

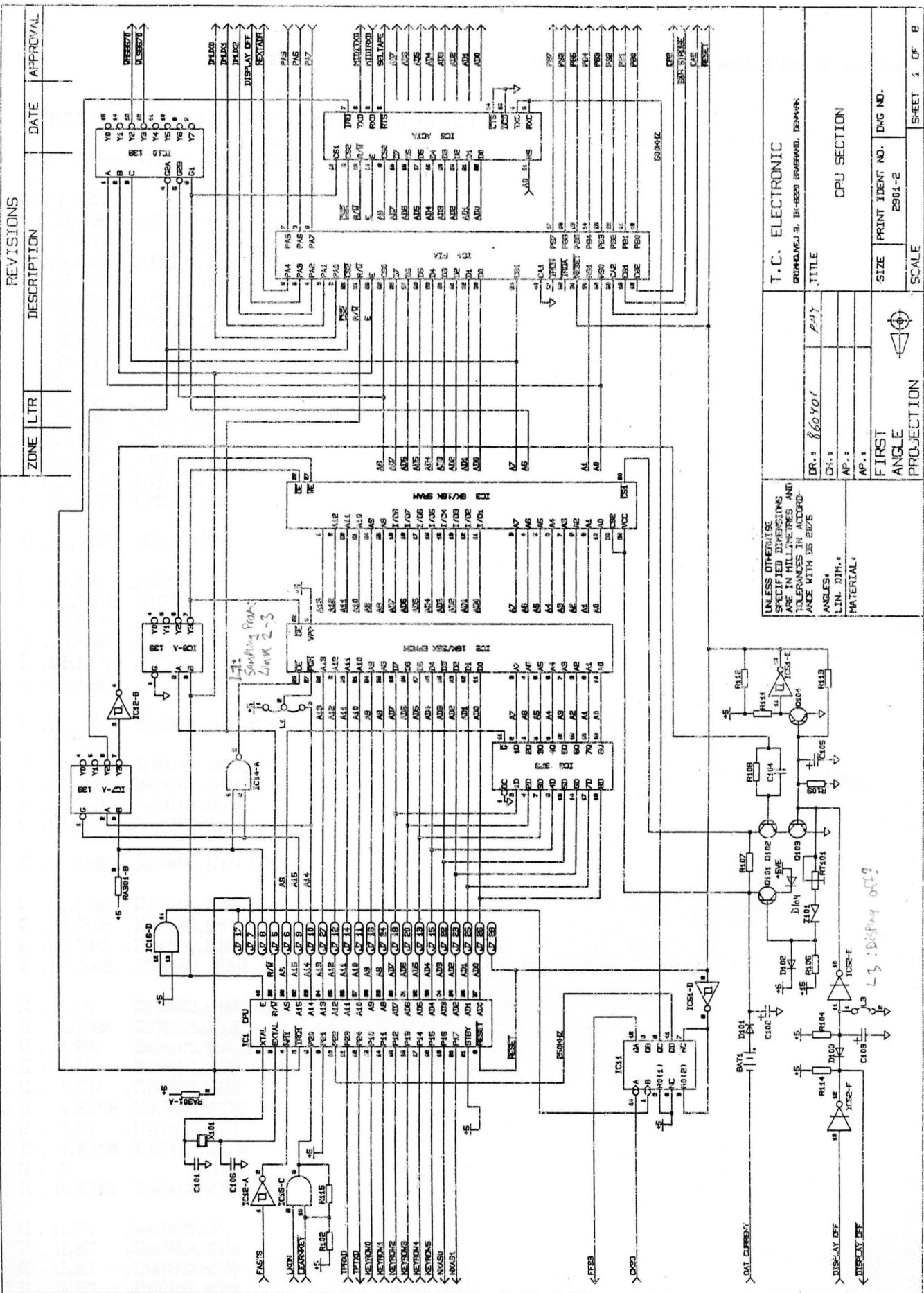
# SCHEMATICS TC 2290 DYNAMIC DIGITAL DELAY

Software version: 26,5 : uden sampling  
27,08 : sampling af 100 000 sek  
27,03 : ny?

Reset : Spec. 27 = 0 (Succes)  
⇒ error i spec : Spec 23 = 0

OF DENMARK

**t.c. electronic**



REVISIONS	DESCRIPTION	DATE	APPROVAL

ZONE	LTR

T.C. ELECTRONIC	
DR-3 860Y01	
TITLE	
CPU SECTION	
SIZE	PRINT IDENT NO. DRG NO.
SCALE	2901-2
FIRST ANGLE PROJECTION	
UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH BS 2075	
ANGLES, LINES, DIMENSIONS, MATERIAL	

## PARTSLIST 2901-02, 2290 CPU SECTION

PL-,NO-,TYPE---,TCKODE---,KOMPONENT----

R ,101,MODST , ,non exist  
 R ,102,MODST ,114511470,4K7  
 R ,103,MODST , ,non exist  
 R ,104,MODST ,114513100,100K  
 R ,105,MODST , ,non exist  
 R ,106,MODST ,114511120,1K2  
 R ,107,MODST ,114511470,4K7  
 R ,108,MODST ,114511470,4K7  
 R ,109,MODST ,114510150,150  
 R ,110,MODST , ,non exist  
 R ,111,MODST ,114511100,1K0  
 R ,112,MODST ,114511100,1K0  
 R ,113,MODST ,114512100,10K  
 R ,114,MODST ,114511470,4K7  
 R ,115,MODST ,114512220,22K  
 R ,116,MODST ,114512130,13K

RT ,101,MODST ,153010470,470E

C ,101,PLAQ ,210229150,15P  
 C ,102,TANTAL ,261574100,1U 35V  
 C ,103,ELLYT ,281574100,1U  
 C ,104,PLAQ ,210229470,47P  
 C ,105,ELLYT ,281574100,1U  
 C ,106,PLAQ ,210229150,15P

X ,101,XTAL ,381008100,8MHz HC18

D ,101,DIDDE ,360141480,1N4148  
 D ,102,DIDDE ,360141480,1N4148  
 D ,103,DIDDE ,360141480,1N4148  
 D ,104,DIDDE ,360141480,1N4148

ZD ,101,ZENER ,366000390,BZX79 C3V9

Q ,101,TRANS ,371005480,BC548  
 Q ,102,TRANS ,376036460,MPS3646  
 Q ,103,TRANS ,371005480,BC548  
 Q ,104,TRANS ,371005480,BC548

IC , 1,CPU ,351068032,68803 NMOS  
 IC , 2,EPR0M ,357327128,27128  
 IC , 3,SRAM ,356206415,8Kx8 CMOS  
 IC , 4,PIA ,352068212,68821  
 IC , 5,ACIA ,352068502,68850  
 IC , 6,HCTMOS ,326074373,HCT373  
 IC , 7,TTL ,344074139,LS139  
 IC , 8,HCTMOS ,326074139,HCT139  
 IC , 9, , ,non exist  
 IC , 10,HCTMOS ,326074138,HCT138

IC , 11,TTL ,344074093,LS93  
 IC , 12,HCT ,326074014,HCT14  
 IC , 13,HCT ,326074032,HCT32  
 IC , 14,HCT ,326074000,HCT00  
 IC , 15, , ,non exist

IC , 16,HCT ,326074008,HCT08 ,\*spar #A v. HCTMDS

BAT, 1,BATERI ,492020320,170mAh 2032 ,

ICJ, 1,SOKKEL ,438040200,40 pin sokkel,

ICJ, 2,SOKKEL ,438028200,28 PIN sokkel,

ICJ, 3,SOKKEL ,438028200,28 pin sokkel,

ICJ, 4,SOKKEL ,438040200,40 pin sokkel,

ICJ, 5,SOKKEL ,438024200,24 pin sokkel,

ICJ, 6,SOKKEL ,438020200,20 pin sokkel,

J , 11, ,435503100,3 PIN ,

J , 12, , ,non exist ,

J , 13, ,435502100,2 PIN ,

J ,11A, ,434002200,2 PDL ,

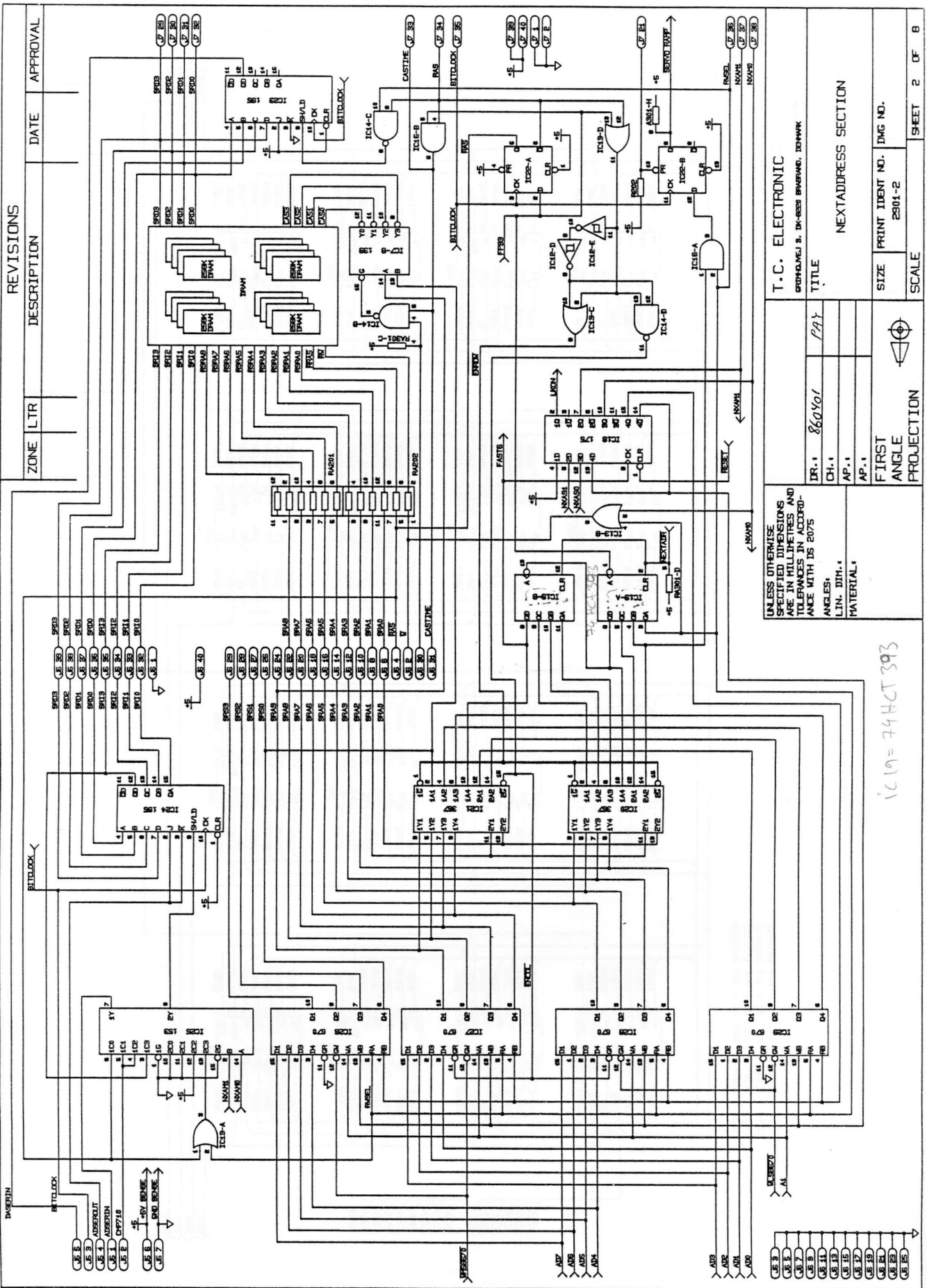
PCB, 1, ,670022901,Main print ,

\* markerer ændring i int. sidste opdat.



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVAL



T.C. ELECTRONIC

ORFOLAVEJ 3, DK-8250 BRANDBO, DENMARK

TITLE

NEXT ADDRESS SECTION

UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH IS 2075

ANGLES:  
LIN. DIM.:  
MATERIAL:

DR.: 860601

CH.: PAY

AP.: 1

AP.: 1

FIRST ANGLE PROJECTION

SCALE

SIZE PRINT IDENT NO. DWG NO.

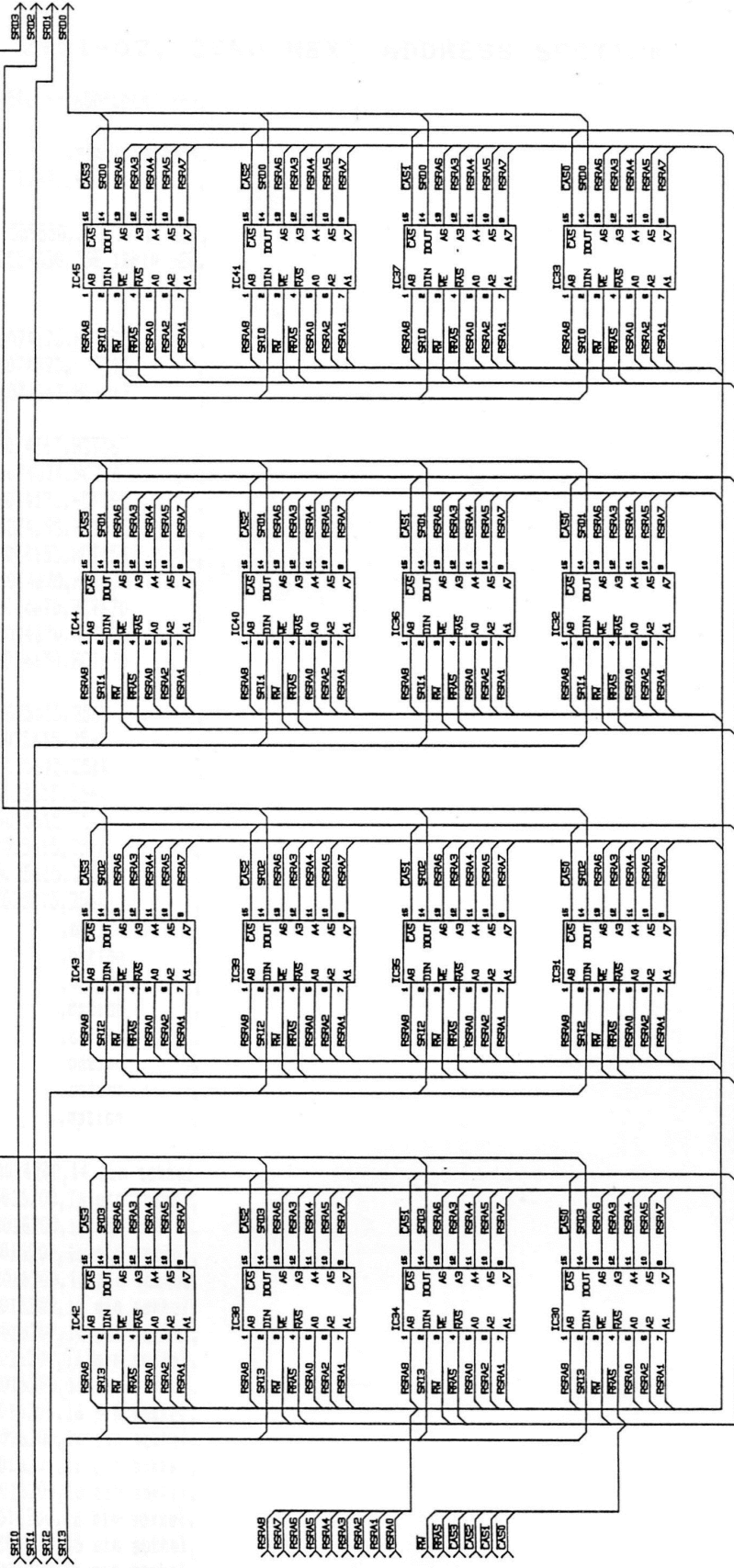
2801-2

SHEET 2 OF 8

IC19 = 74HCT393

REVISIONS

ZONE	ILTR	DESCRIPTION	DATE	APPROVAL



IC30 - IC39: 1. SEC. AT 1 MHz BITRATE  
 IC34 - IC37: 2. SEC. AT 1 MHz BITRATE  
 IC38 - IC41: 3. SEC. AT 1 MHz BITRATE  
 IC42 - IC45: 4. SEC. AT 1 MHz BITRATE

UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH DS 2075  
 ANGLES:  
 LIN. DIM.:  
 MATERIAL:

T.C. ELECTRONIC

GRIMMUEY 3, BK-820 BOARD, IDMARK

TITLE

DR: 1 86/16/

CH: 1

AP: 1

AP: 1

16 \* 256K DYNAMIC RAM

FIRST ANGLE PROJECTION

SIZE PRINT IDENT NO. DWG NO.

2901-2

SCALE

SHEET 2A OF 8

## PARTSLIST 2901-02, 2290 NEXT ADDRESS SECTION

PL-,NO-,TYPE---,TKCODE---,KOMPONENT----,

R ,201,MODST , ,non exist\*\*\*\*,  
 R ,202,MODST ,114511470,4K7 ,

RA ,201,R.ARRAY,142559330,33E 12PIN SEP,  
 RA ,202,R.ARRAY,142559330,33E 12PIN SEP,

IC , 18,HCTMOS ,326074175,HCT175 ,  
 IC , 19,HCTMOS ,326074393,HCT393 ,  
 IC , 20,HCTMOS ,326074367,HCT367 ,

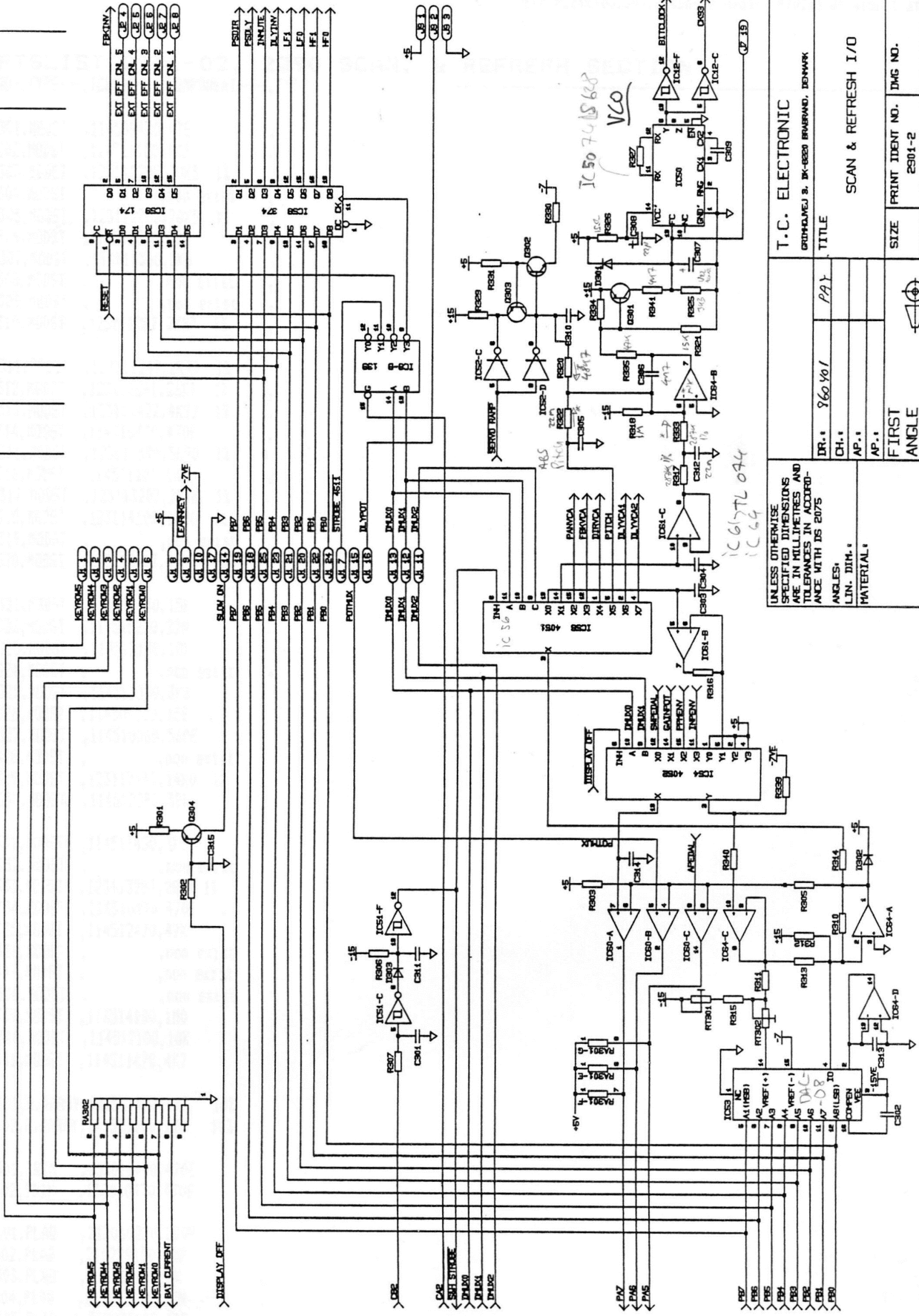
IC , 21,HCTMOS ,326074367,HCT367 ,  
 IC , 22,HCTMOS ,326074074,HCT74 ,  
 IC , 23,HCTMOS ,326074195,HCT195 ,  
 IC , 24,HCTMOS ,326074195,HCT195 ,  
 IC , 25,HCTMOS ,326074153,HCT153 ,  
 IC , 26,HCTMOS ,326074670,HCT670 ,  
 IC , 27,HCTMOS ,326074670,HCT670 ,  
 IC , 28,HCTMOS ,326074670,HCT670 ,  
 IC , 29,HCTMOS ,326074670,HCT670 ,

IC , 30,DYNRAM ,355025615,256K ,  
 IC , 31,DYNRAM ,355025615,256K ,  
 IC , 32,DYNRAM ,355025615,256K ,  
 IC , 33,DYNRAM ,355025615,256K ,  
 IC , 34,DYNRAM ,355025615,256K ,  
 IC , 35,DYNRAM ,355025615,256K ,  
 IC , 36,DYNRAM ,355025615,256K ,  
 IC , 37,DYNRAM ,355025615,256K ,  
 IC , 38,DYNRAM , ,option ,  
 IC , 39,DYNRAM , ,option ,  
 IC , 40,DYNRAM , ,option ,  
 IC , 41,DYNRAM , ,option ,  
 IC , 42,DYNRAM , ,option ,  
 IC , 43,DYNRAM , ,option ,  
 IC , 44,DYNRAM , ,option ,  
 IC , 45,DYNRAM , ,option ,

ICJ, 19,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 30,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 31,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 32,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 33,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 34,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 35,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 36,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 37,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 38,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 39,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 40,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 41,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 42,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 43,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 44,SOKKEL ,438016200,16 pin sokkel,  
 ICJ, 45,SOKKEL ,438016200,16 pin sokkel,

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVAL



UNLESS OTHERWISE SPECIFIED DIMENSIONS AND ANGLES ARE IN MILLIMETERS AND ANGLES WITH IS 2075 MATERIAL:

DR.:	960401
CH.:	PAT
AP.:	
AP.:	
FIRST ANGLE PROJECTION	

T.C. ELECTRONIC  
GRUNDGAJVEJ 3, DK-8220 BRUNSBORG, DENMARK

TITLE	
SCAN & REFRESH I/O	
SIZE	2504-2
PRINT IDENT NO.	
DWG NO.	
SCALE	
SHEET	3 OF 8

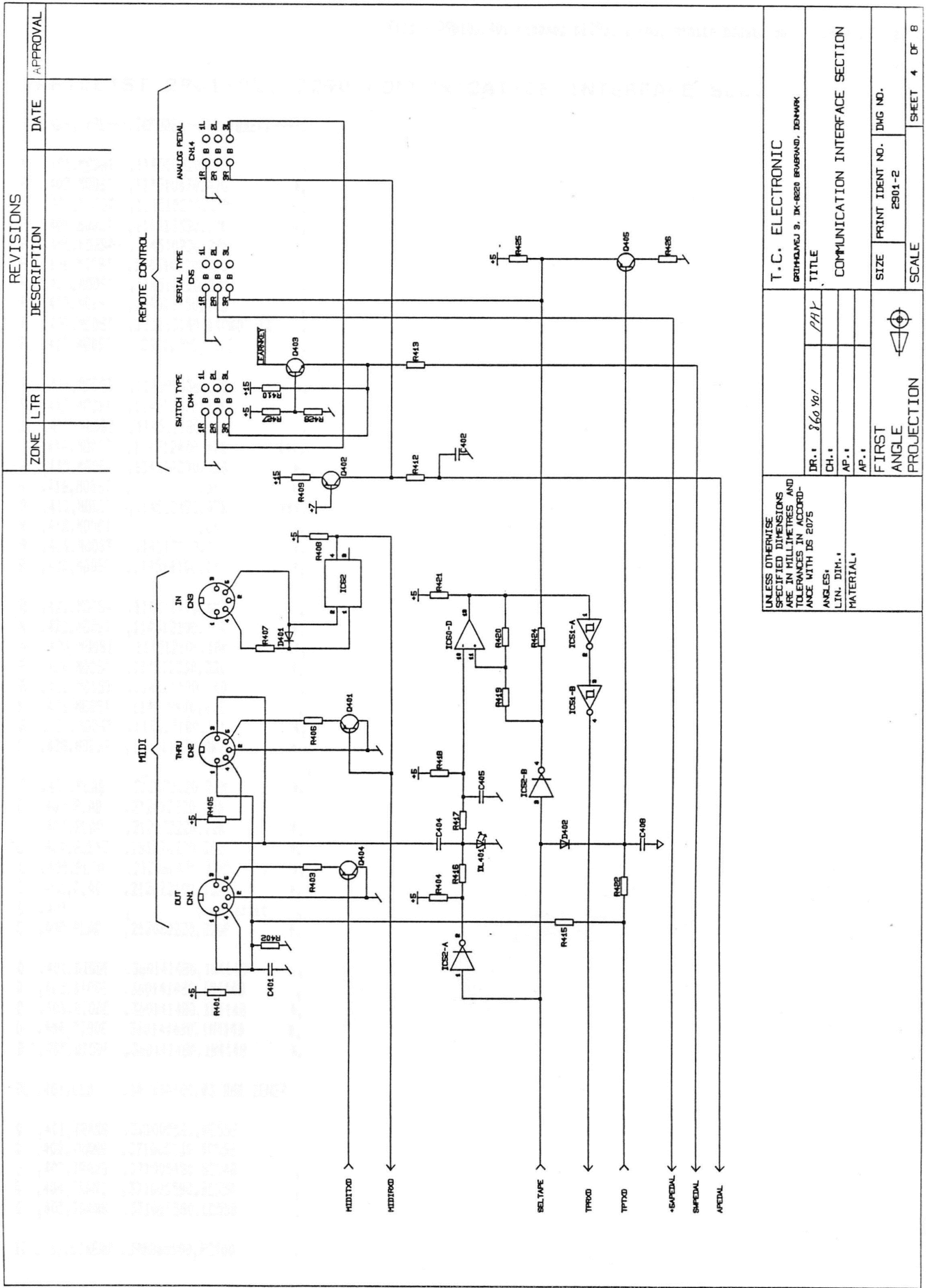
## PARTSLIST 2901-02, 2290 SCAN. &amp; REFRESH SECTION

PL-NO-,TYPE---,TCKODE---,KOMponent---,VT

R	,301,MODST	,114509470,47E	
R	,302,MODST	,114511150,1K5	
R	,303,MODST	,123112205,20K5	1%
R	,304,MODST	,non exist	
R	,305,MODST	,123112205,20K5	1%
R	,306,MODST	,114512820,82k	
R	,307,MODST	,114511560,5K6	
R	,308,MODST	,non exist	
R	,309,MODST	,non exist	
R	,310,MODST	,123111287,2K87	1%
R	,311,MODST	,123111249,2K49	1%
R	,312,MODST	,123112261,26K1	1%
R	,313,MODST	,123111422,4K22	1%
R	,314,MODST	,114510470,470E	
R	,315,MODST	,123111590,5K90	1%
R	,316,MODST	,114511100,1K0	
R	,317,MODST	,123113287,287K	1%
R	,318,MODST	,123114100,1M00	1%
R	,319,MODST	,non exist	
R	,320,MODST	,123112487,48K7	1%
R	,321,MODST	,114512150,15K	
R	,322,MODST	,114515220,22M	
R	,323,MODST	,114512180,18K	
R	,324,MODST	,non exist	
R	,325,MODST	,114511330,3K3	
R	,326,MODST	,114509150,15E	
R	,327,MODST	,114510560,560E	
R	,328,MODST	,non exist	
R	,329,MODST	,123112140,14K0	1%
R	,330,MODST	,114512390,39K	
R	,331,MODST	,114511430,4K3	
R	,332,MODST	,non exist	
R	,333,MODST	,123113287,287K	1%
R	,334,MODST	,114510470,470E	
R	,335,MODST	,114512470,47K	
R	,336,MODST	,non exist	
R	,337,MODST	,non exist	
R	,338,MODST	,non exist	
R	,339,MODST	,114514100,1M0	
R	,340,MODST	,114512100,10K	
R	,341,MODST	,114511470,4K7	
RA	,301,R.ARRAY	,141551470,4K7	10%
RA	,302,R.ARRAY	,141551100,1K0	10%
RT	,301,TRIM	,153010470,470E	
RT	,302,TRIM	,153010470,470E	
C	,301,PLAQ	,212060220,220P	
C	,302,PLAQ	,210229150,15P	
C	,303,PLAQ	,212061100,1N	
C	,304,PLAQ	,212072220,22N	
C	,305,PLAQ	,212072100,10N	
C	,306,PLAQ	,212061470,4N7	

C	,307,TANTAL	,261573220,,220	,2E	HF filter og VCO servo respons tid.Med + til samme side som C308
C	,308,ELLYT	,281475220,22U 16V	,1F	UCC 15U 2:1475 = 0724
C	,309,PLAD	,212061100,1N	,:	
C	,310,STYRD	,220021270,2N7 1X	,2	
C	,311,PLAD	,212060220,220P	,:	
C	,312,PLAD	,212072220,22N	,:	
C	,313,PLAD	,212061100,1N	,:	
C	,314,PLAD	,212020100,100P	,:	
C	,315,PLAD	,212061100,1N	,:	
D	,301,DIODE	,,non exist	,E	
D	,302,DIODE	,362010800,schottky	,:	
D	,303,DIODE	,360141480,1N4148	,:	
Q	,301,TRANS	,371005580,BC558	,:	
Q	,302,TRANS	,371005480,BC548	,:	
Q	,303,TRANS	,371005580,BC558	,:	
-	,304,TRANS	,371005580,BC558	,:	
IC	,50,	,344074628,LS628	,:	
IC	,51,	,324074014,HC14	,:	
IC	,52,	,324074005,HC05	,:	
IC	,53,DAC	,353008000,DAC-08	,:	
IC	,54,CMOS	,322040052,4052	,:	
IC	,55,CMOS	,,non exist	,:	
IC	,56,CMOS	,322040051,4051	,:	
IC	,57,	,,non exist	,:	
IC	,58,HCMOS	,324074374,74374	,:	
IC	,59,CMOS	,322040174,40174	,:	
IC	,60,LINEAR	,313033900,LK339	,:	
IC	,61,LINEAR	,314034004,MC34004	,:	
IC	,62,	,,non exist	,:	
IC	,63,	,,non exist	,:	
IC	,64,LINEAR	,314034004,MC34004	,:	
	,1,SILSTIK	,435525100,25 pol stik	,:	
ICJ	,50,SOKKEL	,438014200,14 pol sokkel,		
ICJ	,53,SOKKEL	,438016200,16 pol sokkel,		

\* markerrettelse Nr. 1129 / ændring



REVISIONS		DATE	APPROVAL
ZONE	LTR		
DESCRIPTION			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS AND TOLERANCES IN ACCORDANCE WITH IS 2075		T.C. ELECTRONIC	
DR.1	860 %/	GRIMHOLMEJ 9, DK-8220 BRABRAND, DENMARK	
CH.1		TITLE	
AP.1		COMMUNICATION INTERFACE SECTION	
AP.1		SIZE	
FIRST ANGLE PROJECTION		PRINT IDENT NO.	DWG NO.
		2901-2	
		SCALE	SHEET 4 OF 8

PARTSLIST 2901-02, 2290 COMMUNICATION INTERFACE SEC.

PL-,NO-,TYPE---,TKKODE---,KOMPONENT----,1

R	,401,MODST	,114510220,220	,
R	,402,MODST	,114510470,470	*
R	,403,MODST	,114510220,220	,
R	,404,MODST	,114512330,33K	*
R	,405,MODST	,114510220,220	,
R	,406,MODST	,114510220,220	,
R	,407,MODST	,114510220,220	,
R	,408,MODST	,114511150,1K5	,
R	,409,MODST	,123113140,140K0	1%
R	,410,MODST	,123112205,20K5	1% *
R	,411,MODST	,114509330,33E	*
R	,412,MODST	,114512220,22K	,
R	,413,MODST	,114512180,18K	,
-	,414,MODST	,114512470,47K	(*)
n	,415,MODST	,114511330,3K3	*
R	,416,MODST	,,00	*
R	,417,MODST	,114512470,47K	(*)
R	,418,MODST	,,00	*
R	,419,MODST	,114512100,10K	*
R	,420,MODST	,114514100,1M	*
R	,421,MODST	,114511470,4K7	,
R	,422,MODST	,114512100,10K	*
R	,423,MODST	,114512100,10K	*
R	,424,MODST	,114512330,33K	*
R	,425,MODST	,114511100,1K0	,
R	,426,MODST	,114509470,47E	,
R	,427,MODST	,114512180,18K	*
R	,428,MODST	,114511470,4K7	*
C	,401,PLAB	,212072220,22N	*
C	,402,PLAB	,212072220,22N	,
	,403,PLAB	,212072220,22N	*
L	,404,ELLYT	,281574220,2U2	*
C	,405,PLAB	,212060470,470P	*
C	,406,PLAB	,212072100,10N	*
C	,407,	,non exist	,
C	,408,PLAB	,212060220,220P	*
D	,401,DIODE	,360141480,1N4148	,
D	,402,DIODE	,360141480,1N4148	,
D	,403,DIODE	,360141480,1N4148	*
D	,404,DIODE	,360141480,1N4148	*
D	,405,DIODE	,360141480,1N4148	*
DL	,401,LED	,391030100,#3 RØD ZENER	,
Q	,401,TRANS	,371005580,BC558	,
Q	,402,TRANS	,371005580,BC558	,
Q	,403,TRANS	,371005480,BC548	,
Q	,404,TRANS	,371005580,BC558	,
Q	,405,TRANS	,371005580,BC558	,
IC	,62,LINEAR	,398060100,PC900	,



T , 1,DINSOKL,441105200,5 PDL ,  
T , 2,DINSOKL,441105200,5 PDL ;  
T , 3,DINSOKL,441105200,5 PDL ,  
T , 4,JACK ,411071333,BBB-PCI TC 7,  
T , 5,JACK ,411071333,BBB-PCI TC 7,  
T , 14,JACK ,411071333,BBB-PCI TC 7,

'\*' markerer ændring ifht. PL2901-1.400

(t) markerer ændring ifht. pl2901-2.400

'' markerer printændring til 2901-3/ fly

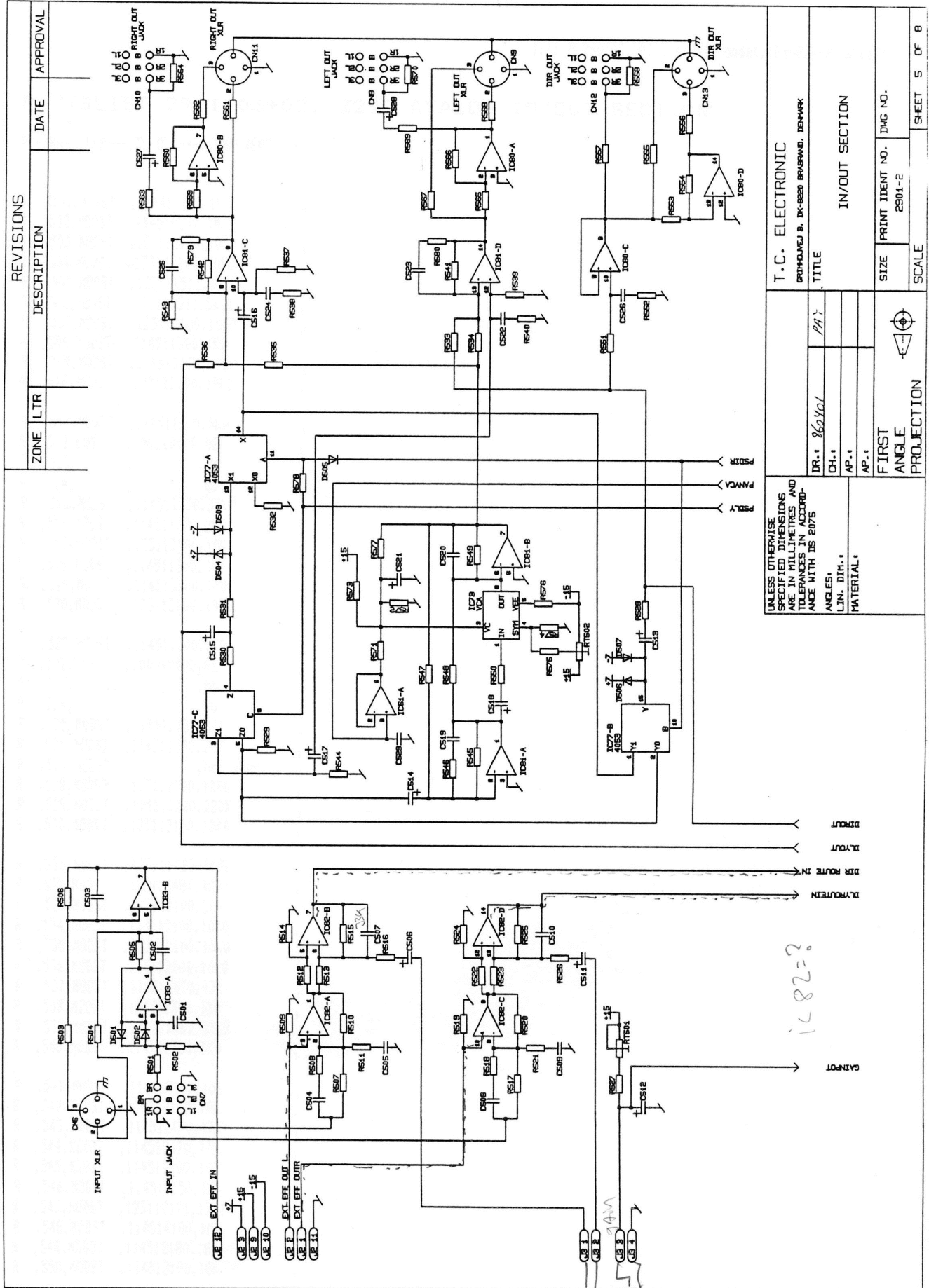
REVISIONS

DESCRIPTION

DATE

APPROVAL

ZONE LTR



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES AND TOLERANCES IN ACCORDANCE WITH BS 2075

DR.: 860/01  
 CH.:  
 AP.:  
 MATERIAL:

T.C. ELECTRONIC

BRIDGMAN B. DR-820 BRIDGMAN, DENMARK

TITLE

IN/OUT SECTION

SCALE

SIZE PRINT IDENT NO. DWG NO.

2901-2

SHEET 5 OF 8

FIRST ANGLE PROJECTION



PARTSLIST 2901-03+02, 2290 ANALOG IN/OUT SECTION

PL-,NO-,TYPE---,TKCODE---,KOMONENT----

R	,501,MODST	,114511100,1K	,
R	,502,MODST	,114514100,1M	,
R	,503,MODST	,123112100,10K0	,
R	,504,MODST	,123112100,10K0	,
R	,505,MODST	,123111511,5K11	,
R	,506,MODST	,123111511,5K11	,
R	,507,MODST	,123112100,10K0	,
R	,508,MODST	,114511300,3K0	,
R	,509,MODST	,114513100,100K	,
R	,510,MODST	,123112100,10K0	,
R	,511,MODST	,114511300,3K0	,
R	,512,LUS	,100040000,0E	,
	,513,	,00	,
n	,514,	,00	,
R	,515,MODST	,114512330,33K	,
R	,516,MODST	,114511270,2K7	,
R	,517,MODST	,123112100,10K0	,
R	,518,MODST	,114511300,3K0	,
R	,519,MODST	,114513100,100K	,
R	,520,MODST	,123112100,10K0	,
R	,521,MODST	,114511300,3K0	,
R	,522,LUS	,100040000,0E	,
R	,523,	,00	,
R	,524,	,00	,
R	,525,MODST	,114512330,33K	,
R	,526,MODST	,114511270,2K7	,
R	,527,MODST	,not used	,
R	,528,MODST	,123112100,10K0	,
R	,529,MODST	,114513220,220K	,
R	,530,MODST	,123112100,10K0	,
n	,531,MODST	,123111487,4K87	,
R	,532,MODST	,123111487,4K87	,
R	,533,MODST	,123112100,10K0	,
R	,534,MODST	,123112100,10K0	,
R	,535,MODST	,123112100,10K0	,
R	,536,MODST	,123112100,10K0	,
R	,537,MODST	,114512470,47K	,
R	,538,MODST	,114511300,3K0	,
R	,539,MODST	,123111562,5K62	,
R	,540,MODST	,114511300,3K0	,
R	,541,MODST	,114512100,10K	,
R	,542,MODST	,114512100,10K	,
R	,543,MODST	,114512470,47K	,
R	,544,MODST	,114512470,47K	,
R	,545,MODST	,114512100,10K	,
R	,546,MODST	,114511150,1K5	,
R	,547,MODST	,123112121,12K1	,
R	,548,MODST	,114514180,1M8	,
R	,549,MODST	,114512180,18K	,
R	,550,MODST	,114512180,18K	,

R ,551,MODST ,123112100,10K0 ,deemphasis n. C526  
R ,552,MODST ,114511300,3K0 ,-----  
R ,553,MODST ,114512100,10K ,  
R ,554,MODST ,114512100,10K ,  
R ,555,MODST ,114509470,47E ,  
R ,556,MODST ,114509470,47E ,  
R ,557,MODST ,114511150,1K5 ,  
R ,558,MODST ,114511150,1K5 ,  
R ,559,MODST ,114512100,10K ,  
R ,560,MODST ,114512100,10K ,

R ,561,MODST ,114509470,47E ,  
R ,562,MODST ,114509470,47E ,  
R ,563,MODST ,114511150,1K5 ,  
R ,564,MODST ,114511150,1K5 ,  
R ,565,MODST ,114512100,10K ,  
R ,566,MODST ,114512100,10K ,  
R ,567,MODST ,114509470,47E ,  
R ,568,MODST ,114509470,47E ,  
R ,569,MODST ,114511150,1K5 ,  
R ,570,MODST ,114511150,1K5 ,

R ,571,MODST ,123111287,2K87 ,  
R ,572,MODST ,123110105,105E ,  
R ,573,MODST ,123112205,20K5 ,  
R ,574,MODST ,114509470,47E ,  
R ,575,MODST ,114513330,330K ,  
R ,576,MODST ,114511430,4K3 ,  
R ,577,MODST ,114514330,3M3 ,  
R ,578,MODST ,114513100,100K ,  
R ,579,MODST ,114511300,3K0 ,  
R ,580,MODST ,114511300,3K0 ,

RT ,501,TRIMMER, ,not used  
RT ,502,TRIMMER,153012470,47K

1,POTM M,183773100,100K NLOG ST

C ,501,PLAQ ,212060220,220P ,  
C ,502,PLAQ ,212020100,100P ,  
C ,503,PLAQ ,212020100,100P ,  
C ,504,POLY ,242661220,2N2 ,  
C ,505,POLY ,242661220,2N2 ,  
C ,506,ELLYT ,281475220,22U 16 ,  
C ,507,PLAQ ,210229330,33P ,  
C ,508,POLY ,242661220,2N2 ,  
C ,509,POLY ,242661220,2N2 ,  
C ,510,PLAQ ,210229330,33P ,

C ,511,ELLYT ,281475220,22U 16 ,  
C ,512,ELLYT ,281475220,22U 16 ,  
C ,513,ELLYT ,281475220,22U 16 ,  
C ,514,ELLYT ,281475220,22U 16 ,  
C ,515,ELLYT ,281475220,22U 16 ,  
C ,516,ELLYT ,281475220,22U 16 ,  
C ,517,ELLYT ,281475220,22U 16 ,  
C ,518,ELLYT ,281475220,22U 16 ,  
C ,519,PLAQ ,212060220,220P ,  
C ,520,PLAQ ,212020100,100P ,

C ,521,ELLYT ,281475220,22U 16 ,  
 C ,522,POLY ,242661220,2N2 ,  
 C ,523,POLY ,242661220,2N2 ,  
 C ,524,POLY ,242661220,2N2 ,  
 C ,525,POLY ,242661220,2N2 ,  
 C ,526,POLY ,242661220,2N2 ,  
 C ,527,ELLYT ,281475220,22U 16 ,  
 C ,528,ELLYT ,281475220,22U 16 ,  
 C ,529,PLAB ,212072220,22N ,  
 C ,530,PLAB ,212020100,100p ,  
 C ,531,PLAB ,212020100,100p ,  
 C ,532,PLAB ,212020100,100p ,

D ,501,DIODE ,360141480,1N 4148 ,  
 D ,502,DIODE ,360141480,1N 4148 ,  
 D ,503,DIODE ,360141480,1N 4148 ,  
 D ,504,DIODE ,360141480,1N 4148 ,  
 D ,505,DIODE ,360141480,1N 4148 ,  
 D ,506,DIODE ,360141480,1N 4148 ,  
 D ,507,DIODE ,360141480,1N 4148 ,

IC , 73,LINEAR ,335021500,DBX 2150-A ,  
 IC , 77,CMOS ,322040053,4053 ,  
 IC , 80,LINEAR ,314007400,TL074 ,  
 IC , 81,LINEAR ,314047415,RC 4741 6R5 ,  
 IC , 82,LINEAR ,314047415,RC 4741 6R5 ,  
 IC , 83,LINEAR ,312045590,RC 4559 ,

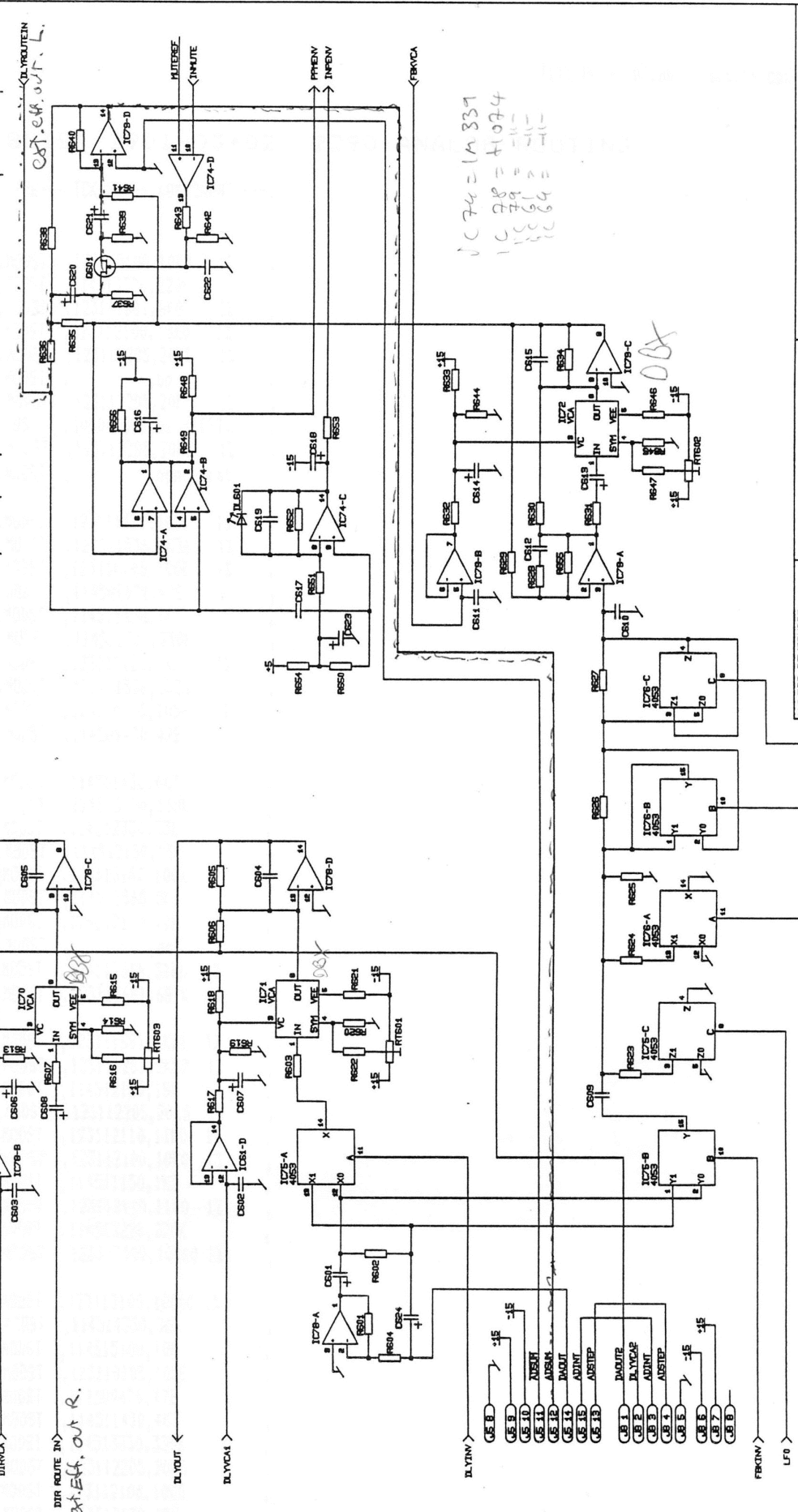
T , 7,JACK ,411111533,MXB-PC ,  
 T , 8,JACK ,411071333,BBB-PC ,  
 T , 10,JACK ,411071333,BBB-PC ,  
 T , 12,JACK ,411071333,BBB-PC ,  
 T , 5,XLR ,426103200 ,  
 T , 9,XLR ,426103100 ,  
 T , 11,XLR ,426103100 ,  
 T , 13,XLR ,426103100 ,

J , 2,SIL ,435512100 ,  
 J , 3,SIL ,435504100 ,  
 J , 3A,SIL ,435004600,4POL HUN ,

W , 1,WIRE ,466207001,70mm BLA ,  
 W , 2,WIRE ,466207001,70mm BLA ,  
 W , 3,WIRE ,466207001,70mm BLA ,  
 W , 4,WIRE ,466207001,70mm BLA ,

\* markerer ændring ifht. PL290103.503

REVISIONS		DATE	APPROVAL
ZONE	LTR		



*Handwritten notes:*  
 15 =  
 16 =  
 17 =  
 18 =  
 (AD-DA)

UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES SHALL ACCORDANCE WITH BS EN 6075 MATERIAL:

DR.: 860401	TITLE
CH.: 1	
AP.: 1	
AP.: 1	
FIRST ANGLE PROJECTION	

SIZE: 2901-2      SCALE: 1:1

PRINT IDENT NO.: 2901-2      SHEET: 6 OF 8

T.C. ELECTRONIC  
 ORINDALVEJ 3, DK-8220 BRABRAND, DENMARK

## PARTSLIST 2901-03+02, 2290 ANALOG ROUTING

PL-,NO-,TYPE---,TCKODE---,KOMPONENT----

R ,601,MODST ,123112100,10K0 1%	,
R ,602,MODST ,114513220,220K	,
R ,603,MODST ,123111681,6K81 1%	,
R ,604,MODST ,123112100,10K0 1%	,
R ,605,MODST ,123112205,20K5 1%	,
R ,606,MODST , ,00	,
R ,607,MODST ,123112205,20K5 1%	,
R ,608,LUS ,100040000,0E MODST.	,
R ,609,MODST ,123112205,20K5 1%	,
R ,610,MODST , ,non exist	,
R ,611,MODST ,123111121,1K21 1%	,
R ,612,MODST ,123111536,5K36 1%	,
R ,613,MODST ,123110105,105E 1%	,
R ,614,MODST ,114509470,47E	,
R ,615,MODST ,114511430,4K3	,
R ,616,MODST ,114513330,330K	,
R ,617,MODST ,123111121,1K21 1%	,
R ,618,MODST ,123111536,5K36 1%	,
R ,619,MODST ,123110105,105E 1%	,
R ,620,MODST ,114509470,47E	,
R ,621,MODST ,114511430,4K3	,
R ,622,MODST ,114513330,330K	,
R ,623,MODST ,114512330,33K	,
R ,624,MODST ,114512150,15K	,
R ,625,MODST ,114513100,100K	,
R ,626,MODST ,114511560,5K6	,
R ,627,MODST ,114512100,10K	,
R ,628,MODST , ,00	,
R ,629,MODST ,123112316,31K6 1%	,
R ,630,MODST ,123113681,681K 1%	,
R ,631,MODST ,123111681,6K81 1%	,
R ,632,MODST ,123111287,2K87 1%	,
R ,633,MODST ,114512180,18K	,
R ,634,MODST ,123112205,20K5 1%	,
R ,635,MODST ,123112110,11K0 1%	,
R ,636,MODST ,123112100,10K0 1%	,
R ,637,MODST ,114511150,1K5	,
R ,638,MODST ,123112110,11K0 1%	,
R ,639,MODST ,114513220,220K	,
R ,640,MODST ,123113100,100K0 1%	,
R ,641,MODST ,123113100,100K0 1%	,
R ,642,MODST ,114514330,3M3	,
R ,643,MODST ,114515100,10M	,
R ,644,MODST ,123110105,105E	,
R ,645,MODST ,114509470,47E	,
R ,646,MODST ,114511430,4K3	,
R ,647,MODST ,114513330,330K	,
R ,648,MODST ,123112205,20K5	,
R ,649,MODST ,123112100,10K0	,
R ,650,MODST ,114512470,47K	,

R ,651,MODST ,114512470,47K ,  
 R ,652,MODST ,114513330,330K ,  
 R ,653,MODST ,114512220,22K ,  
 R ,654,MODST ,114510470,470 ,  
 R ,655,MODST ,123112100,10K0 1% ,  
 R ,656,MODST ,114512330,33K ,

RT ,601,TRIMMER,153012470,47K ,  
 RT ,602,TRIMMER,153012470,47K ,  
 RT ,603,TRIMMER,153012470,47K ,

C ,601,ELLYT ,281475220,22U16 ,  
 C ,602,PLAQ ,212072220,22N ,  
 C ,603,PLAQ ,212072220,22N ,  
 C ,604,PLAQ ,210229470,47P ,  
 C ,605,PLAQ ,210229470,47P ,  
 C ,606,ELLYT ,281475220,22U 16 ,  
 C ,607,ELLYT ,281475220,22U 16 ,  
 C ,608,ELLYT ,281475220,22U 16 ,  
 C ,609,POLY ,242662470,47N ,  
 C ,610,POLY ,242661330,3N3 ,

C ,611,PLAQ ,212072220,22N ,  
 C ,612,PLAQ , ,oo Dhm ,  
 C ,613,ELLYT ,281475220,22U 16 ,  
 C ,614,ELLYT ,281475220,22U 16 ,  
 C ,615,PLAQ ,212060220,220P ,  
 C ,616,ELLYT ,281574220,2U2 25 ,  
 C ,617,PLAQ ,212072220,22N ,  
 C ,618,TANTAL ,26157220,.22U/25 ,  
 C ,619,PLAQ ,212061100,1N ,  
 C ,620,ELLYT ,281475220,22U 16 ,

C ,621,ELLYT ,281475220,22U 16 ,  
 C ,622,PLAQ ,212072220,22N ,  
 C ,623,ELLYT ,281475220,22U 16 ,  
 C ,624,ELLYT ,281475220,22U 16 ,  
 C ,625,PLAQ ,212072100,10N ,  
 C ,626,PLAQ ,210229330,33p ,

DL ,601,LED ,391600851,83mm led ,

Q ,601,FET ,373002450,BF245A ,

IC , 70,LINEAR ,335021500,DBX 2150-A \*,  
 IC , 71,LINEAR ,335021500,DBX 2150-A \*,  
 IC , 72,LINEAR ,335021500,DBX 2150-A \*,  
 IC , 74,LINEAR ,313033900,LM 339 ,  
 IC , 75,CMOS ,322040053,CD 4053 ,  
 IC , 76,CMOS ,322040053,CD 4053 ,  
 IC , 78,LINEAR ,314007400,TL 074 ,  
 IC , 79,LINEAR ,314007400,TL 074 ,

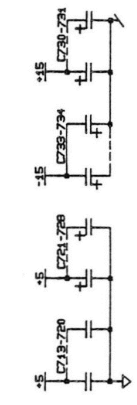
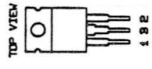
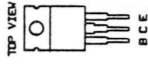
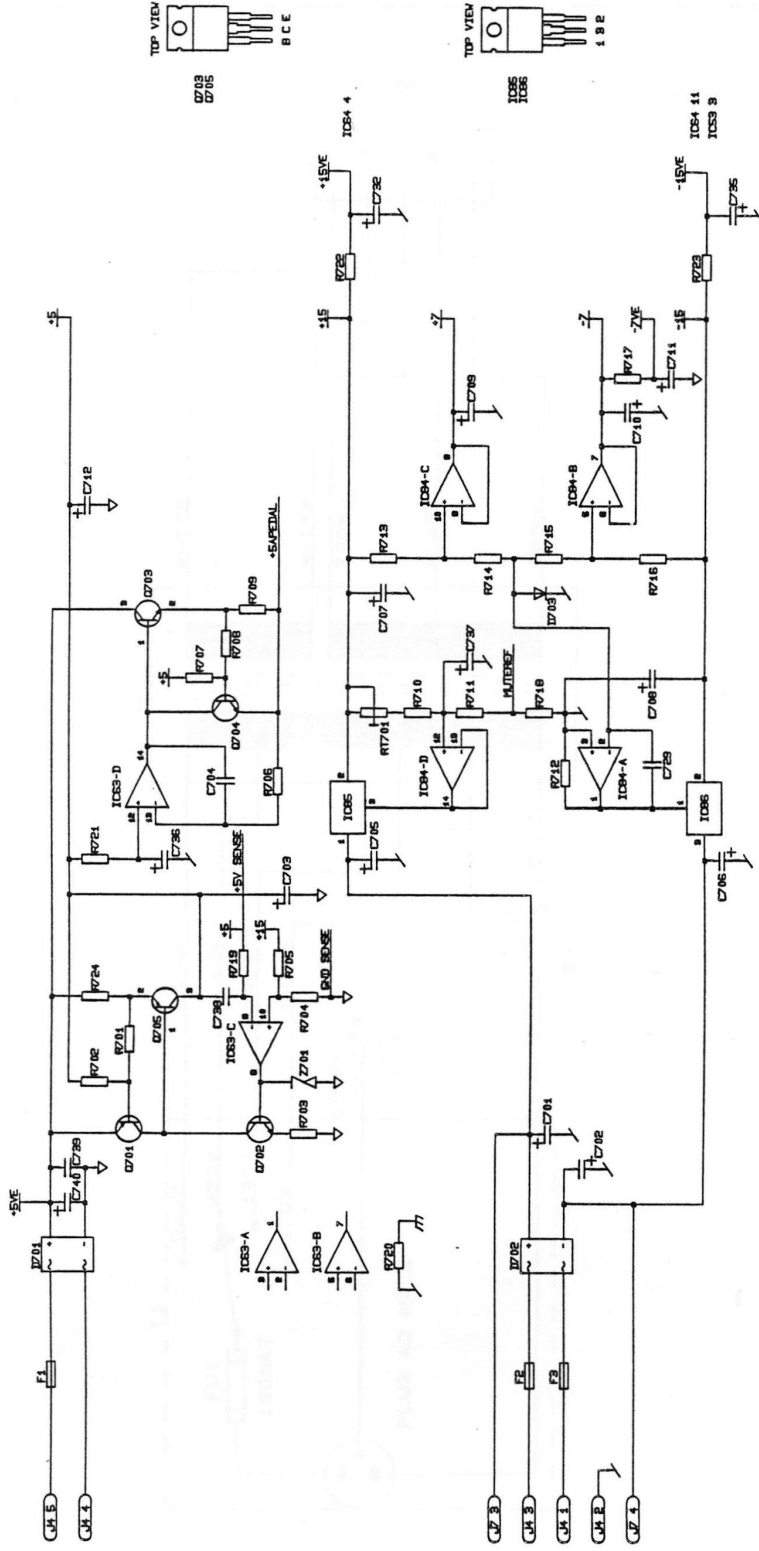
J , 5, ,435815100, ,  
 J , 8, ,435508100, ,

\* markerer ændring i fht. PL290103.601

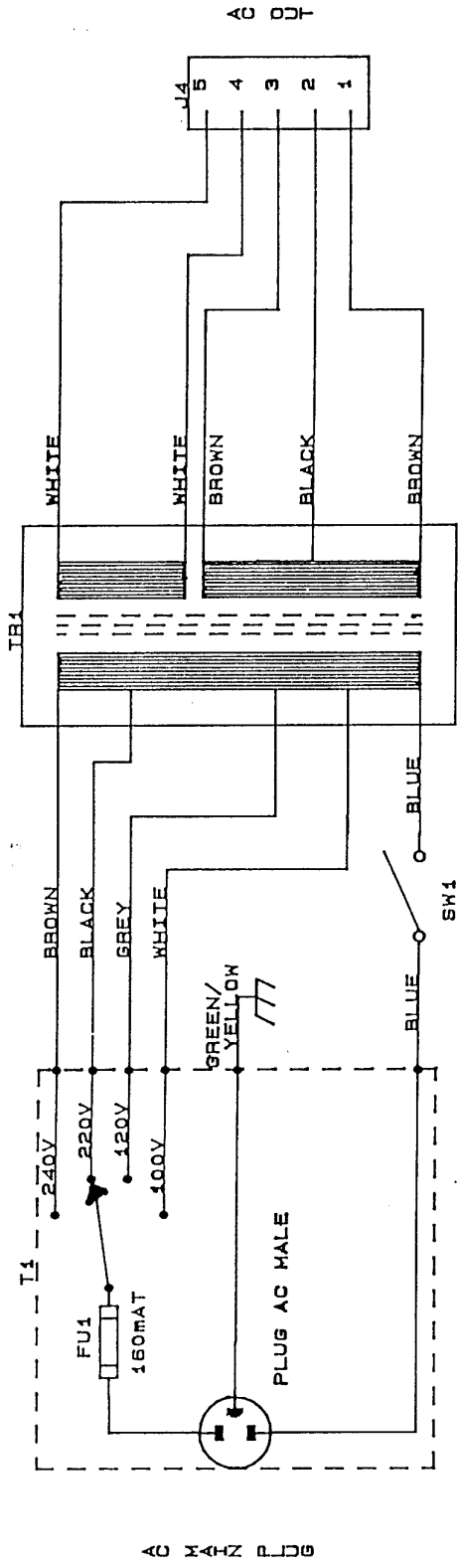


REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVAL



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES AND TOLERANCES IN ACCORDANCE WITH BS 2075 ANGLES: LIN. DIM.: MATERIAL:	DR.: 8/60 X/1	T.C. ELECTRONIC GRIMOLVEJ B, DK-8820 BRABAND, DENMARK	
	CH.: / / / /		TITLE
	AP.: / / / /		POWER SUPPLY SECTION
	AP.: / / / /		SCALE
FIRST ANGLE PROJECTION		SIZE PRINT IDENT NO. DNG NO. 2901-2	
SCALE		SHEET 7 OF 8	



Title		T.C.ELECTRONIC
Size		A
Document Number		PS2290.sch
REV		KV
Date:	January 1, 1980	Sheet 1 of 1

## PARTSLIST 2901-02, 2290 POWER SUPPLY SECTION

PL-,NO-,TYPE---,TKCODE---,KOMPONENT----

R	,701,MODST	,114509470,47E	:
R	,702,MODST	,114511100,1K0	:
R	,703,MODST	,113509330,33E	:
R	,704,MODST	,123111511,5K11 1X	:
R	,705,MODST	,123112100,10K0 1X	:
R	,706,MODST	,114513220,220K	:
R	,707,MODST	,114511100,1K0	:
R	,708,MODST	,114510180,180E	:
R	,709,MODST	,113058150,1E5 1/3W	:
R	,710,MODST	,123112100,10K0 1X	:
R	,711,MODST	,123112205,20K5 1X	:
R	,712,MODST	,114511100,1K0	:
R	,713,MODST	,123111562,5K62 1X	:
R	,714,MODST	,123111511,5K11 1X	:
R	,715,MODST	,123111562,5K62 1X	:
R	,716,MODST	,123111511,5K11 1X	:
R	,717,MODST	,114509330,33E	:
R	,718,MODST	,114511100,1K0	:
R	,719,MODST	,114511220,2K2	:
R	,720,MODST	,114508470,4E7	:
R	,721,MODST	,114513220,220K	:
R	,722,MODST	,114510100,100E	:
R	,723,MODST	,114509470,47E	:
R	,724,MODST	,	,00

RT ,701,TRIMMER,153011220,2K2

C	,701,ELLYT	,283577220,2200u 35	:
C	,702,ELLYT	,283577220,2200u 35	:
C	,703,ELLYT	,281476100,100u 10	:
C	,704,POLY	,242662470,47N	:
C	,705,ELLYT	,282675470,47u 35	:
C	,706,ELLYT	,282675470,47u 35	:
C	,707,ELLYT	,281475220,22u 16	:
C	,708,ELLYT	,281475220,22u 16	:
C	,709,ELLYT	,281475220,22u 16	:
C	,710,ELLYT	,281475220,22u 16	:
C	,711,ELLYT	,281475220,22u 16	:
C	,712,ELLYT	,281476100,100u 10	:
C	,713,PLAG	,212072220,22N	:
C	,714,PLAG	,212072220,22N	:
C	,715,PLAG	,212072220,22N	:
C	,716,PLAG	,212072220,22N	:
C	,717,PLAG	,212072220,22N	:
C	,718,PLAG	,212072220,22N	:
C	,719,PLAG	,212072220,22N	:
C	,720,PLAG	,212072220,22N	:
C	,721,TANTAL	,261574100,1u 35V	:
C	,722,TANTAL	,261574100,1u 35V	:
C	,723,TANTAL	,261574100,1u 35V	:
C	,724,TANTAL	,261574100,1u 35V	:

C ,725,TANTAL ,261574100,1U 35V ,1E ; - - -  
C ,726,TANTAL ,261574100,1U 35V ;  
C ,727,TANTAL ,261574100,1U 35V ;  
C ,728,TANTAL ,261574100,1U 35V ;  
C ,729,PLAG ,212020100,100P ;  
  
C ,730,ELLYT ,281475220,22U 16 ;  
C ,731,ELLYT ,281475220,22U 16 ;  
C ,732,ELLYT ,281475220,22U 16 ;  
C ,733,ELLYT ,281475220,22U 16 ;  
C ,734,ELLYT ,281475220,22U 16 ;  
C ,735,ELLYT ,281475220,22U 16 ;  
C ,736,ELLYT ,281574100,1U 16 ;  
C ,737,ELLYT ,281475220,22U 16 ;  
C ,738,PLAB ,212072220,22N ;  
C ,739,POLY ,242665100,100N ;  
C ,740,ELLYT ,284378100,10000U 16 ;  
C ,741,TANTAL ,261574100,1U ;  
C ,742,TANTAL ,261574100,1U ;  
  
D ,701,POWER ,360010400,KBU 4A ;  
D ,702,POWER , non exist ;  
D ,703,DIODE ,360141480,1N4146 ;  
D ,704,DIODE ,360140010,1N4001 ;  
D ,705,DIODE ,360140010,1N4001 ;  
D ,706,DIODE ,360140010,1N4001 ;  
D ,707,DIODE ,360140010,1N4001 ;  
  
DZ ,701,ZENER ,366000430,B1A79 4V3 ;  
  
E ,701,TRANS ,371005580,BC558 ;  
E ,702,TRANS ,371003370,BC337 ;  
E ,703,POWER ,378000311,T1P31 A ;  
E ,704,TRANS ,371005480,BC548 ;  
E ,705,POWER ,378000321,T1P32 A ;  
  
IC , 63,LINEAR ,313032400,LM 324 ;  
IC , 64,LINEAR ,313032400,LM 324 ;  
IC , 65,LINEAR ,319178050,7805 +SP.REG ;  
IC , 66,LINEAR ,319179050,7905 -SP.REG ;  
FUJ , 1,FU.HDL ,458010500, ;  
FUJ , 2,FU.HDL ,458010500, ;  
FUJ , 3,FU.HDL ,458010500, ;  
  
FU , 1,FUSE ,459051315,3.15AT ;  
FU , 2,FUSE ,459050315,315mAT ;  
FU , 3,FUSE ,459050315,315mAT ;  
  
J , 4,SILSTIK,436705100,5POL HAN L16 ;  
  
MP , 1,KBLEP ,649010300, ;  
MP , 2,REBBØJ ,641051700, ;  
MP , 3,REBBØJ ,641051700, ;  
MP , 4,SKRUE ,692430008,M3\*8 PHJA ;  
MP , 5,SKRUE ,692430008,M3\*8 PHJA ;  
MP , 6,SKRUE ,692430008,M3\*8 PHJA ;  
MP , 7,SKRUE ,692430008,M3\*8 PHJA ;  
MP , 8,SKRUE ,692430008,M3\*8 PHJA ;  
MP , 9,SKRUE ,692430008,M3\*8 PHJA ;  
MP , 10,SKRUE ,692430008,M3\*8 PHJA ;

MP , 11,SKRUE ,692430008,M3\*8 PHJX ,skrue for IC86 / kveivinkel -15V  
 MP , 12,SKRUE ,692430012,M3\*12 PHJX ,skrue for KBU 4A kveiplade  
 MP , 13,MØTRIK ,695010300,M3 ,møtrik for MP4  
 MP , 14,MØTRIK ,695010300,M3 ,møtrik for MP5  
 MP , 15,MØTRIK ,695010300,M3 ,møtrik for MP6  
 MP , 16,MØTRIK ,695010300,M3 ,møtrik for MP7  
 MP , 17,MØTRIK ,695010300,M3 ,møtrik for MP8  
 MP , 18,MØTRIK ,695010300,M3 ,møtrik for MP9  
 MP , 19,MØTRIK ,695010300,M3 ,møtrik for MP10  
 MP , 20,MØTRIK ,695010300,M3 ,møtrik for MP11  
 MP , 21,MØTRIK ,695010300,M3 ,møtrik for MP12  
 MP , 22,TANDESK.,697600300,M3 ,tandskive for MP4  
 MP , 23,TANDESK.,697600300,M3 ,tandskive for MP5  
 MP , 24,TANDESK.,697600300,M3 ,tandskive for MP6  
 MP , 25,TANDESK.,697600300,M3 ,tandskive for MP7  
 MP , 26,TANDESK.,697600300,M3 ,tandskive for MP8  
 MP , 27,TANDESK.,697600300,M3 ,tandskive for MP9  
 MP , 28,TANDESK.,697600300,M3 ,tandskive for MP10  
 MP , 29,TANDESK.,697600300,M3 ,tandskive for MP11  
 MP , 30,TANDESK.,697600300,M3 ,tandskive for MP12  
 MP , 31,FIBERSK.,697530905, ,fiberskive for MP6, isolering af tandskive  
 MP , 32,ISDLSK.,699022000,TRANSHEAT PAD,for transistor Q703  
 MP , 33,ISDLSK.,699022000,TRANSHEAT PAD,for transistor Q705  
 MP , 34,ISDLSK.,699022000,TRANSHEAT PAD,for IC85,+15V  
 MP , 35,ISDLSK.,699022000,TRANSHEAT PAD,for IC86,-15V  
 MP , 36,ISDLBØS,699100300,Ø3 ISDL.BØSN ,for transistor Q703  
 MP , 37,ISDLBØS,699100300,Ø3 ISDL.BØSN ,for transistor Q705  
 MP , 38,ISDLBØS,699100300,Ø3 ISDL.BØSN ,for IC85,+15V  
 MP , 39,ISDLBØS,699100300,Ø3 ISDL.BØSN ,for IC86,-15V  
 MP , 40,SKRUE ,691320006, ,skrue for DIN bøsning T1  
 MP , 41,SKRUE ,691320006, ,skrue for DIN bøsning T1  
 MP , 42,SKRUE ,691320006, ,skrue for DIN bøsning T2  
 MP , 43,SKRUE ,691320006, ,skrue for DIN bøsning T2  
 MP , 44,SKRUE ,691320006, ,skrue for DIN bøsning T3  
 MP , 45,SKRUE ,691320006, ,skrue for DIN bøsning T3  
 MP , 46,SKRUE ,691320006, ,skrue for XLR bøsning T6  
 MP , 47,SKRUE ,691320006, ,skrue for XLR bøsning T9  
 MP , 48,SKRUE ,691320006, ,skrue for XLR bøsning T11  
 MP , 49,SKRUE ,691320006, ,skrue for XLR bøsning T13  
 MP , 50,GUMMIFAF.,672440100, ,gummiafstandsstykke for ladedlytter C791 & C702  
 MP , 51,STRAP ,699810120, ,strap for ladedlytter C701 & C702


\* markere ændringer ifht. pl2901-2.701

Del af msk. stykliste:

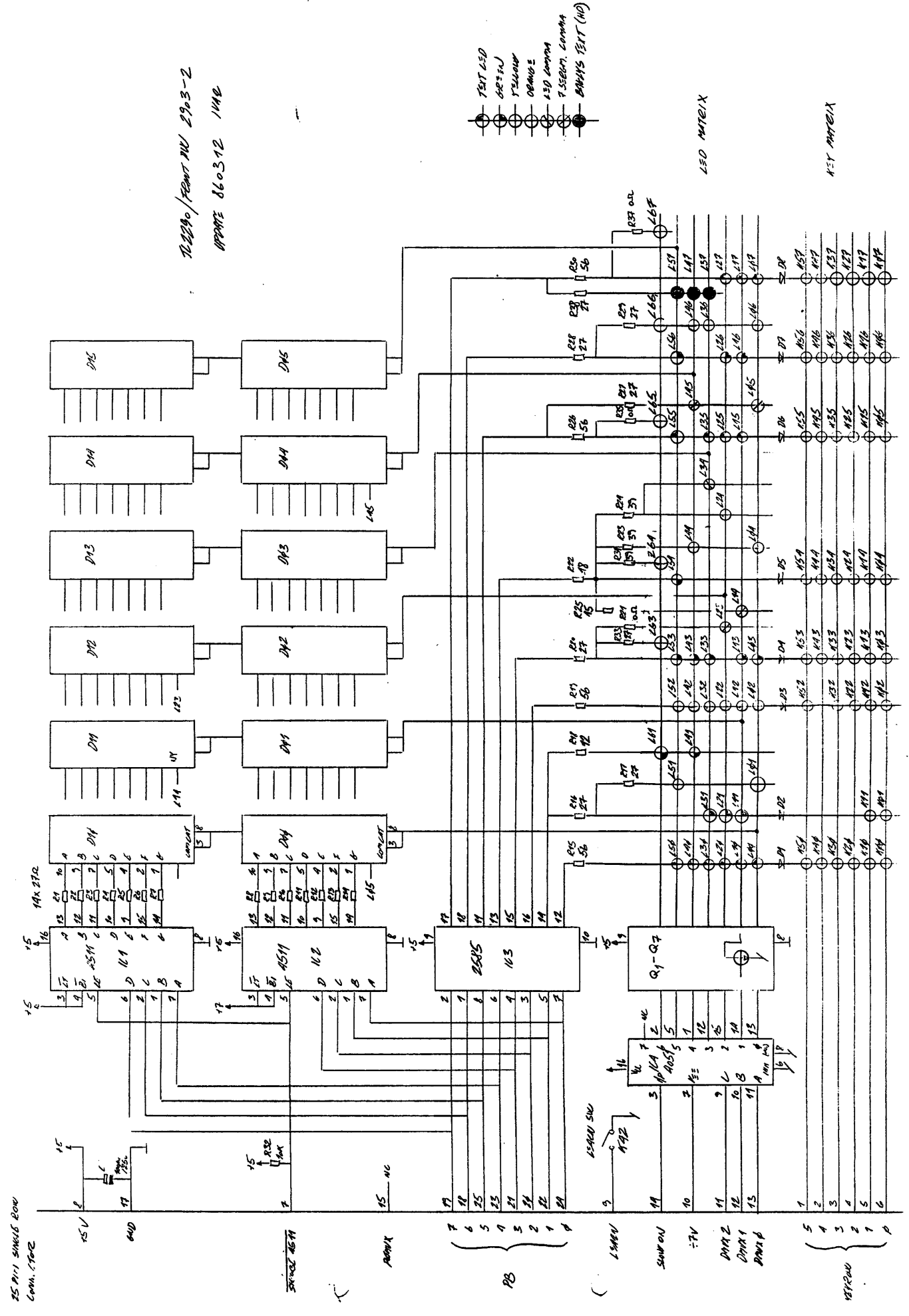
1 stk. 5 PUL FEMALE (adspart til J4) panduit 3.96 raster  
 2 stk. 15V ladedledn til FEMALE/TRAFD 0.75mm2, farve HVID, længde:  
 1 stk. 0V - - - - - SORT, - :  
 2 stk. 5V - - - - - BLA. - :  
  
 1 stk. 240 VAC ledn.m.spade/ TRAFD 0.75mm2, farve HVID, længde:  
 1 stk. 220 VAC - - - - - GRA, - :  
 1 stk. 120 VAC - - - - - RØD, - :  
 1 stk. 100 VAC - - - - - BRUN, - :  
 1 stk. 0 VAC - - - - - SORT, - :  
 1 stk. jord - - - - - GR/GUL - :  
 2 stk. ledn netafbr.- - - - - SORT, - :  
  
 1 stk. Netsikring v.220 -240v: 125mA, v.100 -120v: 250mA  
 trafo, netafbr. sp.anset m.m.m.e.

IC	TYPE	PAGE	NUMBER OF PIN	+15VE	+15V	+7V	+5V	DGND	AGND	-7V	-7VE	-15V	-15VE	REMARKS
1	MC68803	1	40				7	1						DR HD63803
2	MEM27128	1	28				28	14						
3	MM6264	1	28					14						
4	MC68821	1	40				20	1						DR HD63821
5	MC68850	1	24				12	1						DR HD63850
6	LS373	1	20				20	10						
7	LS139	1+2	16				16	8						
8	HCT139	1+3	16				16	8						
10	LS138	1	16				16	8						
11	LS93	1	14				5	10						
12	LS14	1+2+3	14				14	7						
13	LS32	2	14				14	7						
14	LS00	1+2	14				14	7						
16	LS08	1+2	14				14	7						
18	LS175	2	16				16	8						
19	LS393	2	14				14	7						
20	LS367	2	16				16	8						
21	LS367	2	16				16	8						
22	LS74	2	14				14	7						
23	LS195	2	16				16	8						
24	LS195	2	16				16	8						
25	LS153	2	16				16	8						
26	LS670	2	16				16	8						
27	LS670	2	16				16	8						
28	LS670	2	16				16	8						
29	LS670	2	16				16	8						
30	MM81256	2+2A	16				8	16						
45														
50	LS628	3	14				9	7						
51	HCT14	1+3+4	14				14	7						
52	HC05	1+3+4	14				14	7						
53	MC1408DAC	3	16				13	2				3		
54	MC14052B	3	16				16	8		7				
55	MC14051B	3	16				16	8		7				
58	HC374	3	20				20	10						
59	MC14174B	3	16				16	8						
60	LM339	3+4	14		3			12						
61	TL074	3+5	14		4						11			
62	PC900	4	6				6	5						
63	LM324	7	14		4							11		
64	TL074	3	14	4									11	
70	DBX2155	6	8		7			2, 6						
71	DBX2155	6	8		7			2, 6						
72	DBX2155	6	8		7			2, 6						
73	DBX2155	5	8		7			2, 6						
74	LM339	6	14		3							12		
75	MC14053B	6	16			16		6, 8	7					
76	MC14053B	6	16			16		6, 8	7					
77	MC14053B	5	16			16		6, 8	7					
78	TL074	6	14		4							11		
79	TL074	6	14		4							11		
80	RC4156	5	14		4							11		
81	RC4156	5	14		4							11		
82	RC4156	5	14		4							11		
83	RC4559	6	8		8							4		
84	LM324	7	14		4							11		
85	7805	7	3											
86	7905	7	3											

ALL LS-IC'S MAY BE HCT-TYPE, EXCEPT IC50 AND IC7, WHICH MUST BE LS-TYPES.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETRES AND TOLERANCES IN ACCORDANCE WITH DS 2075	DR. :	T.C. ELECTRONIC I/S		
	CH. :	GRUPPOVEJ 3, DK-8280 BRABRAND, DENMARK		
	AP. :	TITLE		
	AP. :	MAIN PRINT 2901-2		
MATERIAL :	FIRST ANGLE PROJECTION	SIZE A2	CODE IDENT NO.	DWG NO.
		SCALE	SHEET 8 OF 8	

TELETYPE/FRONT PNL 2903-2  
 APPROP 860312 1140



- TEST LED
- GREEN
- YELLOW
- ORANGE
- RED MATRIX
- BROWN MATRIX

LED MATRIX

KEY MATRIX

25 PIN SINGLE ROW  
 COMM. STOR

30-PIN 16811

POWER

PB

15VDC SW

SWAMP

SWAMP

-7V

DATA 2

DATA 1

POWER B

25-PIN

PARTSLIST 2903-02, 2290 DISPLAY KORT

PL-	NO-	TYPE---	TCKODE---	KOMPONENT----	TXT-----
R	1	MODST	,114509270,27E		
R	2	MODST	,114509270,27E		
R	3	MODST	,114509270,27E		
R	4	MODST	,114509270,27E		
R	5	MODST	,114509270,27E		
R	6	MODST	,114509270,27E		
R	7	MODST	,114509270,27E		
R	8	MODST	,114509270,27E		
R	9	MODST	,114509270,27E		
R	10	MODST	,114509270,27E		
R	11	MODST	,114509270,27E		
R	12	MODST	,114509270,27E		
R	13	MODST	,114509270,27E		
R	14	MODST	,114509270,27E		
R	15	MODST	,114509560,56E		
R	16	MODST	,114509270,27E		
R	17	MODST	,114509270,27E		
R	18	MODST	,114509120,12E		
R	19	MODST	,114509560,56E		
R	20	MODST	,114509270,27E		
R	21	LUS	,100040000,0E		
R	22	MODST	,114509180,18E		
R	23	MODST	,114509390,39E		
R	24	MODST	,114509390,39E		
R	25	MODST	,114509150,15E		
R	26	MODST	,114509560,56E		
R	27	MODST	,114509270,27E		
R	28	MODST	,114509270,27E		
R	29	MODST	,114509270,27E		
R	30	MODST	,114509560,56E		
-	31			,non exist	
R	32	MODST	,114512100,10K		
R	33	MODST	,114509270,27E		
R	34	MODST	,114509390,39E		
R	35	LUS	,100040000,0E		
R	36	MODST		,non exist	
R	37	LUS	,100040000,0E		
R	38	MODST	,114509270,27E		
R	39	MODST	,114509270,27E		
C	1	ELLYT	,281476100,100U 16		
D	1	DIODE	,360141480,1N4148		
D	2	DIODE	,360141480,1N4148		
D	3	DIODE	,360141480,1N4148		
D	4	DIODE	,360141480,1N4148		
D	5	DIODE	,360141480,1N4148		
D	6	DIODE	,360141480,1N4148		
D	7	DIODE	,360141480,1N4148		
D	8	DIODE	,360141480,1N4148		



```

Q , 1,TRANS ,375006530,ZTX 653 , krav: Vce0 > 10V, Vce saturation < 0.4V v.Ic=600 mA og Hfe > 100
Q , 2,TRANS ,375006530,ZTX 653 ;
Q , 3,TRANS ,375006530,ZTX 653 ;
Q , 4,TRANS ,375006530,ZTX 653 ;
Q , 5,TRANS ,375006530,ZTX 653 ;
Q , 6,TRANS ,375006530,ZTX 653 ;
Q , 7,TRANS ,375006530,ZTX 653 ;

DG , 00,DISPLAY,396002010,TFK D201P K ;
DG , 01,DISPLAY,396002010,TFK D201P K ;
DG , 02,DISPLAY,396002010,TFK D201P K ;
DG , 03,DISPLAY,396002010,TFK D201P K ;
DG , 04,DISPLAY,396002010,TFK D201P K ;
DG , 05,DISPLAY,396002010,TFK D201P K ;

DG , 10,DISPLAY,396002010,TFK D201P K ;
DG , 11,DISPLAY,396002010,TFK D201P K ;
DG , 12,DISPLAY,396002010,TFK D201P K ;
DG , 13,DISPLAY,396002010,TFK D201P K ;
DG , 14,DISPLAY,396002010,TFK D201P K ;
DG , 15,DISPLAY,396002010,TFK D201P K ;

LD , 00,LED ,391503100,Ø3Fx5 ORANGE , ;f.eks. AEG TLS0 3201
LD , 01,LED ,392005112,2.5x5 ORANGE , ;f.eks. AEG TLS0 5101
LD , 02,LED ,392005112,2.5x5 ORANGE , ;
LD , 03,LED ,392005122,2.5x5 GRØN , ;f.eks. AEG TLS0 5101
LD , 04,LED ,392005112,2.5x5 ORANGE , ;
LD , 06,LED ,392005112,2.5x5 ORANGE , ;
LD , 07,LED ,391503100,Ø3Fx5 ORANGE , ;

LD , 10,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 11,LED ,392005122,2.5x5 GRØN , ;
LD , 12,LED ,392005112,2.5x5 ORANGE , ;
LD , 13,LED ,392005122,2.5x5 GRØN , ;
LD , 15,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 16,LED ,392005122,2.5x5 GRØN , ;
LD , 17,LED ,391503100,Ø3Fx5 ORANGE , ;

LD , 20,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 21,LED ,392005122,2.5x5 GRØN , ;
LD , 22,LED ,392005112,2.5x5 ORANGE , ;
LD , 24,LED ,392005112,2.5x5 ORANGE , ;
LD , 25,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 26,LED ,392005122,2.5x5 GRØN , ;
LD , 27,LED ,391503100,Ø3Fx5 ORANGE , ;

LD , 30,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 31,LED ,392005122,2.5x5 GRØN , ;
LD , 32,LED ,392005112,2.5x5 ORANGE , ;
LD , 33,LED ,392005122,2.5x5 GRØN , ;
LD , 34,LED ,392007250,2.5x7 RØD S ,speed komma ; f.eks stanley, HP, IEEE el. scandibutor type
LD , 35,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 36,LED ,392005112,2.5x5 ORANGE , ;
LD , 37,LED ,392007250,2.5x7 RØD S , ;

LD , 40,LED ,391503100,Ø3Fx5 ORANGE , ;
LD , 41,LED ,392005132,2.5x5 GUL , ;
LD , 42,LED ,392005112,2.5x5 ORANGE , ;
LD , 43,LED ,392005122,2.5x5 GRØN , ;
LD , 44,LED ,392005112,2.5x5 ORANGE , ;

```

LD , 46,LED ,392005112,2.5x5 ORANGE ,  
 LD , 47,LED ,392007250,2.5x7 RØD S ,  
  
 LD , 50,LED ,391503100,Ø3Fx5 ORANGE ,  
 LD , 51,LED ,392005112,2.5x5 ORANGE ,  
 LD , 52,LED ,392005112,2.5x5 ORANGE ,  
 LD , 53,LED ,392005122,2.5x5 BRØN ,  
 LD , 54,LED ,392005132,2.5x5 GUL ,  
 LD , 55,LED ,391503100,Ø3Fx5 ORANGE ,  
 LD , 56,LED ,392005112,2.5x5 ORANGE ,  
 LD , 57,LED ,392007250,2.5x7 RØD S ,

LD , 60,LED , , ,  
 LD , 61,LED ,392005132,2.5x5 GUL ,  
 LD , 62,LED ,392005112,2.5x5 ORANGE ,  
 LD , 63,LED ,392005112,2.5x5 ORANGE ,  
 LD , 64,LED ,392005112,2.5x5 ORANGE ,  
 LD , 65,LED ,392005112,2.5x5 ORANGE ,  
 LD , 66,LED ,392005112,2.5x5 ORANGE ,  
 LD , 67,LED ,392005112,2.5x5 ORANGE ,

IC , 1,CMOS ,322045011,4511 ,  
 IC , 2,CMOS ,322045011,4511 ,  
 IC , 3,SPECIAL,334025850,UDN2585A ,  
 IC , 4,CMOS ,322040051,4051 ,

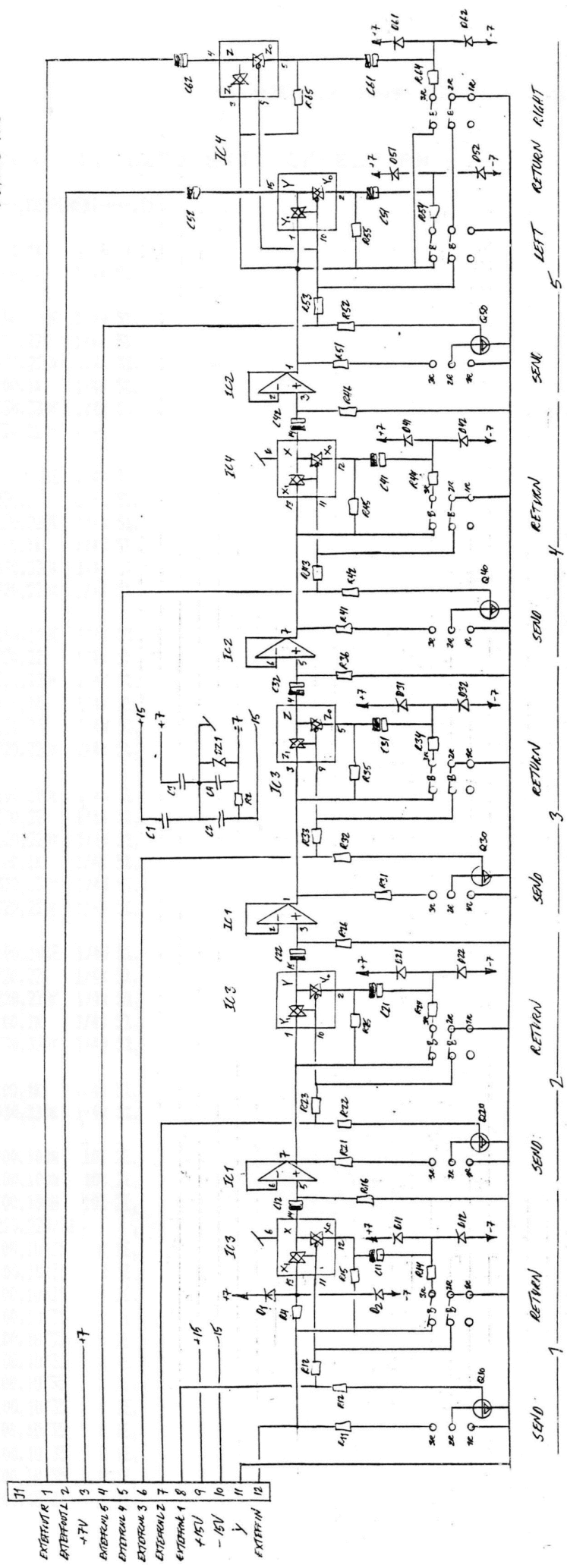
S , 0,TROMSK ,531010100,1P DIGITAST ,  
 S , 1,TROMSK ,531010100,1P DIGITAST ,  
 S , 2,TROMSK ,531010100,1P DIGITAST ,  
 S , 3,TROMSK ,531010100,1P DIGITAST ,  
 S , 4,TROMSK ,531010100,1P DIGITAST ,  
 S , 5,TROMSK ,531010100,1P DIGITAST ,  
 S , 6,TROMSK ,531010100,1P DIGITAST ,  
 S , 7,TROMSK ,531010100,1P DIGITAST ,  
 S , 10,TROMSK ,531010100,1P DIGITAST ,  
 S , 11,TROMSK ,531010100,1P DIGITAST ,  
 S , 12,TROMSK ,531010100,1P DIGITAST ,  
 S , 13,TROMSK ,531010100,1P DIGITAST ,  
 S , 14,TROMSK ,531010100,1P DIGITAST ,  
 S , 15,TROMSK ,531010100,1P DIGITAST ,  
 S , 16,TROMSK ,531010100,1P DIGITAST ,  
 S , 17,TROMSK ,531010100,1P DIGITAST ,  
 S , 20,TROMSK ,531010100,1P DIGITAST ,  
 S , 22,TROMSK ,531010100,1P DIGITAST ,  
 S , 23,TROMSK ,531010100,1P DIGITAST ,  
 S , 24,TROMSK ,531010100,1P DIGITAST ,  
 S , 25,TROMSK ,531010100,1P DIGITAST ,  
 S , 26,TROMSK ,531010100,1P DIGITAST ,  
 S , 27,TROMSK ,531010100,1P DIGITAST ,  
 S , 30,TROMSK ,531010100,1P DIGITAST ,  
 S , 32,TROMSK ,531010100,1P DIGITAST ,  
 S , 33,TROMSK ,531010100,1P DIGITAST ,  
 S , 34,TROMSK ,531010100,1P DIGITAST ,  
 S , 35,TROMSK ,531010100,1P DIGITAST ,  
 S , 36,TROMSK ,531010100,1P DIGITAST ,  
 S , 37,TROMSK ,531010100,1P DIGITAST ,  
 S , 40,TROMSK ,531010100,1P DIGITAST ,  
 S , 42,TROMSK ,531010100,1P DIGITAST ,  
 S , 43,TROMSK ,531010100,1P DIGITAST ,  
 S , 44,TROMSK ,531010100,1P DIGITAST ,

S , 45, TROMSK , 531010100, 1P DIGITAST ,  
S , 46, TROMSK , 531010100, 1P DIGITAST ,  
S , 47, TROMSK , 531010100, 1P DIGITAST ,  
S , 50, TROMSK , 531010100, 1P DIGITAST ,  
S , 52, TROMSK , 531010100, 1P DIGITAST ,  
S , 53, TROMSK , 531010100, 1P DIGITAST ,  
S , 54, TROMSK , 531010100, 1P DIGITAST ,  
S , 55, TROMSK , 531010100, 1P DIGITAST ,  
S , 56, TROMSK , 531010100, 1P DIGITAST ,  
S , 57, TROMSK , 531010100, 1P DIGITAST ,  
  
J , 1, CDNN , 435525100, 25 POL PIN ,  
  
PCB, 2, PRINT , 670022902, ,

"\*" markerer ændringer ifht. sidste opdat: 860313-KR  
(disse ændringer er kun rettelser pga. fejl i gl. stykliste)

Z904-1 EXT. EFFECTS CONTROL

851206 KC



SEND 1 RETURN 1  
 SEND 2 RETURN 2  
 SEND 3 RETURN 3  
 SEND 4 RETURN 4  
 SEND LEFT RETURN RIGHT

PARTSLIST 2904-01, 2290 EXT. EFFECT PW

PL-,NO-,TYPE---,TCKODE---,KOMPLEMENT----,T)

R	2	MODST	,114511100,1K	1/4W 5%
R	4	MODST	,114511100,1K	1/4W 5%
R	11	MODST	,114510100,100E	1/4W 5%
R	12	MODST	,114512220,22K	1/4W 5%
R	13	MODST	,114513220,220K	1/4W 5%
R	14	MODST	,114511100,1K	1/4W 5%
R	15	MODST	,114513330,330K	1/4W 5%
R	16	MODST	,114513220,220K	1/4W 5%
R	21	MODST	,114510100,100E	1/4W 5%
R	22	MODST	,114512220,22K	1/4W 5%
R	23	MODST	,114513220,220K	1/4W 5%
R	24	MODST	,114511100,1K	1/4W 5%
R	25	MODST	,114513330,330K	1/4W 5%
R	26	MODST	,114513220,220K	1/4W 5%
R	31	MODST	,114510100,100E	1/4W 5%
R	32	MODST	,114512220,22K	1/4W 5%
R	33	MODST	,114513220,220K	1/4W 5%
R	34	MODST	,114511100,1K	1/4W 5%
R	35	MODST	,114513330,330K	1/4W 5%
R	36	MODST	,114513220,220K	1/4W 5%
R	41	MODST	,114510100,100E	1/4W 5%
R	42	MODST	,114512220,22K	1/4W 5%
R	43	MODST	,114513220,220K	1/4W 5%
R	44	MODST	,114511100,1K	1/4W 5%
R	45	MODST	,114513330,330K	1/4W 5%
R	46	MODST	,114513220,220K	1/4W 5%
R	51	MODST	,114510100,100E	1/4W 5%
R	52	MODST	,114512220,22K	1/4W 5%
R	53	MODST	,114513220,220K	1/4W 5%
R	54	MODST	,114511100,1K	1/4W 5%
R	55	MODST	,114513330,330K	1/4W 5%
R	64	MODST	,114511100,1K	1/4W 5%
R	65	MODST	,114513330,330K	1/4W 5%
C	1	POLY	,242663100,100N	10% 2E,
C	2	POLY	,242663100,100N	10% 2E,
C	3	POLY	,242663100,100N	10% 2E,
C	4	ELLYT	,281475220,220/16	
C	11	ELLYT	,281574100,1U/35	R 1E,
C	12	ELLYT	,281574100,1U/35	R 1E,
C	21	ELLYT	,281574100,1U/35	R 1E,
C	22	ELLYT	,281574100,1U/35	R 1E,
C	31	ELLYT	,281574100,1U/35	R 1E,
C	32	ELLYT	,281574100,1U/35	R 1E,
C	41	ELLYT	,281574100,1U/35	R 1E,
C	42	ELLYT	,281574100,1U/35	R 1E,
C	51	ELLYT	,281574100,1U/35	R 1E,
C	52	ELLYT	,281574100,1U/35	R 1E,
C	61	ELLYT	,281574100,1U/35	R 1E,
C	62	ELLYT	,281574100,1U/35	R 1E,

D , 1, DIODE ,360141480,1N4148 , farste innut kan ta fnr hai innut snandino. D1/D2 forhindrer.  
D , 2, DIODE ,360141480,1N4148 ,  
D , 11, DIODE ,360141480,1N4148 ,  
D , 12, DIODE ,360141480,1N4148 ,  
D , 21, DIODE ,360141480,1N4148 ,  
D , 22, DIODE ,360141480,1N4148 ,  
D , 31, DIODE ,360141480,1N4148 ,  
D , 32, DIODE ,360141480,1N4148 ,  
D , 41, DIODE ,360141480,1N4148 ,  
D , 42, DIODE ,360141480,1N4148 ,  
D , 51, DIODE ,360141480,1N4148 ,  
D , 52, DIODE ,360141480,1N4148 ,  
D , 61, DIODE ,360141480,1N4148 ,  
D , 62, DIODE ,360141480,1N4148 ,

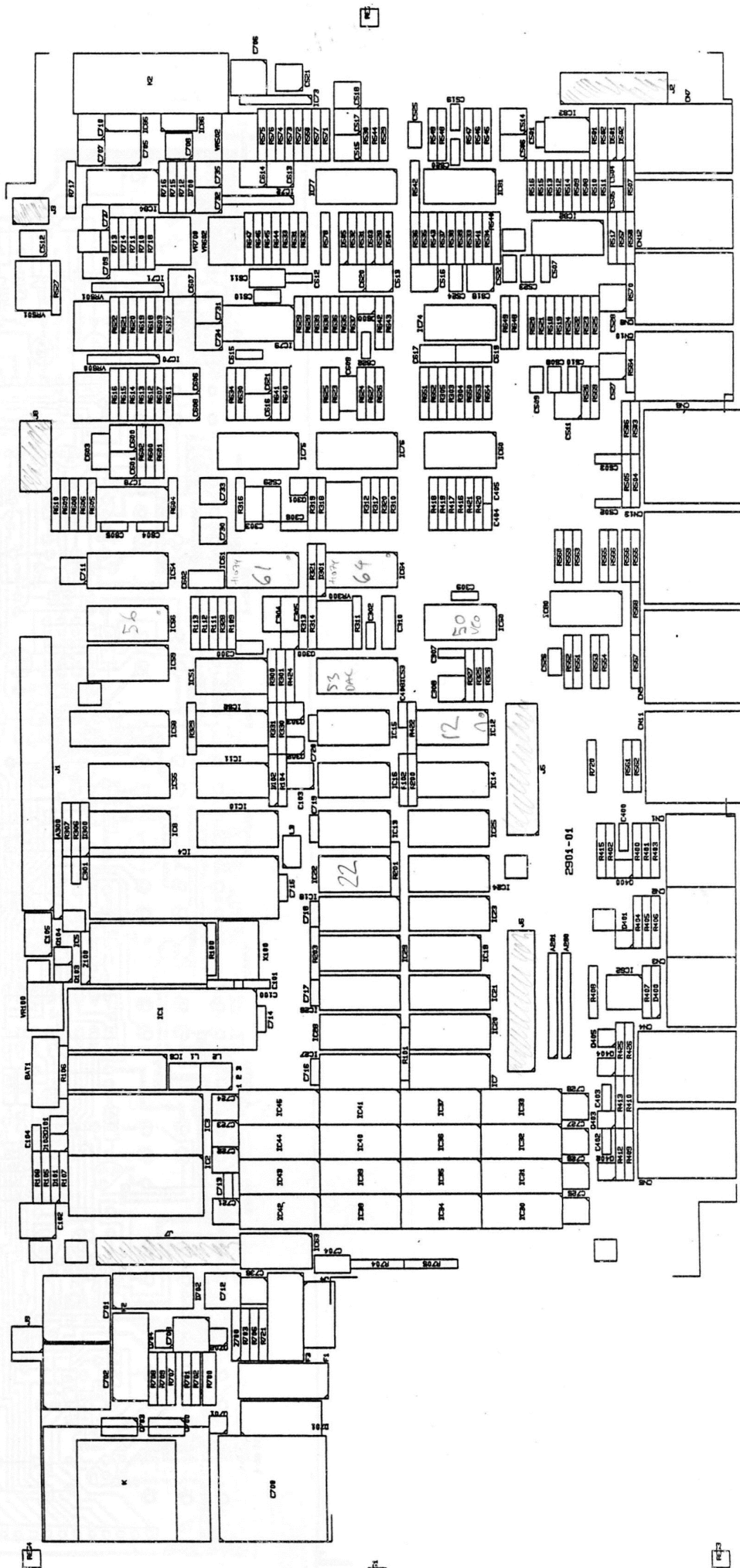
DZ , 1, ZENER ,366000750,82X79 C7V5 ,

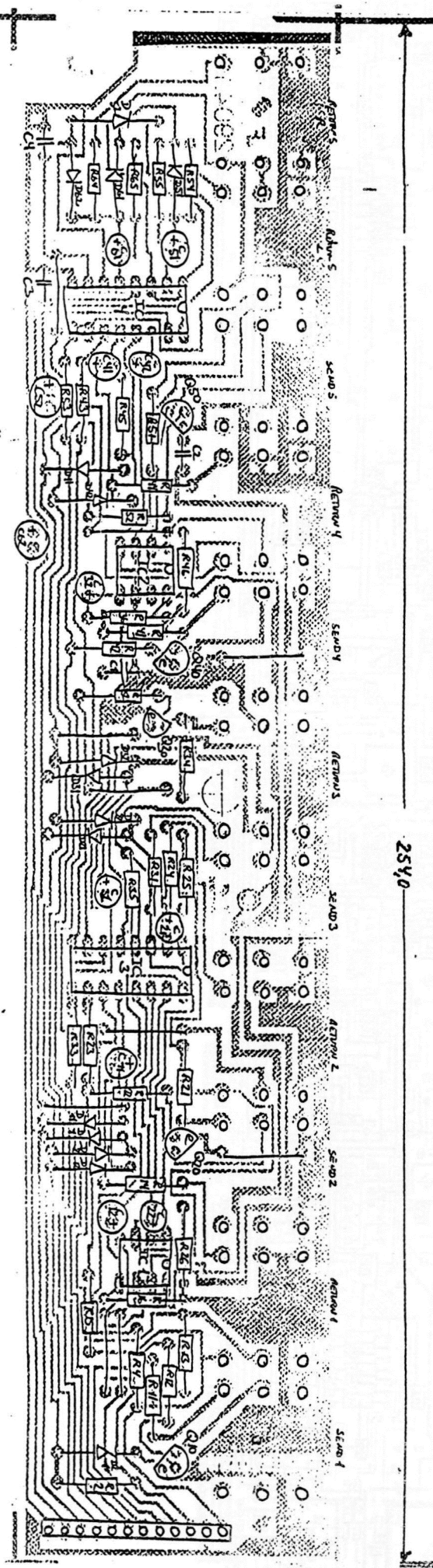
, 10, TRANS ,371005480,BC 548 B NPN,  
 , 20, TRANS ,371005480,BC 548 B NPN,  
 , 30, TRANS ,371005480,BC 548 B NPN,  
 , 40, TRANS ,371005480,BC 548 B NPN,  
 , 50, TRANS ,371005480,BC 548 B NPN,

IC , 1, LINEAR ,312045590,RC 4559 ,  
IC , 2, LINEAR ,312045590,RC 4559 ,  
IC , 3, LINEAR ,322040053,MC 14053B ,  
IC , 4, LINEAR ,322040053,MC 14053B ,

T , 10, JACK ,411071333,BBB-PCI TC 7,  
T , 11, JACK ,411071333,BBB-PCI TC 7,  
T , 20, JACK ,411071333,BBB-PCI TC 7,  
T , 21, JACK ,411071333,BBB-PCI TC 7,  
T , 30, JACK ,411071333,BBB-PCI TC 7,  
T , 31, JACK ,411071333,BBB-PCI TC 7,  
T , 40, JACK ,411071333,BBB-PCI TC 7,  
T , 41, JACK ,411071333,BBB-PCI TC 7,  
 , 50, JACK ,411071333,BBB-PCI TC 7,  
 , 51, JACK ,411071333,BBB-PCI TC 7,  
T , 61, JACK ,411071333,BBB-PCI TC 7,

J 1, 2, SIL ,435512100,12pol stik  
PCB, 4, PRINT ,670022904,  
'x' markerer andring siden sidste PL2904









51  
41  
31  
21  
11

01

d00 d01 20 0  
10 0  
00 0

d02 d03 30 0  
40 0  
00 0

d04 d05 35 0  
45 0  
00 0

35 0  
25 0  
15 0  
05 0

05

15

d10 d11 d12 d13 47  
37  
27

34

33

13 12 17  
03 02 07  
23 22 27  
33 32 37

d14 d15

48 38  
16 06  
33 34  
35 36  
37 38

56  
26

103

11 01  
04 54 24

14 32  
34 44 30

10 00  
20 50 40 35

12 02  
25 42  
53 43 52 42

36 72  
55 53 43 52 42

42 06  
47 57  
55 46 36

## 9.4 SPECIAL NUMBER LIST for prom ver.26.5

Spec No.	Min/Value	max/Default	Fac. Default	Preset/global	Name/Function
0	265	265		global	Prom Version No.
1	0-127	51		global	Midi Exclusive ID-No. - When sending midi exclusive codes (to another TC 2290 or to a computer), this number ensures that only equipment w. identical ID-Nos. are 'listening' to these exclusive codes.
2	0-1	1		global	Midi Exclusive Input Off. - '1' means that TC 2290 ignores input exclusive midi codes, (even if ID-no. is ok). With the value '0', TC 2290 responds to midi input exclusive codes.
3	0-1	1		global	Midi Exclusive Output Off. - '1' means that TC 2290 does not send out all keypressings as midi exclusive codes. With the value '0' all keypressings are send out as midi exclusive codes.
4	1-16	1		global	Midi Ch. - the frontpanel key <MIDI CH> actually selects this spec.#.
5	0-1	0		global	Midi Omni Off - '1' means that TC 2290 will only listen to the chosen MIDI channel #. At '0' TC 2290 listens on all midi channels.
6	0-1	0		global	Midi Enable, as the frontpanel key
7	1-32	1		global	Memory Size - here you write how many seconds delay, the TC 2290 has been fitted with. Take extreme care not to write a wrong value, or a very annoying and noisy 'hole' will appear in the sound if set too high !!
8	1-100	80		global	Preset Protect - all presets below this number are not protected against accidental store. Note: Preset #0 (the 'autostore' preset) cannot be protected.
9	0-1	0		preset	Inv. Dly.modulation. '1' to invert the flanger sweep start and env. pitchshift direction.

The next 4 spec.# set the thresholds associated with the modulation forms ENV and TRIG. The higher the value the higher input signal is nessecary to get the same modulation effect. Dly and Pan thresholds are from -48 to -24dB (ref 0dB PPM). Dyn thresholds -36 to -12dB. All in 3dB steps.

10	1-9	5		preset	Dly.Mod.Threshold, 9 thresholds for the Dly Env. and Trig waveforms.
11	1-9	5		preset	Pan Mod.Threshold. 9 thresholds for the Pan Env. and Trig waveforms.
12	1-9	5		preset	Dyn Dly.Vol Threshold. 9 thresholds for the Dyn Env. and Trig waveforms.
13	1-9	9		preset	Dyn Feedback Threshold. 9 thresholds for the Dyn Env. and Trig waveforms.

Spec No.	Min/max Value	Fac. Default	Preset/global	Name/Function
14	0-1	0	global	<b>Manual Delay On Control</b> ( '1'=manual, '0'=in preset)
15	0-1	0	global	<b>Manual Sample Control</b>
16	0-1	0	global	<b>Manual Outgain Control</b>
17	0-1	0	global	<b>Manual Dirgain Control</b>
18	0-1	0	global	<b>Manual Ext.Eff. Control</b>
19	0-1	0	global	<b>Keyboard Lock</b> , '1' enables a double <ENTER><ENTER> on keyboard 'locks' keyb. to the parameter, preventing other <UP/DOWN> keys 'catching' keyboard. Pressing <.><.>, <PRESET>, <CHANGE> or <SPEC> will remove the lock.
20	0-1	0	global	<b>Special Number Roll</b> , for the user often programming spec.#.- Set to '1' to enable 'special number roll'. <SPEC> rolls forward one number, <ENTER> rolls forward to next spec.value. <DELAY UP/DOWN> cancels spec no.display.
21	0-255	0	global	<b>SpecNo.Sys</b> - for service only.
22	0	0	global	<b>Show Keycode</b> , to help when programming the assign keys. Selecting this results in the display of keycodes of all following keypressings. Note that the TC 2290 functions unaffected by this 'show keycode in delay display' so all keycodes for keys that result in a changed delay display can not be shown. These are :<DELAY UP>, <DELAY DOWN>, <SPEC>, <MIDI CH> and <LEARN>.
23	0	0	global	<b>Last Error</b> , Shows last occurred errorno. If you have had error. no.13 (=presets and spec.no overwritten by fac. defaults) a '0' must be entered here to tell the TC 2290 that you have seen the error. Check the Error #. List for other possible error nos.
24	0	0	global	<b>Fatal Error</b> . Show last-.(service only).
25	0-99	99	global	<b>Direct Signal bypass volume</b> . If Bypass Method (spec 26) is set to 'output mute' (val.1) or 'mute both' (val.2), this spec.no 25 decides the volume of the direct signal when delay is bypassed (w. the <DELAY ON> toggle key)
26	0,1,2	2	preset	<b>Bypass Method</b> , selects between 3 bypass methods: Input mute (0) for 'a tail of delay' or Output mute (1) for 'history, but no tail' or both (2) for 'no history, no tail' when bypassing.

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**SAMPLING SPECIAL NUMBER additions**


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spec No.	Min/max Value	Factory default	preset/global	Name/Function
0	26.00-30.99	SHOW	global	Software revision number.
1	26.00-30.99	SHOW	global	Software sales type
27	0-99	0	preset	Sequence counter. From 0-99 using trigger: source audio, MIDI, learn and metronome. From 100-199 using end of sample to trigger new sample. Eg.: value 110 will use sample trig sample as trigger souce, and will play the preset 10 times.
28	0-255	0	preset	Metronome beats/minute
	256-60.0	0	preset	milliseconds/beat
29	1-20	6	global	Record/playback threshold hysteresis. 1 to 20 dB to avoid false triggering.
30	1-9	2	global	Record threshold, 9 thresholds for the input level triggered record. The higher the value the higher input signal is necessary to trig start of recording
31	1-9	5	global	Playback threshold, 9 thresholds for the input triggered playback. The higher the value the higher input signal is necessary to trig/retrig playback. The thresholds are from -48 dB to -24dB in 3dB steps.

spec No.	Min/max Value	Factory default	preset/global	Name/Function
32	0-1	0	global	Equal record/playback points when set to '0'. Seperate record / playback points when set to '1'
33	0-99	0	preset	Next preset. Automatic shift to another preset (only together with sequence counter). Eg. set next preset to 50 and sequence counter to 101. Store the setting and call it. Now your preset will play 1 time, and then shift to preset 50.
34	20-33.0	50	global	Cross fade time. When retriggering a sample, crossfade time tells how long it takes for the first playback to fade out. The retriggered sample will playback normal.
35	500-2000	12	preset	Playback pitch. 1000 = same pitch 500 = 1 octave down 2000 = 1 octave up
	0-24	12	preset	12 = same pitch 10 = one note lower 13 = one and a half note higher.
36	0-1	0	preset	Double sampling time. 0 = normal sampling time 1 = double sampling time
38	0-9999	1023	global	Max delay time. To achieve more than 9999 ms, press 0. The unit will use all available memory time for delay. Switch power on/off.
39	1000-32.0	2815	global	Max sampling time.

spec No.	Min/max Value	Factory default	preset/global	Name/Function
100	1-3	3	global	Assign master or slave 2= Stereo master 3= Stereo slave 1= Mono Fast trigger
<u>103</u>	0-1	0	preset	<u>Deep modulation</u> 0 = Standard modulation 1 = Deeper modulation
104	0-1	0	preset	0 = Hold function off 1 = Hold function on
105	0-1	1	global	Hold auto erase 0 = Auto erase off. 1 = Auto erase on.
106	0-1	0	global	Auto mute on erase 0 = Auto mute off 1 = Auto mute on
107	0-32	0	preset	Metronome on hold func. 0 = off 1-32 = steps in a period (bar) of the holdfunction.
108	0-1	0	global	Click track on hold. 0 = off 1 = click track on to link
109	0-1	0	global	Double sample time display. 0 = off 1 = double sample time display.
<u>110</u>	0-127	0	global	Device number.
111	0-99	0	global	Preset source for MIDI dumping of one preset.
112	0-99	0	global	Preset destination for MIDI dump of one preset.
<u>113</u>	0-99	0	global	<u>Preset dump</u> from slave to master. All presets lower than a specific value will be dumped.

spec 36  
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spec No.	Min/max Value	Factory default	preset/global	Name/Function
114	0-1	0	global	Preset total dump from slave to master unit. 0 = off 1 = dump
115	0-1	0	global	Special number dump from slave to master. 0 = off 1 = dump
116	0-1	0	global	Disable keycodes on slave. 0 = off 1 = disable keycodes
<u>117</u>	0-1	1	global	<u>MIDI error check.</u> 1 = only fatal error. 0 = all MIDI error id.
120	0-2	0	global	Quick reset 0 = off 1 = load factory presets 2 = reset spec. no. 27 + 32 + 33 + 24

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