

## Section 3: Routine Service

### INTRODUCTION

Routine and preventive maintenance are to be performed on your normal periodic service call. This section discusses how to change compact discs and titles, how to collect money, audit statistics, and preventive maintenance procedures.

### DOING AN AUDIT

The following pages describe how to:

1. Access the phonograph's audit menus and extract audit figures
2. Change title strips and discs
3. Collect money

You can perform these three activities in any order that you wish.

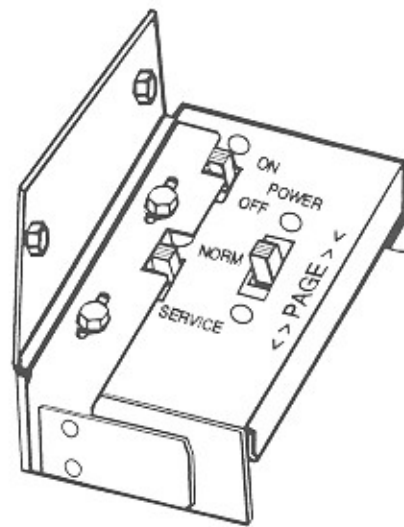


Figure 3-1. Service Switch

### COLLECTING AUDIT FIGURES

Following are descriptions of the major auditing activities that need to be done on a routine service call. If you wish to do additional auditing, you can obtain the additional commands from *Table 3-1*, the AUDIT commands.

#### Entering The Service Mode

1. Open the door and place the SERVICE switch (*Figure 3-1*) in the SERVICE position. The phonograph display will read \* SERVICE MODE \*.



#### NOTE:

If you find that you are not seeing the display that you expect, press and hold RESET, then press POPULAR three times. This will take you back to the main menu.

At this point you can begin performing the audits. Refer to the *CD-100F Service Mode Map (Figure 2-10)* for a diagram of the audit menus and commands. Described here also are the procedures for clearing the audit values.

## Cash Audits

1. Type 100. This displays the CURRENT CASH value. Record the CURRENT CASH figure in your usual way and go to the next step.
2. Press and hold RESET and then press 1. This will move you down to the next display. Record the CASH VALUE in the usual way.
3. Repeat Step 2 until you do the last CASH audit, which is the #2 BILLS audit. Do this audit, then press and hold RESET while you press POPULAR three times.

## Play Audits

1. Type 110. This displays the FREE CREDITS value. Record the FREE CREDITS figure in your usual way and go to the next step.
2. Press and hold RESET and then press 1. This will move you down to the next display. Record the credit value in the usual way.
3. Repeat Step 2 until you do the last PLAY audit, which is the OVERPLAY audit. Do this audit, then press and hold RESET while you press POPULAR three times.

## Non-Resettable Audits

1. Type 120. This displays the NON-RESETTABLE CASH value. Record the NON-RESETTABLE CASH value in your usual way and go to the next step.
2. Press and hold RESET and then press 1. This will move you down to the next display. Record the value in the usual way.
3. Repeat Step 2 until you do the last NON-RESETTABLE audit, which is the SELS audit. Do this audit, then press and hold RESET while you press POPULAR three times. This returns you to the main menu.

## Most Popular Disc

1. Type 17. The most popular disc number will be displayed.
2. If you wish to know the next-to-the-most popular, press and hold RESET and then press 3. Press and hold RESET, then press 3 to display each successive "Most Popular" disc. Press and hold RESET, then press 2 to move through the popularity display toward the most popular disc.
3. Press and hold RESET while you press POPULAR twice. This returns you to the main menu.

## Least Popular Disc

1. Type 18. The least popular disc will be displayed.
2. To display the next least popular disc, press and hold RESET and then press 2. Press and hold RESET, then press 2 to display each successive least popular disc. Press and hold RESET, then press 3 to move

through the popularity display toward the least popular disc.

3. Press and hold RESET while you press POPULAR twice. This returns you to the main menu.

### Most Popular Selection

1. Type 19. The most popular selection number will be displayed.
2. To display the next most popular selection, press and hold RESET and then press 3. Press and hold RESET and then press 3 to display each successive most popular selection. Press and hold RESET, then press 2 to move through the popularity display toward the most popular selection.

You can request the popularity for a particular selection by pressing the selection number (four digits).

### Clearing The Audit Values

The three CLEAR options will not clear the corresponding audit value until the POPULAR button is pressed.

#### For example:

You can display the CLEAR CASH message and then move to CLEAR PLAYS and then move back to CLEAR CASH without actually clearing either set of values.

The following steps describe how to perform each of the three CLEAR commands as a separate activity. If you wish to use the "short cut" method, follow the *Using the CD-100F Commands Instructions in Section 2*. Each of these commands may be executed from SECURITY LEVEL 2 or 3.

#### CLEAR CASH

1. Make sure that you are in the SERVICE mode and that \* SERVICE MODE \* is on the display.
2. Type 14. The message CLEAR CASH will appear on the display. Press POPULAR to clear the cash values. The display will blink when the command is executed.
3. Press and hold RESET while you press POPULAR twice.

#### CLEAR PLAYS

1. Make sure that you are in the SERVICE mode and that \* SERVICE MODE \* is on the display.
2. Type 15. The message CLEAR PLAYS will appear on the display. Press POPULAR to clear the play values. The display will blink when the command is executed.
3. Press and hold RESET while you press POPULAR twice.

#### CLEAR SELECTION POPULARITY

1. Make sure that you are in the SERVICE mode and that \* SERVICE MODE \* is on the display.
2. Type 16. The message CLEAR SEL POP will appear on the display. Press POPULAR to clear the

popularity values. The display will blink when the command is executed.

3. Press and hold RESET while you press POPULAR twice.

## CHANGING CD'S AND TITLES



### NOTE:

Do not attempt to turn the CD title pages by hand. If the title page assembly is unplugged or not operating electronically, use the handwheel on the back of the assembly (See Figure 1-2).

The procedure for loading CD's and titles into an empty phonograph is different from the procedure to change CD's and titles. Please be sure you are following the procedure that describes your situation.

### Preparing Titles For The Title Holder - See Pages 2-2 thru 2-5

#### Changing Discs

You can (1) initialize each disc as you change it, or (2) you can write down all of the disc numbers and then type them all into the INITIALIZE command. The following steps describe the second method.

Change discs as follows:

1. Unlock and open the door.
2. Move the SERVICE switch to the SERVICE position (Refer to Figure 3-1).
3. Press the SCAN button to move the disc space to the left or right of the transfer arm.

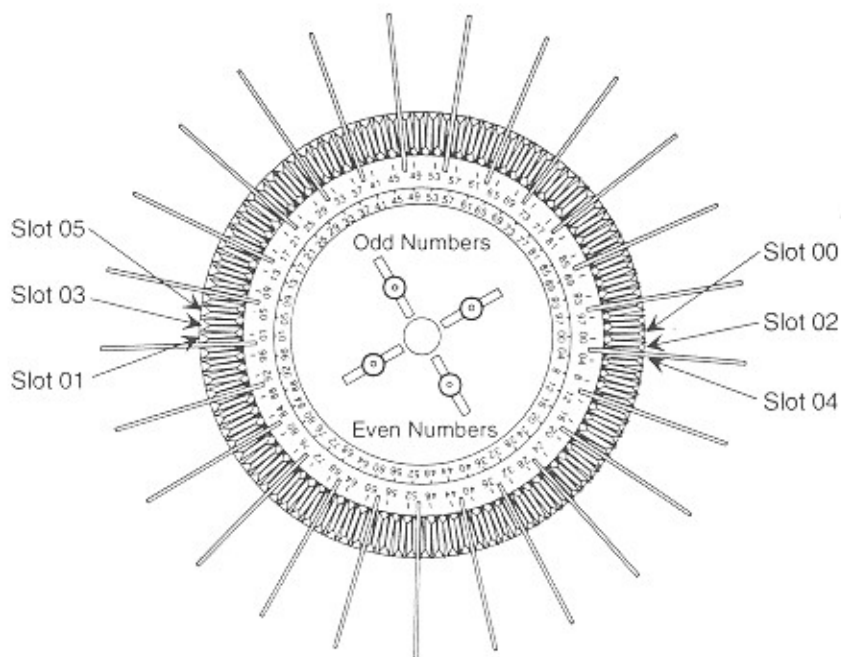


Figure 3-2. Loading the Molded CD Magazine

4. Slide the old CD out of the slot and slide the new CD into the slot (See Figure 3-2) with the label to the right. Write the disc number on a note pad.

Note that disc positions in the molded CD magazine are identified by numbers at every other slot, with even numbered slots labeled on one half of the magazine, and odd numbered slots labeled on the other half.

For example, on the even numbered half of the magazine, slots 00, 04, and 08 are labeled, and the slots in between – 02 and 06 – are not, as illustrated in Figure 3-2.

**NOTE:**

When loading the magazine, be sure the disc rests in the same numbered slot in both the front and rear of the magazine. Be sure to keep the magazine disc load approximately balanced. If the magazine is partially loaded with all discs on one side, the sprag wheel may lock and the magazine will not turn.

5. Repeat step 4 until all discs have been changed.
6. Release the two catches holding the keyboard/display.
7. Place the SERVICE switch in the SERVICE mode and check that \* SERVICE MODE \* is on the keyboard display.
8. Type 31 and the display will show PROGRAM INIT --. Enter the CD numbers that you have changed and press POPULAR after each number. After you have entered all of the disc numbers, place the phonograph into the NORMAL mode and the initialization process will start. Selections can be made while the new discs are being initialized.

## COMPLETE AUDIT COMMAND LIST

Table 3-1 is a complete list of the Audit commands with an explanation of what each command does.

**Table 3-1. Audit Commands**

Command	Description
1 <b>AUDITS</b>	- Are the functions and menus that allow you to display and reset the various accumulated figures for money, popularity, number of plays, and credits.
10 <b>Cash Audits</b>	- Is the menu that allows you to display, but not change, cash totals, number of coins through the coin switches, and the total number of bills.
11 <b>Play Audits</b>	- Is the menu that allows you to display, but not change, credits, autoplays, mechanism plays, and album plays.
12 <b>Non-Resettables</b>	- Is the menu that allows you to display the ongoing totals. These totals cannot be reset from any security level.
13 <b>Clear Disc Popularity</b>	- Clears the popularity for all discs. This option should only be used after the popularity figures (Selections 7 and 8 in this menu) have been read and recorded. Press POPULAR to clear the disc popularity values. The display will blink when the command is executed.
14 <b>Clear Cash</b>	- Clears all current cash totals. This option should only be used after the figures for Cash Audits (Selection 0 in this menu) have been read and recorded. Press POPULAR to perform this function. The display will blink when the command is executed.
15 <b>Clear Plays</b>	- Clears all current play totals. This option should only be used after the Play Audit figures in Play Audits (Selection 1 in this menu) have been read and recorded. Press POPULAR to perform this function. The display will blink when the command is executed.
16 <b>Clear Selection Popularity</b>	- Clears all current selection popularity. This option should only be used after Popularity Figures (Selection 9 in this menu) have been read and recorded. Press POPULAR to perform this function. The display will blink when the command is executed.
17 <b>Display The Most Popular Disc</b>	- Displays the most popular disc number (00-99), followed by the number of plays (9999 maximum) that disc had. To display the next most popular disc, press and hold RESET and then press 3. Press and hold RESET and then press 3 to display each successive most popular disc. Press and hold RESET and then press 2 to move up through the popularity display toward the most popular disc.

You can request the popularity for a particular disc by pressing the disc number.

**Table 3-1. Audit Commands**  
*Continued*

Command	Description
18	<p><b>Display The Least Popular Disc</b> - Displays the least popular disc number (00-99) followed by the number of plays that the disc had. To display the next "least popular" disc, press and hold RESET and then press 2. Press and hold RESET and then press 2 to display each successive least popular disc. Press and hold RESET and then press 3 to move up through the popularity display toward the least popular disc.</p> <p>You can request the popularity for a particular disc by pressing the disc number.</p>
19	<p><b>Display The Most Popular Selection</b> - Displays the most popular selection number (Disc 00-99 followed by Selection 00-99, a total of four digits), followed by the number of plays (9999 maximum) that selection had. To display the next "Most Popular" selection, press and hold RESET and then press 3. Press and hold RESET and then press 3 to display each successive most popular selection. Press and hold RESET and then press 2 to move up through the popularity display toward the most popular selection. A total of 100 selection numbers may be contained in the MOST POPULAR list.</p> <p>You can request the popularity for a particular selection by pressing the selection number (four digits).</p>
10	<p><b>CASH AUDITS</b> - Allows you to display, but not change, cash totals, number of coins through the coin switches, and the total number of bills.</p>
100	<p><b>Current Cash</b> - Displays the total amount of bill and coin money collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.</p>
101	<p><b>Current Bill</b> - Displays the total amount of bills collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.</p>
102	<p><b>Current Coin</b> - Displays the total amount of coins collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.</p>
103	<p><b>Current Wallbox</b> - Displays the total amount of money collected by wallboxes since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.</p>
104	<p><b>Current Number Of Type 1 Coins</b> - Displays the total number of Type 1 coins (5¢) collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.</p>
105	<p><b>Current Number Of Type 2 Coins</b> - Displays the total number of Type 2 coins (10¢) collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.</p>



**Table 3-1. Audit Commands**  
*Continued*

Command	Description
106	<b>Current Number Of Type 3 Coins</b> - Displays the total number of Type 3 coins (25¢) collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.
107	<b>Current Number Of Type 4 Coins</b> - Displays the total number of Type 4 coins (50¢) collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.
108	<b>Number Of Type 1 Bills</b> - Displays the total number of Type 1 (\$1) bills collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.
109	<b>Number Of Type 2 Bills</b> - Displays the total number of Type 2 (\$5) bills collected since the last time the CLEAR CASH command (Selection 4 in the AUDITS menu) was used.
11	<b>PLAY AUDITS</b> - Allows you to display, but not change, credits, autoplays, mechanism plays, and album plays.
110	<b>Free Credits</b> - Displays the number of free credits given since the last time the CLEAR PLAYS command (Selection 5 in the AUDITS menu) was used.
111	<b>Paid Credits</b> - Displays the number of paid credits given since the last time the CLEAR PLAYS command (Selection 5 in the AUDITS menu) was used.
112	<b>Autoplays</b> - Displays the number of Autoplays made since the last time the CLEAR PLAYS command (Selection 5 in the AUDITS menu) was used.
113	<b>Mechanism Plays</b> - Displays the number of times the mechanism has played CD's since the last time the CLEAR PLAYS command (Selection 5 in the AUDITS menu) was used.
114	<b>Album Buys</b> - Displays the number of times albums have been bought since the last time the CLEAR PLAYS command (Selection 5 in the AUDITS menu) was used.
115	<b>Most Popular Plays</b> - Displays the number of times that the POPULAR button was used to select the most popular selection since the last time the CLEAR PLAYS command (selection 5 in the AUDITS menu) was used.
116	<b>Normal Selections</b> - Displays the number of selections made from the keyboard.
117	<b>Overplay</b> - Displays the number of overplays selected since the last time the CLEAR PLAYS command (Selection 5 in the AUDITS menu) was used.



**Table 3-1. Audit Commands**  
*Continued*

Command	Description
12 <b>NON-RESETTABLES</b>	- These totals for cash, plays, and credits can be displayed from any security level, but they cannot be reset from any security level. These totals constitute the permanent phonograph history.
120 <b>Cash</b>	- Displays total cash (bill and coin) received by the phonograph.
121 <b>Bill</b>	- Displays total bill cash received by the bill acceptor.
122 <b>Coin</b>	- Displays total coin cash received by the coin acceptor.
123 <b>Wallbox</b>	- Displays total cash received by all wallboxes.
124 <b>Free</b>	- Displays total free credits
125 <b>Paid</b>	- Displays total paid for credits
126 <b>Most Popular</b>	- Displays the total number of Most Popular selections made with the POPULAR button.
127 <b>Mechanism</b>	- Displays the total number of mechanism cycles.
128 <b>Album</b>	- Displays total album buys.
129 <b>Selections</b>	- Displays the total number of selections made using the keyboard.

## Collecting Money

1. Open the top door and unlock the bill acceptor bill box by reaching in behind the bill acceptor.
2. Remove the currency, then close and lock the bill box.
3. Close the top door.

## PREVENTIVE MAINTENANCE

Preventive maintenance should be performed at the regular intervals specified, while adjustments should be made only when necessary.

In addition to cleaning the cabinet each time the location is visited, clean the interior every three to six months, as required. Keeping the cabinet interior clean reduces dust, resulting in increased disc and component life (*See the table below for cleaning details*).

- Use a vacuum cleaner to remove heavy dust deposits.
- Use a clean, lint free cloth saturated in denatured alcohol to clean mechanical parts.
- Clean electrical parts using a clean, dry cloth or camel hair brush.



### WARNING:

Use solvents in a well ventilated area only. Do not use solvents on plastic parts.

Action Required	Procedure
1. Clean Glass	a. Clean all glass with a paper towel and a non-abrasive cleaner. b. Dry with a clean, lint-free cloth.
2. Clean painted wood and metal surfaces	a. Clean all painted wood and metal surfaces with mild soap and water. <b>DO NOT USE SOLVENTS.</b> b. Apply a good quality auto or furniture wax to protect the finish.
3. Clean chrome trim	a. Use a damp or dry cloth to remove any dust or dirt. b. Use mild soap and water to remove stubborn deposits. Do not use strong detergents or abrasives of any kind.
4. Clean plastic trim	Wipe all plastic surfaces with a damp or dry cloth only. <b>DO NOT USE SOLVENTS.</b>
5. Clean electrical components.	Clean all electrical components with a clean, dry, lint-free cloth or soft-bristle brush only.

## CD Player Laser Lens

The CD player laser lens can collect dust, dirt, and smoke. These deposits can cause various intermittent problems that may, in time, become more severe. To avoid these problems, we recommend that you clean the laser lens occasionally. This interval can be as often as every other month, or less in some locations. Follow this procedure to safely clean the laser lens:



### NOTE:

Before you clean the laser lens, be sure to turn the jukebox power OFF and ground yourself by touching a grounded component (such as the CBA) to discharge any static buildup that may harm the CD player.

1. Remove loose particles from the lens by gently brushing it with a camel's hair brush or a blow brush (both items can be purchased at most camera supply stores). Brush in the direction of the arrows shown in *Figure 3-3*. Take care not to snag brush bristles under the lens. The lens is mounted on a delicate suspension spring that may be damaged with even a soft brush.
2. Remove any remaining dirt by placing one to three drops of Kodak Lens Cleaner (Kodak Catalog Number 176 7136, available from photographic supply stores or Rowe 21966601) on a lint-free "Q"-Tip and very gently wiping dust and smoke deposits from the lens. Wipe in the direction of the arrows shown in *Figure 3-3*. Take care not to damage the delicate lens suspension spring. Do not allow any of the lens cleaner to run down the side of the lens.

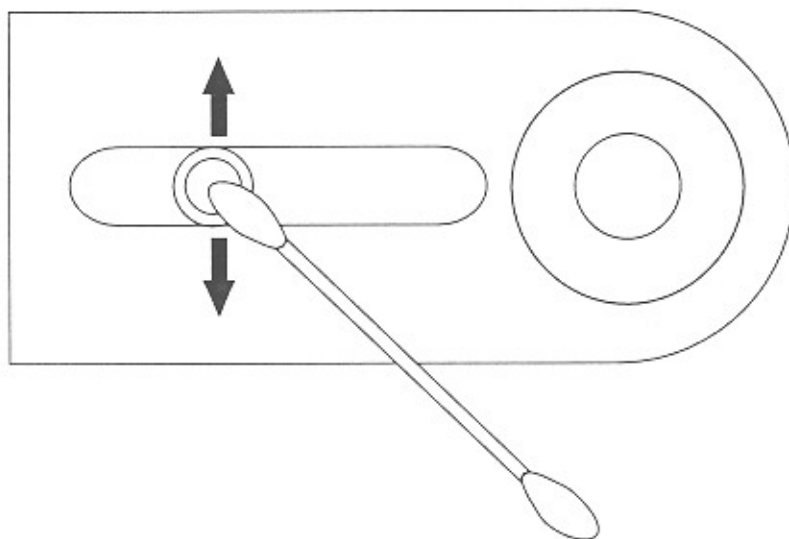


Figure 3-3. Cleaning the Laser Lens

## COIN ACCEPTORS (Optional)

### COIN MECH (Optional)

The phonograph is equipped to physically mount a 3.5 inch wide (80mm) coin acceptor, mechanical or electronic version, with an accepted coin diameter from .7 (18mm) to 1.2818 (31mm).

#### Mechanical

A valid coin is determined by the actuation of the microswitch (*Figure 3-4*), which when tripped will give credit of 25 cents (unless the software default is changed).

The switch is mounted to a chute subassembly that guides the coins to the microswitch lever. By moving the #8-32 screw and the spacer, the microswitch is able to be actuated by coins of .7 (18mm) inches in diameter to 1.312 (33mm).

#### Electronic

The electronic coin acceptors require the use of the electronic interface, which makes the phonograph capable of handling up to 4 different coins.

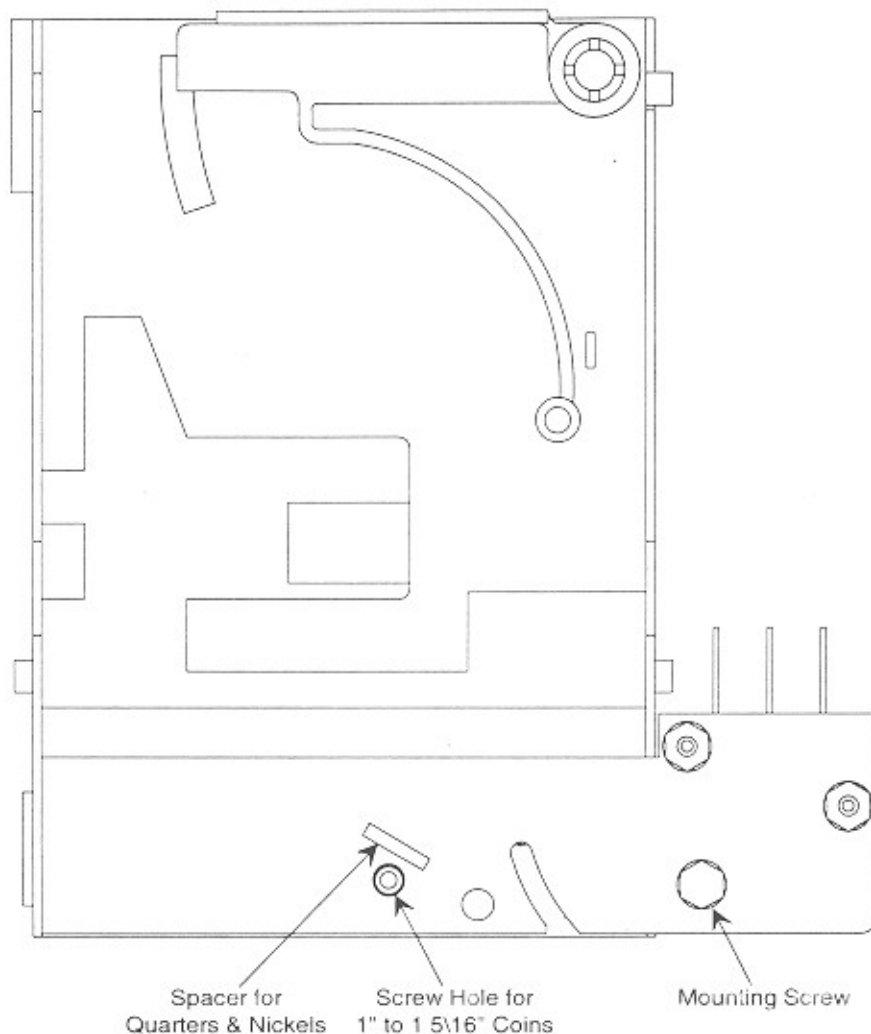


Figure 3-4. Coin Switch