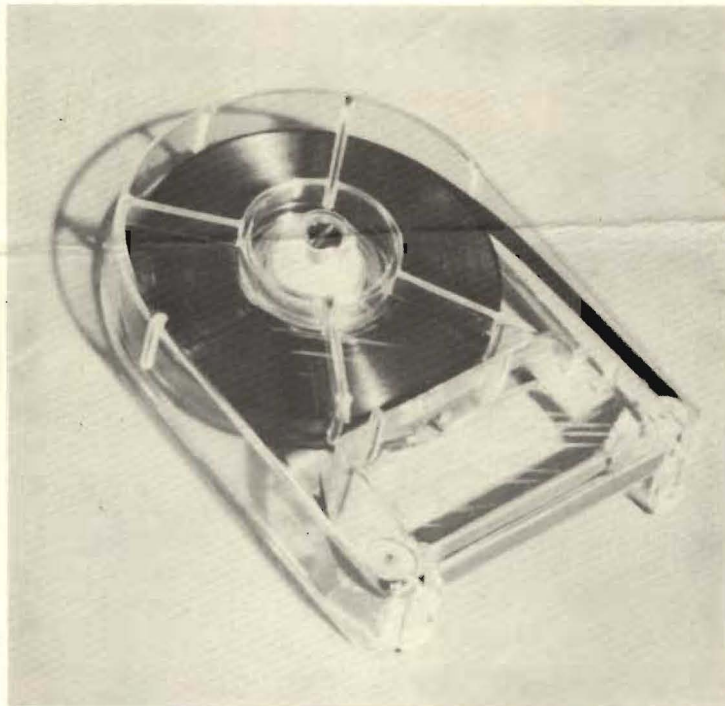


**RECORDING AND LOADING  
INSTRUCTIONS  
FOR  
CONTINUOUS TAPE MAGAZINES  
NO. 5400 AND NO. 5600**

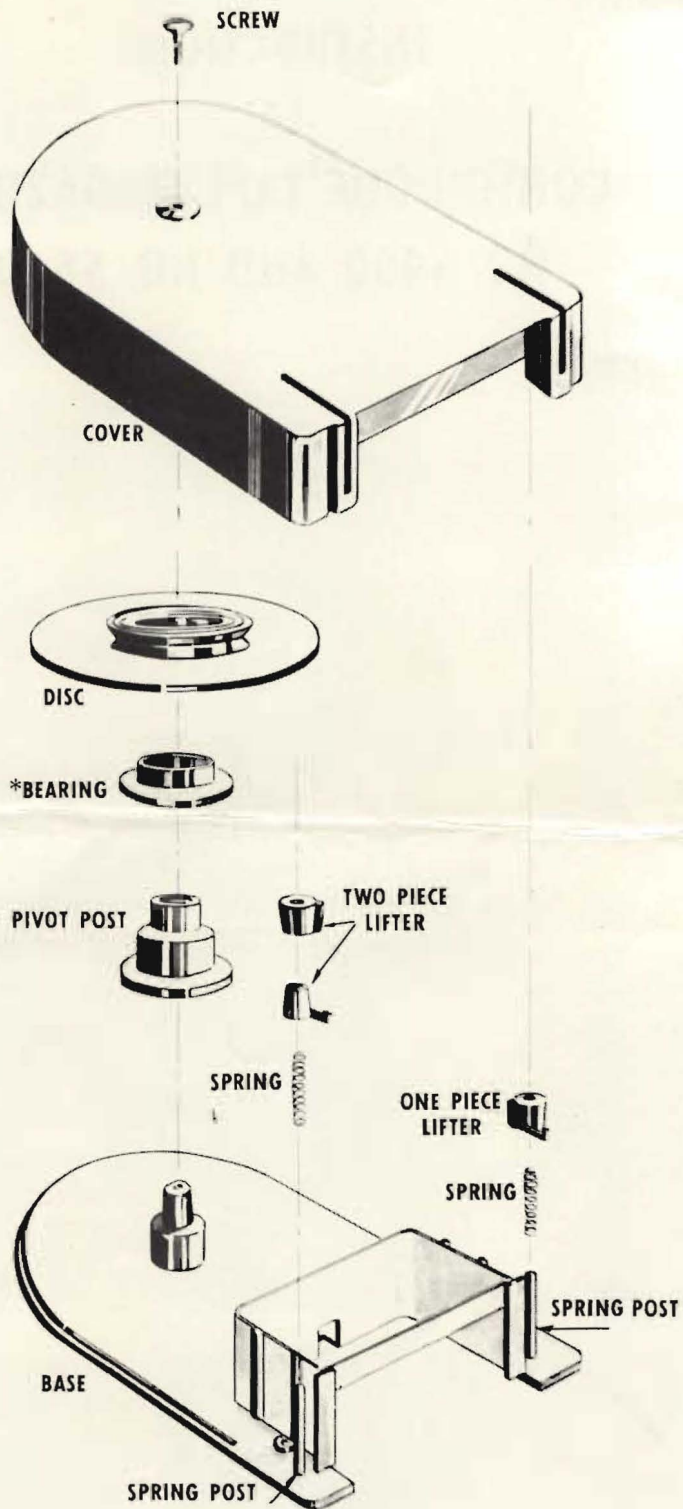


**AMERICAN MOLDED PRODUCTS CO.**

**2727 W. CHICAGO AVE.**

**CHICAGO 22, ILLINOIS**

# MAGAZINE ASSEMBLY



\*BEARING AND DISC ASSEMBLED TOGETHER AT FACTORY

FIGURE 1

## INSTRUCTIONS FOR RECORDING AND LOADING

### CONTINUOUS TAPE MAGAZINES Nos. 5400 and 5600

#### GENERAL

Continuous Tape Magazines Nos. 5400 and 5600 are designed for use only in Recorders and Tape Playbacks in which provisions have been incorporated for their operation. Movement of Tape is standardized as Counter-Clockwise.

Recording may be done (A) on tape already loaded into Magazines and (B) on bulk tape which is loaded into Magazines after recording.

For effective operation of Magazines Nos. 5400 and 5600 it is recommended that "Friction-Free" Magazine Tape, with a Mylar base be used. This tape is available with single and double coating. Mylar and regular magnetic tape splicing tapes should be used in making the splice required to form the end-less loop.

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#### RECORDING TAPE LOADED MAGAZINES

##### I. COUNTER-CLOCKWISE RECORDERS ONLY -

- A. WHERE SPACE ON RECORDER PERMITS PLACING MAGAZINE IN FRONT OF RECORDING HEAD. (See Figure 2)



Figure 2

1. Remove Cover from Magazine by loosening Screw on Top (See Figure 1)

2. Place Magazine in position as in Figure 2 and gently pull sufficient tape from outside of loop so that it may be threaded past the Head as in normal recording.
3. Set Recorder Speed to conform to Speed of Playback.
4. Run Recorder in Playback position until Splice on Tape appears from center of Magazine. If Running Time of Magazine Load is not known, run one complete cycle until Splice reappears and clock time required.
5. Record in conventional manner following instructions of Tape Recorder used.
6. Do not record beyond reappearance of Splicing Tape from center of Magazine. Important: On Moebius Loop Magazine Loads, when starting to record make note of side of Tape on which Splice is located. Tape makes two circuits before Splice returns to starting side, doubling running time over Regular Loop.
7. Stop Recorder and remove Magazine. Place on flat surface and gently pull tape from Center of Magazine until Loop again is taut around Front of Magazine. (See Figure 3) Important: Make sure that Nylon Lifters are in proper position and that Tape is above arms on both Lifters. Springs must be under Lifters on each Post. (See Figure 1 for correct assembly).

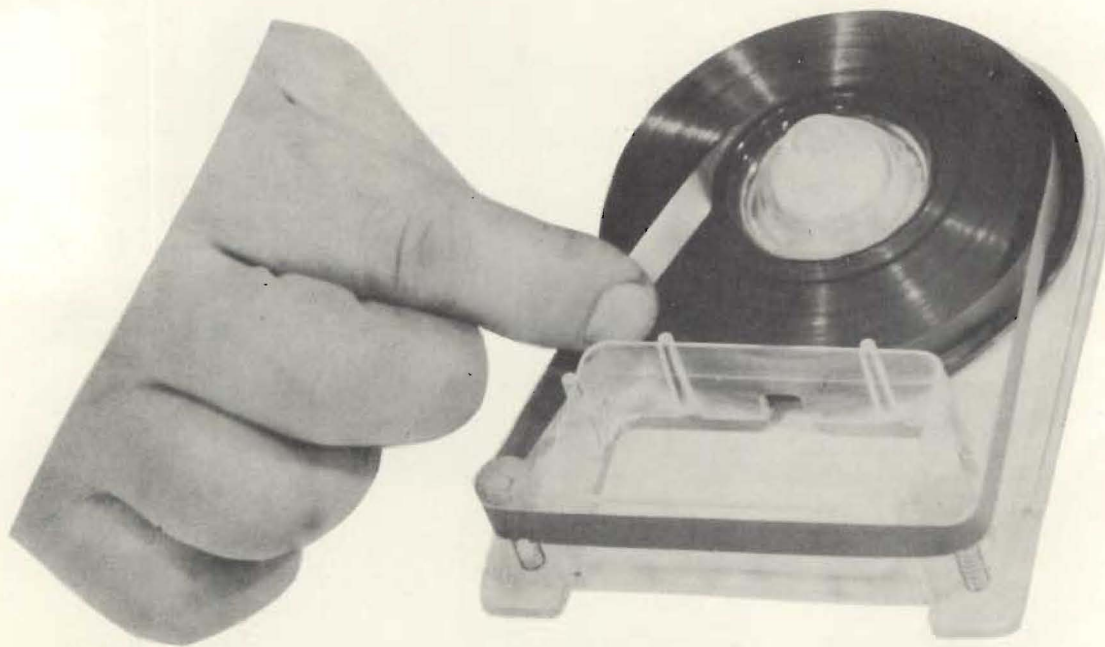


Figure 3

8. When Tape Loop is in place, re-set Magazine Cover and secure with Screw.
- B. WHERE SPACE LIMITATIONS DO NOT PERMIT PLACING MAGAZINE ON RECORDER.
1. Place Loading Plate on Supply Spindle.
  2. Carefully remove Loaded Disc from Magazine and place on Loading Plate, without removing Bearing from Disc. (See Figure 4.)

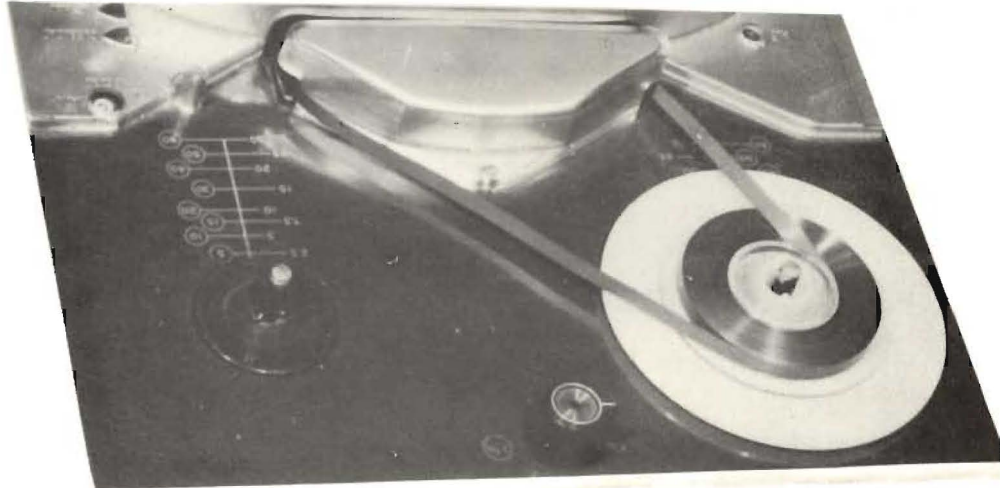


Figure 4

3. Extend Tape Loop around Recorder Head as in I-A-2.
4. Follow Instructions I-A-3 to I-A-6 inclusive.
5. Return Disc to Magazine and complete assembly as in I-A-7 and I-A-8.

## II. CLOCKWISE RECORDERS ONLY -

1. Remove Loaded Tape Disc from Magazine. Place on flat surface.
2. Place Loading Plate on top of Disc with Hub inserted in Hole in Disc.
3. Turn over so that Loading Plate is below Disc and place on Take-Up Spindle. See Figure 5.
4. Follow Instructions for I-B.

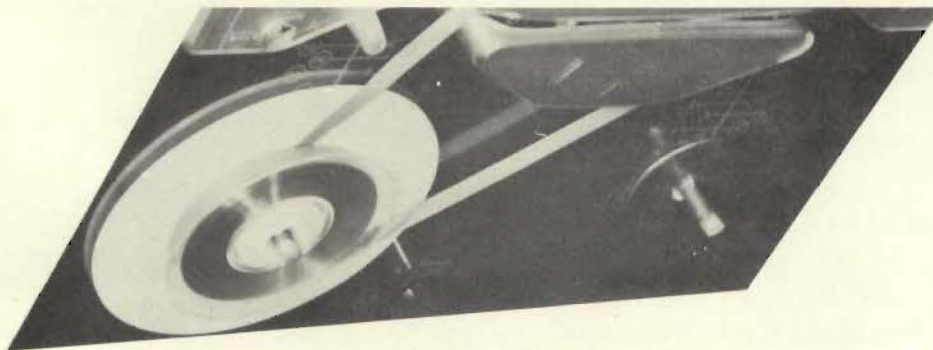


Figure 5

RECORDING ON BULK TAPE AND LOADING MAGAZINES.

1. COUNTER CLOCKWISE RECORDERS.

- A. Following conventional instructions furnished by recorder manufacturer, Record on Magazine "friction-free" tape, allowing minimum of two inches at either end of recording for splicing. Note actual time of recording.
- B. Rewind recorded material on empty reel on Supply Spindle.
- C. Place Loading Plate on Take-Up Spindle.
- D. Place empty Magazine Disc (with Bearing in place) on Loading Plate.
- E. Thread Tape past Recorder Head and manually wind tape two turns around Hub of Magazine Disc, allowing 1 inch of tape end to extend above Loop. (See Figure 6).

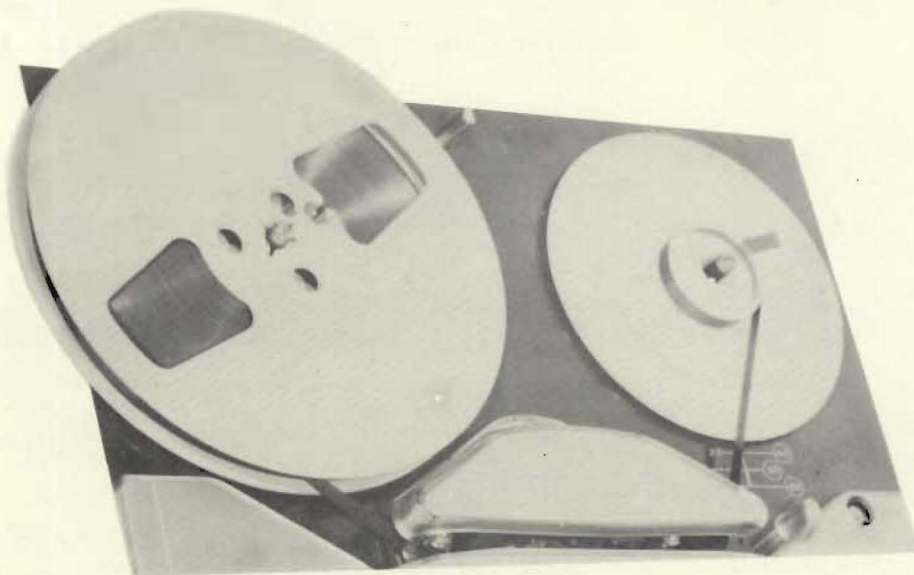


Figure 6.

- F. Set Recorder in Playback position. NOT RECORD.
- G. When Recorded Material is completely wound on Magazine Disc remove Disc from Recorder, and, after placing Pivot Post in Bearing, set Disc on flat surface.
- H. Place Index Finger of Left Hand on Pivot Post. Gently pull center strand of Tape out from Magazine, using thumb and Index Finger of Right-Hand. Motion should be outward and slightly upward until Tape is free. Pull strand out to length recommended in Table 1. This is determined by Item A above - the elapsed time of the recorded material.
- I. Pull outside strand until taut, taking up all slack at center of Magazine. If resultant length of outside strand exceeds that of center strand, rewind the excess manually. If the outside strand is less than the length of the center strand, unwind additional tape from outside of load to provide equal length.
- J. Splice tape ends in conventional manner, making sure that there are no twists in either strand. (See Figure 7).

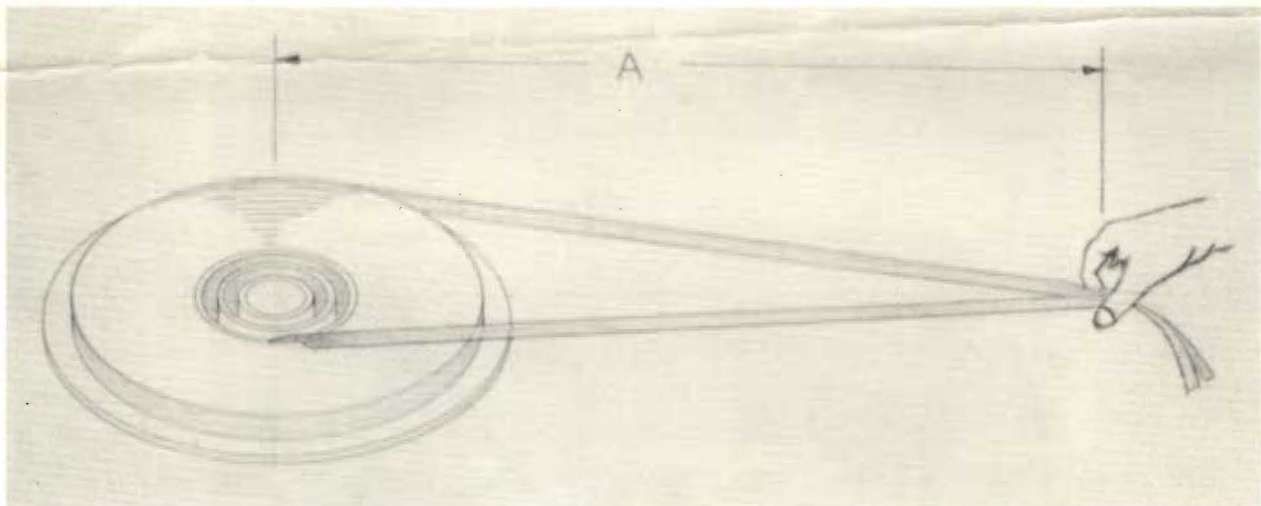


Figure 7

- K. Carefully place the assembly (Magazine Disc and Pivot Post) into proper position on Magazine Base, with Tape Loop extending around front of Magazine.
- L. Pull Tape gently from Center of Magazine as in I-A-7 and complete as in I-A-8 (See Figure 3).

TABLE A

DETERMINATION AND MEASUREMENT OF LOOP DIAMETER SIZE  
CONTINUOUS TAPE MAGAZINES NO. 5400 and NO. 5600

<u>TAPE LOAD</u> <u>RUNNING TIME</u> (Minutes)		<u>TAPE LENGTH</u> (APPROXIMATE) ( Feet)	<u>LOOP SIZE*</u>  (inches)
3 3/4"	7 1/2"		
1	1/2	19	7
2	1	37	8
3	1 1/2	56	9
4	2	75	10
5	2 1/2	94	11
6	3	113	12
7	3 1/2	131	13
8	4	150	14
9	4 1/2	169	15
10	5	187	16
11	5 1/2	205	17
12	6	225 (Maximum #5400)	18
14	7	263	20
16	8	300	21
18	9	337	22
20	10	375	23
22	11	412	24
24	12	450	25
26	13	487	26
28	14	525	27
30	15	563 (Maximum #5600)	28

\*Note: Because of differences in the "friction-free" qualities of Magazine Tape of various producers and because of individual variations among those loading magazines the above suggested Loop Diameters may in some instances require modification by the loader. After Magazines have been in use for several hours there usually is an increase of up to three inches in tape loop length. Should Loop Size seem too large, splice should be broken and excess tape wound on outside of load.



## MOEBIUS LOOP

When using Double Coated "friction free" Tape, it is possible to double the normal running time of the Tape Load by making a Moebius Loop instead of the conventional loop.

A Moebius Loop is formed in the splicing operation required to complete the endless loop. The only modification of the normal procedure is that the center strand is given a half-twist before the splice is made.

Moebius Loop loads may be used only on Half-Track recorders; the sound will "Bleed Through" on Full Track recorders.

In determining the length of the Loop Diameter for a Moebius Loop, the footage of the tape load is the controlling factor.