

PORTABLE CASES

Durable cases of blue Royalite®, trimmed with extruded anodized aluminum. Removable front and rear covers. The larger case for the transport and the smaller case for the electronics of the models 1021, 1022 and 1024.

\$40.

EACH



8+ REEL — FOR MAGNECORD RECORDERS

Empty 8+ reel fits all MagneCORD models or any recorder capable of handling 10 1/2 inch reels. Loads with 2800 feet of 1 mil tape or 2000 feet of 1 1/2 mil tape. Provides 50% more playing time. Packed in box.

\$1.94

EACH

MAGNECORD
tape recorders

DIVISION OF THE TELEX CORPORATION
9600 ALDRICH AVENUE, SOUTH, MINNEAPOLIS, MINNESOTA 55420

FORM MA-2122

3/67 LITHO U.S.A.

MAGNECORD

1020
1021
1022
1024
1028
1048



MAGNECORD 1020 RECORDER/REPRODUCER

1020 The Model 1020, a fully transistorized tape recorder/reproducer of professional quality, is the first MagneCORD designed exclusively for the private consumer. Encased in a hand-polished walnut cabinet, the 1020 is a combination of decorator styling and professional performance. It features hysteresis synchronous drive motor; two permanent split capacitor reel drive motors; two V.U. meters; automatic shut-off; digital counter with push button reset; dual headphone jacks on front panel and 8+ reel for 50% more playing time. **Tape Speeds:** 3.75 and 7.5 ips.

Flutter and Wow: 0.25% at 3.75 ips; 0.18% at 7.5 ips.

Timing Accuracy: ± 2% 3.75 ips; ± 1% 7.5 ips.

Reel Size: 5, 7 and 8 1/4 inch E.I.A. hubs.

Rewind Time: 1,200 feet in 80 seconds.

Frequency Response: ± 3 db 30 to 10,000 Hz at 3.75 ips; ± 2 db 45 to 18,000 Hz at 7.5 ips.

Signal-to-Noise Ratio: 48 db at 3.75 ips; 52 db at 7.5 ips.

Inputs Per Channel: Hi-Z microphone, auxiliary bridge.

Outputs: 1K OHM emitter follower, output level at OVU .9V ± .2V at 400 cps.

Heads: Selectable 1/4-track erase, 1/4-track record, 1/4-track play.

Weight: 35 lbs.

Dimensions: 13 3/4" high x 17 1/2" wide x 6 5/8" deep.

Accessories: Walnut base, Carrying Case, Adapter Ring (for cabinet mounting).

FROM \$570.



MAGNECORD 1021 RECORDER/REPRODUCER

1021 The totally transistorized Model 1021 monaural recorder/reproducer was actually designed around features most requested by broadcasters. This versatile instrument is ideal for AM broadcasts, offering up to one full hour of programming on a 7 inch reel, and easily handles FM program quality at 7.5 ips.

It features two-speed hysteresis synchronous drive motor; two permanent split-capacitor reel drive motors; position for fourth head available; 8+ reel, with 50% more playing time; V.U. meter for record and playback measurement; monitoring from tape or source; cue speaker; monitor amplifier and auxiliary input.

Tape Speeds: 3.75 and 7.5 inches per second.

Flutter and Wow: 0.25% at 3.75 ips; 0.17% at 7.5 ips.

Timing Accuracy: ± 0.2%.

Reel Size: 3, 5, 7 and 8 1/4 inch E.I.A. hubs.

Rewind Time: 1,200 feet in 80 seconds.

Frequency Response — Overall Record/Reproduce: 35 to 8,000 Hz ± 2 db at 3.75 ips; 45 to 18,000 Hz ± 2 db at 7.5 ips.

Signal-to-Noise Ratio: 53 db at both speeds.

Inputs Per Channel: Lo-Z microphone, balanced bridge, unbalanced bridge, mixing bridge and auxiliary bridge.

Outputs Per Channel: 150/600-ohm balanced (+4 dbm), auxiliary A and auxiliary B unbalanced.

Heads: Full-track erase, record; half-track play.

Weight: Transport, 33 lbs.; Amplifier, 14 lbs.

Dimensions: Transport, 19" wide, 10 1/2" high, 7 1/4" deep;

Amplifier, 19" wide, 5 1/4" high, 12" deep;
Transport Reel Overhang, 1 3/4" with 7" reel.

Other Speed and Head Configurations, as well as Full Relay Control available upon order.

FROM \$708.



MAGNECORD 1022 RECORDER/REPRODUCER

1022 Magnecord's stereophonic Model 1022 recorder/reproducer provides the most in tape recording satisfaction. The wide flat frequency response, exceptionally good signal-to-noise ratio and low distortion accomplished at 15 ips, make the 1022 ideal for master-cutting. The 7.5 ips speed is more than adequate for general recording or reproduction.

Among the many features are two speed hysteresis synchronous drive motor; two permanent split-capacitor reel drive motors; quarter-track playback head (switch selectable) integral; two V. U. meters; monitoring from tape or source; separate record-gain controls for each channel and master playback gain control.

Tape Speeds: 7.5 and 15 ips, with others available.

Flutter and Wow: 0.17% at 7.5 ips; 0.15% at 15 ips.

Timing Accuracy: ± 0.2%.

Reel Size: 3, 5, 7 and 8¼ inch E.I.A. hubs.

Rewind Time: 1,200 feet in 80 seconds.

Equalization: N.A.B.

Frequency Response — Overall Record/Reproduce:

30 to 16,000 Hz ± 2 db at 7.5 ips; 35 to 22,000 Hz ± 2 db at 15 ips.

Signal-to-Noise Ratio: 53 db at both speeds.

Inputs Per Channel: Lo-Z microphone, balanced bridge, unbalanced bridge and auxiliary bridge.

Outputs Per Channel: 150/600-ohm balanced (+4 dbm) auxiliary A and auxiliary B unbalanced.

Heads: Selectable 2-channel erase, 2-channel play, 2-channel record and quarter-track play.

Weight: Transport, 33 lbs.; Amplifier, 14 lbs.

Dimensions: Transport, 19" wide, 5¼" high, 12" deep;

Amplifier, 19" wide, 5¼" high, 12" deep; Transport Reel Overhang, 1¼" (with 7" reel).

Full Relay Control available upon order.

FROM \$788.



MAGNECORD 1024 RECORDER/REPRODUCER

1024 A universal instrument, the Model 1024 recorder/reproducer was designed to meet the demands of either commercial applications or for use by the discriminating private consumer. From the sturdy die-cast mainplate to the precision lapped heads, the 1024 exemplifies the Magnecord tradition of excellence in design and manufacture. Its outstanding features include two-speed hysteresis synchronous drive motor; two permanent split-capacitor reel drive motors; position for optional fourth head; two V. U. meters; monitor source (input) and tape (output); automatic shut-off and 8+ reel for 50% more playing capacity.

Tape Speeds: 3.75 and 7.5 inches per second.

Flutter and Wow: 0.25% at 3.75 ips; 0.18% at 7.5 ips.

Timing Accuracy: ± 0.2%.

Reel Size: 3, 5, 7 and 8¼ inch E.I.A. hubs.

Rewind Time: 1,200 feet in 80 seconds.

Frequency Response: 35 to 10,000 cps +2, -3 db at 3.75 ips.

Signal-to-Noise Ratio: 48 db at 3.75 ips, 51 db at 7.5 ips.

Heads: Selectable ¼-track erase, ¼-track record, ¼-track play.

Weight: 47 lbs.

Dimensions: 19" wide, 15¾" high, 12" deep;

Transport 19" x 10.5" x 7.25";

Amplifier 19" x 5.25" x 12" deep;

Transport Reel Overhang 1.75" (7" reel).

Other Options: 50 Cycle Operation, Tape speeds of 1⅞ and 3¾, 7½ and 15, ½-track heads, Digital Tape Counter and Signal Operated Switch (VOR) Relay Control.

FROM \$648.



MAGNECORD 1028 RECORDER/REPRODUCER

1028 The Magnecord Model 1028 is recognized by audio experts as being the finest in professional quality recorder/reproducers. Advanced circuit design, utilizing the latest tube types and printed circuitry, insure uniform high performance from recorder to recorder. Base specifications for the 1028 point up its versatility and capability.

Tape Speeds: 7.5 and 15 ips.

Flutter and Wow: 0.15% at 7.5 ips; 0.1% at 15 ips.

Timing Accuracy: ± 0.2%.

Reel Size: 5, 7, 8¼ and 10½ inch.

Rewind Time: 2,400 feet in less than 90 seconds.

Frequency Response — Overall Record/Reproduce:

35 to 16,000 Hz ± 2 db at 7.5 ips; 35 to 18,000 Hz ± 2 db at 15 ips.

Signal-to-Noise Ratio: 55 db per channel.

Inputs: Hi-Z microphone and Hi-Z unbalanced bridge; Lo-Z microphone and Hi-Z balanced bridge with input transformers.

Input Sensitivity: -90 dbm to -35 dbm.

Outputs: Cathode follower, 2.5 volts ± .5 volt. 150/600-ohm balanced, +3 dbm with output transformers.

Heads: Selectable Erase, 2-channel record and 2-channel play.

Weight: 47 pounds (55 pounds encased).

Dimensions: 17⅞" wide, 12⅞" high, 12" deep. (17⅞" wide, 14⅞" high, 12" deep encased).

50 cycle and quarter track versions

available when ordered.

FROM \$995.



MAGNECORD 1048 RECORDER/REPRODUCER

1048 The Model 1048 recorder/reproducer by Magnecord utilizes 10½ inch reels to provide 3 hours of uninterrupted record/playback time at 3.75 ips. Outstanding among its many features are the three separate motors. The hysteresis capstan power motor is the exclusive capstan power source, with separate motors for payout and take-up reels. The tape gate drops away from head in high speed modes preventing needless head wear. Heads are polished to precise hyperbolic curves, and forced tape wrap assures intimate tape head contact for consistently good high and low frequency response.

Tape Speeds: 7.5 and 3.75 ips.

Flutter and Wow: 0.15% at 7.5 ips, 0.25% at 3.75 ips.

Timing Accuracy: 0.2%.

Reel Size: 5, 7, 8¼ and 10½ inch.

Rewind Time: 2,400 feet in less than 90 seconds.

Frequency Response — Overall Record/Reproduce:

40 to 16,000 Hz ± 2 db at 7.5 ips, 50 to 7,500 Hz ± 2 db at 3.75 ips.

Signal-to-Noise Ratio: 52 db.

Inputs: Hi-Z microphone and Hi-Z unbalanced bridge; Lo-Z microphone and Hi-Z balanced bridge with input transformers.

Input Sensitivity: -90 dbm to -35 dbm.

Outputs: Cathode follower, 2.5 volts ± .5 volt. 150/600-ohm balanced, 3 dbm with output transformers.

Heads: Selectable erase, 2-channel record and 2-channel play.

Weight: 47 pounds (55 lbs. encased).

Dimensions: 17⅞" wide, 12⅞" high, 11⅞" deep. (17⅞" wide, 14⅞" high, 11⅞" deep encased).

50 cycle and quarter track versions available.

FROM \$995.



The new, fully transistorized MagneCORD tape recorder/reproducer with built-in professional quality. **1020**



Designed to satisfy the most exacting requirements in tape recorder/reproducer applications. **1024**

QUALITY CONTROL

Every MagneCORD instrument is designed to meet the latest National Association of Broadcasters standards. An individual INSPECTAGRAPH with every MAGNECORD. Meticulous examination continues through every phase of assembly to bring each function to the highest standard of performance.

The completed MAGNECORD is run through a battery of rigorous final tests. The comprehensive results are registered by the testing engineer on an individual INSPECTAGRAPH which is packed with the instrument... so, when your new MAGNECORD is delivered, you will have an exact description of your own instrument's true, individual performance!

MAGNECORD is a division of The Telex Corporation. We manufacture

MagneCORD and Viking tape instruments, Telex acoustic products, and Telex aircraft communications accessories—internationally known and recognized for craftsmanship, reliability and performance. Other Telex divisions build digital tape transports for use with computers, recording oscillographs for laboratory use, and many other electronic devices for both commercial and military applications. We are extremely proud, as instrument manufacturers, to have in our employ some of the most highly skilled engineers, designers, technicians and production personnel in the world! Quality control is more QUALITY ASSURANCE at Telex. Our quality control department meets all the requirements of NASA (National Aeronautics & Space Administration), the most rigid quality requirements imposed by a government agency on manufacturers.

FEATURES

MODEL 1020

HYSTERESIS SYNCHRONOUS DRIVE MOTOR
TWO PERMANENT SPLIT-CAPACITOR REEL DRIVE MOTORS
TWO V.U. METERS
AUTOMATIC SHUT-OFF
8 1/4" REEL INCREASES PLAYING TIME BY 50%
DIGITAL COUNTER WITH PUSH BUTTON RESET
DUAL HEADPHONE JACKS ON FRONT PANEL

SPECIFICATIONS

TAPE SPEED: 3.75 and 7.5 ips
FLUTTER AND WOW: .25% at 3.75 ips; .18% at 7.5 ips
TIMING ACCURACY: ±2.0% 3.75 ips; ±1.0% 7.5 ips
REEL SIZE: 5-, 7- and 8 1/4 inch E.I.A.
REWIND AND FAST FORWARD TIME: 1,200 feet in 80 seconds
FREQUENCY RESPONSE: ±3 db 30 to 10,000 Hz at 3.75 ips
±2 db 45 to 18,000 Hz at 7.5 ips

SIGNAL-TO-NOISE RATIO: 48 db at 3.75 ips; 52 db at 7.5 ips
INPUTS PER CHANNEL: Hi-Z microphone, auxiliary bridge
OUTPUTS: 1K OHM emitter follower, output level at 0 VU, .9V ±.2V at 400 Hz

HEADS: Selectable 1/4-track erase, 1/4-track record, 1/4-track play
WEIGHT: 35 lbs.
DIMENSIONS: 13 3/4" high x 17 1/4" wide x 6 1/4" deep
(Minimum space required for mounting in cabinet 15 1/4" high x 18 1/4" wide x 8 1/4" deep)

ACCESSORIES:

A91C9288-1—Walnut Base
A81E145-1—Carrying Case
A96A450-1—Adapter Ring (for cabinet mounting)

MODEL 1024

TWO-SPEED HYSTERESIS DRIVE MOTOR
TWO PERMANENT SPLIT-CAPACITOR REEL DRIVE MOTORS
REMOTE START/STOP FACILITY
OPTIONAL POSITION FOR FOURTH HEAD
8 1/4" REEL INCREASES PLAYING TIME BY 50%
TWO V.U. METERS
MONITOR SOURCE (input) AND TAPE (output)
AUTOMATIC SHUT-OFF

SPECIFICATIONS

TAPE SPEEDS: 3.75 and 7.5 inches per second
FLUTTER AND WOW: 0.25% at 3.75 ips; 0.18% at 7.5 ips
TIMING ACCURACY: ±0.2%
REEL SIZE: 5-, 7- and 8 1/4 inch E.I.A. hubs
REWIND AND FAST FORWARD TIME: 1,200 feet in 80 seconds
FREQUENCY RESPONSE:

35 to 10,000 Hz +2-3 db at 3.75 ips;
45 to 18,000 Hz ±2 db at 7.5 ips

SIGNAL-TO-NOISE RATIO: 48 db at 3.75 ips; 51 db at 7.5 ips
INPUTS PER CHANNEL: Hi-Z microphone, Hi-Z mixing bridge, auxiliary bridge

OUTPUTS: Emitter follower and auxiliary emitter follower (0.5 volts-loaded)

HEADS: Selectable 1/4-track erase, 1/4-track record, 1/4-track play
WEIGHT: 47 lbs.

DIMENSIONS: 19" wide x 15 1/4" high x 12" deep
Transports 19" x 10 5/8" x 7 25/32"
Amplifier 19" x 5 25/32" x 12" deep
Transport Reel Overhang 1.75" (7" Reel)

ACCESSORIES:

A81D128-2—(transport) Carrying Case
A81D129-2—(electronics) Carrying Case

OPTIONS:

50 Hz Operation
Tape Speeds 1 1/2 & 3 1/2
7 1/2 & 15
1/2 Track Heads
Digital Tape Counter
Signal Activated Switch (VOR)
Relay Control (Full Remote)

MagneCORD warrants to the user who originally purchased the MagneCORD equipment, that it shall be free from defects in material and workmanship under normal and proper use, for the period of one year from the date of original purchase, and agrees to repair or replace such parts showing factory defects, subject to the following provisions:

- Defective parts must be delivered post prepaid. Such parts, if proven defective, will be replaced or repaired by the service station.
- The purchaser voids the warranty if he or others not authorized by MagneCORD at-

ONE YEAR WARRANTY

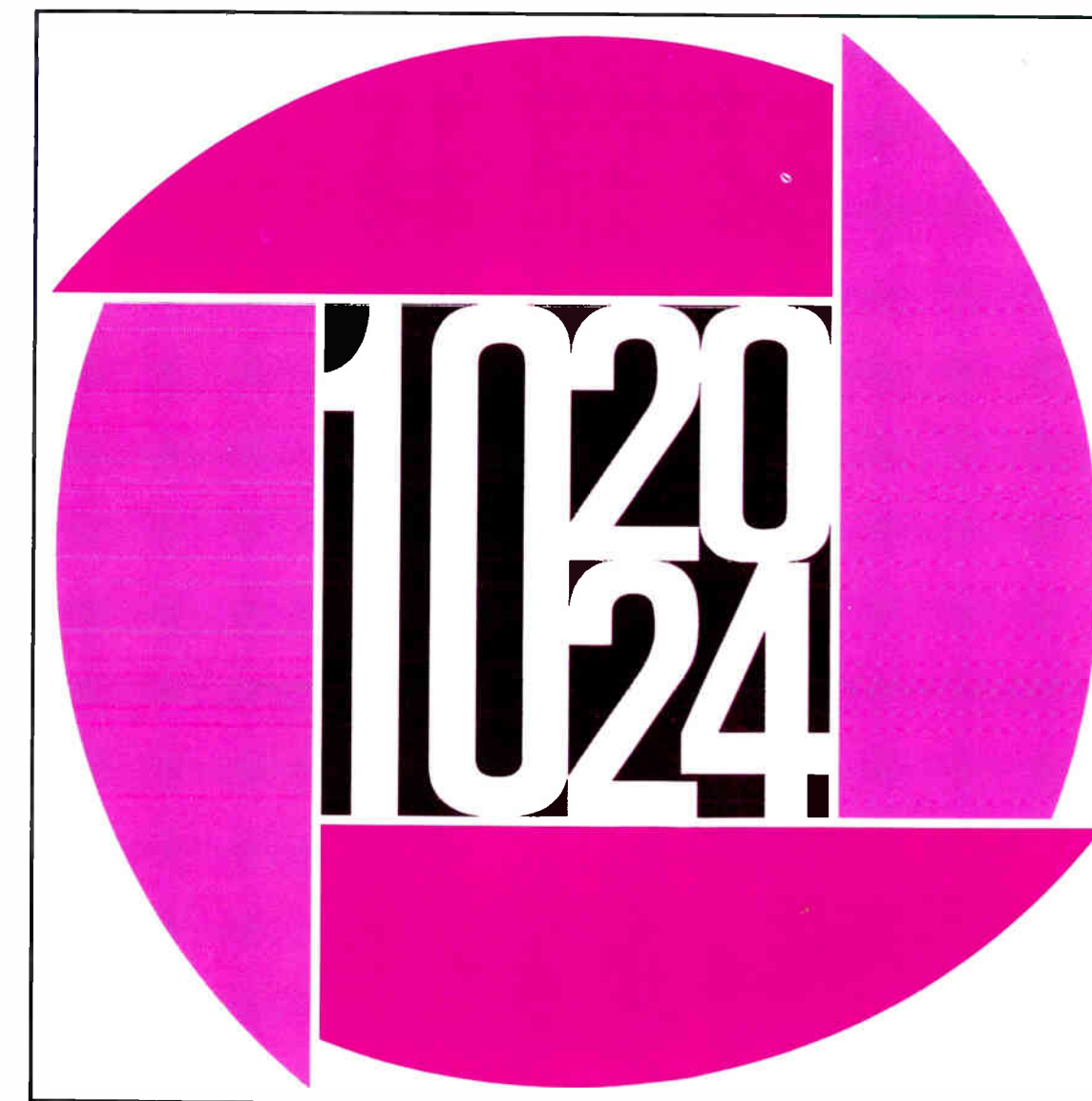
tempt to repair or service the unit, or if any parts not supplied by MagneCORD are inserted in the unit.

- Inspection by MagneCORD will determine if defects in the equipment are due to normal use or if the equipment has been altered in any way, or repaired by other than MagneCORD authorized service stations. MagneCORD will decide if the warranty is voided by negligent use, misuse, accident damaging the equipment or parts.

or damage due to use of the equipment for purposes other than for which it was designed.

- Repaired or replacement parts supplied by MagneCORD under the warranty carry only the unexpired portion of the original warranty.
- This MagneCORD warranty for one year applies only to a new MagneCORD recorder which has been sold through authorized channels of distribution of MagneCORD products.

This one year warranty includes the cost of all parts and labor.



MAGNECORD
PRESENTS
THE INCOMPARABLE
MODELS
1020 — 1024

When you insist upon superb recording performance as well as concert quality playback in a home high fidelity system, it is important to choose a tape instrument that can meet those demands. Magnecord recorder/reproducers give you the eminent sound you want plus convenient operation. Try some of these simple tests when you look at a Magnecord (you will want to try them on other instruments for comparison).



Fig. 1 First check the operating performance. The Magnecord is precisely engineered for ease of operation. You will like the convenient push-button controls . . . and notice the smooth, effortless starts and stops. The stop button on a Magnecord can be depressed at any time without damage to the tape. To demonstrate, put the instrument in fast forward then quickly push the stop button. Try rapidly changing from rewind to fast forward without first stopping the instrument. These tests show how gently a Magnecord handles your valuable tape!

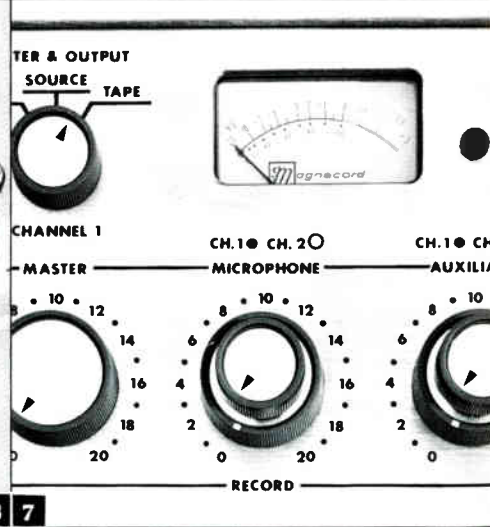
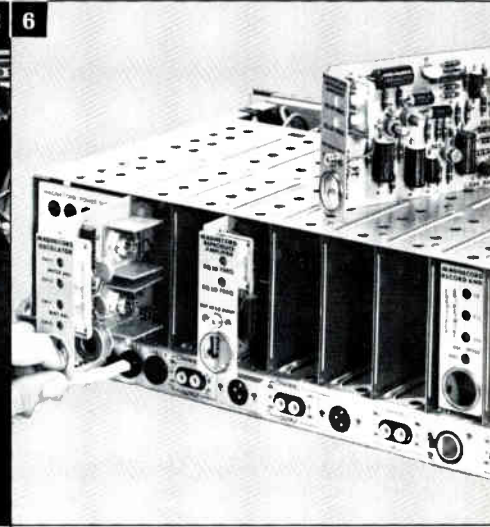
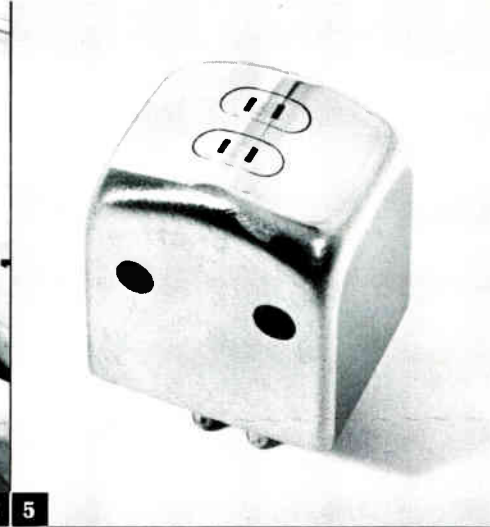
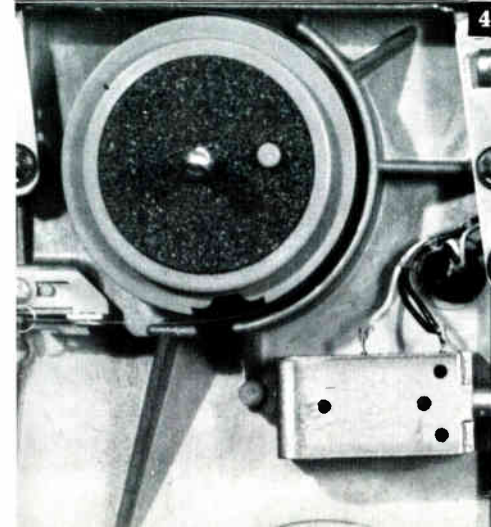
Now, put a Magnecord through the most significant test of all . . . make an on-the-spot recording from a good record or an FM broadcast.

Fig. 2 Magnecords have built-in provisions for monitoring the sound source or from the actual signal being recorded. You can make a direct comparison to reveal Magnecord's superb quality of recording and reproduction. This high fidelity performance requires a wide, flat frequency response, low distortion, good signal-to-noise ratio, and wide dynamic range. These critical areas of performance were primary design considerations in creating the Magnecord 1020 and 1024. The finest playback instrument can reproduce only as much quality as the recorded signal allows. That's why Magnecord is proud to produce an instrument that is a superb recorder as well as an excellent reproducer. A discriminating audiophile can hear the difference.

Why Magnecord is the choice of professionals. Years of experience in building tape instruments that meet the exacting demands of the broadcasting and recording industries has created excellence which experts appreciate. Almost without exception, owners have "traded up" to a Magnecord. Chances are, you are reading this because you are seeking a better instrument to suit your taping requirements. Whatever your reasons for considering Magnecord, as an owner you will be recognized for your ability to appreciate the finest in tape instruments. Here are some of the many features that have established Magnecord as the choice of professionals.

THE TAPE DRIVE SYSTEM

Fig. 3 The heart of the tape drive system is the hysteresis synchronous capstan motor that operates at a constant speed. The tape is metered at a precise velocity even when line voltage varies. The motor operates exclusively as a power source for the capstan and is not burdened with the other functions. The payout and take up reels are individually driven by heavy duty split-capacitor motors. Compliance



arms smooth the tape flow to and from each reel. The dynamically balanced capstan flywheel and ballbearing inertial stabilizer flywheel contribute to the smoothness and timing accuracy of the system.

Fig. 4 Military-type differential band brakes are solenoid operated for instant, gentle stops. Depending upon the direction in which the tape is moving, one brake becomes self energizing while the other maintains just enough drag to avoid slack in the tape. When the tape runs out, an automatic switch shuts off all three motors, protecting the tape and eliminating unnecessary motor wear. The tape gate, pressure roller, and fail-safe brakes are operated by solenoid for positive action.

TAPE HEAD CONSTRUCTION

Tape head quality and design are of vital importance to recorder/reproducer performance. Magnecord heads are engineered and lapped to a precise hyperbolic curve for smooth low frequency response. Deep gap, deposited-quartz construction assures high frequency response and long head life. Magnecord heads are doubly protected from external magnetic fields by removable shields. Protective, snap-mounted head covers provide easy accessibility for cleaning and de-magnetizing. Head centerline marks allow quick, accurate editing.

Fig. 5 Magnecord's forced-wrap tape gate design assures intimate tape-to-head contact and absolute control of wrap angle. This assures consistently good high frequency response and consistently smooth low frequency response. The solenoid-operated tape gate drops away from the heads in high wind modes, preventing excessive and needless head wear.

Separate 1/4-track erase, record and reproduce heads with selectable erase and record capability. The separate record and play heads and the selectable erase and record feature allow you to accomplish special effects such as sound-on-sound recording—playing on one channel while re-recording it and another source on the other channel.

TRANSISTORIZED ELECTRONICS

Fig. 6 Fully transistorized electronics and printed wiring provide the ultimate in enduring reliability. Unlike vacuum tubes, transistors do not gradually deteriorate and will likely last the life of the equipment. Operation and life of the other components benefit from improved environment since transistors do not generate heat. A regulated, solid-state power supply

is also utilized to increase component life and maintain superior performance. The circuits in each Magnecord were carefully designed to incorporate only readily available, American-made types of transistors. Therefore, in the unlikely event that a transistor must be replaced, it is easily and inexpensively acquired.

Fig. 7 Mixing Facilities through the use of separate controls provide for one high impedance microphone and one unbalanced line for each channel.

Fig. 8 Volume Unit Meters and Output Switches enable visual and aural monitoring of input signals from either source or tape when in record mode. This allows quick accurate comparison of source material with recorded signal.

Fig. 9 Low Impedance Emitter Follower Outputs feed long lengths of audio cable without deterioration of frequency response. They will deliver 500 millivolts (or more) to pre-amplifier or power amplifier inputs. Earphone outputs also follow the meter and output switch to monitor source or tape.

COMPREHENSIVE QUALITY

Fig. 10 & 11 Finally judge the Magnecord recorder/reproducer for general quality . . . not just good points in certain areas, but comprehensive excellence throughout the instrument. From the sturdy die cast mainplate to the hair-fine wire in the magnetic heads, Magnecord represents quality and precision. But the most important aspect of Magnecord's quality is durability. Magnecord knows you demand more than excellence . . .

. . . you want enduring excellence. Almost any good recorder/reproducer gives a satisfactory performance when brand new—but can you be sure that it will be maintained after a few months or even a few weeks? When you own a Magnecord you can take enduring excellence for granted!

Fig. 12 Magnecord 8 1/4" reels increase program capacity over 50%! Magnecord's exclusive 8 1/4" reels allow uninterrupted recording time of 1 1/4 hours at 7.5 ips. At 3.75 ips the added capacity allows 2 1/2 hours of recording time in each direction. Operas and other lengthy works can be recorded and played back in stereo without interruption. Monophonic 4-track recording capacity will accommodate four average operas, or 10 hours of programming on a single Magnecord reel. 8+ reels may be purchased from your authorized Magnecord dealer.

