Setup Instructions for Your Songbird Jukebox

Important:

YOU WILL DAMAGE YOUR PHONOGRAPH IF YOU DO NOT COMPLETE ANY OF THE STEPS
LISTED BELOW. PLEASE TAKE YOUR TIME AND MAKE SURE TO COMPLETE EACH
STEP. CONSULT ILLUSTRATION 1 PRIOR TO STARTING THE SETUP PROCEDURE. IF
YOU FEEL YOU NEED ASSISTANCE, PLEASE CALL US.

The keys for your new phonograph are attached to the back of the unit
with a phillips head screw. To start, open the top of the unit and
install the hood hold-up prop.

Step 1:

If your unit has been shipped with records installed, remove the
cardboard record retainer -- the cardboard strip fitted thru the center
of the records to hold them in place. Remove from the left hand side.

Step 2:

Remove packing/hold-down tape from the title strip racks on both the
left and right hand side of the mechanism.

Step 3:

Using the tubular wrench supplied (cable tied to the hood prop, or in
the coin box) loosen the two red colored bolts located on the right side
of the carriage (see Illustration 1). After you remove the bolts,
remove the cardboard spacer located on the side of the flange opposite
the side the bolts were turned into.

Note: The spacer may simply fall out when you remove the bolts.

Step 4:

Underneath the carriage, on the left hand side, locate the red Carriage
Release Lever (see Illustration A). Push the tip of the lever so that
it points straight down.

Step 5:

Remove the rubber spacer from the record clamping mechanism on the
carriage (see Illustration B).

Rubber Band

Step 6:

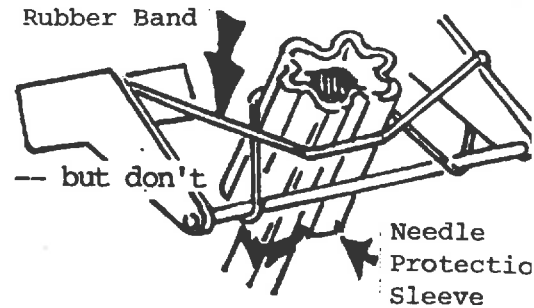Remove the rubber band on the tone arm (see Illustration C) -- but don't remove the plastic Needle Protection Sleeve yet.

Step 7:

Using the tubular wrench, loosen the four mechanism hold down nuts -- located at each corner of the record rack (See Illustration 1). You may have to loosen a screw and move the title strip rack to gain access to the rear hold down nuts. Make sure the hold down nuts are loose enough so the record rack floats freely on the springs below the record rack.

Step 8:

Remove the Needle Protection Sleeve located on the tone arm.

Now the phonograph is ready to be played. Insert coins or bills (if the unit is not set to FREE PLAY) to obtain playing credits. If you wish to alter the factory set programming, read the "Programming Special Features of your NSM Jukebox" section on the following pages -- or consult your NSM manual (located in the coin box) for complete information.

Note:

Reverse this procedure (steps 1 through 8) to protect your new SongBird when transporting.
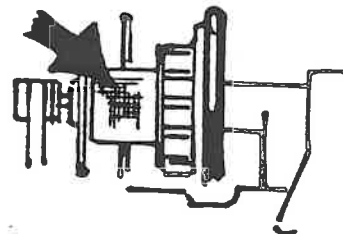
Needle
Protectio
Sleeve

Illustration C
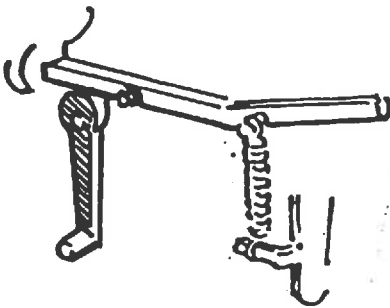
Illustration A

Carriage Release Lever

To unlock, push tip straight down as shown.
To relock, push tip up to horizontal position.

Illustration B

Rubber Spacer - remove

Songbird Attract Mode Instructions

The Songbird Phonograph is equipped with a unique Attract Mode: strobe
lights pulsate in the exhaust ports and the roar of a powerful car
engine is simultaneously emitted from the speakers. Immediately
thereafter, the Hit Parade record will automatically be played.

Car sounds are emitted only from the phonograph's speakers, not through
any remote speakers you may have installed on the unit. The Attract
Modes purpose is to cause patrons to take notice of the phonograph and
encourage playing it. Music will, of course, emit from any remote
speakers installed on the unit ... as well as the phonograph's speakers.

The Attract Mode is activated every 15 minutes that the unit is at rest
... that is 15 minutes after the last record has been played. You can
change the delay time to 30 minutes, 45, 60 ... up to 105 minutes in 15
minute intervals. Or, you can deactivate the Attract Mode so it will
not function. See "Altering the Attract Mode Frequency" on the
following pages, or reference page 59 of your NSM Service Manual.
Attract Modes are factory preset for activation every 15 minutes.

Additionally, the Attract Modes strobe lights and car sounds will be
activated when the first selection is made if the unit is at rest
(whenever the phonograph is not playing or selecting music).

The volume of the car engine sounds is controlled independently of the
music volume. The Volume Control for the car sounds is located on the
left rear of the phonograph. To adjust volume, make any record
selection when the unit is at rest. This activates the car engine
sounds. Then, adjust volume to desired level. It is possible to mute
the sounds entirely (yet pulsating exhaust strobes will still activate)
by turning the volume down to zero.

Installation of Remote Speakers

If you wish to add remote speakers to your SongBird jukebox please be aware of two potential problems.

First off, you must choose the speakers with care. The Songbird can produce as much as 100 Watts (RMS) per channel -- enough to destroy most inexpensive home stereo speakers. To cover yourself, make sure the speakers you choose can handle at least 150 Watts (RMS) per channel. We also recommend that the speakers have an impedance of eight (8) ohms.

Perhaps the most serious problem to be aware of is that if you install the remote speakers incorrectly, there is a chance you could overload and eventually damage the SongBird Amplifier.

PLEASE READ THE NEXT SECTION CAREFULLY. IF YOU HAVE ANY QUESTIONS, OR NEED ASSISTANCE, PLEASE CALL US.

The SongBird uses a Speaker Output Transformer to make available tap off points for installation of remote speakers. With the SongBird's top open, the Speaker Output Transformer can be found on the right hand side of the jukebox, directly under the keyboard (See Illustration 2). Full instructions for remote speaker installation can be found inside the transformer cover.

With the cover of the transformer off, on the right hand side you will see two sets of taps. On the left side of the taps, the legends start at "GND" for ground, followed by 1,2,4,8,16. On the right hand side of the taps, the legends start with "0" (in the ground position), followed by 1,2,3,4,5. The set of taps towards the top of the transformer are labeled "Right" -- for Right Channel. The set of taps towards the bottom of the transformer are labeled "Left", for Left Channel.

As you know, the SongBird has 100 Watts per channel available. You must use the correct taps so that the maximum power consumed by the speakers is less than 100 Watts per channel. The standard factory configuration for the cabinet speakers in the SongBird is eight (8) ohm impedance, 200 watt (RMS) rated commercial speakers connected to taps "0" and "4" on both the Left and Right Channels. If you look at the instructions inside the cover of the Output Transformer, under the section "8 Ohm Lautsprecher Speaker", terminals "0" and "4" make available 97 Watts per channel -- which is the maximum per channel load.

If you would like to add remote speakers, change the factory configuration from "0" and "4" to "0" and "2". Now the cabinet speakers are consuming 40 Watts, leaving 60 Watts available for the remote speakers. Then, the remotes should be connected to taps "0" and "2" (along with the cabinet speakers).

Programming Special Features of your NSM Jukebox

Your NSM jukebox system is run by a computer controller. The controller not only controls the mechanism, but it is used to set the unit up for various modes of operation. By programming the computer, you can enter testing modes, set the unit for Free Play, adjust pricing levels (plays per quarter, etc.), and change various jukebox functions. Below is a brief description of how to program the unit for Free Play, Constant Play, attract mode time settings, and pricing levels -- see your NSM manual for more detailed instructions.

Entering the Program/Service Mode

To enter the program mode on the Songbird jukebox, first find the service switch located on the left hand side of the keyboard/credit display frame. When you are in the service mode, you will use the keyboard to enter your commands, and the computer will display what you have done on the credit display. See Illustration #2 for locations of the service switch, keyboard, and credit display.

To enter the service mode, switch the Service Switch to the "SERVICE" position. The credit display will display "PP" at this stage. Since you don't want everyone to have the ability to change your jukebox setup, the computer has a "password" that must be entered prior to making any changes.

The factory set password is 000000 -- six zeroes. Now enter six zeroes into the keyboard followed by the enter button (a key that has a legend that looks like a finger pressing down a key on the keyboard -- see Illustration #3) to enter the program mode. You are now in the program mode of the jukebox. The credit display will show "PP" again.

The "P" and "C" Program Categories

Basically, the computer settings can be grouped into two categories. The "P" programs, "P1" - "P8" and the "C" programs "C0" - "C9", "CE" and "CR". Each has a different function, most of which are not useful or necessary in home use.

Most of the "P" programs are accounting functions. They can tell you what the most popular records in the jukebox are, how much money has been put in the box, total number of A side plays, and the total number of B side plays.

A few of the "P" programs are quite useful in home use. "P2" allows you to clear out the record popularity settings in the jukebox. "P6" enters the jukebox in a "test" mode -- where the jukebox plays selections 100 - 179 constantly one right after another until the "C" key is pressed on the keyboard. "P8" clears credits from the jukebox. All are discussed in the following sections.

Clearing the Popularity Settings

To clear the popularity settings in the jukebox (the records played the most), from the "PP" display (in the program/service mode), hit the "2" button on the keypad. The display will now show "P2". Now hit the enter ("Finger") button to clear the settings. The display will flicker for a few seconds, and when the settings are cleared, the display will return to the starting point -- "PP".

To return the jukebox to the normal play mode, switch the service/play switch on the left-hand side of the keypad/display frame back to the play position.

Setting the Jukebox on Automatic/Continuous Play

To enter the jukebox "test" mode -- continuous play of all records in the jukebox -- you need to set program "P6". From the "PP" display (in the program/service mode), hit the "6" key on the keypad. To enter the test mode press the enter key ("Finger"). The jukebox will then pick up the nearest record (179) and play it, followed by every record in the jukebox.

To stop this feature you must leave the service mode. To return the jukebox to the normal play mode, switch the service/play switch on the left-hand side of the keypad/display frame back to the play position. Now press the "C" key on the keypad. The jukebox will finish the record it is playing and return to rest (it may have to play the 100 record to reset itself).

Clearing Unwanted Credits

To clear unwanted credits from the jukebox -- press the "8" key from the "PP" display (in the program/service mode). Now hit the enter button ("Finger"). The credits will be reset to zero and you will be returned to the starting point, "PP".

To return the jukebox to the normal play mode, switch the service/play switch on the left-hand side of the keypad/display frame back to the play position.

The "C" Programs

The "C" programs are generally pricing functions. They mainly control number of plays given for a specific denomination. However, one of the "C" programs controls the attract mode of the jukebox -- "Cr", and another, "CE" allows you to change your password (not recommended).

Setting the Jukebox for Free Play

If you wish to operate the jukebox on free play -- so that coins are not required for credits -- you must alter location "C3". To get to the "C3" location from the "PP" location (in the program/service mode), first push the "0" key. This will bring you to location "C0". If you press the enter key ("Finger"), the computer will advance to location "C1". Keep pressing the enter key until location "C3" appears on the credit display.

At the "C3" display, press the "Hit" button on the keypad. This will show you what information is currently in memory for the free play mode. The first three digits signify the denomination currently in memory. The next two digits signify the number of plays received when that denomination is put in the jukebox. When the unit is in the free play mode, the display will show "000 00". When the jukebox is in the coin play mode, the display will show "100 07".

To put the jukebox into the free play mode enter five zeroes followed by the enter ("finger") button. Now the display will show five zeroes. To return to the starting point "PP", press the enter button ("finger"), the display will now show the next "C" program, "C4". Now press the "C" key, and the display will show you "PP". If you wish to return the jukebox to the play mode, switch the service/play switch on the left-hand side of the keyboard/display frame to the play position.

If you wish to put the jukebox back in the coin play mode, follow the same procedure as detailed above, but enter "100 07" instead of "000 00" in location "C3".

One additional note, after you have completed the steps above, you may have to turn the jukebox off, then back on again for the new mode to register in the computer.

Altering the Attract Mode Frequency

This jukebox is factory programmed to play the most popular song automatically if it has been at rest (not playing records) for more than 15 minutes. This attract mode can be turned off, or extended to up to 105 minutes.

To get to the "CR" location from the "PP" location (in the program/service mode), first push the "0" key. This will bring you to location "C0". If you press the enter key ("finger"), the computer will advance to location "C1". Keep pressing the enter key until location "CR" appears on the credit display.

At the "CR" display press the "Hit" button on the keypad. This will show you what information is currently in memory for the attract mode. The first two digits signify the number of 15 minute intervals the jukebox will wait between attract modes. The next two digits signify the number of records the jukebox will play when the attract mode is triggered.

If you wish to change the attract mode frequency you must change location "CR". The factory setting for "CR" is 001, where the attract mode is triggered every 15 minutes. If you change the setting to 002, the attract mode will be entered every 30 minutes (003 - 45 minutes, 004 - 60 minutes , the maximum is 007 - 105 minutes). If you change the setting to 000, the attract mode will be disabled.

To enter your new setting in the computer, enter the three digit value followed by "01" followed by the enter ("finger") button. Now the display will show your new entry. To return to the starting point "PP", press the enter button ("finger"), the display will now show the next "C" program, "C0". Now press the "C" key, and the display will show you "PP". If you wish to return the jukebox to the play mode, switch the service/play switch on the left-hand side of the keyboard/display frame to the play position.

Changing the Price per Play

To change the number of credits given for a quarter, 50 cents, or a dollar, you must change locations C0, C1, and C2. To get from the starting point "PP" (in the program/service mode) to the "C" programs, simply press the "0" key. The display will now indicate you are at the first "C" program, "C0".

At the "C0" display, press the "Hit" button on the keypad. This will display the current contents of location "C0". The first three digits "025" signify a quarter. The last two digits "01" signify 1 play -- or simply one play for a quarter.

Now press the enter ("Finger") button on the keypad. The display will indicate the second "C" program, "C1". Press "Hit" to display the contents of "C1". The first three digits "050" signify 50 cents, the last two "03" signify three plays -- or three plays for 50 cents.

Now press the enter ("Finger") button again to advance to C2. Press "Hit" to display the contents of C2. The first three digits "100" signify $1, the last two "05" signify five plays -- or five plays for a dollar.

You can change these locations to whatever you wish, simply by entering the denomination followed by the number of plays you wish to give for that denomination.

To return to the starting point "PP", simply press "C" on the keypad from any "C" program. To return the jukebox to the normal play mode, switch the service/play switch on the left-hand side of the keypad/display frame back to the play position.

Changing the Password

We strongly recommend that you leave the factory set password (000000) in location "CE". If you change this location and the new password is forgotten, the entire computer/credit unit must be replaced if you wish to enter the service mode.

Further Information

For further information on programming the computer, locate the small card (written in three languages) that has ES II 160 in the upper right hand corner. The card is a 8-1/2 x 11 card folded in half entitled "Service-Programs". This card is a summary of all the service programs. For more detail, refer to the black covered NSM "Service-Manual" in the coin box of your jukebox. If you have any questions, please feel free to contact us directly.
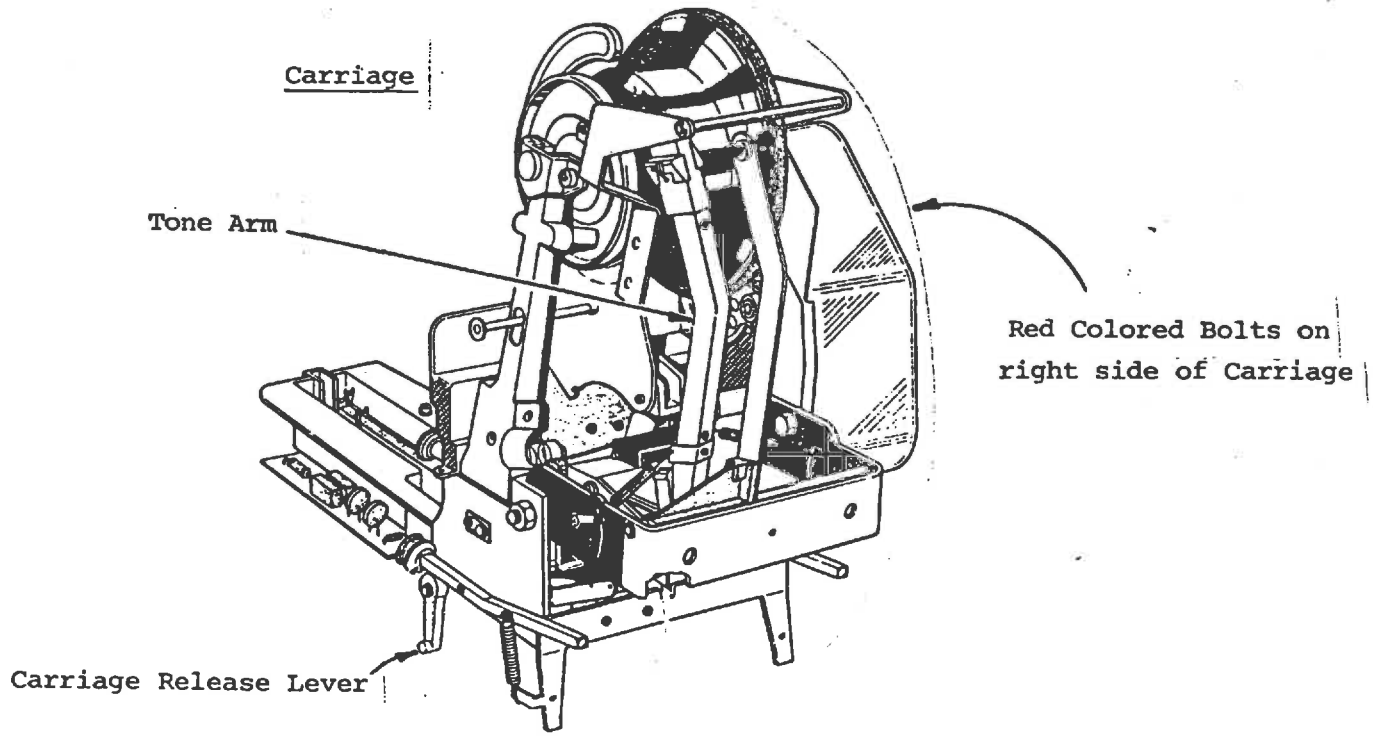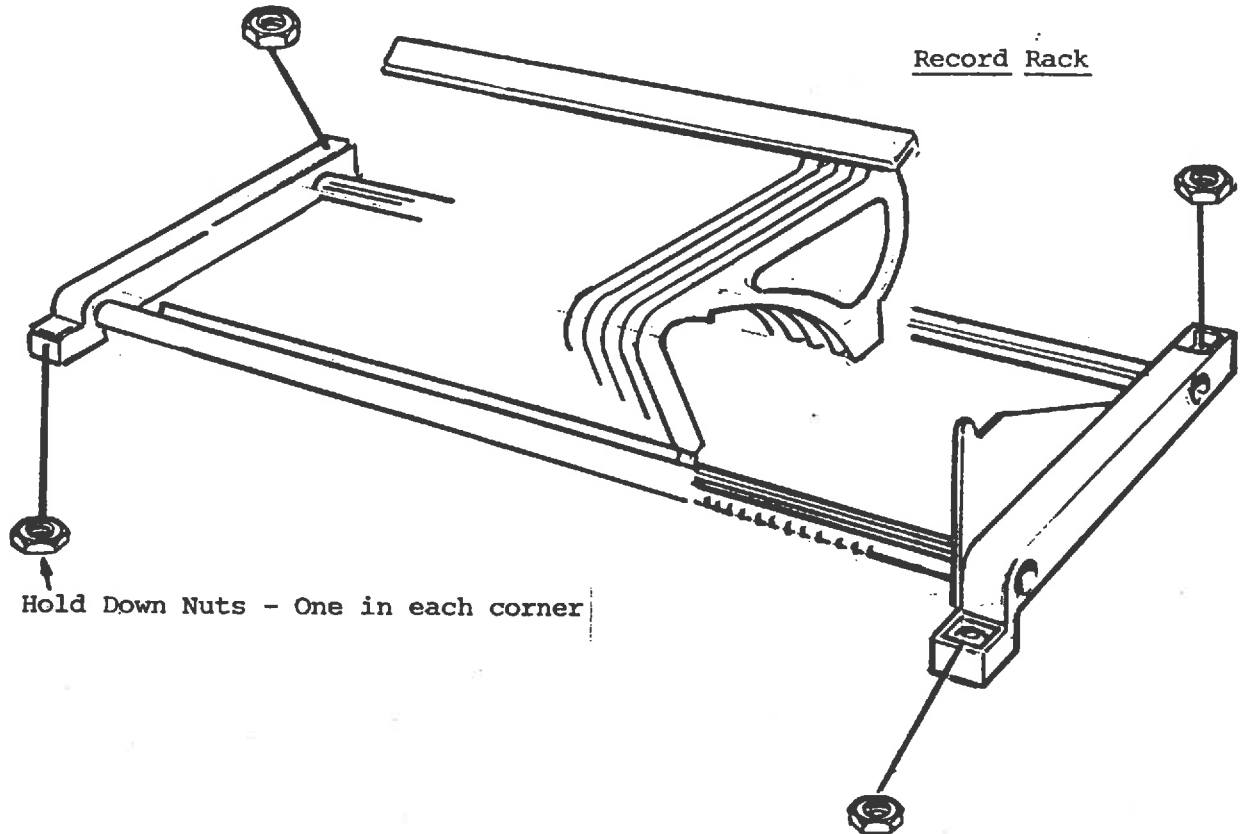
Illustration 1

Record Rack

Hold Down Nuts - One in each corner

Carriage

Tone Arm

Red Colored Bolts on
right side of Carriage

Carriage Release Lever

Illustration 2

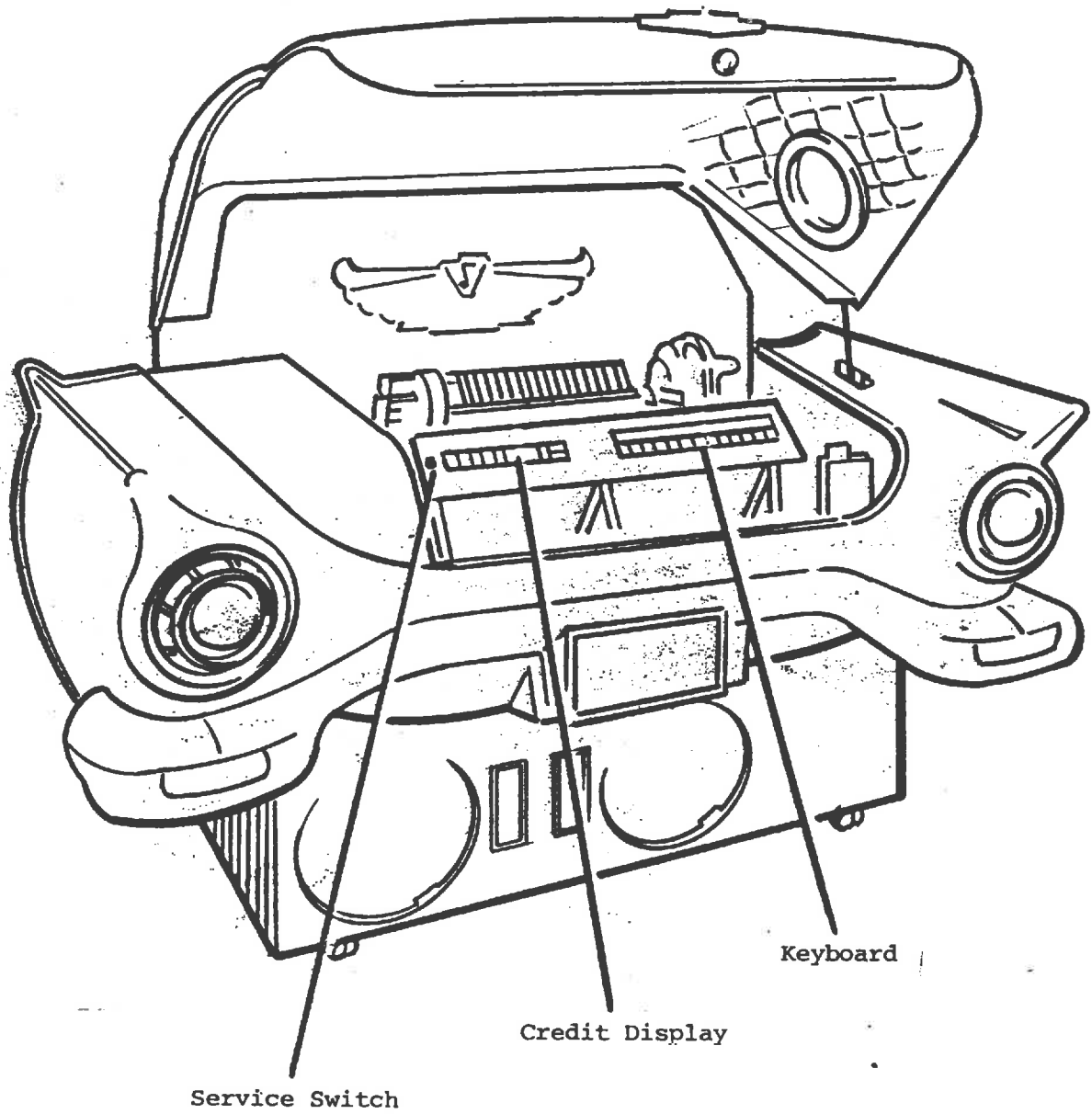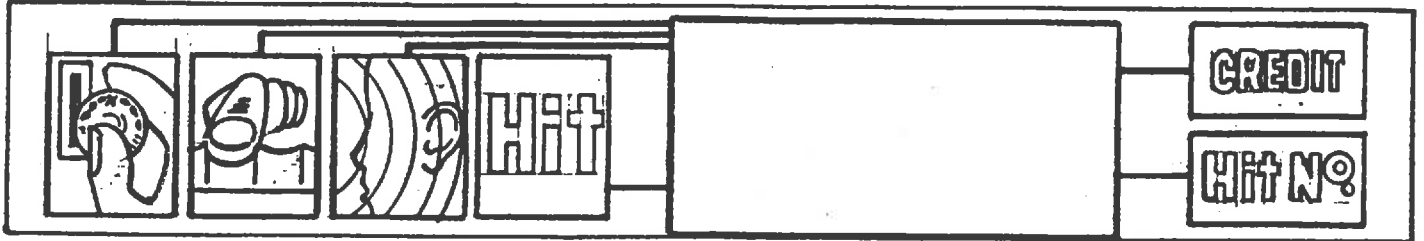

Keyboard

Credit Display

Service Switch

Illustration 3

Credit Display
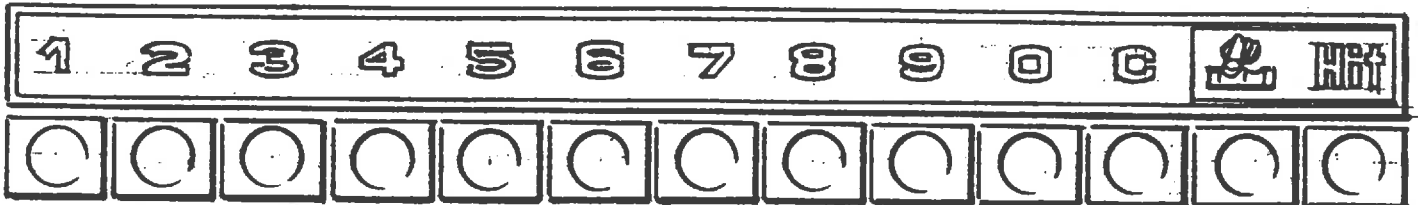
Keyboard

Enter Key "Finger"

110 Volt AC

3 Pin Molex
Brown Zip Cord

Cabinet Lights

Color Code:

Red/White – Constant
Yellow/Blk – Taillights
Blue/Blk – Strobes

6 Pin Molex
Multi-Color

Right

Left

Cabinet Speakers

CCM Light Control

3 Pin Molex
White/Grey Wire

CCM External
Volume Cntrl

3 Pin Molex – Grey Jacket

Electronic
Centrale

NSM Control & Credit Unit

2
0
1
2
0
Left
Left
Right
Right

NSM
Speaker
Output
Xformer

CCM Attract
Mode System

Speaker
Output
Transformer

NSM Centrale

Control &
Credit
Unit

CARSON CITY MANUFACTURING

8576 Highway 101, Shakopee, MN 55379

SongBird Attract Mode System

Not To Scale

PART NUMBER

882139

DRAWN BY. Tom B.

DATE 4/24/89