

# TROUBLE SHOOTING

## FOR NSM-PHONOGRAPHS

ES V-CD TECHNOLOGY

to  
Technical Information, Assy

176 393	THE PERFORMER GRAND II
176 352	THE WIZARD/ OLD FASHION WIZARD
176 514	THE PERFORMER CLASSIC
176 610	CD HIDE-AWAY II
176 598	FIREBIRD II
176 705	THE PERFORMER WALL

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## 14

Page 1401-1406

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## INDEX

- 1 DESCRIPTION OF MALFUNCTION / CAUSE
- 2 ERROR DISPLAYS / TABLE OF ERROR MESSAGES
- 3 TROUBLE SHOOTING FOR NSM PHONOGRAPHS ES-IV/CD TECHNOLOGY

## 1 DESCRIPTION OF MALFUNCTION / CAUSE

The following table gives a short reference of the possible solution to repair a phonograph that did not work.

DESCRIPTION	CAUSE
Phonograph illumination and LED's in central unit/CD supply do not light up.	<ol style="list-style-type: none"><li>1. Power cord</li><li>2. Main switch</li><li>3. Power fuse (switch plate/fuse box)</li></ol>
Phonograph illumination okay, LED's in central unit do no light up.	<ol style="list-style-type: none"><li>1. Plug connection ST 1 of central unit</li><li>2. Fuses Si 1-5 of central unit</li><li>3. Power transformer connection</li></ol>
Fan for output stage does not run while disc is playing.	<ol style="list-style-type: none"><li>1. Plug connection ST 4</li><li>2. Triac TC 1.</li><li>3. Transistor T2 / T1.</li></ol>
LED's in central unit do not light up or are darker Fuses are okay.	<ol style="list-style-type: none"><li>1. Voltage regulators VR 1-6 in central unit defective</li><li>2. Short circuit in connected units. (Pull plugs one after another and observe LED's).</li></ol>
No tone signal at loudspeaker even though a CD is playing and the switched on.	<ol style="list-style-type: none"><li>1. Loudspeaker connection</li><li>2. Plug connection of frequency volume is network and output transformer</li><li>3. Interruption on signal wire</li></ol>
Volume reduced by electronic protection device.	<ol style="list-style-type: none"><li>1. Loudspeaker mismatch (less than 2 ohms impedance) due to remote speakers.</li><li>2. Transistor T 9 defective.</li><li>3. Output transistor defective.</li><li>4. Control unit defective.</li></ol>
Poor bass reproduction.	<ol style="list-style-type: none"><li>1. Loudspeaker connections reversed.</li></ol>
Er xx-display.	See "Error Displays".
Luminous effect lights do not light phonographs with light generator).	<ol style="list-style-type: none"><li>1. Fuse on PCB light organ (running light)</li><li>2. Plug connection to PCB light organ</li></ol>

## 2 ERROR DISPLAYS / TABLE OF ERROR MESSAGES

After power on the phonograph, respectively after each closing of the programming mode the microprocessor on the PCB Control Unit checks all memoried values. If there is detected an error on the programmable memory area, the corresponding programm step is entered. The display shows the command number Pxxx and "Er 31" is flashing. Also the lamp "error" flashes.

With entering the service mode and input of the correct value and pressing the key "H" this error is cleared. After power on the phonograph, the malfunction display "Display 3" an the flashing lamp "error" remains visible for 2 sec. Here after the phonograph is operational without regarding the malfunctioning part.

When entering the programming mode there is a possibility for service and maintenance requests. With the command of group 15x and 16x it is possible to check, or to initialise CD's to, the phonograph. By using P150 the last 20 errors occured while operating are display sequentially including the information about CD-no. and date of occurance.

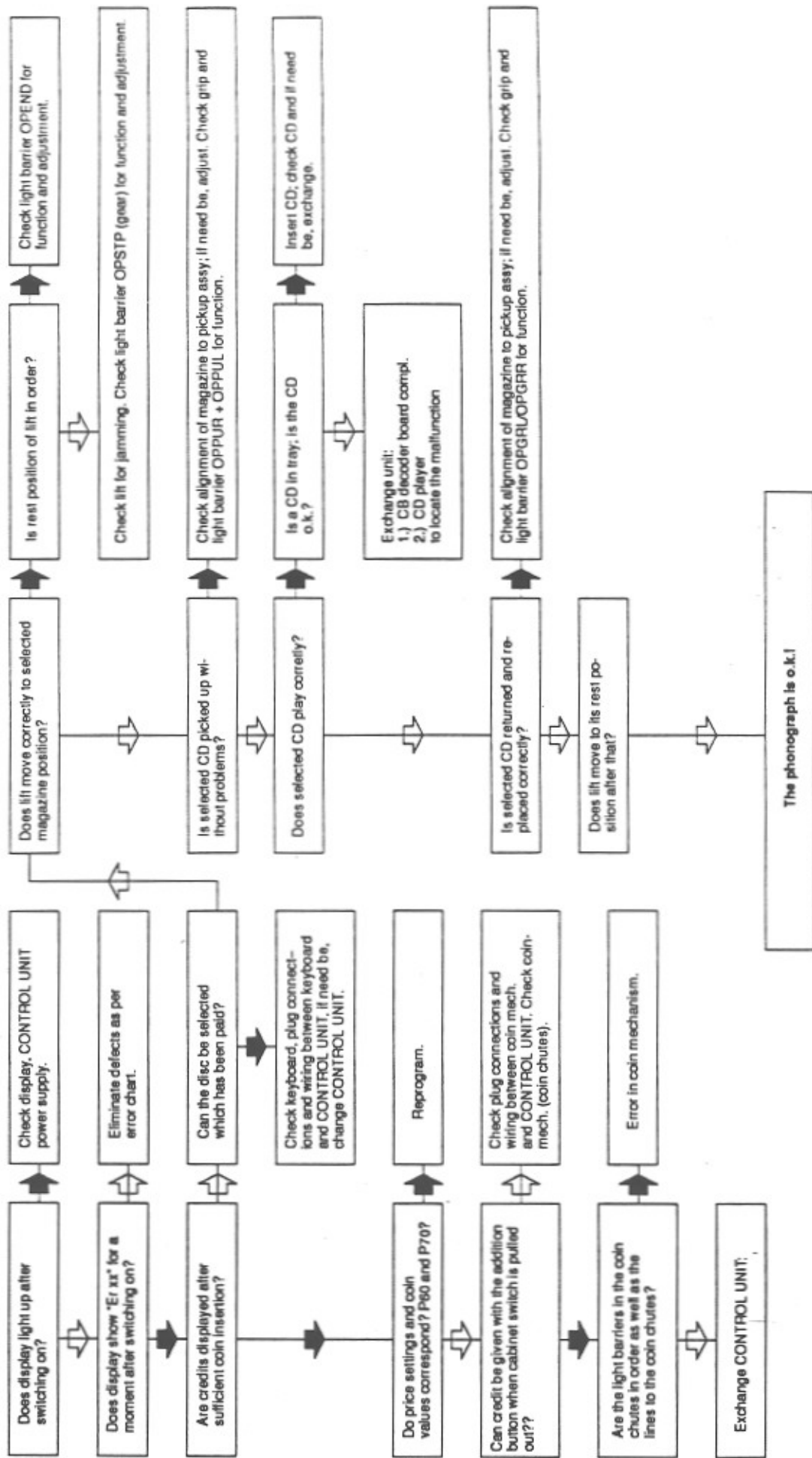
The following table gives an overview of the error messages and the possible corrections.

Table 4: "Error Displays"

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 (IC 3). After that reprogram 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 (IC 3). After that reprogram 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 correction necessary; program step Pxxx (in Display 1) is automatically reprogrammed.
Pxxx	Er	31	Memory contents (CONTROL UNIT) invalid or not programmed.	Program step Pxxx shown in Display 1 must be reprogrammed.
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	6x		Error at CD player.	See Er 60 – Er 63.
Er	60		Connection to the CD-player interrupted. No supply voltage present for decoder board or CD player.	Check connection cables to the decoder board, check fuses.
Er	61		No CD recognized by CD player. No CD in CD tray, CD defective. Player defective.	Check CD and exchange if needed. Exchange CD player. Exchange decoder board.
Er	62		Specified track on the CD not found.	Check the CD.
Er	63		Malfunction while playing a CD.	Check the CD player with equipped CD for easy running.
Er	7x		Malfunction on CD changer.	If error display does not disappear after 2 sec., error cannot be automatically corrected. No CD will be played until cabinet switch or "power on" is activated.
Er	70		Malfunction of operating control.	No correction necessary.
Er	71		Error during grip from magazine.	Equip CD-tray to magazine. Check alignment from magazine to pickup assy and adjust if necessary. Check function of light barrier OPPUM.
Er	72		Error during replacing CD in magazine. Malfunction of grip lever.	Check alignment of magazine to pickup assy and adjust if needed. Check function of grip. Check function of light barriers OPGRL and OPGRR.
Er	73		Malfunction during lift drive. Playing of CD not possible.	Check lift for jamming. Check function and correct adjustment of light barrier OPSTP (drive wheel).
Er	74		End position of lift not o.k.. Playing of CD not possible.	Check function and adjustment of light barrier OPEND.
Er	80		Short circuit on wallbox signal wire.	Check wallbox connection.
Er	81		Malfunction of the audio processor (CB CENTRALE).	Change IC 1 = TDA 4390 if frequently occurring.
Er	90		Title display, three blocking in sequence, not functional anymore.	
Er	91		Blocking title display while left movement.	Blocking remedy
Er	92		Blocking title display while right movement.	
Er	93		Blocking title display, stack left.	see also chapter 9 "Title display" the paragraph 1.4
Er	94		Blocking title display, stack right.	Jammed or dislocated title holders.

### 3 Trouble-Shooting Chart for NSM Phonographs ES V / CD-Technology

Conditions: Line voltage present, line connection and power supply in order.



: yes  
 : no

Compare also 1.2 "Error Displays".