

Royal—Model 2711

How to get more fun and best results from your

# Webcor

HIGH-FIDELITY

Royal and Royal Coronet

# Tape Recorders

Models 2711 and 2712

## Radio-Tape Recorder Combinations

Models 2791 and 2792

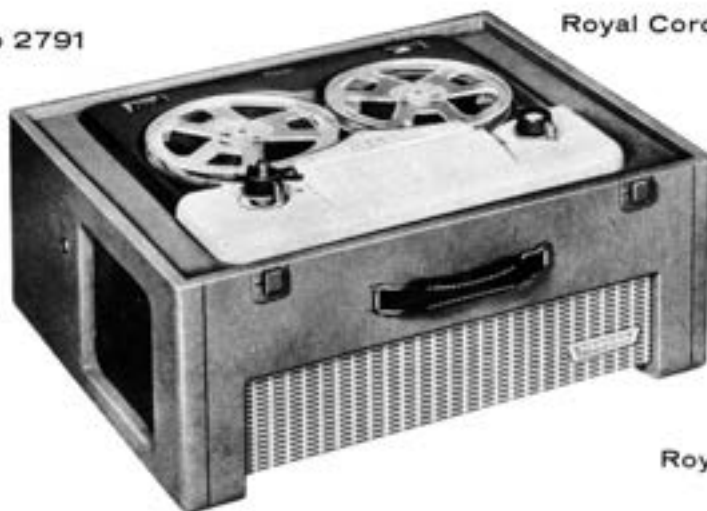
# You and your Webcor



Royal Tape Recorder-Radio 2791



Royal Coronet Tape Recorder-Radio 2792



Royal Coronet Tape Recorder-2712

As you will soon discover with incredible delight, your Webcor Tape Recorder opens the door to the magical world of Sound. And you are the Master Magician.

In one simple operation, you can record any audible sound easily, quickly and inexpensively. The song of a bird, the bark of a dog. The voice of a young child, the speech of an adult. The noisy babble of a street scene or the grandeur of a Brahms symphony. And, if you wish, you can preserve your recording indefinitely, for tape "never forgets."

To preserve a recording for years is magical, but to record and re-record on a roll of tape thousands of times by the simple process of automatic erasure; to play back any recording countless times without loss of fidelity, these features alone make tape recording one of the most ingenious innovations of our time.

For home, business, school—wherever there is Sound—you will find innumerable uses for your Webcor—the finest precision instrument of its kind. And your imagination is the only limit to its usefulness.

# The controls of your Webcor

(NOTE: Hold this page out for easy reference when you read the operating directions.)

**1. Tape Counter and Reset Wheel (Figure 1-1).** This counter permits you to find quickly any particular portion of your recording. Rotate the Reset Wheel toward the rear of the unit to set the dial at 000.

**2. Cathode Ray Recording Level Indicator (Figure 1-2).** This "eye" shows proper sound level for recording.

**3. Tape Reel Shafts (Figure 1-3).** These shafts are keyed (Figure 1-3A) so that the slotted reels will fit snugly.

**4. Threading Slot (Figure 1-4).** It is through here that the tape makes contact with the recording heads. These heads, not visible, are the heart of the recorder.

**5. Volume Control (Figure 1-9) and Tone-Control (Figure 1-5).** The raised knob of this dual control is the Recorder On-Off switch and also the Volume Control. It operates the same way as an ordinary radio volume control. The metal winged knob is the Tone Control.

**6. Record-Playback Control (Figure 1-6).** This combines in one control the recording, playback, and "Fast Winding" features of this recorder.

**7. Tape Speed Adjustment (Figure 1-7).** This control permits you to adjust tape speed to either 3¾ inches per second or 7½ inches per second. Turn it with either a screwdriver or a coin.

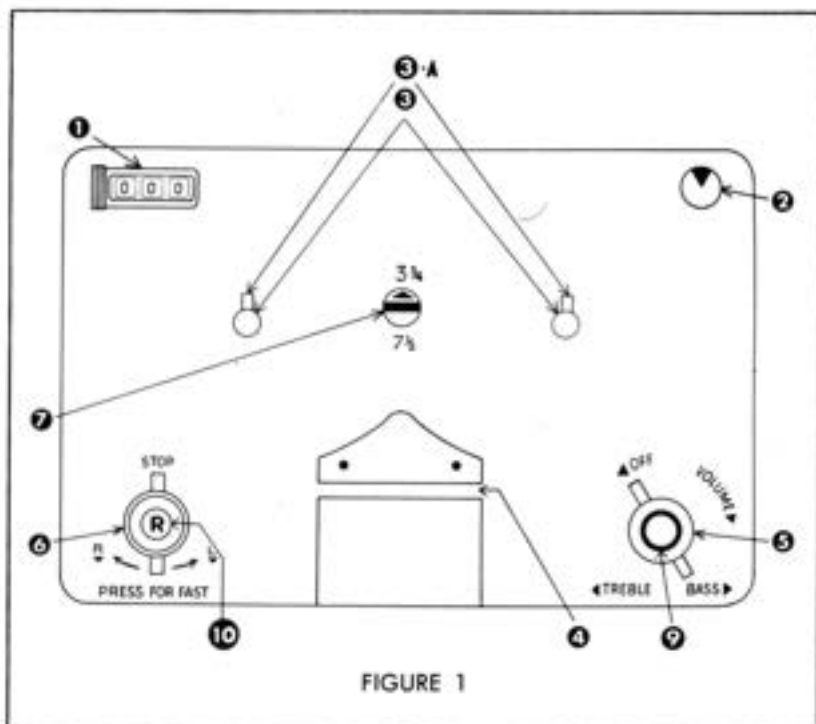
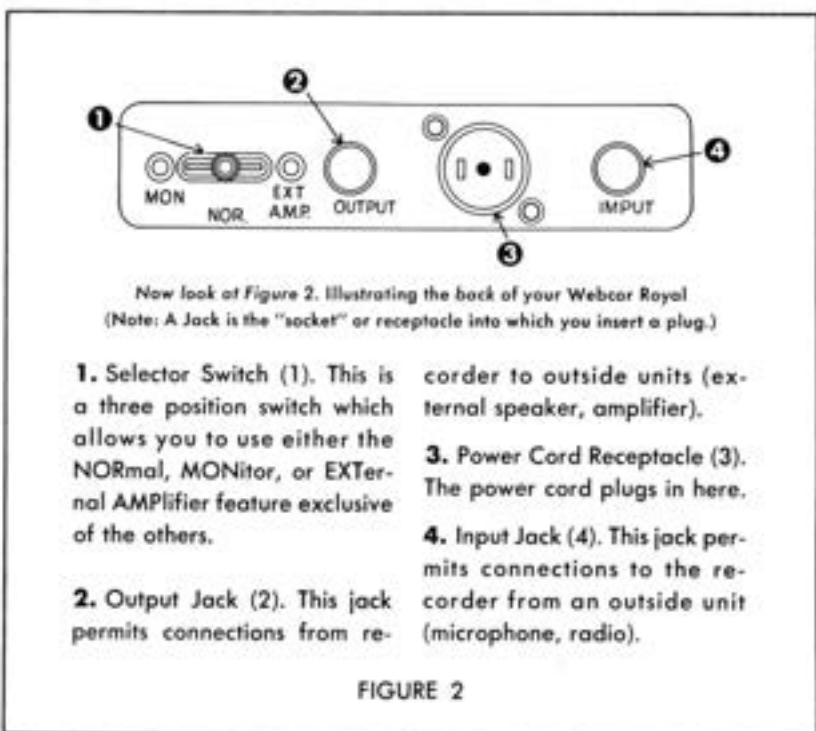


FIGURE 1

FIGURE 1



Now look at Figure 2. Illustrating the back of your Webcor Royal  
(Note: A Jack is the "socket" or receptacle into which you insert a plug.)

**1. Selector Switch (1).** This is a three position switch which allows you to use either the NORMAL, MONitor, or EXTERNAL AMPLifier feature exclusive of the others.

**2. Output Jack (2).** This jack permits connections from re-

recorder to outside units (external speaker, amplifier).

**3. Power Cord Receptacle (3).** The power cord plugs in here.

**4. Input Jack (4).** This jack permits connections to the recorder from an outside unit (microphone, radio).

FIGURE 2

# How to record from a microphone

## To set-up recorder

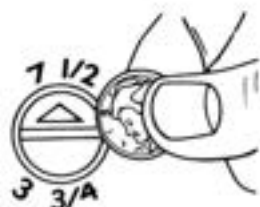


FIGURE 3



FIGURE 4

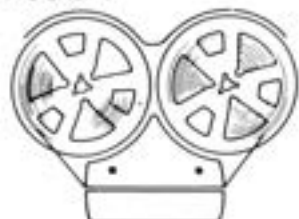


FIGURE 5

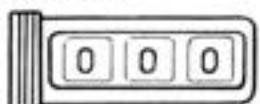


FIGURE 6

1. Set Tape Speed Adjustment to  $3\frac{3}{4}$  or  $7\frac{1}{2}$  inches per second with a screwdriver or coin. The slower speed is adequate for speech; the faster speed for music. At the slower speed, a reel of tape plays twice as long as faster speed.

2. Place loaded reel on either shaft (Fig. 1-3) so that slot in reel hub fits snugly over the shaft key (Fig. 1-3A). Do the same with empty reel on other shaft.

NOTE: Be sure that tape reels are wound with dull side of tape facing the inside of reel. This is called an "A" wind.

3. Unwind enough tape to fit through the Threading Slot (Fig. 1-4) and make about three or four turns around hub of empty reel.

4. Wind empty reel to take up tape slack. Proper threading looks like Figure 5.

5. Now set Tape Counter (Fig. 6) to 000.

## To record

1. Set Record-Playback Control (Fig. 1-6) to STOP position.

2. Connect power cord between recorder—Power Cord Receptacle (Fig. 2-3) and power source. (105 to 125 volts, 60 cycle AC ONLY. Do not plug into direct current.)

3. Connect microphone to INPUT Jack (Fig. 2-4).

4. Set Selector Switch (Fig. 2-1) to NORMAL or MONITOR position, as desired.

5. Turn on the ON-OFF Knob (Fig. 1-9).

6. Establish desired recording level by speaking into microphone. Notice that the Cathode Ray Level Indicator

(Fig. 1-2) shows a "shadow" or dark segment at top of the "eye." This shadow opens and closes as you speak. Now set the Volume Control (Fig. 1-9) so that the "shadow" barely closes on loud sounds. Overlap is not desirable, and you can easily see this overlap by the bright green line when the shadow closes. With a little experimentation you will quickly learn how to get best recording level.

7. To begin recording, depress letter R (Fig. 1-10) and at the same time turn the Winged Knob to either R or L position. If your full reel is on the left side, then you turn Knob to R; if full reel is on right shaft, turn Winged knob to L.

8. Set Record-Playback Control (Fig. 1-6) back to STOP position when you finish recording.

# How to play back a recording

Rewind to other reel by turning Record-Playback Control to either the R or L position, as the case may be.

CAUTION: DO NOT PRESS DOWN THE "R" BUTTON FOR PLAYBACK OR REWIND. THIS WOULD ERASE YOUR RECORDING.

1. If you wish to make a fast rewind, then press down on Record-Playback Control and turn to either R or L position. Again, do not press down the R "Record" button or you will erase recording.
2. When you finish rewind, turn Record-Playback Control back to STOP position.
3. Set Selector Switch to NORmal position.
4. To play back, now turn Record-Playback Control to the R or L position, as the case may be.
5. Adjust volume and Tone Control to suit your ear. (Tone Control does not operate for recording.)

## How to record from a fonograf

1. Follow steps 1, 2, 3, 4, 5, 6 and 7 as above.
2. Connect Webcor Input Cord No. 2925 between OUTPUT Jack of fonograf and INPUT Jack of recorder (Fig. 2-4).
3. Set Selector Switch (Fig. 2-1) to NORmal or MONitor, as desired.
4. Establish recording level by using a part of the record you want to transfer to tape.
5. Now follow through on the same procedure as recording from a microphone.
6. For Playback, follow same steps as the playback of a microphone recording.

## How to record from a radio (Models 2711 & 2712 only)

Follow the same procedure as recording from a fonograf. If your radio does not have an OUTPUT Jack, your radio service man will put one in for you.

# How to play back a recording

Rewind to other reel by turning Record-Playback Control to either the R or L position, as the case may be.

**CAUTION: DO NOT PRESS DOWN THE "R" BUTTON FOR PLAYBACK OR REWIND. THIS WOULD ERASE YOUR RECORDING.**

1. If you wish to make a fast rewind, then press down on Record-Playback Control and turn to either R or L position. Again, do not press down the R "Record" button or you will erase recording.
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5. Adjust volume and Tone Control to suit your ear. (Tone Control does not operate for recording.)

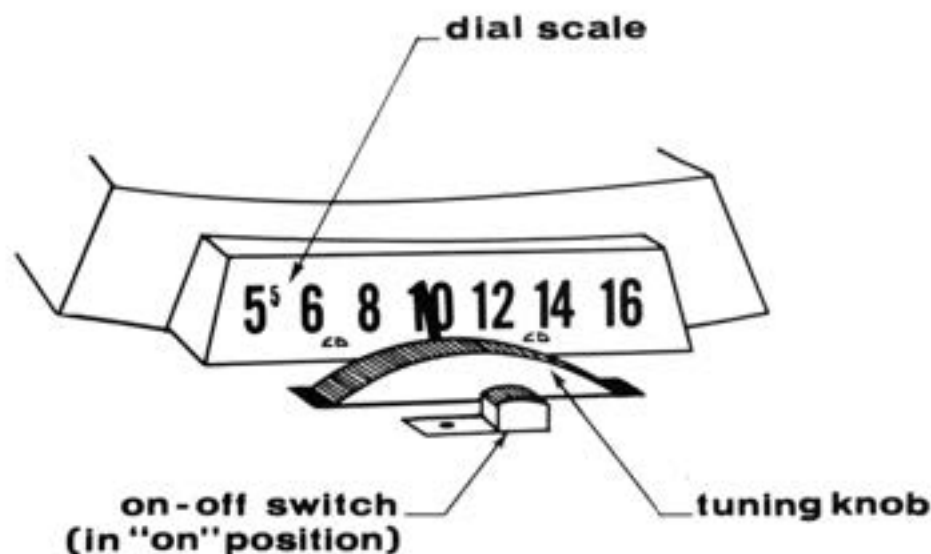
## How to record from a fonograf

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2. Connect Webcor Input Cord No. 2925 between OUTPUT Jack of fonograf and INPUT Jack of recorder (Fig. 2-4).
3. Set Selector Switch (Fig. 2-1) to NORmal or MONitor, as desired.
4. Establish recording level by using a part of the record you want to transfer to tape.
5. Now follow through on the same procedure as recording from a microphone.
6. For Playback, follow same steps as the playback of a microphone recording.

## How to record from a radio (Models 2711 & 2712 only)

Follow the same procedure as recording from a fonograf. If your radio does not have an OUTPUT Jack, your radio service man will put one in for you.

## How to play Radio only (Models 2791 & 2792 Only)



**FIGURE 7**

1. Set Record-Playback Control (Fig. 1-6) in "stop" position.
2. Set Output selector switch (Fig. 2-1) to "MON" (Monitor) position.
3. Slide Radio switch (Fig. 7) to "ON" position.
4. Turn volume control knob (Fig. 1-9) to right. This will turn on the unit and adjust volume.
5. Tune in station (Fig. 7).

**CAUTION:** If a plug is inserted into the input jack (Fig. 2-4) the radio signal will be cut off.

## How to record from Radio (Models 2791 & 2792 Only)

Continuing from above sequence with radio playing:

6. Adjust volume as described in paragraph 6 under "To Record".
7. Follow subsequent steps under "To Record".
8. During recording, Monitor switch may be left "on" or returned to normal (which cuts out the speaker) as you desire.

**NOTE:** When recording the tone control does not function—only when playing back.

## How to use your recorder as a public address system

1. Set Record-Playback Control to STOP.
2. Set Selector Switch to MONitor.
3. Connect microphone to INPUT Jack. (Microphone should be placed far enough away from unit to prevent feedback.)
4. Adjust volume as desired.
5. You may record your speech during delivery by turning on the recorder with the Selector Switch in MONitor position.

NOTE: In recording your speech, however, be sure you set proper recording level.

## How to use your recorder with an external speaker

1. Plug external speaker into OUTPUT Jack of recorder and set Selector Switch at NORmal or MONitor position, as required. Use Webcor Output Cord No. 2928.

## How to use your recorder with another tape recorder

1. Connect a No. 2943 Input-Output Cord from the INPUT Jack of the receiving recorder to the OUTPUT Jack of the transmitting recorder.
2. Adjust volume control.



# How to use your recorder with an external amplifier

1. Set Selector Switch to EXT-AMP position.
2. Connect a No. 2928 Output Cord from the OUTPUT Jack of the recorder to the terminals of the external amplifier.
3. You may also record from a radio, fonograf, or microphone through the recorder to the external amplifier.
4. Use the INPUT Jack of the recorder connected to the microphone, fonograf or radio as previously described.

# How to use the tape counter

This is another new feature of your Webcor. By using this Tape Counter, it is quite simple to locate quickly any section on your reel of tape.

1. Before recording, set Tape Counter at 000.
2. At the conclusion of your first recording session, jot down the reading on the Tape Counter. Let us assume it is 150. Now you know that your first recording lies between 000 and 150.
3. If you make a second recording, you would naturally start it at about 155, allowing a few inches of space between the end of recording one and the beginning of recording two.
4. At the end of the second recording, again jot down the reading on the Tape Counter. If it is 300, then your second recording lies between 155 and 300. And so on.

NOTE: If your tape runs from the left reel to the right, the numbers increase. If the tape runs from right to left, the numbers will decrease.

A little practice with the Tape Counter will make it invaluable for quickly locating any recording you want. Just be sure to write down the Tape Counter readings on the back of the reel box after you record.

## How to use "fast rewind"

Set Record-Playback Control at the STOP position. The FAST REWIND is operable only when the Record-Playback Control is in this STOP position.

Press down on the wing control and turn to the desired position, R or L.

## How to erase a recording

Place reel of tape on reel shaft.

Set recorder Volume Control as low as possible, but do not turn off the power.

Depress R button and turn wing knob to proper position. The recording heads will erase the tape completely.

If you wish, you can make a new recording on a tape already recorded without going through the above steps. Simply start recording and this will automatically erase the old recording as you make the new recordings.

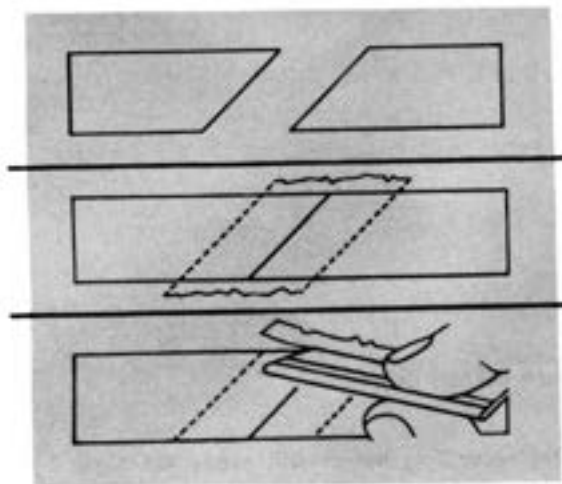
Because you can erase tapes, you can make countless recordings.

## Features of your Webcor tape recorder

1. Your Webcor Recorder is equipped with automatic stops in both directions of tape travel which shuts off power at end of reel of tape.
2. Your Webcor Recorder is designed to record and play back on two independent paths on the tape, one path when tape is traveling from left to right and the other path when tape is traveling from right to left. This feature permits you to obtain double the recording time per reel of tape, and eliminates the necessity and inconvenience of turning reel over. When you are recording or playing back and reach the end of reel of tape, switch tape travel direction and continue playing back or recording on second path.

## How to edit and splice tape

To remove or insert a section of tape, or if the tape is accidentally torn, you can easily splice the ends.



Lap two ends of tape, then cut at 45° angle by holding scissors over diagonal line on magnetic head cover.

Butt the ends together smoothly, then place a short length of splicing tape over the joint.

Trim the edges of the splicing tape so that no sticky surface extends out from the edges of the recording tape.

**CAUTION: DO NOT USE CELLOPHANE TAPE FOR SPLICING. IT WILL "BLEND" AND CAUSE ADJACENT LAYERS OF RECORDING TAPE TO STICK TOGETHER.**

USE ONLY SPLICING TAPE MADE FOR THIS PURPOSE. IT IS AVAILABLE AT YOUR DEALER.

## How to store tape

It is best not to crease or twist recording tape.

Keep your tapes in a cool place, away from heat. Do not let them dry out.

In handling tape, avoid touching the recording side with your fingers.

## How to maintain your recorder



Your recorder will not need lubrication for a long time. For adjustments and lubrication, it is best to take your recorder to your dealer.

It is normal for dust, lint and oxide from tape to gradually accumulate on the face of the magnetic recorder heads. This results in poor erasure, loss of higher frequencies, loss of volume, distortion and intermittent sound.

To clean the recorder heads, use a No. 1 Phillips head screwdriver to remove the screws holding down the plastic head cover.

Remove the cover and clean the face of the heads carefully with alcohol and a clean soft cloth.

The frequency of cleaning depends upon the amount of use and quantity of dust in the room. When not in use, the recorder should be covered.

**CAUTION: DO NOT USE CARBON TETRACHLORIDE FOR CLEANING. IT WILL DAMAGE TAPE.**

# How to solve typical recording problems

## 1. Recorder will not turn on

AC fuse may be burned out. Remove the tube protecting grill from bottom of case and replace fuse in screw type fuse holder. A 2 ampere fuse is required.

The power plug may be defective.

## 2. No sound on tape sent by a friend

The tape may be "B" wound, with the dull, recorded side facing away from the reel hub. Rewind it, but turn the tape over on the empty reel side of the Threading Slot so the dull, recording side faces the hub when attaching to the Take-up Reel.

## 3. Recording sounds mushy and distorted

Do not "over-record." Do not turn the volume control high enough to cause the shadow of the magic eye volume level indicator to close tightly or you will over-record.

Worn or glazed pressure pads may also cause distortion. Your dealer will check these for you.

## 4. Recording sounds thin and weak

If the volume control was not turned far enough, a weak recording will result. Full volume will be needed when playing back and it will sound weak and thin.

## 5. The recording sounds very fast or very slow

The Tape Speed Control is in the wrong position.

## 6. "Thumps" and noises in background

Your friends were not quiet while the recording was being made. The microphone may have been lying on a table. Cushion it with a folded cloth or rubber sponge to absorb the jars and table noises.

# Hints for good recordings

The ability to get the best results with a microphone improves with practice. The microphone should be held far enough from the mouth to permit a moderate setting. A distance of about 8 inches from mouth is generally best.

Some people pronounce "B's" and "P's" with an explosive puff which overloads the microphone. Others speak with sharp sibilants which are over-accentuated when the recording is played back. In such cases, or in recording whistling or wind instruments, the microphone should be held sideways at right angles to the mouth or sound source.

There are, however, many variations in individual speech, and it is advisable to make a few practice recordings to discover the best microphone distance and volume setting. The usual tendency is to talk too loudly and too close to the microphone.

For recording musical instruments or singing, where the microphone may be several feet from the source of sound, it should be remembered that room echoes will seriously affect the quality of the recording. That is why radio broadcast studios are specially built to keep such echoes from reaching the microphone.

Such absorbing articles as drapes, tapestries, over-stuffed furniture, rugs, or an audience, all aid in absorbing and eliminating echoes and hollow sounding recordings.

Auditoriums and rooms with relatively bare walls present especially difficult recording conditions. Drapes or a wool blanket hung behind an individual performer will help break up echoes.

Nestling the microphone on the top of a folded coat or pile of cloth will also absorb echoes and improve the recording.

When recording speeches or programs in auditoriums equipped with a good public address system, better results may often be obtained by placing the microphone in front of one of the loudspeakers instead of

trying to record directly at the speaker's stand.

Most problems associated with microphone placement and microphone technique are those encountered by the average public address technician. Each installation is different. Only experience will enable you to quickly analyze a new set of conditions and place the microphone correctly. You can learn, however, the recording conditions most frequently encountered in your own home. Special problems can best be solved on the spot by consulting a local technician.

The microphone supplied with your recorder has high frequency characteristics and high sensitivity. When held in the hand or mounted in the MS-111 microphone stand, it has semi-directional characteristics. Its output is rated at -50 db.

Non-directional characteristics for recording groups will result from placing the microphone on its back on a soft pad (to absorb unwanted jars and vibration). Rather large groups can be recorded successfully.

Special microphones may be desired by professional and advanced amateur recorders for special pickups. Any microphone with an output of -55 db or better can be used.

Radio programs should be recorded directly from the receiver circuit instead of from the loudspeaker and microphone. Accessories shown on another page can be installed in a few minutes by anyone familiar with radio circuits or by any competent radio service technician.

Special installations sometimes require a microphone cable longer than is supplied with the microphone. Up to 45 feet of additional cable may be added without undue loss of sensitivity or fidelity. You may use from one to three 15-foot Webcor microphone extension cables No. 2929 for this purpose. For greater distance, low impedance transmission lines and matching transformers should be used.

# Suggestions for interesting recordings

## Plan your recording

The recordings you keep should be carefully planned. Not only will you enjoy them more, but you will be proud to play them for your friends.

Planning includes the choice of program material, the writing and editing of the dialogue, music and sound effects for your plays and skits, the personal introductions to radio programs or recordings from phonograph records and even the plans for recording family gatherings, weddings, birthdays, and parties. Unless your programs are carefully planned, you may find that you have hours of almost incoherent recordings.

Planning also includes the physical placement of the recorder and microphone for the best results.

Family gatherings, birthdays, weddings, and parties are often difficult. Best results will be obtained when the guests know you are recording. Ask them to co-operate for the few minutes during which you record "for keeps," while recording the greetings and good wishes for the guest or guests of honor. After this good recording is completed, then tell them to go ahead and record any fun and frolic they wish.

When recording "for keeps," direct the guests so that the parents or close friends and relatives record their greetings first. You might need to write suggested dialogue for those who get "mike" fright and cannot think of anything to say.

A microphone extension cord is often invaluable. When the recorder is placed away from the microphone those being recorded will be more at ease and act more naturally. A 15-foot extension, Webcor No. 2929, is available from your dealer.

Those studying dramatics will especially appreciate the opportunity of writing and producing radio type presentations. The casting of voice parts, sound effects, and smooth direction become doubly important for the final result is the only one that is heard. For example, the most important qualification for the leading lady is not beauty, but rather the best "voice personality" to put over the part.

For best results write an actual script, just as you would write a play. Indicate the sound effects and special effects required to put over the message. Practice the parts several times so that the reading of the script sounds natural and is delivered smoothly and accurately.

## TYPICAL RECORDINGS

### A sound album of your family

You will cherish, on tape, the first words of your child, his first music lesson, his first favorite story, etc.

Anniversaries and parties. Special occasions. A diary of your thoughts. A sound commentary for your music films.

Recordings of favorite stories and music which your children love to hear.

Your recorder is also invaluable in aiding your children in their schoolwork. Speech and language practice, music study, etc. Learning to speak into a microphone gives them confidence and helps bring out their hidden talents.

Record your favorite radio and TV programs. Replay them for your friends.

### In business

Your recorder puts more authority in your voice. Use it five minutes a day and shortly you will observe a great difference in your voice and personality.

The recorder is excellent for sales meetings and conferences. Sales training programs. Dictation. Making inventories.

As a record of telephone conversations. (For this purpose, your dealer will supply you with the necessary accessory.)

Billing. Personnel time chart, etc.

### In schools and churches

Nothing quite equals a tape recorder for remedial work in reading and speech. An excellent aid in foreign language classes, assembly programs, etc. Indispensable for radio and dramatic skits. For recording famous events, like a presidential inaugural address, news, etc.

Many ministers practice their sermons with a tape recorder. Master tapes can be multi-taped for distribution among the congregation.

Many married couples cherish a recording of the ceremony.

Also invaluable for social events, Sunday school classes, etc.

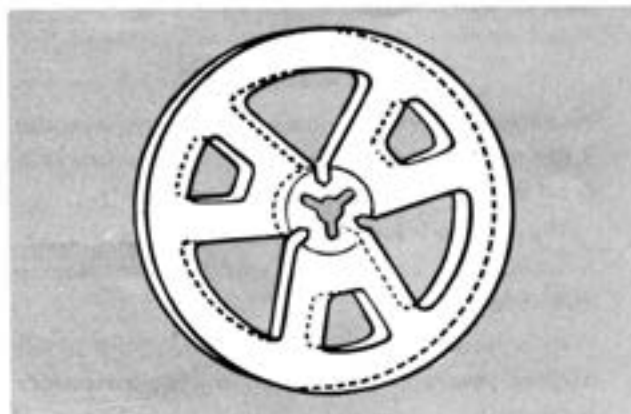
The uses of a Webcor Tape Recorder are limited only by your imagination.

# Webcor accessories are best for your recorder

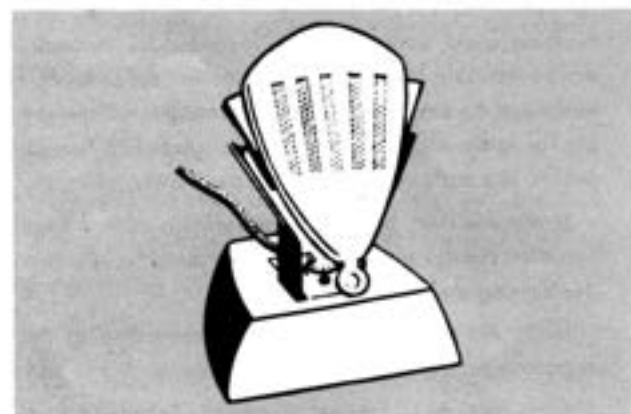
(These accessories should be obtained from your dealer.)



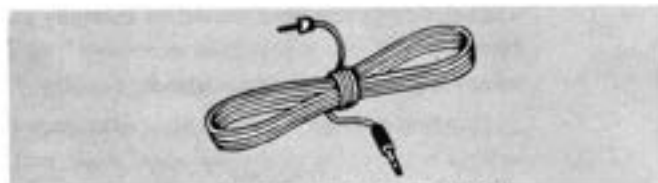
No. 2906—7" WEBCOR PRETESTED TAPE  
No. 2907—5" WEBCOR PRETESTED TAPE



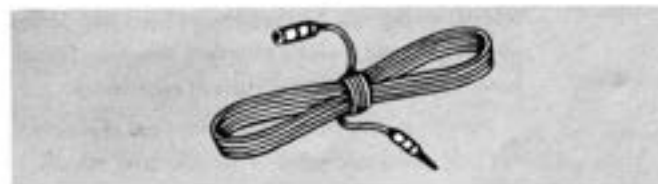
No. 2908—7" SPARE RECORDING TAPE REELS  
No. 2909—5" SPARE RECORDING TAPE REELS  
For storing sections of tape for reference and safekeeping.



No. MS-111 MICROPHONE STAND  
Holds microphone in position on desk or speakers table.



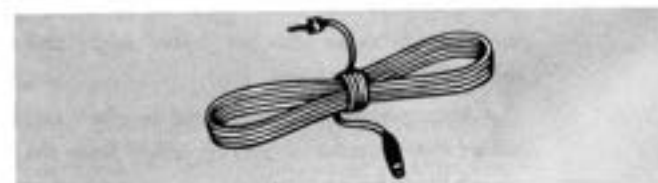
No. 2925 OUTPUT CORD ASSEMBLY  
6' cable for use in connecting Webcor clock radios and fonographs to Webcor tape recorders.



No. 2929 MICROPHONE EXTENSION CORD  
15' extension cable, to be used for extending cord on No. 2930 microphone.



No. 2927 INPUT CORD ASSEMBLY  
10' shielded cable for use in connecting a tuner, radio or phonograph pickup to Webcor recorders.



No. 2926 INPUT CORD ASSEMBLY  
15' shielded cable for use in extending cord No. 2925.



No. 2930 ACCESSORY MICROPHONE  
6' cord and crystal microphone for use with Webcor tape recorders using microphone jack input plug.

## WEBCOR HIGH FIDELITY TAPE RECORDS

See your dealer about the excellent selection of Webcor High-Fidelity Tape Records featuring the Fine Arts Quartet and other prominent artists. Available in 5 (1/2 hr.) and 7 (1 hr.) inch reels. Recorded at 7 1/2 ips.

**WARRANTY:** Webcor warrants this unit for a period of ninety (90) days from date of purchase to be free of defects in material and workmanship. If, for any reason, service or adjustment of this Webcor unit is necessary within the warranty period, the instrument must be returned to the dealer from whom it was purchased. For service beyond the warranty period, any qualified service technician is equipped to service the unit.

**W E B C O R**

**CHICAGO 39, ILL.**