

# Recordex®

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## Operating Instructions



**RECORDEX  
STEREO CASSETTE  
DUPLICATING SYSTEMS**

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# Introduction

Thank you for selecting Recordex to meet your high-speed cassette duplicating needs. This manual has been prepared to acquaint you with the operation and maintenance of your duplicator, and to assist you in the proper setup and actual duplication of a good quality tape.

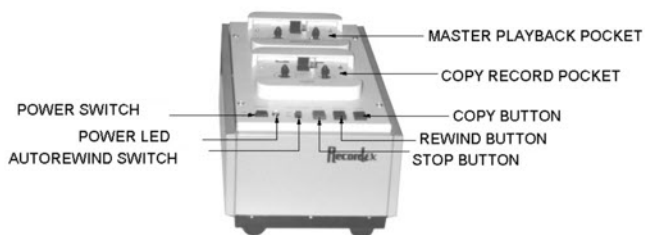
When service is needed, remember that your Recordex dealer knows your duplicator best and is interested in your complete satisfaction. Contact your dealer for your service needs and any other assistance that you may require.

Please take the time to read this booklet and become thoroughly familiar with your new Recordex duplicator before using the equipment.

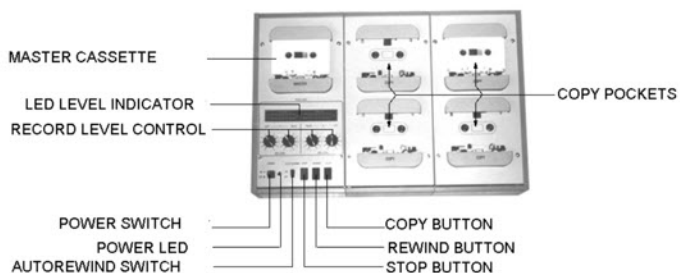
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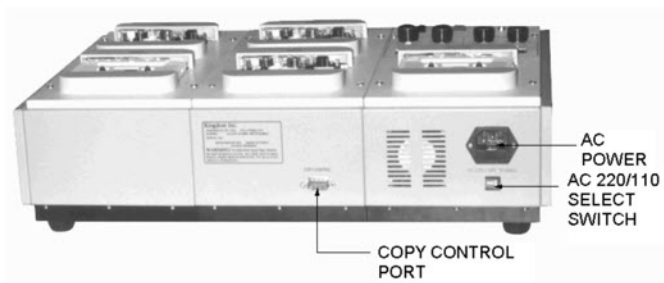
## Reference Views



**FRONT VIEW**



**TOP VIEW**



**BACK VIEW**

## Important Notice

**Save the box and the original packaging materials!** If this product should need servicing, it should be returned to your dealer or to the Recordex Service Department in the original box with the original packaging materials. The original box and packaging materials are specifically designed to protect the contents from damage that could occur during normal shipping and handling. Since this electronic equipment is of a delicate nature, United Parcel Service (UPS) or Federal Express (FEDX) will not honor a damage claim for equipment that is packaged improperly.

## Recommended Tape Usage

Use only high-quality cassette tapes with your Recordex system. Some inexpensive tapes can cause poor-quality recordings and premature head wear. Recordex recommends that you use only normal bias 120  $\mu$ s. (Type I) tapes in your duplicator. High-Bias 70  $\mu$ s. CrO<sub>2</sub> (Type II) are not recommended. You can use C-30, C-60 or C-90 cassettes, but C-120 cassettes are likely to break and thus are not recommended.

### NOTE

**Metal (Type IV) tapes are not recommended.**

## Warranty Exclusion

Recordex does not warrant or guarantee the performance of the Recordex tape duplication products in configuration with any hardware that is not the standard. If you have any questions on this matter, please feel free to contact Recordex Manufacturing, Inc.

## Important Safety Instructions

- ✓ Read instructions - All the safety and operating instructions should be read before the product is operated.
- ✓ Retain instructions - These safety and operating instructions should be retained for future reference.
- ✓ Heed warnings - All warnings on the product and in the operating instructions should be followed.
- ✓ Follow instructions - All operating and use instructions should be followed.
- ✓ Cleaning - Unplug the product from the wall outlet before cleaning any exterior surface. Follow the cleaning instructions in this manual.
- ✓ Water and Moisture - Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
- ✓ Ventilation - Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product and to prevent it from overheating. These slots and openings must not be blocked or covered in any manner.
- ✓ Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at wall outlets, convenience receptacles, and the points where they exit from the module.
- ✓ Lightning - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
- ✓ Overloading - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- ✓ Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled onto the product, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock.
- ✓ Servicing - Do not attempt to service the product beyond that described in the operating instructions, as opening or removing covers may expose you to dangerous voltages. All other servicing should be referred to qualified service personnel.

## Controls and Indicators

Control/Indicator	Function
Record Level Indicator (Optional)	For each channel, displays the level of signal obtained from the master cassette and sent to the copy cassette. For channel assignments, see Recordex Channel Descriptions on page 6.
Record Level Control (Optional)	Your Recordex duplicator is calibrated to produce copies at recording levels approximately equal to the master copy when the Record Level control is set to (0) the middle of its range. To adjust a control, rotate the knob to raise (+) or lower (-) the recording level (for copy cassette characteristics or incorrectly recorded master cassettes).
Power indicator	Lights red when the duplicator is switched on and ready for use.
Auto Rewind	On - When end of tape is reached tape will automatically rewind to beginning and stop. Off - When end of tape is reached tape will stop and will not rewind.
Copy button	Copy starts a sequence which rewinds cassettes to beginning of tape, starts copying cassettes, stops at tapes end, and rewinds tapes to beginning.
Rewind button	Rewinds all cassettes to their beginnings and then stops.
Stop button	Stops the Copy or Rewind functions.

## Recordex Channel Descriptions

Stereo cassette tapes are divided into four (4) TRACKS or sections running the length of the cassette. These TRACKS are commonly referred to as CHANNELS. Two (2) channels on each side of a cassette. One side of a cassette is known as side "A", the other side is known as side "B". Side "A" has two (2) channels known as "RIGHT CHANNEL" and "LEFT CHANNEL". Side "B" is also divided into two (2) CHANNELS also known as "RIGHT CHANNEL" and "LEFT CHANNEL".

The tables below show the duplicator's channel assignments, monitored by the Control module's Recording Level indicators. See page 2.

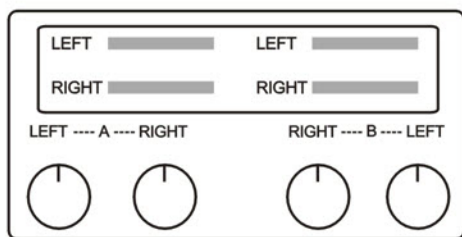
### Stereo Recordex Models

Channel 1 Left channel of side A  
Channel 2 Right channel of side A  
Channel 3 Right channel of side B  
Channel 4 Left channel of side B

## Recordex Channel Adjustment

To boost or retard record levels adjust the knob, which coincides with the channel you want to adjust.

**Example:** To boost the record levels on side "A" of all your copies, turn up the knobs marked "LEFT --- A --- RIGHT". Both knobs to desired levels. This will boost both channels on side "A" of your cassettes.



**Figure 1. Recoding Level Adjustment**

**Example:** To boost the record levels on side "B" of all your copies, turn up the knobs marked "RIGHT --- B --- LEFT". Both knobs to desired levels. This will boost both channels on side "B" of your cassette.

## Connecting Your Recordex Modules

1. Position your Control and Copy modules in a row, with the Control module at the far left.
2. **Starting with the Control module:** Connect a cable between the 9-pin connectors on the back of the Control module (See page 2 **Copy Control Port**) and one 9-pin connector on the back of the first Copy module. (You can use either connector on a module). To connect a second Copy module, connect a cable between the first Copy module and the second Copy module. To connect other Copy modules, connect each module to the previous Copy module until all modules are connected.
3. Plug a power cord into the universal power cord receptacle on each module and into an AC wall outlet or power strip.

## Copying With a Recordex Duplicator

Before you perform any copying task with your Recordex duplicator, follow the steps described below in **Setting Up the Recordex Duplicator for Copying**.

### Setting Up the Recordex Duplicator for Copying

Use this procedure to prepare the Recordex system for copying in Manual mode or Automatic mode.

1. Switch the Recordex modules on.
2. Insert the cassette you wish to copy from into the pocket marked **Master** as shown in Figure 2.

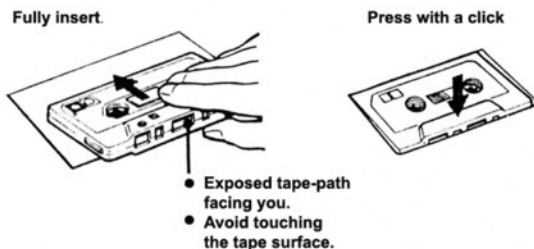


Figure 2. Cassette Insertion

## CAUTION

3. Never run your master (original) cassette in any of the Recordex duplicator **Copy** pockets or the recorded information will be lost.
4. Insert the cassettes you wish to copy onto in the **Copy** pocket. If you are recording on normal bias cassettes, Recordex erase heads will automatically erases previously recorded material.

If your duplicator is not equipped with adjustable audio level controls and L.E.D. Indicators skip to section **Automatic Copying Process** on page 8.

5. Set the recording levels for each channel, by performing the following steps.
  - a. Set the Auto Rewind switch to off.
  - b. Press Copy.
  - c. Monitor the recording levels for each channel.
  - d. For each channel that needs adjustment, rotate its knob as needed. Adjust each channel to stay as close as possible to the 0 dB indicator. Occasional peaks of +3 are acceptable, but peaks of +6 produce poor copies. After the adjustment for each channel is correct, your copies will be produced at the optimal record level.
6. Press Stop and then Rewind to rewind all cassettes to their beginnings. You are now ready to begin the copying process.

## Automatic Copying Process

Set up your Recordex duplicator for copying, as described in the procedure **Setting Up the Recordex Duplicator for Copying** on page 7.

1. Set the Auto Rewind switch to on.
2. Press the Copy button. First all tapes will automatically rewind, then copying will begin. After copying finishes, all tapes will rewind to their beginning and stop. To stop copying at any time, press and hold the stop button until all functions have stopped.
3. After the copy cycle has completed, remove the copied tapes, reload with new tapes and repeat step 2 to produce additional copies.

# Maintaining Duplicator

## Maintenance Cautions and Warnings

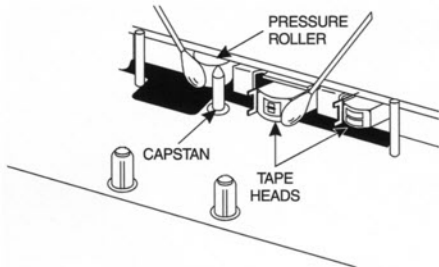
- Do not use soap and water, cleaning solvents, or furniture wax on the modules. To keep modules free of dirt and dust, cover the modules when not in use. Clean the modules periodically by wiping with a dry, lint-free cloth.
- For cleaning parts that come into contact with cassette tape, use only isopropyl alcohol (at least 90% pure) or a high-quality liquid head cleaner. Using other fluids can cause damage.
- Never touch the tape heads with any hard or sharp objects, stiff brushes, or anything made of metal.
- Do not exert pressure on heads or realignment may be needed.

## Cleaning the Tape Head, Capstan, and Pressure Roller

To ensure the best copy quality, clean all cassette tape contact points regularly, as described and shown below. The frequency of cleaning required depends on frequency of use, type of tape being used, and environmental conditions (for example, a dusty room).

It is especially important to keep the tape heads clean, because improper tape contact with the tape heads causes dropouts, fading, and a noticeable loss in high-frequency response on the copies.

1. Remove all cassettes from the Control and Copy modules.
2. Use a cotton swab or a soft, lint-free cloth lightly dampened (not saturated) with isopropyl alcohol to clean the tape heads, pressure roller, and capstan in each well. When cleaning the pressure roller and capstan, place the cotton swab in contact with the surface farthest away from the tape head as shown in Figure 3.



**Figure 3. Tape Head, Capstan and Pressure Roller Cleaning**

## Replacing the Fuse

Use a small flat-blade screwdriver to pop out the fuse holder. See Figure 4. The fuse holder is located within the AC Power Plug below the terminals as shown in Figure 5. Replace the fuse only with the type and rating shown on the label.

### Replacement Fuses:

Model	Description	Fuse Size
Messenger	1 to 1 Duplicator	Rating 2.0 A/250 Vac
Sound Pro	1 to 4 Duplicator	Rating 4.0 A/250 Vac
Sound Master II	1 to 2 Duplicator	Rating 4.0 A/250 Vac
Sound Master IV	1 to 4 Duplicator	Rating 4.0 A/250 Vac
Sound Master II Exp.	2 Position Copy Unit	Rating 2.0 A/250 Vac
Sound Master IV Exp.	4 Position Copy Unit	Rating 4.0 A/250 Vac

Part Number for 2.0 A/250 is **REC-2A-250**

Part Number for 4.0 A/250 is **REC-4A-250**

If the module repeatedly blows fuses, verify that the **AC Select Switch** is set to the proper voltage. If the module continues to blow fuses, then it should be returned for servicing.



Figure 4. AC Fuse Holder

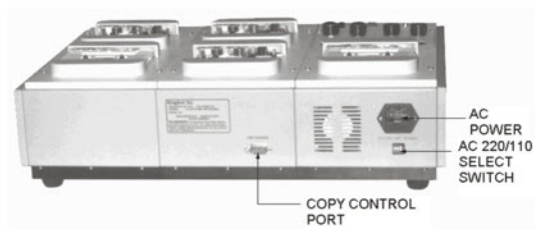


Figure 5. Fuse Located within AC Power Plug

## Common Problems and Their Solutions

Prior to returning any duplicator for servicing, examine the following list of common malfunctions. It may be possible to correct a problem on your own.

### **No power, motor not operating . . .**

- ✓ Check electrical outlet for power.
- ✓ Check that AC 110/220 Select Switch is properly set. See page 2.
- ✓ Check fuses. See page 10.
- ✓ Check that power switch is on.
- ✓ Check for a tape jam.

### **Copies are weak . . .**

- ✓ Readjust recording level controls. See page 8, step 5.
- ✓ Inspect/clean tape heads. See page 9.
- ✓ Use a better grade of tape.

### **Loss of high frequencies on copies (too much bass) . . .**

- ✓ Clean tape heads. See page 9.
- ✓ Try different tape (better grade).

### **Ticking or buzzing noise recorded . . .**

- ✓ Do not use a 2-prong cord adapter.
- ✓ Try another recording location. Power outlets may be improperly grounded or light dimmers, etc., may be causing a problem.

### **Copy tape stops before original tape finishes . . .**

- ✓ Tape may be jammed or broken.
- ✓ Copy tape is short.

### **Tape wraps around capstan or pressure roller . . .**

- ✓ Turn power off; remove damaged tape from capstan and pressure roller, and clean capstan and pressure roller. See page 9.

## **Limited Warranty**

### **VALID IN UNITED STATES AND CANADA ONLY**

**RECORDEX USA, INC.** ("Recordex") warrants to the user who originally purchased the product, that the product will be free from defects in material and workmanship for the following periods after such date of purchase: Material 12 months, workmanship 12 months. In Addition, Recordex warrants the product against head failure due to manufacture defects for a period of: Standard heads -90 days, T-core Heads-12 months, from the date of purchase. Recordex will repair or replace tape heads which fail due to these conditions during the warranty period. Recordex will at its option repair or replace free of charge such defective products subject to the following conditions:

- 1) Delivery of the product or parts postage prepaid to a Recordex dealer authorized to perform warranty service or directly to our factory service facility.
- 2) Determination by Recordex that a defect exists and is covered by limited warranty. Defects due to alteration, repair by unauthorized person, Insertion of non-Recordex parts, misuse, accidental damage, use of the equipment for purposes other than those for which it was designed, and the like are not covered by this limited warranty and repairs thereof will be subject to normal service charges.
- 3) Repairs and replacement parts are covered under this limited warranty only for the unexpired term of the original limited warranty.
- 4) Products purchased from unauthorized dealers are not warranted.
- 5) You must fill out and return the enclosed warranty registration card within 10 days after such purchase or this limited warranty is void.

THIS LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXTENDS BEYOND THE TERM HEREOF. THE REMEDIES PROVIDED BY THIS LIMITED WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON. NO PERSON HAS ANY AUTHORITY TO BIND RECORDEX TO ANY REPRESENTATION OR WARRANTY OTHER THAN THOSE PROVIDED BY THIS LIMITED WARRANTY. RECORDEX SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY FAILURE OR OTHERWISE OF THE PRODUCT.

Some states do not allow exclusions or limitations of incidental or consequential damages or limitations on how long an implied warranty lasts, so the limitations or exclusions herein may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

# **Service Information**

## **Service Information**

In the interest of promptness (if service is required), it is recommended that you first contact the dealer from whom the equipment was purchased. If modules are to be returned to the dealer or factory, they should be shipped in the original packing material or carefully packed in some other container with sufficient packing material to prevent damage. Technical assistance and the location of local repair services is available from the Recordex Customer Service department at:

Service & Support Contact Information

718-392-5380 (support extension #2)  
[support@recordexusa.com](mailto:support@recordexusa.com)