

NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*

Service Training Manual

Volume 2

Section 1: ES 5.1 Programming

Section 2: Parts Reference Guide

NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*
NSM *M.U.S.I.C.*

Section 1:

ES 5.1 Programming version V0106 CCU
V0106 MBC III

Section 1: ES 5.1 Programming Tips

Table of Contents

<u>Subject</u>	<u>Page #'s</u>
Overview of Commands	3
Statistics	4-5
Data Transfer/Cancellation	6
General Settings	6-8
Price Setting	8
Monetary Value Channel Setting	8-9
Programming the Real Time Clock	9
Programming Free Credits	10
Programming Background Music	10-13
Programming Auto Play	13-14
Programming Advertising	14
Locking Out of Titles	15-16
Programming Happy-Hour Credits	16-17
Test Programs	17-19
Recording Song Quantities (Initialization)	19-20
Animation of the Title display	20
Factory Default	21
Error Messages	22-23

OVERVIEW: COMMANDS OF SERVICE PROGRAMS

Group	Name of Command Group	Command Number
1	Authorization/Display Version	P001 - P003
2	Statistics	P010 - P026
3	Data Transfer/Cancellation	P030 - P033
4	General Settings	P040 - P058
5	Price Setting	P060 - P066
6	Monetary Value Setting	P070 - P078
7	Programming real time clock	P080 - P082
8	Programming free credits	P090 - P095
9	Programming background music	P100 - P107
10	Programming auto play	P110 - P117
11	Programming advertising	P120 - P127
12	Lock-out of titles	P130 - P135
13	Programming Happy-Hour-Credits	P140 - P144
14	Test Programs	P150 - P159
15	Recording song quantities	P160 - P164
16	Animation of the title display	P180 - P187

1. Authorization/Display Version

P001 Enter Authorization code
Enter 4 digit code + H

P002 Changing the authorization code
Enter "new" 4 digit code + H

P003 Display version
#0: Displays version of eprom in the Control Unit (First numbers displayed when you enter P003)
#1: Displays the version of Eprom in the MBC III
#2: Version of CD player

2. Statistics

P010 Least Popular Disc
#0: Starts P010 over
#1: Advances to the next ranked disc
#2: Shows the number of plays for that disc
#3: Allows you to put in a disc number and go directly to it and see the ranking

P011 Most Popular Disc
#0: Starts P011 Over
#1: Advances to the next ranked disc
#2: Shows the number of plays for that disc
#3: Allows you to put in a disc number and go directly to it and see the ranking

P012 Displays the top 100 singles
#0: Displays the number of the top title, Hit no. 1
#1: Advances to the next ranked single
#2: Shows you the number of plays for the single shown

P013 Display the cash readings (rounded off to the lower dollar)
#0: Displays the cash since the last collection (this is resetable)
#1: Displays the lifetime cash total (this is nonresetable)

P014 Cash for individual coin channels and bill acceptor
#0: Coins through chute 1 (# Coins x value in P71 = Money)
#1: Coins through chute 2 (# Coins x value in P72 = Money)
#2: Coins through chute 3 (# Coins x value in P73 = Money)
#3: Coins through chute 4 (No Value)
#4: Bills counted in bill validator (# = Dollars)
#5: Lifetime counter of chute 1 (Value in P71 = Money)
#6: Lifetime counter of chute 2 (Value in P72 = Money)
#7: Lifetime counter of chute 3 (Value in P73 = Money)
#8: Lifetime counter of chute 4 (x .00)
#9: Lifetime of bill validator (# = Dollars)

- P016** Number of songs played
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P017** Number of songs selected
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P018** Number of albums selected
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P019** Number of overplayed songs
#0: Number since last time collected (resetable)
#1: Lifetime number (non resetable)
- P020** Number of credits paid for
#0: Number since last time collected (resetable)
#1: lifetime number (nonresetable)
- P021** Number of free credits
#0: Number since last time collected (resetable)
- P022** Number of background songs that played
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P023** Number of songs played in auto play mode
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P024** Number of plays in advertising mode
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P025** Number of Happy-Hour-credits
#0: Number since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P026** Counter for power on hours (Version 0104 and up)
#0: Number of hours since last time collected (resetable)
#1: Lifetime number (nonresetable)
- P028** Number of unused credits (no lifetime)
- P029** Number of unplayed songs that were selected (no lifetime)

3. Data transfer/Cancellation

- P030** "0" + "H" Stores all data in data print and prints out depending on data print setting. The counters are then reset after the printout is done and the interlock switch is pushed in.
 "1" + "H" Only the hit parade will be sent to the Dataprint (Max. 500)
- P031** Prints-out at data print only.
 "0" Prints all data.
 "1" Prints cashbox amount.
 "2" Prints counters with cashbox.
 "3" Prints the general settings.
 "4" Prints the popularity of all CDs.
 "5" Prints the top single tracks with the number of plays. (Max 500)
 "6" Prints the last 20 error codes with date and time.
- P032** "0" Allows the entire statistics to print out with any other printer.
- P033** Cancellation of resettable memory programs
 "0" + "H" Cancels all resettable memory contents
 "1" + "H" Resets hit parade. (P012)
 "2" + "H" Resets popularity. (P010 + P011)
 "3" + "H" Resets counters and cashbox counters. (P013 to P024)
 "4" + "H" Cancels credits on display.
 "5" + "H" Cancels selections in memory.
 "6" + "H" Clears error codes. (P150)

4. General Settings

- P040** Resets P040 to P054 & P094 also sets P091 to P135 to zero
 "0" + "H" = Default values
 "1" + "H" = Same as before but enables background and the auto play.
With access to all CDs.
- P041** I.D. Number for use with NSM Data print
 #1 to #9999 then push "H"
- P042** The maximum number of selectable CDs and tracks.
 # of CDs and # of tracks then push "H"
- P043** Light organ in stand-by(Not used)
- P044** Light organ during play(Not used)
- P045** Time limit on songs
 From 1 to 99 min. Then push "H"
 "0" + "H" = Unlimited time

- P046** Playing sequence on playing paid songs
 "0" + "H" Play as selected (FIFO)
 "1" + "H" Play in numerically ascending numbers
 "2" + "H" Play randomly
- P047** Maximum number of song on the same CD to play in a row. (Also affects background play.)
 "0" + "H" Unlimited
 "1" to "99" + "H" = The number of tracks to be played in a row.
- P048** Automatic advance of title display
 (Version 0105 and up this program deleted and replaced with P184)
 "10" + "H" = 10 Min.
 "20" + "H" = 20 Min. Up to "99" + "H" = 99 Min.
 "0" + "H" = Disabled
- P049** Cancel credits after power off and standby
 "0" + "H" = No cancellation of credits.
 "1" + "H" = 6 Min.
 "2" + "H" = 12 Min. Up to "240" + "H" = 24Hrs
- P050** Cancellation of selections in memory after power off
 "0" + "H" = No cancellation of selections
 "1" + "H" = 6 Min.
 "10" + "H" = 1 Hr. Up to "240" + "H" = 24Hrs
- P051** Maximum volume level during paid play
 "0" + "H" Mute Up to "31" + "H" (Loudest)
- P052** Maximum volume level during background mode
 "0" + "H" The BGM volume is set to be equal to the normal volume.
 "1" to "31" + H BGM volume limit (Value between 1 and 31)
- P053** Volume control from inside the jukebox
 Key "2" Louder key "8" quieter both channels
 Key "1" Louder key "7" quieter left channel
 Key "3" Louder key "9" quieter right channel
- P054** Bass and treble settings
 Key "2" More bass and treble both channels
 Key "8" Less bass and treble both channels
 Key "1" More bass both channels
 Key "7" Less bass both channels
 Key "3" More treble both channels
 Key "9" Less treble both channels
- P055** Maximum volume for Microphone (Version 0104 and up)
 "0" Microphone volume is set to be equal to the normal volume.
 "1" to "31" Microphone volume limit (Value between 1 and 31)

- P056** Programming LED Display of Hit Parade (Version 0104 and up)
"0" No Hit Parade displayed (Only credits displayed)
"1" Hit Parade displayed after 16 seconds (previously standard)
"2" Hit Parade displayed after 16 seconds only if No credits are present.
- P057** Play list override (Version 0104 and up)
Deleting the play list using the remote control.
"0" Disabled, deleting the play list via remote control not possible.
"1" Enabled, all the selections in the play list will be deleted when the following button sequence on the remote control is pressed.
"Muting"+"Reject"+"Reject"+"Reject"
- P058** Maximum volume for tape input (Version 0106 and up)
"0" Tape volume=normal phonograph's volume.
"n" Separated tape volume, range from 1-31.

5. Price Setting

- P060** Resets pricing to default.
"18" + "H" = 1 Play for \$.50
3 Plays for \$1.00
18 Plays for \$5.00
- P061 to P065** You can customize the pricing. Always start with the lowest amount of money you want to give credit for and don't change until the number of credits for money changes. Unused step may be programmed with zero.
- P066** Sets the album pricing.
"0" + "H" = No album selection possible.
"1" + "H" = Charges for only how many tracks are on the disc.
"2" + "H" = Only charges 4 credits for every 5 tracks on the disc.
"3" + "H" = Only charges 3 credits for every 4 tracks on the disc.
"4" + "H" = Only charges 2 credits for every 3 tracks on the disc.

6. Monetary Value Setting

- P070** Resets coin chutes to factory setting
"10" + "H" = USA coin chute setting.
"11" + "H" = USA coin mech with single rocker.
- P071** Coin Channel 1 (USA \$0.10)
P072 Coin Channel 2 (USA \$.50)(With single rocker coin mechanism \$ 0.25)
P073 Coin Channel 3 (USA \$.25)
P074 Coin Channel 4 (USA \$.00 Free credit button)
P075 Coin Channel 5 (USA \$ 1.00)
P076 Dollar Bill Bonus

P077 Indirect /Direct money to credit revaluation

"0" + "H" = Indirect revaluation: inserted coins are stored. At a defined coin value the credit is given for the highest price setting.

Example: Pricing = 1 Credit for \$.50

3 Credits for \$1.00

18 Credits for \$5.00

4 \$.25 will give 3 credits

40 \$.25 will give 18 credits

5 \$1.00 bills will give 18 credits

"1" + "H" = Direct revaluation: inserted coins are not stored. They are revalued after each insertion, making it impossible for bonus credits with multiple coins or bills.

Example: pricing = 1 Credit for \$.50

3 Credits for \$1.00

18 Credits for \$5.00

4 \$.25 will give only 2 credits

40 \$.25 will give only 10 credits

5 \$1.00 bills will give only 15 credits

1 \$5.00 bill will give only 15 credits

P078 Cash meter pulse count

"0" 1 pulse (default value)

"1" 10 pulses

7. Programming the real time clock

P080 Time of day (in hundreds I.E. 3PM = 1500)

Key "1" Advances hours

Key "7" Subtracts hours

Key "3" Advances minutes

Key "9" Subtracts minutes

P081 Day month and year

Key "1" Advances the day

Key "7" Decreases the day

Key "2" Advances the month

Key "8" Decreases the month

Key "3" Advances the year

Key "9" Decreases the year

P082 Day of the week

Key "3" Advances the day code

Key "9" Decreases the day code

1= Monday, 2= Tuesday, 3= Wednesday, 4= Thursday,

5= Friday, 6= Saturday, 7= Sunday

8. Programming Free Credits

P090 Resets free credits to 200

"0" + "H" = Unlimited free credits with no time periods

P091 Starting time for free credits

Hours with keys "1" or "7"

Minutes with keys "3" or "9"

Key "6" = 30 Min.

Key "4" = 12 o'clock

Key "5" = 0000

Push "H" after entry

P092 Stopping time for free credits

Hours with keys "1" or "7"

Minutes with keys "3" or "9"

Push "H" after entry

P093 Weekdays that free credit is enabled on the middle display the weekdays are shown with numbers 1 to 7. Each weekday can be activated individually. "1" means active on that day. "0" means off for that day. Pick "0" or "1" then push "H"

P094 Entering the number of free credits

"0" + "H" = No free credits are possible.

Less than "200" = Limited free credits. The amount corresponds to the inputted number + "H"

"200" + "H" = Unlimited free credit.

"201" + "H" = Switching between paid credits and unlimited credits.

"202" + "H" = Free play (99 credits) while time window is active.

P095 Renewal rate of free credits (Version 0104 and up)

Note: Only active if P094 is set between "1" and "199"

Free credits can be automatically renewed on a daily or weekly basis. The number of free credits in P094 will be renewed.

"0" No renewal of free credits. When the free credits in P094 have been used, no renewal will occur.

"1" Daily renewal. Resets at midnight.

"2" Weekly renewal. Resets Sunday night at midnight.

9. Programming Background Music

P100 Resets background to disabled

"0" + "H" = Disabled

P101 Starting time for background music

Set hours with keys "1" or "7"

Set minutes with keys "3" or "8"

push "H" after entry

- P102** Stopping time for background music
Set hours with keys "1" or "7"
Set minutes with keys "3" OR "8"
Push "H" after entry
- P103** Weekdays that background is enabled on the middle display the weekdays are shown with the numbers 1 to 7.
Each day can be activated individually.
"1" Means active on that day.
"0" Means off for that day.
Pick "0" or "1" then push "H"
- P104** Type of operation for background
"0" + "H" = No background music
"1" + "H" = Allows starting and stopping of background music by pressing background key on machine or remote control.
"2" + "H" = Automatically plays background music at defined times.
- P105** What is played as background music
Enter 20 four digit entries.
20 titles or albums can be selected.
With no selections in P105 all CDs will be selected.
(03 Version Eprom & later for ES V)
- P106** Lock out selections of background music
"0" + "H" = Titles or albums free for selecting
"1" + "H" = Titles or albums cannot be selected
- P107** Sequence of playing background music
"0" + "H" = Play in order of entry
"1" + "H" = Random play

9a. Programming Background Music (Version 0106 and up)

Four time windows may be independently programmed using up to 20 different titles and/or CD's.

- | | | | |
|-------------|----------|-----------|-----------------------------------|
| P100 | 1 | "0" + "H" | Deletes program for time window 1 |
| | 2 | "0" + "H" | Deletes program for time window 2 |
| | 3 | "0" + "H" | Deletes program for time window 3 |
| | 4 | "0" + "H" | Deletes program for time window 4 |
-
- | | | |
|-------------|----------|--------------------------------|
| P101 | 1 | Enter start time for program 1 |
| | 2 | Enter start time for program 2 |
| | 3 | Enter start time for program 3 |
| | 4 | Enter start time for program 4 |

- P102** 1 Enter stop time for program 1
 2 Enter stop time for program 2
 3 Enter stop time for program 3
 4 Enter stop time for program 4

- P103** 1 **Monday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 2.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.
 2 **Tuesday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 2.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.
 3 **Wednesday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 3.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.
 4 **Thursday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 2.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.
 5 **Friday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 2.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.
 6 **Saturday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 2.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.
 7 **Sunday:** 1234 Enter 1 to enable time window 1. Enter 2 to enable time window 2.
 Enter 3 to enable time window 3. Enter 4 to enable time window 4.

- P104** 1 Window 1 "0" = No BGM
 "1" = Active in time window with BGM button
 "2" = Automatically on in time window
 2 Window 2 "0" = No BGM
 "1" = Active in time window with BGM button
 "2" = Automatically on in the time window
 3 Window 3 "0" = No BGM
 "1" = Active in time window with BGM button
 "2" = Automatically on in the time window
 4 Window 4 "0" = No BGM
 "1" = Active in time window with BGM button
 "2" = Automatically on in the time window

- P105** 1 to 20 Titles and/or CD's selected for time window 1
 21 to 40 Titles and/or CD's selected for time window 2
 41 to 60 Titles and/or CD's selected for time window 3
 61 to 80 Titles and/or CD's selected for time window 4

Note: If for an active time window no titles and/or CD's are entered here then the BGM will play from all the CD's in the phonograph.

- P106** 1 Window 1 "0" = titles freed for selection "1" = titles locked out from selection
 2 Window 2 "0" = titles freed for selection "1" = titles locked out from selection
 3 Window 3 "0" = titles freed for selection "1" = titles locked out from selection
 4 Window 4 "0" = titles freed for selection "1" = titles locked out from selection

- P107** 1 Window 1 "0" = titles play in FIFO(First in First out)
 "1" = titles play in random
 2 Window 2 "0" = titles play in FIFO(First in First out)
 "1" = titles play in random
 3 Window 3 "0" = titles play in FIFO(First in First out)
 "1" = titles play in random
 4 Window 4 "0" = titles play in FIFO(First in First out)
 "1" = titles play in random

- P108** "0" BGM activated without credit
 "N" Number of credits deducted to activate BGM

10. Programming Auto Play

- P110** Resets auto play to disabled
 "0" + "H" = Disabled
- P111** Starting time for auto play
 Set hours with keys "1" or "7"
 Set minutes with keys "3" or "9"
 Push "H" after entry
- P112** Stopping time for auto play
 Set hours with keys "1" or "7"
 Set minutes with keys "3" or "9"
 Push "H" after entry
- P113** Weekdays that auto play is enabled on the middle display the weekdays are shown with the numbers 1 to 7.
 Each weekday can be activated individually.
 "1" Means active on that day.
 "0" Means off for that day.
 Pick "0" or "1" then push "H"
- P114** Defines the time between songs in auto play.
 "1" to "99" + "H" = Minutes between songs.
 "0" + "H" = No auto play.
- P115** Defines the songs or albums to be played in auto enter 20 four digit entries.
 20 titles or albums can be selected.
With no selections in P115 all CDs will be selected.
 (03 Version Eprom & later ES V)
- P116** Lock out selections of auto play.
 "0" + "H" = Titles or albums free for selecting.
 "1" + "H" = Titles or albums cannot be selected.

- P117** Sequence for playing auto play songs.
"0" + "H" = Play in order of entry.
"1" + "H" = Random play.

11. Programming advertising

- P120** Resets advertising to disabled
"0" + "H" = Disabled

- P121** Starting time for advertising
Set hours with keys "1" or "7"
Minutes with keys "3" or "9"
Push "H" after entry

- P122** Stopping time for advertising
Set hours with keys "1" or "7"
Minutes with keys "3" or "9"
Push "H" after entry

- P123** Weekdays that advertising is enabled on the middle display the weekdays are shown with the numbers 1 to 7.
Each weekday can be activated individually.
"1" Means active on that day.
"2" Means off for that day.
Pick "0" or "1" then push "H"

- P124** Defines the time between advertising spots.
"1" to "99" + "H" = Minutes between spots
"0" + "H" = No advertising spots

- P125** Defines the tracks or albums to be played in advertising.
Enter 20 four digit entries.
20 Tracks or albums can be selected.

- P126** Lock out selections of advertising.
"0" + "H" = Tracks or albums free for selecting.
"1" + "H" = Tracks or albums cannot be selected.

- P127** Sequence for playing advertising.
"0" + "H" = Play in order of entry.
"1" + "H" = Random play.

12. Locking out of titles

- P130** Resets all locked out songs.
"0" + "H" = All songs can be played.

- P131** Starting time for playing locked songs.

Set hours with keys "4" or "7"
 Set minutes with keys "3" or "9"
 Key "6" = 30 Min.
 Key "4" = 12 o'clock
 Key "5" = 0000

P132 Stopping time for playing locked songs.

Set hours with keys "1" or "7"
 Set minutes with keys "3" or "9"
 Key "6" = 30 Min.
 Key "4" = 12 o'clock
 Key "5" = 0000

P133 Weekdays for releasing locked songs on the middle display the weekdays are shown with the numbers 1 to 7.

Each weekday can be activated individually.
 "1" Means selectable on that day.
 "0" Means not selectable on that day.
 Pick "0" or "1" then push "H"

P134 Enable and disable time window.

"0" + "H" = Songs can be selected all the time.
 "1" + "H" = Songs are blocked in time window.

P135 Defines the songs or albums, which are blocked.

Enter up to 20 four digit entries.
 20 Songs or albums can be selected.

To unlock one or more songs, find that song in P135 and then put in "0" + "H".

12a. Locking out of titles (Version 0106 and up)

Note: Contrary to earlier program versions, titles or CD's are locked out during the active time window. These titles are selectable outside the active time window.

P130 1 "0" + "H" Deletes program for time window 1
 2 "0" + "H" Deletes program for time window 2
 3 "0" + "H" Deletes program for time window 3
 4 "0" + "H" Deletes program for time window 4

P131 1 Enter start time for program 1
 2 Enter start time for program 2
 3 Enter start time for program 3
 4 Enter start time for program 4

P132 1 Enter stop time for program 1
 2 Enter stop time for program 2
 3 Enter stop time for program 3
 4 Enter stop time for program 4

- P133**
- | | | | |
|---|-------------------|------|--|
| 1 | Monday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 2.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |
| 2 | Tuesday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 2.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |
| 3 | Wednesday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 3.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |
| 4 | Thursday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 2.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |
| 5 | Friday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 2.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |
| 6 | Saturday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 2.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |
| 7 | Sunday: | 1234 | Enter 1 to enable time window 1. Enter 2 to enable time window 2.
Enter 3 to enable time window 3. Enter 4 to enable time window 4. |

- P134**
- | | | |
|---|----------|--|
| 1 | Window 1 | "0" = No Lockout
"1" = Lockout in time window |
| 2 | Window 2 | "0" = No Lockout
"1" = Lockout in time window |
| 3 | Window 3 | "0" = No Lockout
"1" = Lockout in time window |
| 4 | Window 4 | "0" = No Lockout
"1" = Lockout in time window |

- P135**
- | | |
|----------|---|
| 1 to 20 | Titles and/or CD's selected for time window 1 |
| 21 to 40 | Titles and/or CD's selected for time window 2 |
| 41 to 60 | Titles and/or CD's selected for time window 3 |
| 61 to 80 | Titles and/or CD's selected for time window 4 |

Note: If a selection of a locked out title is attempted, the error lamp lights and the LED display displays the message "LOC" for about 2 seconds.

13. Programming Happy-Hour-Credits

P140 Resets Happy-Hour-credits to disabled
"0" + "H" = Disabled

P141 Starting time for Happy-Hour-Credits
Set hours with keys "1" or "7"
Set minutes with keys "3" or "9"
key "6" = 30 Min.
key "4" = 12 o'clock
key "5" = 0000
push "H" after entry

P142 Stopping time for Happy-Hour-Credits
Set hours with keys "1" or "7"
Det minutes with keys "3" or "9"

Key "6" = 30 Min.
Key "4" = 12 o'clock
Key "5" = 0000
Push "H" after entry

P143 Weekdays that Happy-Hour is enabled.

On the middle display the weekdays are shown with the numbers 1 to 7.

Each day can be activated individually.

"1" Means active for that day.

"0" Means off for that day.

Pick "0" or "1" then push "H"

All seven set to 0 will activate the whole week.

P144 Sets the bonus credits for happy-hour

"0" + "H" = No Happy Hour

Any number from "1" to "5" = The number of credits that have to be paid for to receive an extra credit.

14.1 Test Programs

P150 Read-out of error codes.

"0" = Last registered error.

"1" = Previous (next) error code

"2" = CD, tray, or display page during the occurrence of the error showing.

"3" = Time of the error showing.

"4" = Date the error showing occurred.

P151 Plays all CDs for 16 sec. (F1)

"0" Starts continuous run.

P152 Plays selected CDs for 16 sec. (F2)

"0" Then put in the CD number and track numbers. As many as you want.

P153 Other continuous play test (F3 TO F5)

"0" All CDs are placed on the player, but not played (F3)

"1" CDs No. 1, 25, 50, 51, 75, & 100 are played for 16 sec. continuously. (F4)

"2" Combination of continuous run F3 followed by (F4).

P154 Opto coupler check for the MBCIII

"0" The MBCIII changer will then check each of the 5 optos in succession by performing certain lift movements. Afterwards, a relative value denoting the supply voltage will be displayed.

This number should be between 165 and 185

"1" sLift opto value. Between 25 and 80. Otherwise change opto.

"2" sGrO opto value. Between 25 and 80. Otherwise change opto.

"3" sGrI opto value. Between 25 and 80. Otherwise change opto.

"4" sGrR opto value. Between 15 and 75. Otherwise change opto.

"5" sGrL opto value. Between 15 and 75. Otherwise change opto.

Note: This test is a performance test. Optos must be at least minimally functional. If the test gives the error return value "00", one or more optos may be dead. In this case, use P157 program to check which opto or optos are defective.

P155 Lamp Test (F6)

"0" Starts lamp test

P156 Input test (F7)

"0" Starts input test

P157 Manual control for CD changer via keypad (F8)

"1" Enable laser "2" Lift up "3" Lift up by step
"4" Get CD from left "5" Replace CD "6" Get CD from RT.
"8" Lift Down "9" Lift Down by step "0" Replace CD-Set lift down

This test serves also to check the opto couplers.(See Manual)

P158 Gripper Reference (Version 0105 and up)

Enter 0 Display shows: **P158 1617**(for example)
 In this case, 17 denotes the actually stored synchronization values for the
 grippers(outer distance=18 motor steps, inner distance=14 motor steps).
Enter H The grippers are moved automatically to the "outer position"
 Display shows: **P158 0**
Enter H Grippers are moved automatically to the "inner position".
 Display shows: **P158 1**
Enter H The new reference values will be evaluated and the grippers are moved to the
 outside position.
 The display shows the new synchronization values, for example: **P158 1517**
 (outer distance=17 motor steps, inner distance=15 motor steps).
Enter H The new values are saved to memory.

Note: For best functionality of the changer the displayed values must be in a range from 12 to 25. The difference between the two displayed values must be less then or equal to 5. (Maximum display "P158 1217 or "P158 2025).

If the values are outside the allowed tolerances, the error lamp will blink and the old values are unchanged.

Alternative to this step by step routine you can use the automatic routine:

1. Call up the service program 158.
2. Enter 1 + H, The automatic routine is started. The evaluated values will be directly saved to memory.

P159 Setting the Lift reference (Version 0.0.0) **00**
 The setting of the lift reference should be performed after setting the grip reference (no tray in the lift).
 The setting of the lift is performed without any mechanical adjustment.
 The vertical distance from the lower bottom plate up to the synchronization mark (sLift) is stored
 Automatically by starting the service menu. A control and possible height correction is performed in front of tray 49.

- Enter 0 Display shows: **P159 2902** (for example)
 The display shows the stored distance between bottom plate and opto coupler sLift (29).
 The value 02 denotes that during the previous adjustment the lift was set 2 steps higher.

- Enter H The lift will automatically synchronize at the position "optocoupler sLift" and afterwards the stepper motor tries to move the lift against the bottom plate.
 Display shows **P159 0**.

- Enter H The lift is moved automatically to tray 49 (reference tray). Now you can perform corrections of the lift position corresponding to the position of tray 49.
 Display shows **P159 00**.
 Use the keyboard of the phonograph to manually grip or to back a CD tray. The lift can be moved in single steps up or down. Thereby the actual height correction value is displayed (ex. **P159 01**).
 The gripper can be moved manually by turning the right lift leading shaft.

- Enter H The displayed height correction value is saved to the non-volatile memory IC 4. The setting of the lift reference is now terminated. The lift moves back to the bottom plate. If an error occurs while moving or if the height correction value is >10 the "error" lamp will blink and the old value is unchanged.

Note: Pressing the **C** button on the keypad at any stage of **P159** will interrupt this program step and the original values are unchanged.

Alternative to this step by step routine you can use the automatic routine:

1. Call up the service program **P159**.
2. Enter 1 + H. There is no pause between synchronization at the bottom plate and moving to the reference position (tray 49).
3. Use the keyboard to manually grip or to put back a CD tray. The lift can be moved in single steps up or down. Thereby the actual height correction value is displayed. (Ex. **P159 01**)
 The gripper can be moved manually by turning the right lift leading shaft.

14.2 Recording song quantities (Initialization)

P160 After entering this program the phonograph searches through all CD slots for the number of CDs defined in P042. During the search it reads the number of songs recorded on each CD into memory.
 Push "0" to start the learn in.

P161 Recording song quantities of one CD.
New CD number + "H" = learn in of new CD.

P162 Displaying all disc and song quantities
"0" = Number of songs on CD #1
"1" = Switch to the next CD #
"2" = Return to the previous CD #
"3" = Title number of any CD

P163 Erasing CD from memory
"0" + "H" = Resets all CD Tracks to 01

P164 Switching between signal sources (See Manual)

15. Animation of the title display

P180 "0" + "H" All entries in group P18X are set to zero and the title display works normal by the rocker button.

P181 Starting time is set for "Animated title display". See P080 in users manual for Key pad layout.

P182 Stopping time is set for "Animated title display". See P080 in users manual for Key pad layout.

P183 The days are set on which the animation should be active. Enter "0" for inactive or "1" for active. After entering the software steps to the next day.

P184 The delay time is set for the movement of the title display.
"0" + "H" No automatic movement of the title display.
"N" + "H" Movement after "N" minutes. ("N" = 1 to 99)

P185 You can define the target position of the title display. Up to target positions can be used.
Always
enter the position number of the upper left title strip (eg. 01,05, 09...93,97).
To clear errors press "C" one time, to terminate press "C" twice.

P186 This program defines the movement of the title display.
"0" + "H" Continuous movement of the title display in Standby for one position, or to the next programmed position.
"1" + "H" Single movement in standby to the next programmed position.
"2" + "H" Continuous movement of the title display of one position, or to the next programmed position.
"3" + "H" Single movement to the next programmed position.

P187 Sets the limitation of the title display position corresponding to the number of inserted CD's.
"0" + "H" Number of title strips will be equal to the number of CD's.
"N" + "H" Enter the number ("N") of title strips in the title display.

Note: The time window is always active if all entries in P181, P182, P183 and P184 are not ="0".

coinopmanuals.com
FACTORY DEFAULT

P040: "0"+"H" Sets P041 to P054 and P094 to factory settings also sets P091 to P144 to disabled.

"1"+"H" Same as "0", but enables background and auto play.

P060: Price Setting

"18"+"H" Sets price at 1 for \$ 0.50 3 for \$1.00 18 for \$5.00

P070: Value of coin channel

"10"+"H" Sets coin channels for the USA

P100: Background music

"0"+"H" Will set P101 to 107 all to zeroes
(DISABLED)

P110: Auto play (Play stimulator)

"0"+"H" Will set P111 to P117 all to zeroes
(DISABLED)

P120: Advertisement

"0"+"H" Will set P121 to p127 all to zeroes
(DISABLED)

P130: Blocking certain titles (Locking out selections)

"0"+"H" Unlocks all selections locked out
P131 to P135 set to zero

P140: Happy-Hour-Credits

"0"+"H" Will set P141 to P144 all to zeroes
(DISABLED)

TABLE 9 : Possible error messages

Displays			Possible Causes	Corrections
1	2	3		
	Er	01	EPROM-contents (CONTROL-UNIT) disturbed.	Change EPROM (IC2).
	Er	10	RAM (CONTROL-UNIT) defective.	Change RAM (IC3). After that repeat all program steps.
	Er	11	RAM-contents (CONTROL-UNIT) short term disturbance.	No correction necessary; program is reinitialized. Change RAM IC 3 if frequently occurring.
	Er	12	RAM-battery is empty.	Change RAM (IC3). After that repeat all program steps.
	Er	20	Verification errors in program (CONTROL-UNIT)	No correction necessary; program is reinitialized. Change CPU IC 1 if frequently occurring.
Pxxx	Er	30	Memory contents (CONTROL-UNIT) invalid.	No corrections necessary; the displayed command is automatically reprogrammed.
Pxxx	Er	31	Memory contents (CONTROL-UNIT) invalid or not programmed.	Execute displayed command, program new values.
Pxxx	Er	40	Wrong price setting.	Check price setting and reprogram if necessary.
	Er	50	Coin mechanism defective, too much credit.	Check coin mechanism.
	Er	60	Connection to the CD-player interrupted. No supply voltage present for decoder board or CD-player	Check connection cables to the CD-player.
	Er	61	No CD recognized by CD-player. No CD in CD tray, player defective.	Check CD and exchange if necessary. Exchange CD-player.
	Er	62	Specified track on the CD not found.	Check CD.
	Er	63	Malfunction while playing a CD. CD defective.	Check CD.

Displays			Possible Causes	Corrections
1	2	3		
	Er	64	Contact to CD changer interrupted.	Check connection to changer. Replace CD changer or control unit.
	Er	65	No communication between CD changer and CONTROL-UNIT.	Restart phonograph.
	Er	70	Malfunction of operating control.	No correction necessary.
	Er	71 - 74	Malfunction of CD changer.	If error display does not disappear after 2 seconds error cannot be automatically corrected. No CD will be played until cabinet switch or "power in" is activated.
	Er	71	Error during grip from magazine (left or right).	Equip CD-magazine with tray. Check alignment from magazine to pickup assy and adjust if necessary. Check grip lever for function. Check function of light barriers sGrI and sGrO.
	Er	72	Error during replacing CD in magazine.	Check alignment of magazine to pickup assy and adjust if needed. Check function of grip. Check function of light barriers sGrI and sGrO.
	Er	73	Malfunction during lift drive, playing CD not possible.	Check lift for jamming. Check function and correct adjustment of light barrier sLift and encoder.
	Er	74	Lift cannot synchronize, playing CD not possible.	Check function and adjustment of light barrier sLift and encoder.
	Er	80	Short circuit on wallbox signal wire.	Check wallbox connection.
	Er	81	Malfunction of the audio processor (CB-CENTRALE ES 5.1).	Change IC = TDA 4390 if frequently occurring.
	Er	90	Title display, not functional anymore (three blockings in sequence).	Unjam 112er = no more move possible 112er = no more move possible
	Er	91	Blocking title display while left movement.	
	Er	92	Blocking title display while right movement.	
	Er	93	Blocking title display, left stacker.	
	Er	94	Blocking title display, right stacker.	

Section 2:

NSM Parts Reference Guide

Section 2: NSM Parts Reference Guide

Table of Contents

<u>Subject</u>	<u>Page #'s</u>
ES IV CD Changer Parts Breakdown	26-27
ES V CD Changer Parts Breakdown	28
Speaker Master List	29-33
Fluorescent Lamp Master List	34-39
Lock & Key Master List	40-44
Capacitor Master List	45-47
I.C. Master List	48-50
Resistor Master List	51-53
Transistor Master List	54
Major Components Master List	55-56

**ES IV CD Changer Parts Breakdown
173-470 & 175-980 CD Changers**

Cable Harnesses

<u>Part #</u>	<u>Description</u>		
173-636	Cable Harness	For Lift Assembly	16 Pin
173-639	Cable Harness	For Laser Assembly To Decoder Board	14 Pin
173-641	Cable Harness	For Laser Assembly To Decoder Board	5 Pin
173-644	Trailing Cable	Lift Assembly To Pick-Up Driver	
111-645	Cable Harness	Decoder Board To Adapter Board	8 Pin
173-646	Cable Harness	Pick-Up Driver To Decoder Board	5 Pin
173-647	Cable Harness	Pick-Up Driver To Adaptor Board	12 Pin
173-648	Cable Harness	Pick-Up Driver To Adaptor Board	10 Pin
173-649	Cable Harness	Pick-Up Driver To Adaptor Board	8 Pin
173-740	Cable Harness	Audio Cable - Decoder Board To Adaptor Board	

***Decoder Board* 173-507 & 176-042**

<u>Part #</u>	<u>Description</u>
907-160	I.C. MN 4264
907-161	I.C. SAA 7201
907-162	I.C. MAB 8441 P
907-163	I.C. TDA 7220
907-164	I.C. TDA 1541A
907-453	Capacitor 6800 mfd/ 16 Volt
220-462	Capacitor 2.2 PF/ 50 Volt
907-179	Voltage Regulator 7906
221-572	Voltage Regulator 5 Volt
231-498	Voltage Regulator 7906
250-307	Heat Sink
229-197	Clip To Hold Heat Sink To Voltage Regulator
640-011	Screw For Mounting Decoder Board To CD Changer
690-210	Insulating Washer For Mounting Screw

***Laser Assemblies* 173-551 CDM3 & CDM4/36**

<u>Part #</u>	<u>Description</u>
212-429	Laser Assembly Cover
175-497	Rubber Feet For Bottom Of Laser Assembly
176-341	Bottom Plate For CDM4/36 Laser Assembly
176-357	Mounting Brackets For CDM4/36 Laser Assembly
907-165	I.C. TDA 0372 - Servo Board
907-172	I.C. TDA 5709 - Servo Board
907-173	I.C. 4560 D - Servo Board
907-175	I.C. TDA 5708 - Servo Board
221-332	Transistor BC 337 - Servo Board
221-444	Transistor BD 135 - Servo Board

Lift Assembly 173-607

<u>Part#</u>	<u>Description</u>
173-597	Top Piece For Lift Assembly
	Bottom Piece For Lift Assembly
175-503	Clamp Kit
173-614	Belt Lock
173-606	Gripper Motor
173-577	Left Gripper Pin
173-578	Right Gripper Pin
206-643	Vertical Drive Belt
206-644	Horizontal Drive Belt
231-322	Opto Coupler
173-586	Center Pickup Lever
173-603	White Pin For Center Pickup Lever
726-008	Mounting Pin For Center Pickup Lever
205-801	Spring For Center Pickup Lever
205-807	Spring For Grip Lever

Mechanical Parts For ES IV and ES V CD Changers

<u>Part#</u>	<u>Description</u>
173-491	Left Magazine Assembly
173-499	Right Magazine Assembly
176-395	Box of 10 5" Trays
174-537	Box of 10 3" Trays
174-294	Lower Left Locking Lever
174-295	Lower Right Locking Lever
174-296	Upper Left Locking Lever
174-297	Upper Right Locking Lever
173-947	Magazine Adjusting Post
173-948	Adjusting Screw For Magazine Post
174-809	Right Hinge For View Glass
174-810	Left Hinge For View Glass
174-265	Clip For View Glass
175-428	View Glass For Silver Sky
175-019	View Glass For Silver City
174-275	View Glass For CD Galaxy
174-729	View Glass For Firebird, Fire Country, & Fascination
175-977	View Glass For Performer Grand
174-276	View Glass For Hideaway
175-717	View Glass For Performer Grand II & Performer Classic
176-362	View Glass For FireBird II & Old Fashion Wizard
176-682	View Glass For Performer Wall

coinopmanuals.com
ES V CD Changer Parts Breakdown
175-600 & 176-360 CD Changers

Cable Harnesses

<u>Part #</u>	<u>Description</u>		
176-557	Cable Harness	For Lift Assembly	
206-943	Cable Harness	For Laser Assembly To Decoder Board	15 Pin
206-942	Cable Harness	For Laser Assembly To Decoder Board	4 Pin
175-964	Trailing Cable	Lift Assembly To Pick-Up Driver	14 Pin
176-385	Cable Harness	Pick-Up Driver To Decoder Board	15 Pin

Laser Assembly **176-725 CDM4/53**

Decoder Board **177-231**

<u>Part #</u>	<u>Description</u>
907-160	I.C. MN 4264
907-628	I.C. TDA 8900
907-629	I.C. SAA 7310 GP
907-630	I.C. SAA 7221 GP
907-631	I.C. NJM 5532 DD
907-632	I.C. MC68HC05C8P
220-462	Capacitor 2.2 PF/50 Volt

coinopmanuals.com
NSM Speaker Masterlist

E Model Jukeboxes

Hit E 120

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-177	Tweeter HM 10 = 224-151
2	224-153	Woofers P 245
2	224-154	Midrange HM 30

Century 21

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-141	Tweeter
2	224-145	Woofers P 30

Prestige E 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-153	Woofers P 245
2	224-177	Tweeter HM 10 = 224-151
2	224-152	Midrange P 1521

ES II Model Jukeboxes

City ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-153	Woofers P 245 8 Ohms
4	224-190	Midrange HM 1318 6.5 Ohms
2	224-176	Tweeter KK7 8 Ohms

City II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-216	Woofers
2	224-190	Midrange HM 1318 6.5 Ohms
2	224-171	Midrange P130
2	224-176	Tweeter KK7 8 Ohms

Consul ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-177	Tweeter HM 10 = 224-151
2	224-171	Midrange P130 8 Ohms
2	224-172	Woofers P 245

Festival ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-157	Woofers P 245	6.5 Ohms
2	224-158	Midrange P 1318	8 Ohms
2	224-176	Tweeter KK 7	8 Ohms
2	224-171	Midrange P 130	8 Ohms

Prestige ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-157	Woofers P 245	6.5 Ohms
2	224-158	Midrange P 1318	8 Ohms
2	224-170	Tweeter KK 7	8 Ohms
2	224-171	Midrange P 130	8 Ohms

Prestige II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-199	Woofers P 265	
2	224-214	Tweeter	
2	224-171	Midrange P 130	8 Ohms
2	224-193	Midrange	

ES III Model Jukeboxes

Satellite 200

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-207	Woofers P 265	
2	224-201	Tweeter	4 Ohms
2	224-206	Midrange P135	8 Ohms

240 I

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-201	Tweeter SKK 10	4 Ohms
2	224-202	Passive Radiator P135	
2	224-193	Midrange P 135	8 Ohms
2	224-203	Midrange P 175	
2	224-204	Passive Radiator P 203	
2	224-199	Woofers P265	

ES IV Vinyl Model Jukeboxes [cinonmanuals.com](http://www.cinonmanuals.com)

City IV

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-216	Woofers PMT 245	
2	224-171	Midrange P130	8 Ohms 10 Watts
2	224-176	Tweeter KK 7	8 Ohms 4 Watts

City Combi

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-216	Woofers PMT 245	
2	224-171	Midrange P130	8 Ohms 10 Watts
2	224-176	Tweeter KK 7	8 Ohms 4 Watts

Concert 240

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-220	Woofers P300	4 Ohms
2	224-203	Midrange P175	8 Ohms
4	224-193	Midrange P135	8 Ohms
2	224-201	Tweeter SSK10	4 Ohms

Galaxy 200

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-220	Woofers P300	4 Ohms
2	224-203	Midrange P175	8 Ohms
2	224-193	Midrange P135	8 Ohms
2	224-233	Tweeter SKK 10	4 Ohms

ES IV CD Model Jukeboxes

Silver Sky

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
2	224-220	Woofers PMT 300	4 Ohms
2	224-241	Midrange P175	8 Ohms
2	224-242	Midrange P135	8 Ohms
2	224-233	Tweeter SSK 10	

CD Fire

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
1	224-149	Midrange SP - 3P	8 Ohms

CD FireBird/Country

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	
1	224-149	Midrange SP - 3P	8 Ohms

Fascination

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-243	Woofers PMT 245 4 Ohms
4	224-242	Midrange P 135 8 Ohms
2	224-233	Tweeter SSK 10

Silver City

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-237	Woofers PMT 245
2	224-176	Tweeter KK 7 8 Ohms 4 Watts
2	224-171	Midrange P130 8 Ohms 10 Watts

Performer Grand

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-240	Woofers PMT 300 4 Ohms
2	224-241	Midrange P175 8 Ohms
2	224-242	Midrange P135 8 Ohms
2	224-243	Tweeter SKK 10 Ohms

Performer Grand II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-240	Woofers PMT 300 4 Ohms
2	224-151	Woofers
2	224-241	Midrange P175 8 Ohms
2	224-242	Midrange P135 8 Ohms
2	224-243	Tweeter SKK 10 Ohms

Performer Classic

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-237	Woofers PMT 245 6.5 Ohms
2	224-176	Tweeter KK 7 8 Ohms 4 Watts
2	224-171	Midrange P130 8 Ohms 10 Watts

Old Fashion Wizard

No Speakers Installed

FireBird II

No Speakers Installed

Performer Wall

No Speakers Installed

Nostalgia Gold

coinopmanuals.com

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1		Dual Coil Woofer
2		Midrange

Solid Gold

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-264	Woofer 8 Ohms
2	224-265	Tweeter
2	224-267	Midrange 8 Ohms

ES 5.1 Model Jukeboxes

Digital Thunder

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-264	Woofer 8 Ohms
2	224-265	Tweeter
2	224-267	Midrange 8 Ohms

Digital Thunder Wall

No Speakers Installed

Performer Grand 2000

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-277	Woofer 8 Ohms
2	224-276	Midrange 8 Ohms
2	224-278	Tweeter 8 Ohms

Performer Wall 2000

No Speakers Installed

Emerald Ice

No Speakers Installed

Sapphire/Midnight Sapphire

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	224-277	Woofer 8 Ohms
2	224-262	Midrange 8 Ohms
2	224-288	Tweeter 8 Ohms

Gemfire/Gemstar

No Speakers Installed

NSM Fluorescent Lamp Masterlist

E Model Jukeboxes

Hit E 120

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-033	Fluorescent Lamp 30 Watts	35 3/4" (36")	Lower Cabinet

Century 21

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-033	Fluorescent Lamp 30 Watts	35 3/4" (36")	Lower Cabinet

Prestige E 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-073	Fluorescent Lamp 16 Watts	28 3/4" (29")	Lower Cabinet
1	226-049	Lamp 12 Volt 2 Watts		Credit Unit

ES II Model Jukeboxes

City ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Title Holders
6	226-049	Lamp 12 Volt 2 Watts		Display

Prestige II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Title Holders
6	226-049	Lamp 12 Volt 2 Watts		Speaker Grill

City II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Title Holders
6	226-049	Lamp 12 Volt 2 Watts		Display

Consul ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-033	Fluorescent Lamp 30 Watts	35 3/4" (36")	Cabinet
6	226-049	Lamp 12 Volt 2 Watts		Display

Festival ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-073	Fluorescent Lamp 16 Watts	28 3/4" (29")	Upper Cabinet
1	226-049	Lamp 12 Volt 2 Watts		Display

ES III Model Jukeboxes

Satellite 200

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
40	226-049	Lamp 12 Volt 2 Watts		Surrounds Speakers
1	226-071	Fluorescent Lamp 18 Watts	23 3/4" (24")	Lower Title Holders
1	226-076	Fluorescent Lamp 15 Watts		Upper Title Holders

240 I

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
32	226-049	Lamp 12 Volt 2 Watts		Circular Frame
1	226-073	Fluorescent Lamp 16 Watts	28 3/4" (29")	Cabinet

ES IV Vinyl Model Jukeboxes

City IV

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Title Holders
6	226-049	Lamp 12 Volt 2 Watts		Display & Keyboard

City Combi

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Title Holders
1	226-033	Fluorescent Lamp 30 Watts	35 3/4" (36")	CD T. Holder
	226-049	Lamp 12 Volt 2 Watts		Display

Concert 240

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Lower Cabinet- T.H.
1	226-076	Fluorescent Lamp 15 Watts		Display & Keyboard
18	226-049	Lamp 12 Volt 2 Watts		Side/Lower Speakers

Galaxy 200

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Carriage Rack
1	226-078	Fluorescent Lamp	23 3/4" (24")	Under Trimplate
14	226-049	Lamp 12 Volt 2 Watts		Speaker Grill
10	226-049	Lamp 12 Volt 2 Watts		Bottom of Cabinet

CD Galaxy

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Under Trimplate
2	226-079	Fluorescent Lamp 8 Watts	12"	CD Changer Sides
1	226-074	Fluorescent Lamp 16 Watts	27 3/4" (28")	Title Drum
7	226-049	Lamp 12 Volt 2 Watts		Speakers Grill
1	226-049	Lamp 12 Volt 2 Watts		Flip Button T. Drum

CD Fire

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Side CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
1	226-085	Fluorescent Lamp 15 Watts	17 3/4" (18")	Title Drum I
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks
1	226-049	Lamp 12 Volt 2 Watts		Keyboard
1	226-049	Lamp 12 Volt 2 Watts		Button Assembly

Silver Sky

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 16 Watts	27 3/4" (28")	Under Trimplate
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Title Drum
12	226-049	Lamp 12 Volt 2 Watts		Upper Lighting PCB
12	226-049	Lamp 12 Volt 2 Watts		Lower Lighting PCB

CD FireBird/Country

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly
1	226-049	Lamp 12 Volt 2 Watts		Keyboard Assembly

Fascination

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-079	Fluorescent Lamp 8 Watts	12"	Lower Speaker Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Lid Frame Masks
1	226-074	Fluorescent Lamp 16 Watts	27 3/4" (28")	Under Trimplate

Silver City

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Title Drum
1	226-085	Black Fluorescent Lamp 20 Watts		CD Changer
	226-049	Lamp 12 Volt 2 Watts		

Performer Grand

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
12	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Lower Masks
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Title Drum
2	226-079	Fluorescent Lamp 8 Watts	12"	Sides of CD Changer
1	226-049	Lamp 12 Volt 2 Watts		Dollar Bill Entry
5	226-049	Lamp 12 Volt 2 Watts		Display
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly
8	226-049	Lamp 12 Volt 2 Watts		Speaker Grill

Performer Grand II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-074	Fluorescent Lamp 18 Watts	27 3/4" (28")	Under Lower Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-079	Fluorescent Lamp 8 Watts	12"	Sides of CD Changer
1	226-049	Lamp 12 Volt 2 Watts		Dollar Bill Entry
5	226-049	Lamp 12 Volt 2 Watts		Display
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly
8	226-049	Lamp 12 Volt 2 Watts		Speaker Grill

Performer Classic

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Title Drum
1	226-085	Fluorescent Lamp 15 Watts	20 3/4" (21")	Under Lower Masks
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Sides of CD Changer
1	226-049	Lamp 12 Volt 2 Watts		Dollar Bill Entry
5	226-049	Lamp 12 Volt 2 Watts		Display
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly

FireBird II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly
1	226-049	Lamp 12 Volt 2 Watts		Keyboard Assembly

Old Fashion Wizard

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly
1	226-049	Lamp 12 Volt 2 Watts		Keyboard Assembly

Performer Wall

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
1	226-079	Fluorescent Lamp 8 Watts	12"	Behind CD Changer
2	226-049	Lamp 12 Volt 2 Watts		Button Assembly
1	226-049	Lamp 12 Volt 2 Watts		Keyboard Assembly
1	226-049	Lamp 12 Volt 2 Watts		Running Board Assy

Nostalgia Gold

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	43654	Fluorescent Lamp		Sides Bubbler Tube
2		Fluorescent Lamp		Upper Bubbler Tube

Solid Gold

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
12	226-049	Lamp 12 Volt 2 Watts		Upper Display
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Title Display

ES 5.1 CD Model Jukeboxes

Digital Thunder

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-033	Fluorescent Lamp 30 Watts	35 3/4" (36")	Cabinet
1	226-033	Fluorescent Lamp 30 Watts	35 3/4" (36")	Lid Frame
1	226-072	Fluorescent Lamp 4 Watts	6"	Top Display
1	226-085	Fluorescent Lamp 15 Watts	20 3/4" (21")	Title Display

Digital Thunder Wall

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks

Performer Grand 2000

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-106	Fluorescent Lamp 8 Watts	12"	Sides of CD Changer
1	226-074	Fluorescent Lamp 16 Watts	28"	Under front tube
2	226-105	Fluorescent Lamp 13 Watts		Upper/Lower T.D.
2	226-056	Lamp 12-15v/2w		T.D. pushbutton

Performer Wall 2000

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks

Emerald Ice

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
2	226-072	Fluorescent Lamp 4 Watts	6"	Sides of CD Changer
2	226-072	Fluorescent Lamp 4 Watts	6"	Upper Lamp Masks
2	226-079	Fluorescent Lamp 8 Watts	12"	Title Drum
2	226-075	Fluorescent Lamp 13 Watts	20 3/4" (21")	Side Masks

Sapphire/Midnight Sapphire

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
1	226-086	Fluorescent Lamp 8 Watts	20"	Top of CD Changer
2	226-074	Fluorescent Lamp 16 Watts	28"	Upper and lower T.D.
2	226-049	Lamp 12-15V / 2 Watts		T.D. Push button

Gemfire/Gemstar

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>	<u>Length</u>	<u>Location</u>
4	226-075	Fluorescent Lamp TL13W/33	20"	Front Door
2	226-056	Lamp 12-15v / 2 Watts		Front Cover

E Model Jukeboxes

Hit E 120

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	042-292	Right Cabinet Lock
1	042-293	Left Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Century 21

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	042-277	Left Cabinet Lock
1	042-278	Right Cabinet Lock
	207-309	Spare Cabinet Key #167676
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Prestige E 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	042-390	Left Cabinet Lock
1	042-391	Right Cabinet Lock
	207-309	Spare Cabinet Key #167676
1	207-008	Cash Box Lock For 042-108 Cash Box Door

ES II Model Jukeboxes

City ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

City II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Consul ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	108-141	Right Cabinet Lock
1	108-142	Left Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Festival ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	107-256	Right Cabinet Lock
1	107-257	Left Cabinet Lock
	207-309	Spare Cabinet Key # 167676
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Prestige ES 160

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	108-892	Right Cabinet Lock
1	108-893	Left Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Prestige II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-133	Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

ES III Model Jukeboxes

Satellite 200

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-133	Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

240 I

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-541	Cabinet Lock
	207-309	Spare Cabinet Key # 167676
1	207-008	Cash Box Lock For 042-108 Cash Box Door

ES IV Vinyl Model Jukeboxes

City IV

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

City Combi

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Concert 240

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
2	217-864	Cabinet Lock
1	217-847	Cash Box Lock
	217-992	Spare Key For Cabinet Lock
1	217-847	Cash Box Lock For Cash Box Door

Galaxy 200

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-814	Cabinet Lock
	217-992	Spare Key For Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

CD Galaxy

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-814	Cabinet Lock
	217-992	Spare Key For Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

CD Fire

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	206-676	Cabinet Lock
	206-718	Spare Cabinet Key #587602 CS
	206-719	Spare Cabinet Key #9901

Silver Sky

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-814	Cabinet Lock
	217-992	Spare Key For Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

CD FireBird/Country

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Fascination

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Silver City

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Performer Grand

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-814	Cabinet Lock
	217-992	Spare Key For Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

ES V CD Model Jukeboxes

Performer Grand II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-814	Cabinet Lock
	217-992	Spare Key For Cabinet Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Performer Classic

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	217-133	Cabinet Lock
	217-176	Spare Cabinet Key #2H 0010
1	207-008	Cash Box Lock For 042-108 Cash Box Door

FireBird II

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Old Fashion Wizard

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Performer Wall

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Solid Gold

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

ES 5.1 CD Model Jukeboxes

Digital Thunder

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock
1	207-008	Cash Box Lock For 042-108 Ah Box Door

Digital Thunder Wall

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Performer Grand 2000

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock
1	207-008	Cash Box Lock For 042-108 Cash Box Door

Performer Wall 2000

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Emerald Ice

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare Key For Ace Lock

Sapphire/Midnight Sapphire

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare key for Ace Lock

Gemfire/Gemstar

<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	17X-4000	Ace Lock Kit
	17X-3975	Spare key for Ace Lock

Capacitor Master List

<u>Part #</u>	<u>Description</u>
220-065	Capacitor 220 Mfd/63 V
220-077	Capacitor 200 Mfd/250 V
220-110	Capacitor MKT 01Pf/400 V
220-113	Capacitor .33Mfd/400 V
220-142	Capacitor .1N/250 V
220-143	Capacitor 22 Mfd/63 V
220-146	Capacitor 15 Mfd/ 40 V
220-151	Capacitor 220 Mfd/50 V
220-157	Capacitor 2200 Mfd/40 V
220-158	Capacitor 4700 Mfd/40 V
220-159	Capacitor 4700 Mfd/63 V
220-160	Capacitor 100 Mfd/10 V
220-161	Capacitor 220 Mfd/40 V
220-162	Capacitor 10 Mfd/63 V
220-164	Capacitor 220 Mfd/63 V
220-165	Capacitor 470 Mfd/40 V
220-166	Capacitor 6800 Pf
220-167	Capacitor 1500 Pfd/100 V
220-173	Capacitor .068 mfd/250v
220-175	Capacitor .01 Mfd/250 V
220-176	Capacitor .22/100 V
220-177	Capacitor 1 Pf/100 V
220-181	Capacitor 47 mfd/Ceramic
220-185	Capacitor 270Pf/400 V
220-197	Capacitor 68/35 V
220-198	Capacitor U68/35 V
220-201	Capacitor 33 Mfd/10 V
220-206	Capacitor 220 Mfd/40 V
220-207	Capacitor 4700 Pf/63 V
220-210	Capacitor 33 Mfd/63 V
220-218	Capacitor 10 Mfd/160 V
220-220	Capacitor 4700 Pf/160 V
220-231	Capacitor
220-233	Capacitor 47 Mfd/35 V
220-239	Capacitor 47 Mfd/100 V
220-241	Capacitor 560Pf/160 V
220-242	Capacitor .68 Mfd
220-243	Capacitor 100 Mfd/3 V
220-247	Capacitor 4 Mfd/63 V
220-248	Capacitor 220 Mfd/ 63 V
220-249	Capacitor 1 Mfd/63 V
220-250	Capacitor 100 Mfd/25 V
220-253	Capacitor 1000 Mfd/25 V

Capacitor Master List (Cont.)

<u>Part #</u>	<u>Description</u>
220-254	Capacitor .47 Mfd/100 V
220-255	Capacitor 3300 Mfd/160 V
220-256	Capacitor 6800 Mfd/160 V
220-257	Capacitor 1500 Mfd/100 V
220-261	Capacitor 2200 Mfd/63 V
220-263	Capacitor 1 NF/ Ceramic
220-265	Capacitor .022 Mfd/32 V
220-266	Capacitor
220-274	Capacitor 330 Pf
220-275	Capacitor 4700 Mfd/50 V
220-281	Capacitor 1000 Mfd/25 V
220-283	Capacitor 2200 Mfd/25 V
220-284	Capacitor 3300 Mfd/35 V
220-285	Capacitor 3300 Mfd/40 V
220-286	Capacitor 4700 Mfd/25 V
220-287	Capacitor 4700 Mfd/40 V
220-289	Capacitor 1000 Mfd/40 V
220-290	Capacitor 1000 Mfd/63 V
220-291	Capacitor 2200 Mfd/63 V
220-292	Capacitor
220-307	Capacitor 3300 Mfd/40 V
220-317	Capacitor
220-330	Capacitor .68 Mfd/63 V
220-332	Capacitor 033 Nf
220-334	Capacitor .1 Mfd/63 V
220-335	Capacitor .22 Mfd/35 V
220-339	Capacitor 4700 Mfd/35 V
220-341	Capacitor 4700 Mfd/5 V
220-342	Capacitor
220-344	Capacitor 22 Nf
220-365	Capacitor 120 Pf
220-388	Capacitor 3300 Pf
220-389	Capacitor 47 Mfd/25 V
220-390	Capacitor 100 Mfd/40 V
220-392	Capacitor 1000 Mfd/63 V
220-393	Capacitor 4700 Mfd/25 V
220-394	Capacitor 4700 mfd/50 V
220-396	Capacitor 4700 Mfd/63 V
220-400	Capacitor 1500 Pf
220-401	Capacitor 3300 Pf
220-402	Capacitor 6800 Pf
220-425	Capacitor
220-435	Capacitor 4700 Pf

Capacitor Master List (Cont.)

<u>Part #</u>	<u>Description</u>
220-436	Capacitor 4700 Pf/63 V
220-439	Capacitor 4700 Mfd/100 V
220-462	Capacitor 2.2 Pf/50 V
220-481	Capacitor
220-493	Capacitor
220-496	Capacitor
220-497	Capacitor
220-508	Capacitor
220-534	Capacitor
220-535	Capacitor
907-453	Capacitor 68 Uf/16 V

coinopmanuals.com
I.C. Master List

<u>Part #</u>	<u>Description</u>
107-144	I.C. SN 74 LS 139 N
107-145	I.C. 74 LS 04 = 221-652
107-497	I.C. 74 LS 74
107-849	I.C. 74 LS 00
107-949	I.C. E-Prom Set For 106-590 ES II CCU
108-480	I.C. E-Prom For ES II CCU
108-485	I.C. E-Prom For ES II CCU
111-014	I.C. E-Prom For 240 I CCU
170-270	I.C. E-Prom For ES II CCU
170-403	I.C. E-Prom For 240 I CCU
170-832	I.C. E-Prom For Satellite 200
170-833	I.C. E-Prom For Satellite 200
171-660	I.C. E-Prom For Concert 240 CCU
171-661	I.C. E-Prom For Concert 240 CCU
172-071	I.C. E-Prom For 171-651 CCU
173-299	I.C. E-Prom Modification For ES II CCU
173-314	I.C. E-Prom For City Combi CCU
173-699	I.C. E-Prom For Galaxy CD
175-102	I.C. E-Prom For ES IV CCU (#174-873)
176-396	I.C. Memory For ES V CCU (#176-328)
176-397	I.C. Memory For ES V CCU (#176-328)
221-388	I.C. 555 Timer
221-417	I.C. 4007
221-477	I.C. UA 723
221-478	I.C. 4081
221-480	I.C. TMS 1000 For "E" Model CCU
221-493	I.C. 3082
221-497	I.C. ULN 2003
221-525	I.C. 74 LS503
221-541	I.C. F 4049 BC
221-598	I.C. SN 74 LS 374 N
221-651	I.C. 75468
221-652	I.C. 74 LS 04
221-653	I.C. 74 LS 139
221-654	I.C. 74 LS 259
221-655	I.C. HEF 4066BP
221-660	I.C. 7445
221-663	I.C. 74 LS 241
221-665	I.C. 74 LS 00
221-671	I.C. 74 LS 02
221-672	I.C. 74 LS 08
221-703	I.C. 74 LS 367
221-705	I.C. 74 LS 74A
221-714	I.C. 74 LS 32
221-759	I.C. 74 LS 122

coinopmanuals.com
I.C. Master List (Cont.)

<u>Part #</u>	<u>Description</u>
221-763	I.C. 4021
221-771	I.C. 4094
221-792	I.C. 74 LS 123
221-796	I.C. 74 LS 138
221-808	I.C. HEF 4013 BP
221-810	I.C. HEF 4050 BP
221-813	I.C. LM 339
221-852	I.C. 74 LS 151
221-893	I.C. CPU 6503
221-894	I.C. 6532
221-895	I.C. ER 1400
221-993	I.C. LM 556
221-999	I.C. 74 LS 11
231-054	I.C. TD 0124
231-059	I.C. 6502-CPU
231-061	I.C. 6522P
231-078	I.C. ULN 2803
231-088	I.C. U 351
231-089	I.C. TDA 4290
231-120	I.C. HEF 4016B
231-143	I.C. U353M
231-236	I.C. TDA 1029
231-244	I.C. MC 3456
231-269	I.C. MC 14051
231-303	I.C. Linear L298
231-304	I.C. Linear
231-330	I.C.
231-339	I.C. 74HCT4053
231-355	I.C. TL 074
231-386	I.C. Battery RAM For DataPrinter
231-409	I.C. MAB T018 - I.C. 8 For Pick-Up Driver
231-412	I.C. R65 C02 - I.C. #1 Microprocessor For ES IV/V CCU
231-413	I.C. R65 C02 N.L.A. = 231-412
231-414	I.C. R65 C22 -I.C. #4 Microprocessor For ES IV/V CCU
231-415	I.C. R65 C22 N.L.A. = 231-414
231-422	I.C. Battery RAM
231-423	I.C. Battery RAM N.L.A. = 231-414
231-431	I.C. Linear
231-443	I.C.
231-462	I.C. P65c52 I.C. Microprocessor for ES V CCU
231-470	I.C. TMS 27C512
231-488	I.C.

I.C. Master List (Cont.)

Part #	Description
231-497	I.C. Battery RAM For ES IV CCU
231-514	I.C. Digital Audio
231-540	I.C. TDA 4390
231-554	I.C.
231-616	I.C.
231-617	I.C.
231-632	I.C.
231-633	I.C.
231-692	I.C.-TL072C
231-775	I.C.
231-791	I.C. Micro Computer
231-792	I.C.
231-794	I.C. Motor Driver
231-804	I.C.
231-805	I.C.
231-807	I.C.
231-808	I.C.
231-809	I.C.
703-4320	I.C. Socket 20 Pin
703-4324	I.C. Socket 24 Pin
703-4328	I.C. Socket 28 Pin
703-4340	I.C. Socket 40 Pin
901-016	I.C. SDA 2008
905-150	I.C. TDA 4050
905-151	I.C. CD4538 For ES III Receiver
906-690	I.C. PIC 16054 For ES III/IV Receiver
907-160	I.C. MN 4264 For ES IV Decoder Board
907-161	I.C. SAA 7201 For ES IV Decoder Board
907-162	I.C. MAB 8441P For ES IV Decoder Board
907-163	I.C. TDA 7220 For ES IV Decoder Board
907-164	I.C. TDA 1541 A For ES IV Decoder Board
907-165	I.C. TDA 0372 - CDM3 Laser Assy. Servo Board
907-172	I.C. TDA 5709 - CDM3 Laser Assy. Servo Board
907-173	I.C. NSW 4560D - CDM3 Laser Assy. Servo Board
907-175	I.C. TDA 5708 - CDM3 Laser Assy. Servo Board
907-176	I.C. LM 833N
907-354	I.C. 145-687 For ES IV/V Transmitter
907-628	I.C. TDA 8900 ESV-Decoder Board
907-629	I.C. SAA 7310 GP-ESV-Decoder Board
907-630	I.C. SAA 7321 GP-ESV-Decoder Board
907-631	I.C. NJM 5532 DD ESV-Decoder Board
907-632	I.C. MC68HCOSC8P-ESV-Decoder Board
907-633	907-885 I.C. Replaces 906-690

<u>Part #</u>	<u>Description</u>		
221-009	Resistor	1 Meg	1/4 Watt
221-017	Resistor	57 K Ohm	1/4 Watt
221-029	Resistor	1K Ohm	1/4 Watt
221-030	Resistor	1.5 K Ohm	1/4 Watt
221-031	Resistor	2.2 K Ohm	1/4 Watt
221-032	Resistor	2.7 K Ohm	1/4 Watt
221-033	Resistor	3.3 K Ohm	1/4 Watt
221-034	Resistor	4.7 K Ohm	1/4 Watt
221-035	Resistor	10 K Ohm	1/4 Watt
221-036	Resistor	15 K Ohm	1/4 Watt
221-037	Resistor	33 K Ohm	1/4 Watt
221-038	Resistor	47 K Ohm	1/4 Watt
221-039	Resistor	56 K Ohm	1/4 Watt
221-040	Resistor	680 K Ohm	1/4 Watt
221-041	Resistor	820 K Ohm	1/4 Watt
221-044	Resistor	82 K Ohm	1/4 Watt
221-045	Resistor	150 K Ohm	1/4 Watt
221-046	Resistor	120 K Ohm	1/4 Watt
221-048	Resistor	100 K Ohm	1/4 Watt
221-049	Resistor	470K Ohm	1/4 Watt
221-050	Resistor Wire Wound	5 Ohm	5 Watt
221-052	Resistor	2.7K Ohm	1 Watt
221-053	Resistor Wire Wound	270 Ohm	
221-094	Resistor	2.7 K Ohm	1/4 Watt
221-095	Resistor	6.8 K Ohm	1/4 Watt
221-096	Resistor	56 Ohm	1/4 Watt
221-097	Resistor	82 Ohm	1/4 Watt
221-098	Resistor	390 Ohm	1/4 Watt
221-099	Resistor	470 Ohm	1/4 Watt
221-100	Resistor	680 Ohm	1/4 Watt
221-161	Resistor	47 Ohms	1/4 Watt
221-169	Resistor Wire Wound	10 Ohm	1 Watt
221-172	Resistor	8.2 K Ohm	1/2 Watt
221-180	Resistor	3.9 K Ohm	1/2 Watt
221-182	Resistor	220 Ohm	1/2 Watt
221-185	Resistor	18 Ohm	2 Watt
221-189	Resistor	680 Ohm	1/2 Watt
221-191	Resistor	560 Ohm	1/4 Watt
221-193	Resistor	6.8K Ohm	1 Watt
221-209	Resistor	120 Ohm	1/2 Watt
221-210	Resistor	1.5 K Ohm	1/2 Watt 500 Ohm 1/2 Watt
221-218	Resistor	180 Ohm	9 Watt
221-230	Resistor	470 Ohm	1 Watt
221-246	Resistor	1 K Ohm	1 Watt

resnopmanuals.com)
Resistor Master List (Cont.)

<u>Part #</u>	<u>Description</u>		
221-273	Resistor	1 K Ohm	1/2 Watt
221-274	Resistor	1. 5 K Ohm	1/2 Watt
221-275	Resistor	22 K Ohm	
221-276	Resistor	470 Ohm	
221-278	Trimmer Pot	10 K Ohm	
221-279	Trimmer Pot	250 K Ohm	
221-280	Trimmer Pot	25 K Ohm	
221-281	Resistor	1.5 K Ohm	1/2 Watt
221-293	Resistor	82 K Ohm	1/3 Watt
221-305	Trimmer Pot	2.2K Ohm	1 Watt
221-323	Slide Pot	100 K For E/ES II Volume Control	
221-362	Resistor Wire Wound	220 Ohm	4 Watt
221-395	Trimmer Pot	10 K Ohm	
221-397	Resistor	4.7 K Ohm	1/2 Watt
221-407	Trimmer Pot	50 K Ohm	
221-414	Trimmer Pot	100 K Ohm	1 Watt
221-502	Trimmer Pot	For 107-424 Pre-Amp	
221-581	Resistor Array	4.7K Ohm	
221-582	Trimmer Pot	100 K	1 Watt for 107-424 Pre-Amp
221-583	Trimmer Pot	2.2 K	1 Watt for 107-424 Pre-Amp
221-587	Resistor Array	2.2 K Ohm	
221-588	Resistor Array	220 K Ohm	
221-600	Resistor	100 Ohm	1/4 Watt
221-601	Resistor	27 K Ohm	1/4 Watt
221-603	Resistor	12 K OHM	1/4 Watt
221-604	Resistor	22 K OHM	1/4 Watt
221-605	Resistor	18 K Ohm	1/4 Watt
221-606	Resistor	47 K Ohm	1/4 Watt
221-609	Resistor	220 K Ohm	1/4 Watt
221-611	Resistor	10 K Ohm	1/4 Watt
221-614	Resistor	3.3 K Ohm	1/4 Watt
221-620	Resistor	22 Ohm	1/4 Watt
221-622	Resistor	820 Ohm	1/4 Watt
221-623	Resistor	39 K Ohm	1/4 Watt
221-624	Resistor	220 Ohm	1/4 Watt
221-625	Resistor	5.6 K Ohm	1/4 Watt
221-627	Resistor	1.2 K Ohm	1/4 Watt
221-628	Resistor	3.9 K Ohm	1/4 Watt
221-629	Resistor	68 K Ohm	1/4 Watt
221-630	Resistor	18 Ohm	4 Watt
221-637	Resistor	150 Ohm	1/4 Watt
221-638	Resistor	270 Ohm	1/3 Watt
221-646	Resistor	22 Ohm	5 Watt
221-668	Resistor	18 Ohm	1 Watt

Component Master List (Cont.)

<u>Part #</u>	<u>Description</u>		
221-679	Resistor	1.8 K Ohm	1/2 Watt
221-682	Resistor	1 Ohm	1/2 Watt
221-692	Resistor	2 Ohm	1 Watt
221-695	Resistor Wire Wound	220 Ohm	1 Watt
221-741	Resistor	1 K Ohm	1 Watt
221-753	Resistor	330 Ohm	1 Watt
221-865	Resistor	22 Ohm	
221-905	Resistor	430 Ohm	1/4 Watt
221-985	Resistor	220 Ohm	1 Watt
231-086	Trimmer Pot	10 K Ohm	
231-097	Slide Pot	10 K Ohm -170-282 Volume Control	
231-127	Resistor	3.9 K	2 Watt
231-130	Resistor	4.7 Meg	1/4 Watt
231-145	Resistor	2.2 Ohm	1.5 Watt
231-195	Resistor		
231-214	Trimmer Pot	25 K Ohm	
231-232	Resistor Wire Wound	6.8 K Ohm	1 Watt
231-233	Trimmer POT	1 Meg	
231-234	Trimmer POT	2.5 Meg	
231-237	Resistor Wire Wound	3.9 K/ 1 Watt	
231-700	Resistor		
231-712	Resistor		

coinopmanuals.com
Transistor Master List

<u>Part #</u>	<u>Description</u>
221-214	Transistor BC 140-10
221-217	Transistor BC 109B
221-249	Transistor BC 550
221-283	Transistor BC 557
221-290	Transistor BD 241 B
221-292	Transistor BD 244
221-317	Transistor BC 327-16
221-321	Transistor BC 338
221-332	Transistor BC 337-16
221-444	Transistor BD 135
221-459	Transistor BC 556 B
221-485	Transistor BC 546 B
221-488	Transistor BD 139
221-489	Transistor TIP 141
221-490	Transistor TIP 146
221-492	Transistor BC 517 B
221-494	Transistor TIP 3055
221-495	Photo Transistor For 172-690 Opto Scan
221-648	Photo Transistor For Coin Channels
221-681	Transistor BC 516
221-757	Transistor BC 547B
221-777	Transistor BD 679
221-883	Transistor BD 239 B
221-886	Transistor BDW 83 C
221-902	Transistor BDW 84 C
231-150	Transistor TIP 130
231-201	Transistor BD 136
231-240	Transistor BC 636
231-693	Transistor
231-694	Transistor
231-695	Mosfet Transistor 2SJ201
231-696	Mosfet Transistor 2SK1530
231-790	Transistor
904-949	Transistor BC 640 For I.R. Remotes

Major Components Master List

NSM Jukebox Component Listing-Vinyl Jukeboxes

MODEL	CCU	E-PROM	CENTRALE	CARRIAGE	AMP	DISPLAY	T. DISPLAY
<i>Technology: ES</i>							
CITY ES	108-913	109-286/109-287	109-830	107-510		106-668	
PRESTIGE ES (Chrome)	108-913	109-286/109-287	109-830	107-510		106-668	
CONSUL CLASSIC	106-590	107-949	106-730	107-510		106-668	
<i>Technology: ES II</i>							
CITY ES 160	108-913	109-286/109-287	109-830	107-510		106-668	
CITY II	171-609	109-286/109-287	109-830	171-406		106-668	
CONSUL ES 160	106-590	107-949	106-730	107-510		106-668	
FESTIVAL ES 160	106-590	107-949	106-730	107-510		106-668	
PRESTIGE ES 160	108-913	109-286/109-287	109-830	107-510		106-668	
PRESTIGE ES II (Lights)	171-609	109-286/109-287	171-380	171-406		106-668	
SOUNDMASTER	108-189	109-286/109-287	108-453			109-267	
HIDEAWAY			103-954	106-610	103-615		
SOUNDMASTER COMPACT	108-189	109-286/109-287	109-830	171-406		109-267	
** PRODUCED W/ BOTH	106-590		106-730				
	106-730		109-830				
<i>Technology: ES III</i>							
240 I	170-160	170-403/111-014	170-168	170-333	170-161	170-125	
SATELLITE 200	170-830		170-843	170-333	170-161	170-651	
<i>Technology: ES IV Vinyl</i>							
CONCERT 240 II/III	171-651	172-071	171-741	171-226	171-702	171-652	
GALAXY 200	171-651	172-071	171-741	171-226	171-702	171-964	
CITY IV/ SOUND	171-651	172-071	171-741	171-226	171-702	171-964	

NSM Jukebox Component Listing-CD Jukeboxes

MODEL	CCU	E-PROM	CENTRALE	CHANGER	AMP	DISPLAY	T. DISPLAY
<i>Technology: ES IV CD</i>							
CITY IV CD COMBO	173-268	173-314	173-270	171-226	171-702	171-964	
GALAXY CD	173-663	175-102 V08	173-666	173-470	171-702	173-664	173-416
CD FIRE	173-663	175-102 V08	173-666	173-470	171-702	173-664	173-416
SILVER SKY	174-873	175-102 V08	173-666	173-470	171-702	173-664	174-710
SILVER CITY	174-873	175-102 V08	173-666	173-470	171-702	173-664	174-710
FIREBIRD	174-873	175-102 V08	173-666	173-470	171-702	173-664	174-710
FIRE COUNTRY	174-873	175-102 V08	173-666	173-470	171-702	173-664	174-710
PERFORMER GRAND I	174-873	175-102 V08	173-666	175-980	171-702	173-664	174-710
FASCINATION	174-873	175-102 V08	173-666	173-470	171-702	173-664	174-710
<i>Technology: ES V</i>							
PERFORMER GRAND II	176-328	176-396 V09	176-327	175-600	171-702	173-664	174-710
FIREBIRD II	176-328	176-396 V09	176-327	176-360	171-702	173-664	174-710
OLD FASHION WIZARD	176-328	176-396 V09	176-327	176-360	171-702	173-664	174-710
PERFORMER CLASSIC	176-328	176-396 V09	176-327	175-600	171-702	173-664	174-710
PERFORMER WALL	176-328	176-396 V09	176-327	176-360	171-702	173-664	174-710
NOSTALGIA GOLD	176-328	176-396 V09	176-327	176-360	171-702		
SOLID GOLD	176-328	178-238 V09	177-437	175-600		177-400	176-730
<i>Technology: ES V.1</i>							
DIGITAL THUNDER FLOOR	178-239	178-238 V0106	177-437	140-100		177-400	177-914
DIGITAL THUNDER WALL	178-239	178-238 V0106	177-437	140-100		177-400	177-914
PERFORMER GRAND 2000	178-239	178-238 V0106	177-437	140-100		177-400	177-914
PERFORMER WALL 2000	178-239	178-238 V0106	177-437	140-100		177-400	177-914
EMERALD ICE	178-239	178-238 V0106	177-437	140-100		177-400	177-914
SAPPHIRE/MIDNIGHT SAPP	178-239	178-238 V0106	178-973	179-240		177-400	179-200
GEMFIRE/GEMSTAR	178-239	178-238 V0106	178-973	179-240		177-400	179-540