PN: 99001069
Date: 23/1 1989
Author: Knud Erik Hansen

DRAWINGS

to
RC500 Emulator

RC Computer a.s

Keywords:

RC3600, RC500 Emulator, Drawings.

Abstract:

This paper contains all hardware drawings to the RC500 Emulator for the RC3600 computer system.

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RC doc. VB 140

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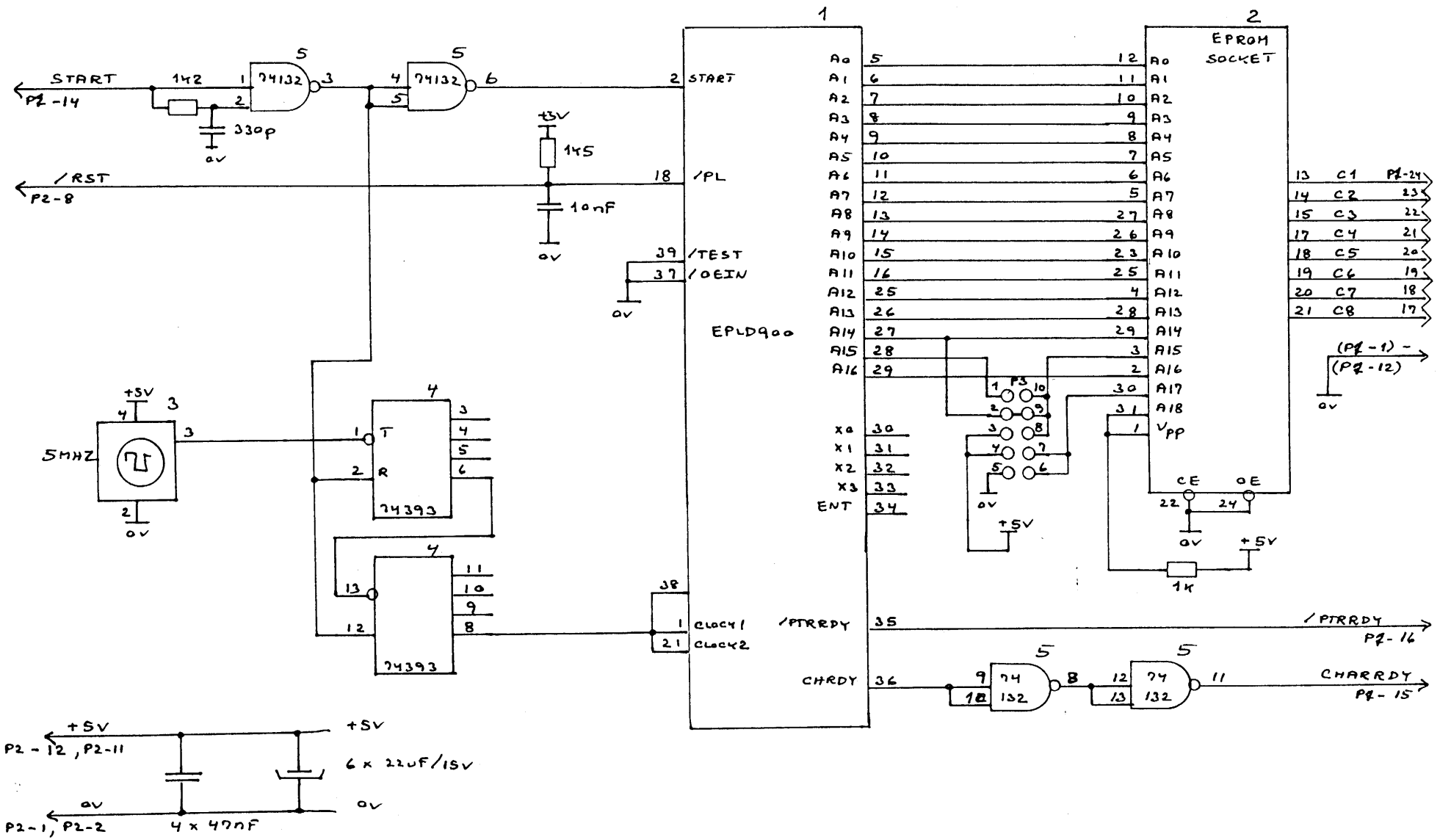
	19/1-89 KNEH						

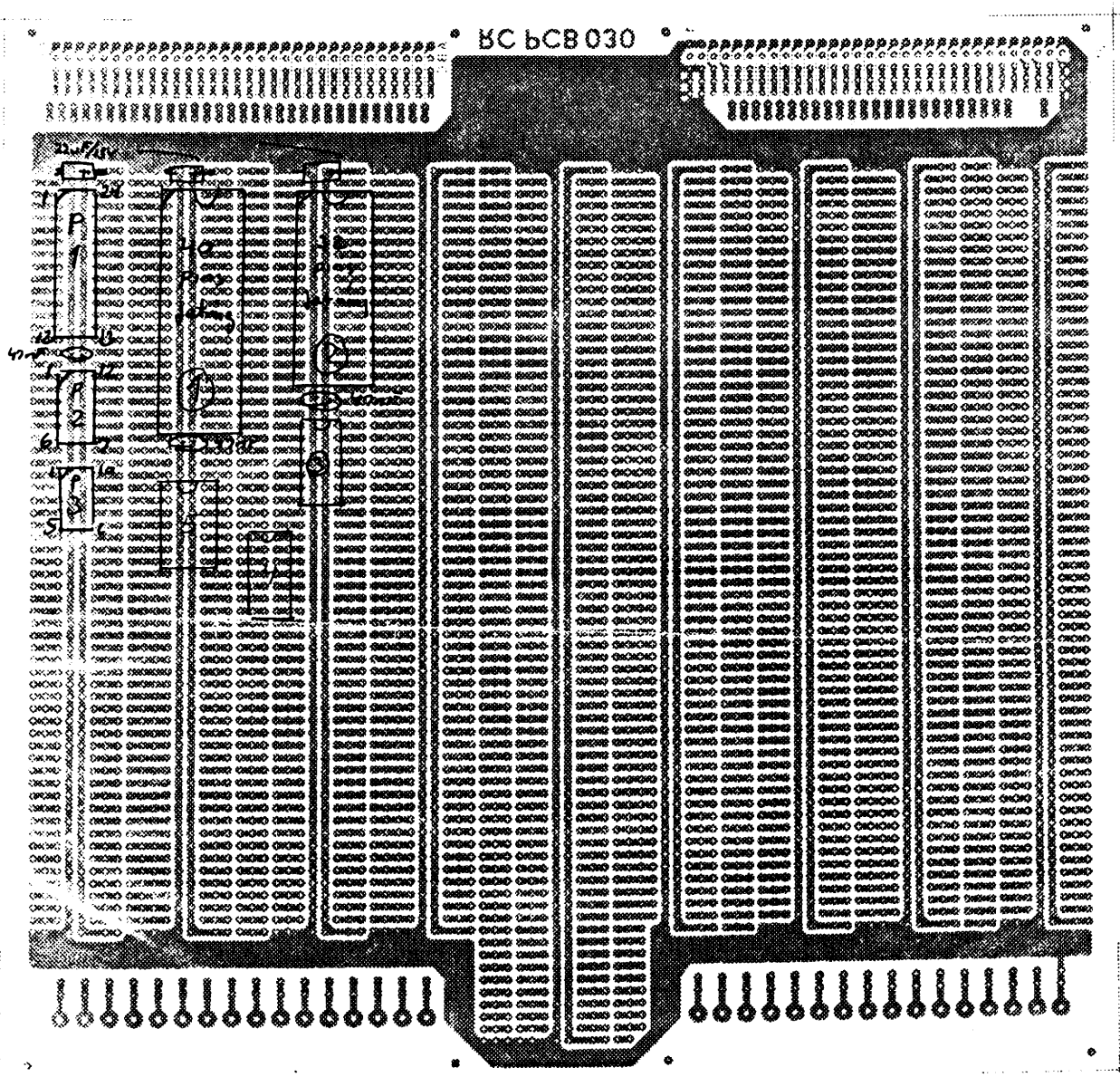
Dwg. No. 826587 Unit

RC500 EMULATOR

CIRCUIT DIAGRAM

Page 1





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ASSEMBLY DRAWING			6
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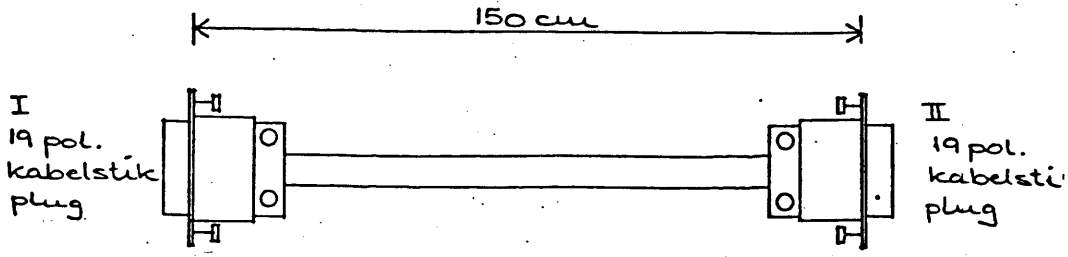
```
module epld_reader
title  'RC500 PAPER TAPE READER SIMULATOR
        1988.07.25        KNEH    '
  READER          DEVICE       'E0900';

START,AUTO,IORST,!RST,!PL  PIN  2, 3, 4,17,18;
A0,A1,A2,A3,A4             PIN  5, 6, 7, 8, 9;
A5,A6,A7,A8                PIN 10,11,12,13;
A9,A10,A11,A12             PIN 14,15,16,25;
A13,A14,A15,A16            PIN 26,27,28,29;
CHARRDY,!PTRRDY,TEST       PIN 36,35,39;
X0,X1,X2,X3                PIN 30,31,32,33;
ENT                        PIN 34;
CLK1,CLK2                  PIN  1,21;
OEIN                       PIN 37;

C,X,Z,H,L     = .C.,.X.,.Z.,1,0;

START,AUTO,IORST,!RST,!PL  ISTYPE 'FEED_PIN';
A0,A1,A2,A3,A4,A5,A6,A7    ISTYPE 'POS,REG_T,FEED_PIN';
A8,A9,A10,A11,A12,A13      ISTYPE 'POS,REG_T,FEED_PIN';
A14,A15,A16                ISTYPE 'POS,REG_T,FEED_PIN';
X0,X1,X2,X3                ISTYPE 'POS,REG_T,FEED_PIN';
TEST,OEIN                  ISTYPE 'FEED_PIN';
ENT                        ISTYPE 'POS,COM,FEED_PIN';
CHARRDY                    ISTYPE 'POS,REG_D,FEED_PIN';
!PTRRDY                    ISTYPE 'NEG,COM,FEED_PIN';
A0.OE,A1.OE,A2.OE,A3.OE    ISTYPE 'EQN';
A4.OE,A5.OE,A6.OE,A7.OE    ISTYPE 'EQN';
A8.OE,A9.OE,A10.OE,A11.OE  ISTYPE 'EQN';
A12.OE,A13.OE,A14.OE       ISTYPE 'EQN';
A15.OE,A16.OE              ISTYPE 'EQN';
CHARRDY.OE                 ISTYPE 'EQN';
X0.OE,X1.OE,X2.OE,X3.OE    ISTYPE 'EQN';
ENT.OE,PTRRDY.OE           ISTYPE 'EQN';
X0.RE,X1.RE,X2.RE,X3.RE    ISTYPE 'EQN';

A30 =#A3,A2,A1,A0#;
A74 =#A7,A6,A5,A4#;
A118=#A11,A10,A9,A8#;
A1612= #A16,A15,A14,A13,A12#;
XD  = #X3,X2,X1,X0#;


EQUATIONS
 #A0.OE,A1.OE,A2.OE,A3.OE,A4.OE# =!OEIN;
 #A5.OE,A6.OE,A7.OE,A8.OE,A9.OE# =!OEIN;
 #A10.OE,A11.OE,A12.OE,A13.OE#   =!OEIN;
 #A14.OE,A15.OE,A16.OE#          =!OEIN;

 #A0.RE,A1.RE,A2.RE,A3.RE,A4.RE# = PL;
 #A5.RE,A6.RE,A7.RE,A8.RE,A9.RE# = PL;
 #A10.RE,A11.RE,A12.RE,A13.RE#   = PL;
 #A14.RE,A15.RE,A16.RE#          = PL;

 A0 := ENT;
 A1 := A0 & ENT;
 A2 := A1&A0&ENT;
 A3 := A2&A1&A0&ENT;

 A4 := TEST&ENT
       §!TEST&A3&A2&A1&A0&ENT;
 A5 := TEST&A4&ENT
       §!TEST&A4&A3&A2&A1&A0&ENT;
 A6 := TEST&A5&A4&ENT
```

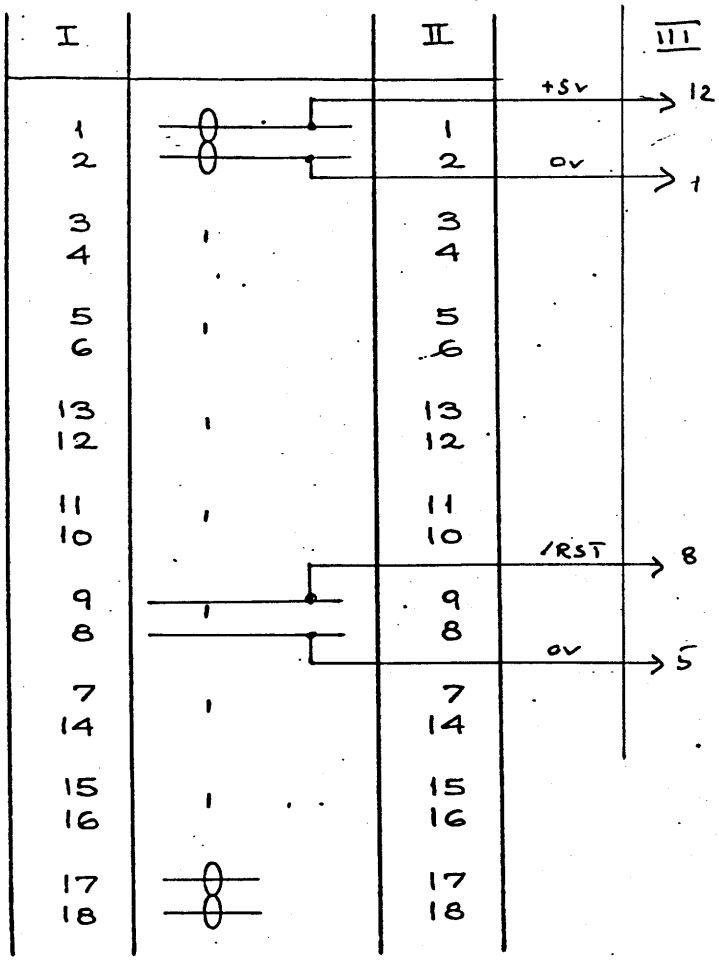
```
      §!TEST&A5&A4&A3&A2&A1&A0&ENT;
A7 := TEST&A6&A5&A4&ENT
      §!TEST&A6&A5&A4&A3&A2&A1&A0&ENT;

A8 := TEST&ENT
      §!TEST&A7&A6&A5&A4&A3&A2&A1&A0&ENT;
A9 := TEST&A8&ENT
      §!TEST&A8&A7&A6&A5&A4&A3&A2&A1&A0&ENT;
A10:= TEST&A9&A8&ENT
      §!TEST&A9&A8&A7&A6&A5&A4&A3&A2&A1&A0&ENT;
A11:= TEST&A10&A9&A8&ENT
      §!TEST&A10&A9&A8&A7&A6&A5&A4&A3&A2&A1&A0&ENT;

A12:= TEST&ENT
      §!TEST&A11&A10&A9&A8&A7&A6
      &A5&A4&A3&A2&A1&A0&ENT;
A13:= TEST&A12&ENT
      §!TEST&A12&A11&A10&A9&A8&A7
      &A6&A5&A4&A3&A2&A1&A0&ENT;
A14:= TEST&A13&A12&ENT
      §!TEST&A13&A12&A11&A10&A9&A8
      &A7&A6&A5&A4&A3&A2&A1&A0&ENT;
A15:= TEST&A14&A13&A12&ENT
      §!TEST&A14&A13&A12&A11&A10&A9&A8
      &A7&A6&A5&A4&A3&A2&A1&A0&ENT;
A16:= TEST&A15&A14&A13&A12&ENT
      §!TEST&A15&A14&A13&A12&A11&A10&A9
      &A8&A7&A6&A5&A4&A3&A2&A1&A0&ENT;


ÆX0.OE,X1.OE,X2.OE,X3.OEÅ = !OEIN;
ÆX0.RE,X1.RE,X2.RE,X3.REÅ = !START;

X0 := START&(!X0§!X1§!X2§!X3);
X1 := START&(!X0§!X1§!X2§!X3)&X0;
X2 := START&(!X0§!X1§!X2§!X3)&X1&X0;
X3 := START&(!X0§!X1§!X2§!X3)&X2&X1&X0;

ENT.OE =!OEIN;
ENT = X3&X2&!X1&!X0 § TEST;

CHARRDY.OE =!OEIN;
CHARRDY.RE = !START;
CHARRDY := CHARRDY § ENT;

PTRRDY.OE =!OEIN;
PTRRDY = !PL;

test_vectors (ÆOEIN,TEST,START,CLK1,CLK2Å -> Æ XD,ENT,CHARRDYÅ)
              Æ    0,   0,    0,   0,   0Å -> Æ  0,   0,       0Å;
              Æ    0,   0,    1,   0,   0Å -> Æ  0,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  1,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  2,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  3,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  4,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  5,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  6,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  7,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  8,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ  9,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ 10,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ 11,   0,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ 12,   1,       0Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ 13,   0,       1Å;
              Æ    0,   0,    1,   C,   CÅ -> Æ 14,   0,       1Å;
```

```
                Æ    0,   0,    1,   C,   CÅ -> Æ 15,  0,      1Å;
                Æ    0,   0,    1,   C,   CÅ -> Æ 15,  0,      1Å;
                Æ    0,   0,    1,   C,   CÅ -> Æ 15,  0,      1Å;
                Æ    0,   0,    0,   C,   CÅ -> Æ  0,  0,      0Å;
                Æ    0,   1,    0,   C,   CÅ -> Æ  0,  1,      XÅ;

test_vectors (ÆOEIN,TEST,!PL,CLK1,CLK2Å -> ÆA30,A74,A118,A1612Å)
                Æ    0,   0,  0,   C,   CÅ -> Æ  0,  0,   0,    0Å;
                Æ    0,   1,  0,   C,   CÅ -> Æ  0,  0,   0,    0Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  1,  1,   1,    1Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  2,  2,   2,    2Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  3,  3,   3,    3Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  4,  4,   4,    4Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  5,  5,   5,    5Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  6,  6,   6,    6Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  7,  7,   7,    7Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  8,  8,   8,    8Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  9,  9,   9,    9Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ 10, 10,  10,   10Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ 11, 11,  11,   11Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ 12, 12,  12,   12Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ 13, 13,  13,   13Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ 14, 14,  14,   14Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ 15, 15,  15,   15Å;
                Æ    0,   1,  1,   C,   CÅ -> Æ  0,  0,   0,   16Å;
                Æ    1,   0,  0,   C,   CÅ -> Æ  Z,  Z,   Z,    ZÅ;

test_vectors (Æ!PLÅ ->Æ!PTRRDYÅ)
                Æ  0Å ->Æ1Å;
                Æ  1Å ->Æ0Å;


 end
```



2 kabelstik plug 2DE19P
36 kontakt pin 031-9540-000
2 kabelclamp DE 24657
4 låseskruesæt male D20419-16
1.5 m kabel 2x10x0,20 mm²

III : 2x6 strap socket



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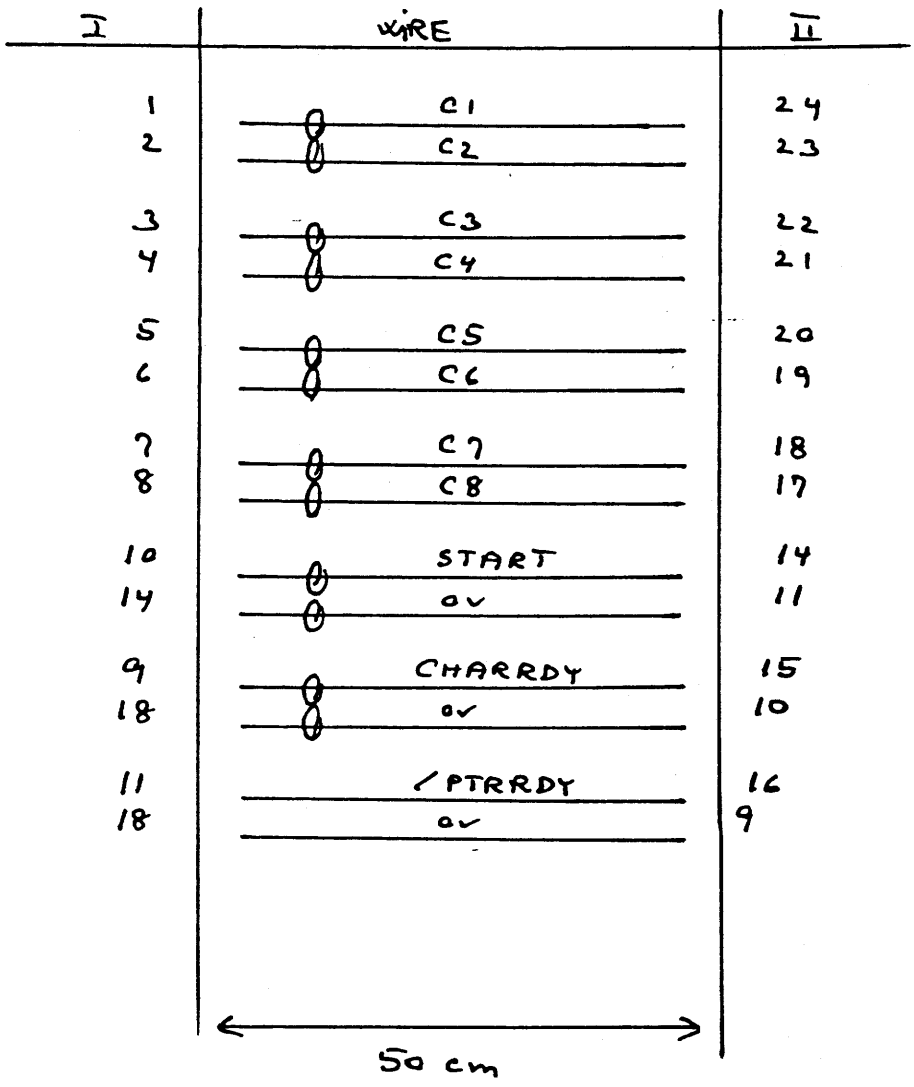

I : Canan 2DE 19P

II : 2x12 strappins - plug

ENHED / BETEGNELSE CABLE RC500 EMULATOR TO RC3803 TRC CONNECTOR.			6 5 4 3 2 1
Regnecentralen a·s	DATO / SIGN 890123 knen	TEGN NR 761 13 18	0

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