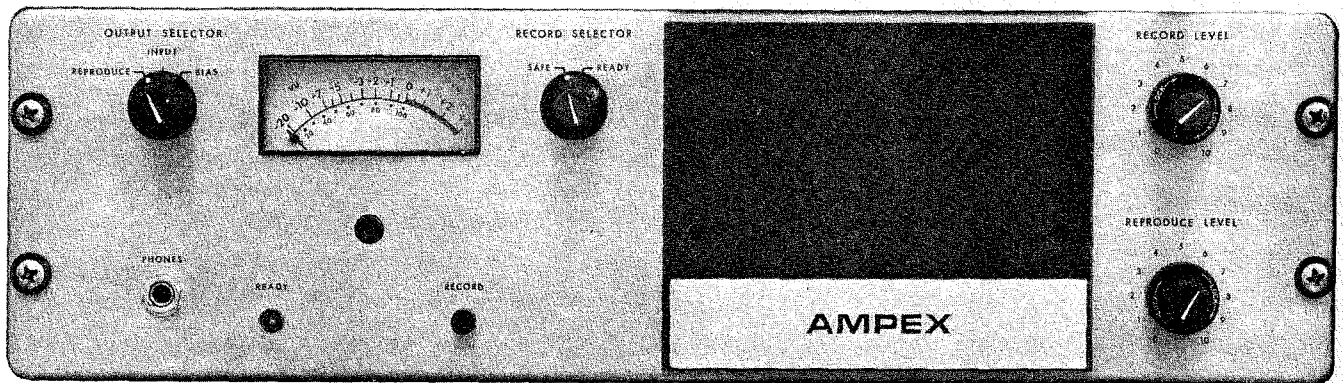
Fig. 3-1 Operating Controls and Indicators, Tape Transport

3.1.2 Record/Reproduce Electronic Assembly (See Fig. 3-2)

OUTPUT SELECTOR rotary switch	Selects signal "reproduced" from tape, the "input" record signal, or the "bias" current for monitoring on vu meter. Connects reproduced or record signal to output connector and monitor jack.
RECORD SELECTOR rotary switch	Selects "safe" condition where channel cannot be placed in record mode, or "ready" condition where channel can be placed in record mode.
READY indicator light	Indicates channel is ready to start recording.
RECORD indicator light	Indicates channel is operating in the record mode.
VU meter	Visually indicates reproduce, record, or bias level as selected by the output selector switch. Meter lights act as power indicator.
RECORD LEVEL rotary control	Adjust record level.
REPRODUCE LEVEL rotary control	Adjusts reproduce level.

3.1.3 Reproduce-only Electronic Assembly

POWER toggle switch	Controls application of a-c line power to electronic assembly. Has no effect unless power at tape transport is turned on.
VU meters (optional accessory)	Visually indicates reproduce level when supplied. One vu meter for each audio module in the assembly
REPRODUCE LEVEL	Behind cover on front panel. Usually adjusted for correct playback level from tape recorded at normal record level and left in that position. One reproduce level control for each audio module in the assembly.



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Fig. 3-2 Operating Controls and Indicators, Record/Reproduce Electronic Assembly

3.2 TAPE THREADING

The tape threading path is shown in Fig. 3-3. Open the head gate and thread the tape on the guides. When threading is completed with the tape anchored to the takeup reel hub, turn the takeup reel manually until the supply reel starts to rotate; this removes all tape slack and ensures that the takeup tension arm is not contacting the safety switch.

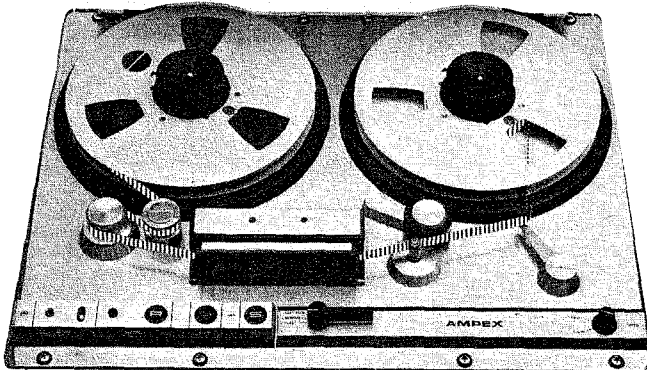


Fig. 3-3 Tape Threading Path

3.3 SELECTING TAPE SPEED

Standard tape speed pairs available on this equipment are 3-3/4 - 7-1/2 ips, 7-1/2 - 15 ips, and 15 - 30 ips. Depending on the particular recorder and the tape speed desired, place the SPEED rotary switch in the FAST or SLOW position.

NOTE

Vibration from the drive motor will be reduced if power is removed from the

transport when speed switching is required.

3.4 APPLYING POWER

To apply power to the complete system, simply place the POWER toggle switch on the tape transport in the on (up) position. (On reproduce-only equipment, a power toggle switch on each electronic assembly must also be placed in the ON position to apply power to the electronics.)

3.5 RECORDING

3.5.1 Without Using Sel-Sync

Step 1: Thread blank tape, or tape recorded with material not necessary to save, on the recorder (refer to paragraph 3.2).

NOTE

If a previously recorded tape was recorded on equipment with a different head configuration it is possible that the old recording will not be completely erased. Such tape must be bulk erased before being re-recorded.

Step 2: Select the tape speed desired (refer to paragraph 3.3).

Step 3: Apply power to the equipment (refer to paragraph 3.4).

Step 4: At the electronic assembly, place the RECORD SELECTOR switches in the READY position on the channels which are to be recorded (the READY indicators will be illuminated on those channels). If certain channels are not to record,

leave the RECORD SELECTOR for those channels in the SAFE position.

Step 5: At the electronic assembly, place the OUTPUT SELECTOR switch in the INPUT position on channels which are to record. Using a test signal or rehearsal run, adjust the RECORD LEVEL controls on those channels so that the vu meter indicator swings to 0 on the meter dial on most program peaks (maximum peaks can result in a swing to +2 or +3 on the meter). Lock the controls in that position.

NOTE

If an optional Sel-Sync assembly is connected into the system, but is not to be used, place all front panel switches on that assembly in the NORMAL position.

Step 6: At the tape transport, place the mode selector switch in the PLAY position. Press the START pushbutton, then the RECORD pushbutton. All channels which were in the ready condition will be placed in the record mode (the record indicators on those channels and on the tape transport will be illuminated).

NOTE

In monitoring the record run, the input signal can be compared with the signal actually being recorded on the tape by turning the OUTPUT SELECTOR switch on the electronic assemblies from the INPUT to the REPRODUCE position and vice versa.

Step 7: At the completion of the recording, press the STOP pushbutton on the tape transport to stop tape motion (and drop out the record mode).

3.5.2 Using Sel-Sync

Sound-on-sound recording, using the optional Sel-Sync assembly, requires additional switching procedures to those in the normal recording process.

Step 1: Repeat Steps 1 through 3, paragraph 3.5.1.

Step 2: At the electronic assemblies select the channel(s) on which the first run is to be recorded by placing the appropriate RECORD SELECTOR switch(es) in the READY position. Leave this switch on all other channels in the SAFE position.

Step 3: At the electronic assembly for the

channel(s) which will record the first run, place the OUTPUT SELECTOR switch(es) in the INPUT position. Use a test signal or rehearsal run to adjust the RECORD LEVEL controls on those channels so that the vu meter indicator swings to 0 on most program peaks (maximum peaks can result in a swing to +2 or +3 on the meter). Lock the controls in that position.

Step 4: At the Sel-Sync assembly, place all front panel controls in the NORMAL position.

Step 5: At the tape transport, place the mode selector switch in the PLAY position. Press the START pushbutton, then the RECORD pushbutton. The channels selected in Step 2 will be placed in the record mode for the first run. Monitoring can be accomplished to same as in normal recording.

Step 6: At the completion of the first run, press the STOP pushbutton on the tape transport to stop tape motion and drop out the record mode. Rewind the tape to the beginning of the recording.

Step 7: At the Sel-Sync assembly turn the controls for those channel(s) which recorded the first run to the SYNC position. Leave all other controls on that assembly in the NORMAL position.

Step 8: Select the channel(s) which will record the second run by placing the appropriate RECORD SELECTOR switch(es) in the READY position. Turn these switches on other electronic assemblies to the SAFE position.

NOTE

Switching the Sel-Sync controls to the SYNC position (Step 7) defeats the record function on those channels. Therefore, it is permissible to leave the RECORD SELECTOR switch(es) for the channel(s) which recorded previous runs in the READY position.

Step 9: Provide the performer a headset monitor for the channel(s) previously recorded.

Step 10: Set the record level for the channels which will record the second run (refer to Step 3).

Step 11: Start tape in motion in the record mode (refer to step 5).

Step 12: The performer will hear the first recording, and can sing or play in unison with it. At the completion of the second sound run, press the STOP pushbutton to stop tape motion and drop out the record mode.

Step 13: Proceed in this manner as required, being sure to switch the appropriate Sel-Sync controls to the SYNC position as the respective channels are recorded.

3.6 REPRODUCING (PLAYBACK)

Step 1: Thread the recorded tape on the transport (refer to paragraph 3.2).

Step 2: Select the tape speed that corresponds to the speed at which the tape was recorded (refer to paragraph 3.3) and apply power to the equipment (refer to paragraph 3.4).

Step 3: At the electronic assemblies, place all RECORD SELECTOR switches in the SAFE position to prevent accidentally putting the equipment in the record mode and so erasing the tape.

Step 4: At the electronic assemblies, place all OUTPUT SELECTOR switches in the REPRODUCE position.

NOTE

This switch must be positioned as described or there will be no reproduce output.

Step 5: At the tape transport, place the mode selector switch in the PLAY position and press the START pushbutton. Tape will be placed in motion in the reproduce mode. Note that the REPRODUCE LEVEL control will probably be locked in the position which gives proper playback level from a tape recorded at normal operating level. If not, adjust this control to obtain the desired level.

Step 6: To stop tape motion and remove the equipment from the reproduce mode, press the STOP pushbutton on the tape transport.

3.7 USING FASTWINDING MODES

Tape can be quickly shuttled from one reel to the other by using the fastwinding modes. To enter either the rewind or the fast forward mode, place the mode selector switch in the REWIND or FAST FWD position and press the START pushbutton. Once either fastwinding mode is started, it is possible to switch back and forth between rewind and fast forward by switching the mode selector from one position to the other (there is no need to use the stop-start sequence). To remove the equipment from fastwinding, press the STOP pushbutton (or turn the mode selector

to the PLAY position). If tape is allowed to run off either reel, automatic stop will occur.

It is recommended that the head gate be opened, and the tape thus removed from contact with the heads when fastwinding.

CAUTION

DO NOT GO FROM A FASTWINDING MODE TO THE PLAY MODE IN SUCH RAPID SEQUENCE THAT TAPE MOTION CANNOT STOP BEFORE THE CAPSTAN IDLER CLAMPS THE TAPE TO THE CAPSTAN. TAPE WILL PROBABLY BE BROKEN OR STRETCHED IF IT IS IN MOTION WHEN THE PLAY MODE IS STARTED.

3.8 POSITIONING TRANSPORT IN CONSOLE

When the equipment is mounted in the Ampex console, the position of the transport can be changed in three increments from horizontal to slanting toward the operator at an approximate 15° angle. To change the position, open the hinged cover directly below the forward edge of the transport, by pressing the two buttons. Manually support the transport and unscrew the knurled knob at the right inner side of the console (see Fig. 3-4).

WARNING

THE TRANSPORT IS HINGED OFF-CENTER. FIRMLY SUPPORT THE TRANSPORT WHILE UNSCREWING THE KNOB, BECAUSE PERSONAL INJURY MIGHT RESULT IF THE TRANSPORT SUDDENLY PIVOTS.

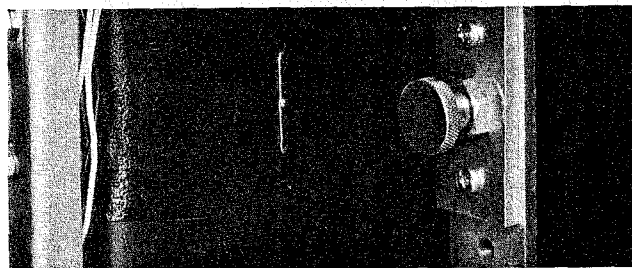


Fig. 3-4 Transport Positioning Screw

Position the transport at the desired angle (so the positioning screw mates with one of the threaded inserts) and retighten the positioning screw. Close the hinge cover, and fasten it in position by pressing the two buttons.