

UNIT DESCRIPTION DISPLAY/KEYBOARD FOR NSM-PHONOGRAPHS

EE IV-CD TECHNOLOGY

to
Technical Information, Assy

174 903	SILVER CITY
174 831	SILVER SKY
174 486	FASCINATION
175 274	SOUNDMASTER
175 040	FIREBIRD/COUNTRY
176 046	THE PERFORMER "GRAND"

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1 FUNCTION

1.1 Display

The shift registers IC 301 through IC 303 are the output ports for the display control.

The display is operated in the multiplex mode.

The segment information is prepared for one digit with IC 302 and IC 303 via drivers IC 308 and IC 309.

The transistors T 303 through T 305 are controlled by IC 307 via IC 301 and switch on the appropriate multiplex level for 4 milliseconds.

Resistors R 332 to R 345 determine the segment current.

Lamps L 1 to L 5 are controlled statically via IC 307, Pin 12 and 14 and IC 306, Pin 19, 11, 12.

Resistors R 325 to R 329 limit the transient current.

The load signal for the output shift registers is monitored by circuit IC 306, Pin 4 and 13; R 306; C 303; D 301.

During the duration of the load signal the display is dark.

C 303 is discharged via D 301 and IC 306, Pin 13.

OE of IC 301 to IC 303 becomes LOW and thereby inactive.

If no load signal occurs, OE becomes inactive via R 305.

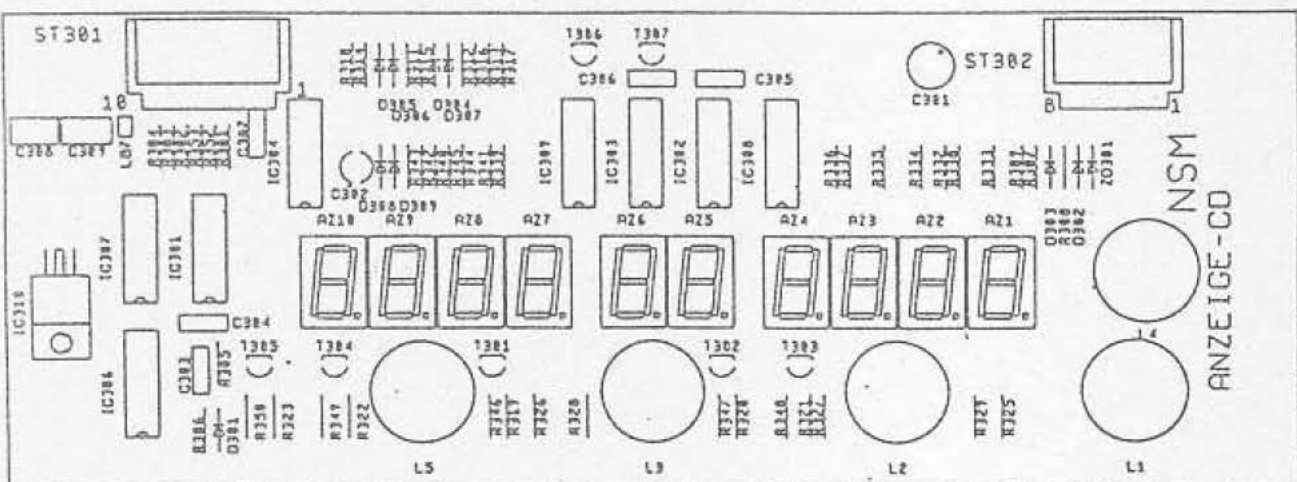
Capacitor C 302 avoids lighting up of the digits after switching on.

1.2 Keyboard

IC 301 is an input port for the keyboard which is connected to plug ST 302.

The circuit with diodes D 302 - D 307 and transistors T 306, T 307 codes the keyboard matrix to a 4-bit signal combination.

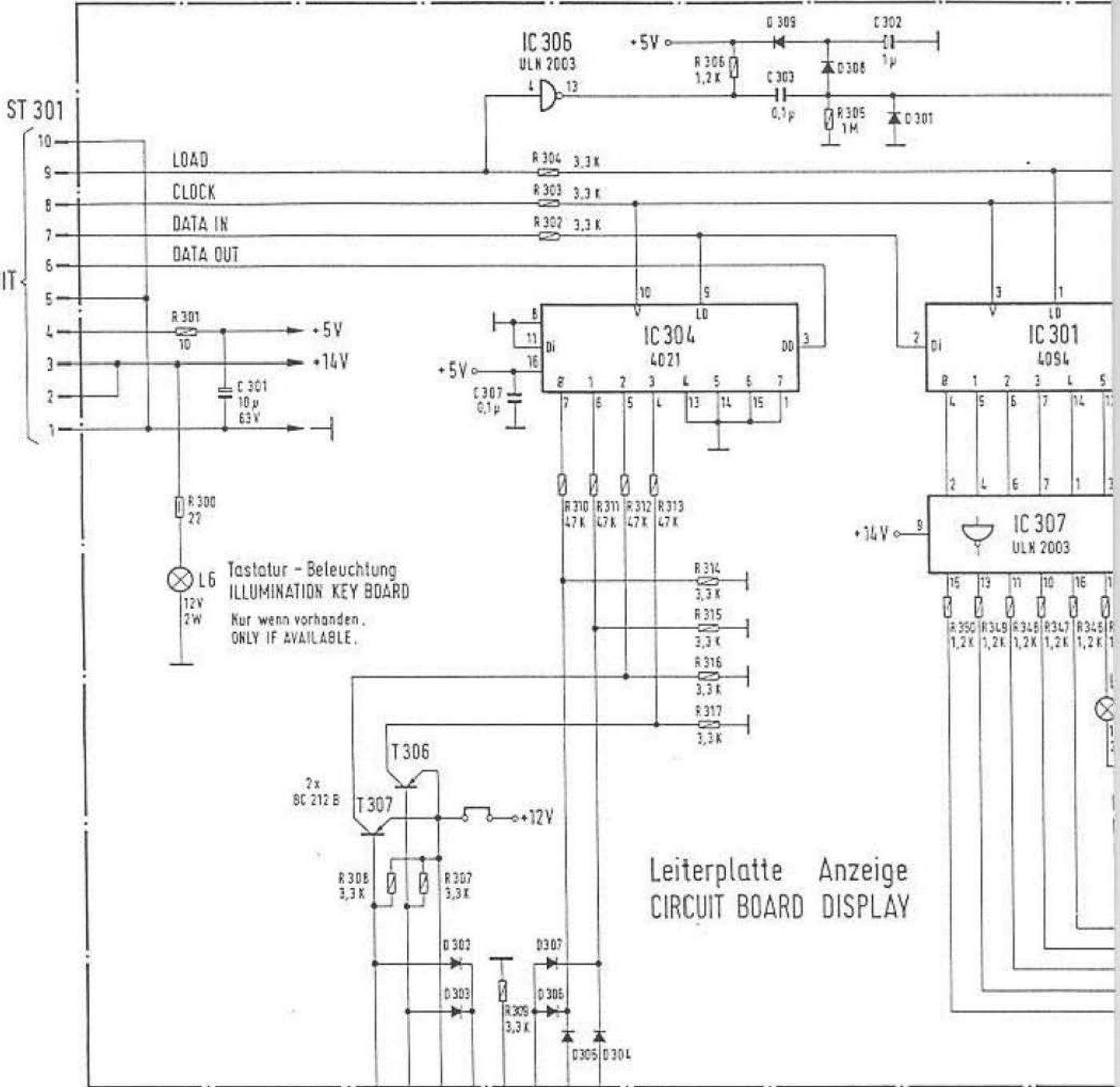
SPARE PARTS LIST



SPARE PARTS LIST

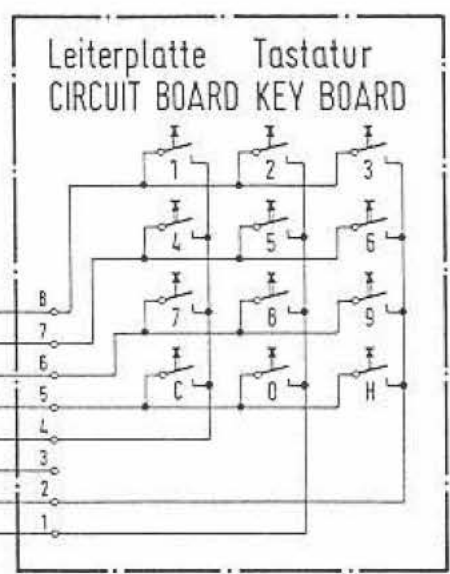
POS.	PART-No.	DESCRIPTION	DATA	QTY
	173 664	<u>CB-DISPLAY CD, ASSY</u>		1
ST 302	225 663	PIN PANEL	8 prongs 90°	1
ST 301	225 664	PIN PANEL	10 prongs 90°	1
AZ 1-8	231 416	DISPLAY	TD SL 5150	10
	173 384	TUBUS		1
	171 629	HOLDER		4
IC 310	221 573	IC-VOLTAGE	12 V 1 A	1
ST 301-303	221 771	IC-CMOS	HEF 4094 B	3
IC 304	221 763	IC-CMOS	HEF 4021 B	1
ST 306-309	221 497	IC-LINEAR	ULN 2003 A	4
D 301-307	221 114	SI-DIODE	1 N 4148	7
ZD 301	231 079	ZENER-DIODE	ZPD 4,7	1
T 301-306	231 240	SI-TRANSISTOR	BC 636 F	5
T 306, 307	221 283	SI-TRANSISTOR	BC 212 B	2
T 303-307	220 334	MKT-CAPACITOR	0,1 µF 63 V	5
C 308, 309	220 332	MKT-CAPACITOR	0,33 µF 63 V	2
C 302	220 249	LYTIC	1 µF 63 V	1
C 301	220 162	LYTIC	10 µF 63 V	1
R 301	221 611	RESISTOR	10 Ω ½ W	1
R 306, 332-350	221 627	RESISTOR	1,2 KΩ ½ W	> 20
R 302-304, 307-309, 314-317, 319-323, 354	221 033	RESISTOR	3,3 KΩ ½ W	> > > > > 16
R 310-313	221 038	RESISTOR	47 KΩ ½ W	4
R 305	221 009	RESISTOR	1 MΩ ½ W	1
R 325-329	231 366	MET.-RESISTOR	10 Ω ½ W	5
	173 900	KEY BOARD, ASSY		1

CONTROL UNIT
Stecker ST 4
Stecker ST 4

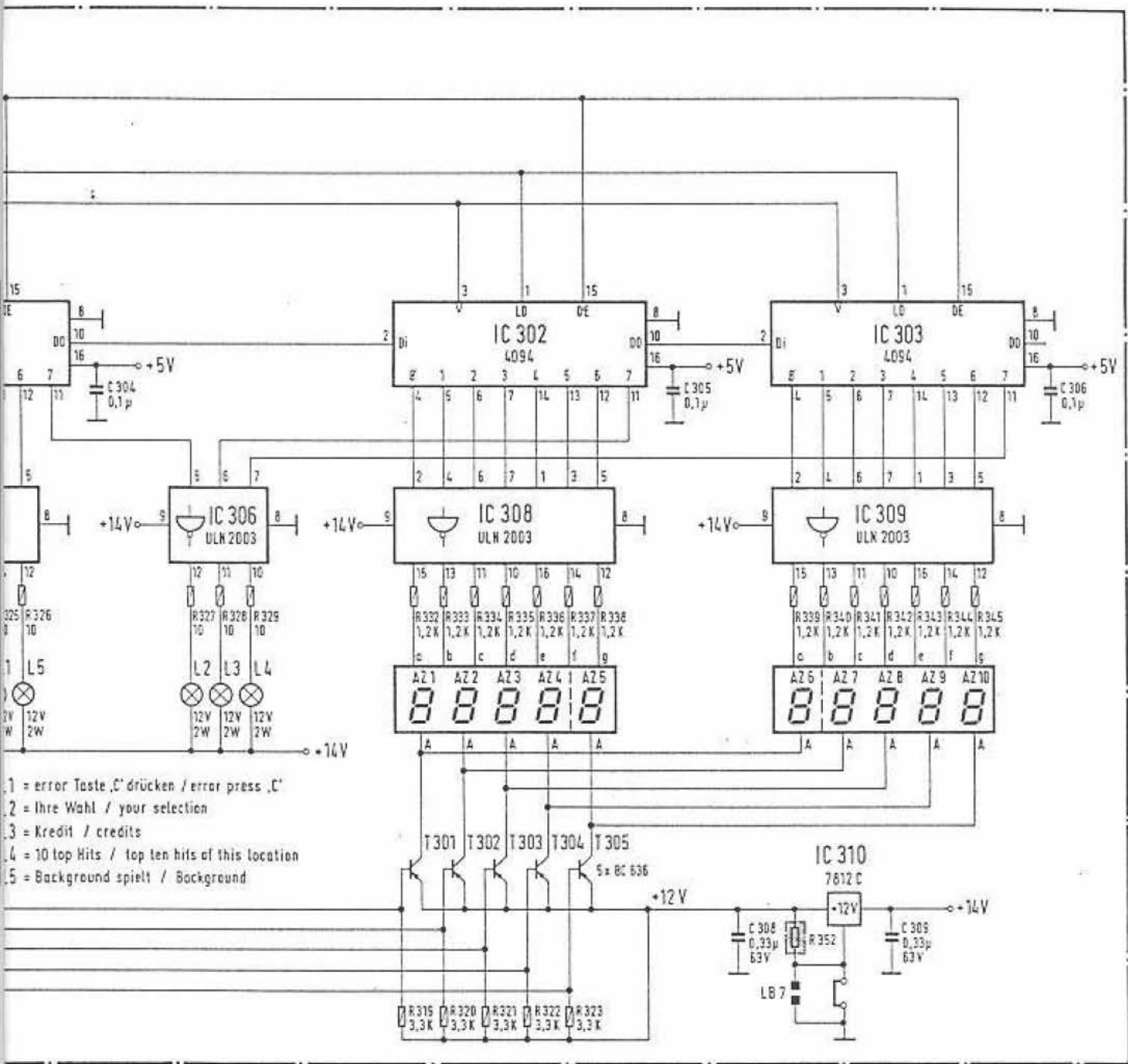


Leiterplatte Anzeige
CIRCUIT BOARD DISPLAY

ST 302

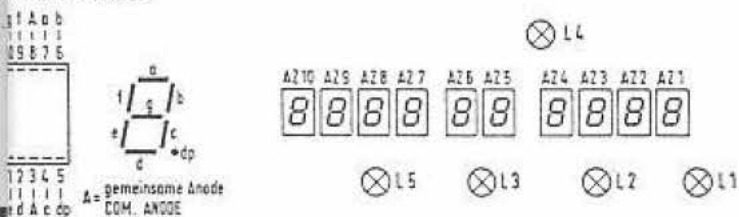


174 902 / 174 630 / 174 486 / 175 275 / 175 039
174 903 / 174 631 / 174 486 / 175 274 / 175 040
175 592 / 175 594 / 175 599 / 176 043 / 175 593



- 1 = error Taste „C“ drücken / error press „C“
- 2 = Ihre Wahl / your selection
- 3 = Kredit / credits
- 4 = 10 top Hits / top ten hits of this location
- 5 = Background spielt / Background

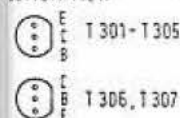
Draufsicht: Display
TOP VIEW: DISPLAY



Draufsicht: Spannungsregler IC 310
TOP VIEW: VOLTAGE REGULATOR IC 310



von unten gesehen
BOTTOM VIEW



- ZENER-DIODE
- 1N4148
- 1 W
- 1/2 W

gerasterte Bauteile sind nicht eingebaut!
DOTTED COMPONENTS ARE NOT INSTALLED!

ÄNDERUNGEN IM SINNE DES TECHN. FORTSCHRITTES VORBEHALTEN,
JEDOCH KEINE NACHRÜSTPFLICHT!

SUBJECT TO TECHNICAL MODIFICATION WITHOUT OBLIGATION
TO MODIFY EQUIPMENT ALREADY DELIVERED!



MUSIKAUTOMATEN
PHONOGRAPHS **ES IV-CD** TECHNOLOGY

Schaltbild Anzeige / Tastatur
WIRING DIAGRAM DISPLAY / KEY BOARD

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