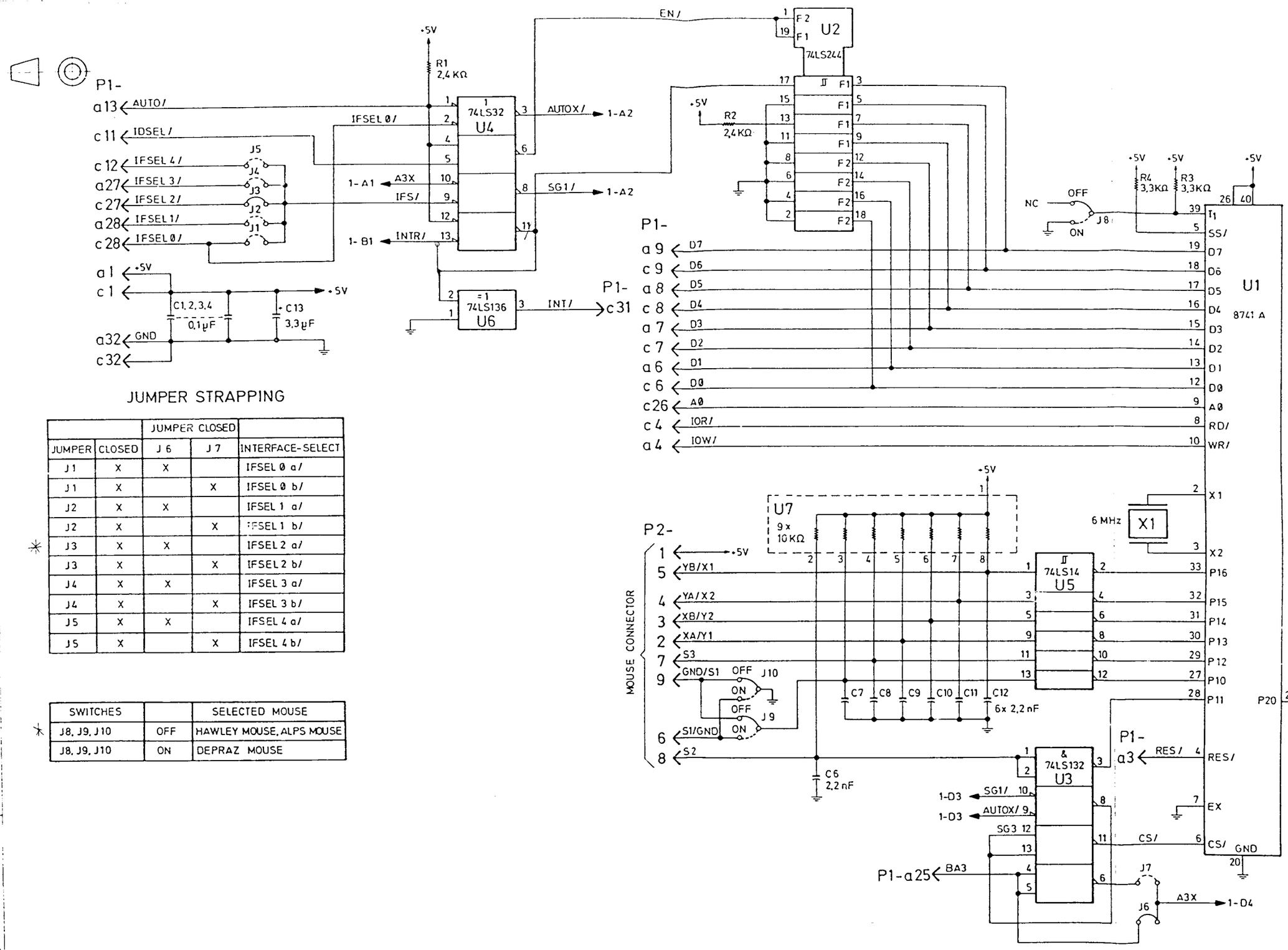
P1Ø7-
a 1
c 1
a 16
a 32
c 32
+5V
CB1 - CB4
Ø,1µF
GRD
D2
F2
F1
XCVR
74LS245
DØ - D7
D1
68ØØ8
L8
VCC
RESET/
HALT/
FCØ
FC1
FC2
IPLØ/
IPL1/
BR/
DTAK/
VPA/
E
BG/
RW
2 x
1KΩ
16 MHz
74LS321
D5
L1
1ØµH
SNR
(DØ....DF)RD/
D6
D4
5 x
1KΩ
74LS38
D8
PAL
2Ø
L1Ø
D7
INT/
INTAK/
TIMINT
HOLDA
THOLD/
HOLDA16
HOLDOMA/
WAITP/
R2
1ØØØΩ
R1
1ØØØΩ
74LS74
D9
NC
D3
D10
WRDF/
RESET
16 BIT SET
MEMR/
MEMW/
IOR/
IOW/
MEMRQ/
HOLDA16
C1
SNR
(DØ....DF)RD/
D4
WRDF/
BERR/
R/W
DS/
AS/
A19
GRD
1 ASSY-NO.: 017-0033572-A
BEMERKUNGEN Notes
ANNE TEILE Similar Parts
A 17DR01430 Kn. 5.84
REV DEV REL NO NAME DATE
WERKSTOFF Material
OBERFLÄCHENBEHANDLG Coating
WÄRMEBEHANDLG Heat Treat
HÄRTE Hardness
KLASSE Class 3273
GEZ AM Finish 10.5.84
GEZ Dtls
ERSETZT DURCH Superseded by
ERSATZ FÜR Supersedes
© NCR 198 4
NCR GmbH AUGSBURG
GRUPPE Unit
NAME SCHEMATIC-PROCESSOR 68ØØ8
BLATT VON
MASSSTAB
CODE
017 0033573



JUMPER STRAPPING

		JUMPER CLOSED		
JUMPER	CLOSED	J 6	J 7	INTERFACE-SELECT
J 1	X	X		IFSEL 0 a/
J 1	X		X	IFSEL 0 b/
J2	X	X		IFSEL 1 a/
J2	X		X	IFSEL 1 b/
J3	X	X		IFSEL 2 a/
J3	X		X	IFSEL 2 b/
J4	X	X		IFSEL 3 a/
J4	X		X	IFSEL 3 b/
J5	X	X		IFSEL 4 a/
J5	X		X	IFSEL 4 b/

SWITCHES		SELECTED MOUSE
J8, J9, J10	OFF	HAWLEY MOUSE, ALPS MOUSE
J8, J9, J10	ON	DEPRAZ MOUSE

◆2 J8, J9, J10 GEZEICHNET/DRAWN IN POS. OFF

◆1 ASSY-NO. 017-0032816-A

BEMERKUNGEN, Notes:

ÄHNL. TEILE, Similar Parts

QUALITÄTSANGABEN, Standard Quality per ES 2.07.01

TOL. WENN NICHT ANDERS ANGEGEBEN, Unless Otherw. Specified:

OBERFL. QUAL., Surface Finish √ WINKEL, Angles ± mm INCH

MASSTOL. mm NENNMASS., Dimensional Tolerances X,X X,XX

UNBEMASSTE ECKEN, Corner Radii INNEN MAX. AUSSEN MAX.

UNBEMASSTE SCHARFE KANTEN, FASE OD RADIUS, Break Sharp Edges MAX.

BOHRUNGEN ENTGRATET, more Deburr Depth MAX.

WERKSTOFF, Material

OBERFLÄCHENBEHANDLG., Coating

VERBINDUNGSART, Joining

WÄRMEBEHANDLG., Heat Treat

HÄRTE, Hardness

ÄNDERUNGEN, Changes

A 17OR01349 Kn. 10.8

INDEX, FRG NR/TT NR, NAME, DAT

Rev, Eng. Rel. No., Orig., Date

KLASSE, Class 3273

GEZ. AM, Finish 31.8.1983

GEZ., Dms. Ka

GEPR., Chkr.

KONSTR., Designer

GES., Appd.

NORMGEPR., Appd.

NCR GmbH AUGSBURG

GRUPPE, Unit

NAME SCHEM. KIT MOUSE INTERF

BLATT, Sheet VON

MASSSTAB, Scale

CODE

017-0032824

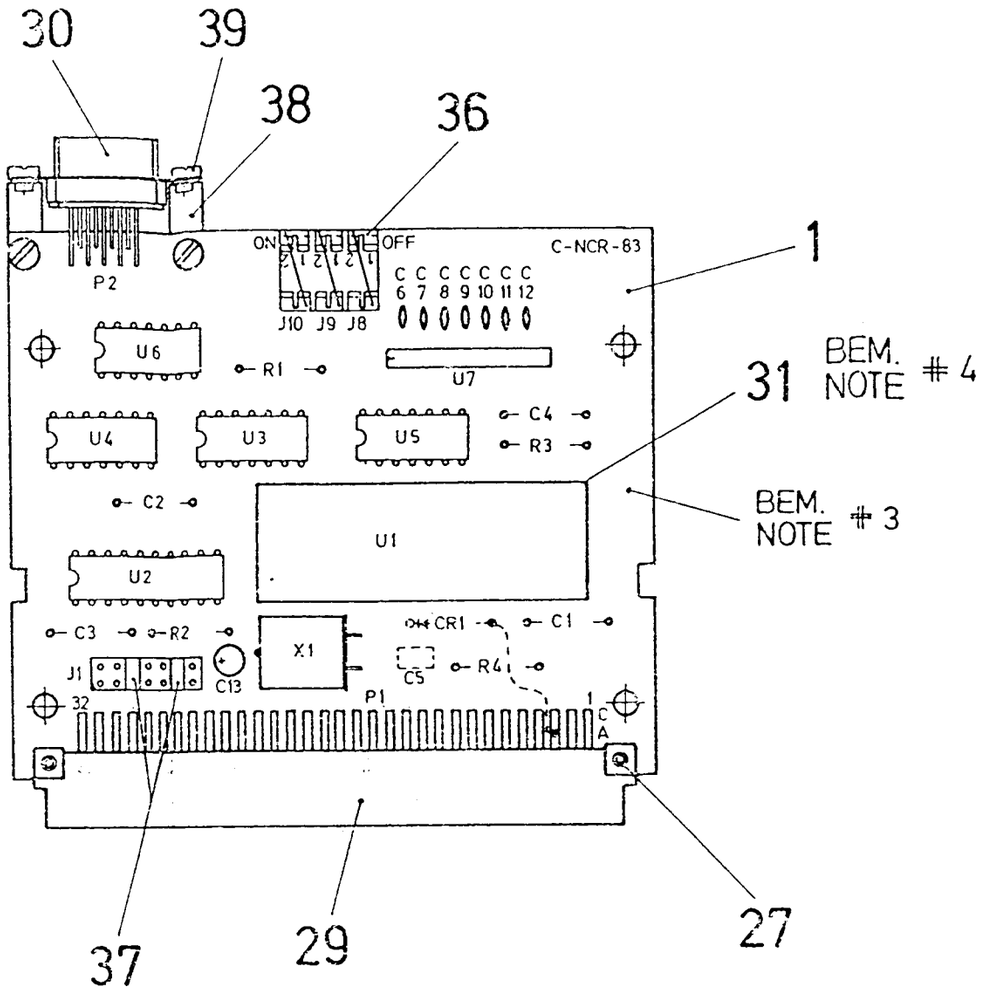
ERSETZT DURCH, Suped by

ERSATZ FÜR, Supersedes

JUMPER STRAPPING

		JUMPER CLOSED		
JUMPER	CLOSED	J6	J7	INTERFACE-SELECT
J1	X	X		IFSELØa/
J1	X		X	IFSELØb/
J2	X	X		IFSEL1a/
J2	X		X	IFSEL1b/
J3	X	X		IFSEL2a/
J3	X		X	IFSEL2b/
J4	X	X		IFSEL3a/
J4	X		X	IFSEL3b/
J5	X	X		IFSEL4a/
J5	X		X	IFSEL4b/

SWITCHES		SELECTED MOUSE
J8, J9, J10	OFF	HAWLEY MOUSE, ALPS MOUSE
J8, J9, J10	ON	DEPRAZ MOUSE



WIRE NO.	START TERM	END TERM	P/L ITEM	COMP. SIDE	SOLD. SIDE
1	P1a 3	U1-4	40		X

#4 U1 IN K806 AUFGEFÜHRT
U1 LISTED IN K806

#3 LABEL „ASSY 017-0032816-A"
AUFGEKLEBT / GLUED
LABEL „SCHM. 017-0032824-A"
AUFGEKLEBT / GLUED

#2 CR1, C5 NICHT BESTÜCKT
CR1, C5 NOT MOUNTED

#1 SCHEMATIC-NO.: 017-0032824

BEMERKUNGEN; Notes:

ÄHNL. TEILE Similar Parts:

A	17DR01349	Kn.	10.83
REV.	DEV. REL NO.	NAME	DATE

ÄNDERUNGEN Changes:

QUALITÄTSANGABEN; Standard Quality per CES 2-07-01

TOL. WENN NICHT ANGEGEBEN; Unless Otherw. Specified:

OBERFL. QUAL.: Surface Finish: ✓ WINKEL Angles ± mm

MASSTOL. mm NENNMASS: Deminsional Tolerances: X,X ± X,XX ±

UNBEMASSTE RADIEN: Radii: MAX.

UNBEMASSTE SCHARFE KANTEN FASE OD. RADIUS: Break Sharp Edges: MAX.

WERKSTOFF Material:

OBERFLÄCHENBEHANDLG. Coating:

WÄRMEBEHANDLG. Heat Treat:

HÄRTE Hardness:

KLASSE Class: 3273

GEZ. AM Finish: 3.10.1983 GEPR. Chkr.:

GEZ. Dfts.: Spot. KONSTR. Designer: Kn.

ERSETZT DURCH Supsd. by:

ERSATZ FÜR Supersedes:

NCR GmbH AUGSBURG

GRUPPE Unit:

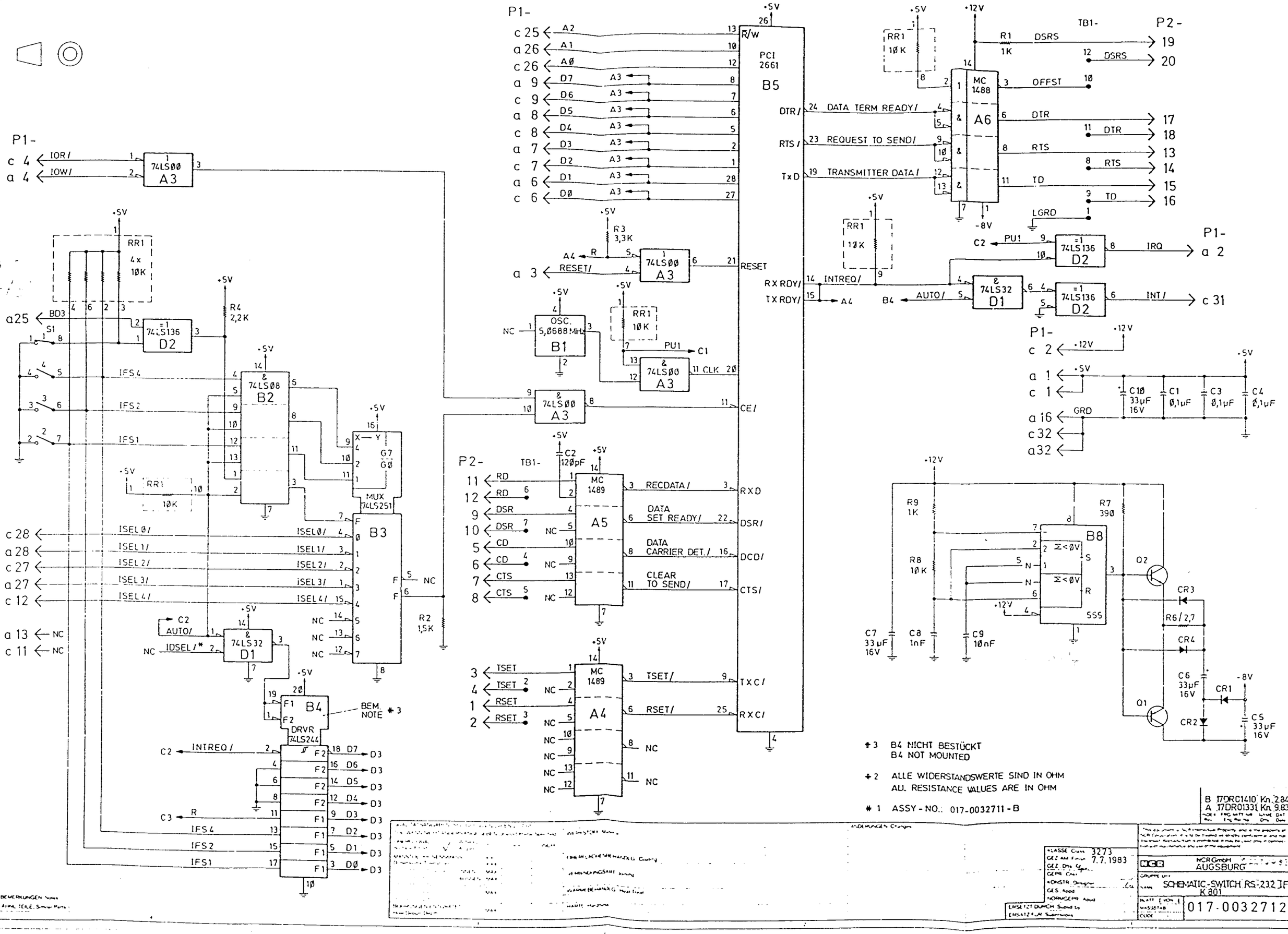
NAME: BOARD-ASSY, MOUSE INTERFACE

BLATT: 2 VON: 2

MASSSTAB: 1:1

CODE: –

017-0032816



*3 B4 NICHT BESTÜCKT
B4 NOT MOUNTED

*2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

*1 ASSY-NO.: 017-0032711-B

B 17DRC1410 Kn. 284
A 17DR01331 Kn. 983

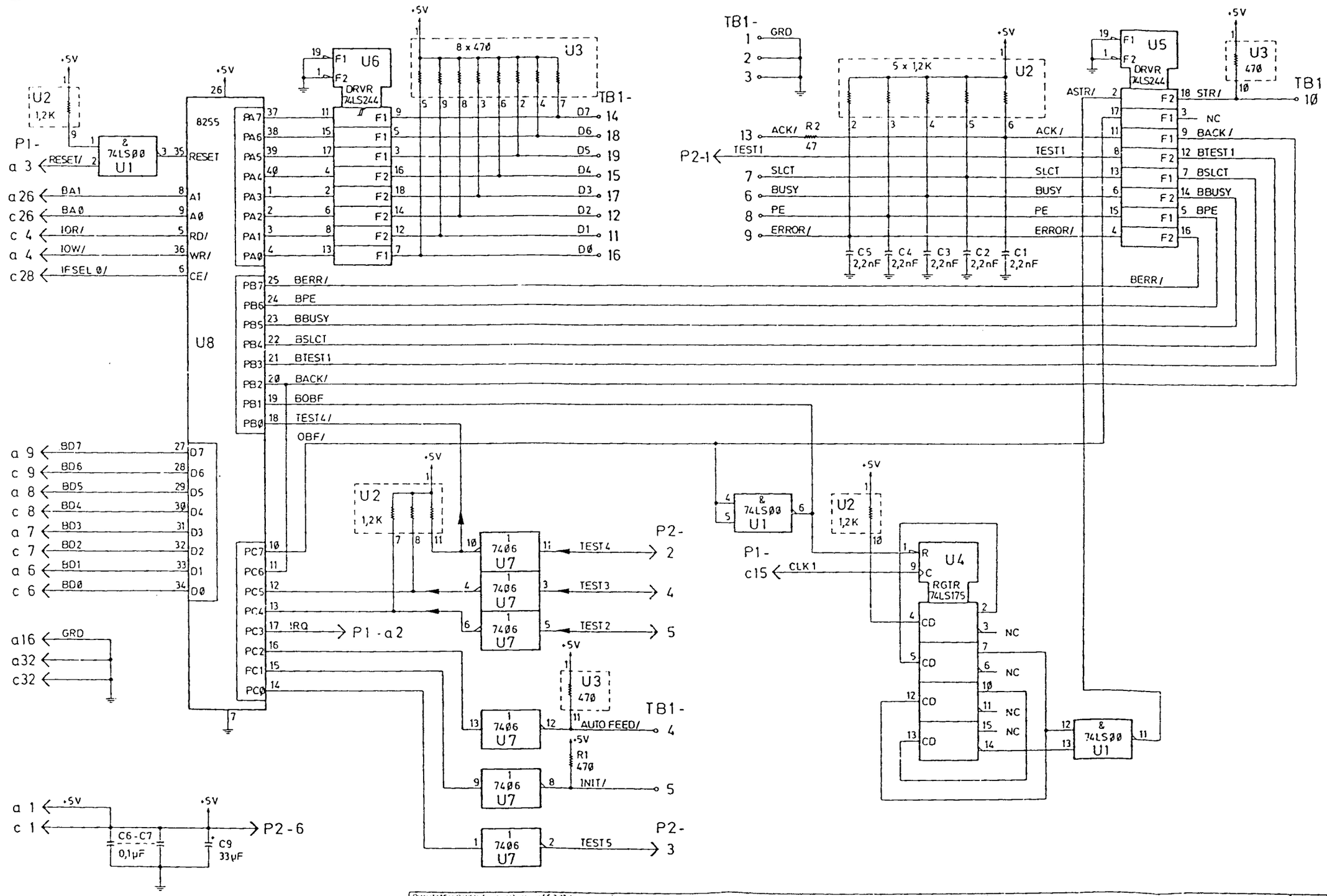
BEMERKUNGEN / Remarks
Ersatz-Teile / Service Parts

KLASSE Class 3273
GEZ. AM From 7.7.1983

NCR GmbH AUGSBURG

SCHEMATIC-SWITCH RS-232 IF K 801

017-0032712



2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

! ASSY : 017-0031546 - C

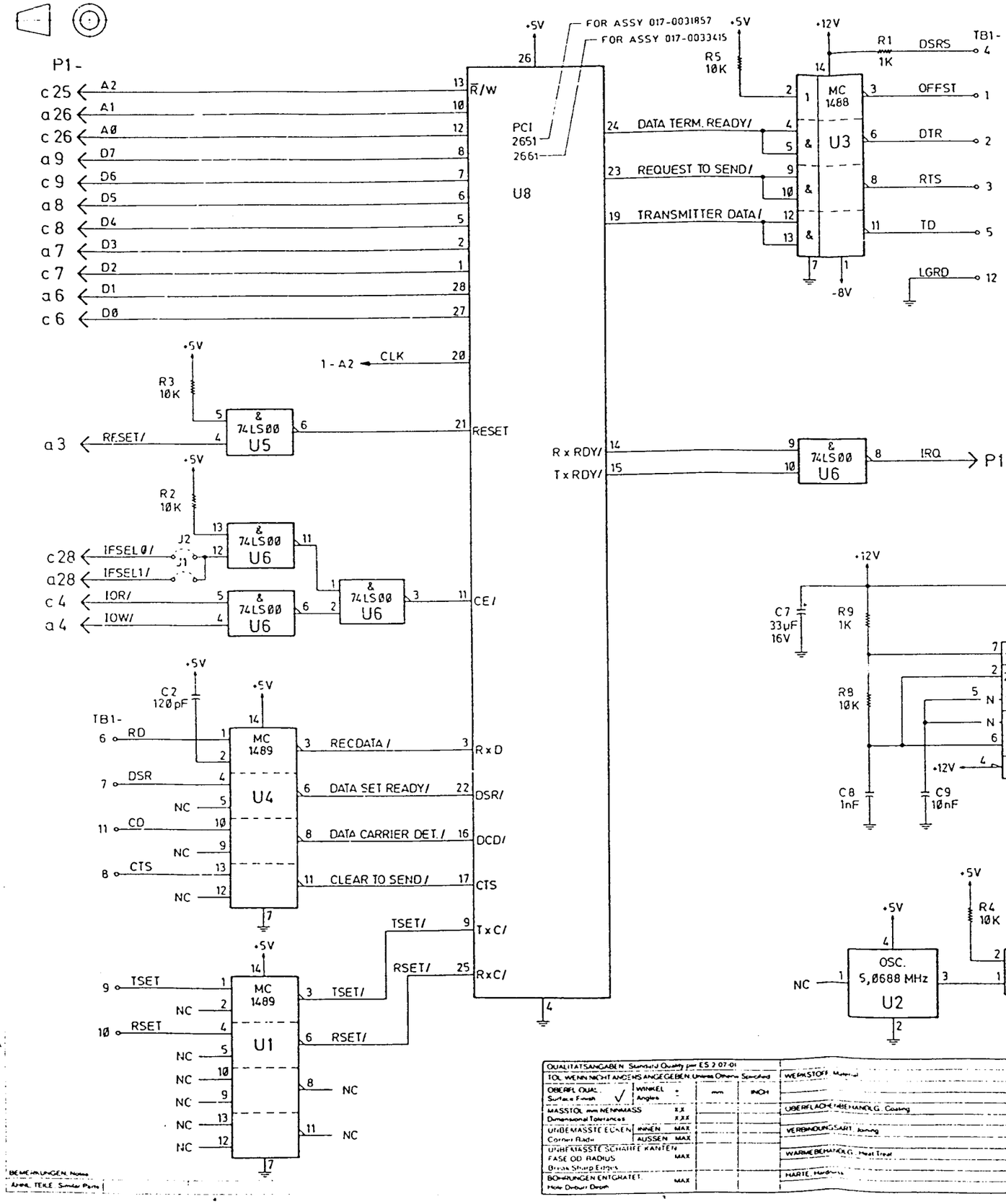
B 17DR01487 Kn 7.84
A 17DR01207 Kn 31.82

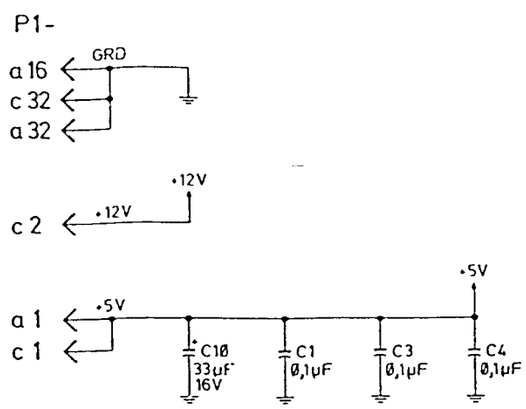
KLASSE Class 3273
GEZ am 31.8.1982
GEZ Dm Kn
GEPR Chkd
KONSTR Designed
GES Appd
NORMGEPR Appd

NCR GmbH AUGSBURG

SCHEMATIC-CENTRONICS I/F

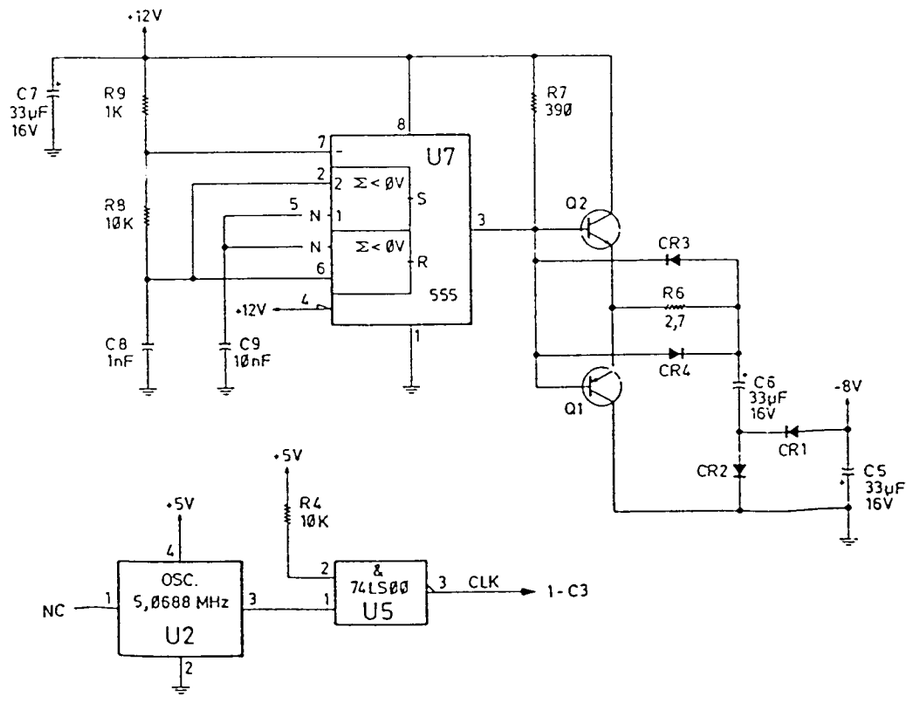
017-0031546





JUMPER STRAPPING

J2	closed	for K 212 (Printer Cable)
J1	closed	for K 211 (Modem Cable)
J2	closed	for K 213 (Plotter Cable)



2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

1 ASSY: 017-0031857
017-0033415

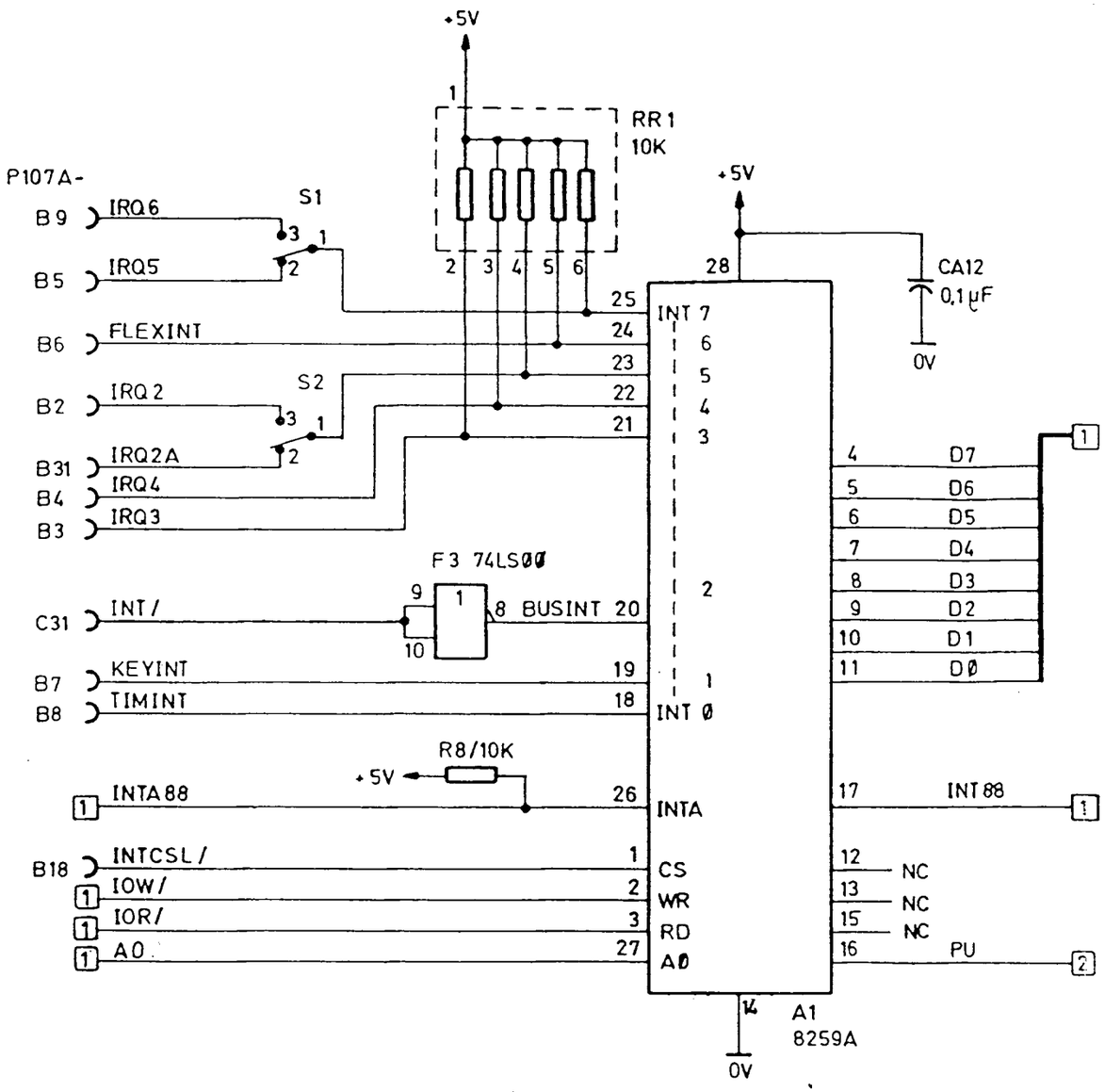
C	17DR01369	31-8-83
B	17DR01222	Kn. 11.83
A	17DR01208	Kn. 10.83

KLASSE, Class	3273
GEZ AM, Finish	19.10.1982
GEZ, Dhg	
GEPR, Chkr	
KONSTR, Designer	
GES, Appd.	
NORMGEPR, Appd	
ERSETZT DURCH, Superseded by	
ERSATZ FÜR, Supersedes	

NCR GmbH AUGSBURG

SCHEMATIC-RS 232 INTERFACE

017-0031865

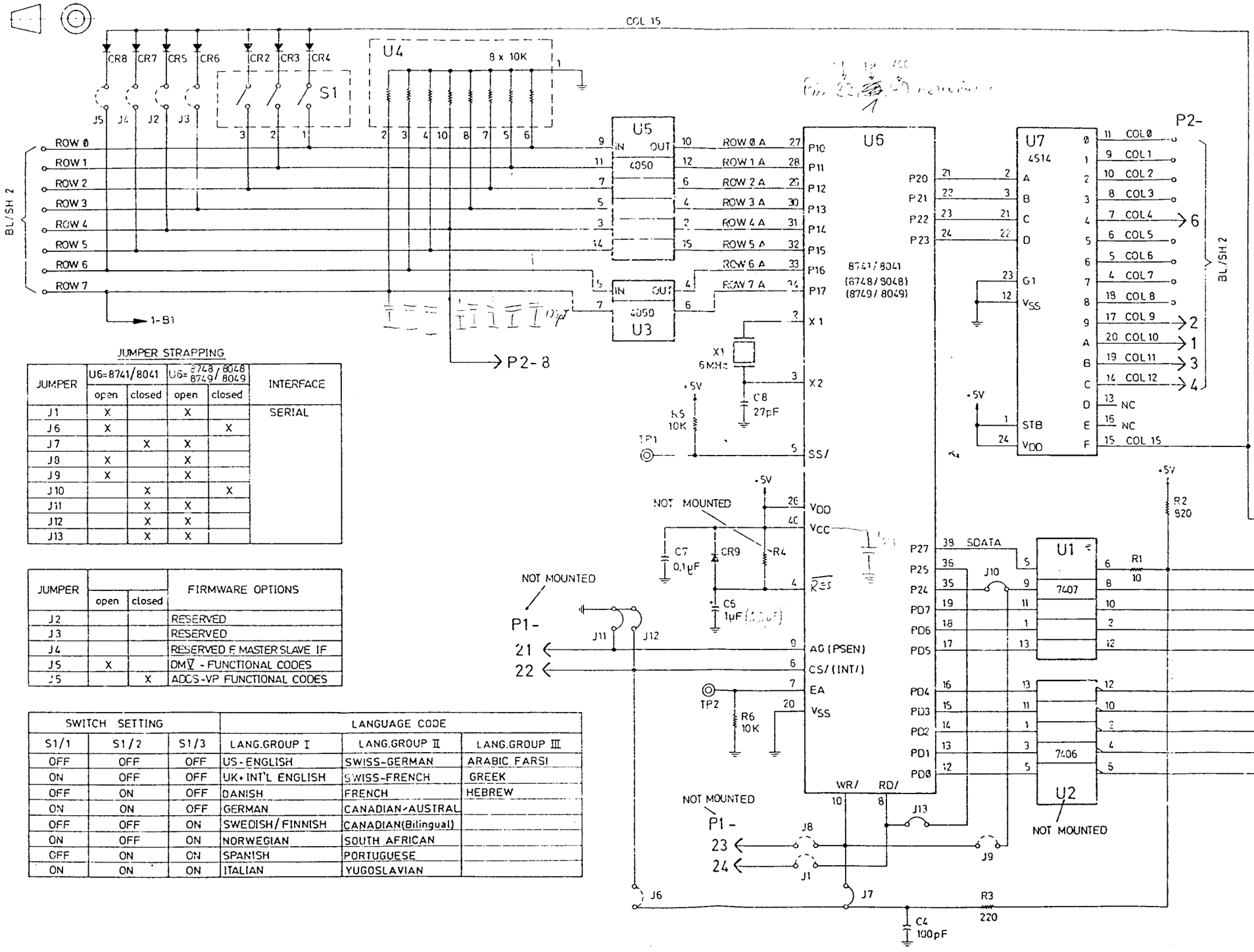


A	17DR01413	Kn.	2.84
REV.	DEV. REL. NO.	NAME	DATE

ÄNDERUNGEN Changes:		WERKSTOFF Material:	"The content of this document is 'NCR Intellectual Property' and is the property of NCR Corporation. It is to be treated as strictly confidential and is not to be disclosed, reproduced, or used exept as authorized in writing by NCR in connection with the manufacture, maintenance and use of the NCR equipment to which it pertains."
QUALITÄTSANGABEN; Standard Quality per CES 2-07-01		OBERFLÄCHENBEHANDLG. Coating:	
TOL. WENN NICHT ANGEGEBEN; Unless Otherw. Specified:			
OBERFL. QUAL.: Surface Finish: ✓ WINKEL Angles ±	mm	WÄRMEBEHANDLG. Heat Treat:	© NCR 1984 NCR GmbH AUGSBURG
MASSTOL. mm NENNMASS: Deminsional Tolerances:	XX ±, XXX ±	HÄRTE Hardness:	GRUPPE Unit:
UNBEMASSTE RADIEN: Radii:	MAX.	KLASSE Class: 3273	NAME: SCHEMATIC-16 BIT PROCESS. INTERRUPT CONTROLLER 8088
UNBEMASSTE SCHARFE KANTEN FASE OD. RADIUS:	MAX.	GEZ. AM Finish: 30.1.84 GEPR. Chkr.: / GEZ. Dfts.: Hä KONSTR. Designer:	BLATT: 3 VON: 3
		ERSETZT DURCH Supsd. by:	MASSSTAB: 017-0033502

BEMERKUNGEN; Notes:

ÄHNL. TEILE Similar Parts:



JUMPER STRAPPING

JUMPER	U6=8741/8041		U6=8748/8048 8749/8049		INTERFACE
	open	closed	open	closed	
J1	X		X		SERIAL
J6	X			X	
J7		X	X		
J8	X		X		
J9	X		X		
J10		X		X	
J11		X	X		
J12		X	X		
J13		X	X		

JUMPER	open	closed	FIRMWARE OPTIONS
J2			RESERVED
J3			RESERVED
J4			RESERVED F. MASTER SLAVE IF
J5	X		OMV - FUNCTIONAL CODES
J5		X	ADDS-VP FUNCTIONAL CODES

SWITCH SETTING			LANGUAGE CODE		
S1/1	S1/2	S1/3	LANG.GROUP I	LANG.GROUP II	LANG.GROUP III
OFF	OFF	OFF	US-ENGLISH	SWISS-GERMAN	ARABIC FARSI
ON	OFF	OFF	UK+INT'L ENGLISH	SWISS-FRENCH	GREEK
OFF	ON	OFF	DANISH	FRENCH	HEBREW
ON	ON	OFF	GERMAN	CANADIAN-AUSTRAL	
OFF	OFF	ON	SWEDISH/FINNISH	CANADIAN(Bilingual)	
ON	OFF	ON	NORWEGIAN	SOUTH AFRICAN	
OFF	ON	ON	SPANISH	PORTUGUESE	
ON	ON	ON	ITALIAN	YUGOSLAVIAN	

G	17DR01351	Kn.1289
F	17DR 01362	11-83
E	17DR01304	Kn. 583
D	17DR01273	Kn. 583
C	17DR01252	Kn.333
B	17DR01226	Kn.186
A	17DR01204	Kn.118

1

2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

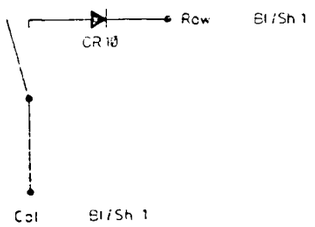
1 ASSY-NO.: 017-0032531; 017-0032536; 017-0032538; 017-0032535; 017-0032537; 017-0033379

CLASSE, Class	3273
GEZ. AM, Finish	17.9.82
GEZ. Dtg.	Ma
GEPR. Chkr.	
KONSTR. Designer	
GES. Appd.	
NORMGEPR. Appd.	
MASSSTAB	
NCR	NCR GmbH AUGSBURG
GRUPPE Unit	
NAME	SCHEMATIC KEYBOARD
BLATT 1 VON 2	
	017-0031563

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
F	F0 Row 7 Col 1	F1 Row 7 Col 5	F2 Row 7 Col 4	F3 Row 7 Col 2	F4 Row 7 Col 0	F5 Row 7 Col 3	F6 Row 7 Col 8	F7 Row 7 Col 10	F8 Row 7 Col 12	F9 Row 7 Col 6	F10 Row 7 Col 9	F11 Row 7 Col 11	F12 Row 7 Col 7	F13 Row 0 Col 7	F14 Row 0 Col 11
E	E0 Row 6 Col 1	E1 Row 6 Col 5	E2 Row 6 Col 4	E3 Row 6 Col 2	E4 Row 6 Col 0	E5 Row 6 Col 3	E6 Row 6 Col 8	E7 Row 6 Col 10	E8 Row 6 Col 12	E9 Row 6 Col 6	E10 Row 6 Col 9	E11 Row 6 Col 11	E12 Row 6 Col 7	E13 Row 0 Col 6	E14 Row 0 Col 10
D	D0 Row 5 Col 1	D1 Row 5 Col 5	D2 Row 5 Col 4	D3 Row 5 Col 2	D4 Row 5 Col 0	D5 Row 5 Col 3	D6 Row 5 Col 8	D7 Row 5 Col 10	D8 Row 5 Col 12	D9 Row 5 Col 6	D10 Row 5 Col 9	D11 Row 5 Col 11	D12 Row 5 Col 7	D13 Row 0 Col 0	
C	C0 Row 1 Col 1	C1 Row 1 Col 5	C2 Row 1 Col 4	C3 Row 1 Col 2	C4 Row 1 Col 0	C5 Row 1 Col 3	C6 Row 1 Col 8	C7 Row 1 Col 10	C8 Row 1 Col 12	C9 Row 1 Col 6	C10 Row 1 Col 9	C11 Row 1 Col 11	C12 Row 1 Col 7	C13 Row 2 Col 7	
B	B99 Row 2 Col 4	B00 Row 2 Col 1	B1 Row 2 Col 5	B2 Row 2 Col 4	B3 Row 2 Col 2	B4 Row 2 Col 0	B5 Row 2 Col 3	B6 Row 2 Col 8	B7 Row 2 Col 10	B8 Row 2 Col 12	B9 Row 2 Col 6	B10 Row 2 Col 9	B11 Row 0 Col 4		
A	A5 Row 0 Col 3														

	50	51	52	53	54
F	F50 Row 0 Col 3	F51 Row 3 Col 11	F52 Row 3 Col 9	F53 Row 3 Col 10	F54 Row 3 Col 12
E	E50 Row 0 Col 12	E51 Row 4 Col 11	E52 Row 4 Col 9	E53 Row 4 Col 10	E54 Row 4 Col 12
D	D50 Row 0 Col 2	D51 Row 3 Col 0	D52 Row 3 Col 2	D53 Row 4 Col 0	D54 Row 4 Col 2
C	C50 Row 0 Col 8	C51 Row 3 Col 3	C52 Row 3 Col 8	C53 Row 4 Col 3	C54 Row 4 Col 8
B	B50 Row 0 Col 5	B51 Row 3 Col 4	B52 Row 3 Col 5	B53 Row 4 Col 5	B54
A	A50 Row 0 Col 1		A52 Row 3 Col 1	A53 Row 4 Col 1	Row 4 Col 4

Typische Tastenbeschaltung / Typical Key Pinassignment



9	17DR01351 Kn 1283
F	17DR 01352 [illegible]
E	17DR01304 Kn 683
D	17DR01273 Kn 593
C	17DR01252 Kn 583
B	17DR01226 Kn 183
A	17DR01204 Kn 193

2

QUALITÄTSANGABEN Standard Quality per ES 2 0101
SOFERN NICHT ANDERS ANGEGEBEN Unless Otherwise Specified
ÜBERFLÄCHE Surface Finish ✓ ZWISCHEN Angles
MASSTOL mm NENNMASS Dimensional Tolerances
INNEN AUSSEN
HÄRTEPRÜFUNG ENTHÄRTET Hardness Check Depth
WERKSTOFF Material
OBERFLÄCHENBEHANDLG Coating
VERBINDUNGSART Joining
WÄRMEBEHANDLG Heat Treat
HÄRTE Hardness
ÄNDERUNGEN Changes
KLASSE Class 3273
LEZ AM Finish 12 7 82
LEZ Dru 36
GEPR Chk
KONSTR Designer
ZES Appd
NORMUNGSPR Appd
ERSETZT DURCH Superseded by
ERSATZ FÜR Supersedes
NCR GmbH AUGSBURG
SCHEMATIC KEYBOARD
MASSSTAB
017-0031563

BEMERKUNGEN Notes
ANHÄ. TEILE Similar Parts

USVG
TB-H
L5
33µH
C32
10µF
50V
R12
220
1W
R13
6,8K
2W
R15
390/10W
C35
4,7µF
200V
C40
8,2pF
R53
100
R14
12K
2W
P3-4
P3-3
VERT. DEF.
YOKE
S3
V-
CENT
R16
3,3K
1W
C37
10µF
50V
R49
4,7K
Q7
R49
820
R47
39K
BCL
1-A 1
C34
330µF
16V
CR12
Q1
R43
1K
P2-
R44
1,5K
TB-O
H-SYNC.
C33
2200pF
TB-D
CONTR-W
CONTRAST
R42
6,8K
S1
SERVICE
TB-P
V-SYNC.
H - V - MODULE
U5
C39
100pF
500V
C38
100pF
500V
Q2
R50
27K
C5
100µF
100V
R17
470
2W
C9
2200pF
500V
CR13
C8
470µF
25V
C25
2200pF
500V
CR14
C24
4,7µF
250V
VIDEO-GRD
TB-C
USVVI
TB-K
R/C1
25KV
2-B1
T2
R18
10
C6
1000µF/6,3V
R19
10/1/2W
R20
1,2
T3
FOCUS
TB-M
SCREEN
TB-N
R45
6,8K
3W
107±1V
R22
1,2MΩ
R23
2,2
CR11
P3-2
HOR.
DEF.
YOKE
560pF
2KV
P3-1
P-SYNC.
HV1
TB-A
HV2
TB-J
P1-
F1
3A
SB
CR2
R51
0
F2
1,5A
L1
N1
N2
CR1
S4
R21
2,2K
2W
CR10
Q3
C13
10µF
50V
C14
0,01µF
Q4
R27
15K
R25
27K
R26
26,7K
C15
1µF
100V
R28
560
C2
0,33µF
C3
330µF
160V
R1
33K
0,5W
R2
16
3W
R4
5,1/0,5W
CR3
C1
0,068µF
U1
CR4
R3
1K
3W
C4
2200µF
R5
8,2K
1W
CR5
R29
100
C16
2200pF
Q5
R30
470
R31
10K
C17
680pF
500V
R32
2,7K
2W
C18
4700pF
500V
R52
47
Q6
CR
6
C19
6800pF
1,6KV
C36
470pF
2KV
R33
4,7K
1/2W
C20
0,1µF
200V
L2
L3
C21
0,33µF
200V
R34
180/1W
CR7
CR8
S2
H-CENT
L4
C23
0,1µF
200V
C22
47µF
160V
CR9
TP-C
TP-D
R35
470K
R36
5,6K
TGRD
TB-I
BCL
1-D4

C-D ZUR STRAHLSTROMEINSTELLUNG /
FOR BEAMCURRENT ADJUSTMENT

1	C 17DR01346 Kn 9 R3 B 17DF01300 Sch 9 R3 A 17DR01262 Kn 5 R3

QUALITÄTSANGABEN Standards Quality per ES 2-07-01
TOL. WENN NICHT ANDERS ANGEGEBEN Unless Others Specified
OBERFLÄCHE Surface Finish
MASSTOL mm NENNMASS Dimensional Tolerances
OHNE MASSTE ECKEN Other Finish
UNBEMASSTE SCHARFE KANTEN FASE OD RADIUS Break Sharp Edges
BEARBEITUNGEN ENTGRATET Remove Burr Depth
WERKSTOFF Material
OBERFLÄCHENBEHANDLG. Coating
VERBINDUNGSART Joining
WÄRMEBEHANDLG. Heat Treat
HÄRTE Hardness
ÄNDERUNGEN Changes
BEMERKUNGEN Notes
ANZAHL TEILE Similar Parts
KLASSE Class 3273
GEZ AM Finish 21.2.83
GEZ Dra 26.6
GEPR Chkd
KONSTR Designer
GES Appd
NORM-ZEICH Appd
ERSETZT DURCH Suced by
ERSATZ FÜR Supersedes 017-0032158 A
NCR GmbH AUGSBURG
GRUPPE Unit
NAME SCHEM. DEFLEXION BOARD VIDEO AMPL
BLATT Sheet 3 VON
MASSSTAB Scale
017-0032158
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TB-K USVVI
TB-H USVG
TB-D CONTRAST-W
TB-E RED
TB-F GREEN
TB-G BLUE
TB-C
TB-B

R10 330 · C2 10µF 50V · CR6 · CR5 · CR4 · R8 68 · C4 10µF 50V · Q4 · R18 470 · R19 270 · CR3 · C3 33µF 16V · R7 1K · R5 470 · R6 100 · Q3 · R3 470 · R4 100 · Q2 · R16 470 · R15 470 · R17 270 · CR2 · R14 270 · CR1 · R1 470 · R2 100 · Q1 · 9

VIDEO PRE AMPLIFIER

C6 47µF 25V · R20 330 · L3 10µH · C7 4,7µF 250V · R16 3,9K 4W · R11 1,5K 330 · Q3 · R6 100 · R1/470 · C1 150pF · R7 22 · R5 2,2K · 33µF 16V · C2 0,01µF 100pF · L2 10µH · R18 2,2K · Q4 · R14 3,9K 4W · R15 1,5K 330 · R19 2,2K · Q2 · R9 330 · C3 150pF · R8 22 · R4 2,2K · L1 10µH · R17 3,9K 4W · R10 1,5K 330 · Q1 · R12 100 · R2/470 · C5 150pF · R13 22 · R3 2,2K

VIDEO AMPLIFIER

Einbau dieses C1 nur möglich (Kompensation der Ablenkplatte)
Es wird empfohlen C6 durch einen Tantal C zu ersetzen!

J1-
RED-K 8
GREEN-K. 6
BLUE-K. 11

TB-A HV1 · R21 2,7/2W · HV1* 9
TB-J HV2 · HV2* 10
TB-I TUBE-GRD
C4 1000pF 2000V
G1 5
TB-N G2/GREEN · G2/GREEN 7
TB-M G3/FOCUS · G3/FOCUS 1
TUBE GRD
TB-L
1-C1 25KV

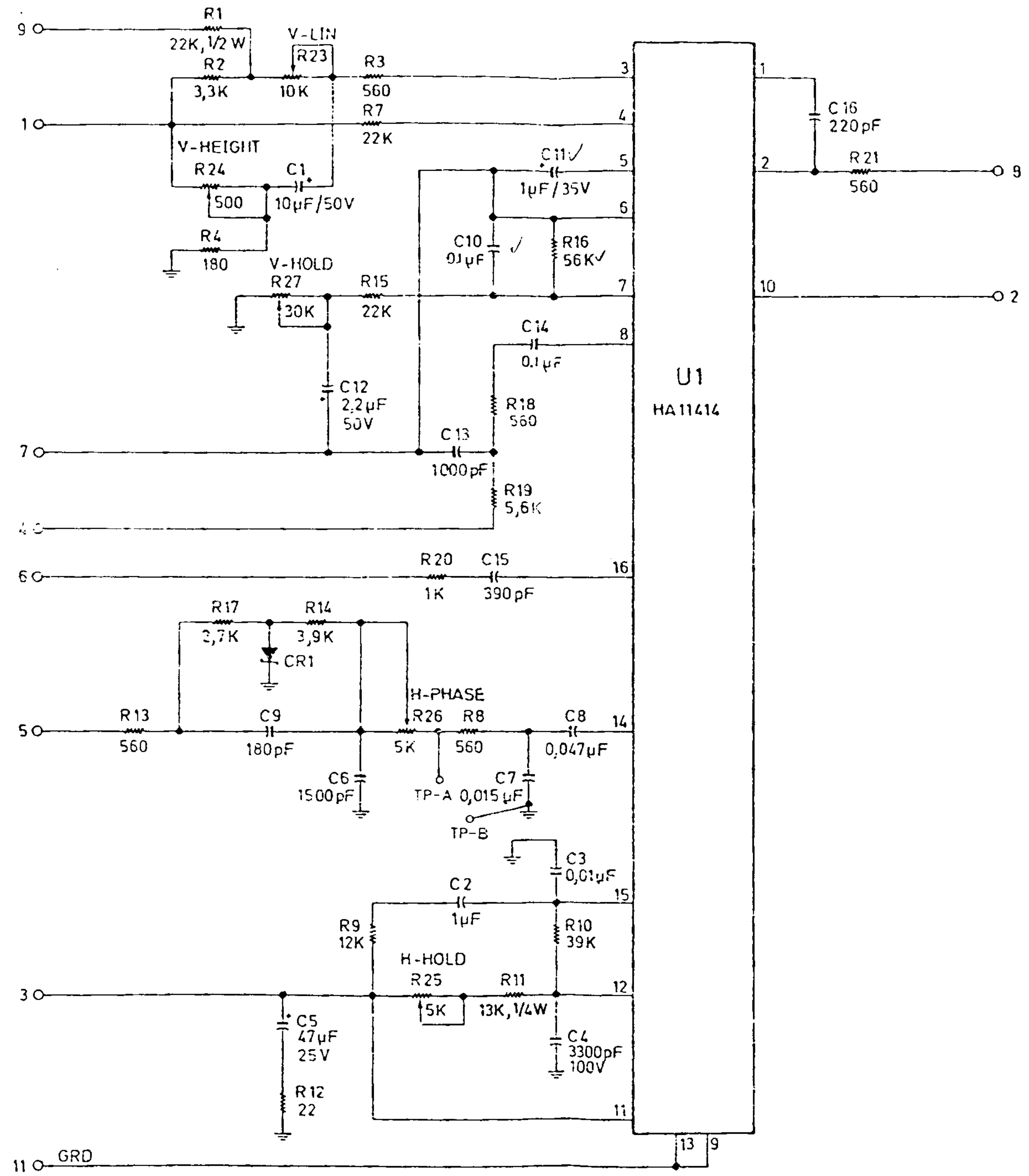
R G B

2
C 17DR01346 Kn 9.83
S 17DR0360 Kn 9.83
A 17DR01282 Kn 5.83

NCR NCR Comten AUGSBURG
SCHEM. DEFLEXION BOARD VIDEO AMPL
017-0032158
BLATT 2 VON 3

Schuler Microfilm GmbH

H - V - OSCILLATOR



TP A-B FUR HORZONTALOSZILLATORABGLEICH KURZSCHLIESSEN
CONNECT TP A-B FOR HORIZONTAL-OSCILLATOR-ADJUSTMENT

\# 2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

33x45

\# 1 ASSY - NO.: 017-0032925 - A / DEFLEXION BOARD
ASSY - NO.: 017-0032926 - A / HV-OSCILLATOR
ASSY - NO.: 017-0032900 - B / VIDEO AMPLIVIER
ASSY - NO.: 017-0032871 - A / PRE AMPLIFIER

BEMERKUNGEN Notes
ANHL. TEILE Similar Parts

C	17DR01346	Kn.	9.83
B	17DR01300		9.83
A	17DR01262	Kn.	5.83
INDEX Rev	ÄND. MITT. NR. Eng. Not No.	NAME Chg	DAT Date

3

KLASSE Class 3273
GEZ. AM Finish 4.5.83
GEZ. Drw Ka
GEPR. Chkr
KONSTR. Designer
GES. Appd
NORMGEPR. Appd
ERSETZT DURCH Superd by
ERSATZ FUR Supersedes 017-0... A

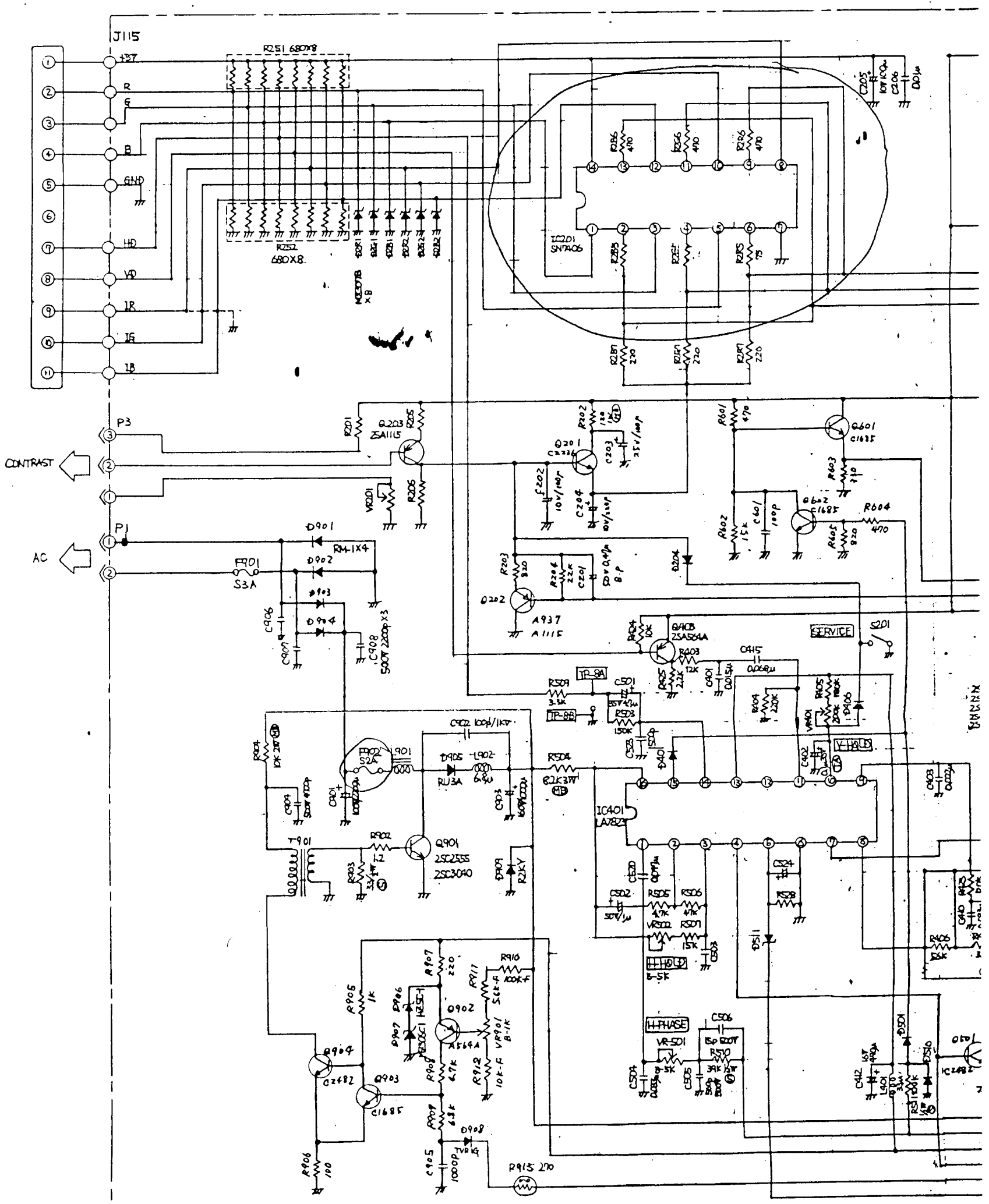
NCR GmbH AUGSBURG

NAME SCHEM. DEFLEXION. BOARD VIDEO AMPL.

BLATT 3 VON 3

MASSSTAB

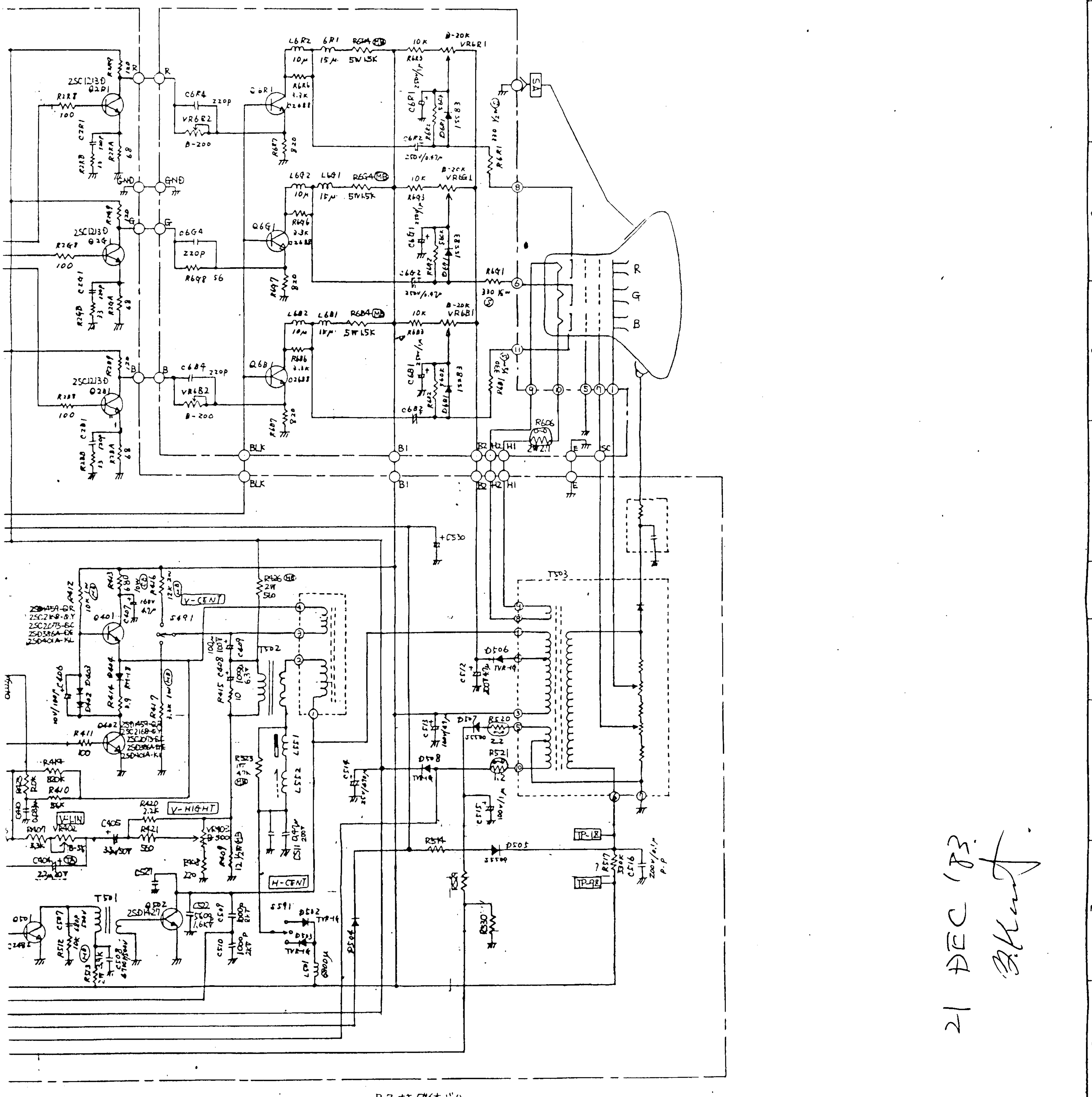
017-0032158



AA-R262AU
EE-R262AU
F B
APPLICABLE MODEL NO

1 2 3 4 5 6 7 8

9 10 11 12 13 14 15 16



品名ナキダイオードハ
1S2076A/1S2471 トスル

(1) 電気部品ハ試験規格999P003ノ適用スル
THE PARTS MUST SATISFY THE FOLLOWING STANDARD OF SPEC NO 999P003 ITEM
(2) 量産前ニ見本ヲ 個 ショット部品技術課ニ提出シ了解ヲ得ヲ得ル事ノコト
SAMPLES SHALL BE SUBMITTED TO ENG DEPT FOR TECHNICAL APPROVAL BEFORE PRODUCTION STARTS
(3) 打抜キカエリハ板厚ノ1/5以内ノコト
BURR 1/5 X THICKNESS MAX
(4) 指定ナキ打抜キ角ノRハ1~3 Rトスル
CORNERS ACCEPTABLE AT R1~3 UNLESS OTHERWISE SPECIFIED
(5) 指定ノナイ寸法許容差ハ右表ヲ適用スル。
TOLERANCE MUST BE IN ACCORDANCE WITH THE TABLE RIGHT HAND UNLESS OTHERWISE SPECIFIED

呼ビ寸法 RANGE OF DIMENSION	寸法差 ALLOWABLE TOLERANCE			
UP TO 30	±0.5	±0.2	±1.0	±2.0
ABOVE 30 TO 60	±0.7	±0.3	±1.0	±2.0
ABOVE 60 TO 120	±0.7	±0.5	±1.5	±3.0
ABOVE 120 TO 250	±1.0	±0.7	±1.5	±3.0
ABOVE 250 TO 500	±1.5	±1.0	±2.0	±4.5
ABOVE 500	±1.5	±1.5	±2.5	±5.0

板金ノ曲ゲ角度ノ寸法差±1 75/100(1度)
ANGLE(SHEET METAL) ±1 75/100 (1DEG)

5 4 3 2 1

規格 MATERIAL AND DIMENSION — UNIT CODE — 摘要 REMARK

出図先

第3角法 3RD ANGLE PROJECTION | DIM IN mm | 尺度 SCALE NTS | 作成日付 DATE . .

MITSUBISHI ELECTRIC CORPORATION

作成 DRAWN	検査 CHECKED	設計 DESIGNED	承認 APPROVED
高柳			

図名 TITLE OF DRAWING 5 ~ ~24

SCHEMATC-DIAGRAM

図面コード Q 25 26 27 28 29 30 31

9 10 11 12 13 14 15 16

GRAPHIC - DISPLAY - CONTROLLER

GDC 7220-1
A17

CHARACTER - GRAPHIC - MULTIPLEXER

ADDRESS - REGISTER

CADR0 - CADR5

XAD0 - XAD15

YA0 - YA3

YA4 - YA7

1			
A	7CR0126	Kn 583	
3273	25.1.1983	NCR-Comten AUGSBURG	
SCHEMATIC-GRAPHIC CONTR... COLOR			
017 0032489			

1-A1 XAD Ø - XAD 15

GREEN

C13 XCVR 74LS245: 3-A4 CE Ø/, 1-C2 DBIN/, XAD15..XAD8 → GVD15..GVD8

C14 74ALS 299: +5V via RR5 1,2K; 5-D1 VSREN, 4-B3 VSRLD1, 4-B1 PIXCLK1*; SL/ SR/; I/O7..I/O Ø → GVD15..GVD8; OH → NC; OA → 8 SERPIXGREEN → 1-C2

C18 XCVR 74LS245: 3-A4 CE Ø/, 1-C2 DBIN/, XAD7..XAD Ø → GVD7..GVD Ø

C19 74ALS 299: +5V via RR5 1,2K; 5-D1 VSREN, 4-B3 VSRLD1, 4-B1 PIXCLK1*; SL/ SR/; I/O7..I/O Ø → GVD7..GVD Ø; OH → NC; OA → 8 SERPIXGREEN → 1-C2

GVD Ø - GVD15 → 3-A2,5-D4

RED

D13 XCVR 74LS245: 3-A4 CE1/, 1-C2 DBIN/, XAD15..XAD8 → RVD15..RVD8

D14 74ALS 299: +5V via RR5 1,2K; 5-D1 VSREN, 4-B3 VSRLD1, 4-B1 PIXCLK1*; +5V via RR7 1,2K; SL/ SR/; I/O7..I/O Ø → RVD15..RVD8; OH → NC; OA → 8 SERPIXRED → 1-D2

D18 XCVR 74LS245: 3-A4 CE1/, 1-C2 DBIN/, XAD7..XAD Ø → RVD7..RVD Ø

D19 74ALS 299: +5V via RR7 1,2K; 5-D1 VSREN, 4-B3 VSRLD1, 4-B1 PIXCLK1*; SL/ SR/; I/O7..I/O Ø → RVD7..RVD Ø; OH → NC; OA → 8 SERPIXRED → 1-D2

RVD Ø - RVD15 → 3-A2

2

A 170R01282 Kn.5.83

QUALITÄTSANFORDERUNGEN, Standard Quality per ES 2.07.01
TOL. WENN NICHT ANDERS ANGEGEBEN, Unless Otherwise Specified
OBERFL. QUAL., Surface Finish ✓ | WINKEL, Angles ± | mm | INCH
MASSTOL. mm NENNMASS., Dimensional Tolerances X.X / X.XX
UNBEMASSTE ECKEN, Corner Radii: INNEN MAX, AUSSEN MAX
UNBEMASSTE SCHARFE KANTEN, FASE OD. RADIUS, Break Sharp Edges MAX
BOHRUNGEN ENTGRATET, Hole Deburr Depth MAX
WERKSTOFF, Material
OBERFLÄCHENBEHANDLG., Coating
VERBINDUNG, PART, Joining
WÄRMEBEHANDLG., Heat Treat
HÄRTE, Hardness
ÄNDERUNGEN, Changes

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KLASSE, Class 3273
GEZ. Am, Finish 8.4.1983
GEZ., Dim.
GEPR., Chkd.
KONSTR., Designer
GES., Appd.
NORMGEPR., Appd.
ERSETZT DURCH, Superseded by
ERSATZ FÜR, Supersedes

NCR GmbH AUGSBURG
GRUPPE, Unit
NAME SCHEMATIC-GRAPHIC CONTR COLOR
BLATT 2 VON 5
MASSSTAB
017-0032489

BEMERKUNGEN, Notes
Anwd. TEILE, Similar Parts

Schaller Microfilm GmbH

BLUE

XAD Ø - XAD15

1 - A1

3 - A4 CE2/

1 - C2 DBIN/

E13

XCVR 74LS245

XAD15 XAD14 XAD13 XAD12 XAD11 XAD10 XAD9 XAD8

BVD15 BVD14 BVD13 BVD12 BVD11 BVD10 BVD9 BVD8

•5V RR7 1,2K

5 - D1 VSREN

4 - B3 VSRLD1

4 - B1 PIXCLK1*

E14 74ALS 299

MR OE2 OE1 S1 SØ C SL/ SR/ I/O7 I/O6 I/O5 I/O4 I/O3 I/O2 I/O1 I/OØ OH OA

NC

3 - A4 CE2/

1 - C2 DBIN/

E18

XCVR 74LS245

XAD7 XAD6 XAD5 XAD4 XAD3 XAD2 XAD1 XADØ

BVD7 BVD6 BVD5 BVD4 BVD3 BVD2 BVD1 BVDØ

R2Ø 1,2K

R21 1,2K

E19 74ALS 299

SERPIXBLUE → 1 - C2

1 - B2 A14

1 - B2 A15

A15 DEMUX 74LS155

1 - C2 DBIN/

4 - C1 LDDIS/

B9 74ALSØØ

CEØ/ → 2 - B4, 2 - D4

CE1/ → 2 - B2, 2 - D2

CE2/ → 3 - C4, 3 - D4

NC

4 - D1 WRE/

WEØ/ → 3 - D2

WE1/ → 3 - D1

WE2/ → 3 - D1

NC

BVDØ - BVD15

YAØ - YA7

1 - A1

C16

C15

C17

GRD

3 - A4 WEØ/ WE1/ WE2/

GVDØ GVD1 GVD2 GVD3 RVDØ RVD1 RVD2 RVD3 BVDØ BVD1 BVD2 BVD3

YAØ YA1 YA2 YA3 YA4 YA5 YA6 YA7

4 - C1 OE/

4 - B3 RASGEN/

4 - A3 CASGEN/

GVD4 GVD5 GVD6 GVD7 RVD4 RVD5 RVD6 RVD7 BVD4 BVD5 BVD6 BVD7

GVD8 GVD9 GVD10 GVD11 GVD12 GVD13 GVD14 GVD15 RVD8 RVD9 RVD10 RVD11 RVD12 RVD13 RVD14 RVD15 BVD8 BVD9 BVD10 BVD11 BVD12 BVD13 BVD14 BVD15

•5V

2 - A3 GVDØ - GVD15

2 - A1 RVDØ - RVD15

BVDØ - BVD15

3

A 17DB01282 Kn 5.83

INDEX | FRG MITT NR. Rev. Eng Rel No. | NAME Orig | DAT Date

QUALITÄTSANGABEN, Standard Quality per ES 2 07 01

TOL. WENN NICHT ANDERS ANGEGEBEN, Unless Otherw. Specified

OBERFL. QUAL. Surface Finish: √ | WINKEL Angles °

MASSTOL. mm NENNMASS. Dimensional Tolerances: X.X X.XX

UNBEMASSTE ECKEN, Corner Radii: INNEN MAX, AUSSEN MAX

UNBEMASSTE SCHARFE KANTEN, FASE OD. RADIUS, Break Sharp Edges MAX

BOHRUNGEN ENTGRATET, Hole Deburr Depth MAX

mm | INCH

WERKSTOFF, Material

OBERFLÄCHENBEHANDLG, Coating

VERBINDUNGSART, Joining

WÄRMEBEHANDLG, Heat Treat

HÄRTE, Hard

ÄNDERUNGEN, Changes

KLASSE, Class 3273

GEZ. AM, Finish 11.4.1983

GEZ., Dftg.

GEPR., Chkr.

KONSTR., Designer

GES. Appd

NORMGEPR. Appd

ERSETZT DURCH, Superseded by

ERSATZ FÜR, Supersedes

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NCR GmbH AUGSBURG

GRUPPE, Unit

NAME SCHEMATIC GRAPHIC CONTR. COLOR

BLATT 3 VON 5

MASSSTAB

CODE

017-0032489

BEMERKUNGEN, Notes

ANHÄ. TEILE, Similar Parts

WORD - CLOCK - GENERATOR

MEMORY - CONTROL - LOGIC

CLOCK - GENERATOR

RR6 2 x 1,2K

RR2 2 x 1,2K

RR6 1,2K

RR4 1,2K

RR2 1,2K

RR4 1,2K

R16 1,2K

R17 1,2K

R19 560

R18 560

R11 0

BEM NOTE ∓ 3

D4 74LS161 ISCNTR

C3 74S74

D1 74LS74

D2 74LS74

D3 74ALS74

B8 74ALS74

C2 SR-4 74S194

E4 74ALS20

A9 74ALS00

B7 74ALS04

C4 74ALS04

C5 74LS04

A10 74S04

B4 74S02

A2 74ALS08

B3 74ALS00

E3 74S04

A3 74LS04

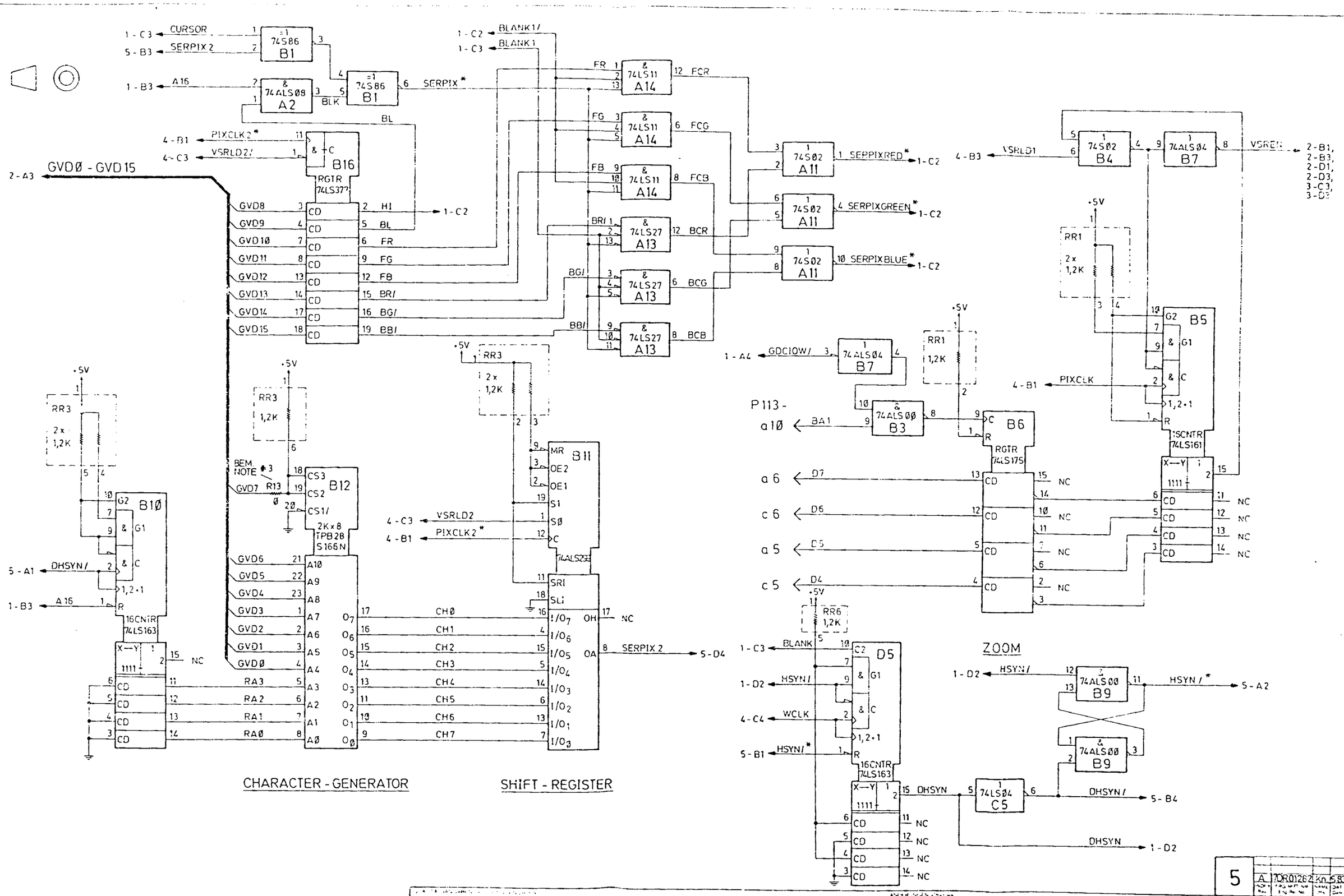
X1 20,0MHz

CA24 15pF

CA23 33pF

2 DÄMPFUNGSPERLEN DIREKT AN F3/12

4	A 17LR01282 Kn 583
NCR GmbH AUGSBURG	
SCHEMATIC-GRAPHIC CONTR... COLOR	
017-0032489	



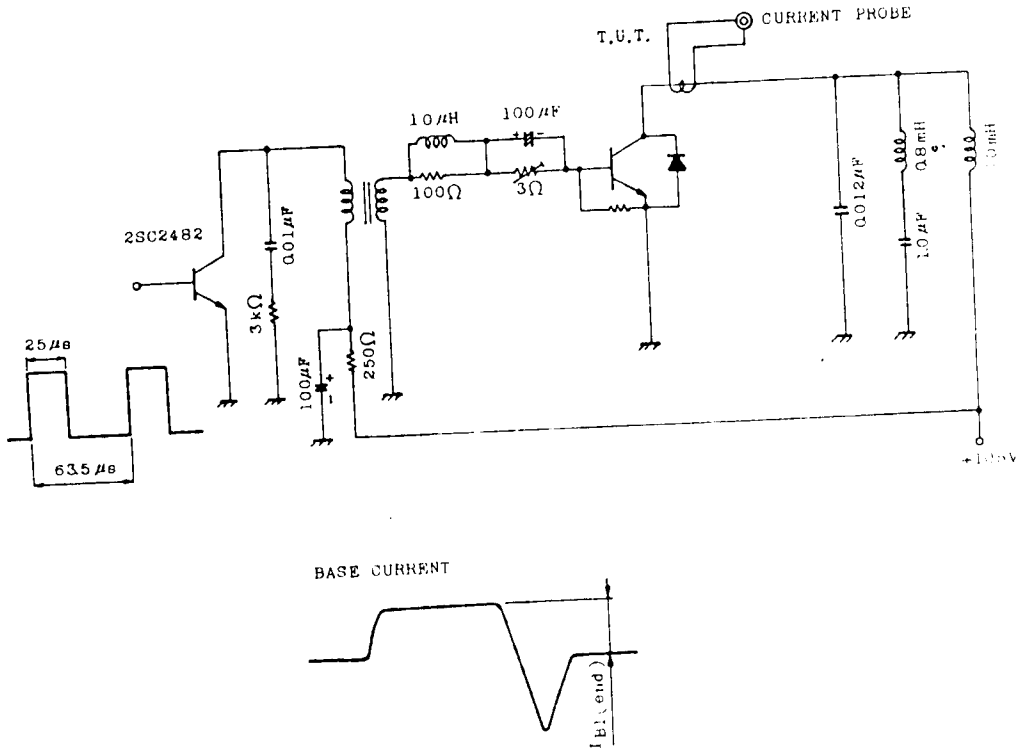
3 R1-R3, R5-R9, R11, R13, J1, J2; C1, E5 NICHT BESTÜCKT
R1-R3, R5-R9, R11, R13; J1, J2; C1; E5 NOT MOUNTED

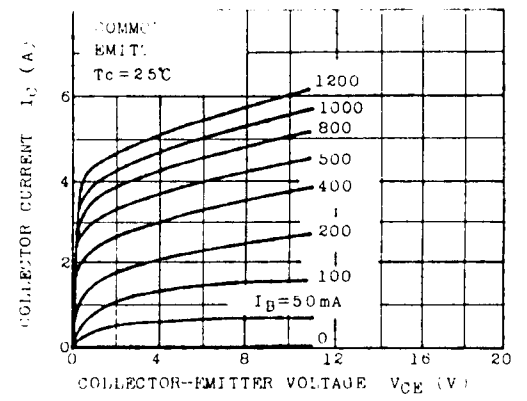
2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

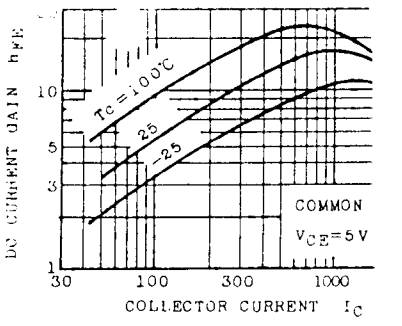
1 ASSY 017-0032479-A

5	A	70R01282 Kn 5.83	
3273	24.1.1983	NCR GmbH AUGSBURG	
SCHEMATIC-GRAPHIC, CONTR. COLOR			
5 von 5	017 0032489		

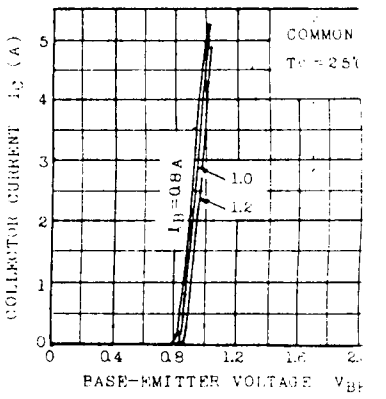
Fig. t_f TEST CONDITION



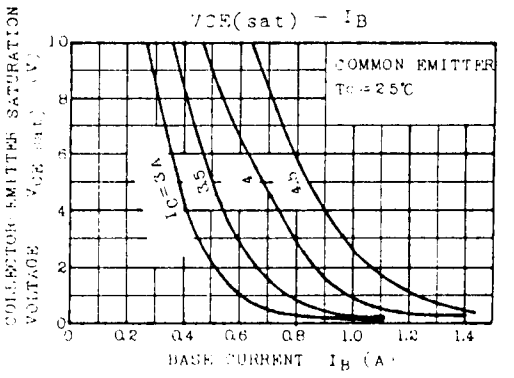




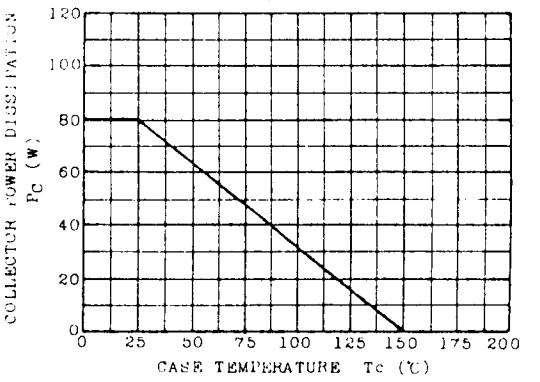
$I_C - V_{BE}$



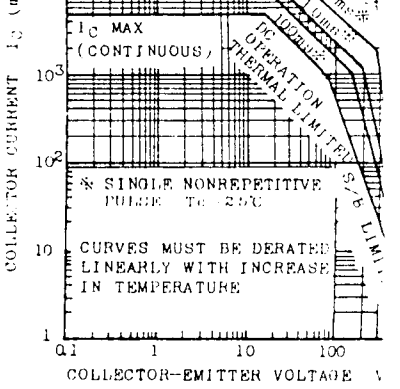
$V_{CE(sat)} - I_B$



$P_C - T_c$



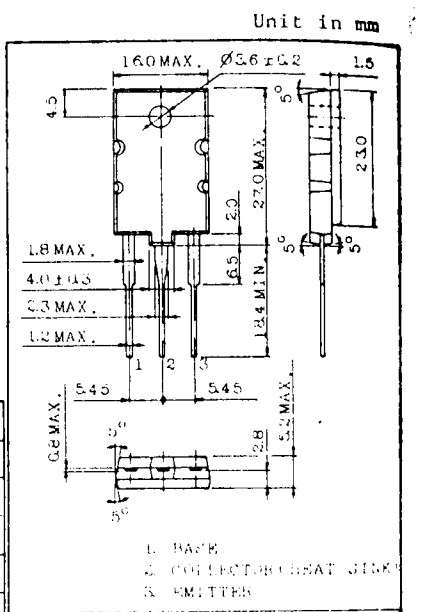
SAFE OPERATING ARE



COLOR TV HORIZONTAL OUTPUT APPLICATIONS.

FEATURES:
- High Voltage : V_{CBO}=1500V
- Low Saturation Voltage : $V_{CE(sat)}$=5V(Max.) (I_C=4A, I_B=0.8A)
- High Speed : t_f=1.0μs(Max.)
- Built-in Damper Type
- Glass Passivated Collector-Base Junction

Unit in mm

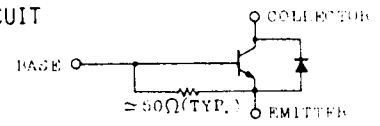


Weight : 5.2g

MAXIMUM RATINGS (Ta=25°C)

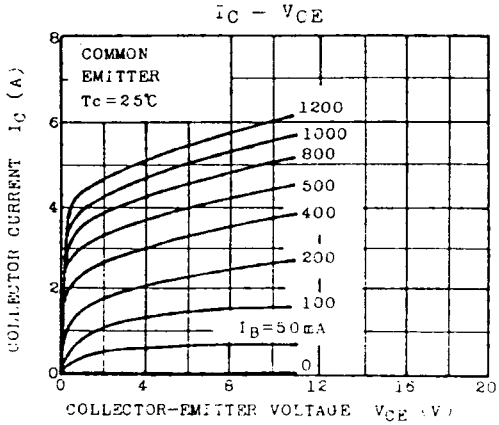
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	1500	V
Collector-Emitter Voltage	V_{CEO}	600	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	5	A
Emitter Current	I_E	-5	A
Collector Power Dissipation (Tc=25°C)	P_C	80	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

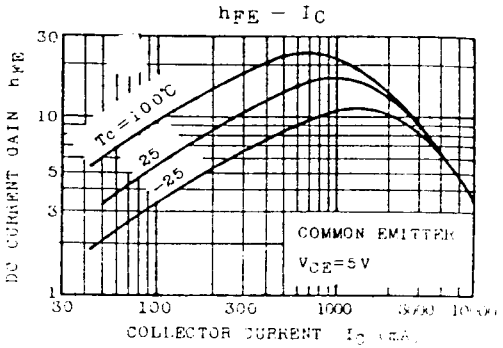
EQUIVALENT CIRCUIT

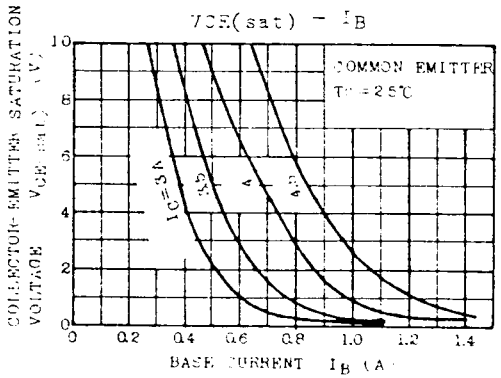


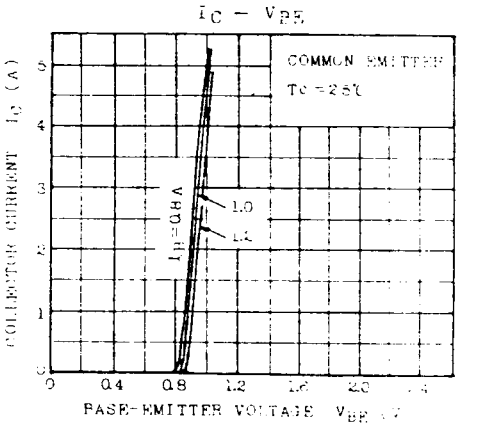
ELECTRICAL CHARACTERISTICS (Ta=25°C)

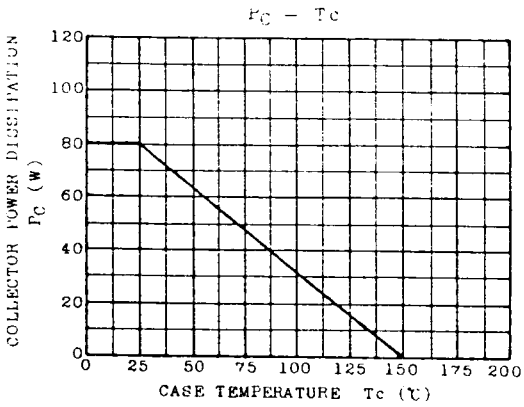
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=500V, I_E=0	-	-	10	μA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=200mA, I_C=0	5	-	-	V
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1.0A	8	12	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=4A, I_B=0.8A	-	3	5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=4A, I_B=0.8A	-	-	1.5	V
Forward Voltage (Damper Diode)	$-V_F$	I_F=5A	-	1.6	2.0	V
Transition Frequency	f_T	V_{CE}=10V, I_C=0.1A	-	3	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	165	-	pF
Fall Time (Fig.)	t_f	I_{CP}=4A, $I_{B1(end)}$=0.8A	-	0.5	1.0	μs

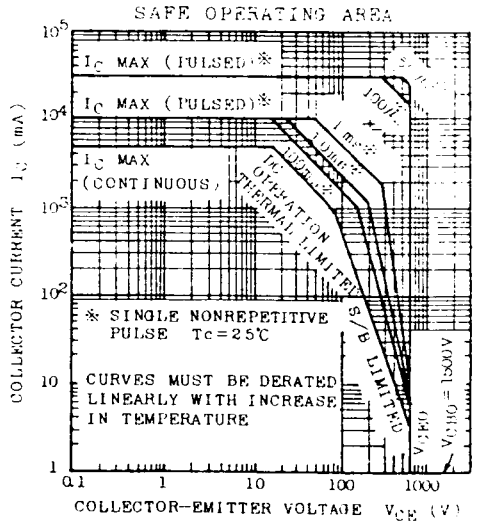

$I_C - V_{CE}$
COMMON EMITTER
Tc = 25℃
1200
1000
800
500
400
200
100
I_B = 50 mA
0
COLLECTOR CURRENT I_C (A)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)


$h_{FE} - I_C$
Tc = 100℃
25
−25
COMMON EMITTER
V_{CE} = 5 V
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)


$V_{CE(sat)} - I_B$
COMMON EMITTER
Tc = 25℃
I_C = 3 A
COLLECTOR-EMITTER SATURATION VOLTAGE $V_{CE(sat)}$ (V)
BASE CURRENT I_B (A)


$I_C - V_{BE}$
COMMON EMITTER
Tc = 25℃
I_B = 0.8 A
1.0
1.2
COLLECTOR CURRENT I_C (A)
BASE-EMITTER VOLTAGE V_{BE} (V)


$P_C - T_C$
COLLECTOR POWER DISSIPATION P_C (W)
CASE TEMPERATURE Tc (℃)


SAFE OPERATING AREA
I_C MAX (PULSED)*
I_C MAX (CONTINUOUS)
100μs*
1 ms*
10 ms*
DC OPERATION (THERMAL) LIMITED
* SINGLE NONREPETITIVE PULSE Tc = 25℃
CURVES MUST BE DERATED LINEARLY WITH INCREASE IN TEMPERATURE
S/B LIMITED
V_{CEO}
V_{CBO} = 1500 V
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

D-RAM-CONTROLLER

CAS/
+5V
RR1 10K
74LS04 G1
74LS21 F1
9-C3 24MHz
3-C3 HLDA
3-B3 M1
1-C2 BA19
74LS74 B6
AOUT0-AOUT7, RAS/, WE/
2-C4, 2-D4
E3 8203
RFRQ
PCS/
AH7
AH0
AL7
AL0
RD S1
WR
BA15
BA14
BA13
BA12
BA11
BA10
BA9
BA8
BA7
BA6
BA5
BA4
BA3
BA2
BA1
BA0
BA0 - BA15
3-B1
7-A1 MEW/
SACK/
NC
OUT7
AOUT7
AOUT6
AOUT5
AOUT4
AOUT3
AOUT2
AOUT1
AOUT0
OUT0
CAS/
RAS0/
RAS/
WE/
XACK/
RAS1/
NC
RAS3/
16K/64K
J101-
a 3
a 4
c 4
a 5
c 5
c 10
c 11
c 12
a 30
c 30
3-A1 MEMR/
74LS04 G1
74LS00 F2
RAMOUTDIS/
TRAMD/
74LS08 B12
J102-J107
- c 16
- c 16
RR4 1.2K
8-D3 BSEL/
9-D3 RESET/
H1 RGTR 74LS175
4-C2 HLDA 16
3-B1 BA2
3-B1 BA1
3-B1 BA0
CD
NC
74LS126 L1
R18 10K
X-Y CODER 74LS138 N1
CAS7/
CAS6/
CAS5/
CAS4/
CAS3/
CAS2/
CAS1/
CAS0/
2-C4
J101-
a 1
c 1
LGRD
a 16
c 16
a 32
c 32
J102-J107/J107A
BA16
BA17
BA18
BA19
c 18
a 18
c 17
a 17
1-C4
3-B4 MEMRQ
74LS00 F2
READY CPU
74LS04 G1
READY DMA
4-A4
J102-J107
READY DMA
- a 10
CLK
OE/
F4
RR7 220
F5
74LS244
RGTR 74LS374
J101-
a 12
a 13
c 13
a 14
a 29
c 29
a 31
c 31
OD0 - OD7
2-C1
D0 - D7
3-D2
ID0 - ID7
2-C3
J101-
a 19
a 20
a 21
a 22
a 23
a 24
a 25
a 26

[redacted]

1

H 17DR01358 Kn 1163
G 17DR01309 Kn 963
F 17DR21305 Kn 683

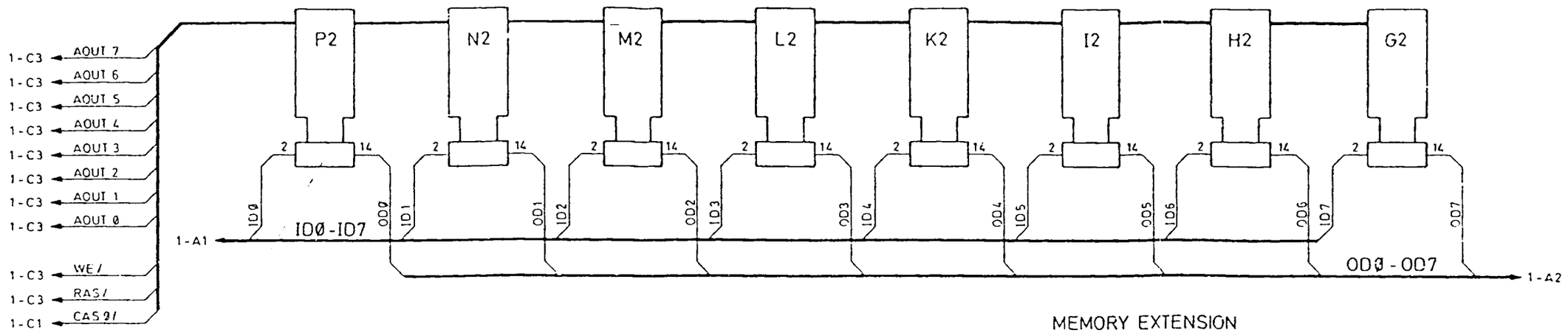
3273
21 10 1982

NCR AUGSBURG

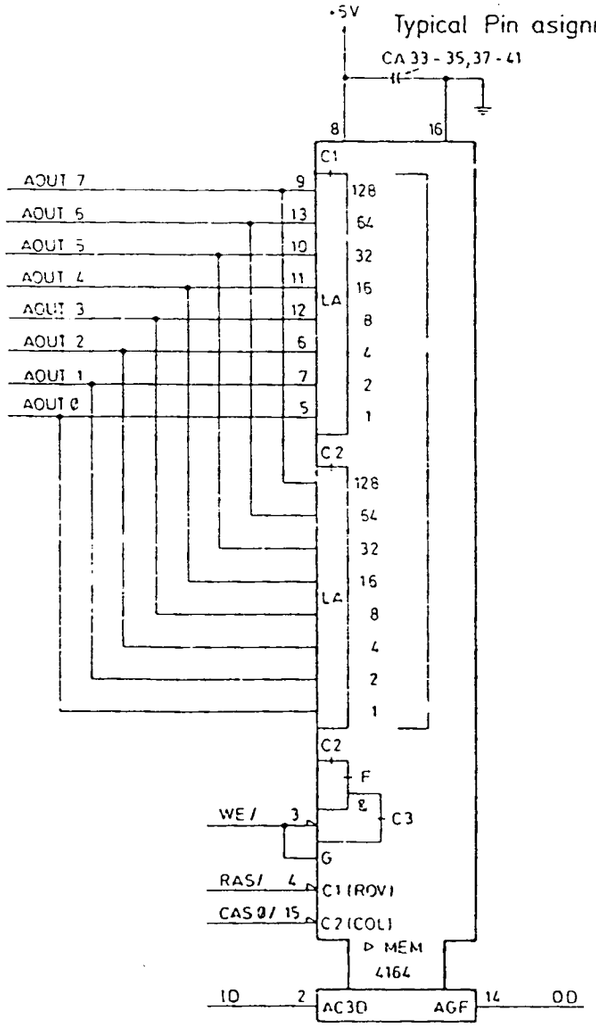
SCHEMATIC-CONTROLLER LM Σ
W/O GRAPHIC PPOC

017 0032012

D RAM



Typical Pin asignment



MEMORY EXTENSION

J101

a		c	
1	+5V	1	+5V
2	NC	2	NC
3	AOUT 7	3	NC
4	AOUT 6	4	AOUT 5
5	AOUT 4	5	AOUT 3
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC
10	NC	10	AOUT 2
11	NC	11	AOUT 1
12	OD0	12	AOUT 0
13	OD1	13	OD2
14	OD3	14	NC
15	NC	15	NC
16	LGRD	16	LGRD
17	NC	17	NC
18	NC	18	NC
19	ID0	19	NC
20	ID1	20	NC
21	ID2	21	NC
22	ID3	22	NC
23	ID4	23	CAS 0/
24	ID5	24	CAS 7/
25	ID6	25	CAS 6/
26	ID7	25	CAS 5/
27	CAS 2/	27	CAS 1/
28	CAS 3/	28	CAS 4/
29	OD4	29	OD5
30	RAS/	30	WE/
31	OD6	31	OD7
32	LGRD	32	LGRD

[redacted]

2

H 17DR01358 Kn. 11.83
G 17DR01300 Kn. 9.83
F 17DR01305 Kn. 6.83

KLASSE Class	3273
GEZ am Form	20.10.82
GEZ Dm	
GEPR Chk	
KONSTR Design	
GES Appd	
NORMGEPR Appd	
ERSETZT DURCH Superseded by	
ERSATZ FÜR Supersedes	

NCR GmbH AUGSBURG

SCHEMATIC-CONTROLLER DM Σ
W/O GRAPHIC PROC

BLATT Sheet 2 von 9

017 0032012

A8 - A15

A0 - A7

D0 - D7

Z80A PROC. C17

J107A - J107

J102 - J107

J102 - J106

J113 - a10

BA0 - BA15

RR8 10K

RR9 1.2K

RR4 1.2K

RR3 10K

RR5 10K

74LS244 F15

74LS244 F16

RGTR 74LS373 F14

74LS04 C14

74LS00 F2

74LS08 B12

74LS32 B14

74LS368 C13

74LS02 C12

74LS-3 B7

PCLK

NMI/

INT/

RESET/

RES/

THOLD/

STDMARQ/

HOLD

BUSREQ/

WAIT/

READYP

READYCPU

HALT/

RFSH/

BUSACK/

HLDA

MEMRQ/

M1/

IORQ/

RD/

WR/

INTACK/

ADEN/

ADSTB

MEMR/

IOR/

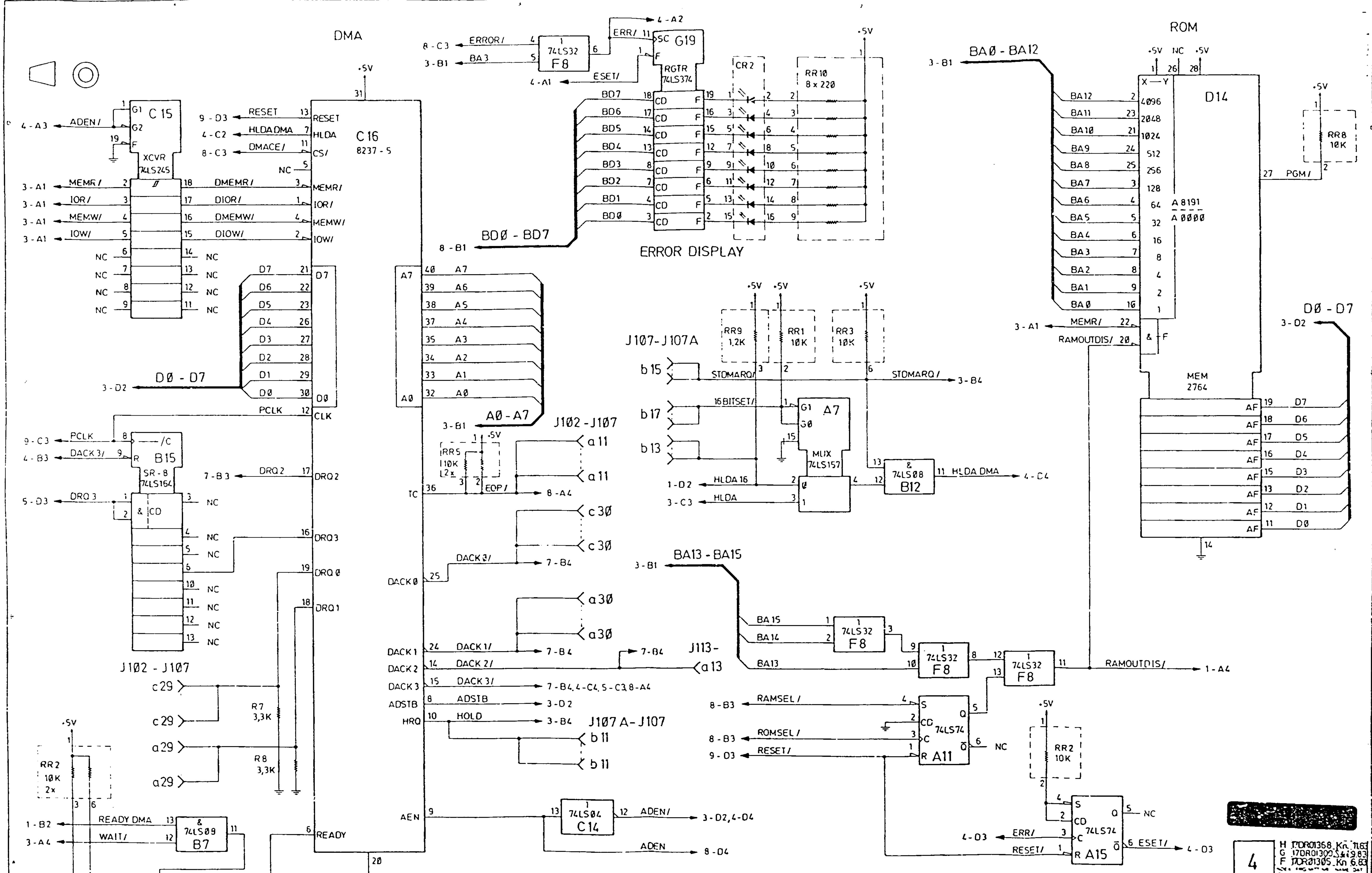
MEMW/

IOW/

ABTRI/

IORQ/

NCR GmbH AUGSBURG
SCHEMATIC-CONTROLLER DM V W/O GRAPHIC PROC
017-0032012



KLASSE	3273
GEZ.	26.10.1982

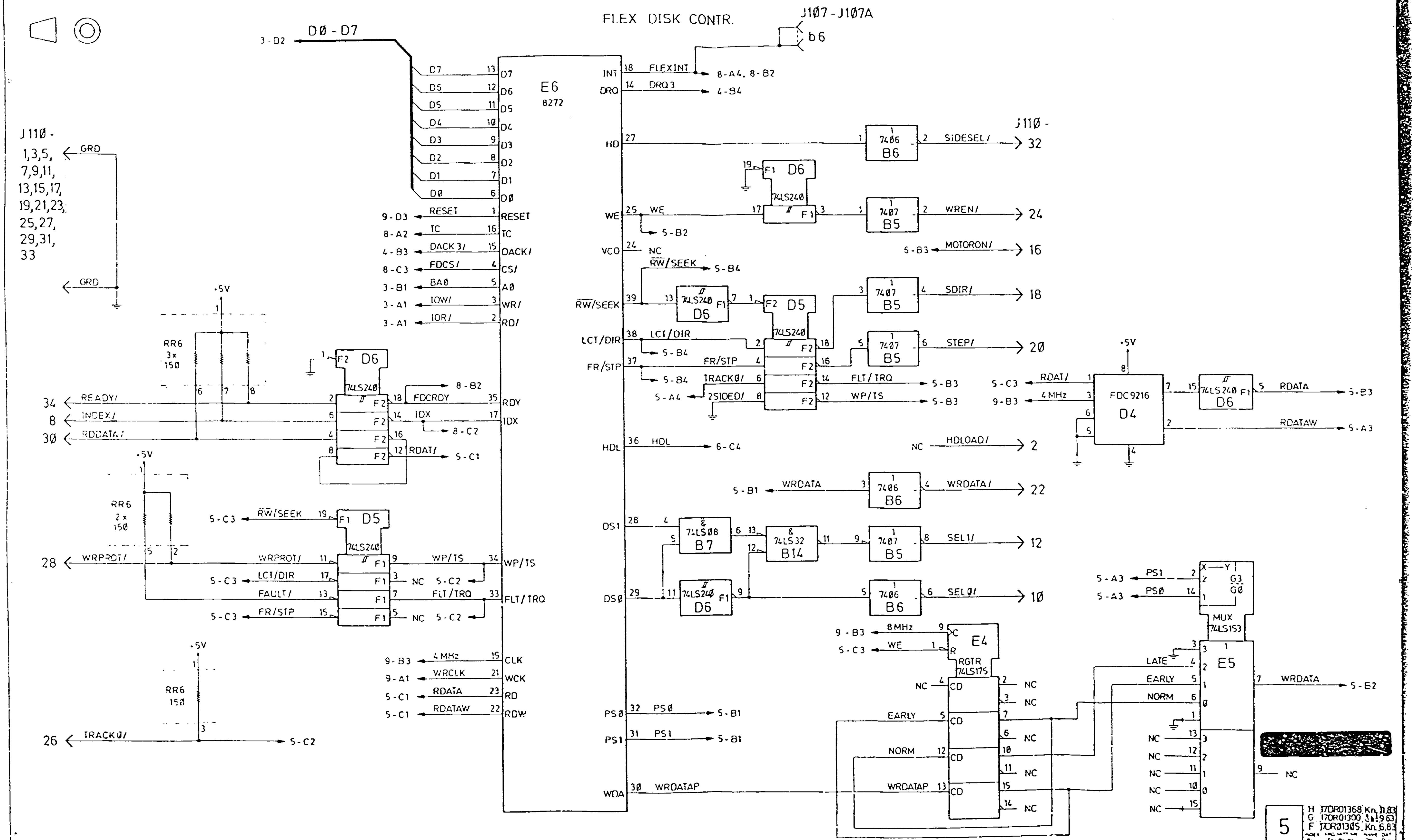
NCR GmbH AUGSBURG

SCHEMATIC-CONTROLLER DM V W/O GRAPHIC PROC

017-0032012

4

H 17DR01368 Kn 11.83
G 17DR01300 S 9.83
F 17DR01305 Kn 6.83



5

H 17DR01368 Kn 11.83
G 17DR01300 3.9.83
F 17DR01305 Kn 6.83

NCR GmbH AUGSBURG

KLASSE 3273
26.10.1982

SCHEMATIC-CONTROLLER DM V W/O GRAPHIC PROC

017 0032012

KEYBOARD

D0 - D7

3-D2

+5V

8253
B17

D7 1 D7
D6 2 D6
D5 3 D5
D4 4 D4
D3 5 D3
D2 6 D2
D1 7 D1
D0 8 D0

3-B1 BA0 19 A0
3-B1 BA1 20 A1
8-C3 TIMSEL/ 21 CS/
3-A1 IOR/ 22 RD/
3-A1 IOW/ 23 WR/
9-A3 500KHz 18 CLK2
16 GATE2
J113-c8 HSYN 14 GATE1
J113-c15 WCLK 15 CLK1
J113-a9 VSYNCX 9 CLK0
11 GATE0

TOUT2 17 TIMINT → J107-J107A b8
TOUT1 13 HSYNCX → J113- a8
TOUT0 10

5-C3 HDL
8-B3 MON/
74LS86 A6

RESET/ 9-D3
74LS00 B16
MOTOR/ → 8-B2
MON/

74LS07 B5
MOTORON/ → 5-C2

J108-
6

J109-
3 +5V
4 SDPOLL
1 LGRD
2 FGRD
6
5 NC

CA42 NOT MOUNTED
0.1µF

+5V
26 VDD
40 VCC
8741-A
C19

D7 19 D7
D6 18 D6
D5 17 D5
D4 16 D4
D3 15 D3
D2 14 D2
D1 13 D1
D0 12 D0

R11 510
R10 510
9-B3 6MHz
7406 B6
2 X1
3 X2

RR8 10K
9-D3 RESET/ 4 RESET/
8-C3 KBCS/ 6 CS/
3-A1 IOR/ 8 RD/
3-B1 BA0 9 A0
3-A1 IOW/ 10 WR/
5 SS/

R15 1K
74LS14 B11
SDPOLL
DATA
R12 1K
P10 27
P11 OUT 28 POLL
EA 7
GRD 20
RR7 220
R16 2,4K
Q2
R17 5,6K

P23 24
74LS04 B4
R2 2,4K
R1 2,2K
Q1
RESETIN/ → 9-C4

J107-J107A
P24 35 KEYINT → b7

J4-
1
3
2

J3-
2
1

R9 10 1/2W
LS
22 / 0,5W

R14 470
Q3
CA44 3,3µF 16V

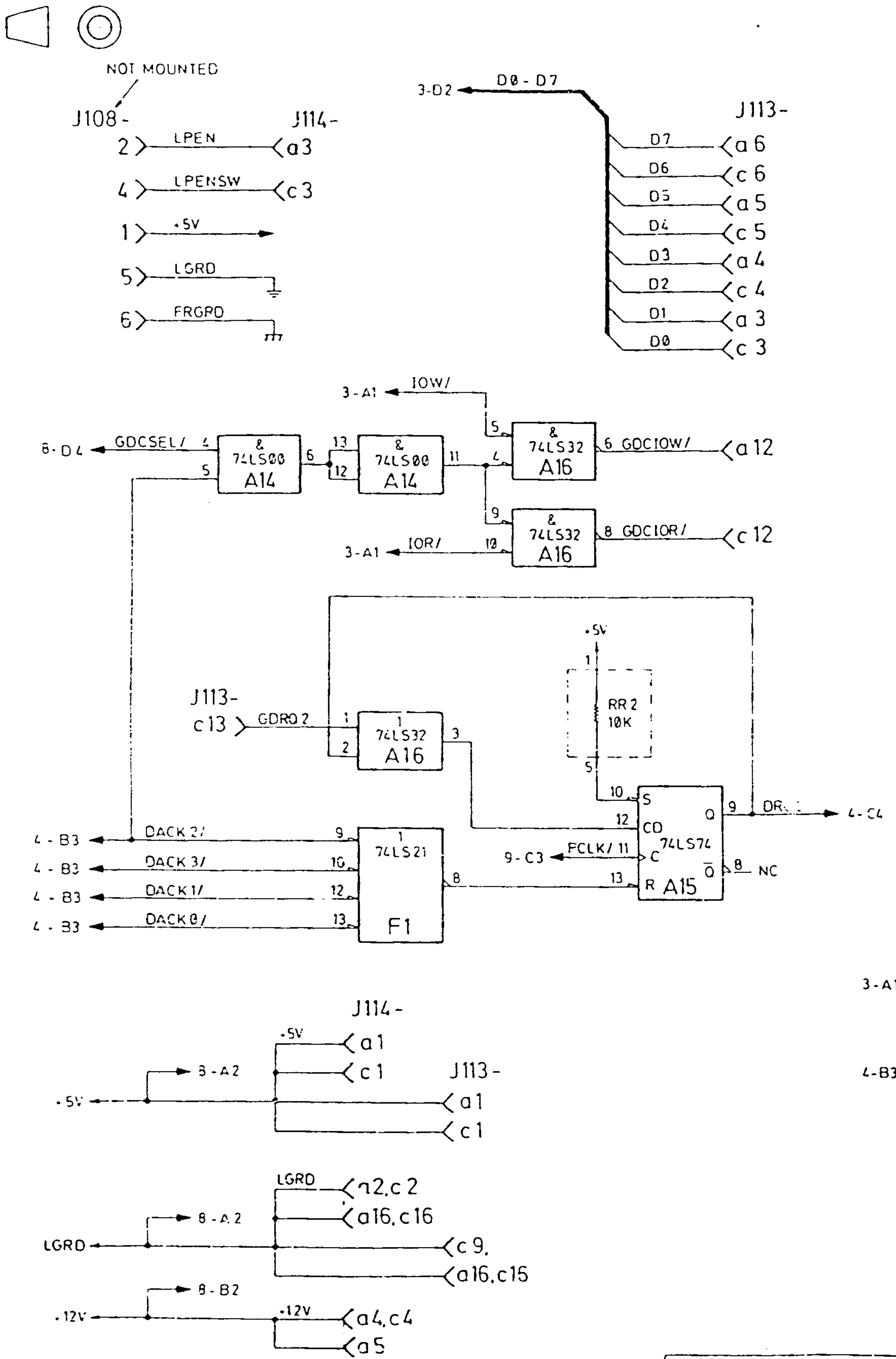
P20 21
74LS07 B5
11
10

[redacted]

6

H	77DR01368	Kn.7183	
G	47DR01300	Kn.983	
F	77DR01305	Kn.6.63	

3273
27.10.1982
NCR GmbH AUGSBURG
SCHEMATIC-CONTROLLER DM V
W/O GRAPHIC PROC
017-0032012



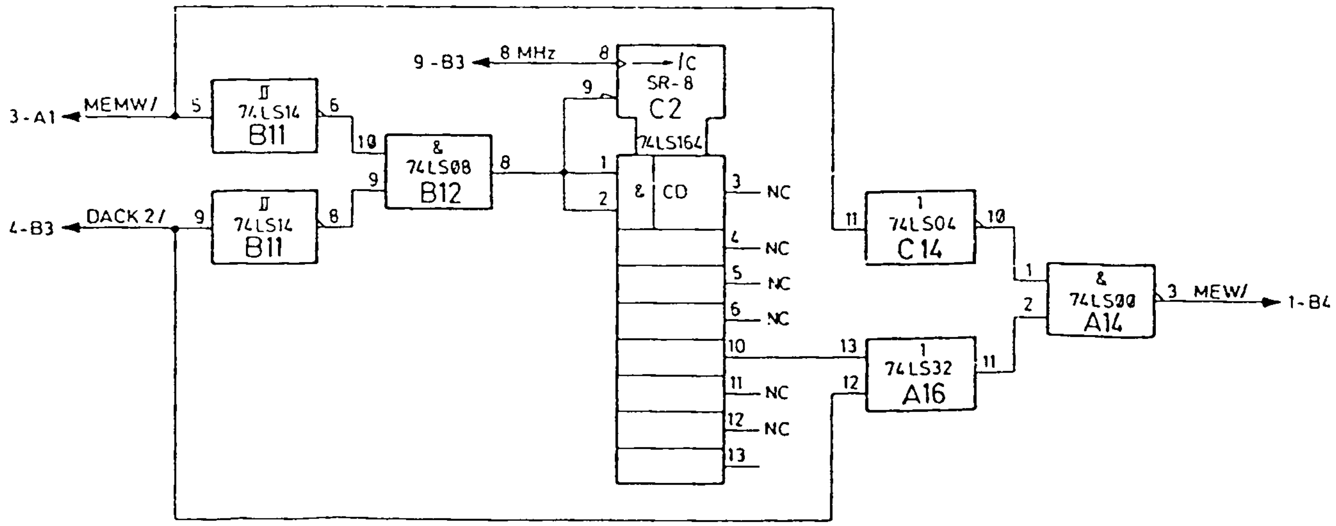
TO GRAPHIC BOARD

J114

a		c
+5V	1	+5V
LGRD	2	LGRD
LPEN	3	LPENSW
+12V	4	+12V
+12V	5	NC
NC	6	NC
NC	7	NC
NC	8	NC
NC	9	NC
NC	10	NC
NC	11	NC
NC	12	NC
NC	13	NC
NC	14	NC
NC	15	LGRD
LGRD	16	LGRD

J113

a		c
+5V	1	+5V
NC	2	NC
D1	3	D0
D3	4	D2
D5	5	D4
D7	6	D6
NC	7	NC
HSYNCX	8	HSYN
VSYNCX	9	LGRD
BA1	10	BA0
BLINK	11	NC
GDCIOW/	12	GDCIOR/
DACK 2/	13	GDRQ 2
NC	14	NC
NC	15	WCLK
LGRD	16	LGRD



[redacted]

7

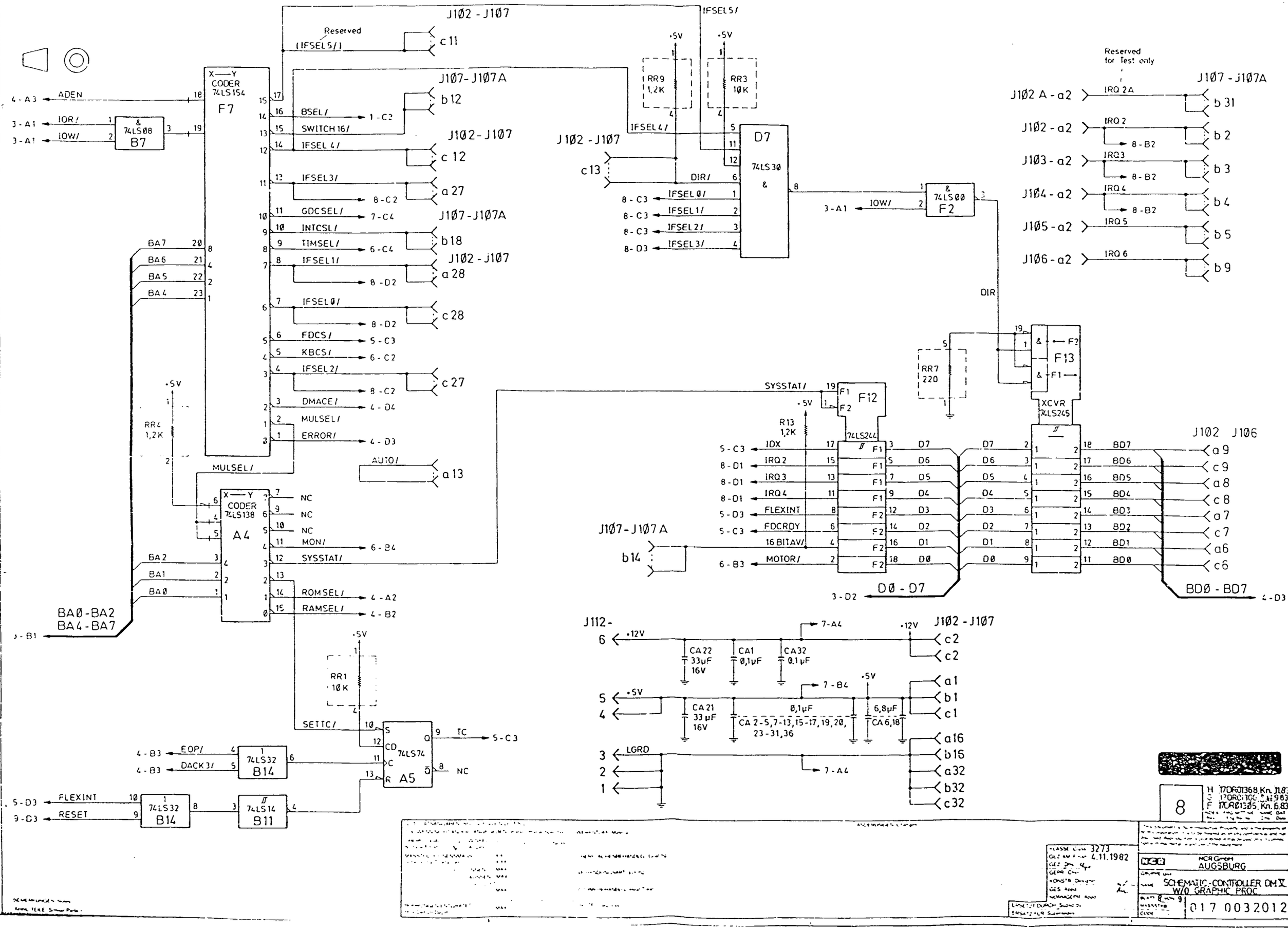
H 17DR01368 Kn. 11.83
G 17DR01300
F 17DR01305 Kn. 6.83

NCR GmbH AUGSBURG

SCHEMATIC CONTROLLER DMA W/O GRAPHIC PROC

3273

017 0032012


J102 - J107
Reserved
(IFSEL5/)
c11
IFSEL5/
J107- J107A
b12
J102- J107
c12
a27
J107-J107A
b18
J102 - J107
a28
c28
c27
a13
J102 - J107
c13
IFSEL4/
IFSEL3/
IFSEL2/
IFSEL1/
IFSEL0/
DIR/
D7
74LS30
&
RR9
1,2K
RR3
10K
RR4
1,2K
RR1
10K
RR7
220
X—Y
CODER
74LS154
F7
CODER
74LS138
A4
ADEN
IOR/
IOW/
BSEL/
SWITCH16/
GDCSEL/
INTCSL/
TIMSEL/
IFSEL1/
IFSEL0/
FDCS/
KBCS/
IFSEL2/
DMACE/
MULSEL/
ERROR/
AUTO/
NC
MON/
SYSSTAT/
ROMSEL/
RAMSEL/
SETTC/
BA7
BA6
BA5
BA4
BA3
BA2
BA1
BA0
BA0-BA2
BA4-BA7
EOP/
DACK3/
FLEXINT
RESET
74LS32
B14
74LS14
B11
74LS74
A5
TC
NC
Reserved
for Test only
J107 - J107A
J102 A - a2
IRQ 2A
b31
J102 - a2
IRQ 2
b2
J103 - a2
IRQ3
b3
J104 - a2
IRQ 4
b4
J105 - a2
IRQ 5
b5
J106 - a2
IRQ 6
b9
DIR
74LS00
F2
F13
XCVR
74LS245
SYSSTAT/
F12
74LS244
R13
1,2K
IDX
IRQ2
IRQ3
IRQ4
FLEXINT
FDCRDY
16 BITAV/
MOTOR/
J107-J107A
b14
D0 - D7
J102 J106
BD7
BD6
BD5
BD4
BD3
BD2
BD1
BD0
BD0 - BD7
J112-
+12V
CA22
33µF
16V
CA1
0,1µF
CA32
0,1µF
CA21
33µF
16V
CA 2-5,7-13,15-17,19,20,
23-31,36
6,8µF
CA 6,18
LGRD
J102 - J107
a1
b1
c1
a16
b16
a32
b32
c32
8
H 17DR01368 Kn. 11.83
G 17DR01365 Kn. 9.83
F 17DR01365 Kn. 6.83
3273
4.11.1982
NCR GmbH
AUGSBURG
SCHEMATIC - CONTROLLER DMV
W/O GRAPHIC PROC
017 0032012

DMV - BUS

J102 A
J102
J103
J104
J105
J106

BEM./NOTE ✦3

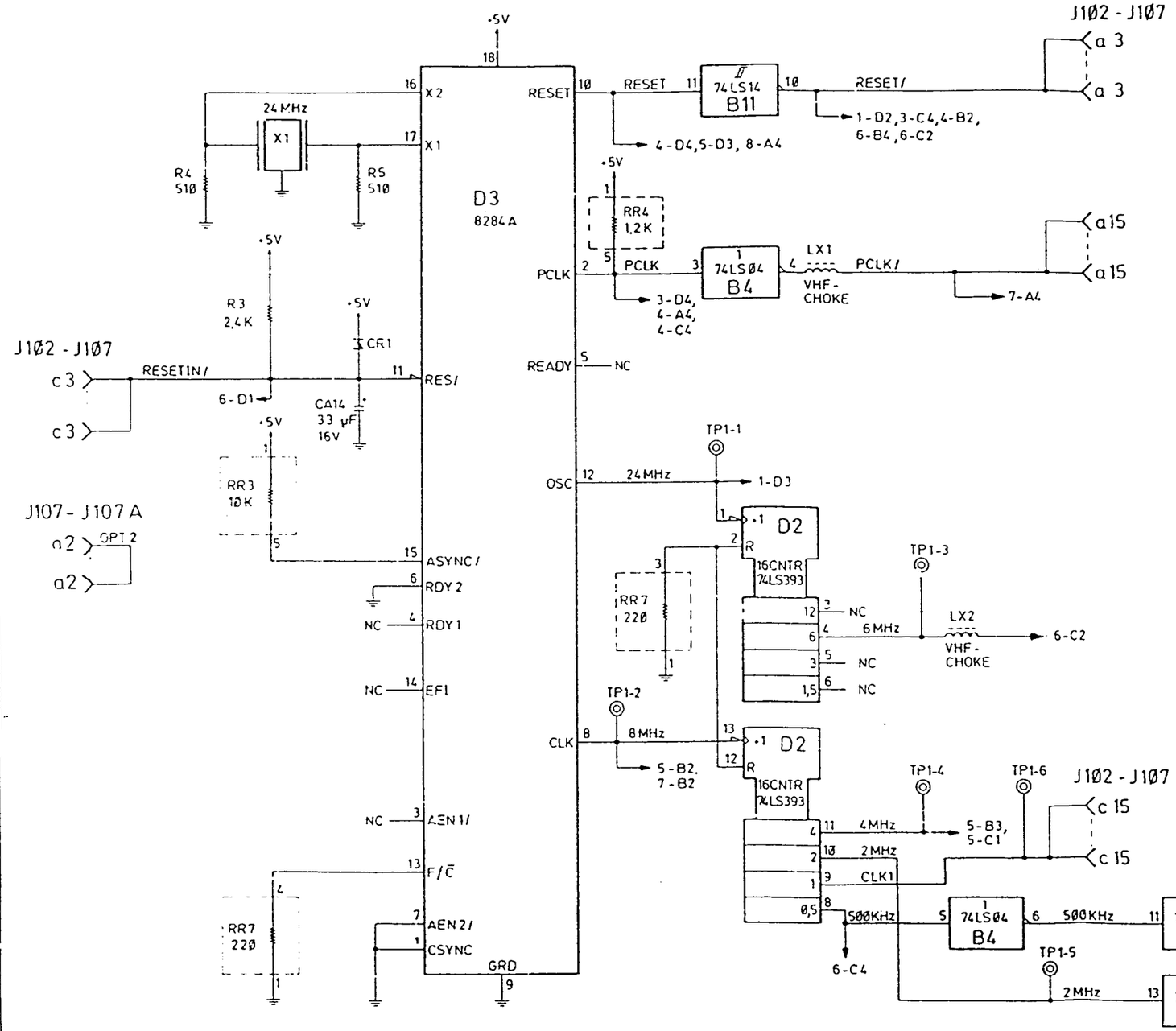
PIN 2a	
J102 A	IRQ 2 A
J102	IRQ 2
J103	IRQ 3
J104	IRQ 4
J105	IRQ 5
J106	IRQ 6

RESERVED only for Test

J107 DIAGNOSTIC - MODUL
J107 A 16 BIT - PROC.

a		c		
1	+5V	1	+5V	
2	BEM/NOTE ✦3	2	+12V	
3	RESET/	3	RESETIN/	
4	IOW/	4	IOR/	
5	MEMW/	5	MEMR/	
6	BD1	6	BDØ	
7	BD3	7	BD2	
8	BD5	8	BD4	
9	BD7	9	BD6	
10	READY DMA	10	ABTRI/	Reserved
11	EOP/	11	(IFSEL5/)	
12	INTACK/	12	IFSEL4/	
13	AUTO/	13	DIR/	
14	THOLD/	14	HLDA	
15	PCLK/	15	CLK1	
16	LGRD	16	TRAMD/	
17	BA19	17	BA18	
18	BA17	18	BA16	
19	BA15	19	BA14	
20	BA13	20	BA12	
21	BA11	21	BA10	
22	BA9	22	BA8	
23	BA7	23	BA6	
24	BA5	24	BA4	
25	BA3	25	BA2	
26	BA1	26	BAØ	
27	IFSEL3/	27	IFSEL2/	
28	IFSEL1/	28	IFSEL7/	
29	DRQ1	29	DRQØ	
30	DACK1/	30	DACKØ/	
31	WAIT/	31	INT/	
32	LGRD	32	LGRD	

a		b		c		
1	+5V	1	+5V	1	+5V	
2	OPT 2	2	IRQ 2	2	+12V	
3	RESET/	3	IRQ 3	3	RESETIN/	
4	IOW/	4	IRQ 4	4	IOR/	
5	MEMW/	5	IRQ 5	5	MEMR/	
6	D1	6	FLEXINT	6	DØ	
7	D3	7	KEYINT	7	D2	
8	D5	8	TIMINT	8	D4	
9	D7	9	IRQ 6	9	D6	
10	READY DMA	10	READYP	10	ABTRI/	Reserved
11	EOP/	11	HOLD	11	(IFSEL5/)	
12	INTACK/	12	SWITCH16/	12	IFSEL4/	
13	AUTO/	13	HLDA16	13	DIR/	
14	THOLD/	14	16BITAV/	14	HLDA	
15	PCLK/	15	STDMARQ/	15	CLK1	
16	LGRD	16	LGRD	16	TRAMD/	
17	BA19	17	16BITSET	17	BA18	
18	BA17	18	INTCSL/	18	BA16	
19	A15	19		19	A14	
20	A13	20	MEMRQ/	20	A12	
21	A11	21		21	A10	
22	A9	22		22	A8	
23	A7	23		23	A6	
24	A5	24		24	A4	
25	A3	25		25	A2	
26	A1	26		26	AØ	
27	IFSEL3/	27		27	IFSEL2/	
28	IFSEL1/	28		28	IFSEL6/	
29	DRQ1	29		29	DRQØ	
30	DACK1/	30		30	DACKØ/	
31	WAIT/	31	IRQ 2 A	31	INT/	
32	LGRD	32	LGRD	32	LGRD	



✦2 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

✦1 ASSY: 017-0033399-A (8 BIT-FLEX DISK); 017-0033403-A (16 B. FLEX COLOR)
017-0033400-A (16 BIT-FLEX DISK); 017-0033404-A (16 B. FIX COLOR)
017-0033401-A (8 BIT-FIX DISK)
017-0033402-A (16 BIT-FIX DISK)

H	17DR01368	Kn	11.83
G	17DR01300	Kn	9.83
F	17DR01305	Kn	6.83

9

NCR GMBH AUGSBURG

SCHEMATIC-CONTROLLER DMV W/O GRAPHIC PROC

017-0032012

+5V
CR1
CLK16
READY16
BEM. NOTE # 2
R5 0
D1 8088 CPU
RQ/GT0
RESET16
B3 74LS14
B1 8087 NPX (Optional)
CLK16/
L1
A4 8284A
RES16/
RESET 16
R2 510
F/C
CLK
READY16
ROY16
R3 510
EFI
X1
X2
Q1 15MHZ
R4 510
ASYNC
AEN1
ROY2
CSYNCH
GND
VCC
INT
RQ/GT1
BUSY
BHE/S7
INTR
MN/MX
LOCK
RD
NMI
TEST/
QS0
QS1
INT88
HOLDA16
ALE
D2 74LS373
SA19
SA18
SA17
SA16
SA15
SA14
SA13
SA12
SA11
SA10
SA9
SA8
SA7
SA6
SA5
SA4
SA3
SA2
SA1
SA0
BA19
BA18
BA17
BA16
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
NC
E2 2732
MEMR/
FW16CS/
MR/
CS/
D7
D6
D5
D4
D3
D2
D1
D0
P107A
A17
C17
A18
C18
A19
C19
A20
C20
A21
C21
A22
C22
A23
C23
A24
C24
A25
C25
A26
C26
A09
C09
A08
C08
A07
C07
A06
C06
A2 8288
CLK16
HOLDA16
PU
MEMR/
MEMW/
IOW/
IOR/
DEN
INTA
DT/R
MCE/PD
ALE
C05
A05
A04
C04
B3 74LS14
ALE/
INTA 88
D3 74LS32
P107A B10
READYP
BA19
ROY16

3 ALLE WIDERSTANDSWERTE SIND IN OHM
ALL RESISTANCE VALUES ARE IN OHM

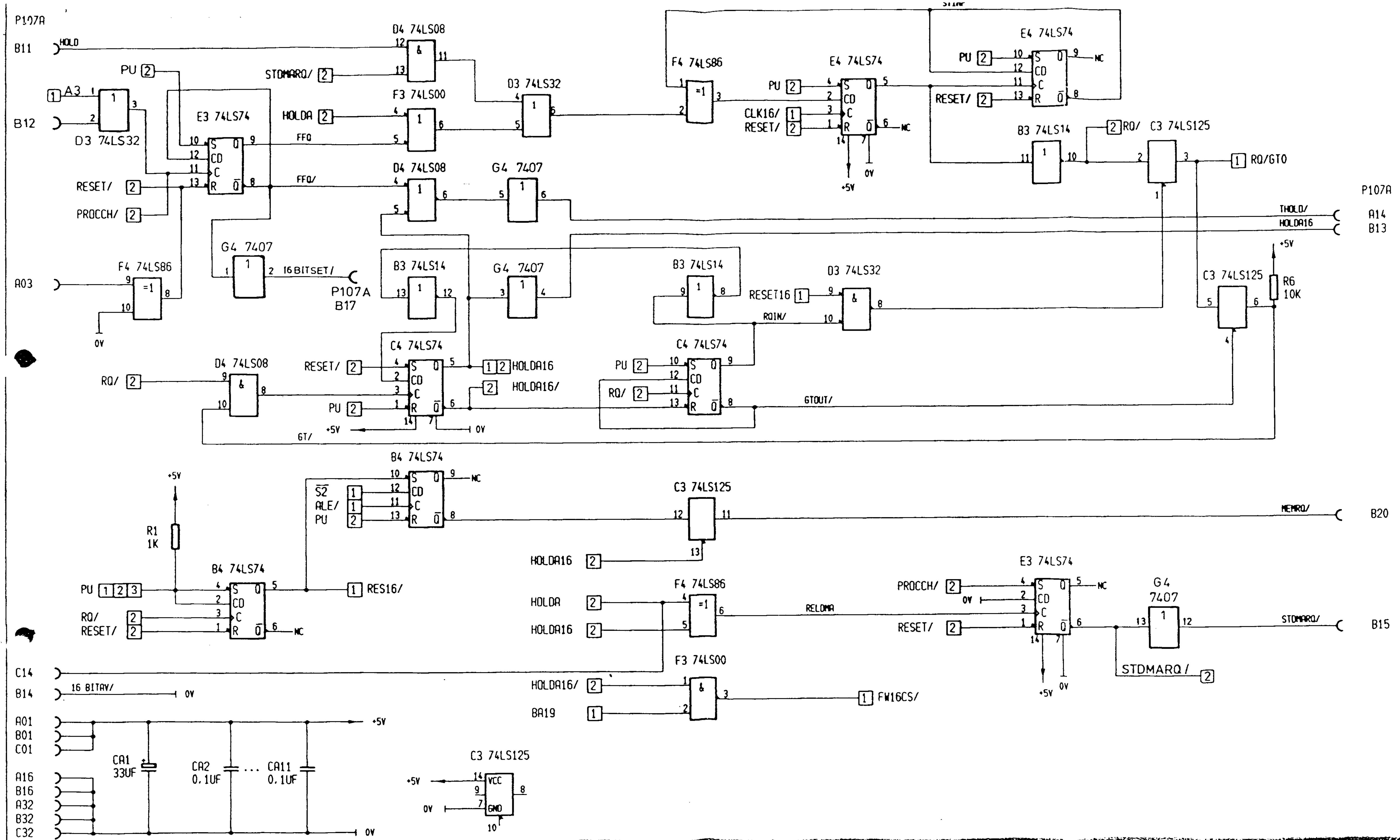
2 R5 ENTFÄLLT, WENN IC B1 (8087) BESTÜCKT IST.
DELETE R5, IF IC B1 (8087) IS MOUNTED.

BEM /NOTE # 1 ASSY 017-0033501 - A

REV.	DEV.REL.NO.	NAME	DATE
A	17DR01413	Kn	2.84

KLASSE/Class 3-73
GEZ.AM/Appr. 30.1.84
GEZ.Dis. 5.7.
GEPR.Chkd.
KONSTR.Designer
ERSETZT DURCH/Supsd by
ERSATZ FÜR/Supsds 017-0033001

© NCR 1984
GRUPPE/Unit
NAME SCHEMATIC 16 BIT PSY EASYS INTERRUPT CONTROLLER 8088
BLATT/Sheet 1 VON/Of 3
MASSSTAB/Scale
017 0033501



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GRUPPE Unit

KLASSE Class 3273

GEZ AM Finish 30.1.84

GEPR Chk

KONSTR Designed

NAME SCHEMATIC 16 BIT PROCESSOR INTERRUPT CONTROLLER

BLATT 2 VON 3

MASSSTAB

017-0033502

REV	DEV REC NO	NAME	DATE
A	17DR01413	Kn	2.84

ERSETZT DURCH Supsd by