



PROGRAMMING GUIDE



PHONOGRAPHS

FESTIVAL • PRESTIGE • CONSUL CLASSIC

»ES« and »ES II« TECHNOLOGY

CAUTION!

All NSM electronic phonographs ES and ES II are programmed by the factory with the code number of the phonograph at "000" and the code number of service memory "00". This code is needed to enter the "P5" program (cash data) or to change the pricing program (C0 thru CE) on all models starting with the Prestige ES 160 II. Visual identification is made by checking the control and credit unit. The ES II has a row of cooling holes drilled along the top and bottom sides.

On opening the phonograph lid, the display goes to "PP". Pressing the "0" button gives us a display of "CE". This is the computer's way of asking for identification. At this point you will press "00000" followed by the "finger button" to enter the code. The display will then go back to "PP" provided the entered code is correct. If you have changed the code number in the "CE" step, then the new code you entered is the one you MUST remember and use in the above step. If you forget the code you will be denied entry to all of the "C" (price change sections) and the "P5" (bookkeeping step).

The above procedure is NOT necessary to enter any of the "P" programs, with the exception of the "P5" program.

RETURN TO NORMAL PROGRAM - "P1"

Push "1", the finger button; returns the box to normal play, allowing selections and normal operation with lid raised.

RESET POPULARITY METERS - "P2"

Push "2", then the finger button; resets the information in the popularity memory to zero (0), including the "Hit Parade".

POPULARITY READ OUT - "P3"

Push "3", then the finger button, display shows the last two (2) digits of the LEAST played record on the phonograph and the number of plays up to 99. Each time we press the finger button again in succession, we will see the next LEAST played record and number of plays. If we press the finger button 80 times, we will get the information for all 80 records on the machine from the LEAST played to the MOST played. Only the last two (2) digits are shown for the record indicated. This is because the popularity is a combination of "A" and "B" sides of the records. So the number of plays shown is the total for both sides of the record.

"P4" SPARE PROGRAM

"P5" READ CASH RECEIPTS Press "5" and the finger button:

- display shows total cash taken in by the phonograph. This figure is a continual running total;
- Press the finger button a second time - no instruction light - shows total number of nickle pulses from channels
- Press the finger button a third time - total "A" side plays are shown on the display
- Press the finger button a fourth time - total "B" side plays are shown on the display
- Press the finger button a fifth time - total "Special" plays are shown. "Special" plays is an optional key switch (part-no 107312) that enables you to give "special" bonus plays on the highest price class when the key is turned on. (see program "C3")

"P6" MAINTENANCE PROGRAM (ALL) Press "6" and the finger button.

This puts the box into "permanent operation maintenance program". This means the phonograph will play every record in the phonograph in rotation, both sides, and will continue to do so until the program is cleared by closing the lid and then pushing the "C" button.

"P7" MAINTENANCE PROGRAM (SELECTIVE) Press "7" and the finger button.

This puts the box into "controlled maintenance program". This means the record number 100 will play again and again. You can select other records so that they will play over and over also. This is done by: put credits on the phonograph, push "7", press the finger button, then press the number "1", press the finger button again and then select the records wanted. It will play the selected records and the number 100 over and over until cleared. You clear it by pushing the number "1", the finger button and "C" in succession.

"P8" CREDIT CANCEL Press "8" and the finger button.

This cancels all credits on the machine.

"P9" SPARE PROGRAM

PLEASE TURN OVER!

Up until this time we have been using informative programs. We cannot change them. Now we will go into the "C" programs where we can change the information. Unlike the "P" program section where we can go into any program at random, these MUST be done in succession. "C 0" thru "C 8". In this section we will use the finger button for two (2) purposes; to advance to the next step and to write in our changes. The "hit" button is used to convert the symbol, such as "C 0" to the information contained therein, such as "25 = 2 plays".

"C 0" LOWEST PRICE Press "0" - the display will show "C 0".

This is the lowest price class. We push the "hit" button and the display changes to "0 2 5 2" or 25¢ = 2 plays. If we want to change it to one (1) play for a quarter, we will push "0 2 5 0 1", and then the finger button to write it in. You then push the finger button again to advance to "C 1".

"C 1" MEDIUM PRICE This is the medium price class.

You push the "hit" button and should see "0 5 0 5" or 50¢ = 5 plays. If you want to change it you press "0 5 0 0 3" and push the finger button to write it in. This sets the middle price at 50¢ = 3 plays. You press the finger button again and the display shows "C 2".

"C 2" HIGH PRICE This is the upper price class, in our case the dollar (\$).

You press the "hit" button and the display might show "1 0 0 1 1" or 11 Plays = \$1.00, four (4) quarters, two (2) halves, etc. To change it we would push: "1 0 0 0 7", press the finger button to write it in. We have set the phonograph at 7 plays for a dollar (\$). From the previous steps, we have set the phonograph at: 25¢ = 1 play, 50¢ = 3 plays and \$1.00 = 7 plays. We again press the finger button and go to step "C 3".

"C 3" SPECIAL PLAYS *

We press the "hit" button and the display will show "0 0 0 0"; this step is used to set the "special" plays explained above in paragraph "P 5". Therefore, it is only used if we have that option. We press the finger button again and advance to "C 4".

* In the "C 3" step, if we leave it on "0 0 0 0" and utilize the key switch, when the switch is turned on the display will light up with the word "FREE", therefore putting the phonograph on "free play". ON ES II MODELS ONLY.

In the following paragraphs, on "C 4" thru "C 7", we will be accomplishing two things at each step. The first three digits we punch will assign a particular coin, such as the nickel, dime, quarter or half dollar, to a particular slot in the black coin channel assembly, mounted under the coin rejector. For our purposes, we will only discuss the standard rejector used in our equipment, the coin acceptor model No 850 N-16. The second two digits we punch in on this step will tell the computer what value to assign to each coin so that our total money meter will add properly. Since our coin rejector will handle four coins, we will set all of the values as a multiple of the smallest coin, in our case the nickel.

"C 4" COIN CHANNEL 25 ¢

As the display reads "C 4", we push the "hit" button to see what data is contained at "C 4". We should read "0 2 5 5"; this means slot "C 4" is the quarter and a quarter is five (5) nickels. If it reads something else, we push "0 2 5 0 5" and push the finger button to write it in. Push the finger button again and we advance to "C 5".

"C 5" COIN CHANNEL 50 ¢

We push the "hit" button and should read "0 5 0 1 0" or channel C 5 is for the half dollar and a half dollar is ten nickels. Again, if we do not read this, we would press: "0 5 0 1 0" and the finger button to write it in. This is the only programming change we will have to make when we receive the new dollar coin rejectors. Since they eliminate the half dollar and use the dollar coin in its place, we will just re-program this channel to: "1 0 0 2 0", telling the computer that channel C 5 is now a dollar coin and that a dollar is 20 nickels. Press the finger button again and we advance to step "C 6".

"C 6" COIN CHANNEL 10 ¢

Press the "hit" button and we should read "0 1 0 2" saying channel C 6 is a dime which is 2 nickels. If incorrect, you re-program, remembering you must have a number in all five (5) spaces or in this case: 0 1 0 0 2. Press the finger button to write it in and then press the finger button again to advance to "C 7".

"C 7" COIN CHANNEL 5 ¢

Press the "hit" button; display should read: "0 0 5 1", showing C 7 is the base coin, the nickel and the nickel is 1 x 5 on the money meter. The free play or credit button is wired in parallel to this channel which is why you must push it five times to get credits. Press the finger button again to advance to step "C 8".

"C 8" a) This is a spare program on the ES models.

b) On the ES II models, this is the bill verifier channel. This program should be set at: "1 0 0 2 0" or 20 nickels equals \$1.00.

Press the finger button to advance to "C 9".

"C 9" TYPE OF BOX

Press the "hit" button and the display should read: "8 0 8 0". The first "8 0" shows that this phonograph is designed for 80 records; 160 selections. The second "8 0" indicates we are using all 80 record slots. If we wish to, we can eliminate spaces one at a time by changing the second "8 0" to "7 9" for example. If we do so, we eliminate from space number 179 down, when someone attempts to play that record they will get a "C"; correct symbol on the display. In normal use we will set this program at "0 8 0 8 0". Press the finger button to advance to "C E".

"C E" CODE

Press the "hit" button. This program is for entering the code discussed at the start under CAUTION. Press the finger button and you will advance to the "C R" program.

"C R" Press the "Hit" button - five (5) digits will appear.

a) the three (3) left digits determine the interval for the random play of a "Hit Parade" song based on 15 minute intervals. For example, if set at "0 0 0" = no automatic play. "0 0 1" = every 15 minutes; "0 0 2" = every 30 minutes; "0 0 7" = every 105 minutes ("0 0 7" is the MAXIMUM setting)

b) the last two (2) digits show the number of credits which will be given for ANY inserted coin if the display shows "ALL" which means the computer is not or cannot hold a program correctly. The maximum setting is: 0 9 = 9 credits. If this situation develops and 0 9 is programmed in this step, a nickel will give 9 credits, a quarter will give 9 credits, etc. If the maximum setting is exceeded, the phonograph will be out of order. The display will show: "ERR 1".

To change the above settings, the values required can be entered with the selector buttons and stored by pressing the finger button. ALL five (5) digits must be programmed at the same time.

When pressing the finger button again, the service program starts from the beginning - the display will show: "C 0".

When opening the cabinet lid, automatic transfer to the service programs will take place. (PP shown)

Line	Selecting		Setting		
	Program Steps	Button	Display	Read Out	s.paragr.
1	Service program, zero position		PP	automatically by lid switch in the cabinet when lid raised	A
2	Identification	0	CE	button 0 + 4 digit phono code = electr. key	A
3	After setting the electronic key number		PP	All C - programs can be changed and P - 5 data can be read out	A
4	Return to box program	1	P1	button	B
5	Record popularity reset	2	P2	button	C
6	Record popularity reading out	3	P3	button	C
7	Transfer to service memory	4	P4	button	D
8	Total cash	* 5	P5	1x button display	E
9	Coin pulses	* 5	P5	2x button no display	E
10	Total A-side plays	* 5	P5	3x button display	E
11	Total B-side plays	* 5	P5	4x button display	E
12	Special plays or Free plays	* 5	P5	5x button display	E
13	Test program, permanent operation	6	P6	button	F
14	Test program, control	7	P7	button	G
15	Credit cancel	8	P8	button	H
16	Lowest price and number of credits	0	C0	button 3 figures 2 figures button	J
17	Medium price and number of credits		C1	button 3 figures 2 figures button	J
18	Highest price and number of credits		C2	button 3 figures 2 figures button	J
19	Special plays and number of credits		C3	button 3 figures 2 figures button	J
20	Coin channel C 4, coin assign. and number of pulses		C4	button 3 figures 2 figures button	K
21	Coin channel C 5, coin assign. and number of pulses		C5	button 3 figures 2 figures button	K
22	Coin channel C 6, coin assign. and number of pulses		C6	button 3 figures 2 figures button	K
23	Coin channel C 7, coin assign. and number of pulses		C7	button 3 figures 2 figures button	K
24	Bill verifier, value assign. and number of pulses		C8	button 3 figures 2 figures button	K
25	Type of box: 120 = 060 160 = 080 eff. number of records in the box		C9	button 3 figures 2 figures button	L
26	Code number of phonograph } el. key code number of service memory } number		CE	change 3 figures 2 figures button	M
27	Cycle-time for random play number of credits- ALL -		Gr	button 3 figures 2 figures button	N

With the service-programs P1 thru P8 and C0, the return to the zero position of the service Program (display = PP -) is obtained, when pressing down the button .

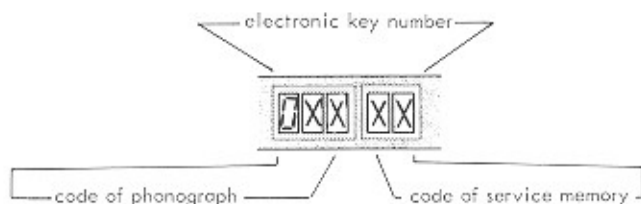
With the service-programs C1 thru C9 and CE, pressing down of button will result in the cancelling of, and the possibility of repeating a setting not registered by the button . Pressing down twice of button results in return to the zero position of the Service-program (display = PP -).

* electronically locked

IMPORTANT!

All NSM - „electronic“ -phonographs E S 160/120 are programmed by the factory with the code number of phonograph 0 0 0 and the code number of service memory 0 0 . This code is needed to enter the P-5 program (cash data) or to change the pricing program (C 0 thru C E).

After setting any code number of phonograph between 001 and 099 and any code memory between 01 and 99 (line 26) these two code numbers together will be, only known to you, the electronic secret-key number. The data of the phonograph will be protected against unauthorized access, because they are only accessible after identification - by setting this code number (line 2 and 3).





ATTENTION! Do't forget the electronic key number.

After resetting into the phonograph program the identification numbers will never be shown again!

SERVICE-PROGRAMS

- A** With the lid closed, the box is set for customer use (regular program). When opening the cabinet lid, the switch in the cabinet will switch the computer to the service programs. The display indicates this fact in showing - P P - (line 1). The display of all service programs is possible, except the accounting data (- P 5 -). By pressing button **0** (line 2) the display - CE - appears.
- CE** At display - CE - (line 2) the electronic key number can be set - starting with 0 - and by pressing of button **000** on both right display digits the sum of all registered defects of carriage appears. The display on left side is a control number and without any importance to the operator.
After setting the electronic key number and pressing of button **0** all service-programs can be shown and changed if wanted. If a wrong electronic key number is set, the display - CE - appears when pressing the button **0**. After setting the right electronic key number and pressing the button **0** the display - PP - (line 3) appears.
- CO** At display - CO - (line 2) there is a defect which is shown by - ALL - or - Err - in the regular program (see service manual, page 22). In these cases it is possible to control and, if necessary, to change all service programs without setting a electronic key number. The program required is selected by depressing the corresponding selector button and set by other buttons.
- B** At display - P 1 -, pressing of button **0** resets to regular program.
- C** At display - P 2 - we can reset the record popularity and Hit memory by pressing the button **0**. The display goes out and a few seconds later, after the resetting to zero - PP - is displayed.
At display - P 3 - we can read out the record popularity. Depress the button **0** and on the first three digits, there appears the number of the least played record (e.g. - P 15 - = record space 15). This advances to each record by pressing the button **0**. The last two digits show how often the record played, max. 99. The Hit Parade is a function of the popularity memory also. As the memory will store more than 99 plays, the Hit Parade remains in proper sequence.
- D** At display - P 4 - it is possible to transfer to the service memory unit the total cash, total plays and special plays. After plugging the service memory unit into the control unit and after pressing the button **0**, the accounting data with the code number of the box involved (see paragraph M) are transferred into the service memory unit on the condition that the code number of the service memory unit corresponds with the service memory code number of the microcomputer. If transfer takes place, the display shows - PP - and the total cash data is zeroed. A, B sides and special plays stay in phonograph memory. In case no data transfer occurs display - P 4 - will not disappear.
- E** At display - P 5 - reading-out of the accounting data is prepared. To identify which sum is shown, an additional symbol lights up when pressing the button **0**.
- | | | |
|------------|--|---------------------------------------|
| one time | display = total cash, e.g. 1125 which means | for the monetary value of 0.05 = 1.25 |
| two time | no display = total pulses from coin channels | for the monetary value of 0.5 = 12.50 |
| three time | display = total of the A-sides of the record | |
| four time | display = total of the B-sides of the record | |
| five time | display = total of special plays played | |

F At display - **P 6** - the permanent test program is prepared. Now press the button  to enter this program. Now, all the records are selected and played one after the other. Since no selection is cleared, the box remains in permanent operation as long as test program is set. After the switching to regular program (close lid) permanent operation remains existing until button **C** has been pressed or phonograph is switched off.

G At display - **P 7** -, the control test program is prepared. Then press the button  to enter this program. Now record 100 is played over again and again. this permanent play is stopped when pressing the buttons **1**, , and **C**, one after the other.




In case additional records are required for this program, proceed as follows:

1. Add credit (credit button)
2. Press buttons **7**, , **1**, , one after the other.
3. Select the records wanted, but don't use button **C**.

Now the selected records and record 100 will play alternately until button **C** is pressed or coins inserted, or phonograph switched off.

H At display - **P 8** - all credits will be cancelled by pressing the button .

J By pressing button **0**, all the C - programs are prepared.



Display - **C 0** - by pressing the button , the first three digits will show the lowest price and at the right the number of plays. To change this, you can now enter with the help of the selector button and enter into memory by pressing the button . Always 5 digits should be entered, e.g. 05002 zero-five-zero-zero-two, i.e. 50 cents = 2 plays. The minimum monetary unit to set is 0.05, the biggest 995. The maximum number of plays which can be programmed is 63. The new setting is displayed. With each pressing of the button , the next „C" program is prepared and displayed.

For display - **C 1** - the above is applicable for the medium price

For display - **C 2** - for the highest price and

For display - **C 3** - for the special plays.

If at display - **C 3** - the five digits of the display are set on 00000, the display shows -**FrEE**- with the key switch on, free selections can be made.

Ka At display - **C 4** - the first three digits show upon pressing the button , the coin value entered thru this channel. The two digits at the right show the number of pulses given to the total cash memory. To change to a different coin and corresponding pulses, use the selector buttons and enter by pressing the button .

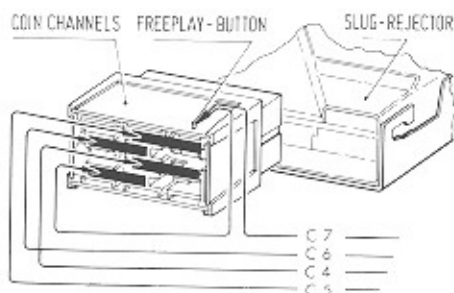
The above stated is applicable


- at display - **C 5** - for coin channel C 5
- at display - **C 6** - for coin channel C 6
- at display - **C 7** - for coin channel C 7
- at display - **C 8** - for bill verifier (reserve)


If addition on the total cash memory is not desired, the two right digits (number of pulses) have to be set to **00**.


The credit button is connected to coin channel - C 7 -. Unless this coin channel is used for the insertion of coins, set the three left digits to the lowest coin value and the two right digits to **00**, in order to avoid adding on the total cash memory by the credit button.


Kb In order to identify a coin channel, press the button **0**, selecting a „C" program and inserting the coin, the coin value is displayed to which the coin channel is set. This value can be changed as described above. When pressing the button **C**, the channel involved is shown on the display.




L At display - **CS** -, upon pressing the button , the left side of the display shows the number of records, for which the phonograph is designed, and the right side shows the number of records the phonograph is equipped with. The latter number is only smaller than the left one in case the record magazine is not fully loaded.

Example:  indicates that the box is designed for 80 records (160 selections) but equipped with only 70 records.


To change this setting, the values required can be entered with the aid of the selector buttons and stored by pressing the button .

M At display - **CE** - (line 26) the code number of phonograph and the code number of service memory, and therefore the electronic key, can be changed. Even if one of the code numbers is not being changed, all five figures have to be entered with the selector buttons and stored by pressing the button . As a control the new electronic key number appears only once on the display. (see paragraph „A“, CE (electronic key))

N At display - **Cr** - the three left digits show, by pressing the button , the automatic play setting for random play of a Hit Parade song.

At setting 000 = no automatic play. In case the display - **ALL** - the two right digits show the number of credits which can be given for any inserted coin.

Maximum setting: 09 = 9 credits. If the maximum setting is exceeded, the phonograph is out of order (**Err1** -displayed).

See service manual, page 22. To change this setting, the values required can be entered in with the aid of the selector button and stored by pressing the button .

Example: 001 - 15 min
 002 - 30 min
 007 - 105 min (maximum)

O When pressing the button  again, the service program starts from the beginning, display - **PP** -.

SUBJECT TO TECHNICAL MODIFICATIONS !