Title:

Drawings for TTC 711

A/S REGNECENTRALEN

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RCSL No: 44-RT 1854
Edition: February 1979
Author: Karsten Friis.

Keywords: CHS 701, Second Teletype Controller.

Abstract: This paper contains the drawings of TTC 711 Teletype Controller.

Printed by A/S Regnecentralen, Copenhagen

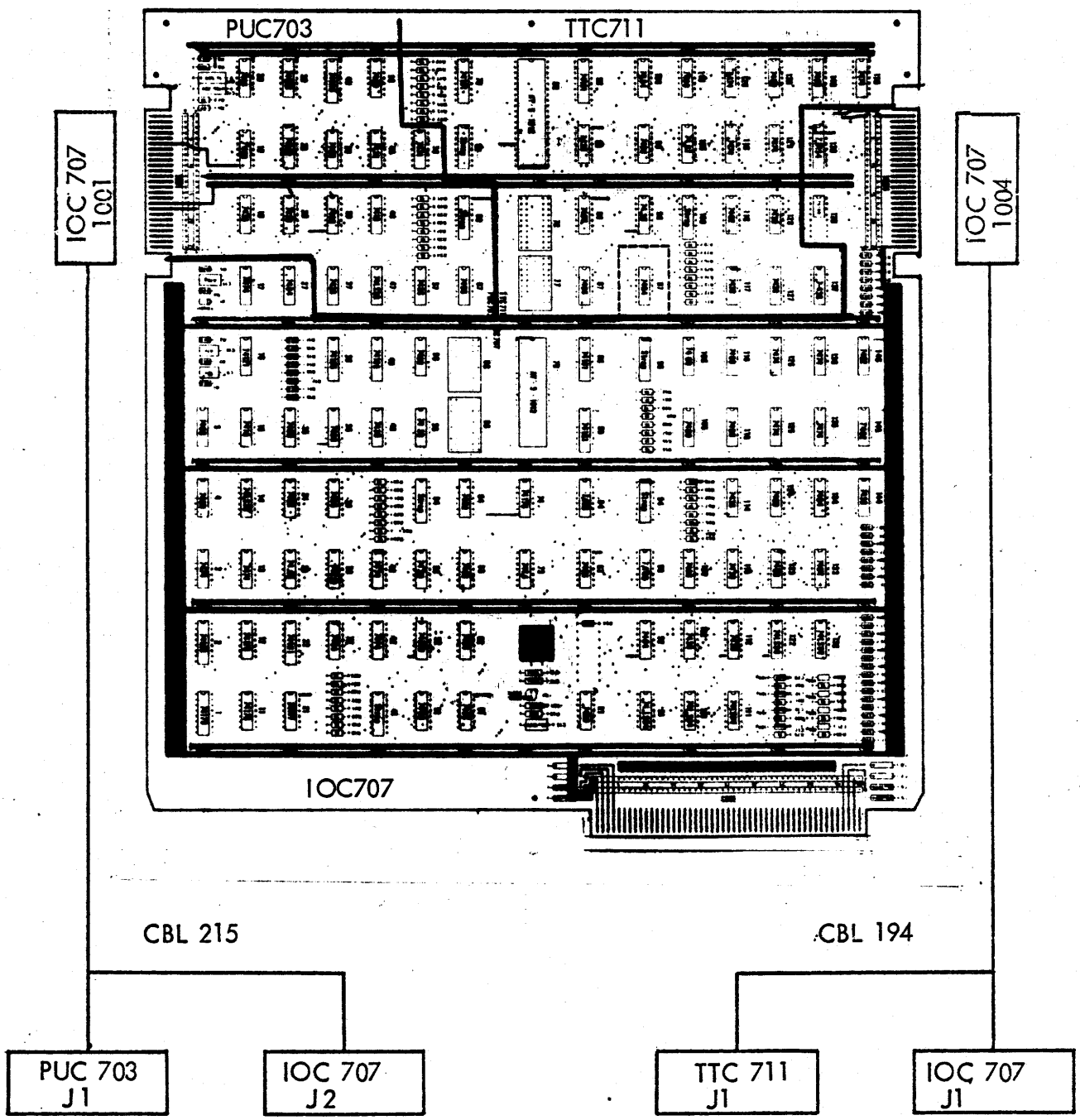
CONTENTS PAGE

INTRODUCTION.

The TTC 711 is a revised edition of the TTC 706. The two controllers are identical but for a minor change enabling the TTC 711 to run 9600 BPS.

The TTC 711 must be mounted on the PC board containing the IOC 707 which provides the BUS interface for the TTC 711.

All references to diagrams marked IOC or RTC are to diagrams in the IOC 707 controller.



IOC 707 J1 : Teletype

IOC 707 J2 : Paper Tape Reader

IOC 707 PUC 703 TTC 711	CABLE ASSEMBLY DRAWING	Page

CONNECTOR:

IOC 707 - 1004 : Edgeconnector 2 x 25 contacts
IOC 707 - J1 : Cannon DEC - 95
TTC 711 - J1 : Cannon DEC - 95

First Teletype

IOC 707 1004		IOC 707 J1
A 17	REC DATA	3
A 19	SELSTOP	8
A 21	CTS	5
A 23	XMT DATA	6
B 25	OV	9
A 25	+ 5V	1

Second Teletype

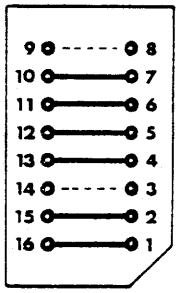
IOC 707 1004		TTC 711 J1
B 1	OV	9
A 3	XMT DATA	6
A 5	CTS	5
A7	SELSTOP	8
A9	REC DATA	3
A1	+ 5V	1

DEVICE CODE (position 108)

1. Teletype

TTI ~ 10_8

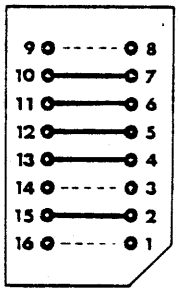
TTO ~ 11_8



2. Teletype

TTI ~ 50_8

TTO ~ 51_8



OBS: It is only possible to select the device code for TTI and TTO after the following equations:

Device code TTI: = 2 * N

Device code TTO: = 2 * N + 1

$1_8 \leq N < 40_8$

Unit TTC 711	SELECTION OF DEVICE CODE	1/1
Dwg. No.	Strapping form	

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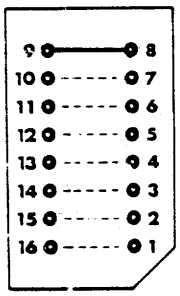
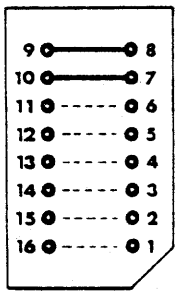
RC doc. VB 139

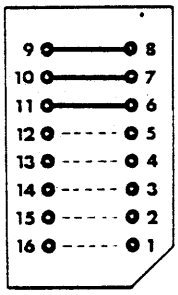
SPEED (position 69)



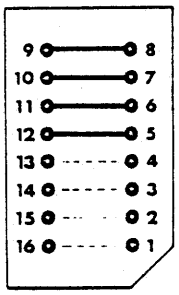
4800 BPS



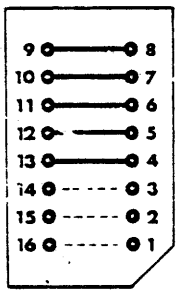
2400 BPS



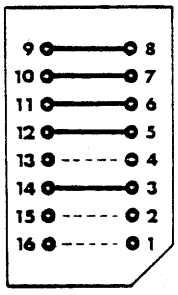
1200 BPS



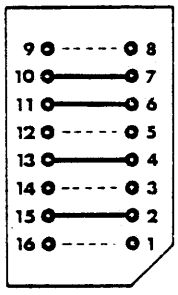
600 BPS



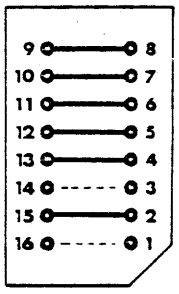
300 BPS



200 BPS



110 BPS



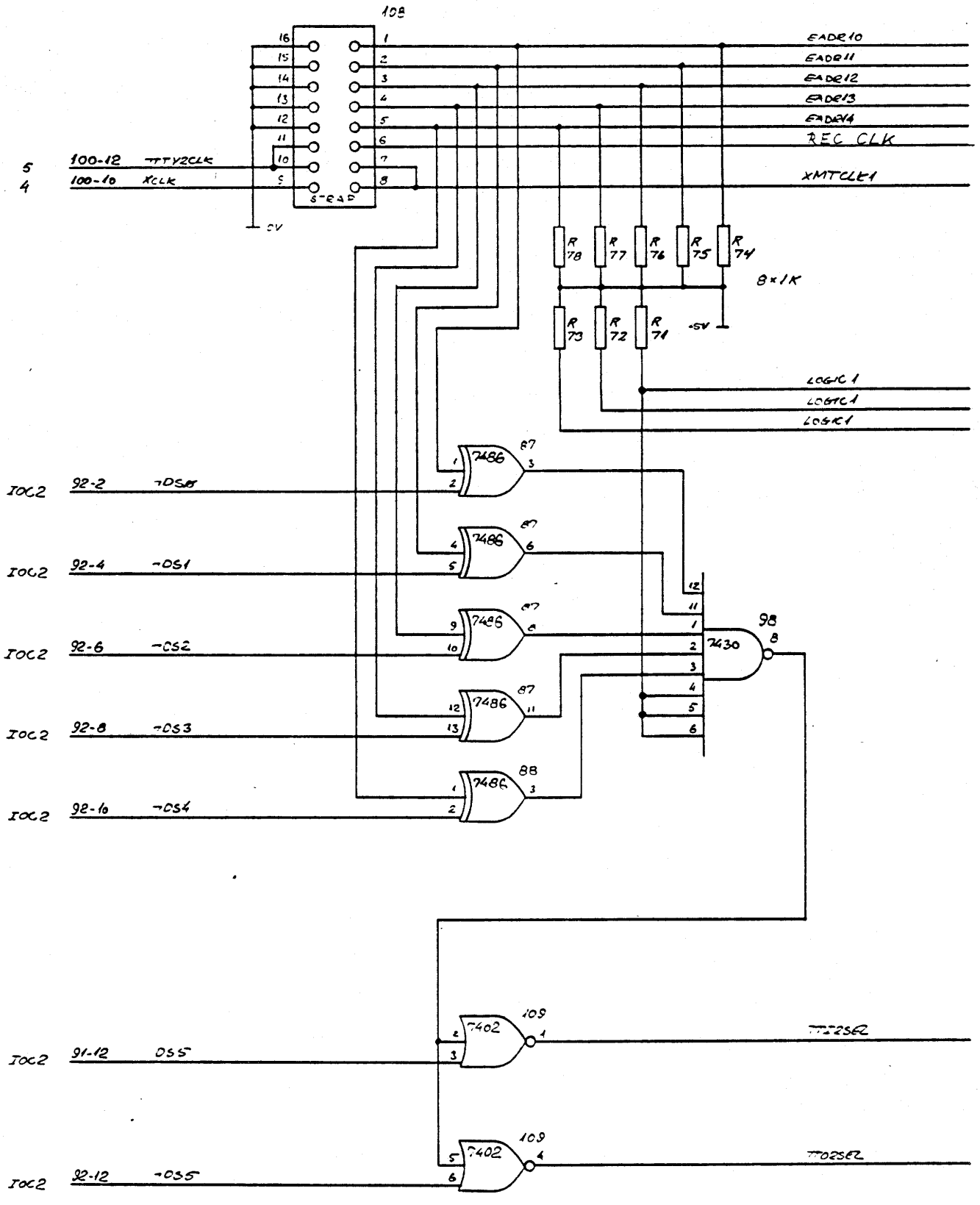
100 BPS

To select 9600 BPS the strap platform in position 69 is not used.
Instead the strap platform in position 108 is changed:

Remove strap 10 - 7
Remove strap 11 - 6
Insert strap 6 -7 - 9

Replaced by Dwg. No.
due to ECN
Replaces Dwg. No.
Design Check
Dwg. Office Check
Drawn by
Designed by 18.07.77 MOJ
A/S REGNECENTRALEN

Unit TTC 711	SELECTION OF SPEED	1/1
Dwg. No.	Strapping form	



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due to ECN

Replaces Dwg. No. R.12.07.11

Design Check

Dwg. Office Check

Drawn by

Designed by DCC 25.08.11

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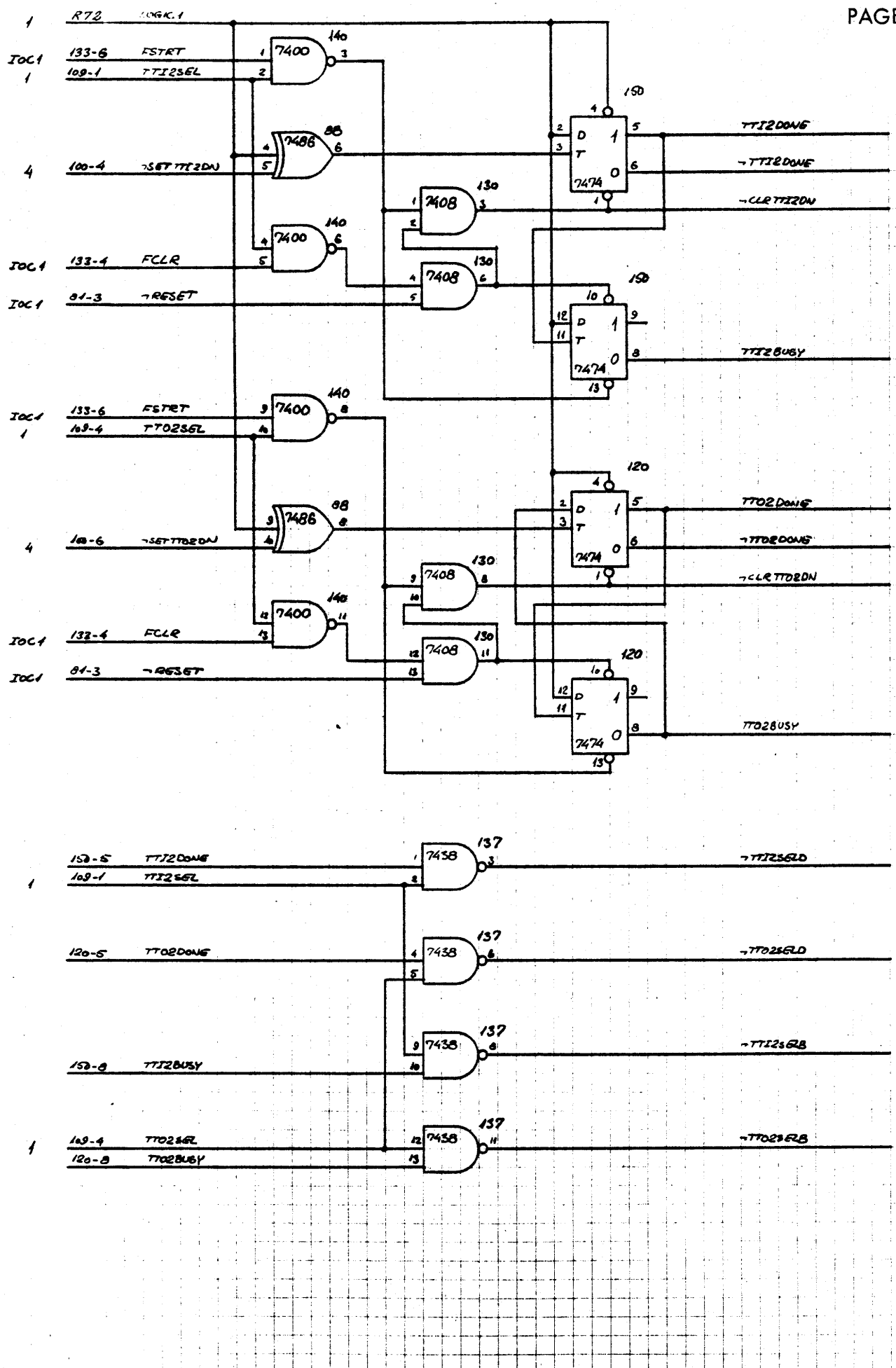
Unit TTC 711	SELECT LOGIC	TTC 1
Dwg. No. R 12652	LOGIC DIAGRAM	

AGF 1971



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due to ECN			
Replaces Dwg. No.	R11188		
Design Check			
Dwg. Office Check			
Drawn by			
Designed by	75.02.04 JJO		

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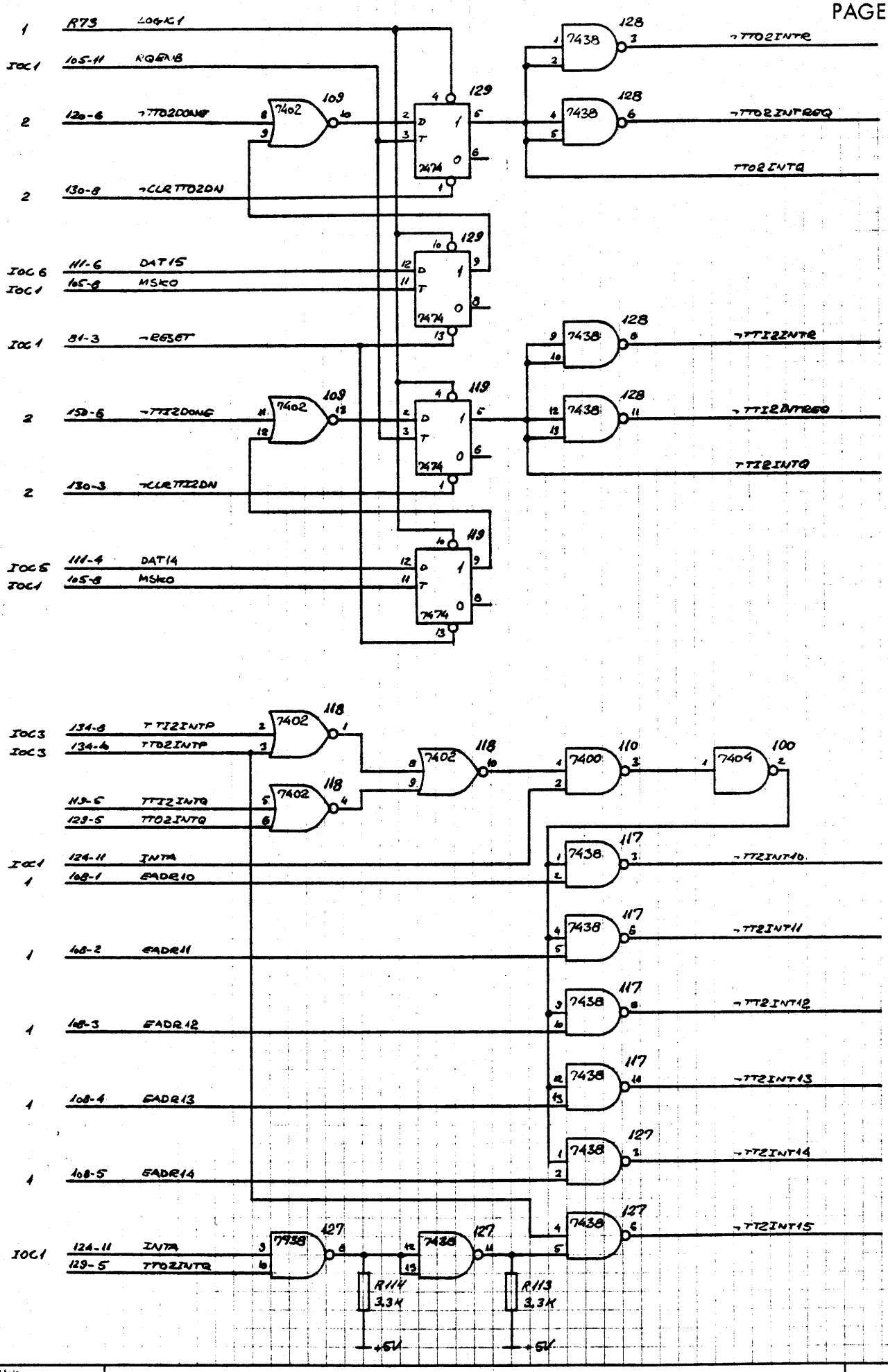
Unit: TTC 711	TELETYPE BUSY AND DONE LOGIC	TTC 2
Dwg. No.: R12073	LOGIC DIAGRAM	



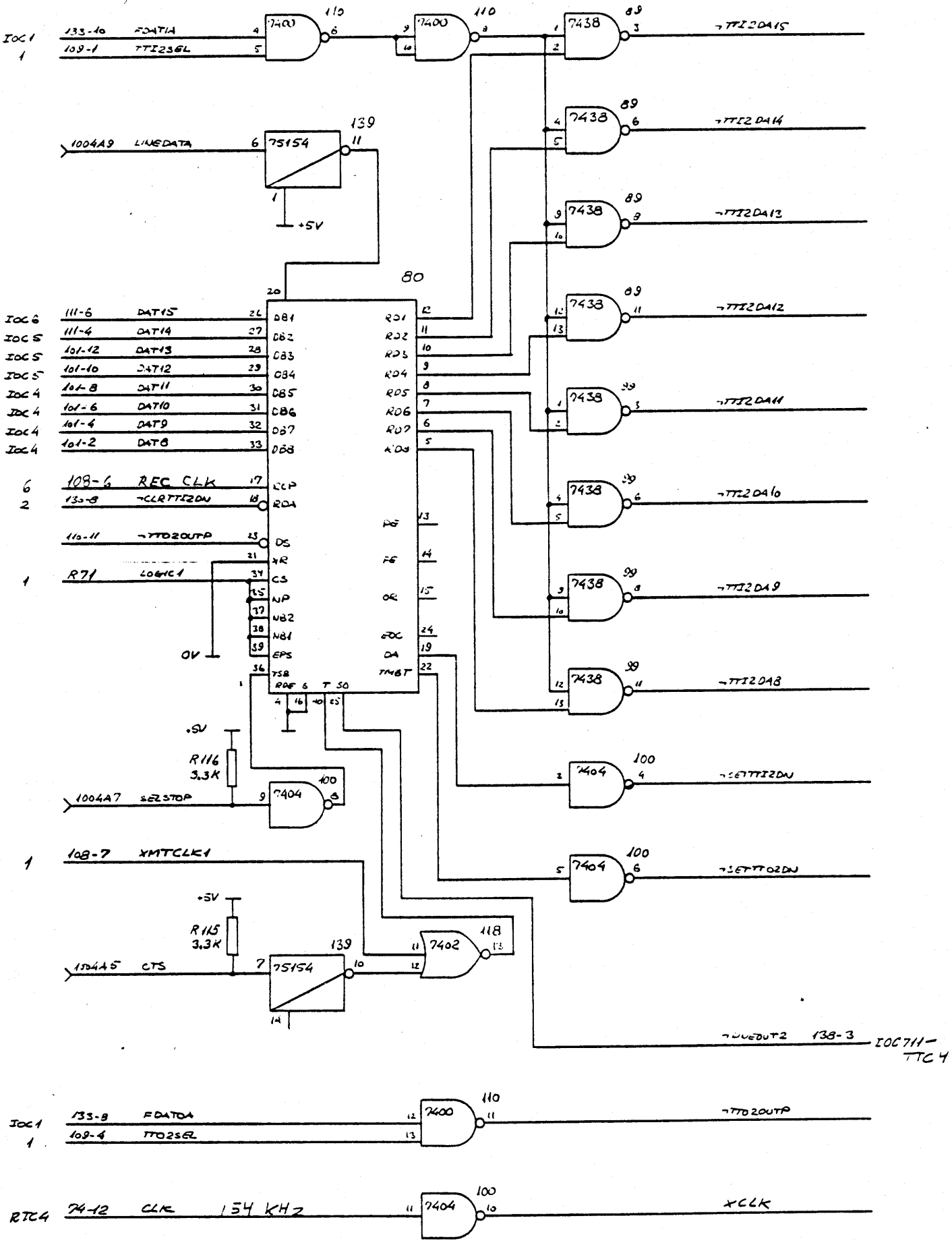
Designed by	75.02.05 JJO	Replaced by Dwg. No.	
Drawn by		Replaces Dwg. No.	A11189
Dwg. Office Check		due to ECN	
Design Check			

A/S REGNECENTRALEN

Unit TTC 711	INTERRUPT AND INTA LOGIC	TTC 3
Dwg. No. A12074	LOGIC DIAGRAM	

BC doc: VB 140

AGF 1973

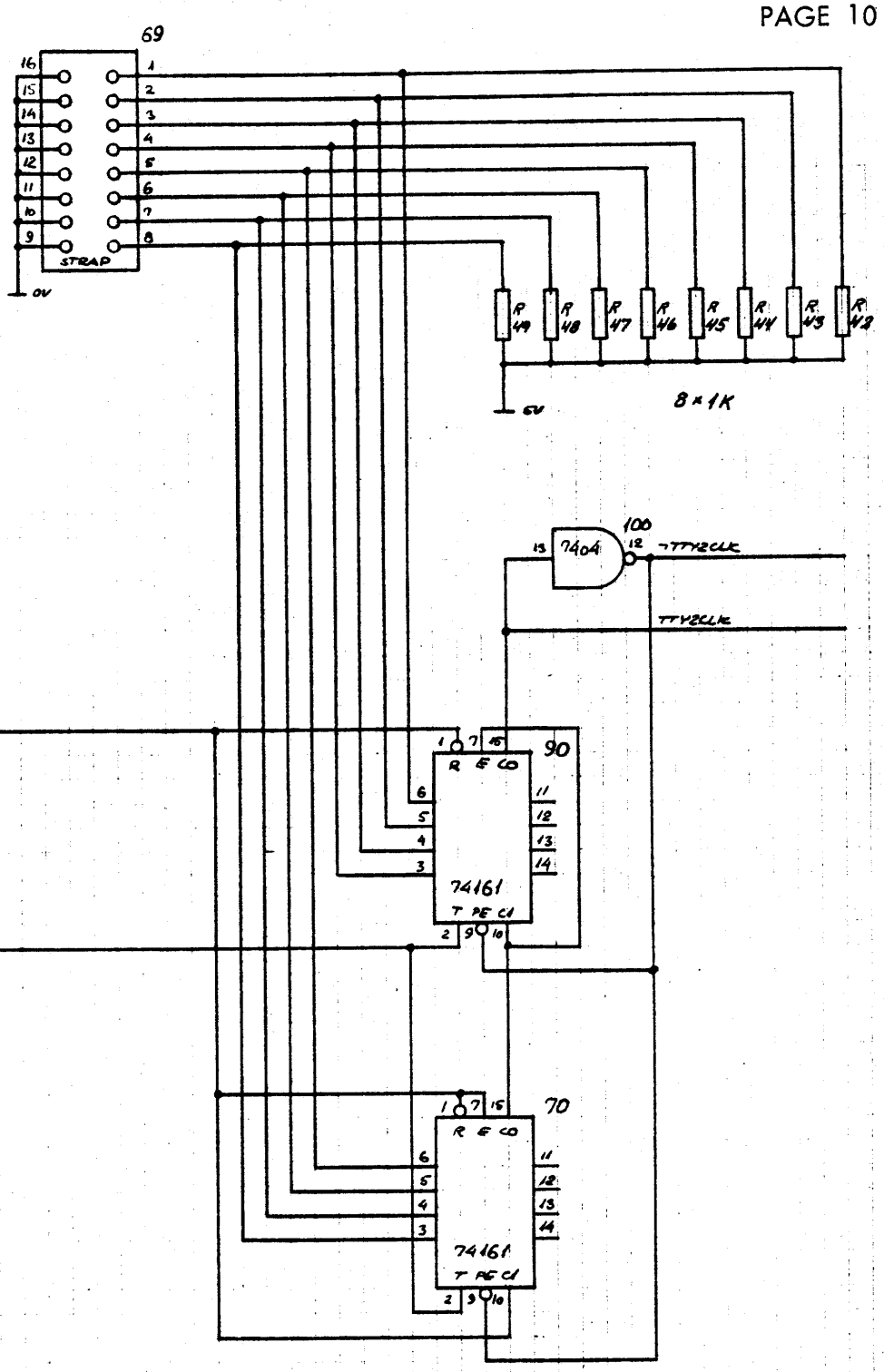


Unit TTC711	RECEIVER AND TRANSMITTER LOGIC		TTC 4
Dwg. No. R 12 653	LOGIC DIAGRAM		

A/S REGNECENTRALEN | Designed by JJO 75.02.05 | Drawn by | Dwg. Office Check | Design Check | Replaces Dwg. No. R 12075 | due to ECN | Replaced by Dwg. No.

RC doc. VB 140

AGF 1973



Replaced by Dwg. No.	
due to ECN	
Replaces Dwg. No.	R 11191
Design Check	
Dwg. Office Check	
Drawn by	
Designed by	75.02.05 JJO

A/S REGNECENTRALEN

Unit: TTC 711	CLOCK CIRCUIT	TTC 5
Dwg. No.: R 12076	LOGIC DIAGRAM	

RC doc. V8 140

R 12149

MOJ

IOC707:

RESISTORS:

R 87 to R 110
2% 0,4W Metalfilm

All other resistors
5% 1/8W Carbonresistors

Pos 41 STRAP:

Real Time Clock Device Code

Pos 54 STRAP:

Paper Tape Reader Contr.
Device Code

Pos 94 STRAP:

First Teletype Contr. Device Code

Pos 96 STRAP:

First Teletype Contr.
Selection of Speed

PUC703:

Pos 68 STRAP:

Paper Tape Punch Contr.
Device Code

TTC711:

Pos 108 STRAP:

77.7.20.

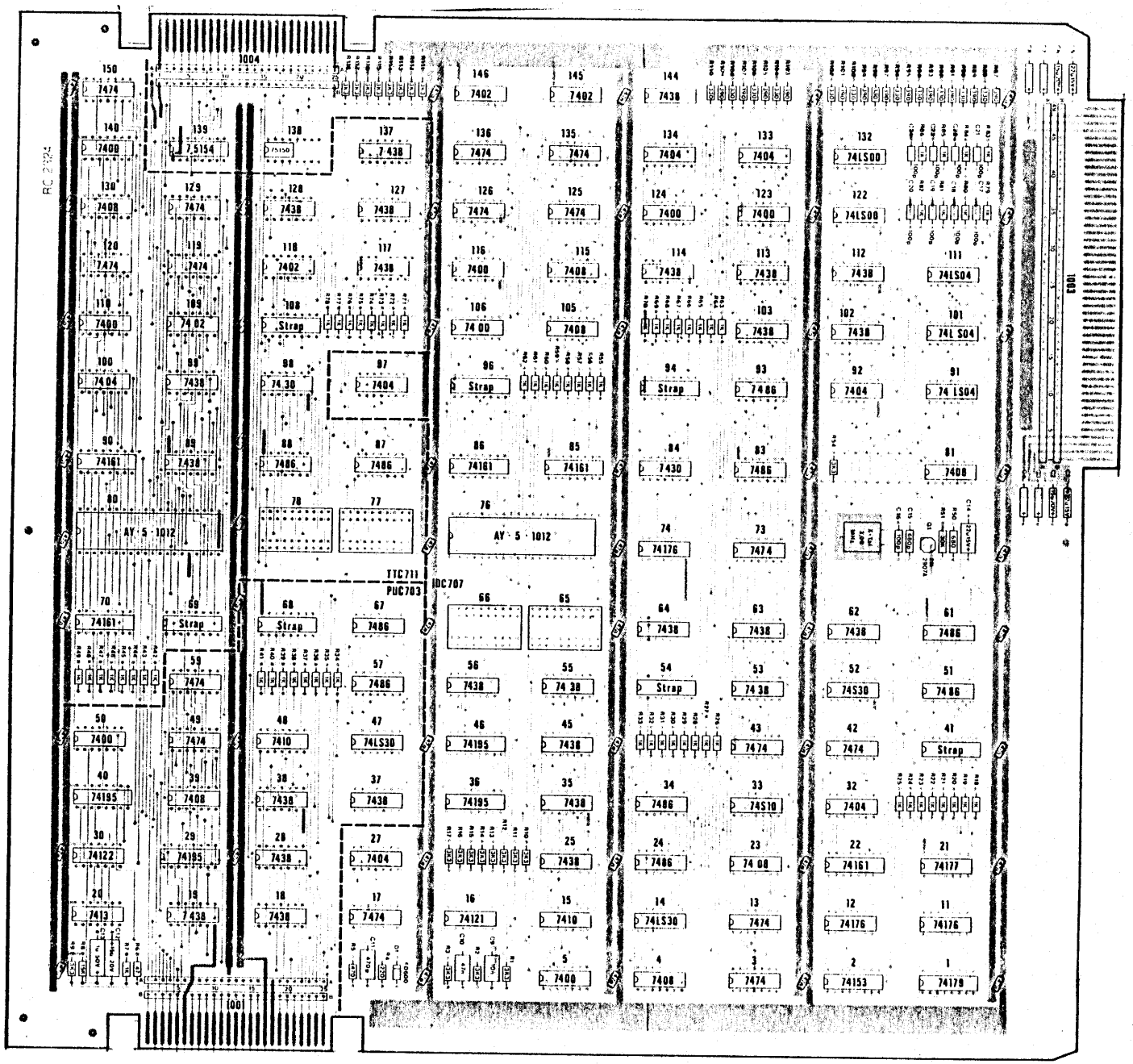
Second Teletype Contr.
Device Code

Pos 69 STRAP:

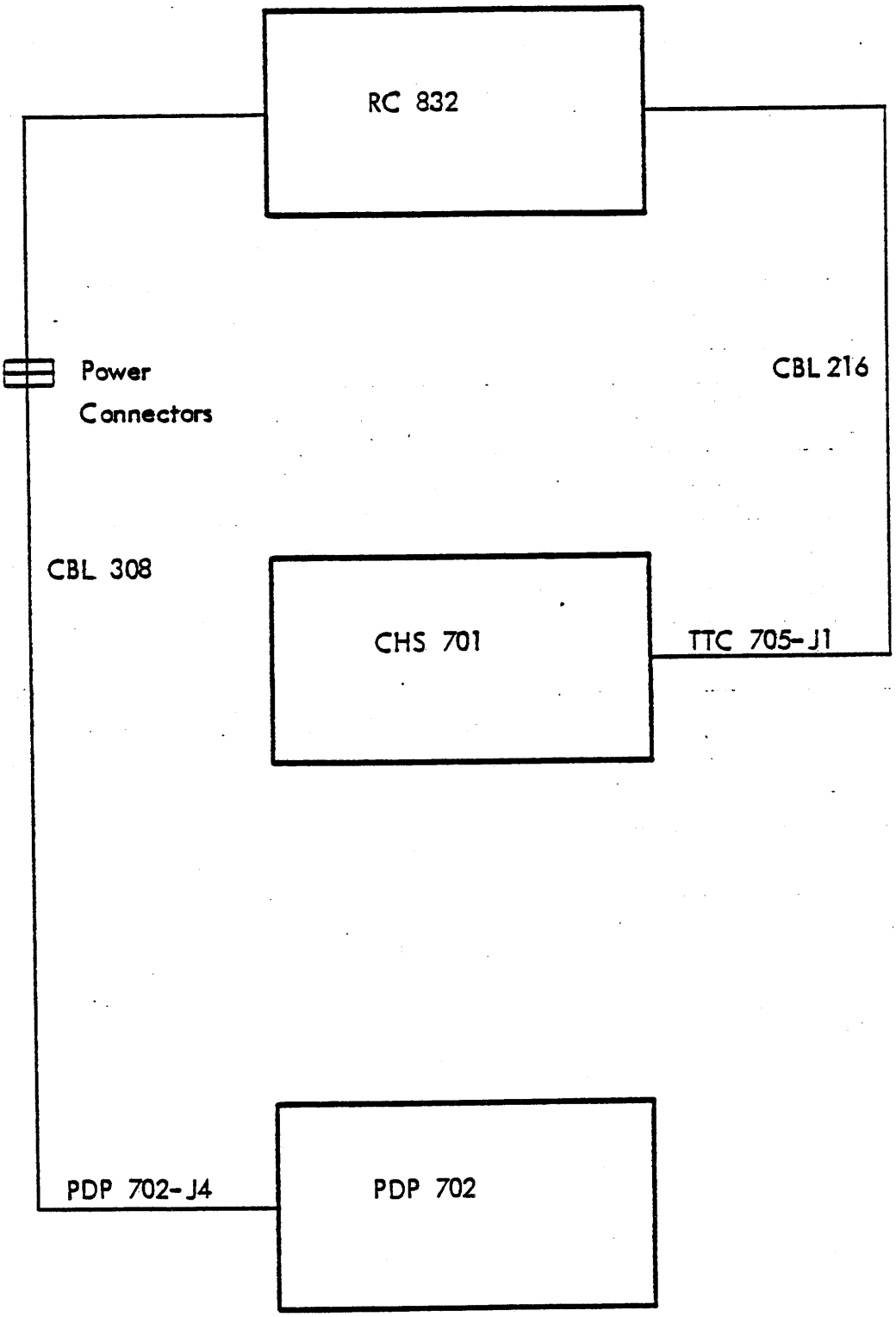
Second Teletype Contr.
Selection of Speed

All Strappings:

Strap = logic 0
No Strap = logic 1



PCB ASSEMBLY DRAWING RC 2324



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due to ECN

Replaces Dwg. No.

Design Check

Dwg. Office Check

Drawn by

Designed by 75.01.02. JJO

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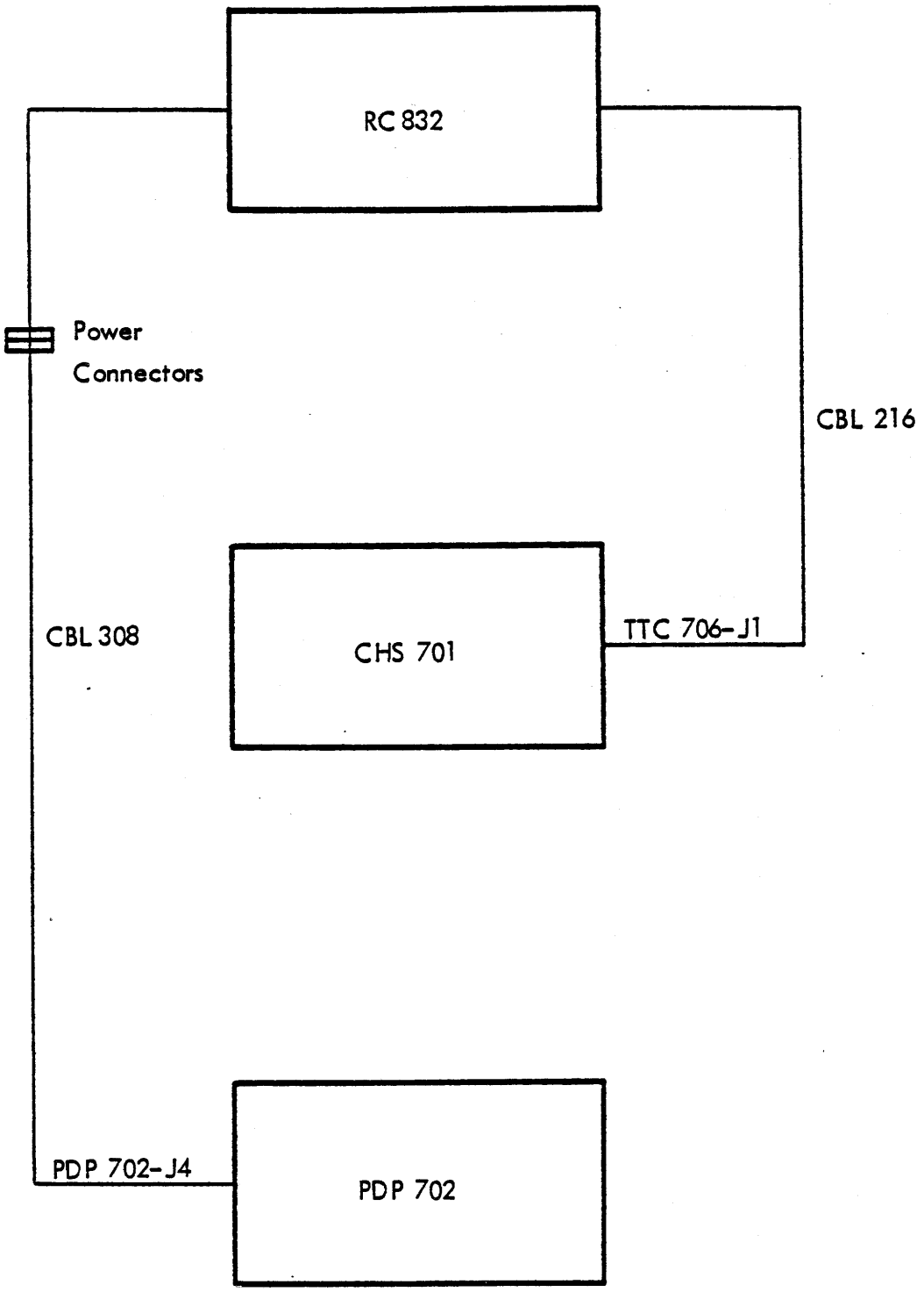
~~Unit~~ DWG R 21143

~~Dwg. No.~~ ~~44-RT 733-65~~

RC 832 Teletype connected to TTC 705 Controller and PDP 702 Power Panel

Interconnection Diagram

Page 1 of 1



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due to ECN	
Replaces Dwg. No.	
Design Check	
Dwg. Office Check	
Drawn by	770114 AOB
Designed by	760304 JEMI
A/S REGNECENTRALEN	

Unit DWG R21144

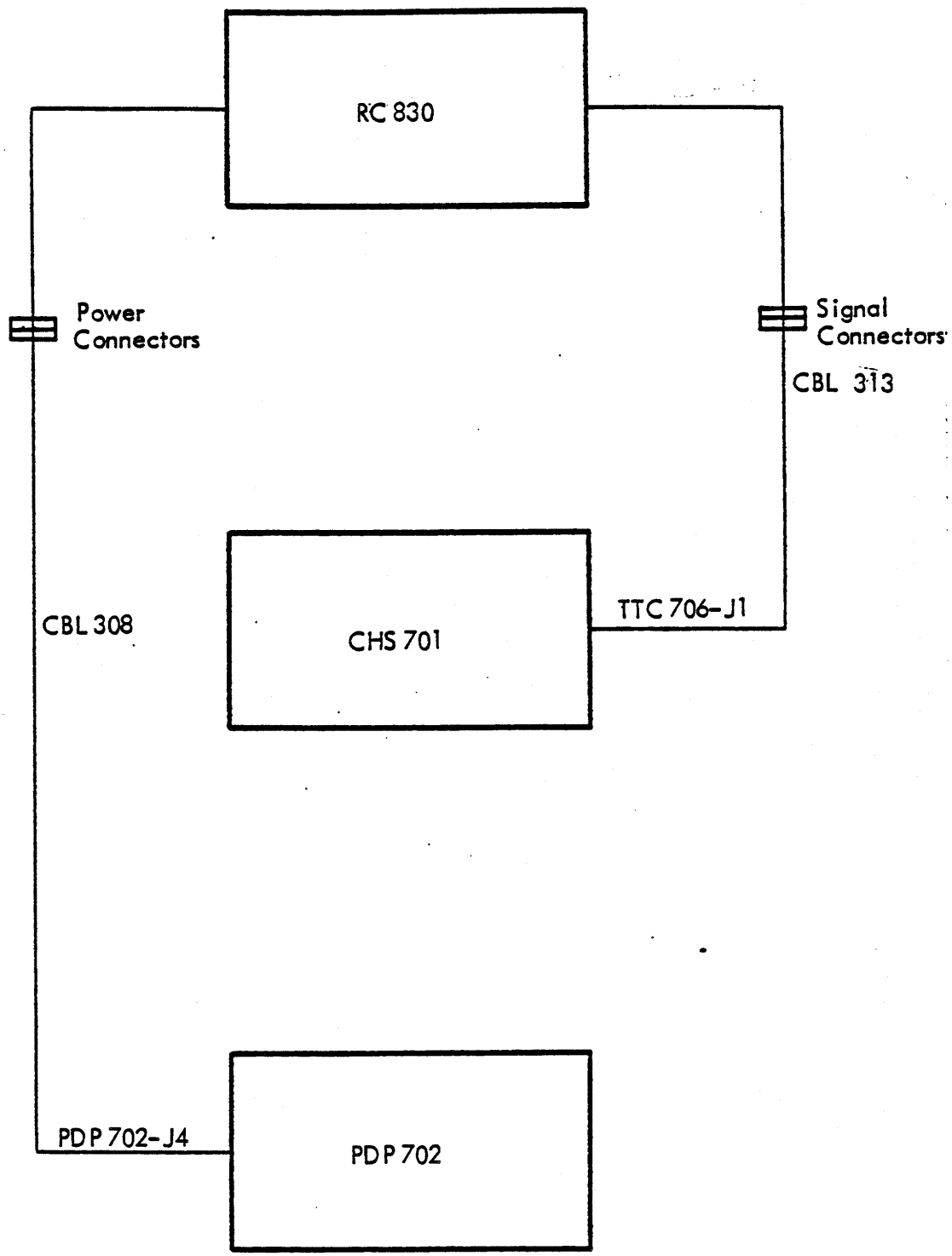
~~Dwg. No.~~ ~~44-RT-733-76~~

Second RC 832 Teletype connected to TTC 706 Controller and PDP 702 Power Panel Interconnection Diagram

Page 1 of 1

RC doc. VB 139

AGF 1974

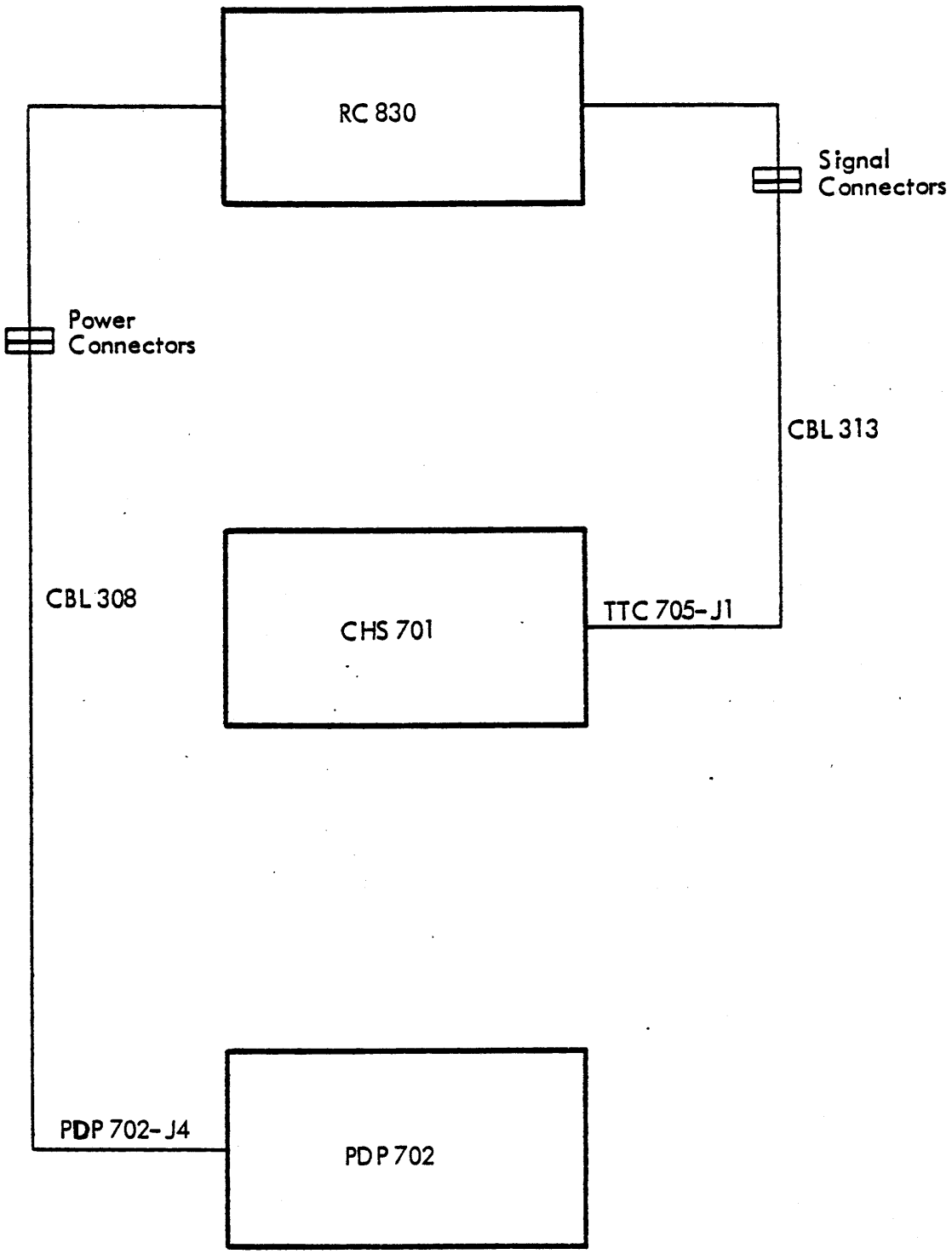


A/S REGNECENTRALEN	Replaced by Dwg. No.
Designed by 760304 JEMI	due to ECN
Drawn by 770114 AOB	Replaces Dwg. No.
Dwg. Office Check	Design Check

RC doc: VB 139

~~Unit~~ DwG R2114 5	RC 830 Second Silent connected to TTC 706 Controller and PDP 702 Power Panel Interconnection Diagram	Page 1 of 1
~~Dwg. No.~~ ~~44-RT-733-81~~		

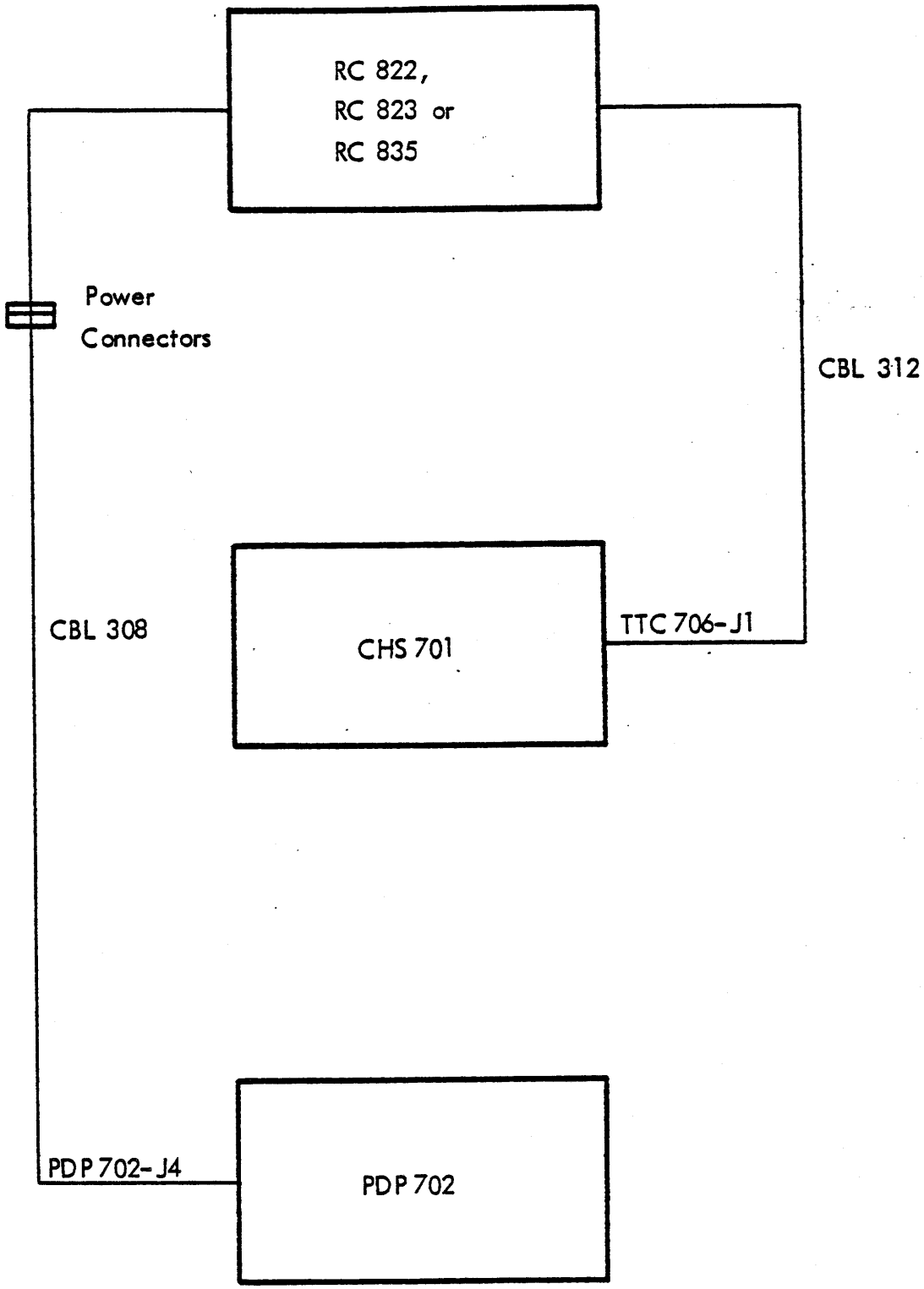
AGF 1974



A/S REGNECENTRALEN	
Designed by 760304 JEMI	
Drawn by 770114 AOB	
Dwg. Office Check	
Design Check	
Replaces Dwg. No.	
due to ECN	
Replaced by Dwg. No.	

RC doc: VB 139

~~Unit~~ DWG R 21146	RC 830 Silent connected to TTC 705 Controller and PDP 702 Power Panel Interconnection Diagram	Page 1 of 1
~~Dwg. No.~~ ~~44-RT-733-82~~		



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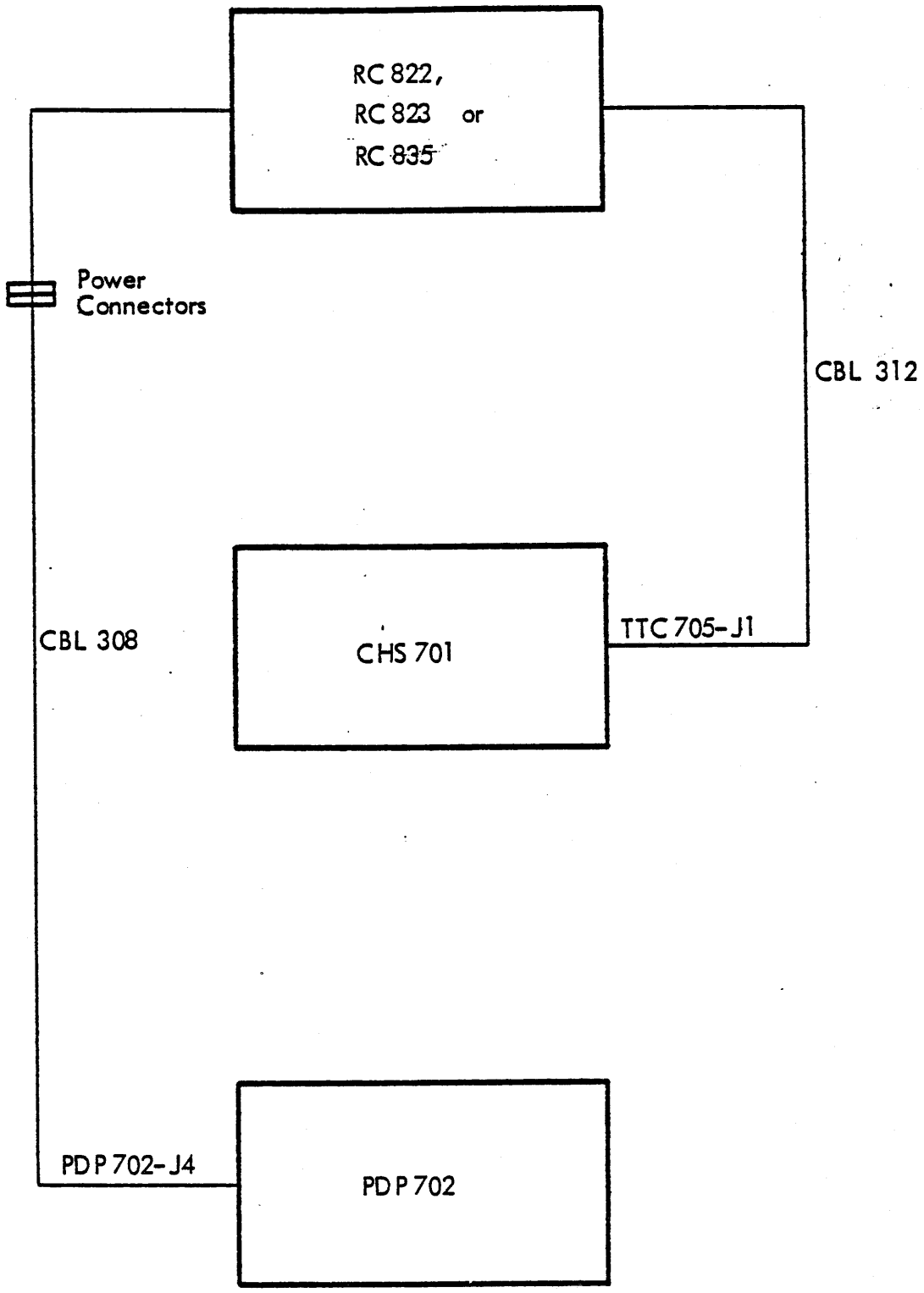
due to ECN	
Replaces Dwg. No.	
Design Check	
Dwg. Office Check	
Drawn by	770114 AOB
Designed by	760304 JEMI
A/S REGNECENTRALEN	

Unit DWG. R21147	RC 822, RC 823 or RC 835 Second Console connected to TTC 706 Controller and PDP 702 Power Panel Interconnection Diagram	Page 1 of 1
~~Dwg. No.~~ ~~44-RT-733-85~~		

RC. doc. VB 13y



A/S REGNECENTRALEN	Designed by 760304 JEMI	Drawn by 770114 AOB	Dwg. Office Check

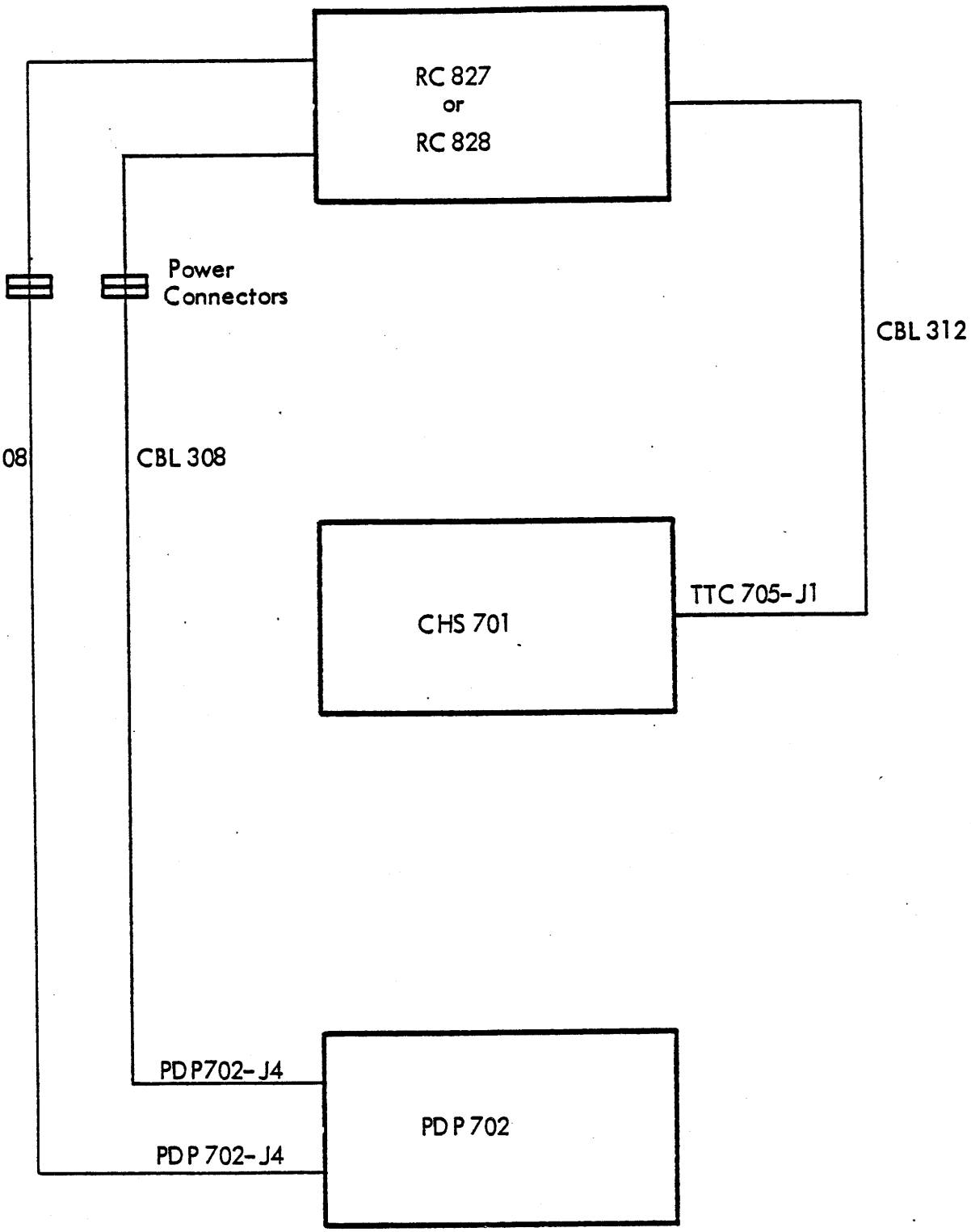
Design Check | Replaces Dwg. No. | due to ECN | Replaced by Dwg. No.

~~Unit~~ Dwg. R 2114 2

~~Dwg. No.~~ 44-RT 733-86

RC 822, RC 823 or RC 835 Console connected to TTC 705 Controller and PDP 702 Power Panel Interconnection Diagram

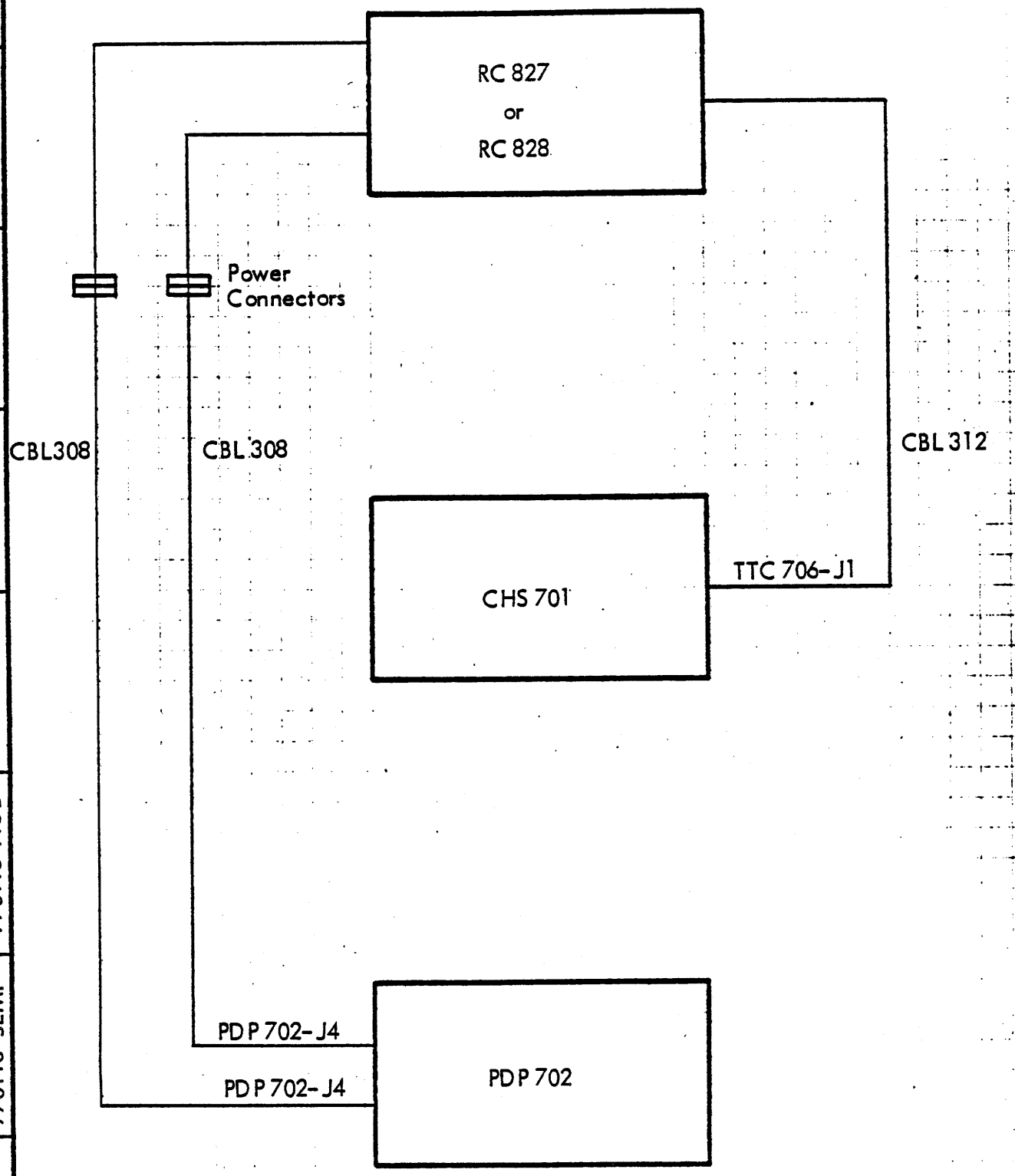
C doc VB 1.3



A/S REGNECENTRALEN	~~Unit~~ DWG R21149	RC 827 or RC 828 Data Entry Console connected to TTC 705 Controller and PDP 702 Power Panel Interconnection Diagram
Designed by 770118 JEMI	~~Dwg. No.~~ ~~44-RT-733-90~~	
Drawn by 770118 AOB		
Dwg. Office Check		
Design Check		
Replaces Dwg. No.		
due to ECN		
Replaced by Dwg. No.		

KC doc: VB 139

Page 1 of 1



Replaced by Dwg. No.	
due to ECN	
Replaces Dwg. No.	
Design Check	
Dwg. Office Check	
Drawn by	770118 AOB
Designed by	770118 JEMI
A/S REGNECENTRALEN	

Unit DWG R 21150	RC 827 or RC 828 Second Data Entry Console connected to TTC 706 Controller and PDP 702 Power Panel Interconnection Diagram	
~~Dwg. No.~~ ~~44-RT 733-91~~		Page 1 of 1

RC doc: VB 1.19

HKJ

FIELD CHANGE ORDER

NO: 12-022
ISSUE WEEK 43-78

RCSL: 44 - RT 1634

MANDATORY	☒	RETROFIT ON FAILURE	☐
WARRANTY	☒	NON WARRANTY	☐

RE: ECN NO: 12-022

SERIAL EFFECTIVITY

TTC711/335 and upwards

EQUIPMENT AFFECTED

RC3600/6000
TTC706/711
Controller for 2nd Tele Type

NOTE

REASON FOR CHANGE

On the TTC711 the position (80-18) was erroneously connected to (130-8) instead of (130-3), and on TTC706 (80-18) was connected to (120-1) instead of (119-1).
This error has the effect that input from second tele type does not function unless the characters are echoed.

DESCRIPTION OF CHANGE

TTC711:
1. Cut the connection (80-18) → (129-1) (See page 2)
2. Insert a connection (130-3) → (80-18) (See page 3)
3. Code the FCO-label 12-022

TTC706:
1. Remove the wire (80-18) → (120-1)
2. Insert a wire (119-1) → (80-18)
3. Code the FCO-label 12-022

ADDITIONAL COMMENTS

QTY:	PARTS REQUIRED	RC -P/N
15 cm	Wire	4-4910

DOCUMENTATION ENCLOSED

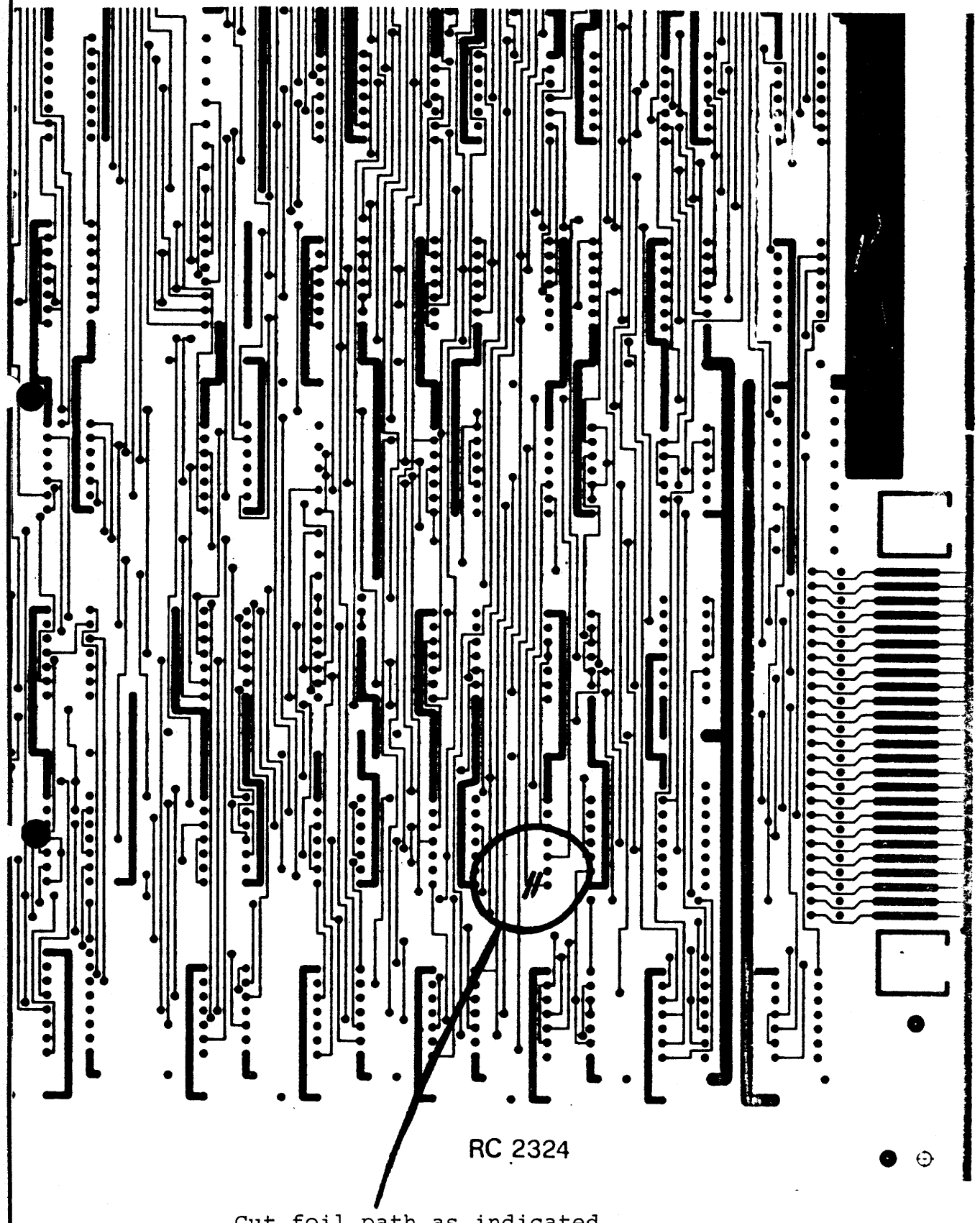
Provisional logic diagram for TTC711 (1 page)

Provisionsl logic diagram for TTC706 (1 page)

KITS FREE OF CHARGE FROM ISS:	YES ☒	NO ☐	
RETURN CHANGED PARTS TO ISS:	YES ☐	NO ☐	

ESTIMATED INSTALLATION TIME: 15 minutes

PROJECT ENGINEER		DEVELOPMENT MANAGER		SYS. PRODUCTION MANAGER		TECH. SERVICE MANAGER	
SIGN.	DATE	SIGN.	DATE	SIGN.	DATE	SIGN.	DATE
Karla Fri	10/10-78	B/C	17/10.78	Goddard	18/10 78		19/10-78

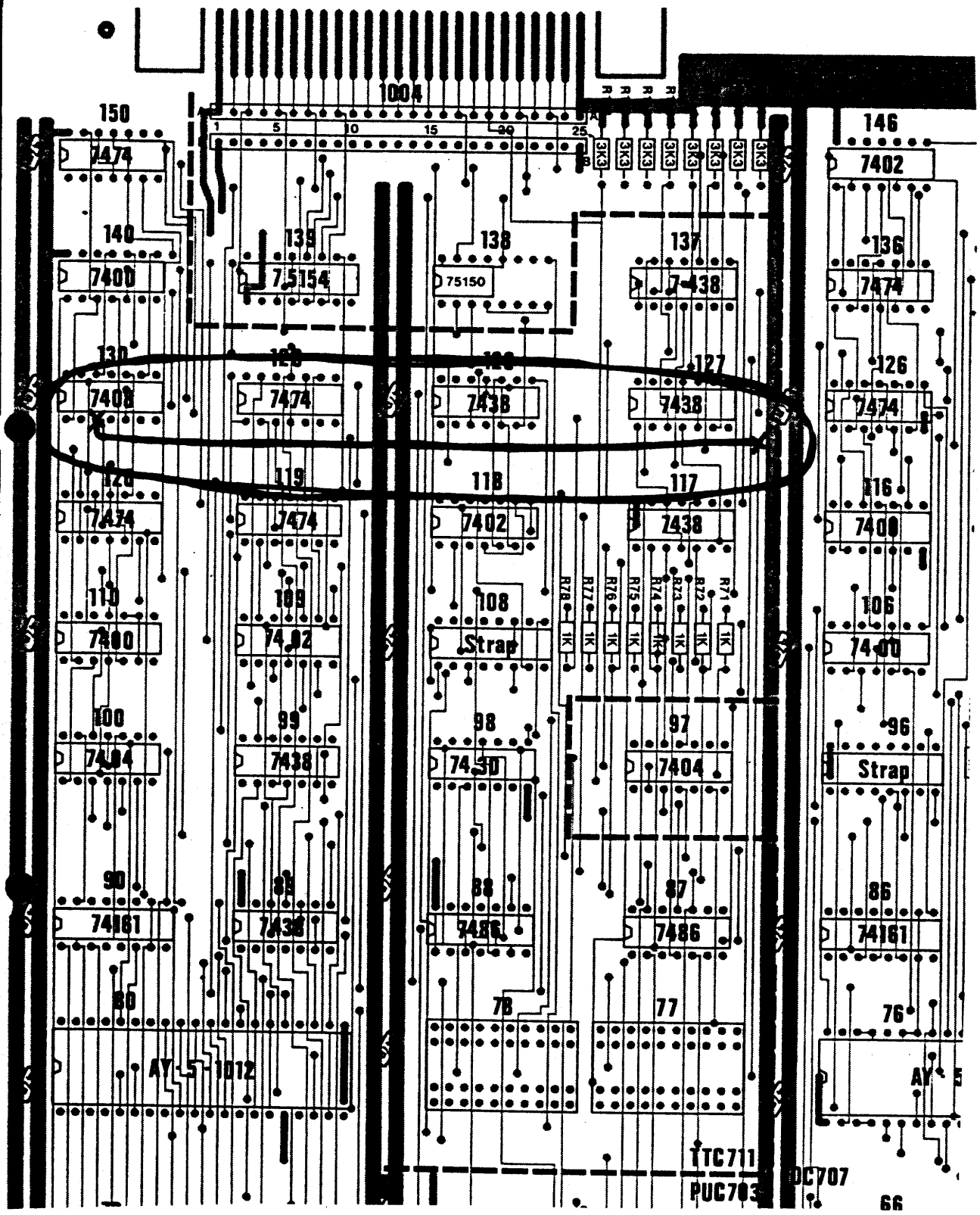


Cut foil path as indicated

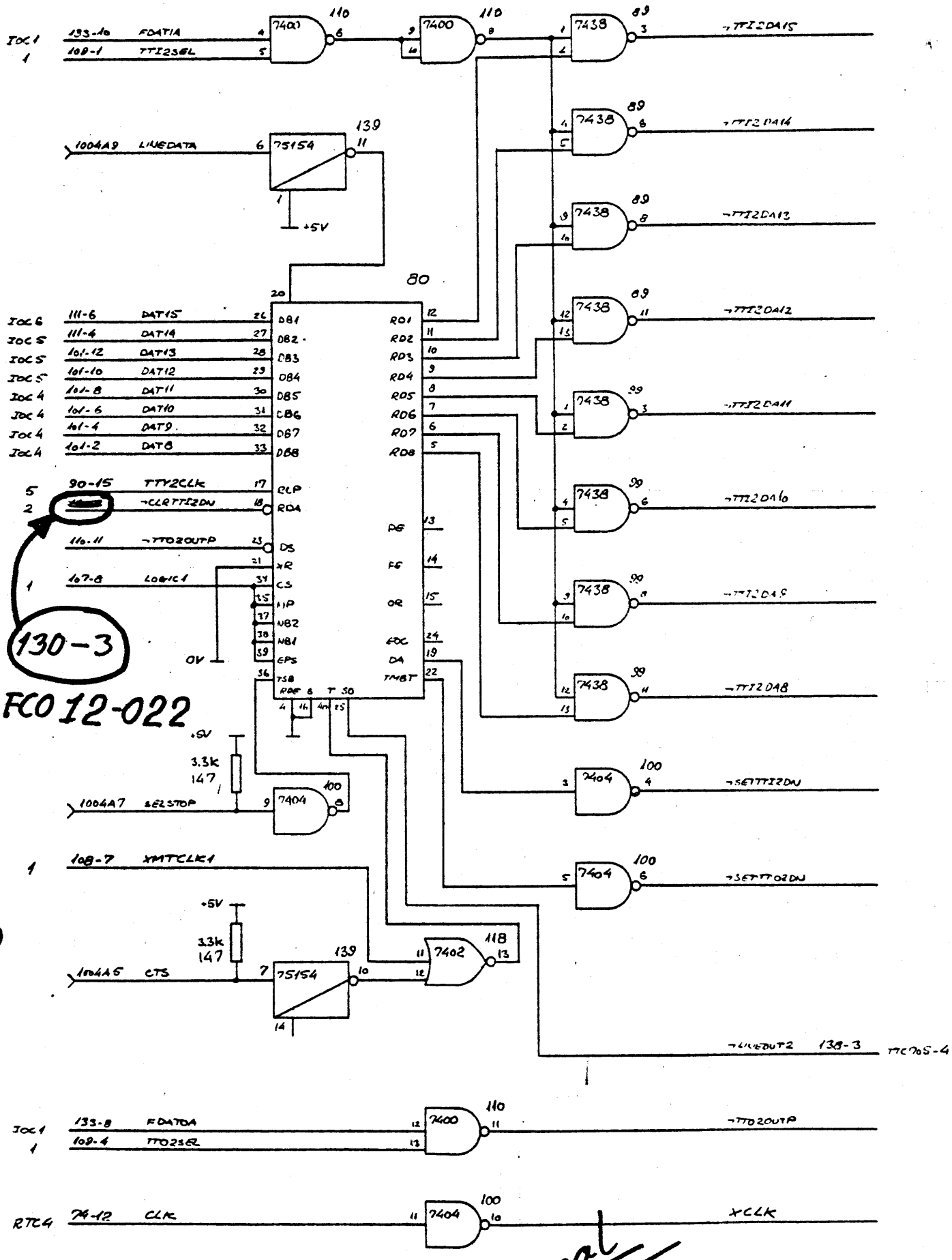
FIELD CHANGE ORDER

NO. 12-022

PAGE 3 OF 3



Insert connection as indicated


IOC 1
193-10 FDATIA
109-1 TTI2SEL
7400 110
7438 89
→TTI2DA15
1004A9 LINEDATA
75154 139
+5V
→TTI2DA14
→TTI2DA13
→TTI2DA12
→TTI2DA11
→TTI2DA10
→TTI2DA9
→TTI2DA8
80
IOC 6 111-6 DAT15
IOC 5 111-4 DAT14
IOC 5 101-12 DAT13
IOC 5 101-10 DAT12
IOC 4 101-8 DAT11
IOC 4 101-6 DAT10
IOC 4 101-4 DAT9
IOC 4 101-2 DAT8
DB1
DB2
DB3
DB4
DB5
DB6
DB7
DB8
RO1
RD2
RD3
RD4
RD5
RD6
RD7
RD8
5 2 90-15 TTY2CLK
→CLRTTI2DN
RCLP
RDA
116-11 →TTO2OUTP
DS
1 107-8 LOGIC 1
CS
OV
130-3
FCO 12-022
PE
FE
OR
FDC
DA
TMBT
3.3k 147
1004A7 SEZSTOP
7404 100
→SETTTI2DN
→SETTTO2DN
1 108-7 XMTCLK1
118
7402
1004A6 CTS
→LINEOUT2 138-3 TTC706-4
IOC 1 133-8 FDATOA
109-4 TTO2SEL
→TTO2OUTP
RTC4 74-12 CLK
XCLK
Provisional
Unit TTC706
Dwg. No.
RECEIVER AND TRANSMITTER LOGIC
LOGIC DIAGRAM
TTC 706 4
A/S RØNNECENTRALEN
Designed by
Drawn by
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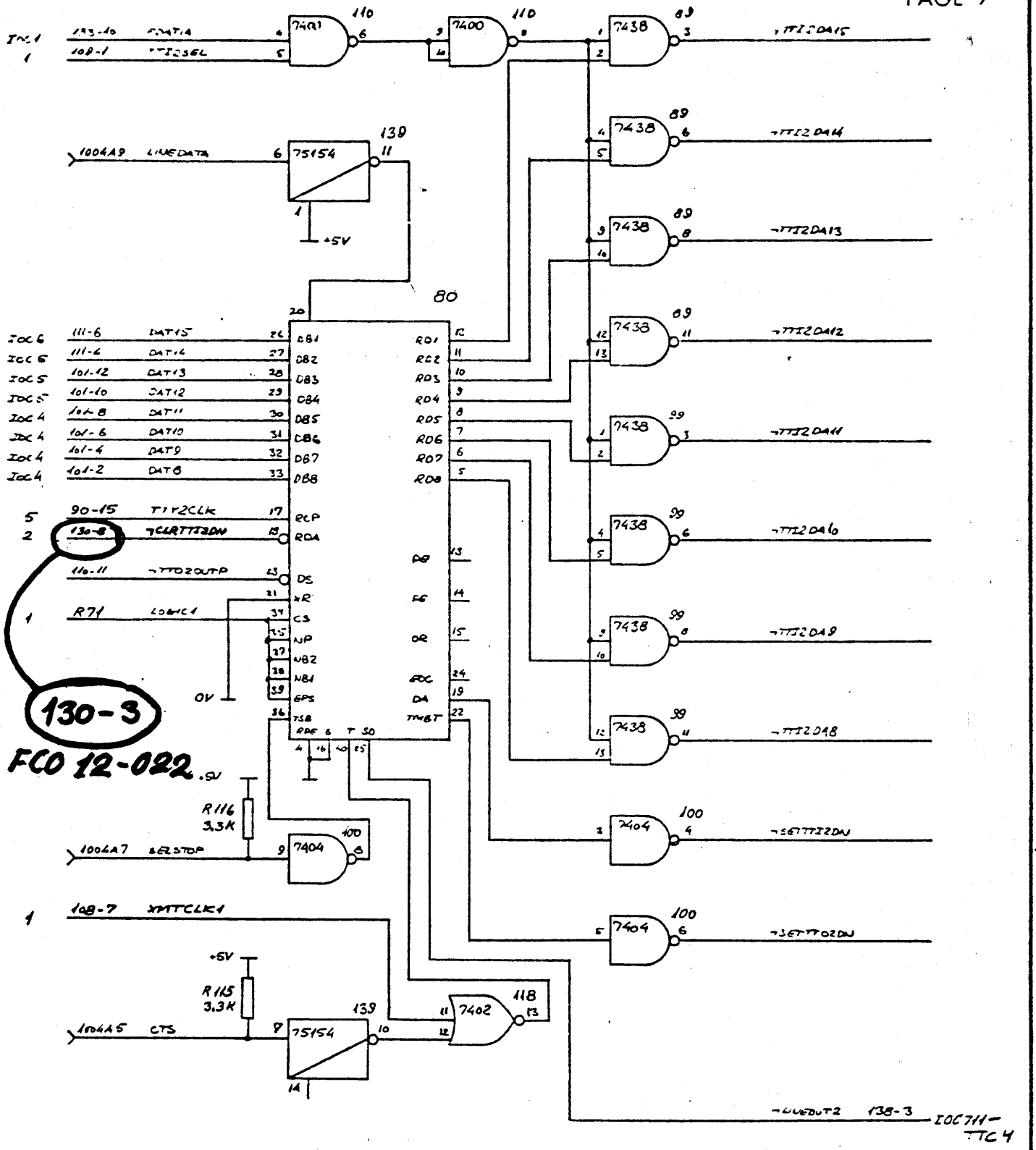
due to ECN
Ref
by Dwg. No.



Unit: TTC711	RECEIVER AND TRANSMITTER LOGIC	TTC 4
Dwg. No.	LOGIC DIAGRAM	

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AGI 1973