

**OPERATING  
INSTRUCTIONS**

**SEEBURG INDUSTRIAL-COMMERCIAL MUSIC  
SYSTEM**

**MODEL IC-S1**



PRICE 10 CENTS

FH/1M

PART No. 600319

# OPERATING INSTRUCTIONS

## MODEL IC-SI

### SELECT-O-MATIC '200' LIBRARY

After the installation has been completed, the unit can be put into operation by proceeding as outlined below. Since individual installations will vary considerably in services rendered, the following general operating instructions may be altered to suit individual requirements.

#### LOADING RECORDS

Records are inserted into the Library Magazine *one record* to each record space. Any standard 10 inch or 12 inch commercial records may be used. Arrange records in the sequence to be played starting at the left (No. 1). Ten inch and twelve inch records may be intermixed in any sequence desired.



**CAUTION:** *Do not force records!* Any normal record will roll into the space freely. However, a record that has been improperly stored may be so badly warped so as to bind in the space. Such records would not be properly played in any automatic mechanism and should be discarded or straightened by placing under pressure between two pieces of plate glass overnight at room temperature. When not in the Select-O-Matic Library, records should be stored in albums in a *vertical* position away from excess heat.

#### ALBUMS

With albums containing a complete selection on each record side, the sequence is not important and such records may be played in any sequence. Concert types of albums in which selections are carried over from side to side of records should be of STANDARD (MANUAL) SEQUENCE, designated as follows:

COLUMBIA: 'M' Series - Manual

'X' Series - Manual  
(2-Record Album)

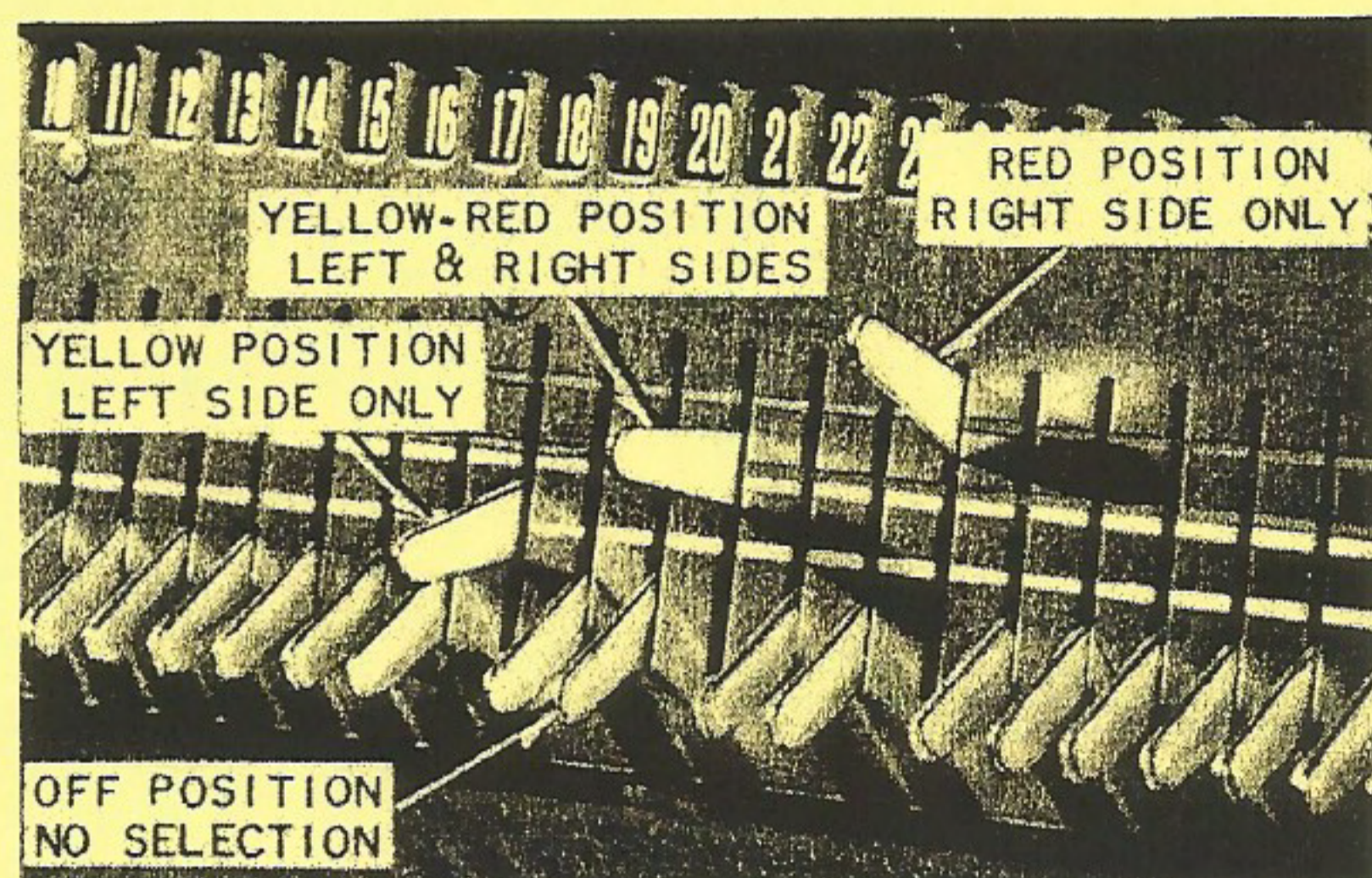
RCA-VICTOR: 'M' Series - Manual

DECCA: 'A' Series - Manual

Record Albums of the 'Automatic' (Drop Type) Series will not play in *proper sequence* in this mechanism.

#### SELECTING RECORDS

The SELECTOR LEVERS on the Selector Panel are used to select records in the Library to set up a program. The SELECTOR LEVERS have four positions.



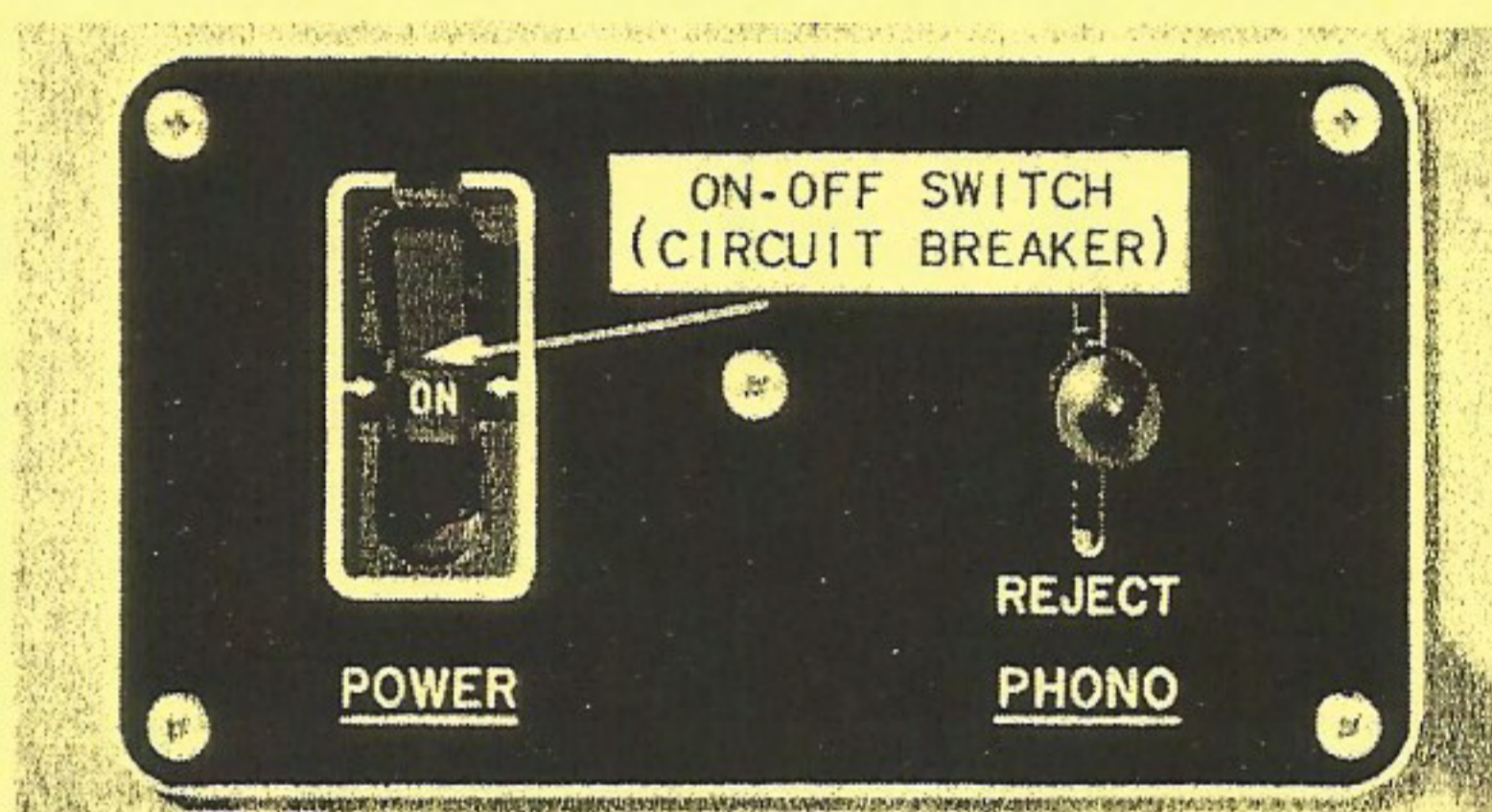
1. OFF POSITION. If all selector levers are in the OFF (downward) position, no record is played.
2. YELLOW POSITION. This is the first position as levers are raised. Setting a lever to this position will cause the mechanism to play the Left Side *only* as viewed from the front of the Library.

3. YELLOW AND RED POSITION. This is the second lever position; the mechanism will play first the Left Side and then Right Side of the record.
4. RED POSITION. This is the third and last position; the mechanism will play the Right Side *only*.

CONTROL PANEL

ON-OFF SWITCH (Circuit Breaker)

This switch is used to turn power ON and OFF, and automatically interrupts power in case of overload or short circuit. This switch must be 'ON' for operation of the equipment.



NOTE: This equipment will not operate with the rear door removed because of the safety feature provided by door interlock switch.

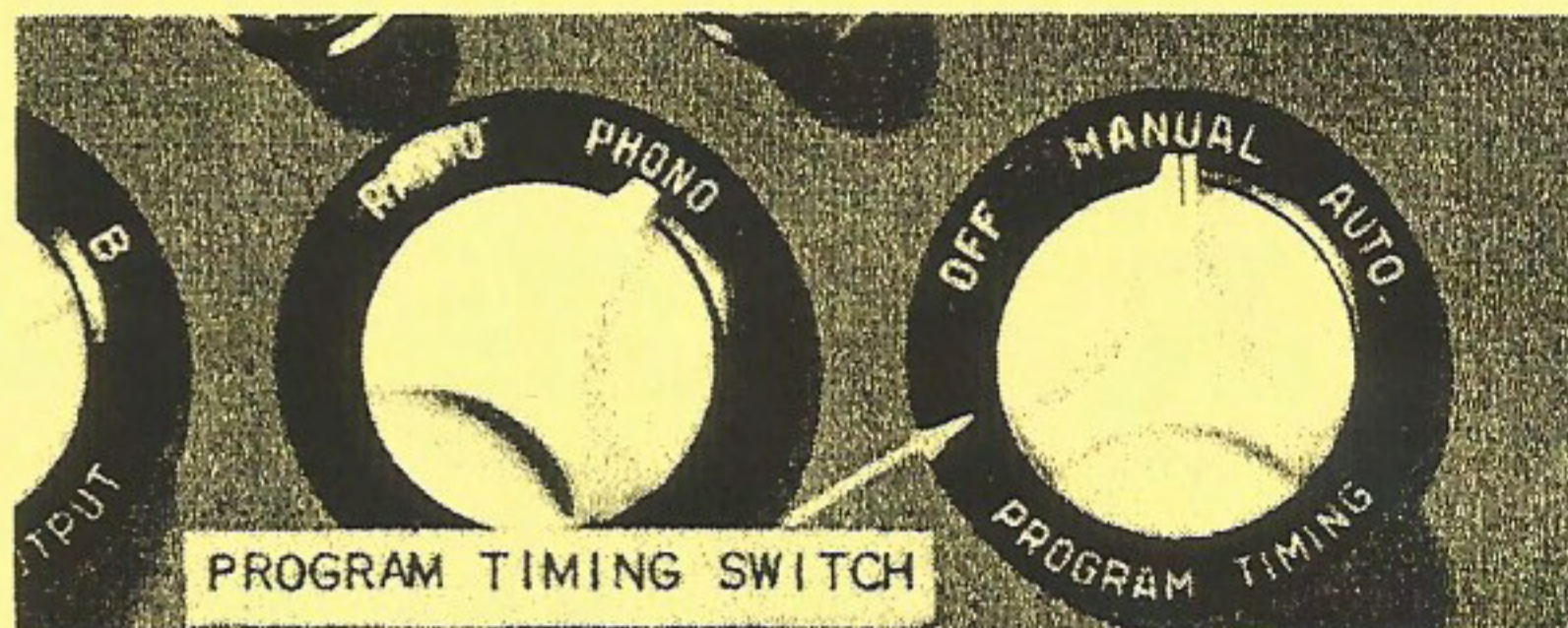
PROGRAM SWITCH

Selection of RADIO or PHONOGRAPH program is made with this switch. Turned to PHONO, the indicator lamp to the right will indicate when the Select-O-Matic '200' Library is in operation. The Radio indicator lamp (left) shows when the radio is in operation.



PROGRAM TIMING SWITCH

When in the 'OFF' position, neither RADIO nor PHONO will operate but the equipment will remain in 'Standby' condition for instantaneous paging.



NOTE: A 'carry-over' feature will prevent the Library mechanism from stopping while actually playing a record. If the PROGRAM TIMING SWITCH is turned off, the Select-O-Matic mechanism will stop when the record has been played off (or rejected--see SCAN-REJECT switch).

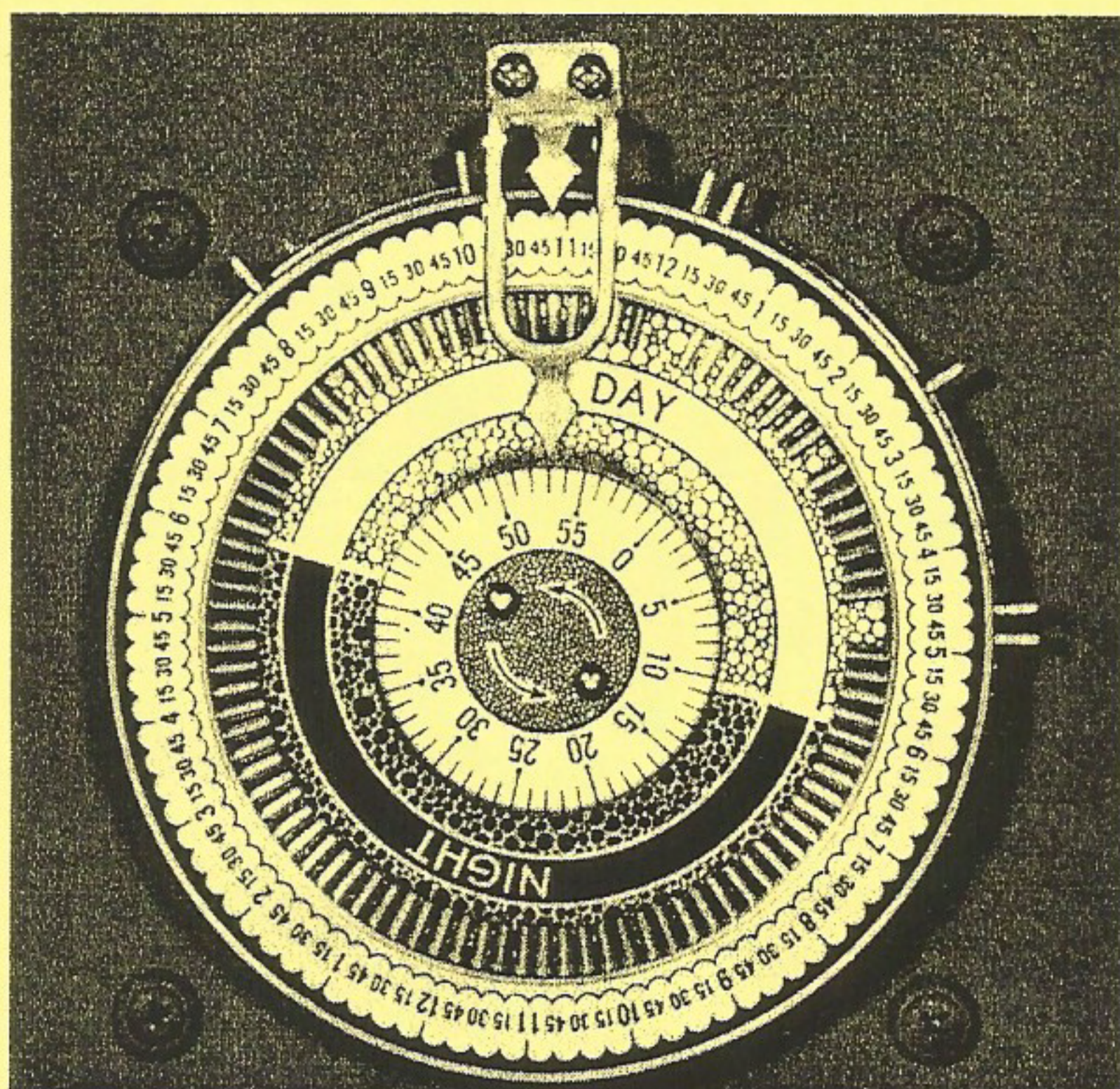
PROGRAM TIMER

The PROGRAM TIMER, unlike ordinary clocks, has rotating DIALS and fixed POINTERS. The outer dial, called the 24-HOUR DIAL, makes one complete revolution in 24-hours, has hours marked in large numbers and fifteen minute periods (15, 30, and 45) marked in small numbers. The top pointer indicates the hour (and approximate fifteen minute period) in this dial. Because hours 1 to 12 occur in both halves of the dial, a DAY and NIGHT area is indicated in the background, with 6:00 A.M. and 6:00 P.M. on the dividing line separating DAY from NIGHT.

The center dial, called the ONE-HOUR DIAL, is marked 0-60 and indicates, by means of the lower pointer, the minutes after the hour. Thus, at 10:53 A.M. the '10' adjacent to the DAY area on the 24-HOUR DIAL would be near the top pointer and '53' would appear next to the lower pointer on the ONE-HOUR DIAL.

Ninety-six TIMING PINS in the 24-HOUR DIAL represent 15 minute period of time. Pins depressed toward the center of the timer are OFF periods; depressing a pin outwardly, away from the center of the timer, sets up an 'ON' period at the time indicated adjacent to the pin on

the 24-HOUR DIAL. Thus all pins that show outside the 24-hour dial are ON periods and all pins that are inside of the dial are OFF periods.



WITH THE TIMER SET AS SHOWN ABOVE,  
PROGRAM WILL BE 'ON'

8:00 A.M. TO 8:15 A.M.  
10:00 A.M. TO 10:15 A.M.  
12:00 NOON TO 12:30 P.M.  
2:30 P.M. TO 2:45 P.M.  
4:30 P.M. TO 5:00 P.M.

AND WILL BE 'OFF' AT ALL OTHER TIMES

Timing pins are not 'cancelled' or returned to the off position by the timer. This means that program timing pins will repeat their function day after day until returned to the off position *manually* or the PROGRAM TIMING SWITCH turned away from the 'AUTO' position.

#### SETTING THE PROGRAM TIMER

The program timer will continue to run unless power fails or the line cord is disconnected at the socket. Should it be necessary to re-set the timer proceed as follows:

#### FOR TIMING ACCURACY WITHIN ONE-HALF MINUTE:

1. Note that power is available at the timer (cabinet light will go on).

2. Note the correct local time.
3. Turn the ONE-HOUR DIAL in the direction designated by the arrows until the correct hour appears on the 24-HOUR DIAL at the top pointer.
4. Continue turning the ONE-HOUR DIAL until the correct number of minutes after the hour appear on the ONE-HOUR DIAL at the lower pointer.

EXAMPLE: If the correct local time is 2:25 P.M., turn the ONE-HOUR DIAL until '2' on the TWENTY-FOUR DIAL in the DAY area is under the top pointer. Continue turning until '25' on the ONE-HOUR DIAL is under the lower pointer.

#### FOR TIMING ACCURACY WITHIN 5 SECONDS:

With the power plug disconnected at the service outlet, slowly turn the one-hour dial of the PROGRAM TIMER in a counter-clockwise direction as indicated by the red arrows on the dial. Note that as numbers 0, 15, 30, and 45 on the ONE-HOUR DIAL pass the pointer, a distinct click is heard from the timer.

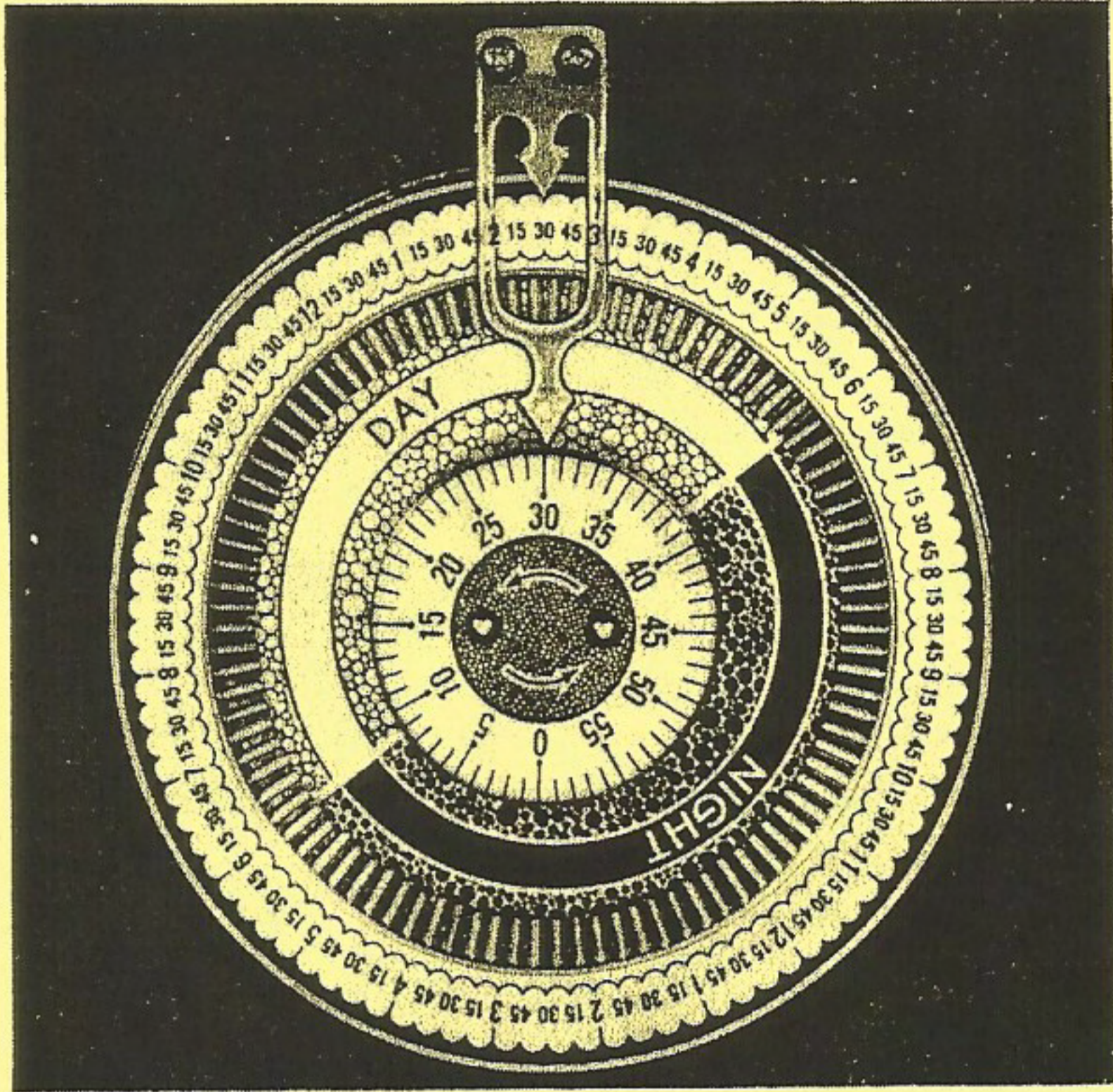
With a watch accurately set to correct local time, note the correct time and slowly rotate the ONE-HOUR DIAL until the timer approaches the *next* fifteen minute period. Stop turning immediately when the fifteen minute click is heard.

Wait until correct local time is the same as indicated time and at that instant insert the power plug into its service receptacle. The timer has now been set and is running at correct local time.

To illustrate the above, assume that the correct time is 2:25 P.M. Proceed as follows:

1. Disconnect the power cord from its service outlet.
2. Turn the ONE-HOUR DIAL until number '2' in the 'DAY' area on the 24-hour dial is at the pointer.

- Very slowly continue turning the ONE-HOUR DIAL and as '30' on the ONE-HOUR DIAL approaches the pointer, listen for the 15 minute click. Stop turning the dial *immediately* when the click is heard.

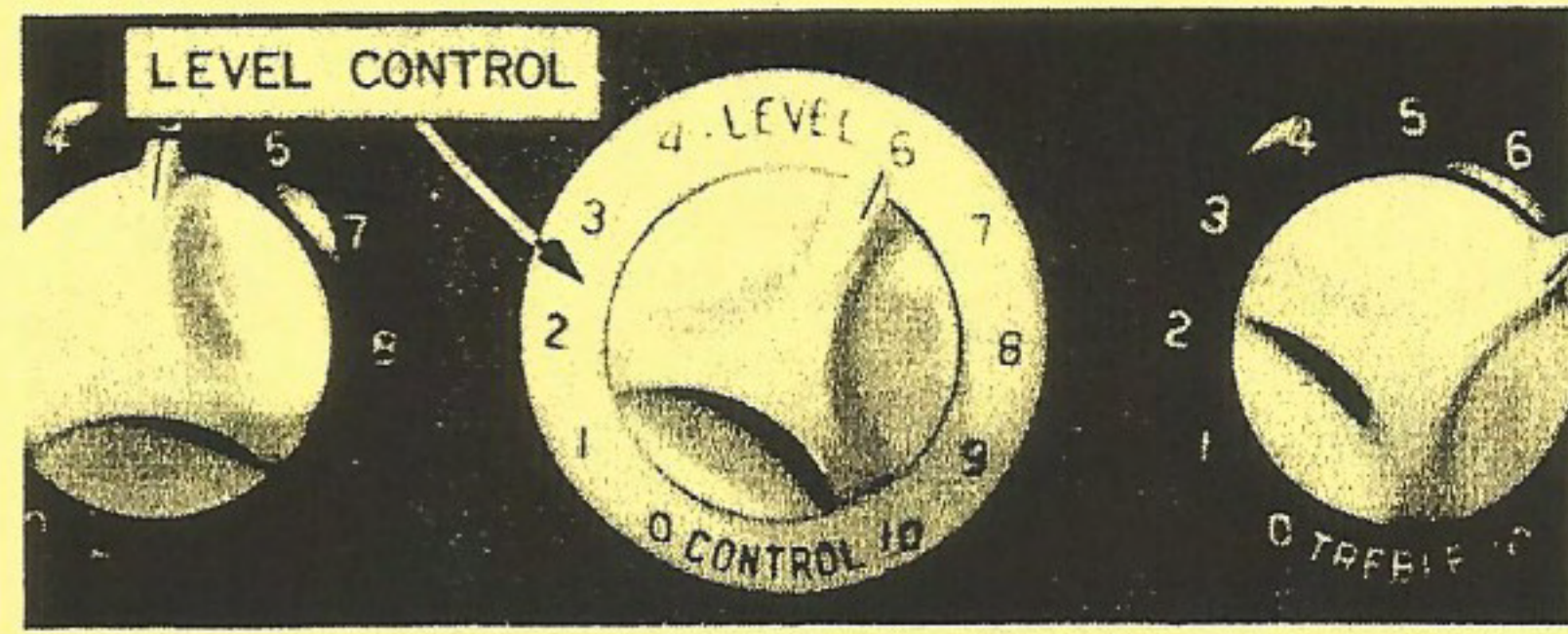


Note: At this setting, the number '30' on the ONE-HOUR DIAL should be within 1/32nd of an inch from the pointer. If the pointer does not *exactly* indicate '30' there is no cause for concern because the numbers on the dials have nothing to do with turning programs on and off. This timing is done by the closing of a mechanically operated switch in the timer which produces the click at each 15 minute interval. The dials serve the dual function of indicating time for the selector pins and for telling time visually within a fraction of a minute.

- Insert the power plug when local time reaches exactly 2:30 P.M. With care, the above method will result in program timing with-in 5 seconds of actual local time.

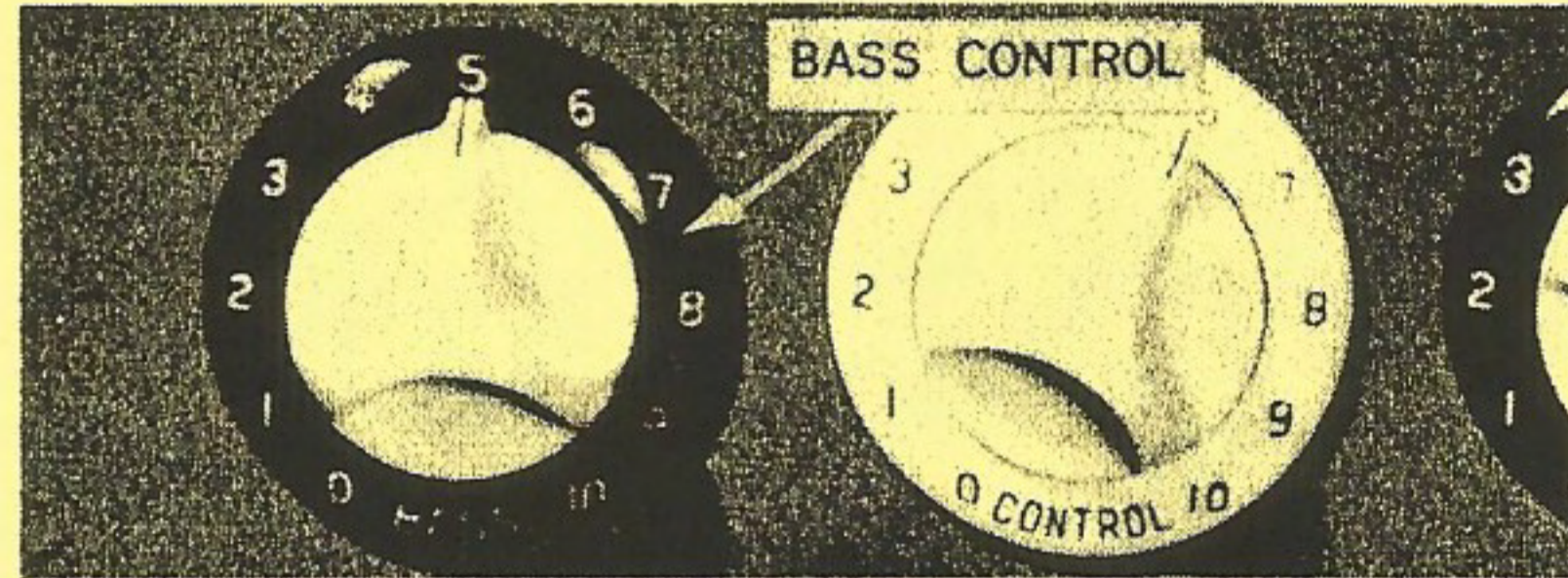
#### LEVEL CONTROL

Use the Level Control to raise or lower the Volume Level of *all* speakers in the system..



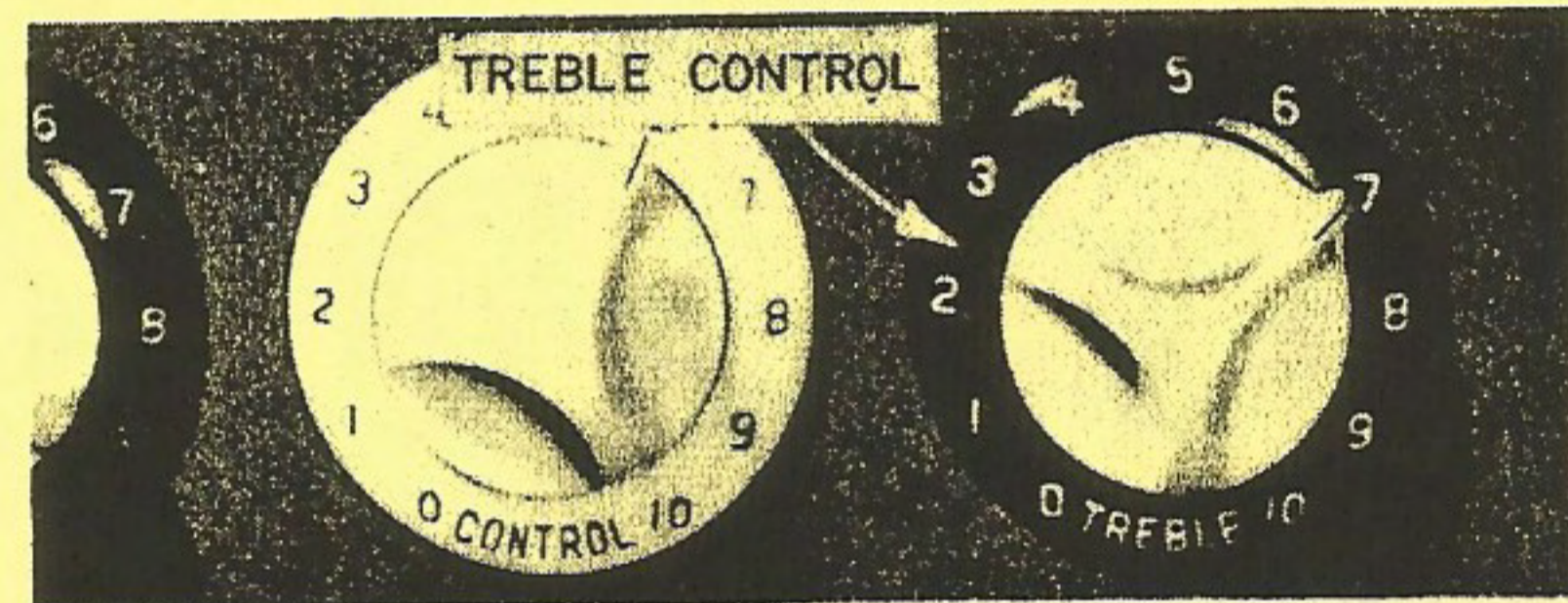
#### BASS CONTROL

Use this control to obtain the desired amount of bass reproduction.



#### TREBLE CONTROL

The amount of treble reproduction is adjustable, ranging from slight treble boost at '10' to considerable treble reduction at '0'.



The volume, frequency range, and surface noise vary considerably from record to record. This necessitates careful setting of Level Control, Bass Control, and Treble Control to obtain the most pleasing reproduction from the records in use. Because the quality of reproduction can be no better than the quality of records in use, badly worn or defective records should be discarded.

#### SCAN-REJECT SWITCH

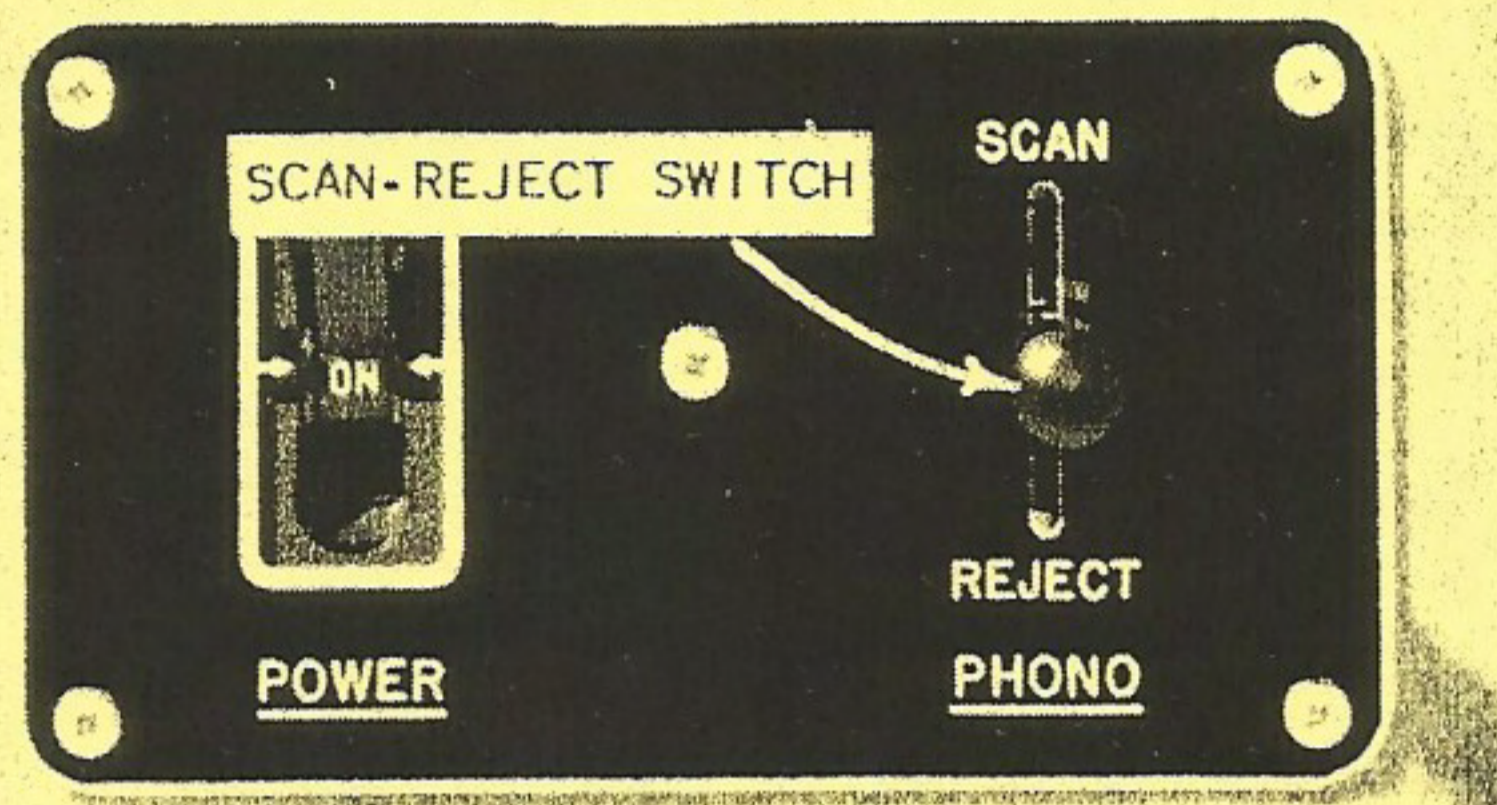
##### REJECTING RECORDS:

An unwanted record can be instantly 'Rejected' by momentarily depressing the SCAN-REJECT switch to the 'REJECT' position. The Library mechanism will then play the next selection.

## SCANNING THE MECHANISM TO A DESIRED SELECTION:

First reject the record that is playing,  
(or permit it to play thru).

Note that, if the left and right side of the record has been selected and the left side is playing, the mechanism will play the right side after the left side of the record has been played or rejected. In this case, reject the right side of the record also before attempting to SCAN.

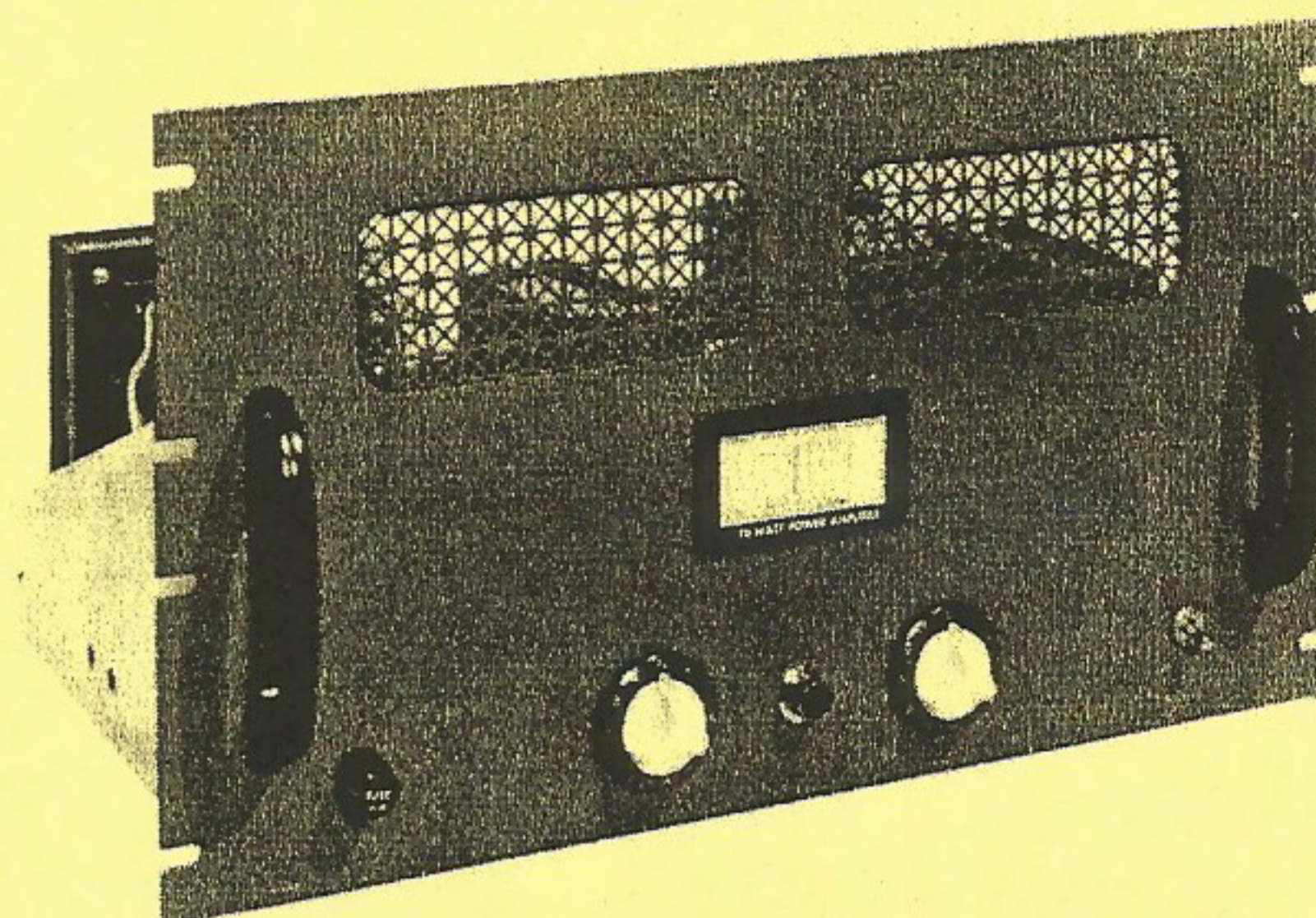


As soon as the mechanism has started to return the played record to the magazine, hold the SCAN-REJECT switch in the 'SCAN' position. After the record has been restored to the magazine, the mechanism will 'Scan' past all other selections as long as the switch is held in the 'SCAN' position. Note that as the mechanism scans, the selection numbers on the selector panel are illuminated to show the position of the mechanism. When the SCAN switch is released, the mechanism will stop and will play the next selection, IF THE UNIT IS TRAVELING FROM LEFT TO RIGHT. (no selections are made when the mechanism moves from right to left).

Before starting a recorded program it may be desirable to position the Library Mechanism so it will start the program with a specific selection. Even though the SELECT-O-MATIC LIBRARY IS NOT IN OPERATION AT THE TIME, it is possible to 'Scan' the unit to any record in the magazine by holding the SCAN-REJECT switch to the 'SCAN' position and releasing the lever just before the desired selection is reached.

## POWER AMPLIFIERS

20A1-L56 or 70A1-L56



### POWER SWITCH

The Power Switch must be set to the 'ON' (upper) position for operation of the amplifier. In this position, the red Indicator Lamp (Center) is on. In cases where several different areas of the location are served by several amplifiers, the program (and paging, if used) to any specific area may be stopped without disturbing other areas by turning off the power amplifier serving this area.

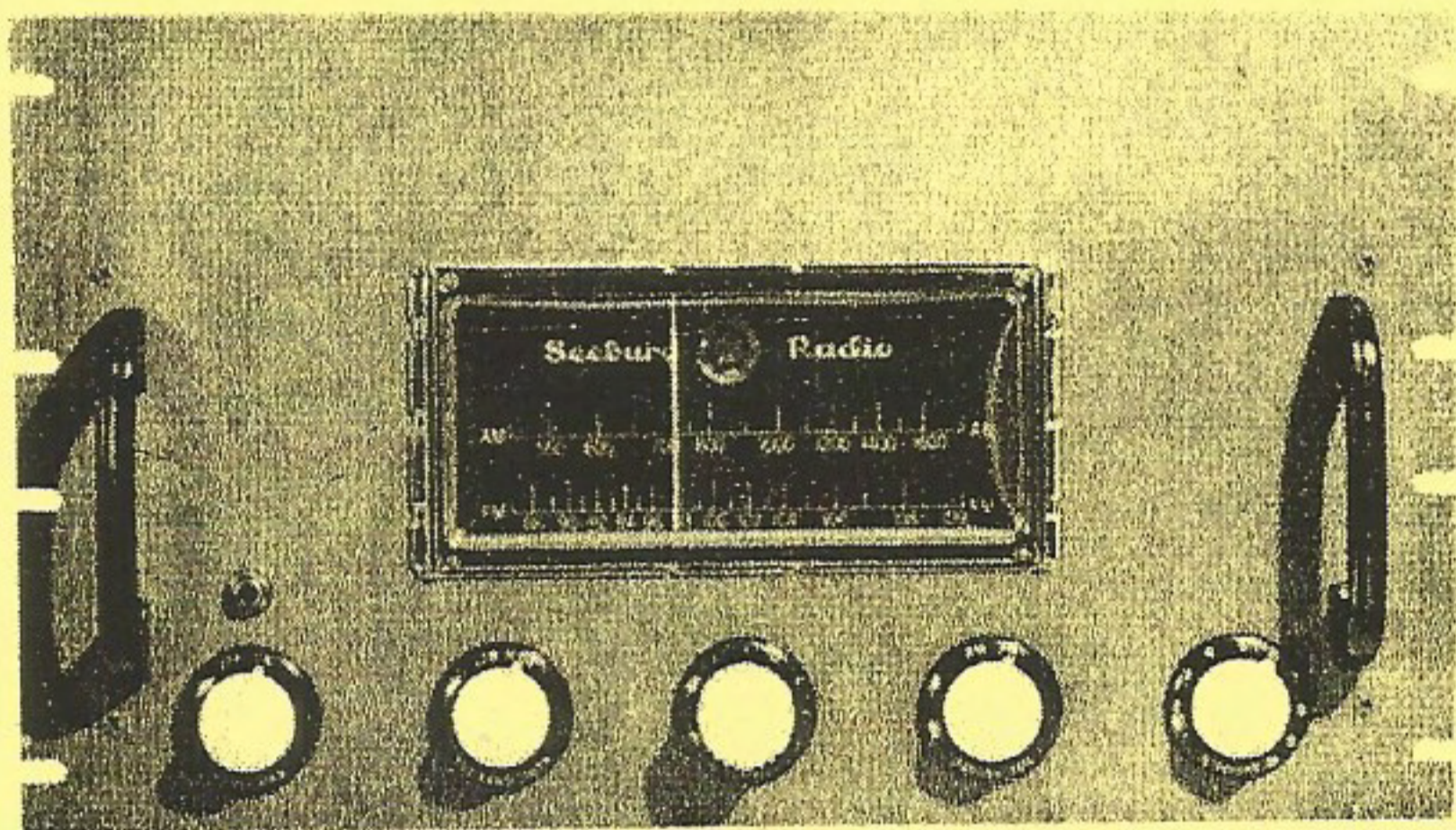
### VOLUME CONTROL

If only *one* Power Amplifier is used, this control should be set at '10' and volume level controlled at the LEVEL CONTROL on the Control Panel (or by means of the remote LEVEL CONTROL, if used). In an installation using two or more Power Amplifiers, the VOLUME CONTROLS on the Power Amplifiers are used to set the volume level to suit the specific and changing requirements of each area served by separate amplifiers. For example; a SICM with two power amplifiers in a small industrial location, one amplifier may be used to serve office areas and the other for manufacturing areas, the volume control on the Power Amplifier serving the office areas would be set at the desired level and would rarely be changed because of the low and constant noise level. In the manufacturing areas, however, a relatively high and variable noise level may require occasional readjustments of *Power Amplifier Volume Control* for best results.

## TONE CONTROL

For average requirements, this control should be set to '0'. However, local noise or acoustic conditions may require adjustment of the tone control on the Power Amplifiers to obtain best results under existing local conditions. The tone control permits different tone compensation in different areas to obtain best results under different local conditions.

## OPERATION OF RADIO



### OPERATION

After proper installation, the set may be put into operation by turning the ON-OFF switch clockwise. The illuminated tuning dial serves as ON-OFF indication. Within a minute of warming up, the tuning eye will emit a green glow. The set is ready for operation of the AM band as soon as the tuning eye shows green. A 10 minute warm-up period should be allowed for the FM band.

AM or FM reception can be selected by the 'AM-FM' switch. Rotate the 'TUNING' knob to select the desired station. The tuning eye will gradually close as a station is tuned in. Correct tuning is indicated by maximum eye closing. In case the eye image overlaps, turn the eye sensitivity switch counter-clockwise to its 'Low' position. Increase the volume to the desired level by rotating the 'VOLUME' knob clockwise. When tuning in FM stations, always tune for the complete elimination of noise. In cases where the signal strength of the FM station is too low to provide good reception some background noise may be expected.

It should be noted that while tuning between stations, both on FM and AM, the rushing noise is normal for the tuner. The extreme high sensitivity is responsible for picking up random atmospherics, but this will be eliminated when a station is tuned in unless the signal strength of the station is low enough to be overridden by the atmospheric noise.

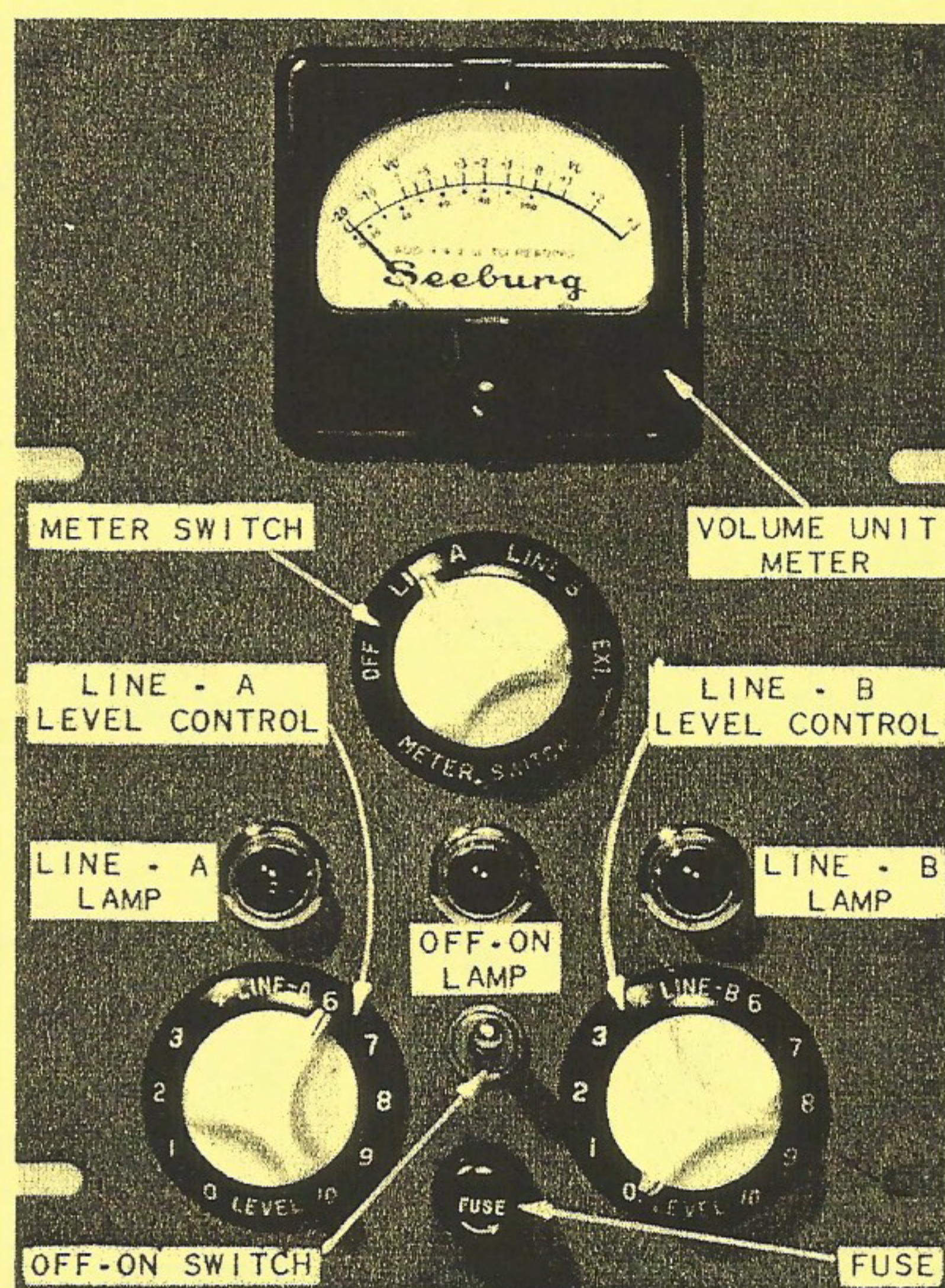
If the Select-O-Matic '200' Library is not in use during the Radio warm-up period, the Program Control Switch (Standard Control Panel) should be set to 'RADIO'. Set the Program Timing switch to 'MANUAL' and the Level Control (Standard Control Panel) to '0'. A pair of high impedance headphones (Brush or equal) may be plugged into the monitoring jack of the Radio Panel so the operator will know when the desired program is about to start. At that time the Level Control should be turned up to the correct position for normal operation.

If the recorded program is to be used right up to the start of the radio program, proceed as follows:

1. The recorded program is in progress requiring the Program Switch to be set at PHONO, and level control turned up for normal system operation.
2. Turn RADIO power switch 'ON', tune in desired station.
3. When the desired Radio program is about to begin, 'fade-out' Phonograph program (slowly turn the LEVEL CONTROL (Standard Control Panel) to '0'), turn the Program Switch to RADIO and turn up the Level Control to its original position).
4. Adjust the Radio 'Volume' Control for desired volume.

DUAL LINE AMPLIFIER

DLA1-L56



The level of broadcast services on lines served by this unit is controlled entirely from the Dual Line Amplifier panel. To place the Dual Line Amplifier into operation, set the main switch to the 'ON' position and with the V.U. Meter Switch set to the line to be used, turn up 'Line A' or 'Line B' Level Control until the proper level is indicated on the meter. Once the Level Controls have been set, they need not be changed except when the V.U. Meter indicates too high or too low a volume level.

When this equipment is used on leased 'Broadcast Type' telephone lines, the local telephone company technician will set a maximum level to be used. For recorded music the Level Controls on the Dual Line Amplifier should be set so that the loudest record to be played just reaches this maximum level. Further V.U. Meter monitoring is unnecessary except when new records are added to the Select-O-Matic Library, or for checking purposes.

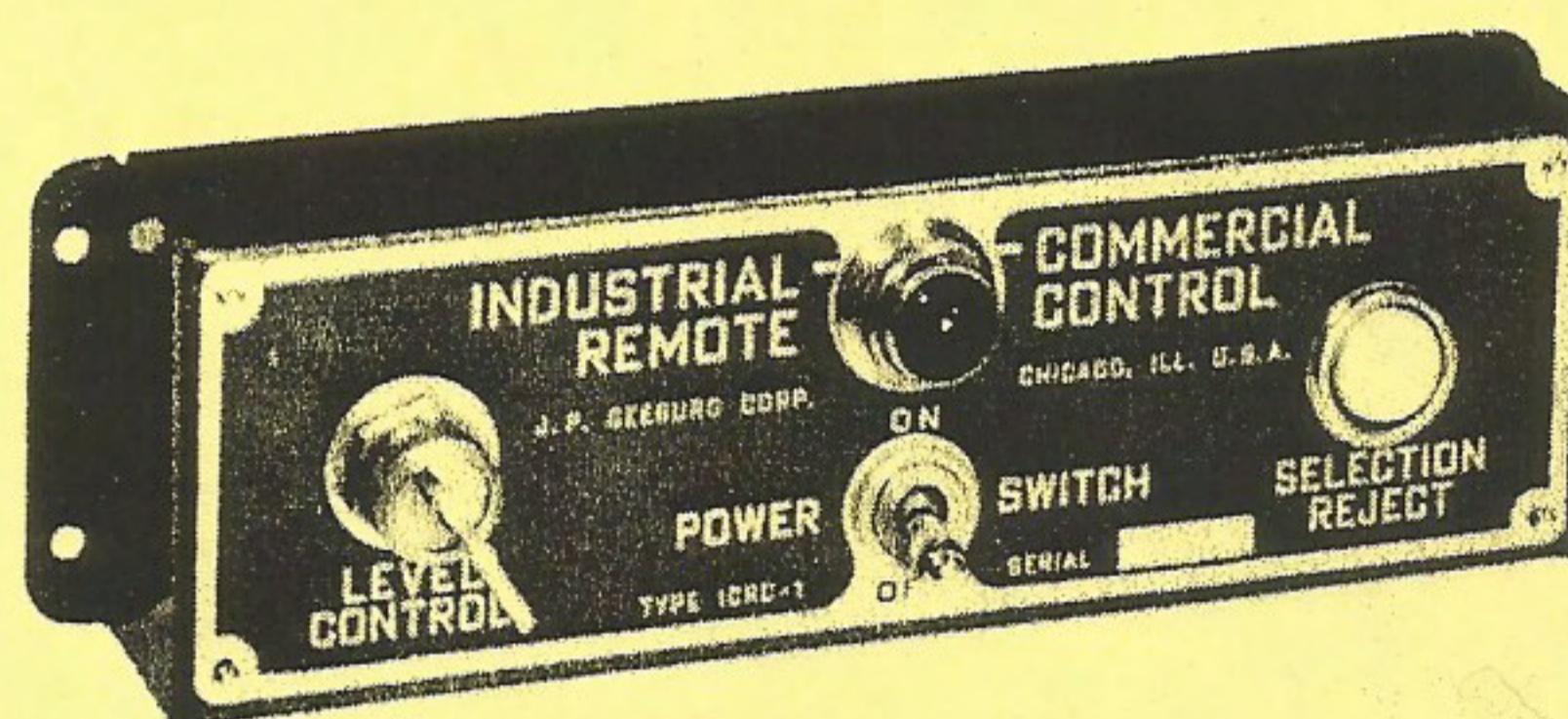
For Radio Programs, the program must be monitored on the V.U. Meter to find a Level Control setting which is within the maximum level for loud passages in the program. A different Level Control setting will be found when a different station is tuned in. Keep a log of required level settings for your local Radio Stations and check these settings frequently. Use the V.U. Meter for monitoring any time the maximum level of the program source is unpredictable. Take whatever steps are necessary to guarantee that the maximum level set by the telephone company is never exceeded.

NOTE: If the maximum permissible line level is exceeded, interference with other telephone services is likely to occur. The best way to avoid difficulties of this nature is to cooperate fully with your local telephone company in complying with their requirements and instructions.

Should it be desirable to operate only one of the two lines provided, the unwanted line can be put out of service by turning its level control to zero. The center red Indicator Lamp indicates that the power switch is ON and at least one line amplifier is in operation. The green Indicator Lamps show which line or lines are in operation.

REMOTE CONTROL

INDUSTRIAL-COMMERCIAL REMOTE CONTROL  
Type ICRC-1



## REMOTE POWER SWITCH

When wired into the IC-S1 unit, this switch is used to turn power ON and OFF



from a remote point. This switch must be ON for operation of the equipment. The Circuit Breaker on the Control Panel of the IC-S1 must also be ON. The red INDICATOR LAMP will be lighted when the Power is ON.

REMOTE SELECTION REJECTION

When momentarily depressed, the REJECT BUTTON remotely rejects any record that is playing.

REMOTE LEVEL CONTROL

The Level Control of the ICRC unit controls the volume level of the entire system in exactly the same way as the LEVEL CONTROL on the Standard Control Panel. When the ICRC Level Control is connected to the IC-S1 Basic Unit, the Level Control on the STANDARD CONTROL PANEL does not function.

PAGING-AMPLIFIER AND MIXER

PAM1-L56



ON-OFF SWITCH

This switch turns the Paging-Amplifier and Mixer ON. If a Remote Controlled Power Switch has been installed in the IC-S1 Basic Unit, this switch will turn

on the entire system when set to the ON position. Installed in this manner the entire system is automatic. The Basic IC-S1 unit does not require attention. In the morning the receptionist will turn the Paging-Amplifier ON; this will place the entire system into 'standby' operation permitting instantaneous paging at any time. At any time during the day (or night) the Musical Program will be automatically turned ON by the Program Timer, and the pre-set Recorded Program or Radio Program will be heard. In the evening the receptionist will turn the Paging-Amplifier OFF. This will automatically close down the entire system. Note that if both the Paging-Amplifier and the ICRC are used, the control of power to the entire system can be had at either unit. However, while either unit can be used to turn the system ON, the Power Switch at BOTH units must be OFF before the entire system will be turned off.

VOLUME CONTROL

Two volume controls are provided to independently control the volume of two microphone channels. The controls should be set to obtain desired loudness on each channel.

TONE CONTROL

The Tone Control should be set for most intelligible results. Note that this control reduces or increases the high frequency components of speech. Because intelligibility of speech is carried essentially by the high frequencies, this control should be set for sufficient highs with the maximum naturalness of speech.

MIX-PAGE SWITCH

When a GRIP-TO-TALK microphone or a foot-operated switch is used, this switch should be set in the 'MIX' position. If a regular paging microphone is used without a foot-operated switch, the same operation is obtained by holding the MIX-PAGE switch in the 'PAGE' position. The latter method is adequate for occasional paging but the foot-operated switch is preferred when paging is done by a telephone switchboard operator.

SPECIAL PRECAUTIONS

1. Experience has shown that there is possibility of some types of records being warped if they are subjected to temperatures of 110 to 115 degrees or higher. This is particularly true if the high temperatures are maintained over long periods of time. The temperature of the records in the cabinet of this instrument will be approximately 5 degrees higher than room temperature with normal air circulation through the cabinet. This temperature will be higher if normal circulation is restricted or if the instrument is subjected to heat from radiators, or other heating devices.

Listed below are some precautions that, if heeded, will assure normal conditions and avoid likelihood of record warping.

- a. Do not enclose the instrument with glass or plastics in such a way that adequate ventilation cannot be had.
- b. Do not locate the instrument in a place where the sun will shine on it.
- c. Do not locate the instrument in a small closet or room where the ventilation is inadequate.
- d. Do not locate the instrument in a room where high temperatures prevail

such as an attic, kitchen or furnace room.

- e. Do not place the instrument against a hot air duct opening, near a hot stove, or near a radiator where high temperature air will be circulated into the cabinet.
2. Do not put two records in a magazine slot.
  3. Do not force a record into a slot -- if it does not roll into place freely, it should not be used.
  4. Do not use records that are cracked or chipped, because the stylus on the pick-up may be damaged.
  5. Do not push records back beyond normal position in the mechanism, because they may be broken if the carriage is moving.
  6. Do not attempt to play home recordings or any other non-standard records.
  7. Do not attempt to remove a record that is being handled by the mechanism.
  8. Do not force program timer in wrong direction when setting it -- turn only in direction as indicated by arrow.

WARRANTY

J. P. Seeburg Corporation warrants this instrument, manufactured by it, to be free from defects in material or workmanship under normal use. Our obligation under this warranty is limited to making good at our factory any part or parts thereof which shall, within ninety days after delivery of such product to the original purchaser, be returned to us or to our authorized dealer or distributor from whom purchased with all transportation charges prepaid to our factory, and which our examination shall disclose to our satisfaction to have been thus defective.

This warranty does not extend (1) to any of our products which have been subjected to misuse, neglect, accident, incorrect wiring not our own, improper installation, or to use in violation of instructions furnished by us, (2) to units which have been repaired or altered outside of our factory, (3) to cases where the serial number of the product has been removed, defaced or changed, (4) to tubes or lamps, or (5) to accessories not of our own manufacture used with our products.

Any part found by us to be defective will be exchanged by the authorized dealer or distributor without charge to the owner.

This warranty applies only to our products which are used within the continental limits of the United States of America and is in lieu of all other warranties expressed or implied, and no representative or person is authorized to assume for us any other liability in connection with the sale of our products.

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SEEBURG INDUSTRIAL  COMMERCIAL MUSIC

