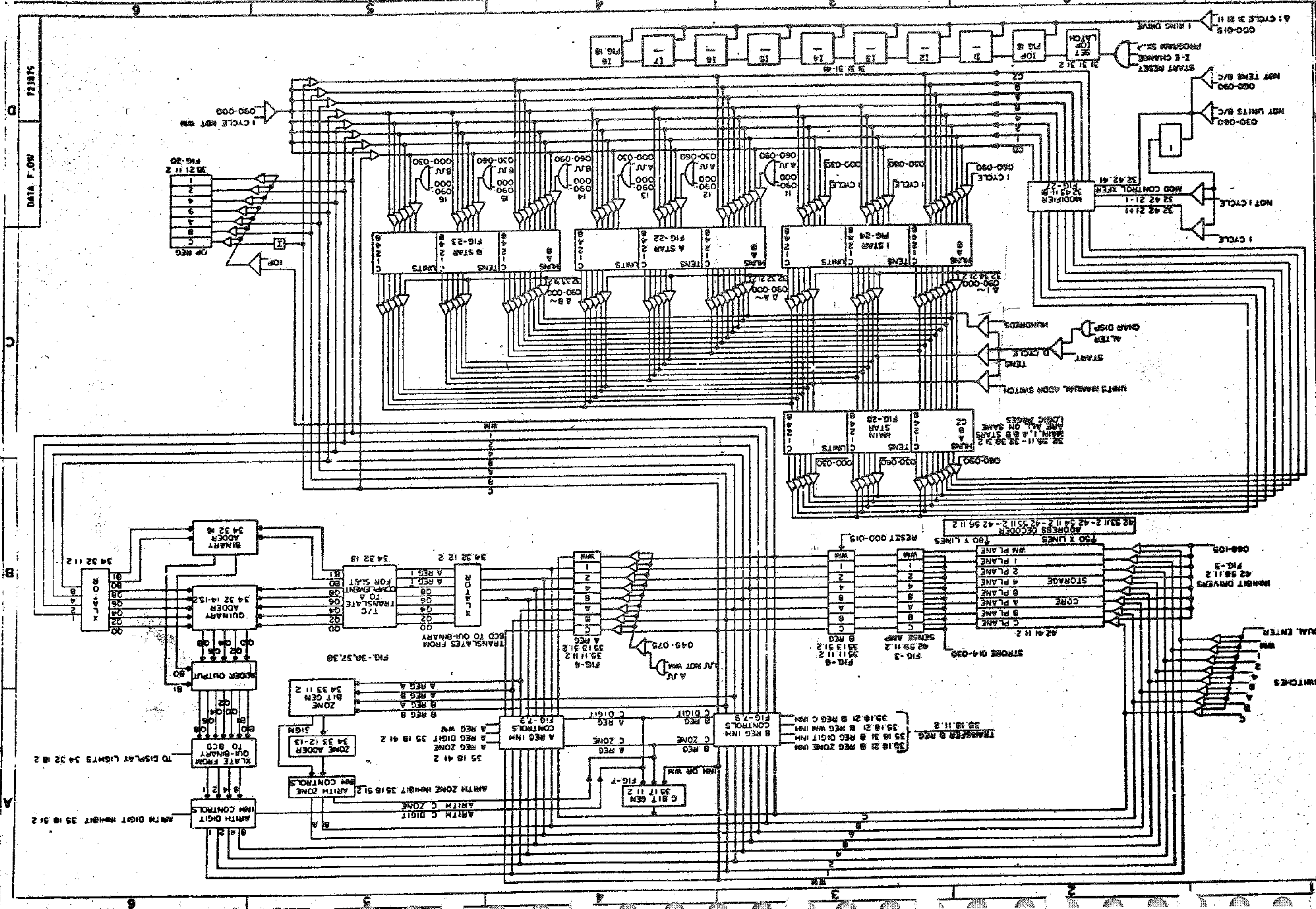


1401 TIMING CHARTS

1-5 ARITHMETIC OPERATIONS
 6-24 MOVE, LOAD, COMPARE AND LOGIC OPERATIONS
 25-28 ADVANCE PROGRAMMING
 29-37 INPUT OUTPUT
 38-49 MAGNETIC TAPE
 50-52 EXPANDED STORAGE

PART NO.	FIG. NO.	NAME	PART NO.	FIG. NO.	NAME
723925	1	RESET ADD O (AAA)(BBB)	724853	29	READ
723926	2	TRUE ADD	724854	30	PUNCH
723927	3	COMPLEMENT ADD-RECOMPLEMENT A (AAA)(BBB)			
723928	4	COMPLEMENT ADD-NO RECOMPLEMENT	724855	32	COLUMN BINARY READ SEQUENCE
723929	5	COMPLEMENT ADD-ONE CHARACTER FIELD	724856	33	COLUMN BINARY PUNCH SEQUENCE
			724857	34	MOVE AND UNSCRAMBLE COLUMN BINARY SEQUENCE
723930	6	MOVE M (AAA)(BBB)	724858	35	MOVE AND SCRAMBLE COLUMN BINARY SEQUENCE
723931	7	MOVE DIGIT D (AAA)(BBB)	724859	36	PUNCH FEED READ SEQUENCE
723932	8	MOVE ZONE Y (AAA)(BBB)	724860	37	STACKER SELECT K AND STACKER SELECT BRANCH
723933	9	MOVE ZERO SUPPRESS Z (AAA)(BBB)			
723934	10	LOAD L (AAA)(BBB)	724861	38	MOVE (LOAD) TAPE READ OPERATION
723935	11	CLEAR OP / (AAA)	724862	39	MOVE (LOAD) WRITE OPERATION
723936	12	WORD MARK CLEAR (AAA)(BBB)	724863	40	LOAD TAPE AND READ A WORD SEPARATOR CHARACTER
723937	13	WORD MARK SET (AAA)(BBB)	724864	41	LOAD TAPE AND WRITE A WORD SEPARATOR CHARACTER
723938	14	COMPARE C (AAA)(BBB)	724865	42	BACKSPACE TAPE OPERATION
723939	15	HIGH-LOW-EQUAL COMPARE SEQUENCE C (AAA)(BBB)	724866	43	ERASE TAPE OPERATION
723940	16	BRANCH B (III), UNCONDITIONAL BRANCH	724867	44	WRITE TAPE MARK
723941	17	TEST AND BRANCH B (III) (TEST ANY ONE OF TEN CHARACTER)	724868	45	REWIND TAPE OPERATION
723942	18	TEST CHARACTER AND BRANCH B (III)(BBB) (ANY ONE OF NINE CHARACTERS)	724869	46	REWIND AND UNLOAD TAPE
			724870	47	TAPE END OF FILE INDICATOR TEST AND TAPE TRANSMISSION ERROR TEST
723943	19	TEST ZONE OR WORD MARK OR BOTH AND BRANCH V (III)(BBB)			
723944	20	CLEAR AND BRANCH / (III)(BBB)	724871	48	MOVE COMPRESSED TAPE READ OPERATION
723945	21	STOP AND BRANCH . (III)	724872	49	MOVE WITH ZERO INSERTION X (AAA)(BBB)
723946	22	STOP (.)			
723947	23	NO-OP (NO)	724873	50	ADDRESS MODIFY TIMING @ (AAA)(BBB)
723948	24	EDIT OPERATION - ZERO SUPPRESS	724874	51	MULTIPLY
			724875	52	% AAA BBB DIVIDE
723949	25	INSTRUCTION CYCLE WITH INDEXING			
724850	26	STORE A STAR Q (AAA) STORE B STAR M (AAA)			
724851	27	BRANCH B (III) ADVANCED PROGRAMMING (I-B STAR TRANSFER)			
724852	28	MOVE RECORD P (AAA)(BBB)			

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	115530 D	31.7.62	TA 1370 K	NAME 1401 TIMING CHARTS			
				DESIGN		TYPE	
				DETAIL		SCALE	NONE
				CHECK		DRAW	VE 3-7-6
				APPRO		CHECK	



DATE	CHANGE NO.	DATE	CHANGE NO.	DESCRIPTION
4-2-63	14144C	31.7.62	TA 1370K	REVISED
4-2-63	14144C	4.6.63	TA 1862	REVISED
4-2-63	14144C	4.6.63	TA 1862	REVISED

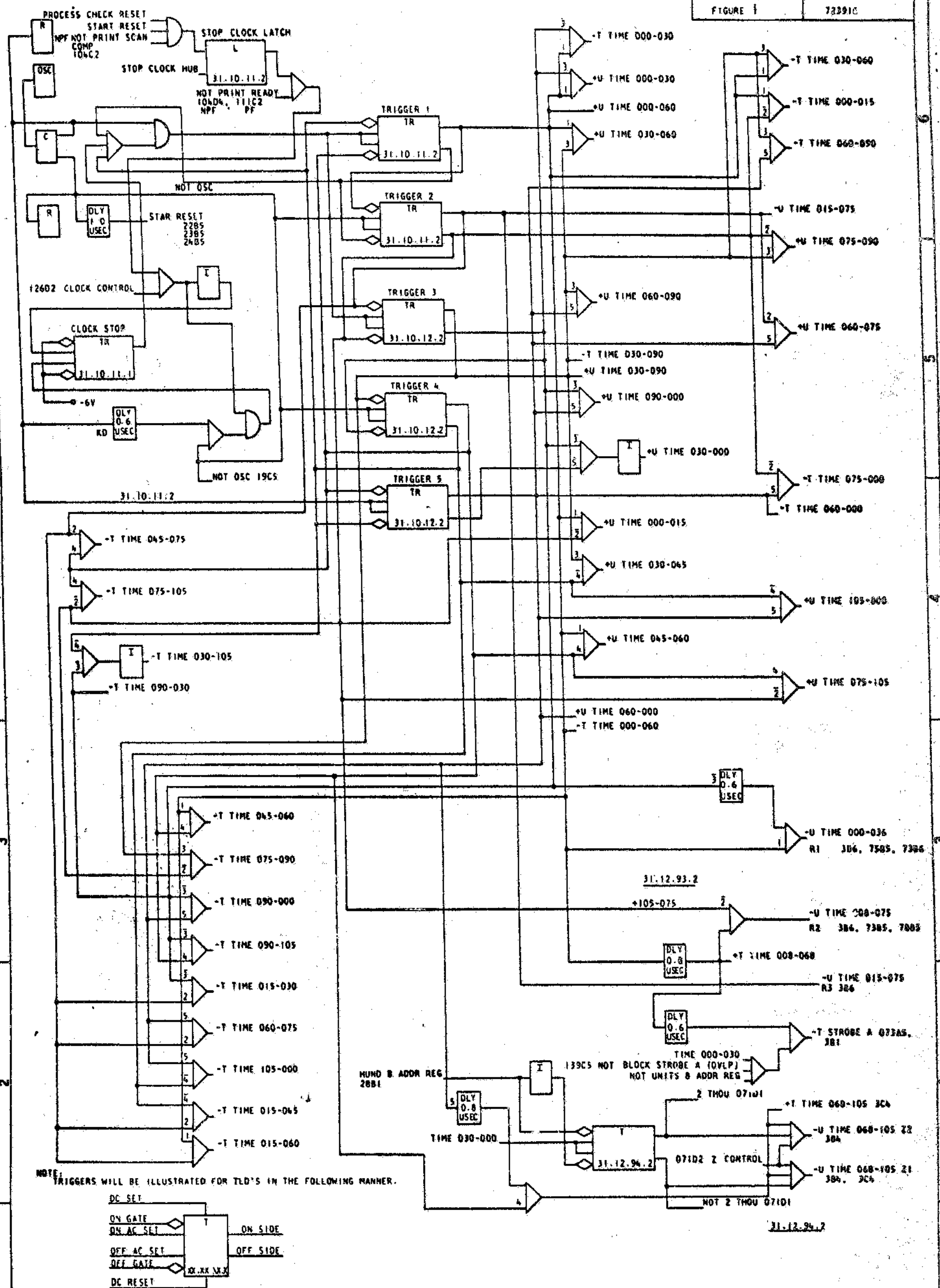
DATE	CHANGE NO.	DATE	CHANGE NO.	DESCRIPTION
4-2-63	14144C	31.7.62	TA 1370K	REVISED
4-2-63	14144C	4.6.63	TA 1862	REVISED
4-2-63	14144C	4.6.63	TA 1862	REVISED

INTERNATIONAL BUSINESS MACHINES CORP.
 NAME: LOCK BASIC SYSTEM DATA FLOW
 TYPE: SCALE: MOVE
 DESIGN: CHECK: DRAW: VE: 3-30-62

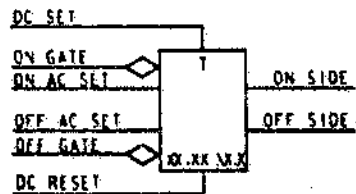
INDEX FOR IFC
 1-3 CLOCKING AND STORAGE
 6-32 DATA FLOW AND CONTROLS
 36-50 ARITHMETIC OPERATIONS
 56-63 BASIC OPERATIONS
 66-69 ADVANCED PROGRAMMING
 71-76 1406 EXPANDED STORAGE
 81-120 INPUT/OUTPUT
 126-133 MAGNETIC TAPE AND I-O ATTACHMENT CONTROLS
 136-139 OVERLAP CONTROLS

PART NO.	FIG. NO.	NAME	PART NO.	FIG. NO.	NAME
723875		1401 BASIC SYSTEM DATA FLOW	723859	74	STORAGE DECODE SWITCHES 12 TO 16K
723918	1	CLOCK CONTROL AND CLOCK PULSES	723860	75	CORE STORAGE DRIVE CIRCUITS AND SENSE CIRCUITS 12 TO 16K
723917	2	STORAGE DECODE SWITCHES	723861	76	FULL STORAGE PRINT OUT
723918	3	CURRENT SWITCHES, INHIBIT DRIVERS, PRESENSE AND SENSE AMPS			
723919	6	DATA FLOW 1 (A AND B REG AND INHIBIT DRIVE CKTS.)	723862	81	READ CONTROLS AND DATA FLOW WITH PFR
723920	7	DATA FLOW 2 (C BIT GENERATOR)	723863	82	PUNCH A REG DECODE AND PUNCH CHECK DECODE
			723864	83	PUNCH ADDRESS DECODES
723972	5	DATA FLOW (CONTROLS) 3	723865	84	PUNCH CONTROLS WITH PFR
			723866	85	READ-PUNCH CHECK CIRCUITS
723809	11	A AND B CHECK			
			723868	87	READ AND PUNCH CHECK CIRCUITS 1 WITH PFR
723811	13	INHIBIT CHECK AND METER CIRCUITS	723869	88	READ AND PUNCH CHECK CIRCUITS 2
723812	14	I-E CHANGE, A CYCLE ELIM, EXEC ELIM	723870	89	P.F.R. CONTROLS
723813	15	I-A-B CYCLE GENERATION			
723814	16	START, STOP, PROCESS AND DELTA PROCESS			
723815	17	D CYCLE, MANUAL ENTRY, LOAD AND REVERSE SCAN CONTROL			
723816	18	I RING AND PROGRAM SKIP			
723817	19	ADDRESS STOP			
723818	20	OP REG AND OP CODE DEVELOPMENT	723876	94	COLUMN BINARY CONTROLS 1
723819	21	OP CHECK	723877	95	COLUMN BINARY CONTROLS 2
723820	22	A STAR			
723821	23	B STAR	723879	97	S1 COLUMN FEED
723822	24	I STAR	723880	98	PRINT HAMMER DRIVE LINES
723823	25	I STAR, AUTO SCAN, STAR MANUAL SET			
723824	26	ADDRESS REG SET CONTROLS	723882	100	HAMMER DRIVE RESET
723825	27	MODIFIER CONTROLS	723883	101	PRINT SUB SCAN COUNTERS (NPF)
723826	28	ADDRESS REGISTER AND SERIAL GATES	723884	102	PRINT COMPARE (NPF)
723827	29	MODIFIER 1-2-4-8 BUS			
723828	30	MODIFIER CD-A-B-CZ BUS	723886	104	PSS RING AND PRINT CONTROL (NPF)
723829	31	MODIFIER UNITS A-B-C BUS	723887	105	PRINT SCAN COUNTER (NPF)
723830	32	STORAGE ADDRESS VALIDITY CHECK	723888	106	PRINT BUFFER STORAGE AND DATA FLOW 1 (PF)
			723889	107	PRINT BUFFER STORAGE AND DATA FLOW 2 (PF)
723831	36	ADD SUBTRACT AND ADDER CONTROLS	723890	108	PRINT BUFFER CLOCK (PF)
723832	37	ADD SUBTRACT AND ADDER CONTROLS	723891	109	PRINT BUFFER RINGS (PF)
723833	38	ADD SUBTRACT AND ADDER CONTROLS	723892	110	PRINT BUFFER COUNTER (PF)
			723893	111	PRINT BUFFER CONTROLS 1 (PF)
723872	40	A AUX STAR AND B AUX STAR CKTS 1	723894	112	PRINT BUFFER CONTROLS 2 (PF)
723873	41	B AUX STAR AND GATE CONTROLS 2			
			723896	114	PRINT BUFFER CONTROLS 3 (PF)
723837	43	MULTIPLY AND DIVIDE CONTROLS 1	723897	115	PRINT BUFFER CONTROLS 4 (PF)
723838	44	MULTIPLY AND DIVIDE CONTROLS 2	723898	116	CARRIAGE CONTROLS 1 AND SELECTIVE TAPE LISTER
723839	46	MULTIPLY AND DIVIDE CONTROLS 3	723899	117	CARRIAGE CONTROLS 2
			723900	118	DUAL SPEED CARRIAGE CONTROLS
723841	47	MULTIPLY AND DIVIDE CONTROLS 4	723901	119	RAMAC, INQUIRY 1 AND 1311 (LCF)
			723902	120	RAMAC, INQUIRY 2 AND 1311 (LCF)
723849	50	MULTIPLY AND DIVIDE CONTROLS 5			
			723903	126	READ AND WRITE TAPE 1
723844	56	MOVE, LOAD, COMPARE, CLEAR, AND THE MISC. OP CODES FUNCTIONAL PURPOSES.	723904	127	READ AND WRITE TAPE 2
			723905	128	READ AND WRITE TAPES WITH LOAD MARKS
723846	58	COMPARE OPR	723906	129	TAPE BRANCH CODES
723847	59	HI-LO EQUAL COMPARE	723907	130	MANUAL TAPE OPERATION RESET AND LOAD
			723908	131	I-O CONTROLS
723850	62	EDIT AND EXPANDED EDIT 1	723909	132	I-O SELECT LINES
723851	63	EDIT AND EXPANDED EDIT 2	723910	133	COMPRESSED TAPE CONTROLS
723852	66	ADVANCED PROGRAMMING CONTROLS 1	723911	136	OVERLAP ADDRESSING
723853	67	ADVANCED PROGRAMMING CONTROLS 2	723913	137	"0" REGISTER
723854	68	ADVANCED PROGRAMMING CONTROLS 3	723913	138	OVERLAP CONTROLS 1
723855	69	ADVANCED PROGRAMMING CONTROLS 4	723914	139	OVERLAP CONTROLS 2
723856	71	MODIFY OP AND STORAGE CONTROL PULSES			
723857	72	STORAGE DECODE SWITCHES 4 TO 12K			
723858	73	CORE STORAGE DRIVE CIRCUIT, AND SENSE CIRCUITS 4 TO 12K			

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.
4-2-62	113830			NAME INDEX FOR 1401 MACHINES
4-2-63	114144C	31.7.63	TA 1370K	ABOVE SERIAL 25000
9-25-63	118584	15.11.63	TA 604D	DESIGN
				TYPE
				SCALE NONE
				DRAW VE 1-24-63
				CHECK
				APPRO
				CHECK 2-27-63

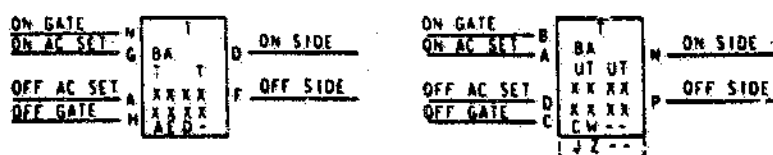


NOTE: TRIGGERS WILL BE ILLUSTRATED FOR TLD'S IN THE FOLLOWING MANNER.



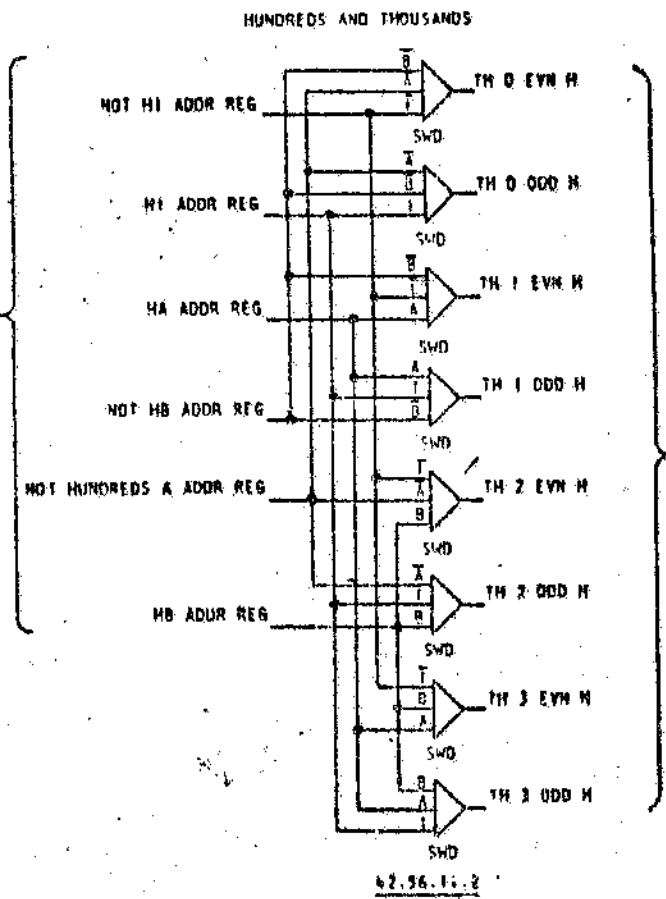
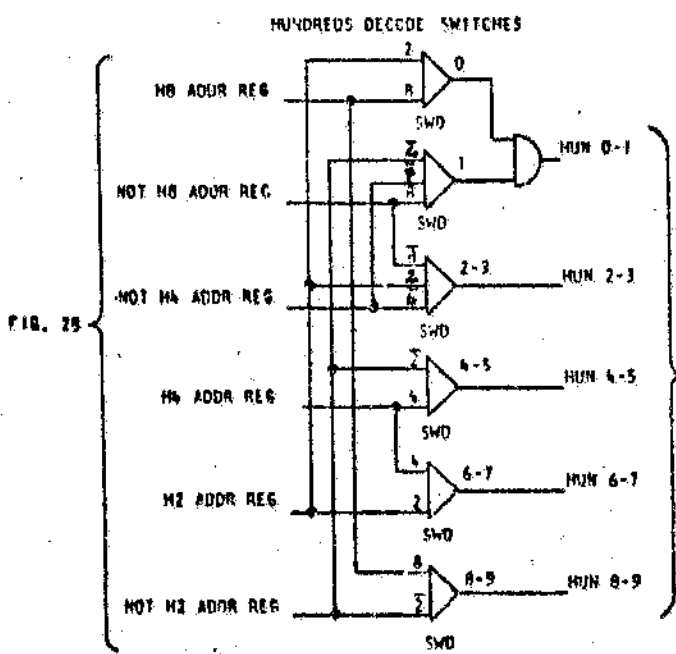
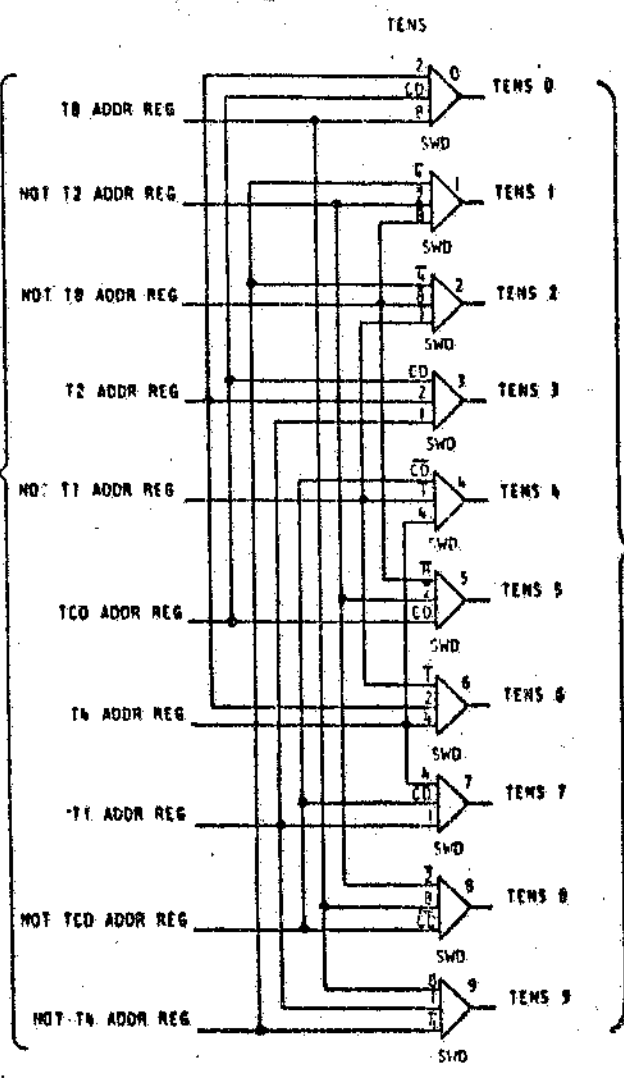
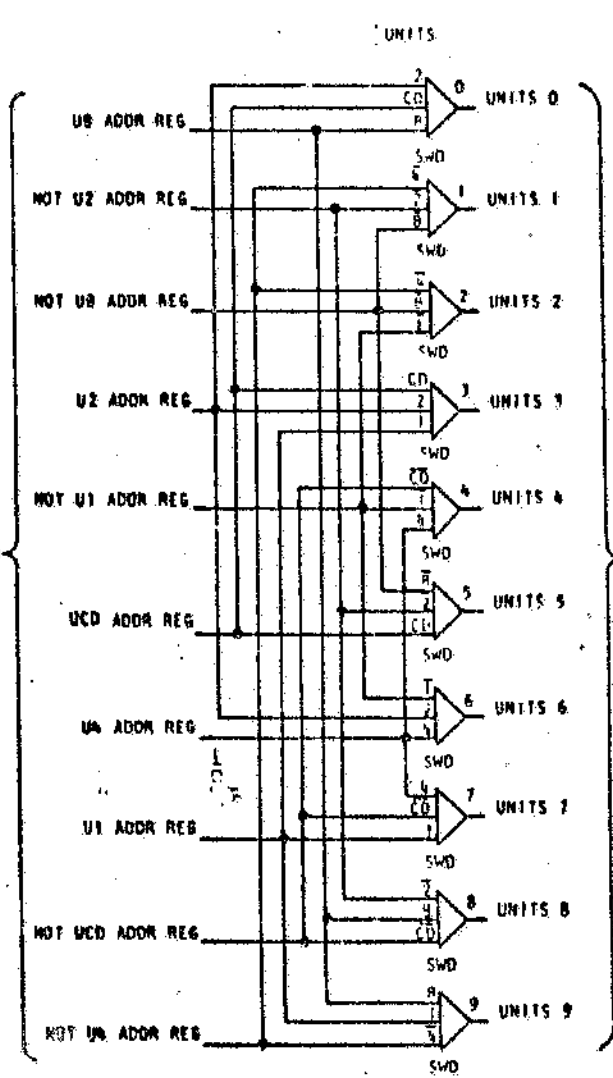
THIS STANDARD WILL BE FOLLOWED REGARDLESS OF TRIGGER TYPE. IT SHOULD BE NOTED THAT TRIGGERS IN THE ALD'S DO NOT NECESSARILY CORRESPOND TO THIS STANDARD.

FOR EXAMPLE:



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP		
4-10-62	1130100			NAME: CLOCK CONTROL AND CLOCK PULSES		
6-21-62	114144B					
4-2-63	114144C	31.7.62	TA 1370K			
9-25-63	118584	15.11.63	TA 604D			
				DESIGN	TYPE	
				DETAIL	SCALE	NONE
				CHECK	DRAW	YE 11-8-61
				APPRO	CHECK	27/11-16-61

72391C



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.			
4-10-62	127 R00 D	11-25-60	1A 1000	NAME	STORAGE DECODE		
4-2-63	117144C	1-20-62	7A 7862	SWITCHES			
				DESIGN		TYPE	
				DETAILS		SCALE	NONE
				CHECK		DRAW	VE 10-47-61
				APPROV		CHECK	38 11-18-61

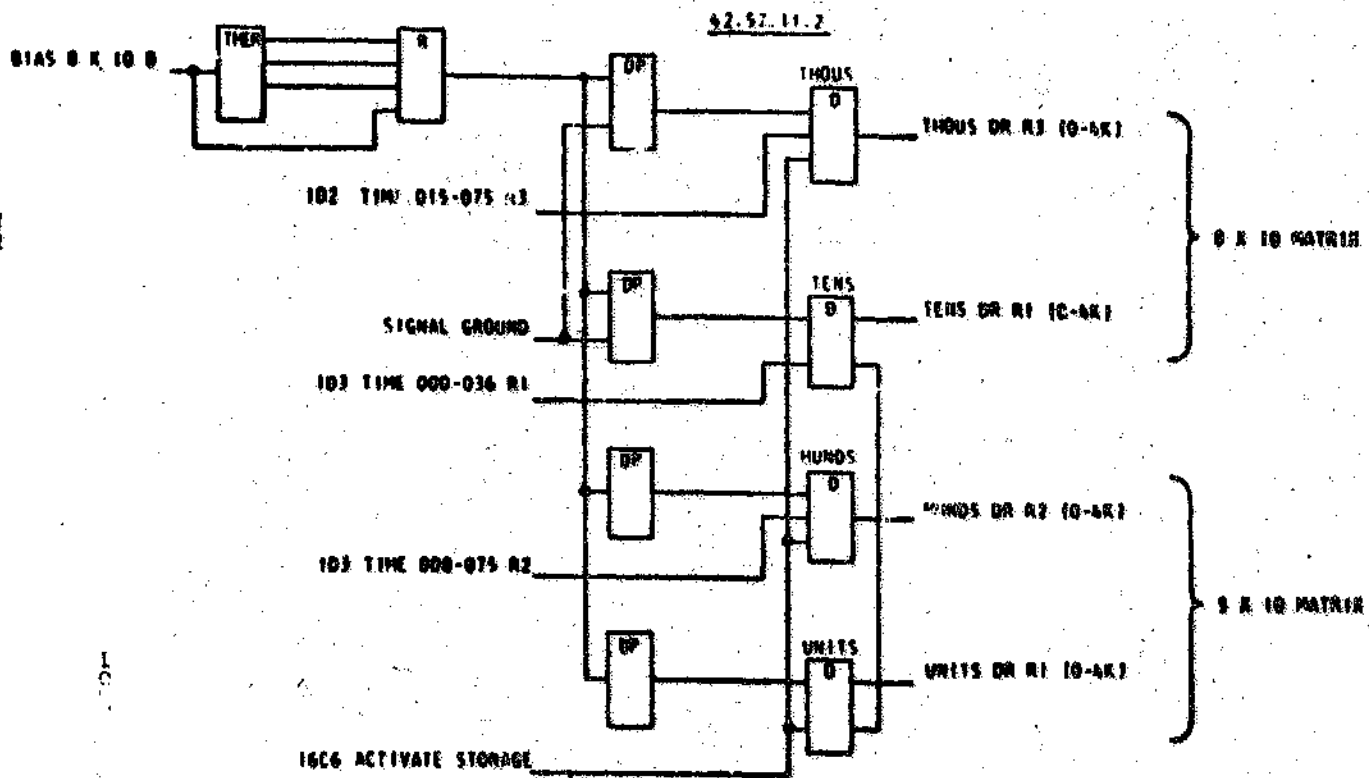
160011862

4K CURRENT DRIVERS AND CURRENT SOURCES

FIGURE 3

223910

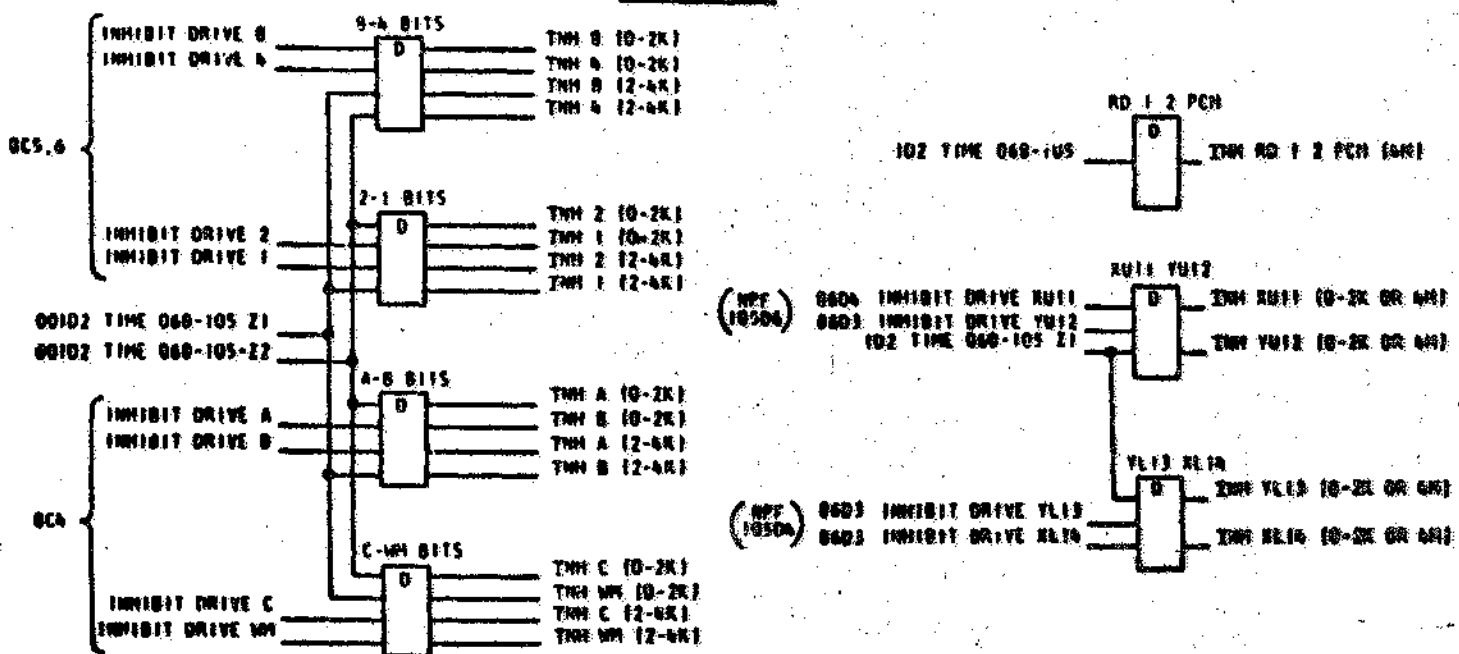
4K - 42.69.11.2
16K - 42.73.11.2



4K INHIBIT DRIVERS

42.58.11.2

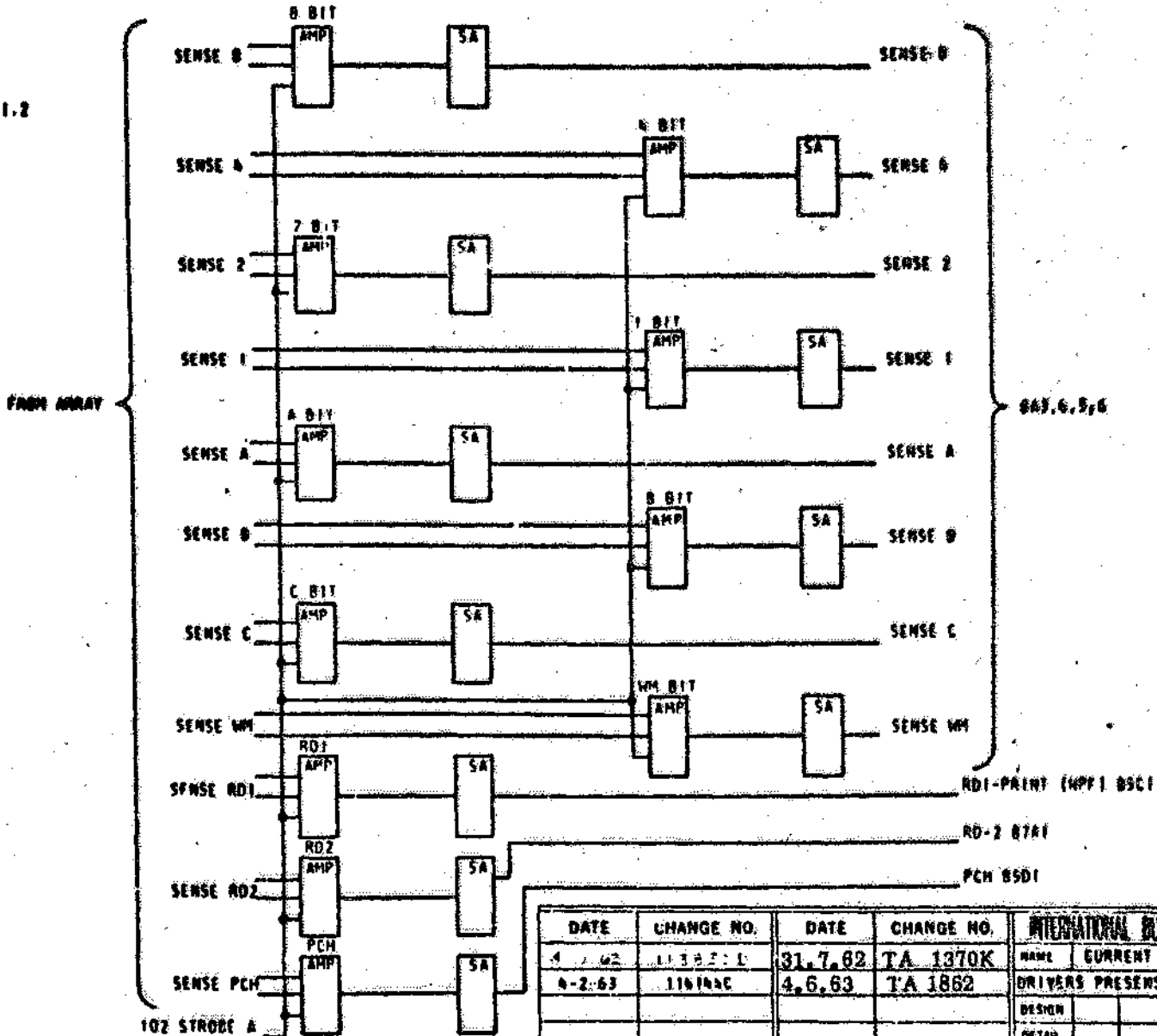
4K - 42.60.11.2
16K - 42.70.11.2



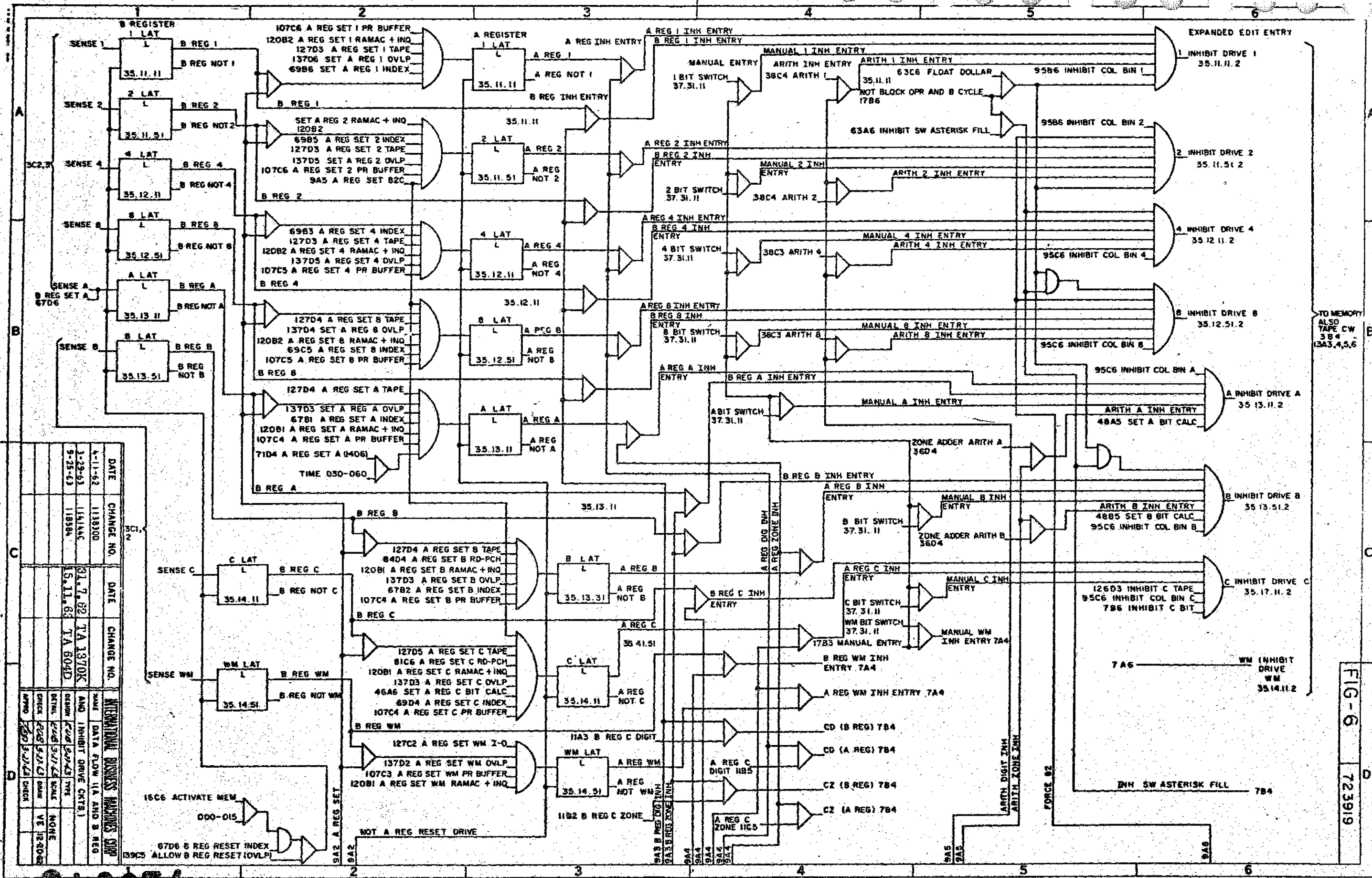
4K PRE-SENSE AND SENSE AMPLIFIERS

42.59.11.2

4K AND 16K - 42.69.11.2
16K - 42.79.11.2



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4.2.62	1.1382.1	31.7.62	TA 1370K	NAME CURRENT SWITCHES, INHIBIT
4-2-63	1.1319NC	4.6.63	TA 1862	DRIVERS PRESENSE AND SENSE AMPS
				DESIGN
				TYPE
				DETAIL
				SCALE
				NAME
				CHECK
				DRAW
				VE
				12-12-61
				APPRO
				CHECK
				12-13-61



DATE	CHANGE NO.	DATE	CHANGE NO.	NAME	DATA FLOW (A AND B REG AND INHIBIT DRIVE CRTS)
4-11-62	118800	9-17-62	TA 1370K		
3-29-63	118145	5-11-63	TA 604D		
9-25-63	118584				

REVISION	CHECK	DATE	BY	REASON
1	1	5-11-63	TA 604D	
2	1	5-11-63	TA 604D	
3	1	5-11-63	TA 604D	
4	1	5-11-63	TA 604D	
5	1	5-11-63	TA 604D	
6	1	5-11-63	TA 604D	
7	1	5-11-63	TA 604D	
8	1	5-11-63	TA 604D	
9	1	5-11-63	TA 604D	
10	1	5-11-63	TA 604D	

15C6 ACTIVATE MEM
000-015
67D6 B REG RESET INDEX
139C5 ALLOW B REG RESET (OVLV)

TO MEMORY
ALSO
TAPE CW
384
13A3,4,5,6

FIG-6 723919

723919

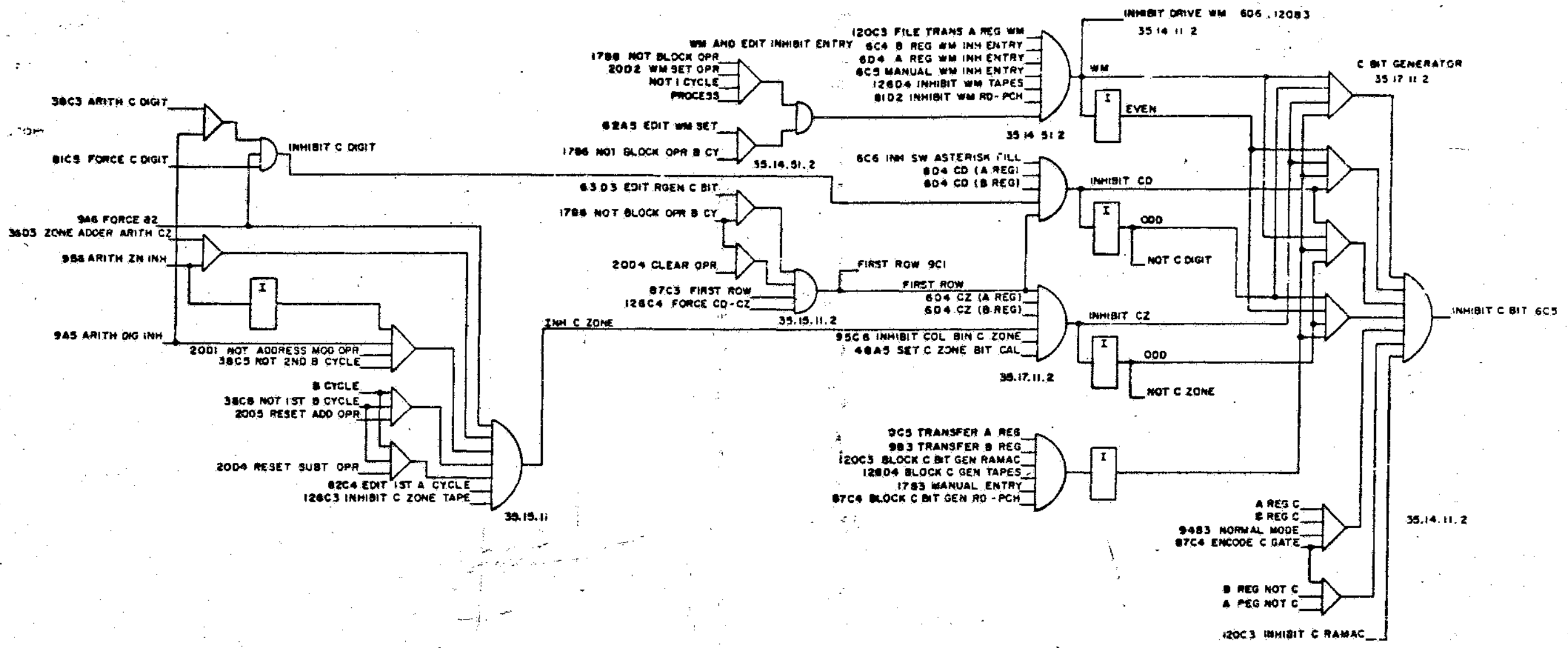
A

B

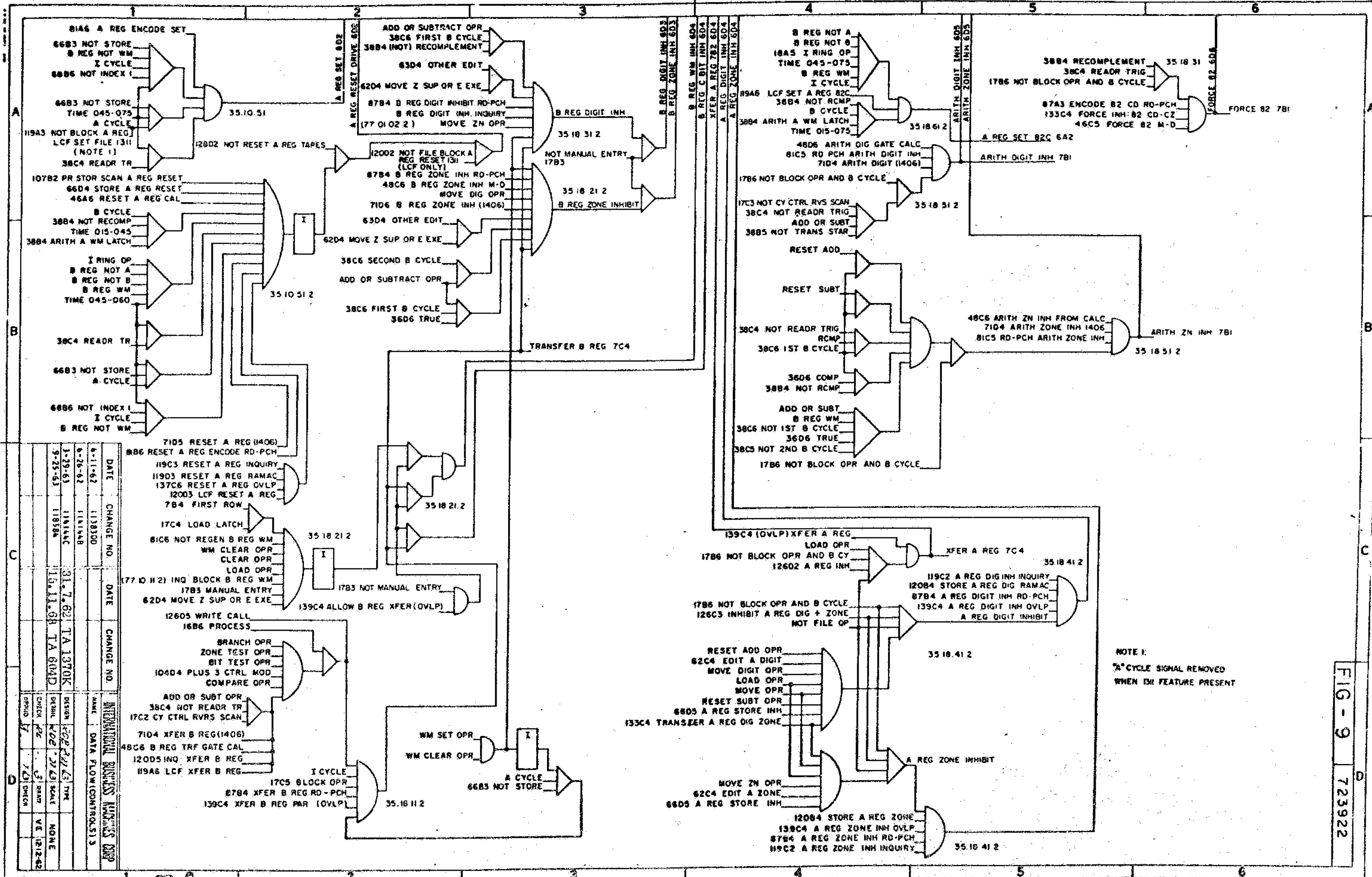
C

FIG-7 723920

DATE	CHANGE NO.	DATE	CHANGE NO.	OPERATIONAL BUSINESS MACHINES CORP
4-11-62	11810D	31-7-62	TA 1370K	NAME DATA FLOW 2 IC BIT GENERATOR
3-29-63	11811AC	4-6-63	TA 1862	
DESIGN	11811AC	1-29-64	TYPE	SCALE
ORIGIN	11811AC	1-29-64	TYPE	SCALE
CHKD	11811AC	1-29-64	TYPE	SCALE
APPROV	11811AC	1-29-64	TYPE	SCALE



723920

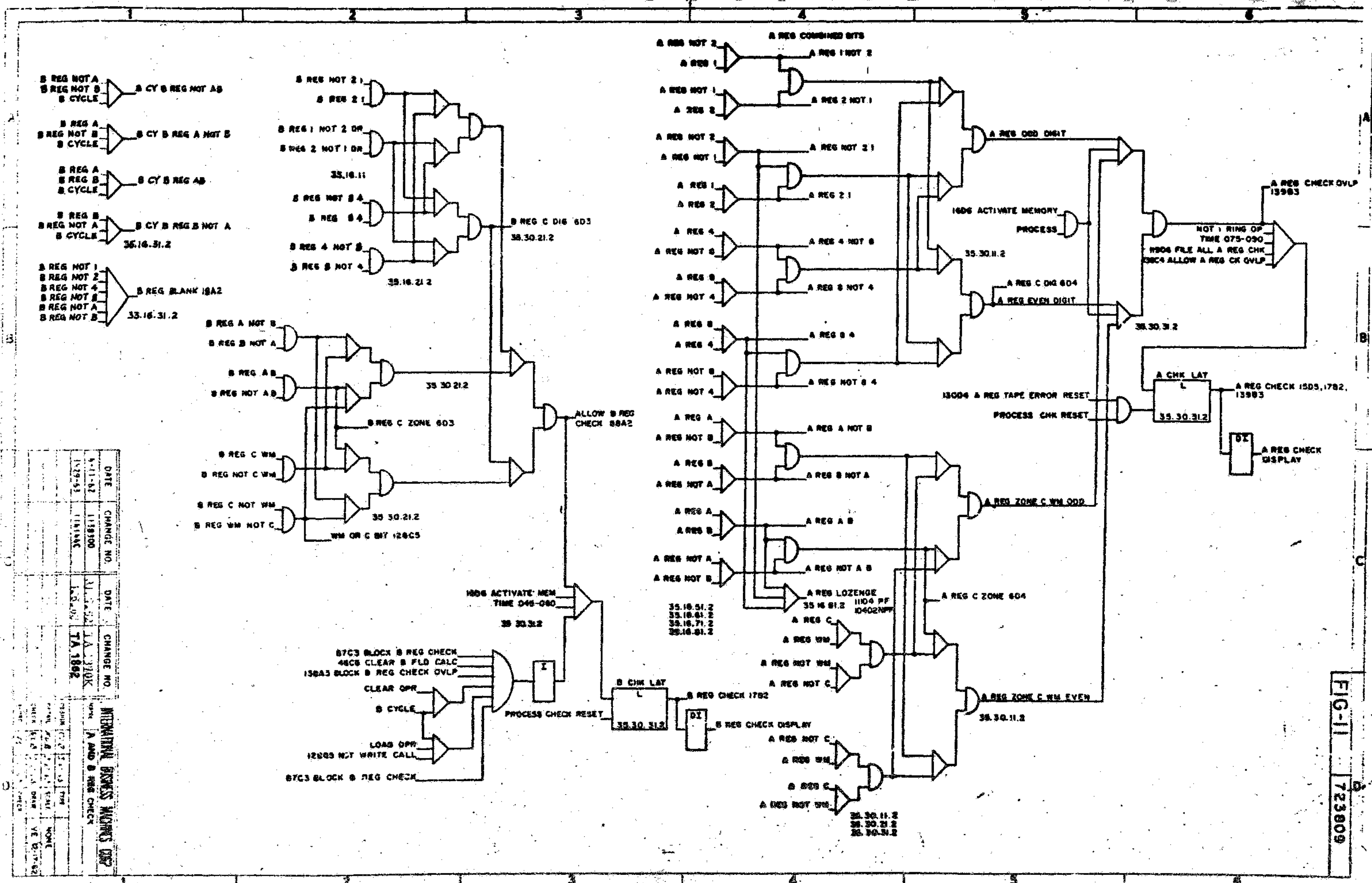


DATE	CHANGE NO.	DATE	CHANGE NO.
1-29-63	118144C	31.7.63	TA 1370K
9-25-63	11858A	10.11.63	TA 604D
6-26-62	118144B		
4-11-62	118130D		

NAME	DATA FLOW/CONTROL(S)
INTERNATIONAL BUSINESS MACHINES CORP	
DESIGN	202-27-63 TME
DETAIL	KOE 27-63 KAT
CHECK	3 BRANT
APPROV	VE 212-62

NOTE 1:
 *A CYCLE SIGNAL REMOVED
 WHEN ISI FEATURE PRESENT

FIG - 9 723922

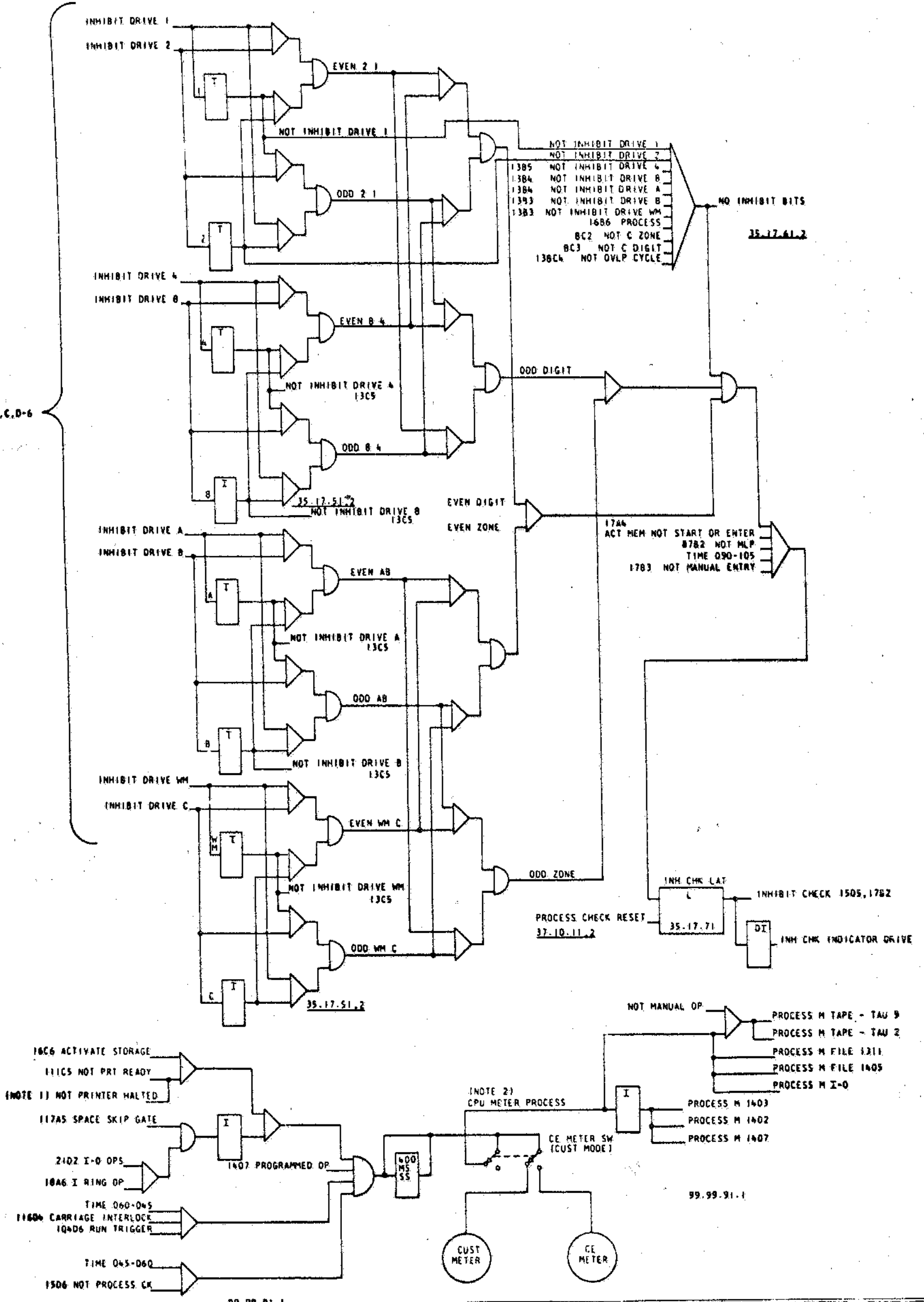


DATE		CHANGE NO.		DATE		CHANGE NO.	
5-11-62	119900	4-1-62	111000	4-1-62	111000	4-1-62	111000
1-29-62	111000	1-29-62	111000	1-29-62	111000	1-29-62	111000

RETURN	DATE	TIME	NOTE
11	4-1-62	11:00	INTERMITTENT BUSINESS MACHINES UNIT
12	4-1-62	11:00	A AND B REG CHECK

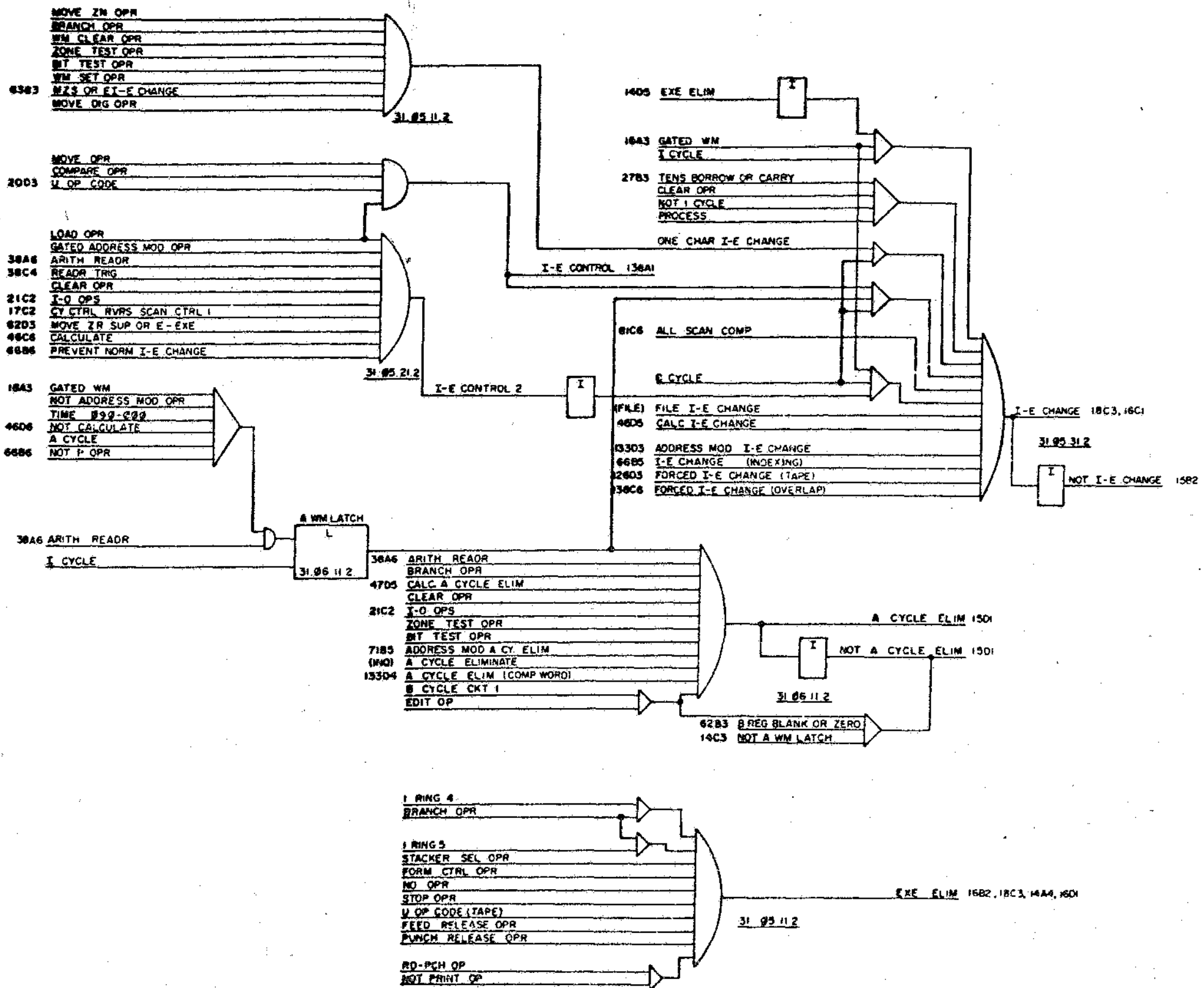
CHECK	DATE	TIME	NOTE
11	4-1-62	11:00	INTERMITTENT BUSINESS MACHINES UNIT

FIG-11 723809



NOTE 1: USED ON PF MACHINES BELOW SERIAL NUMBER 25,000
 2: OUTPUT OF SINGLE SHOT (400 M.L. SEC.) IS A NEGATIVE SIGNAL

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	11383CD			NAME INHIBIT CHECK AND METER CIRCUITS
6-2-63	114144C	31.7.62	TA 1370K	DESIGN TYPE
9-25-63	118584	15.11.63	TA 604D	DETAIL SCALE NONE
				CHECK DRAW VE 1-5-62
				APPRO CHECK MW 1-10-62

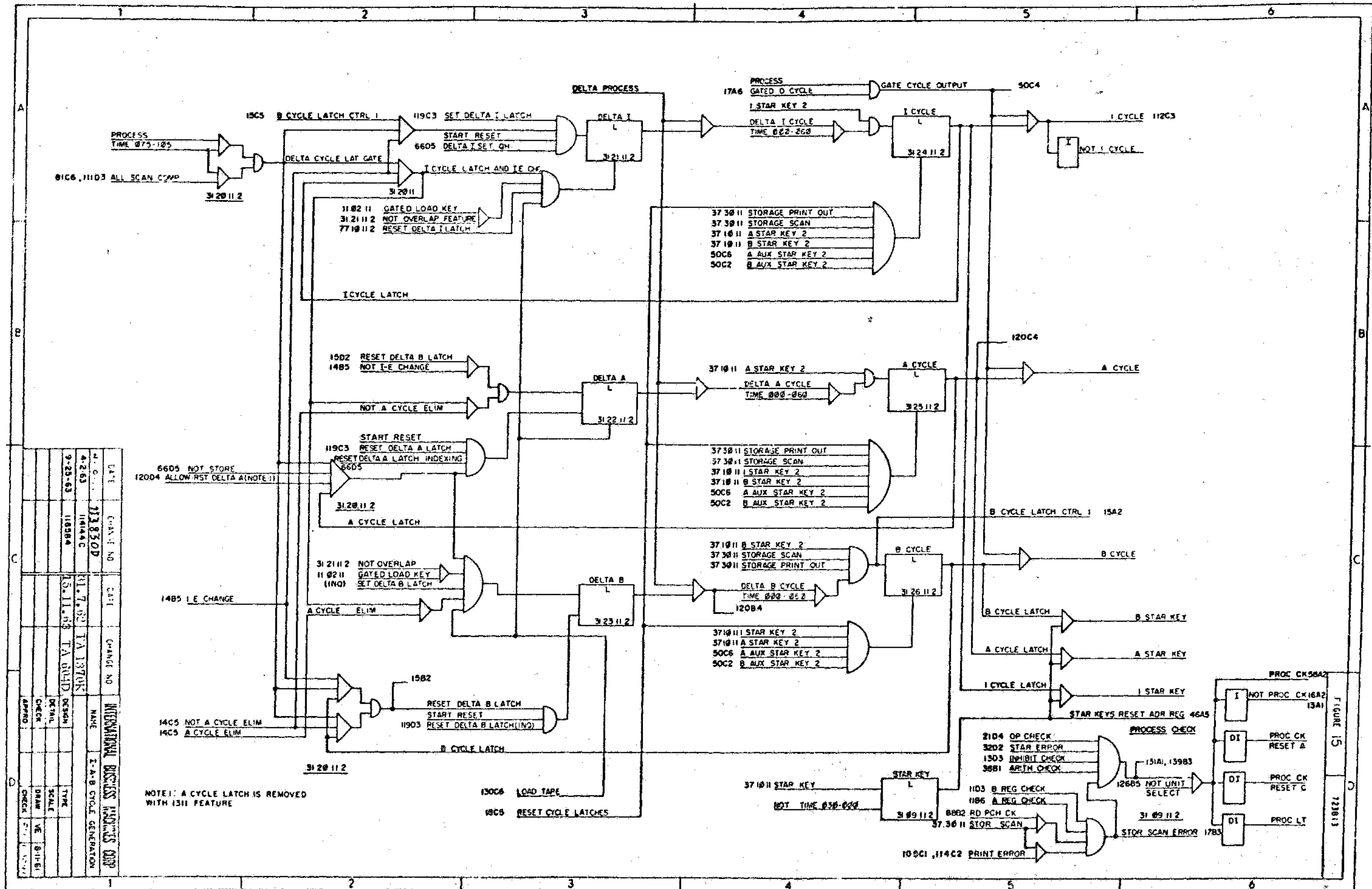


DATE	CHANGE NO.	DATE	CHANGE NO.
4-10-62	11380D	31-7-62	TA 1370K
4-2-63	11414C	4-6-63	TA 1892

DESIGN	CHECK	DETAIL	SCALE	TYPE
DESIGN	CHECK	DETAIL	SCALE	TYPE
DESIGN	CHECK	DETAIL	SCALE	TYPE

INTERNATIONAL BUSINESS MACHINES CORP.
NAME: I-E CHANGE: W & A CYCLE
ELIM EXEC ELIM

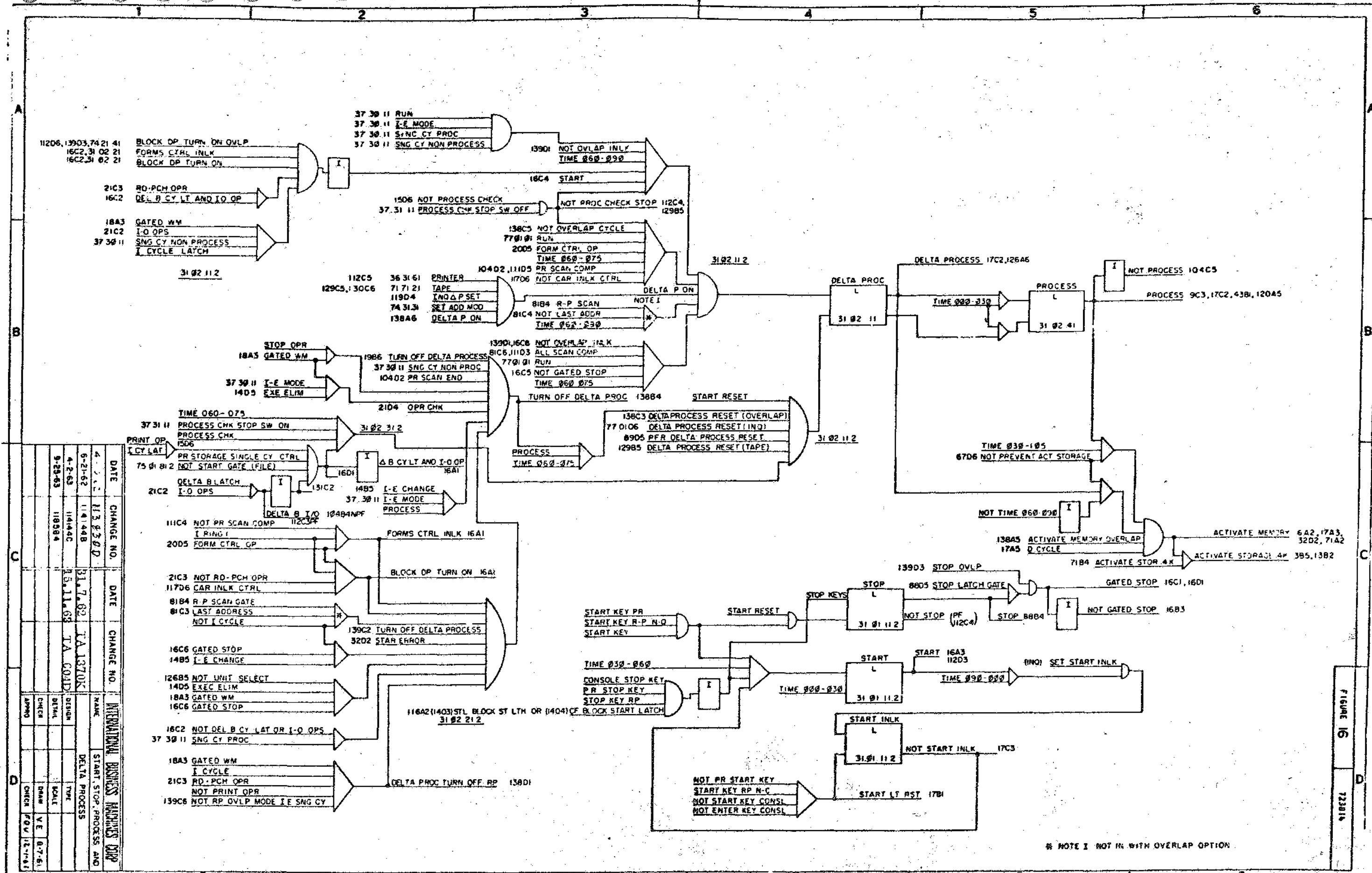
14904 14
22812



NOTE 1: A CYCLE LATCH IS REMOVED WITH 1311 FEATURE

DATE	CHANGE NO	CALL	CHANGE NO	NAME	TITLE
4-2-63	11830D	11844C	11858A	INTERATIONAL BUSINESS MACHINES CORP	I-T-B CYCLE GENERATION
9-23-63		11858A			
		11.7.62 TA 1370K			
		15.11.63 TA 044D			
				DESIGN	
				CHECK	
				APPRO	
				SCALE	
				DATE	
				TIME	
				VE	8-11-61
				CHECK	

FIGURE 15
721813



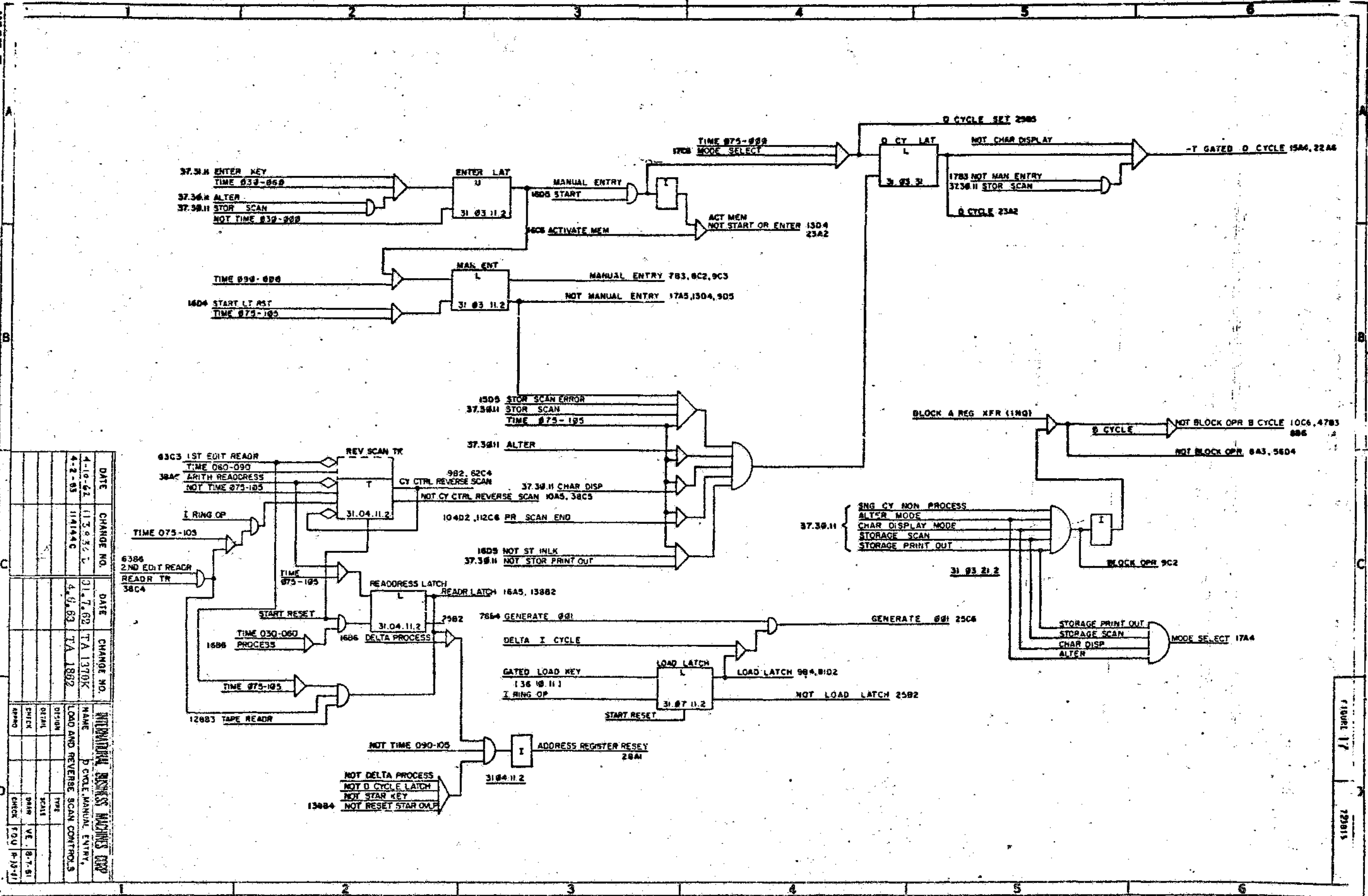
DATE	CHANGE NO.	DATE	CHANGE NO.
4-2-62	1138200	5-11-62	TA 1370C
5-21-62	114144B	5-11-62	TA 1370C
4-2-63	114144C	5-11-62	TA 1370C
5-23-63	118584	5-11-62	TA 1370C

NAME	START STOP PROCESS AND
INTERATIONAL BUSINESS MACHINES CORP	DELTA PROCESS
DESIGN	THE
SCALE	SCALE
DATE	DATE
BY	BY
CHECKED	CHECKED
DATE	DATE

723814

FIGURE 16
723816

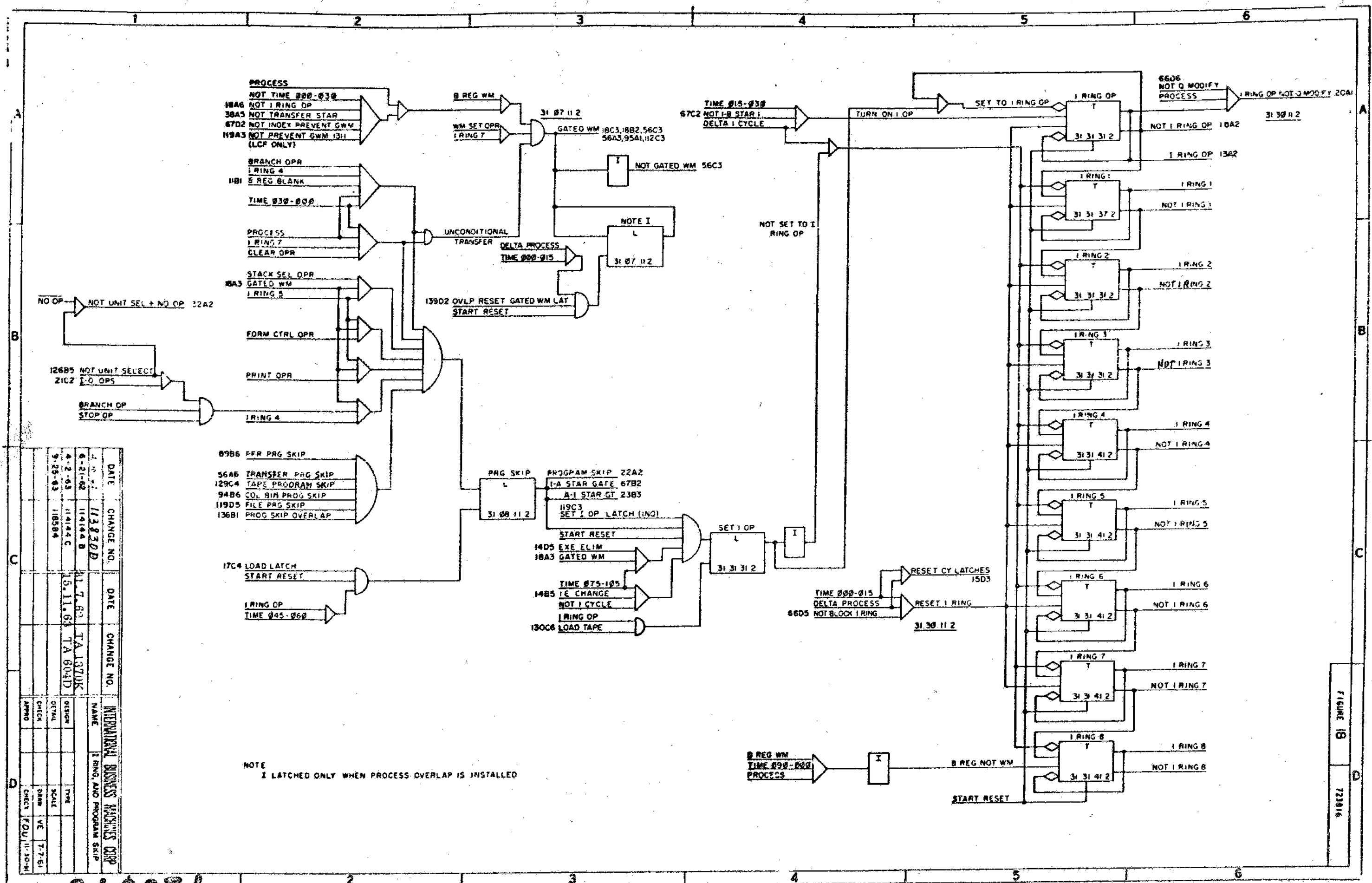
* NOTE I NOT IN WITH OVERLAP OPTION



DATE	CHANGE NO.	DATE	CHANGE NO.	NAME	LOAD AND REVERSE SCAN CONTROL'S
4-10-62	115432	31.7.62	TA 1370K		
4-2-63	114144C	4.6.63	TA 1892		

DATE	CHANGE NO.	DATE	CHANGE NO.	NAME	LOAD AND REVERSE SCAN CONTROL'S

FIGURE 17
220115



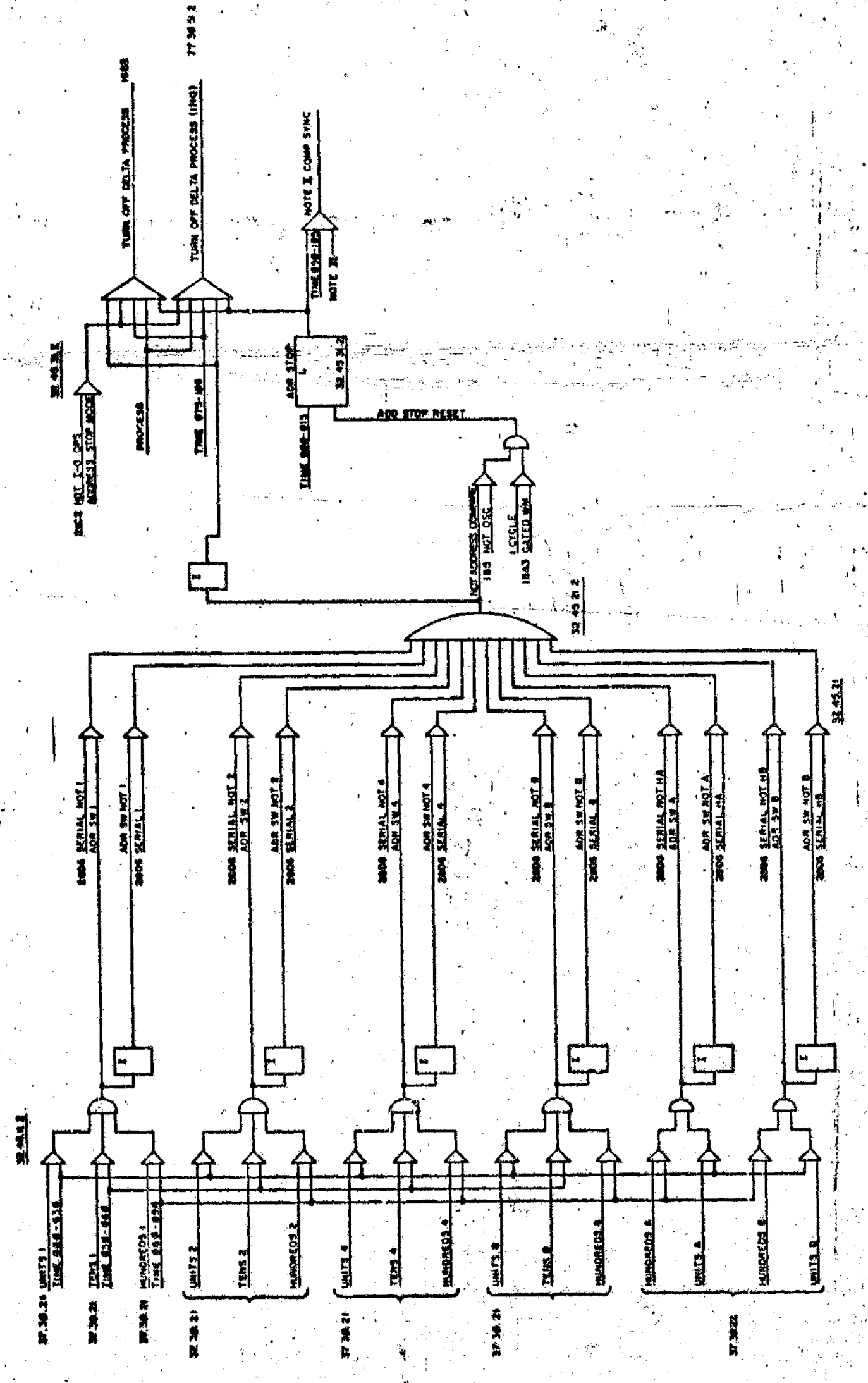
DATE	CHANGE NO.	DATE	CHANGE NO.	NAME	TYPE
6-21-62	113830B	11-7-63	TA 1370K	INTERNATIONAL BUSINESS MACHINES CORP	
4-2-63	114144 B	15-11-63	TA 6041D	I RING AND PROGRAM SKIP	
9-25-63	118584				

DESIGN	CHECK	APPROV	SCALE	DATE
				7-7-61
				FOU 11-20-61

FIGURE 18
723816

723816

FIGURE 19 723817



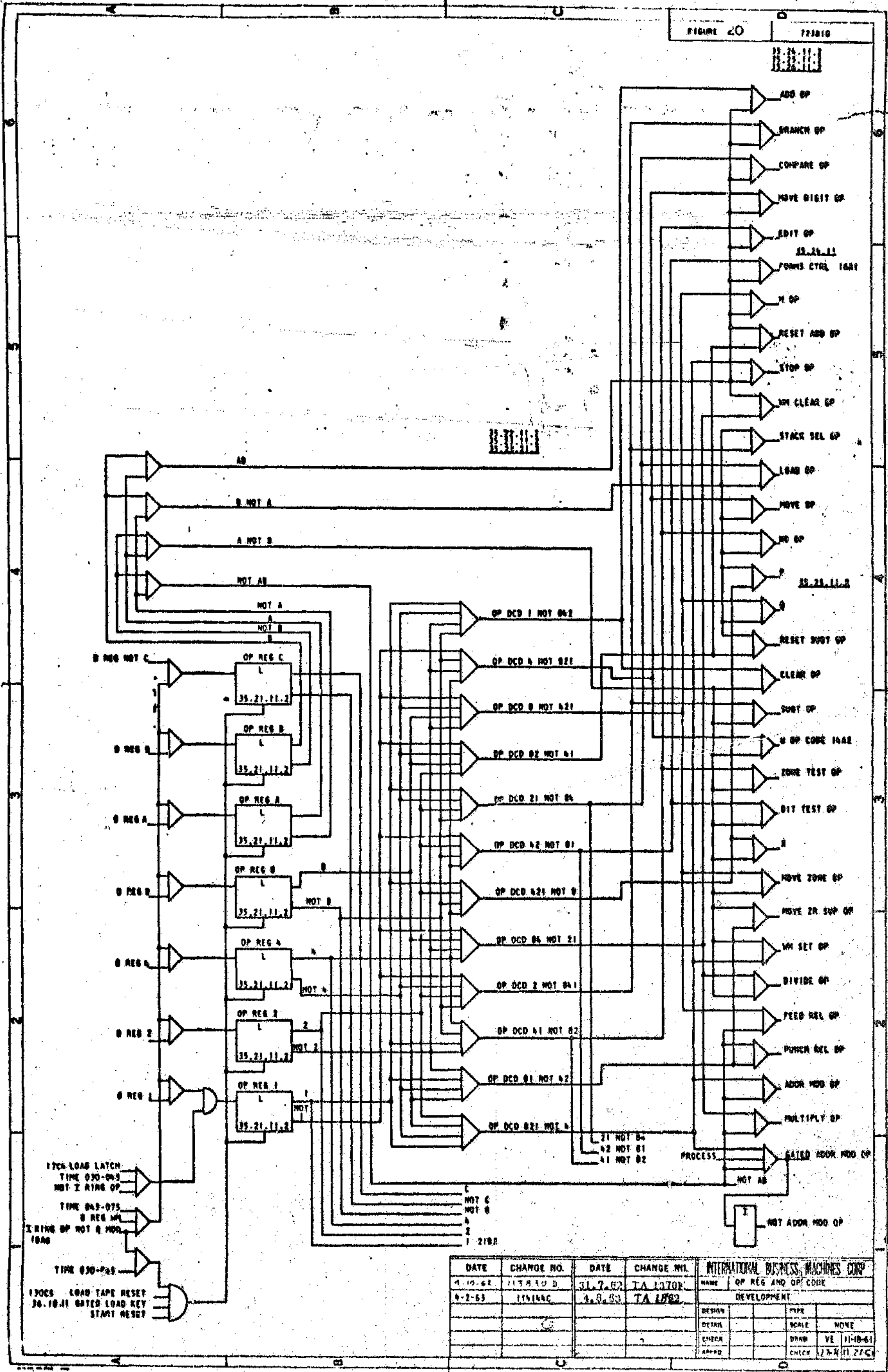
NOTE
 X AVAILABLE AS CE SCORE SYNC POINT (1844)
 Y CAN BE 3 INPUT SWITCH SEE LOGIC 32-45 21 2

DATE	CHARGE NO.	DATE	CHARGE NO.	INTERNATIONAL BUSINESS MACHINES CORP	
4-2-62	1138 To D	11-7-62	TA-142708	NAME	ADDRESS STOP
4-2-63	11414C	8-4-63	TA-1882	DESIGN	TYPE
				DETAIL	SCALE
				CHKD	DRWN VE 8-8-61
				APPRO	CHEK

1862
 723817

FIGURE 20

723818



1700s LOAD LATCH
TIME 030-043
NOT Z RING OP

TIME 043-075
B REG M

1700s OP NOT Q MOD
1680

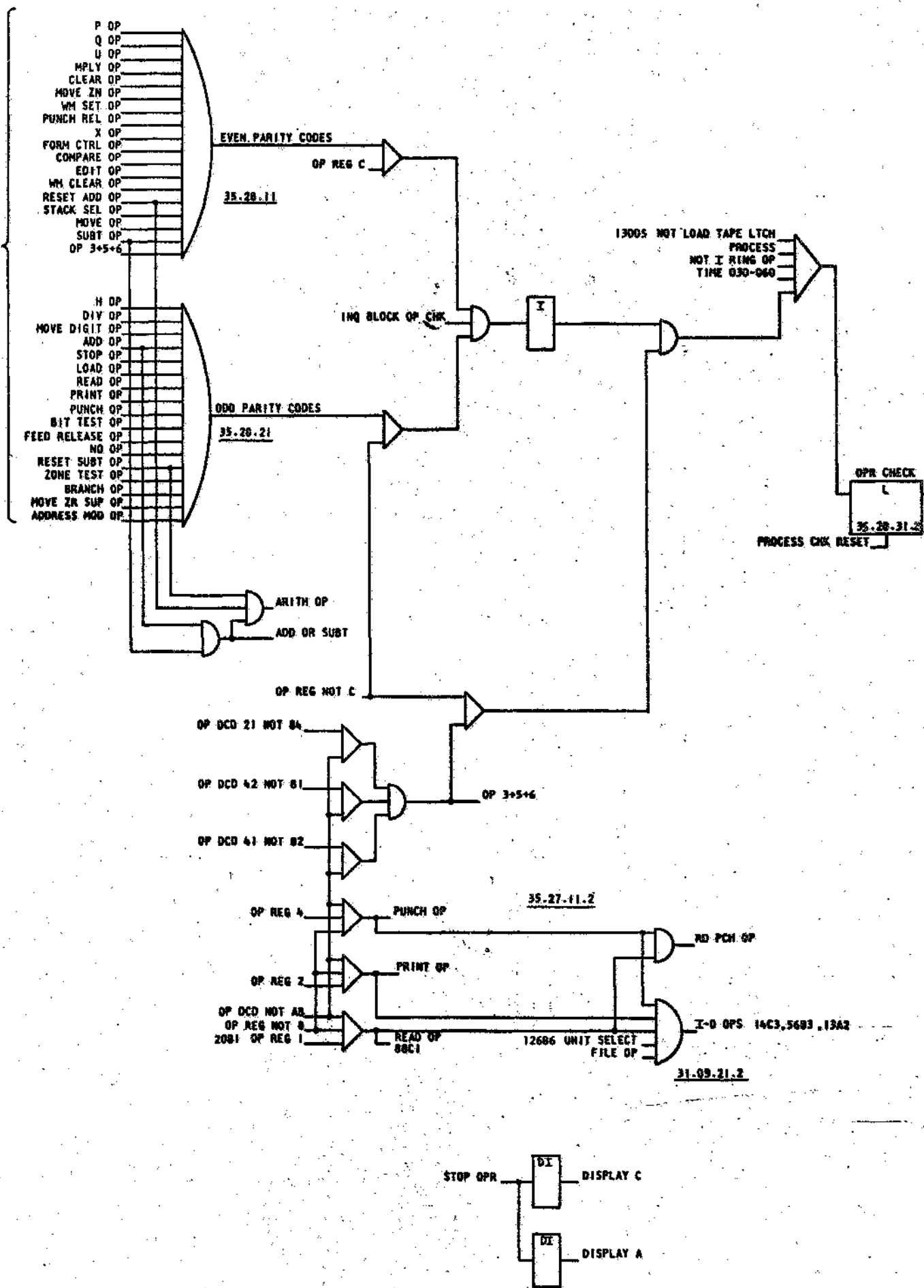
TIME 030-043

1700s LOAD TAPE RESET
26.10.11 GATED LOAD KEY
START RESET

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
1-15-62	117830 D	31.7.62	TA 1370K	NAME OP REG AND OP CODE
4-2-63	117830 C	4.8.63	TA 1372	DEVELOPMENT
				DESIGN
				DETAIL
				CHECK
				APPD
				TYPE
				SCALE NONE
				DRAW VE 11-10-61
				CHECK 12.4.11.27C

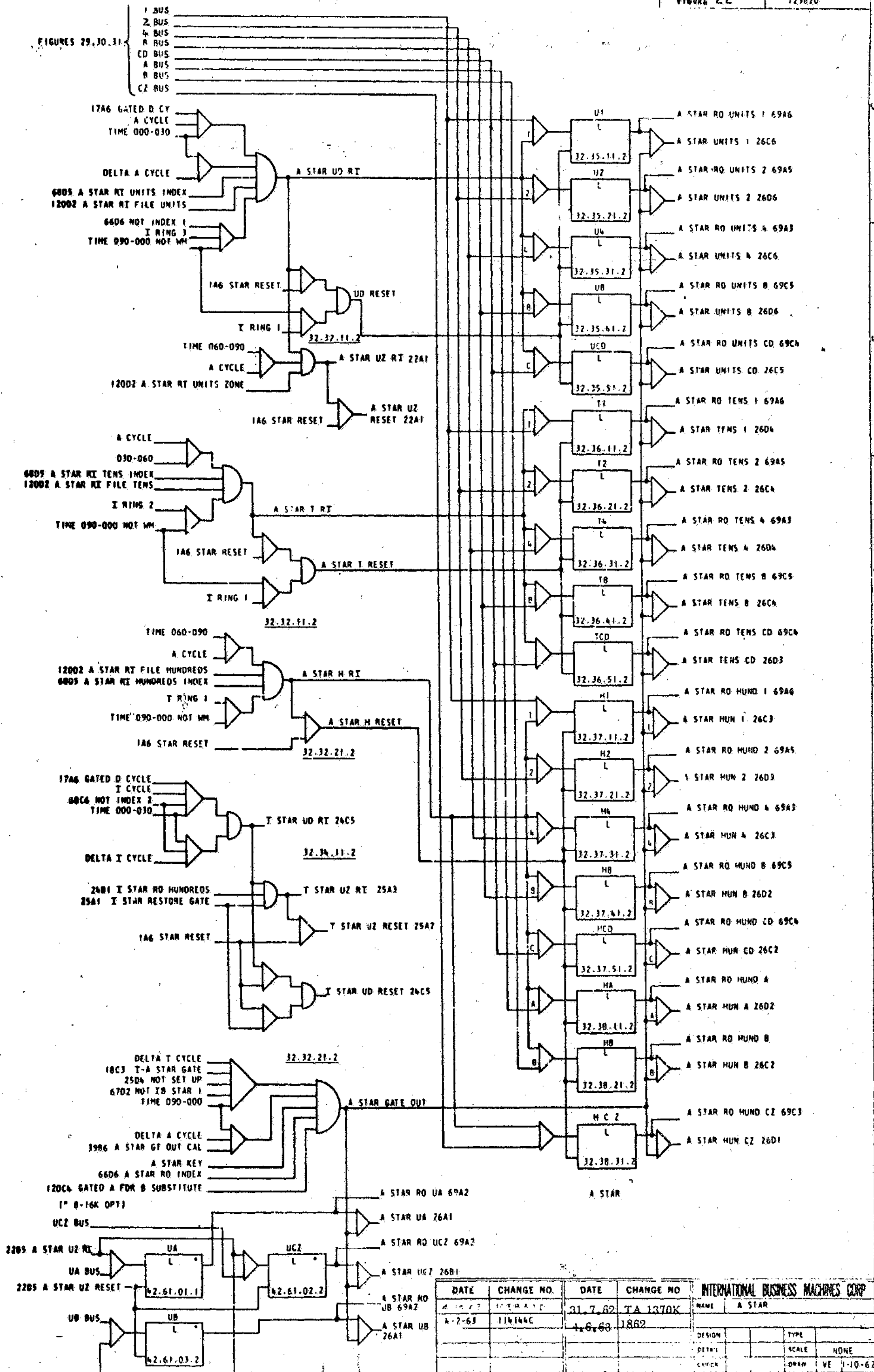
1862
723818

FROM FIGURE 20



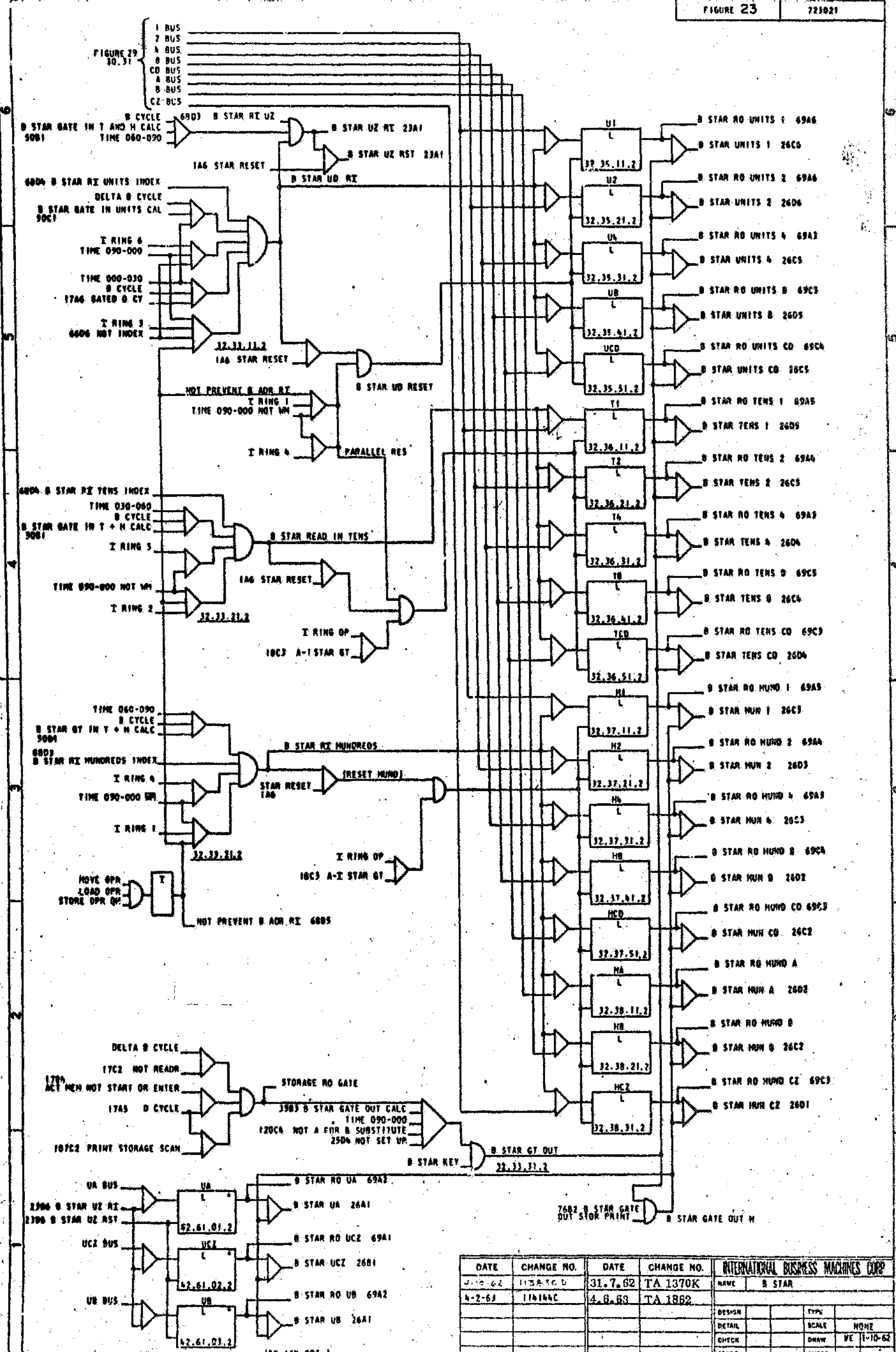
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.			
4-10-62	113830 D			NAME			
6-2-63	114144C	31.7.62	TA 1370K	OP CHECK			
9-25-63	118584	15.11.63	TA 604D	DESIGN	TYPE	SCALE	NOTE
				CHECK	DATE	BY	NO.
				APPROV		CHECK	DATE

723819



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-1-62	114142	31-7-62	TA 1370K	NAME	A STAR		
4-7-62	114144C	4-6-68	1862	DESIGN		TYPE	
				DETAILED		SCALE	NONE
				CHECK		DRAW	VE 1-10-62

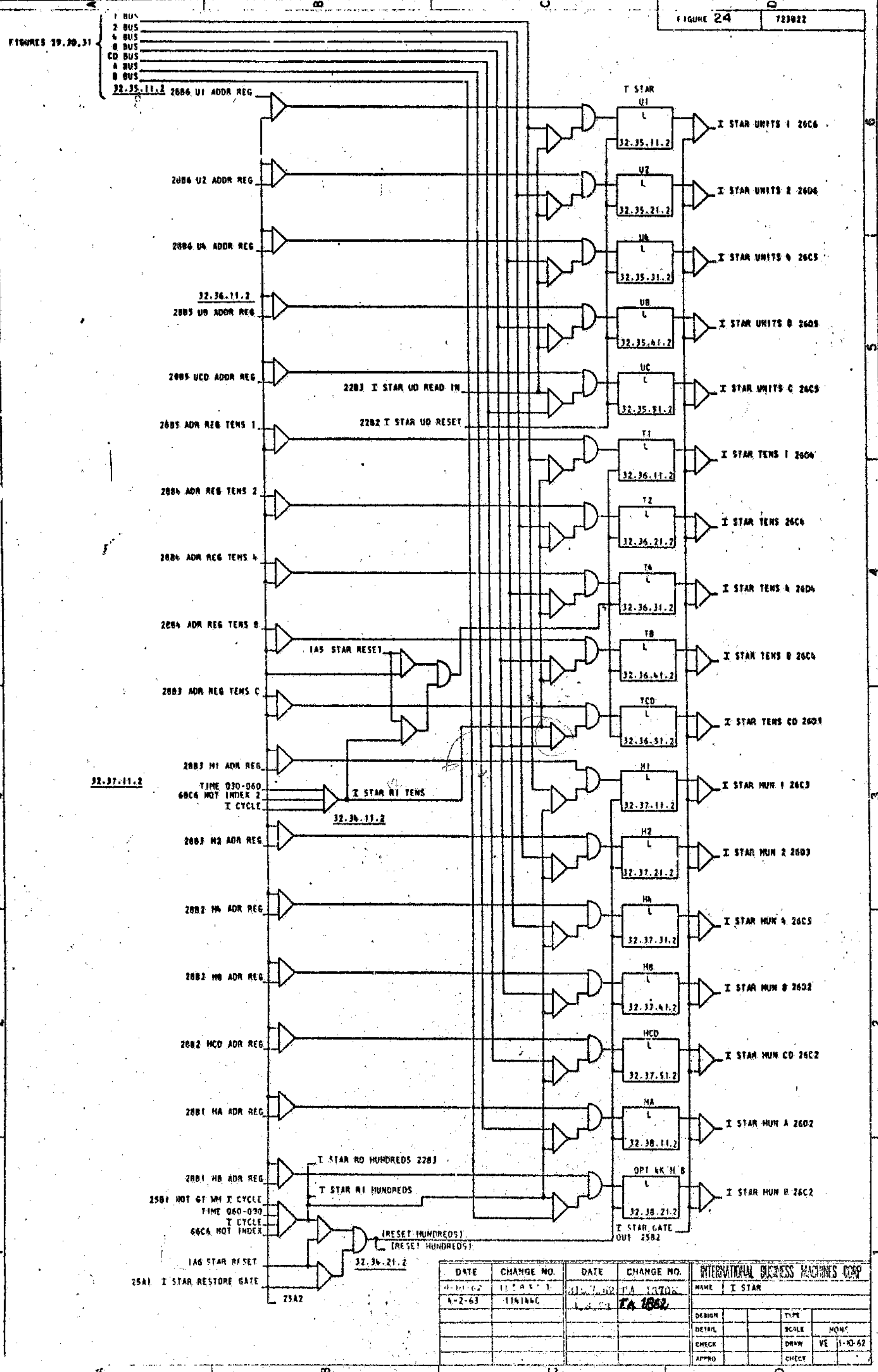
723020



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
3-1-62	113A90D	31.7.62	TA 1370K	NAME B STAR
4-2-63	114144C	4.8.63	TA 1862	DESIGN
				DETAIL
				CHECK
				APPRO

170871

FIGURE 24 723022



FIGURES 19, 20, 31

- 1 BUS
- 2 BUS
- 4 BUS
- 8 BUS
- CD BUS
- A BUS
- B BUS
- 32.35.11.2 2086 U1 ADDR REG

32.37.11.2
 TIME 030-060
 60C6 NOT INDEX 2
 I CYCLE
 I STAR RI TENS

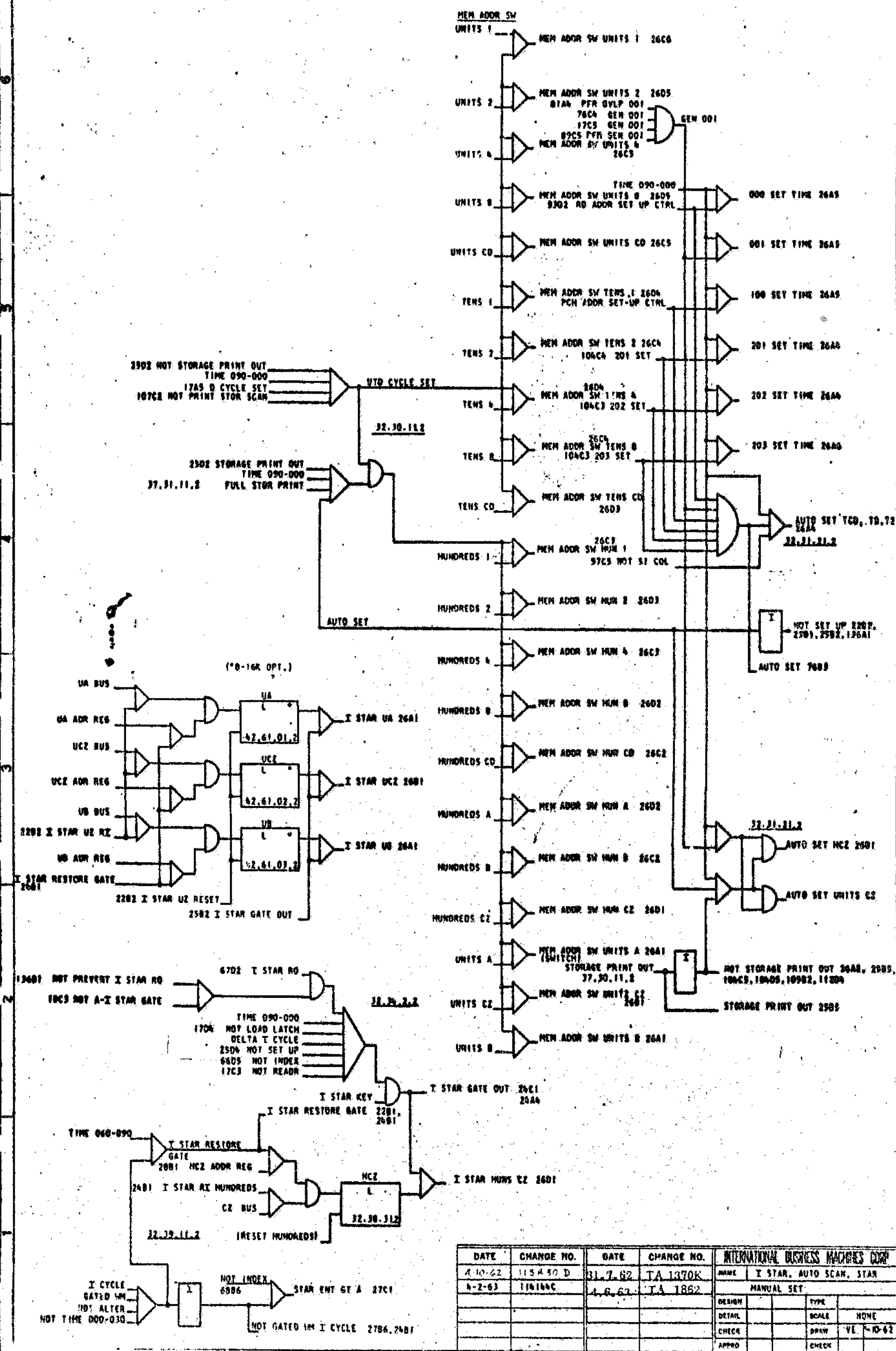
25A1 I STAR RESTORE GATE
 73A2
 (RESET HUNDREDS)
 (RESET HUNDREDS)
 32.36.21.2

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	11241-1	11-27-62	1A 13706	NAME	I STAR		
4-2-63	11241-2		1A 1852	DESIGN		TYPE	
				DETAIL		SCALE	MONO
				CHECK		DRAWN	VE 1-10-62
				APPRO		CHECK	

4862
723022

FIGURE 25

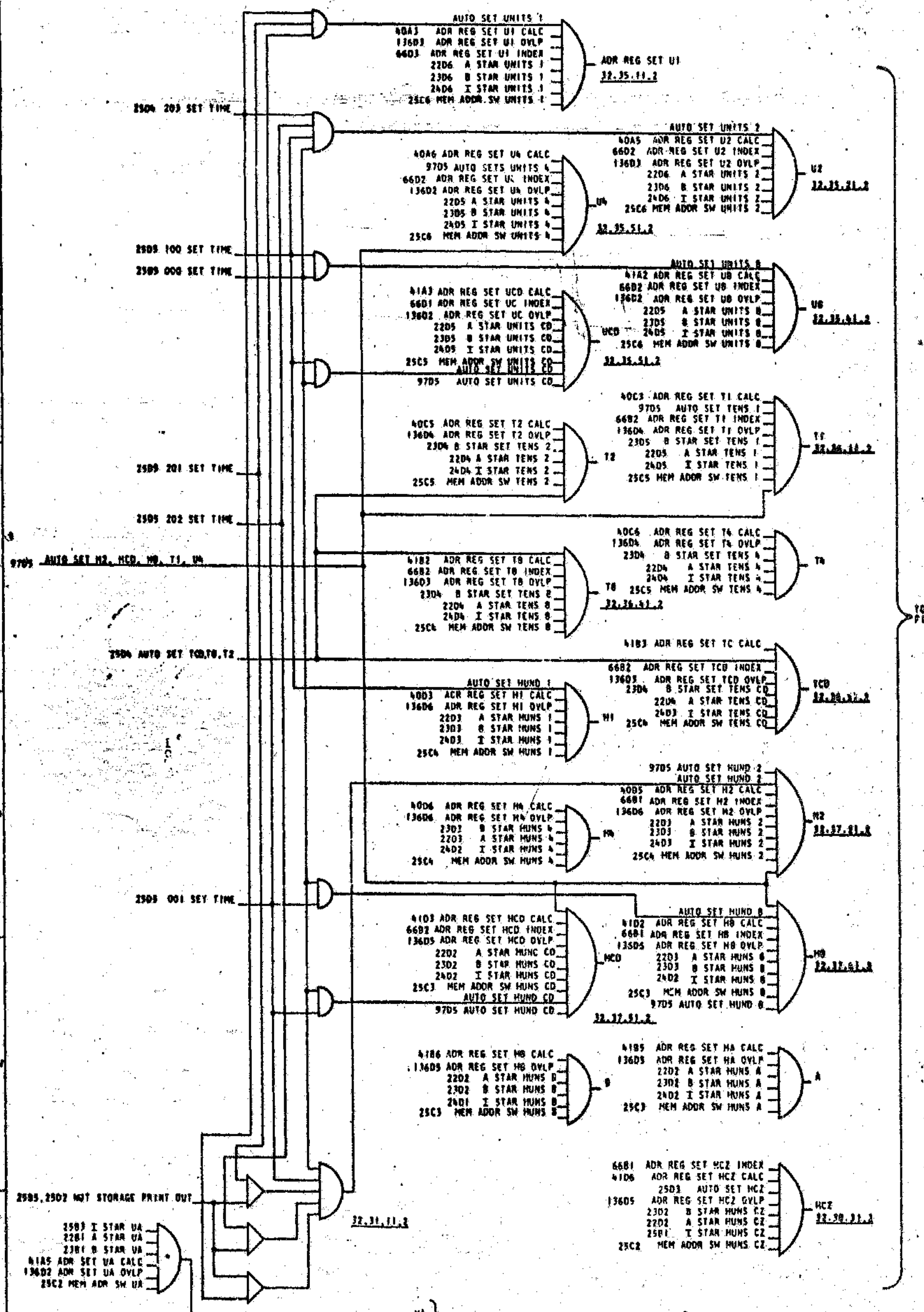
723823



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.
4-10-62	115430 D	31-7-62	TA 1370K	NAME I STAR, AUTO SCAN, STAR
4-2-63	116144C	4-6-63	TA 1862	MANUAL SET
				DESIGN
				TYPE
				DETAIL
				SCALE NONE
				CHECK
				DRAW VE 7-10-62
				APPRO
				CHECK

1062
 723823

AUTO_SCAN_SET_UP



2503 I STAR UA
2281 A STAR UA
2381 B STAR UA
41A5 ADR SET UA CALC
13602 ADR SET UA OVLP
25C2 MEM ADR SW UA

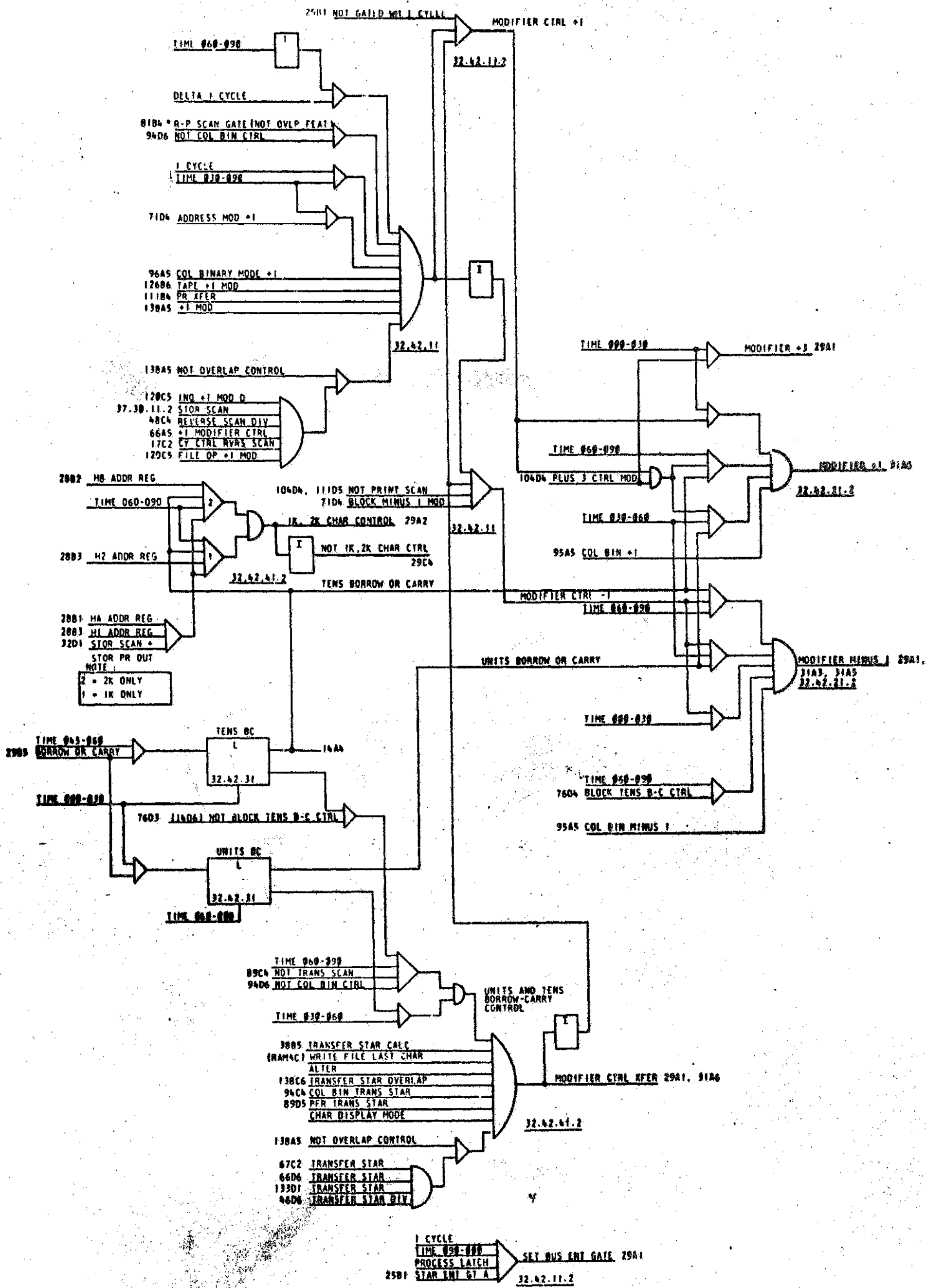
2503 I STAR UB
2281 A STAR UB
2381 B STAR UB
41A6 ADR SET UB CALC
13601 ADR SET UB OVLP
25C2 MEM ADR SW UB
(*8-16K OPT)

2503 I STAR UC2
2281 A STAR UC2
2381 B STAR UC2
41D5 ADR SET UC2 CALL
13601 ADR SET UC2 OVLP
25C2 MEM ADR SW UC2
2502 AUTO SET UC2
66B2 ADR SET UC2 INDEX

FIGURE 26

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.
4-10-62	115850 D	31.7.62	TA 1370K	NAME ADR REG SET CONTROLS
4-2-63	131946 C	4.6.63	TA 182	DESIGN
				DETAIL
				CHECK
				APPRO
				TYPE
				SCALE
				NOTE
				DRAW
				VE 1-10-62
				CHECK

723824



*REMOVE WITH OVERLAP FEATURE

INTERNATIONAL BUSINESS MACHINES CORP			
DATE	CHANGE NO.	DATE	CHANGE NO.
31.7.62	TA 1870K	4.6.63	TA 1862
4-2-63	116144C		
NAME	MODIFIER CONTROLS	DESIGN	TYPE
		DETAIL	SCALE
CHECK		DRAW	VL 7-13-61
APPRO		CHECK	ED 11 30 61

723826

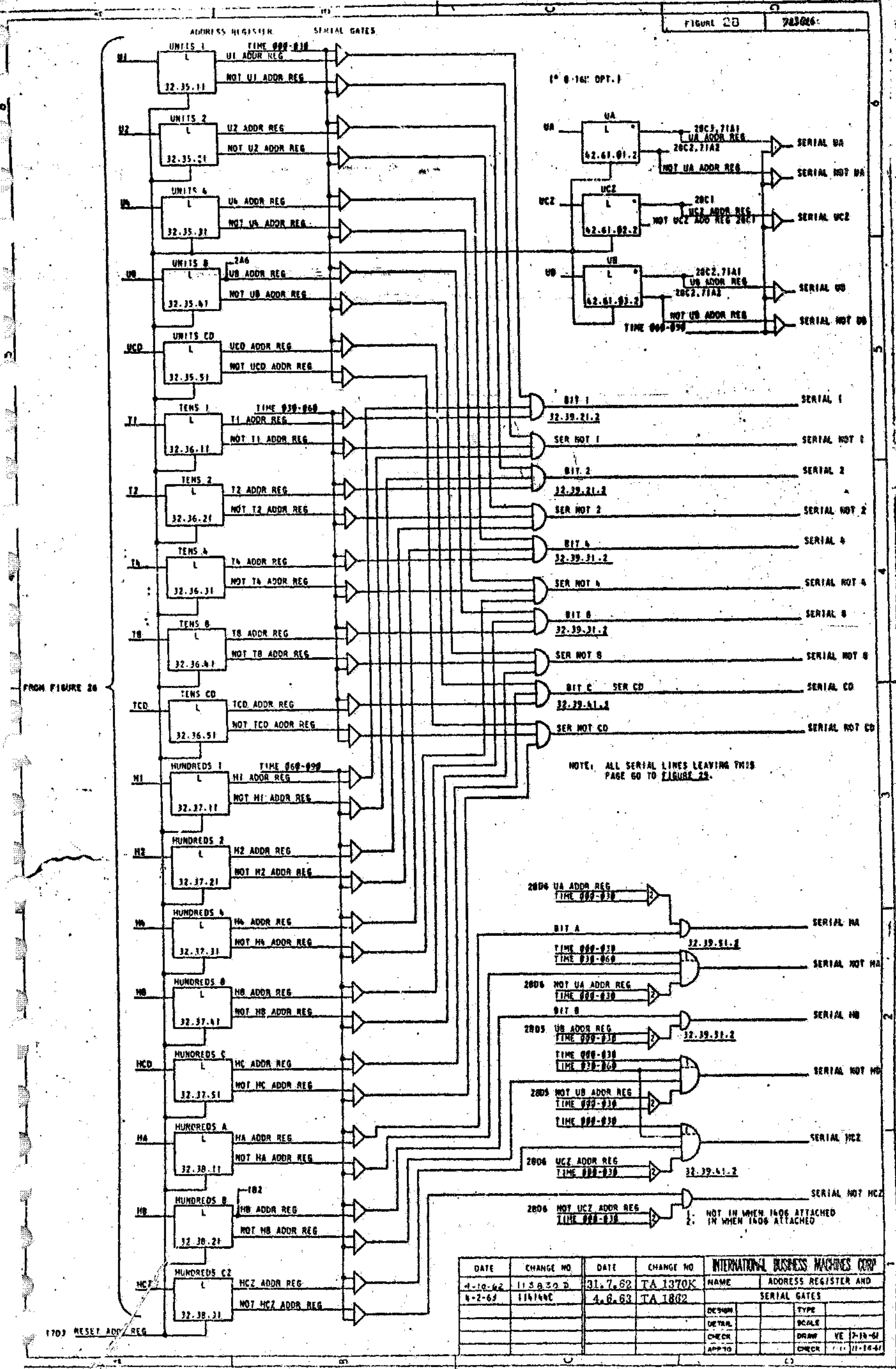


FIGURE 22 723826

FROM FIGURE 20

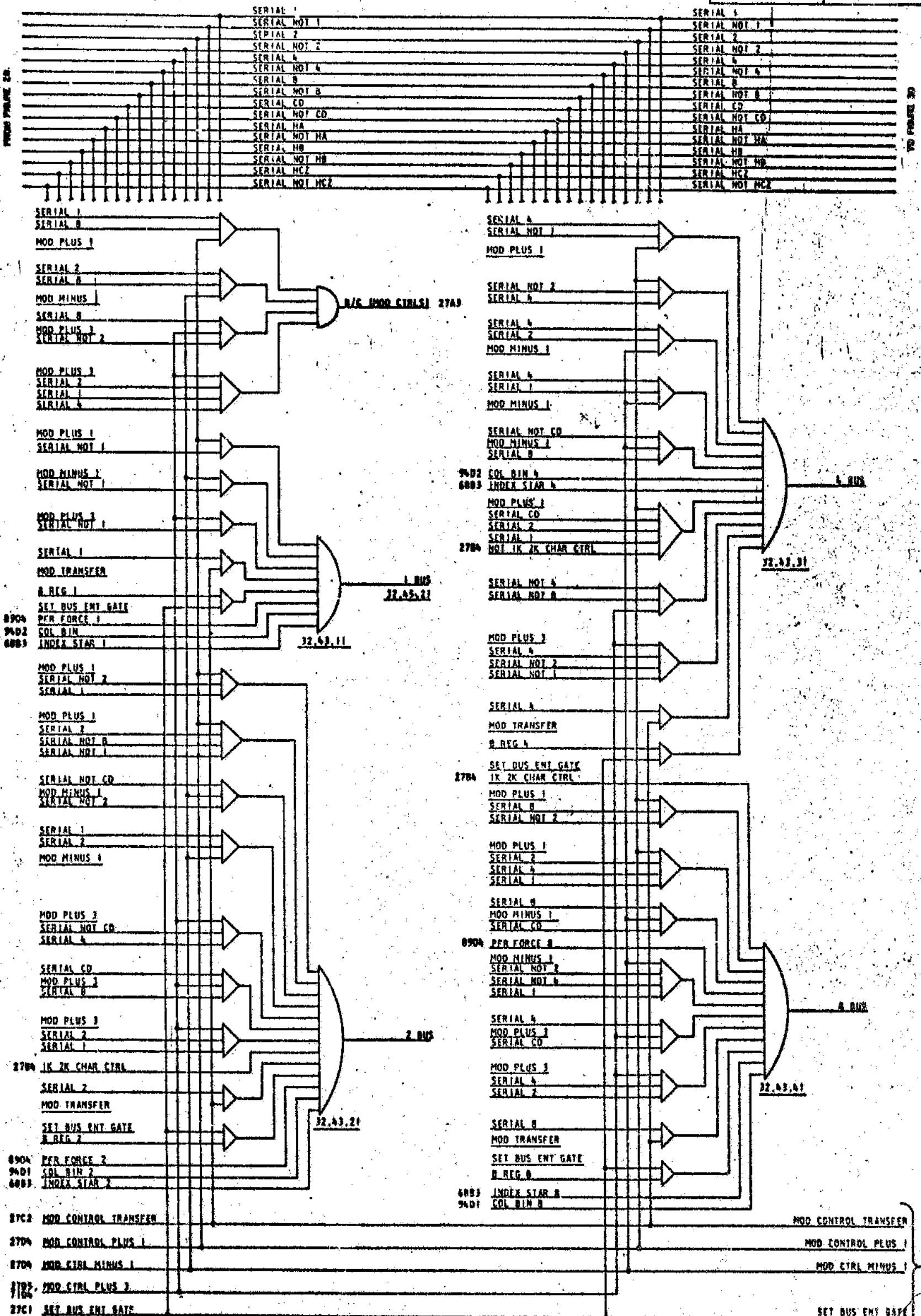
NOTE: ALL SERIAL LINES LEAVING THIS PAGE GO TO FIGURE 22.

DATE		CHANGE NO		INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113830 D	31.7.62	TA 1370K	NAME	ADDRESS REGISTER AND
4-2-62	114140C	4.6.62	TA 1802	SERIAL GATES	
				DESIGN	TYPE
				DETAILED	SCALE
				CHECK	DRAWN VE 7-18-61
				APPRO	CHECK 11-16-61

723826

1862

FIGURE 29 723827

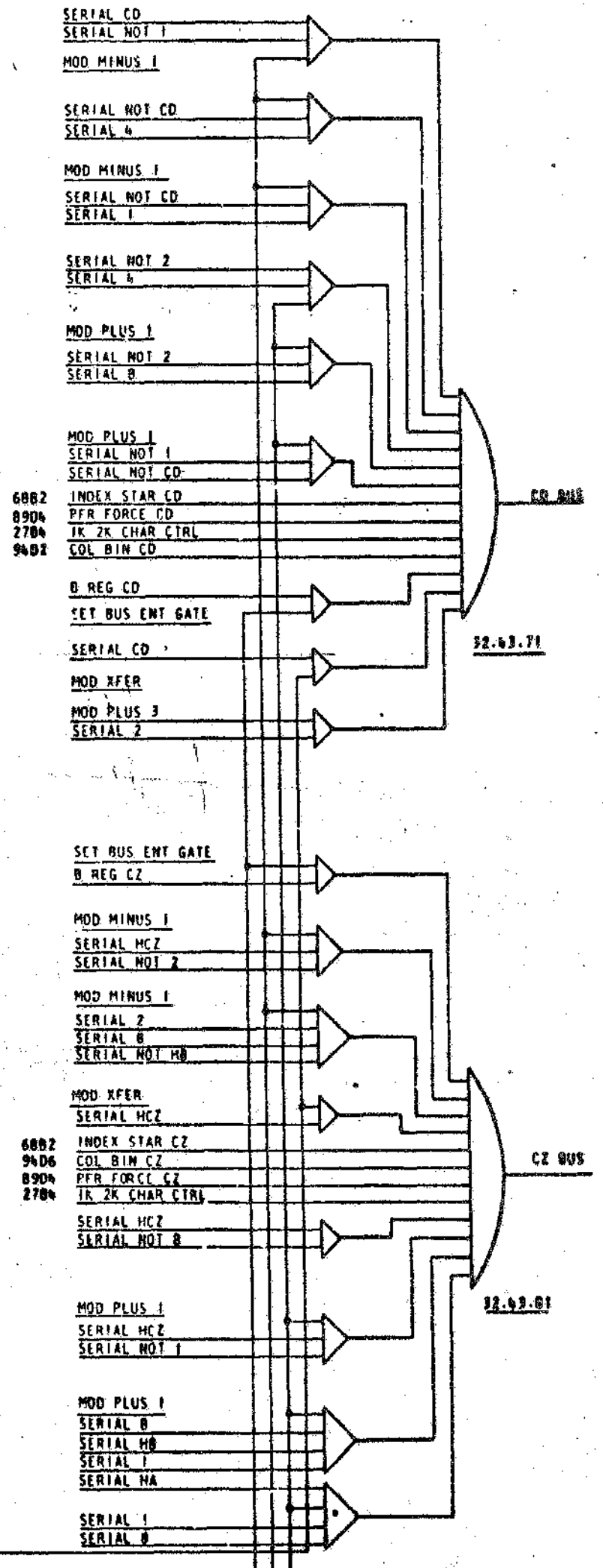
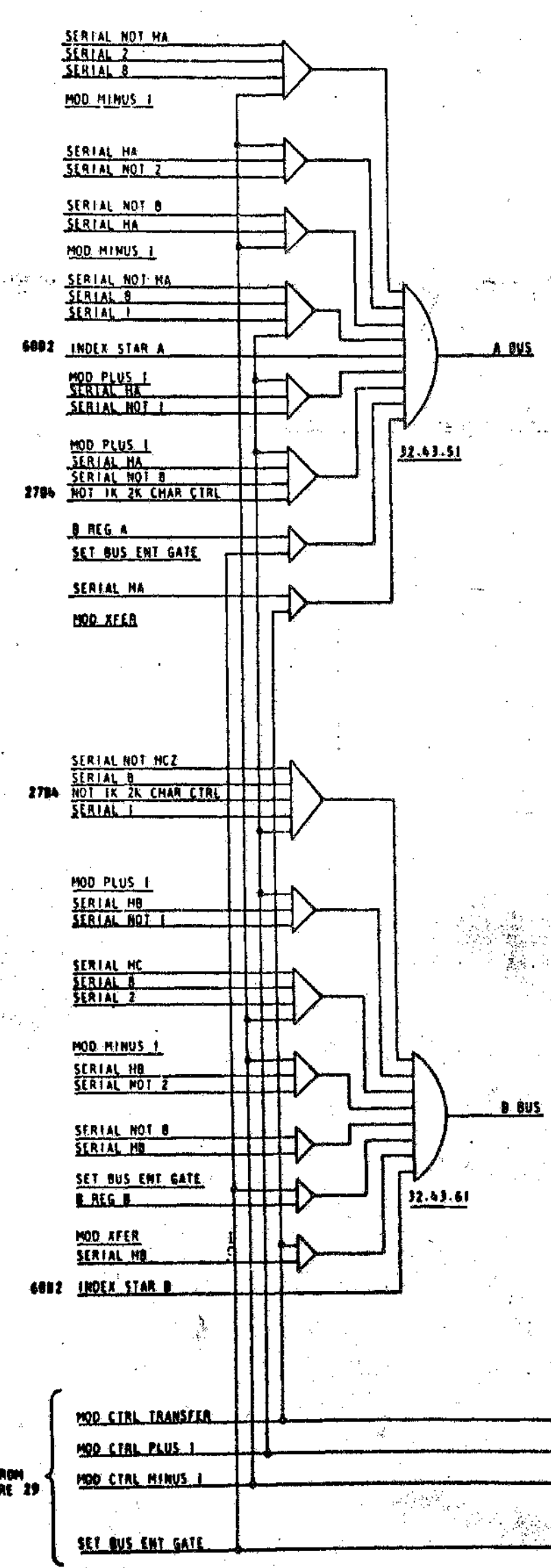
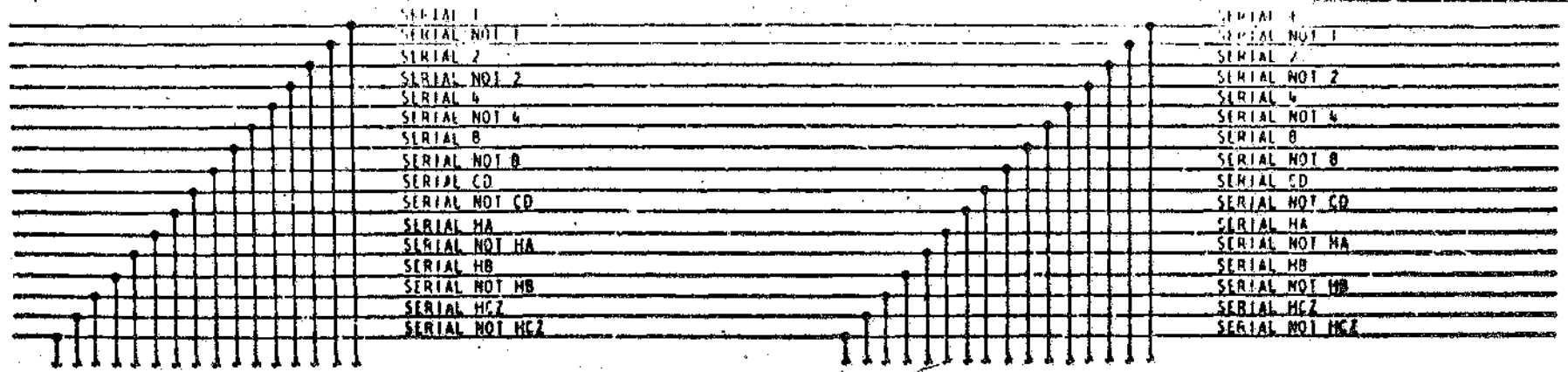


DATE	CHANGE-NO	DATE	CHANGE NO	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	114830 D	31.7.62	TA 1370K	NAME MODIFIER 1-2-4-B BUS
4-2-63	114744C	4.6.63	TA 1882	
				DESIGN
				TYPE
				DETAIL
				SCALE
				CHECK
				DRAWN
				VP 7-13-61
				APPROD
				CHECK
				FDU 11-30-61

723827

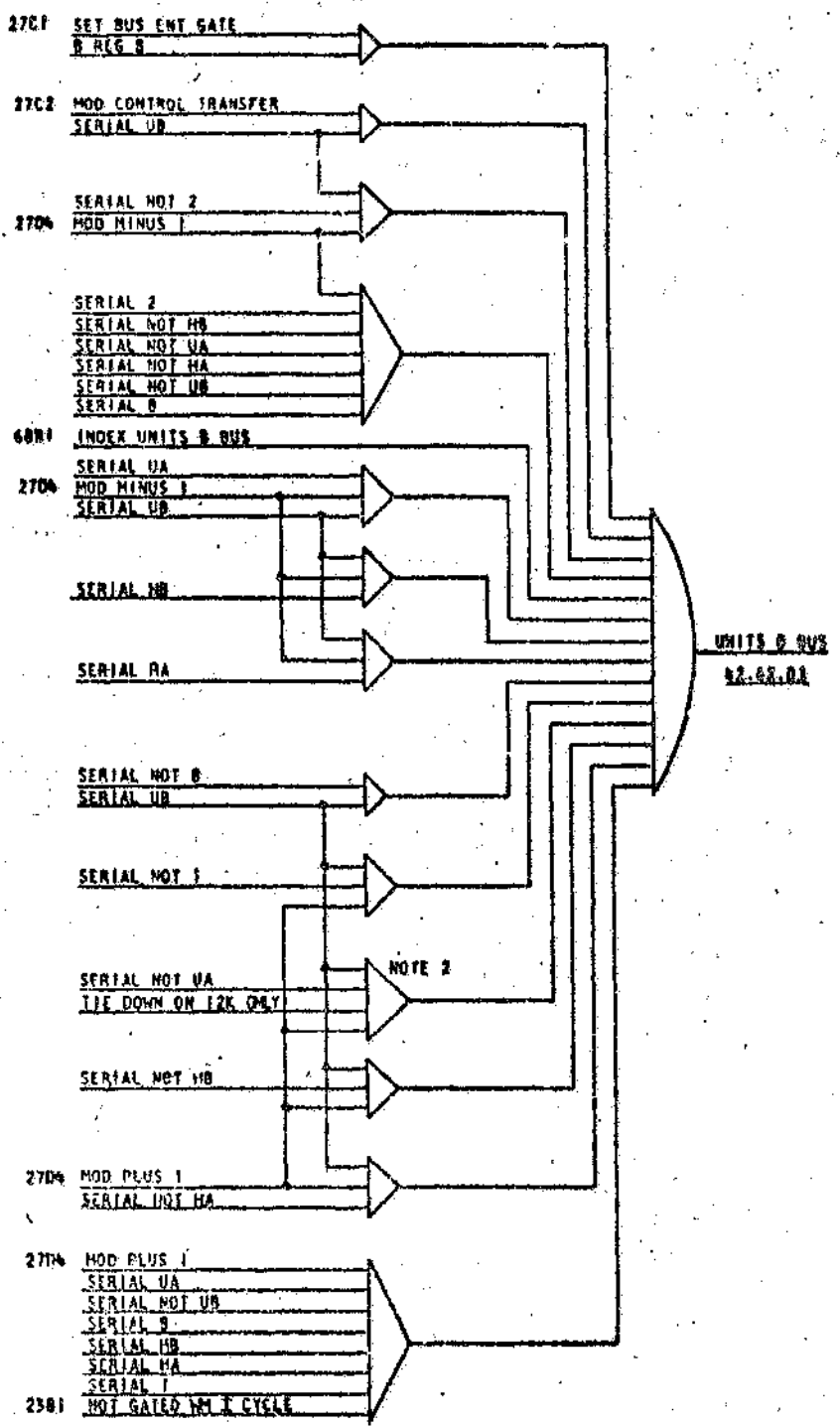
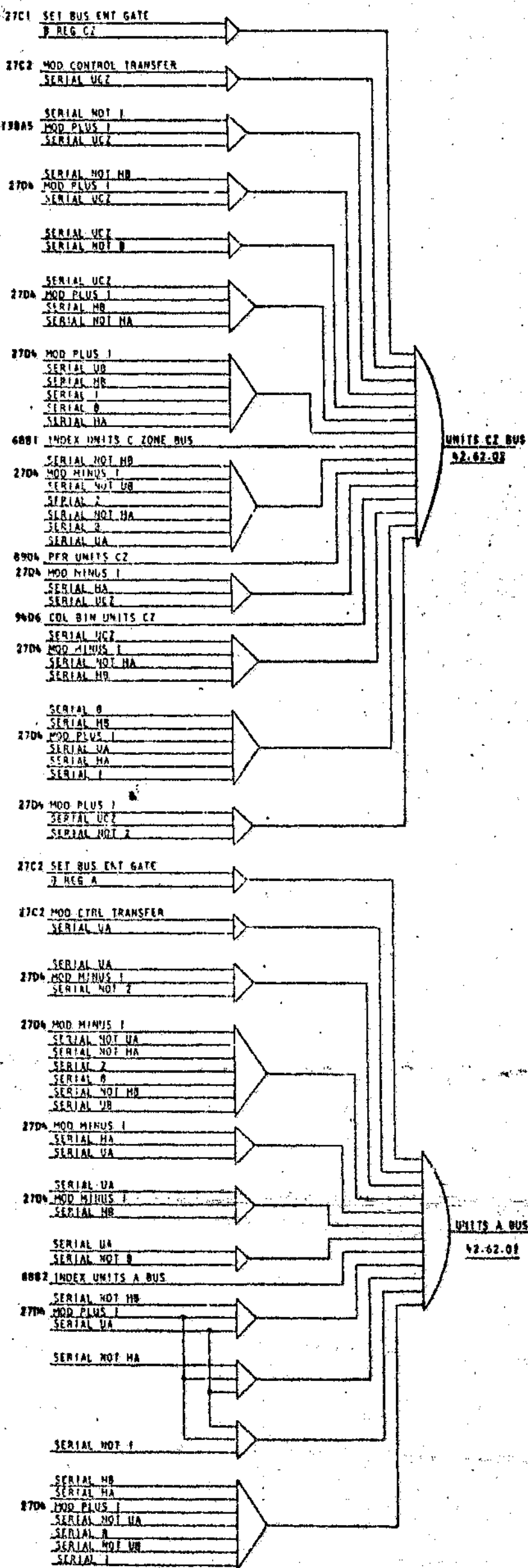
FROM FIGURE 29

TO FIGURE 31, 32



FROM FIGURE 29

INTERNATIONAL BUSINESS MACHINES CORP				NAME		MODIFIER CD-A-B-CZ	
DATE	CHANGE NO	DATE	CHANGE NO	BUS			
4-10-62	113830 D	31.7.62	TA 1370K	DESIGN		TYPE	
4-2-63	114144 C	4.6.63	TA 1862	DETAIL		SCALE	
				CHECK		DRAW	VE 7-15-61
				APPRO		CHECK	



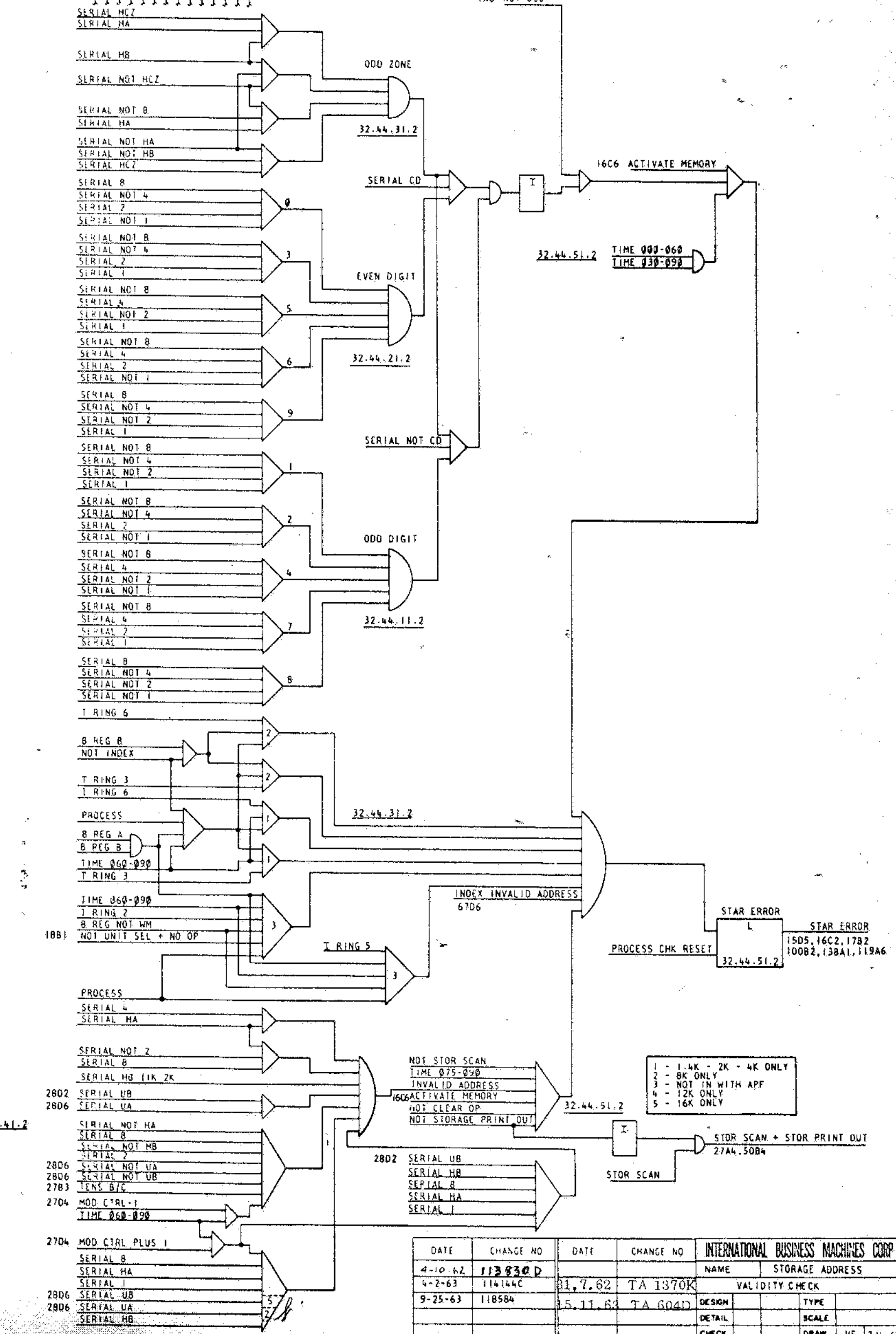
NOTE 1. INPUTS ORIGINATE ON FIGURE 28 UNLESS OTHERWISE NOTED.
 2. INACTIVE ON 12K MACHINES

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	113830 D	11-7-62	1A 1170A	NAME MODIFIER UNITS A-B-C BUS
6-2-63	114144C	1-9-63	1A 1862	
				DESIGN
				DETAIL
				CHECK
				APPRO
				TYPE
				SCALE
				DATE
				VE 9-2-61
				CHECK

723829

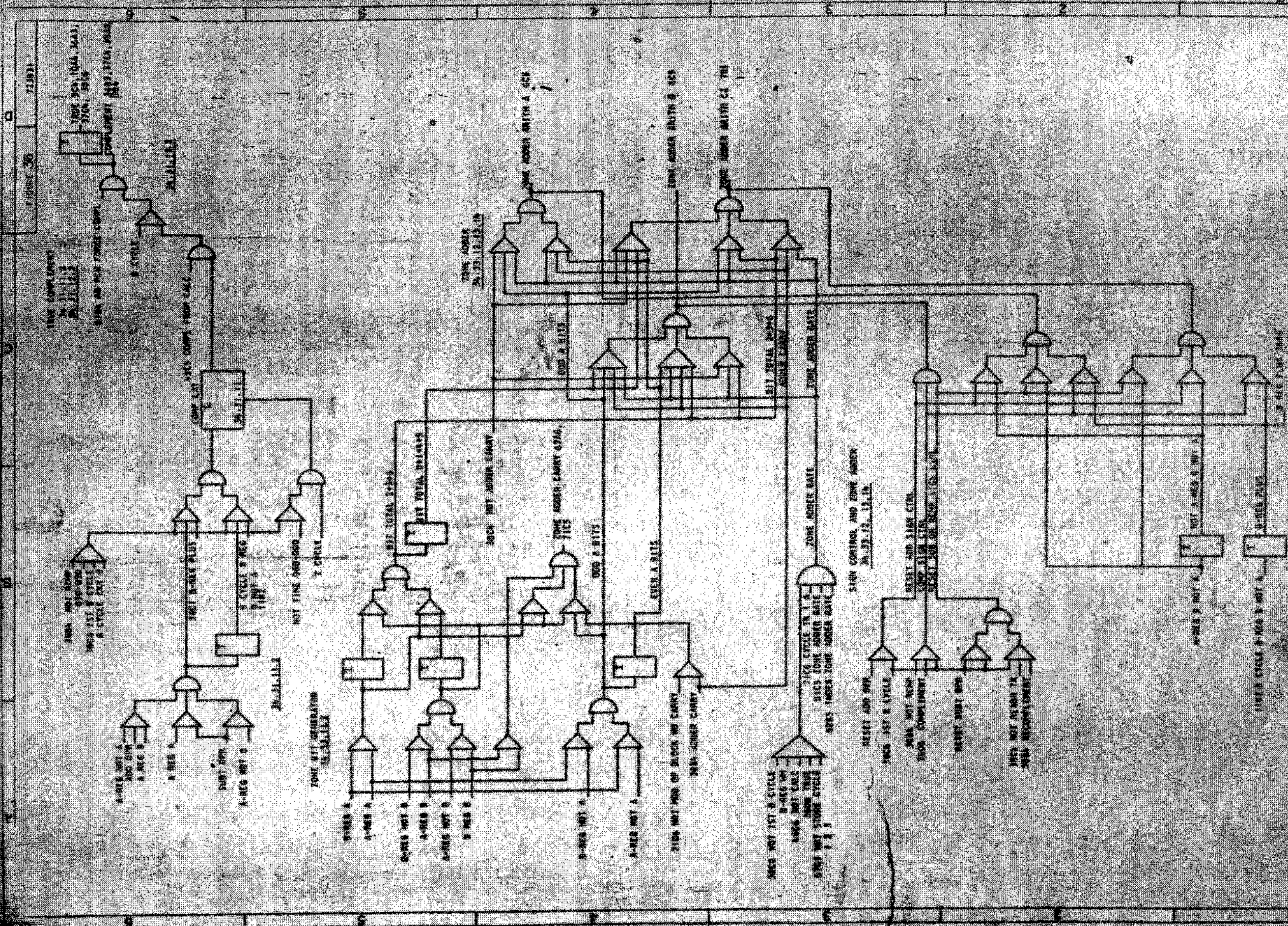
FROM FIGURE 30

- SERIAL 1
- SERIAL NOT 1
- SERIAL 2
- SERIAL NOT 2
- SERIAL 4
- SERIAL NOT 4
- SERIAL 8
- SERIAL NOT 8
- SERIAL CD
- SERIAL NOT CD
- SERIAL HA
- SERIAL NOT HA
- SERIAL HB
- SERIAL NOT HB

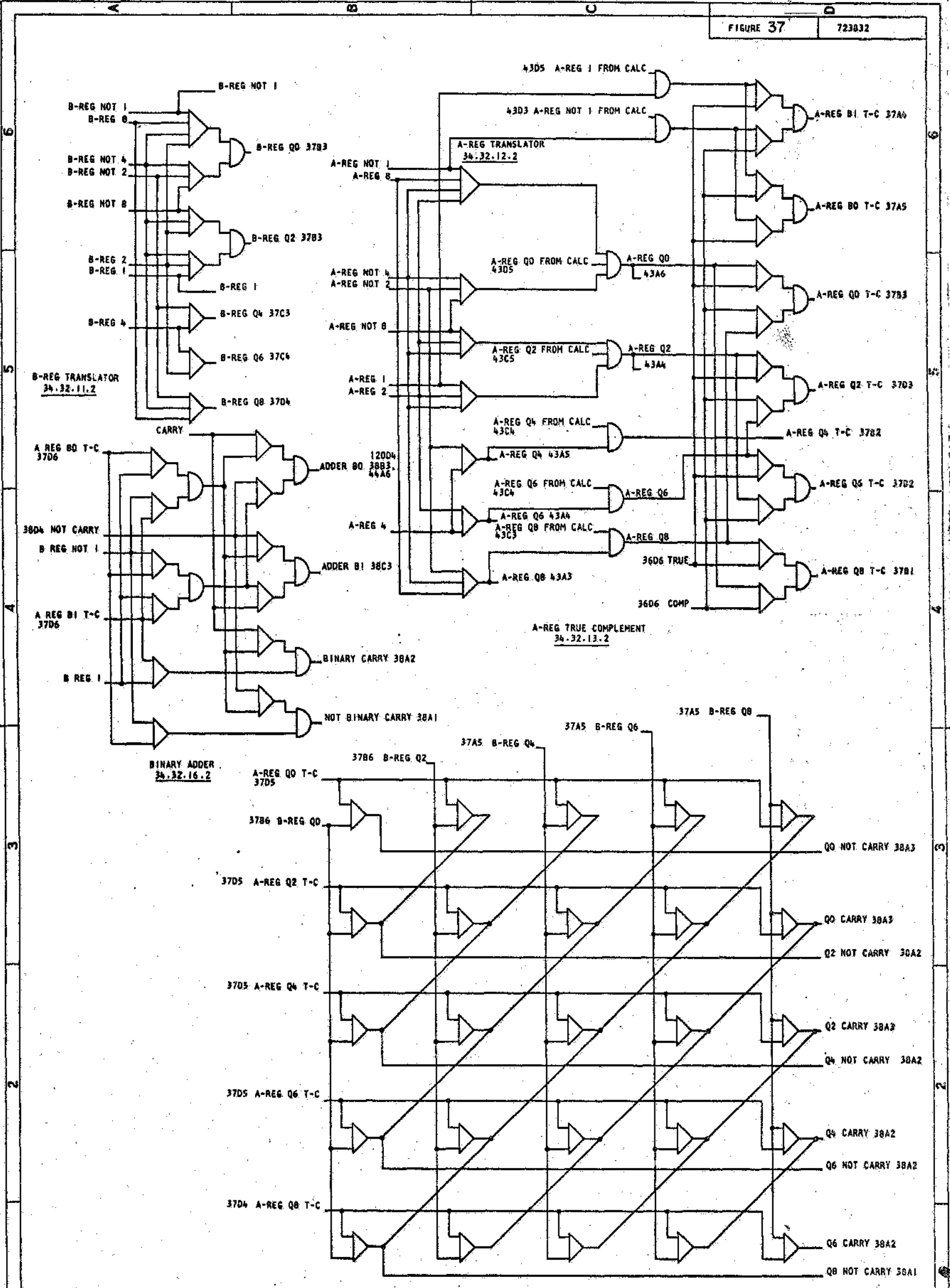


DATE	CHANGE NO	DATE	CHANGE NO	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113830D			NAME	STORAGE ADDRESS
4-2-63	116144C	31.7.62	TA 1370K	VALIDITY CHECK	
9-25-63	118584	15.11.63	TA 6041D	DESIGN	TYPE
				DETAIL	SCALE
				CHECK	DRAW VE 7-14-61
				APPRO	CHECK EAU 12-1-61

723830



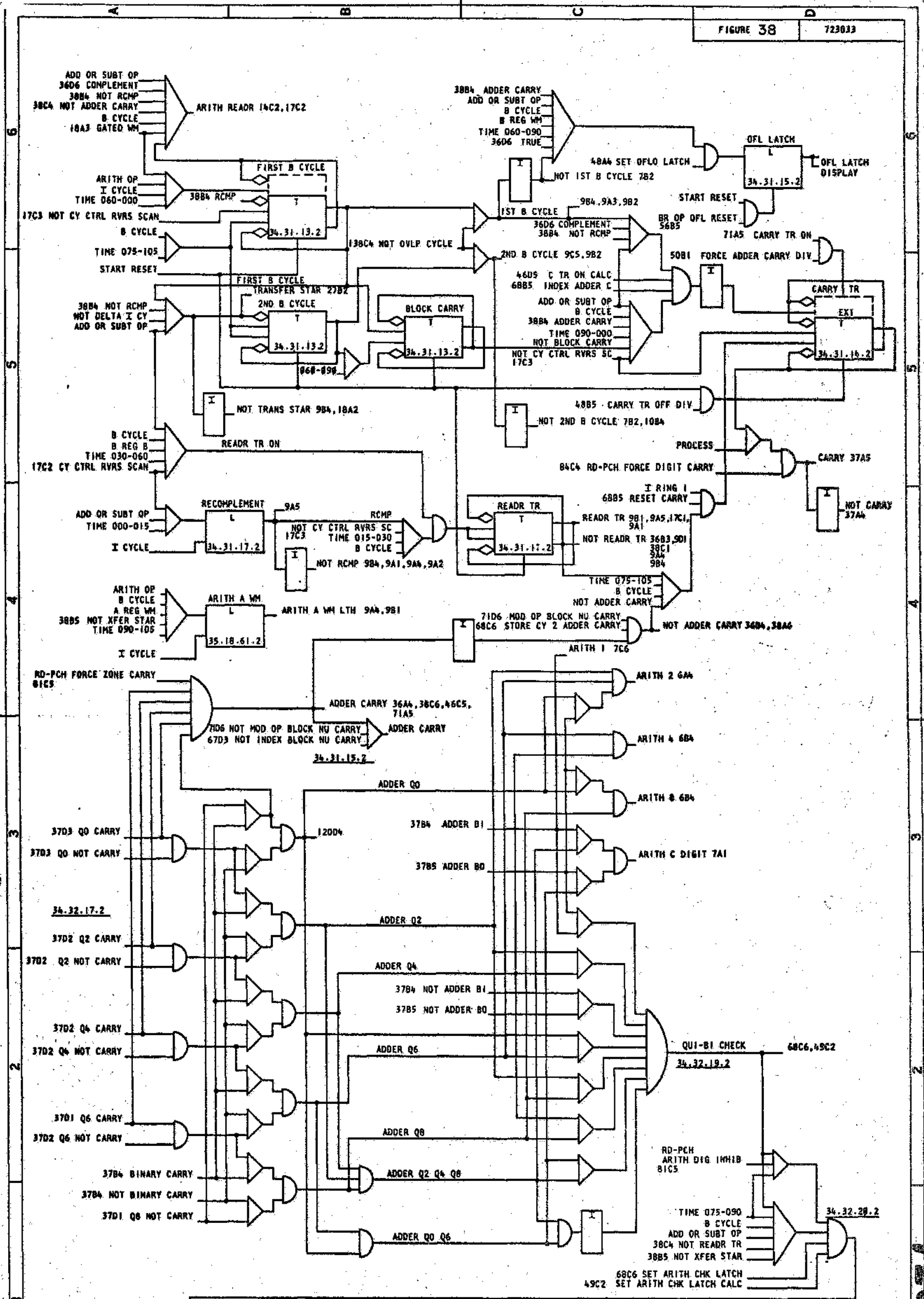
DATE	DESIGNER	DATE	CHECKED BY	DATE	REVISION



QUINARY ADDER
34.32.14.15

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113830 D			NAME	ADD SUBTRACT AND ADDER		
4-2-63	114144 C	81.7.62	TA 1370K	CONTROLS			
9-25-63	118584	5.11.63	TA 604D	DESIGN		TYPE	
				DETAIL		SCALE	NONE
				CHECK		DRAW	VE 12-42-61
				APPRO		CHECK	

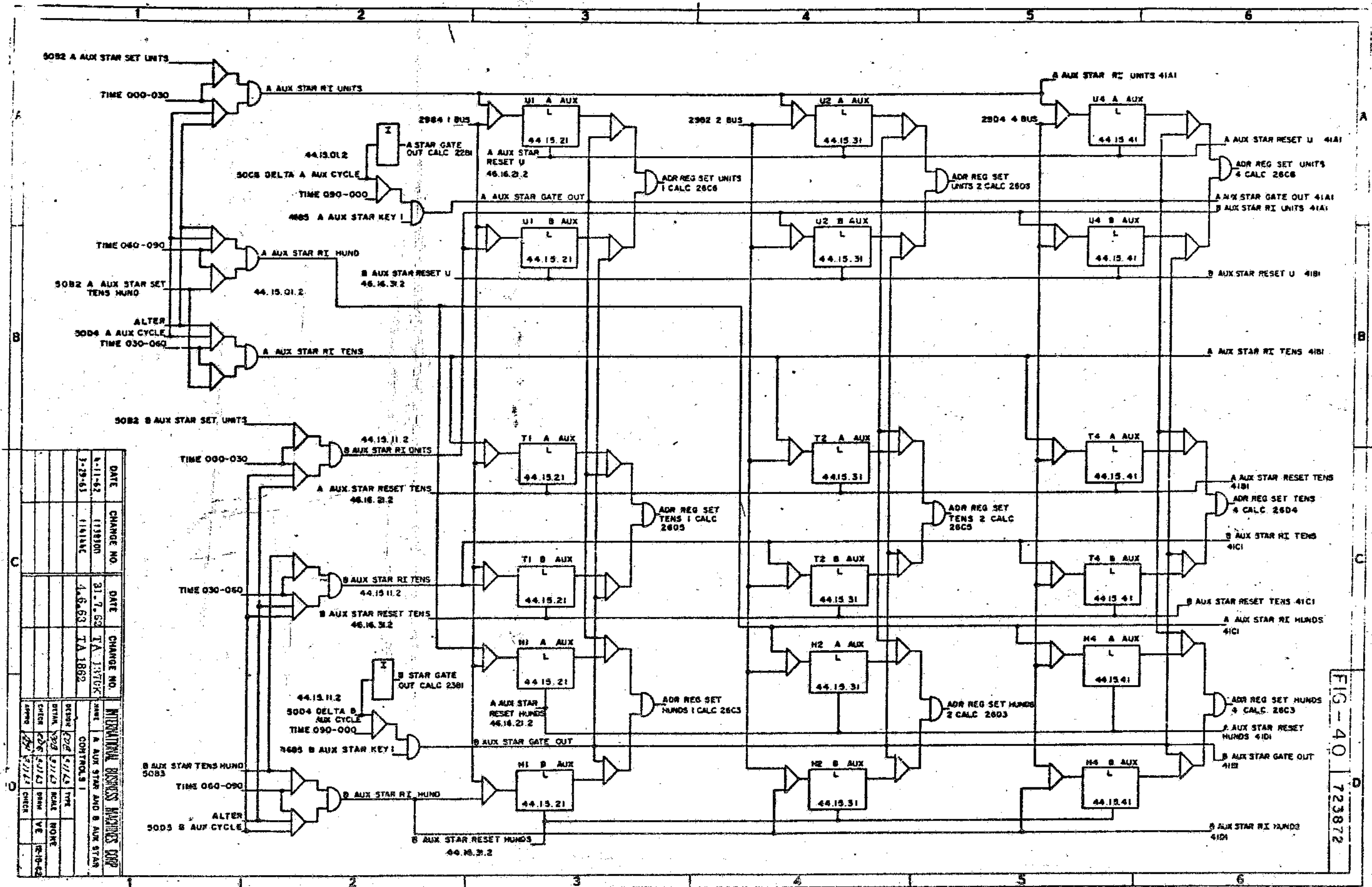
723832



ARITH CHECK 15D5, 17B2
 ARITH CK INDICATE 34.32.20.2
 PROC CHK RESET

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113850-D			NAME	ADD SUBT AND		
6-21-62	114144B			ADDER CTRLS			
4-2-63	114144C	31.7.62	TA 1370K	DESIGN		TYPE	
9-25-63	118584	15.11.63	TA 804D	DETAIL		SCALE	NONE
				CHECK		DRAW	VE 12-12-61
				APPRO		CHECK	

723033



DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-62	119800	31-7-63	TA 1370K
3-29-63	118148	4-6-63	TA 1862

REVISION	DATE	BY	CHKD	APPD
1	5/1/63	...	...	...
2	5/1/63	...	...	...
3	5/1/63	...	...	...
4	5/1/63	...	...	...
5	5/1/63	...	...	...
6	5/1/63	...	...	...
7	5/1/63	...	...	...
8	5/1/63	...	...	...
9	5/1/63	...	...	...
10	5/1/63	...	...	...

FIG-40 723872

723872
1801

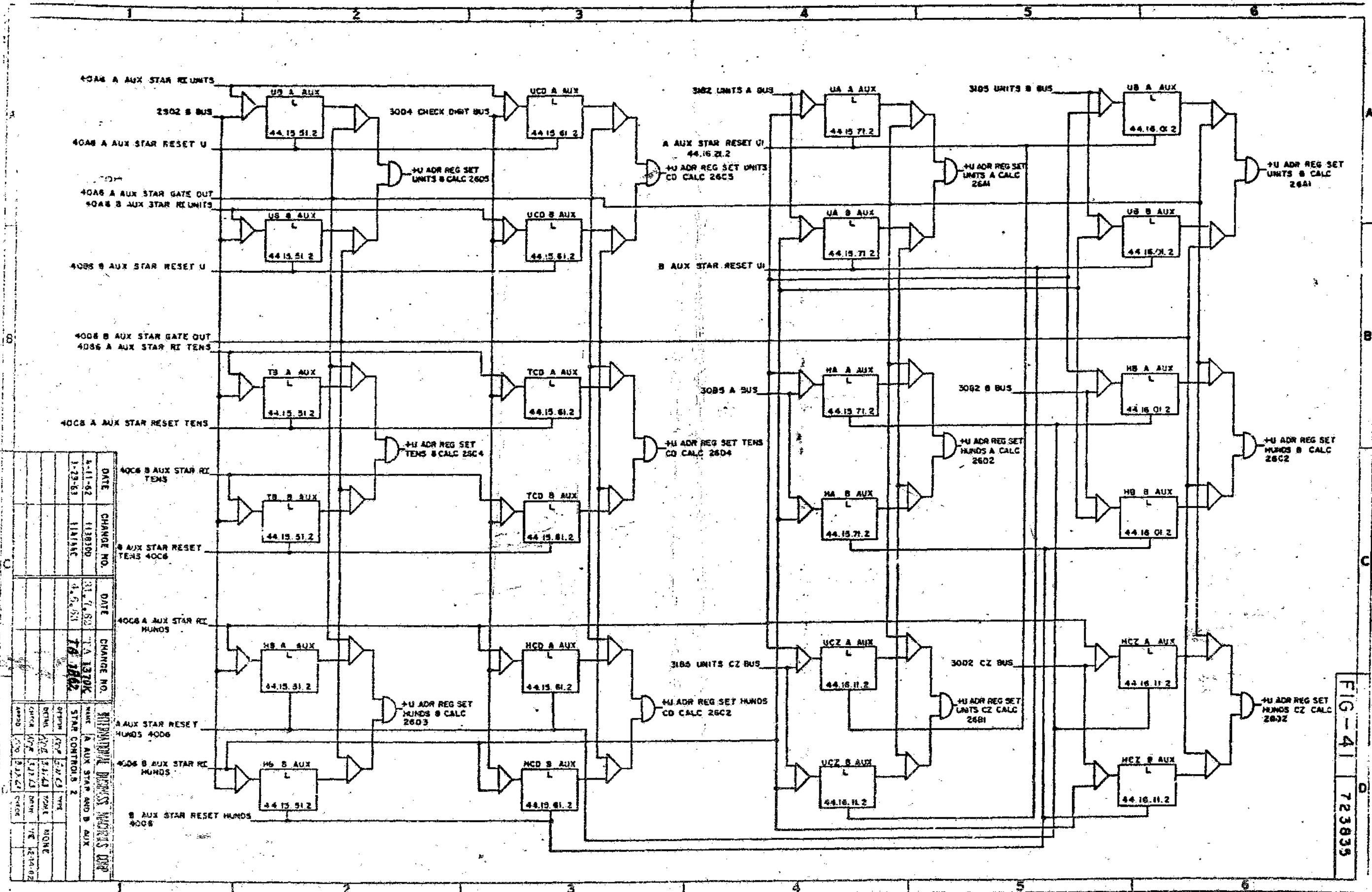
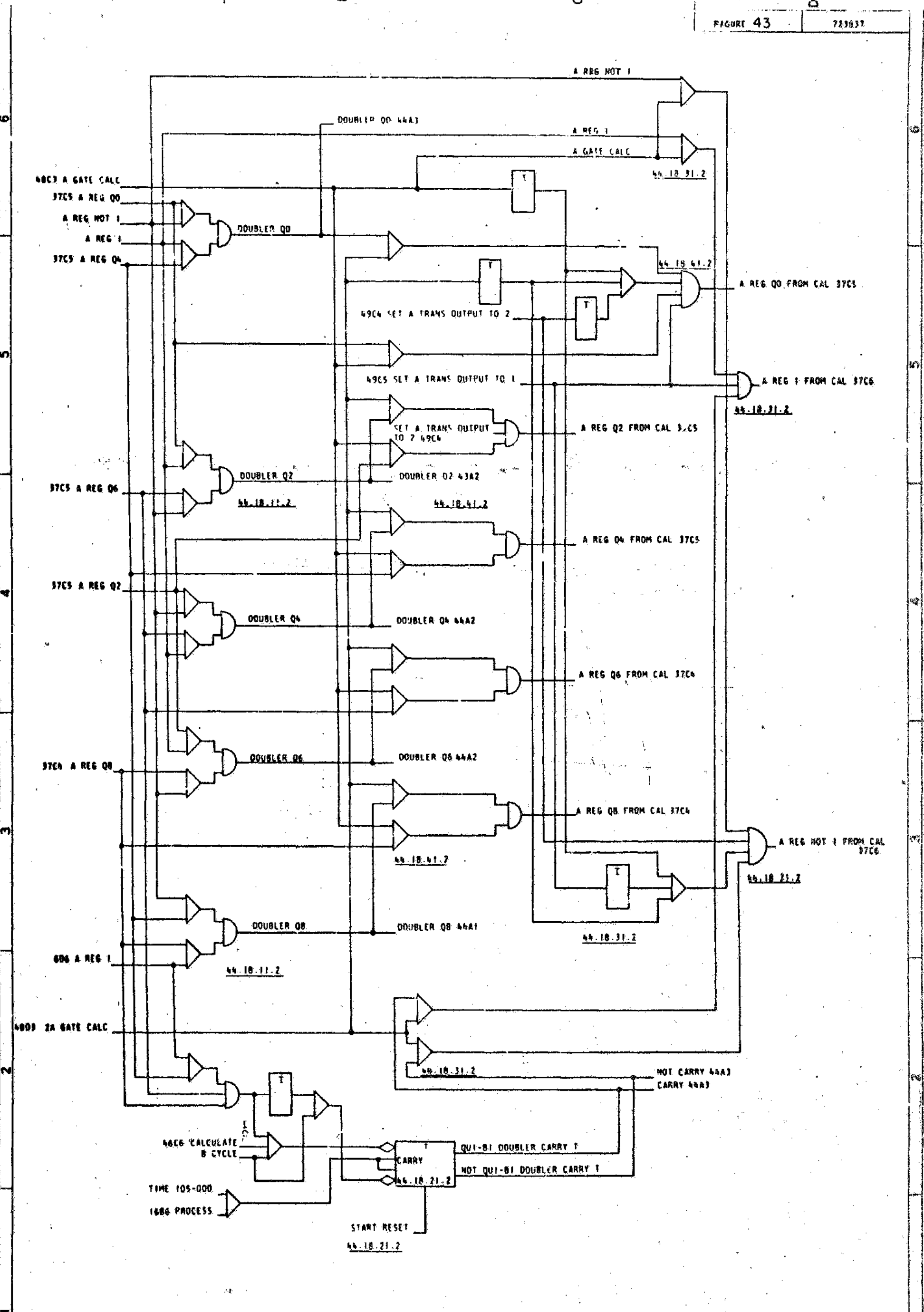
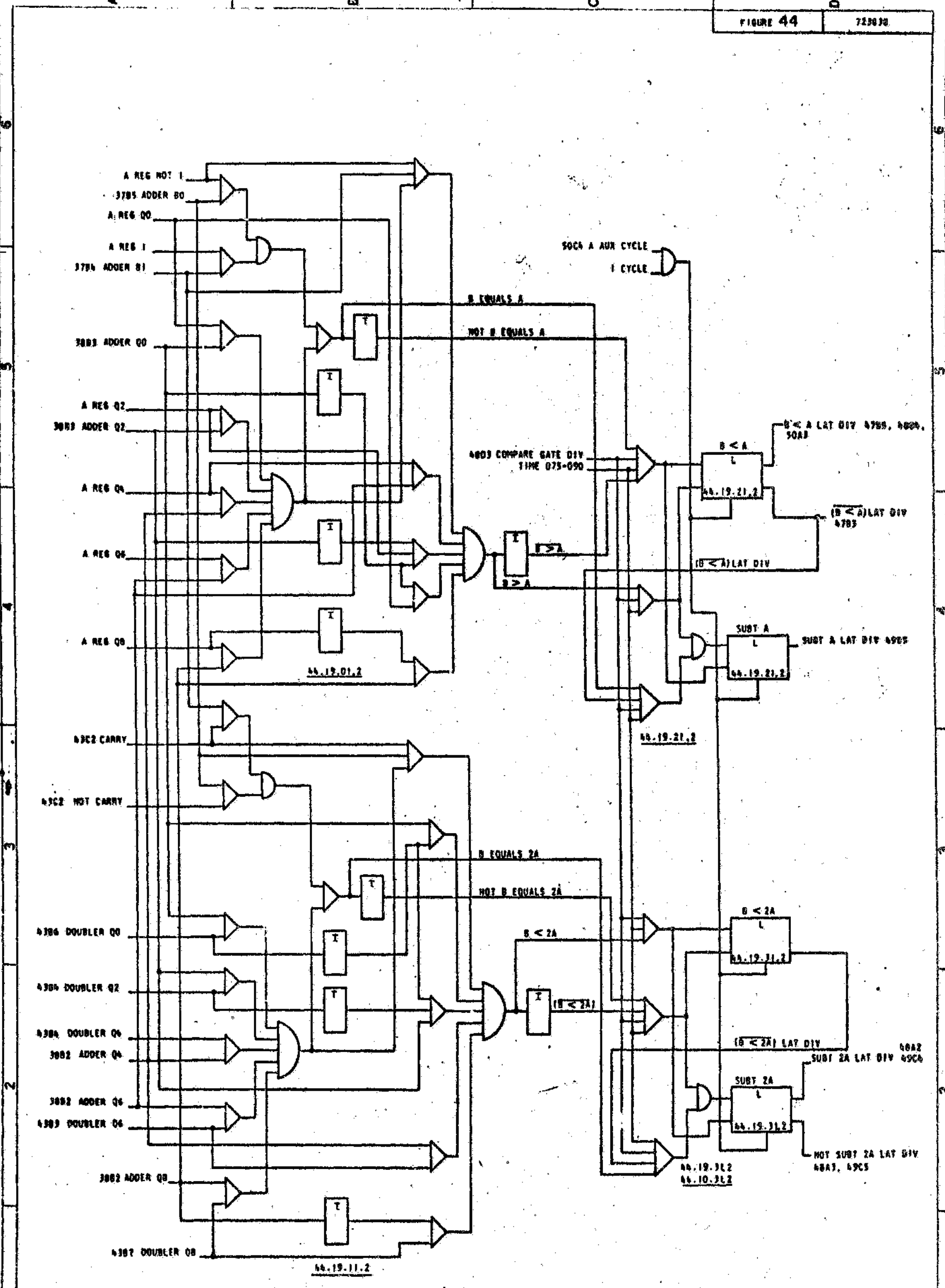


FIG-41 723835

723835



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
		31.7.62	TA 1370K	NAME MULTIPLY AND DIVIDE			
4-2-63	114144C	4.6.63	TA 1862	CONTROLS I			
				DESIGN		TYPE	
				DETAIL		SCALE	NONE
				CHECK		DRAW	VE 1-10-62
				APPROV		CHECK	



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.
4-10-62	115830 D	31-7-62	TA 1370K	NAME MULTIPLY AND DIVIDE
4-2-63	116166C	4-6-63	TA 1889	CONTROLS 2
				DESIGN
				DETAIL
				CHECK
				APPRO
				TYPE
				SCALE NONE
				DRAW VE 1-10-62
				CHECK

723838
1864

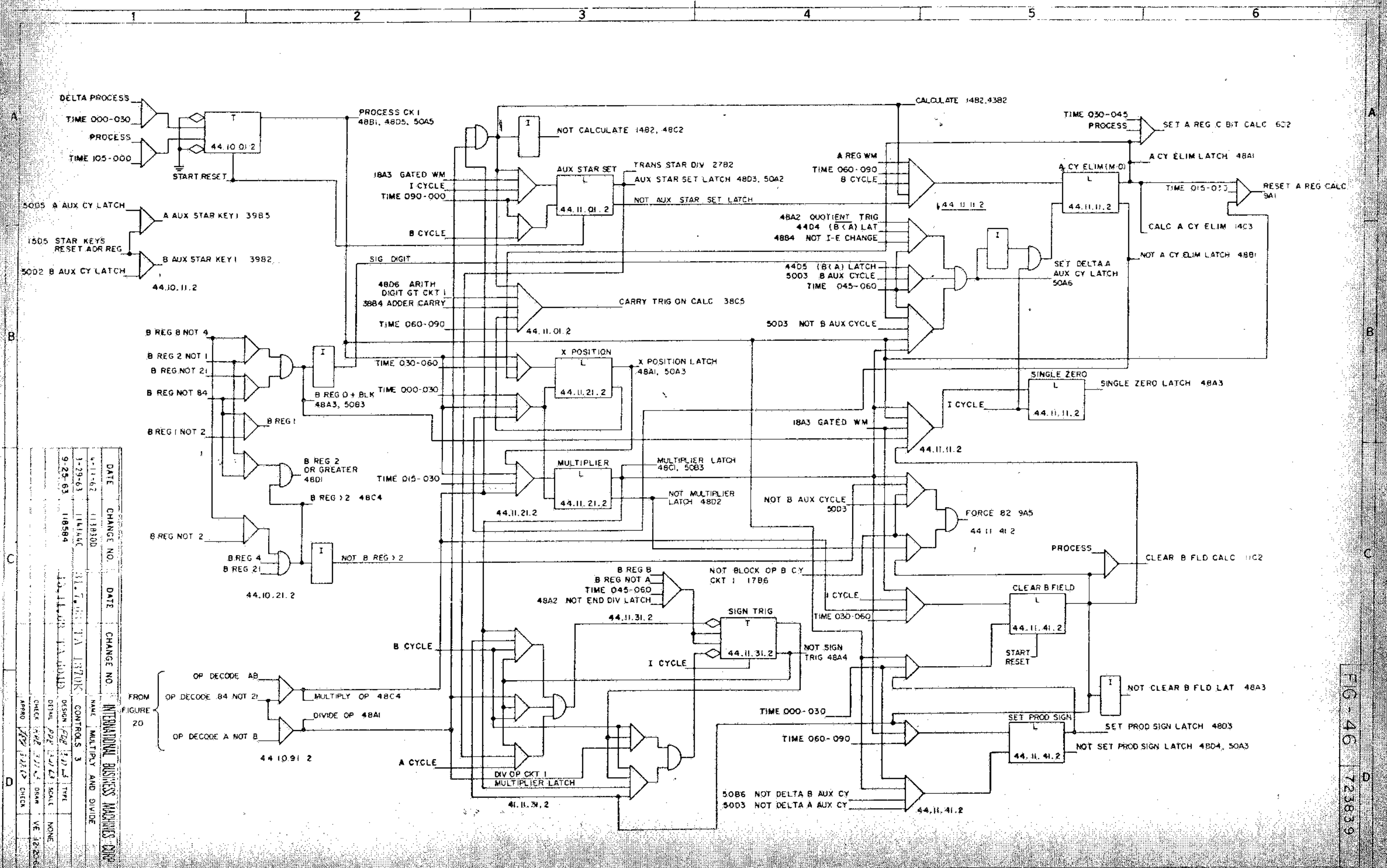
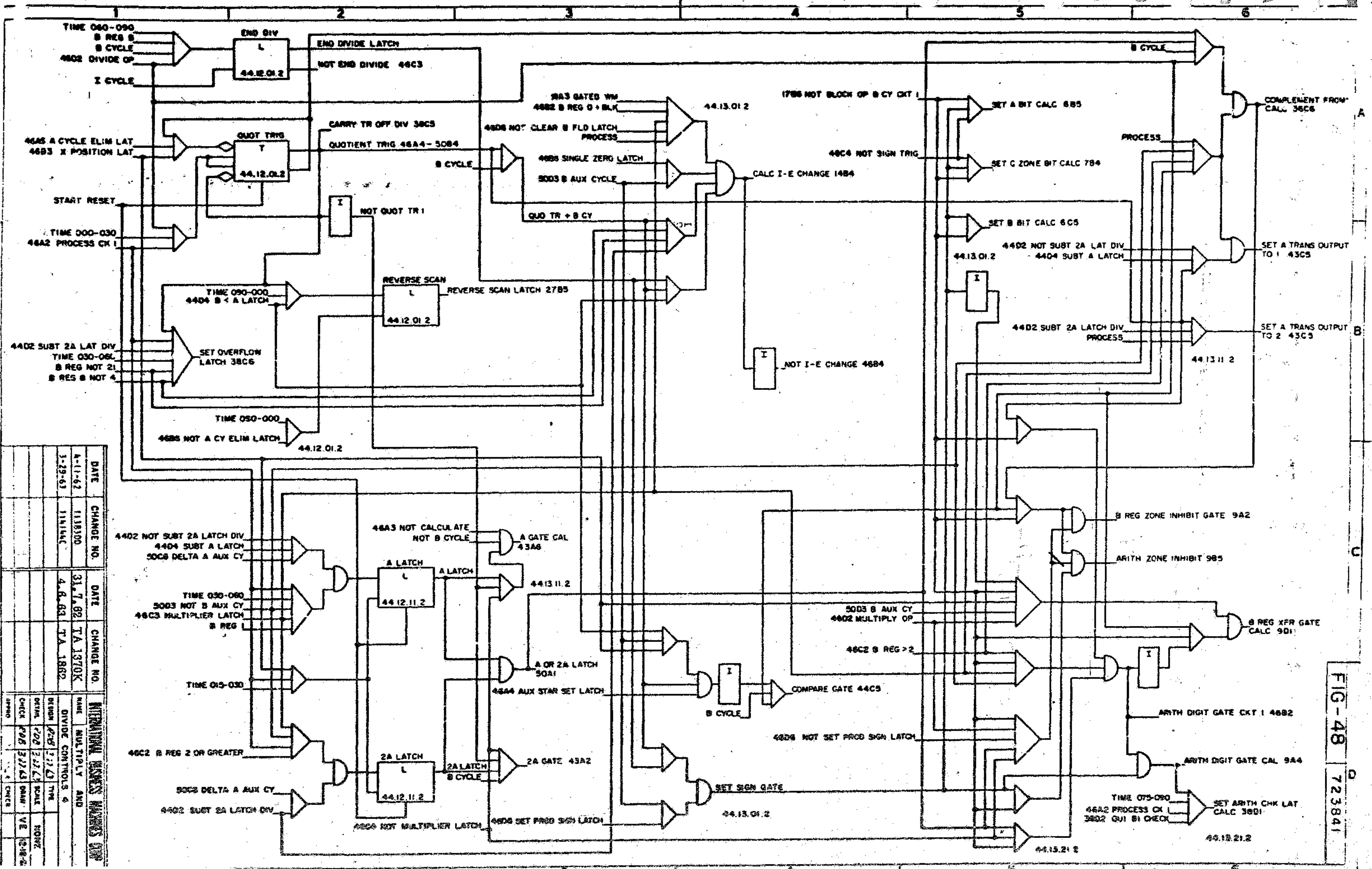
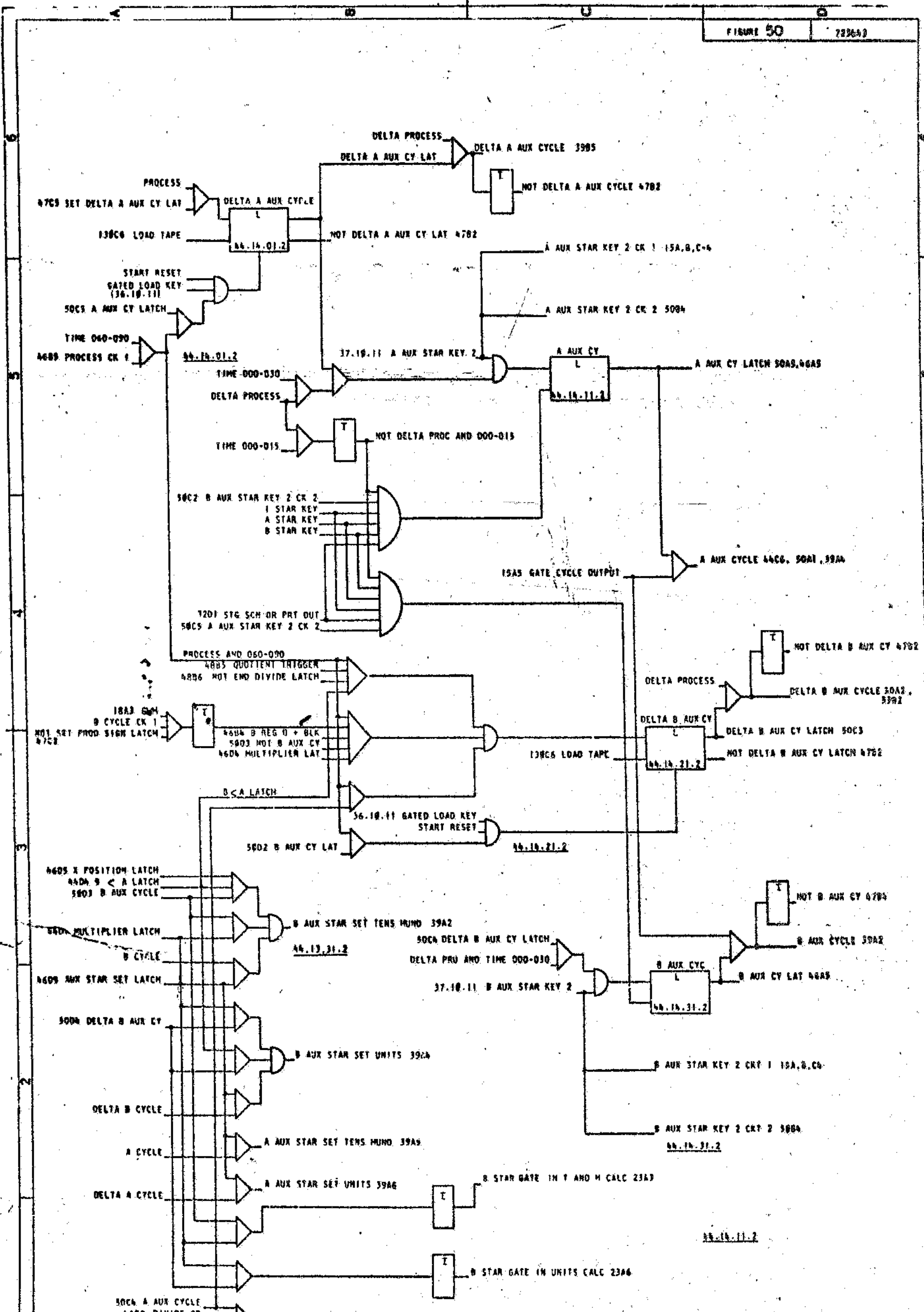


FIG-46 723839



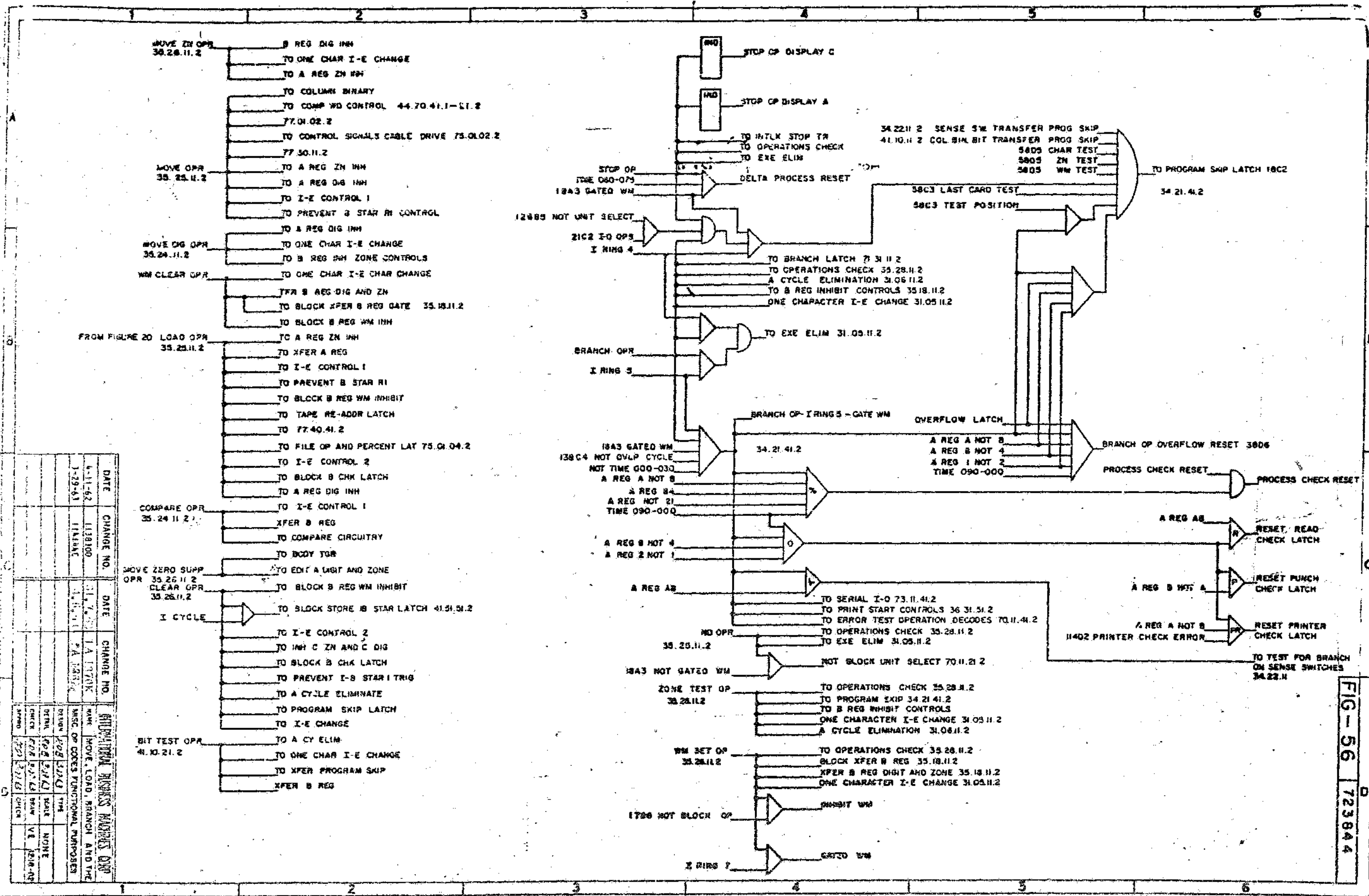
DATE	CHANGE NO.	DATE	CHANGE NO.	NAME	MULTIPLY AND	DIVIDE CONTROLS	REMARKS
4-11-62	118100	31.7.62	TA 1370K	WERNER			
3-29-63	11414C	4.6.63	TA 186D	WERNER			
				WERNER			
				WERNER			
				WERNER			
				WERNER			
				WERNER			
				WERNER			
				WERNER			
				WERNER			

FIG-48 723841



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	1150 TO D	31.7.62	TA 1370K	NAME
4-2-63	FINANC	4.6.61	TA 1372	MULTIPLY AND
				DIVIDE CONTROLS 5
				DESIGN
				DETAIL
				CHECK
				APP'D
				TYPE
				SCALE
				NONE
				UNAP
				VE
				12-5-61
				CHECK
				12 12 61

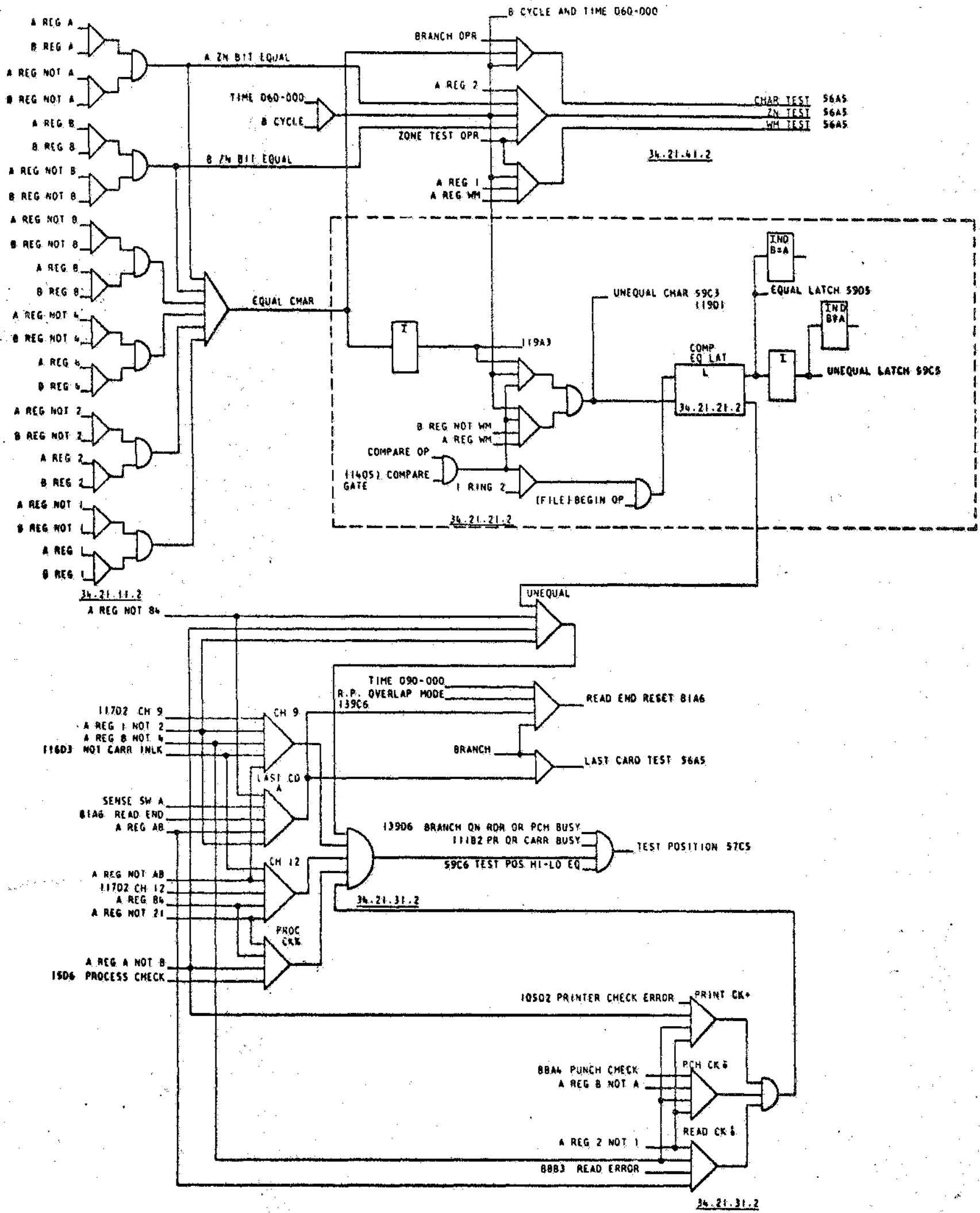
723643



DATE	CHANGE NO.	DESCRIPTION
4-11-62	1138100	INITIAL
1-29-61		
DATE <th>CHANGE NO.</th> <th>DESCRIPTION</th>	CHANGE NO.	DESCRIPTION
11-7-62	1A 1370K	REVISION
11-11-62		
DATE <th>CHANGE NO.</th> <th>DESCRIPTION</th>	CHANGE NO.	DESCRIPTION
11-11-62	1A 1370K	REVISION
11-11-62		
DATE <th>CHANGE NO.</th> <th>DESCRIPTION</th>	CHANGE NO.	DESCRIPTION
11-11-62	1A 1370K	REVISION
11-11-62		

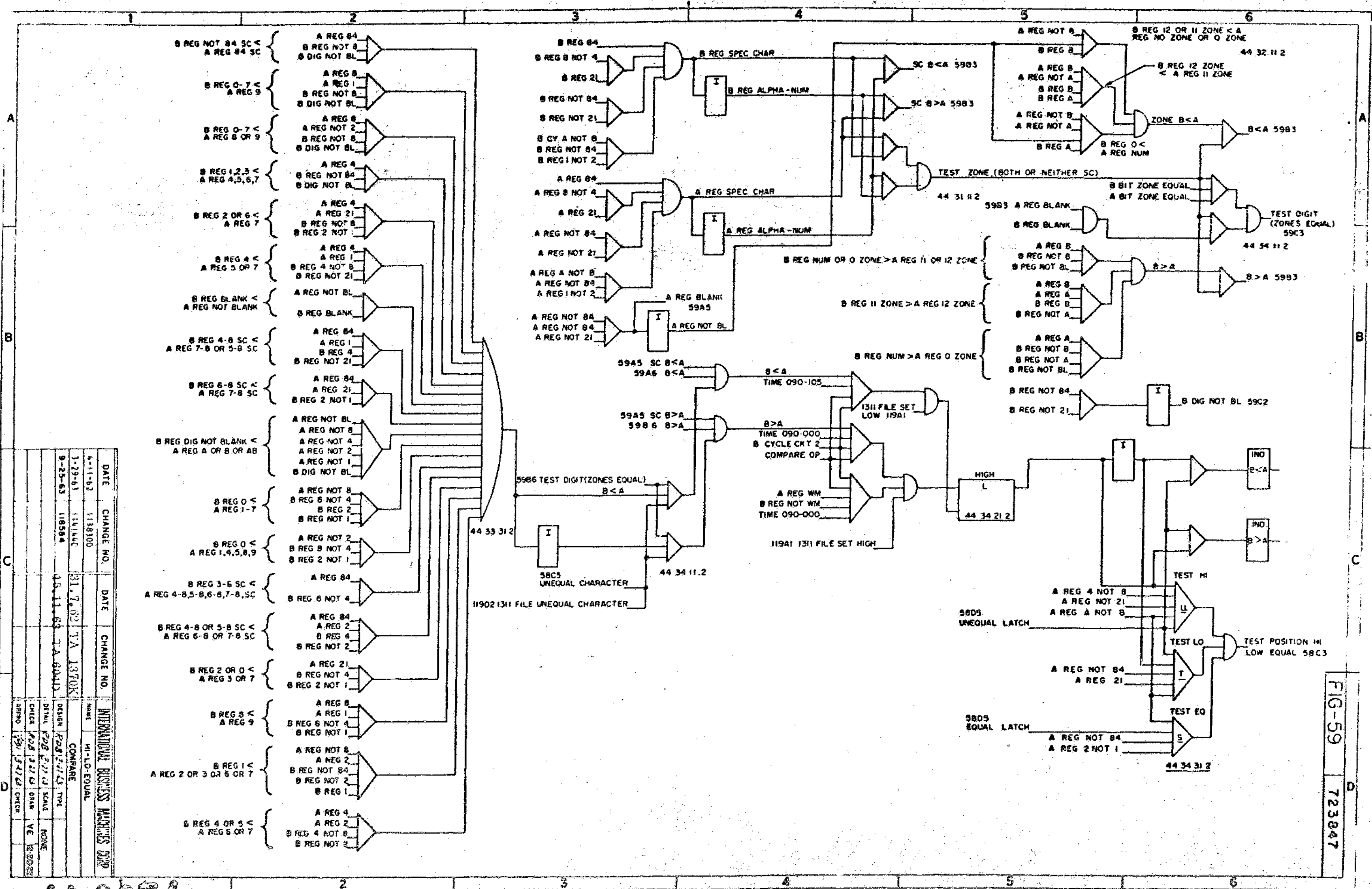
FIG-56 723844

723844



INTERNATIONAL BUSINESS MACHINES CORP			
DATE	CHANGE NO.	DATE	CHANGE NO.
4-2-63	116144C	31.7.62	TA 1370K
9-25-63	118584	15.11.63	TA 604D
NAME COMPARE DPR			
DESIGN		TYPE	
DETAIL		SCALE	NONE
CHECK		DRAW	VE 1-9-62
APPRO		CHECK	

723046



DATE	CHANGE NO.	DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-62	1138100	11-11-62	1138100	11-11-62	1138100
1-29-63	114114C	31-7-63	TA 1370K		
9-25-63	118584	12-11-63	TA BOARD		

DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-62	1138100	11-11-62	1138100
1-29-63	114114C	31-7-63	TA 1370K
9-25-63	118584	12-11-63	TA BOARD

DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-62	1138100	11-11-62	1138100
1-29-63	114114C	31-7-63	TA 1370K
9-25-63	118584	12-11-63	TA BOARD

723847

FIG-59 723847

DATE	CHANGE NO.	DATE	CHANGE NO.	DETAIL	TYPE
4-10-62	11333C D	31.7.62	TA 1370K		
8-21-62	114144B	4.6.63	TA 1892		
4-2-63	114144C				

APPRO	CHECK	DATE	SCALE	VE	TIME

DATE	CHANGE NO.	NAME	DETAIL	TYPE
		INTERNATIONAL BUSINESS MACHINES CORP	EDIT AND EXPAND EDIT 1	

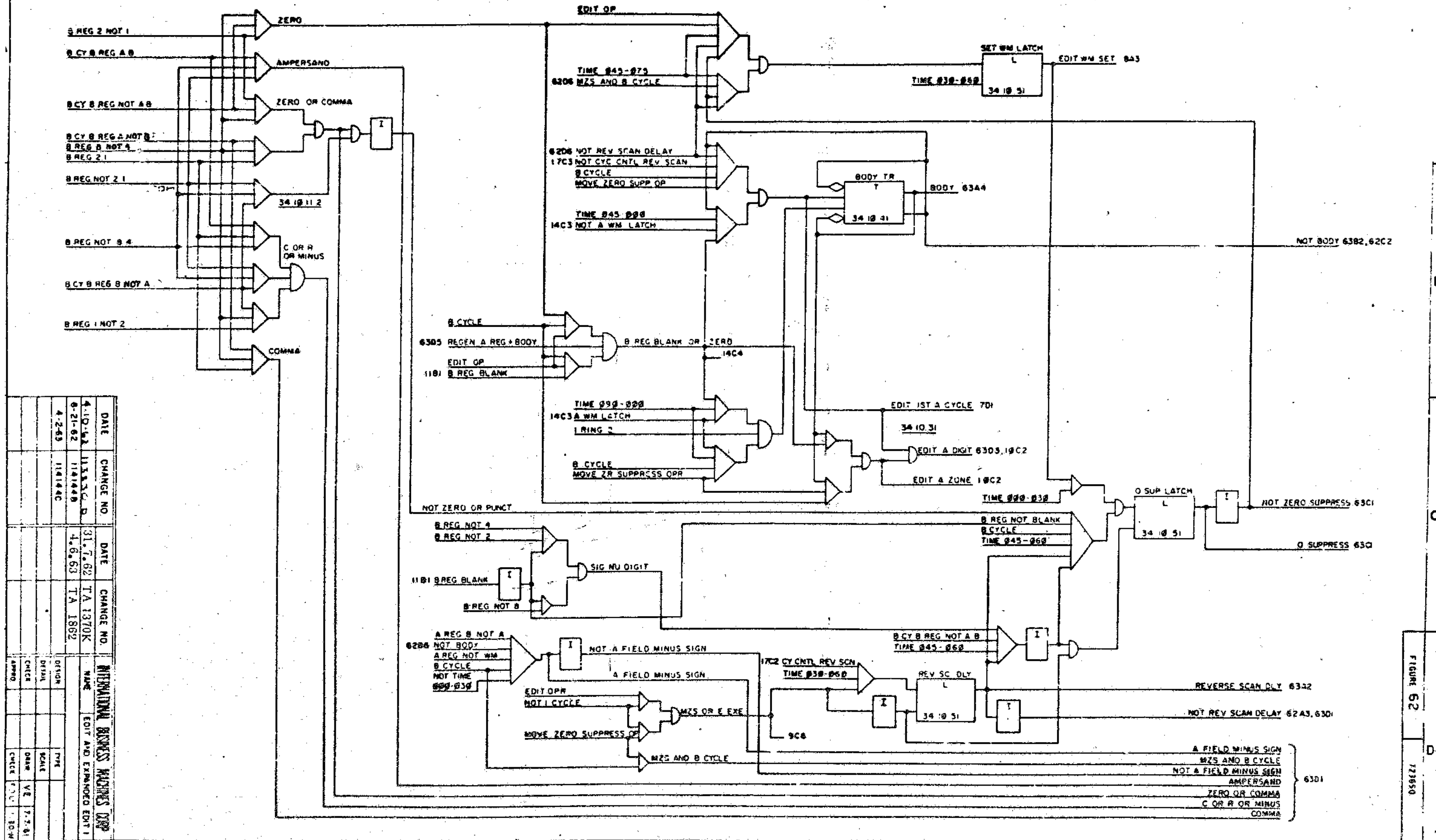


FIGURE 62
72850

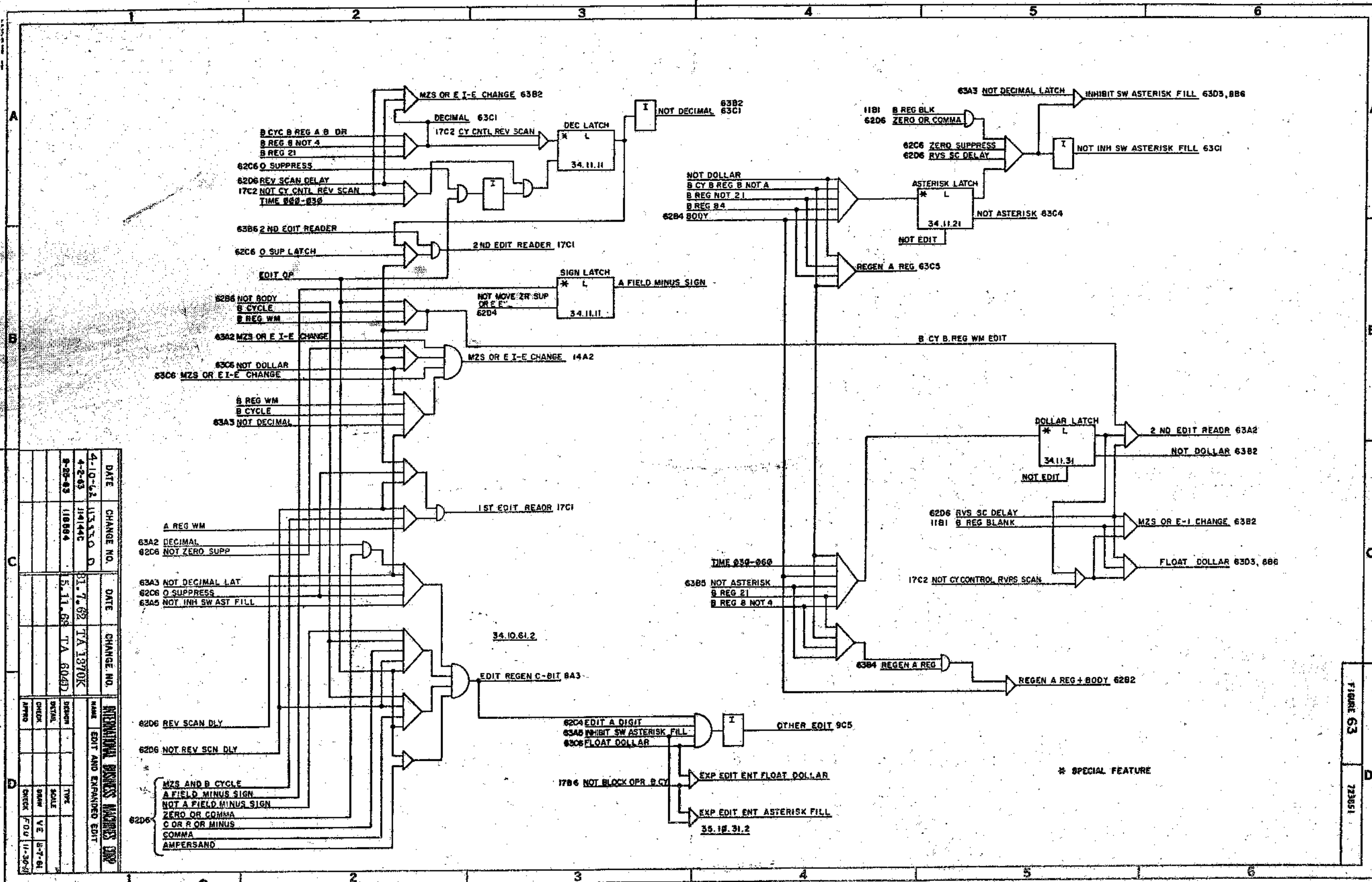


FIGURE 63
723851

723851

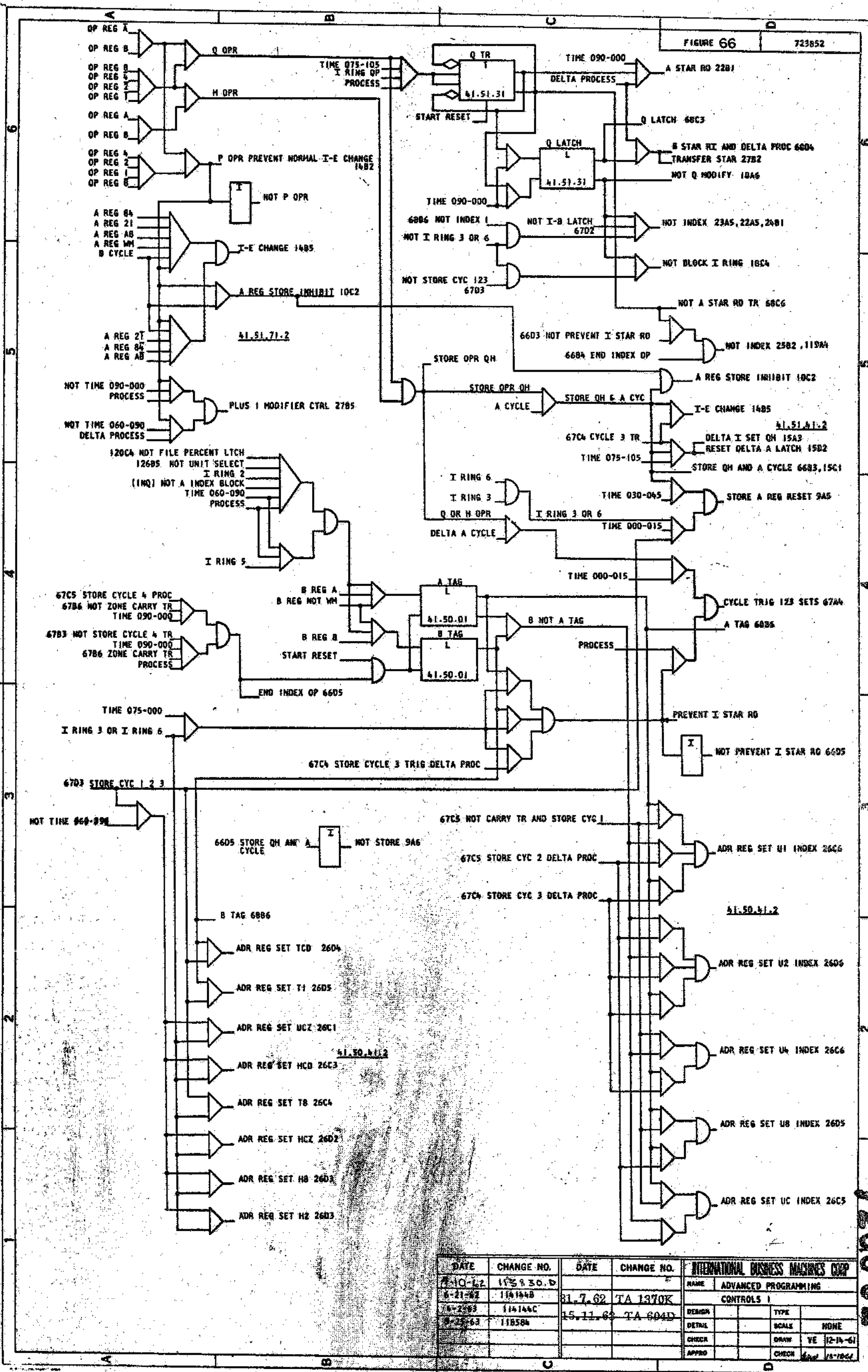
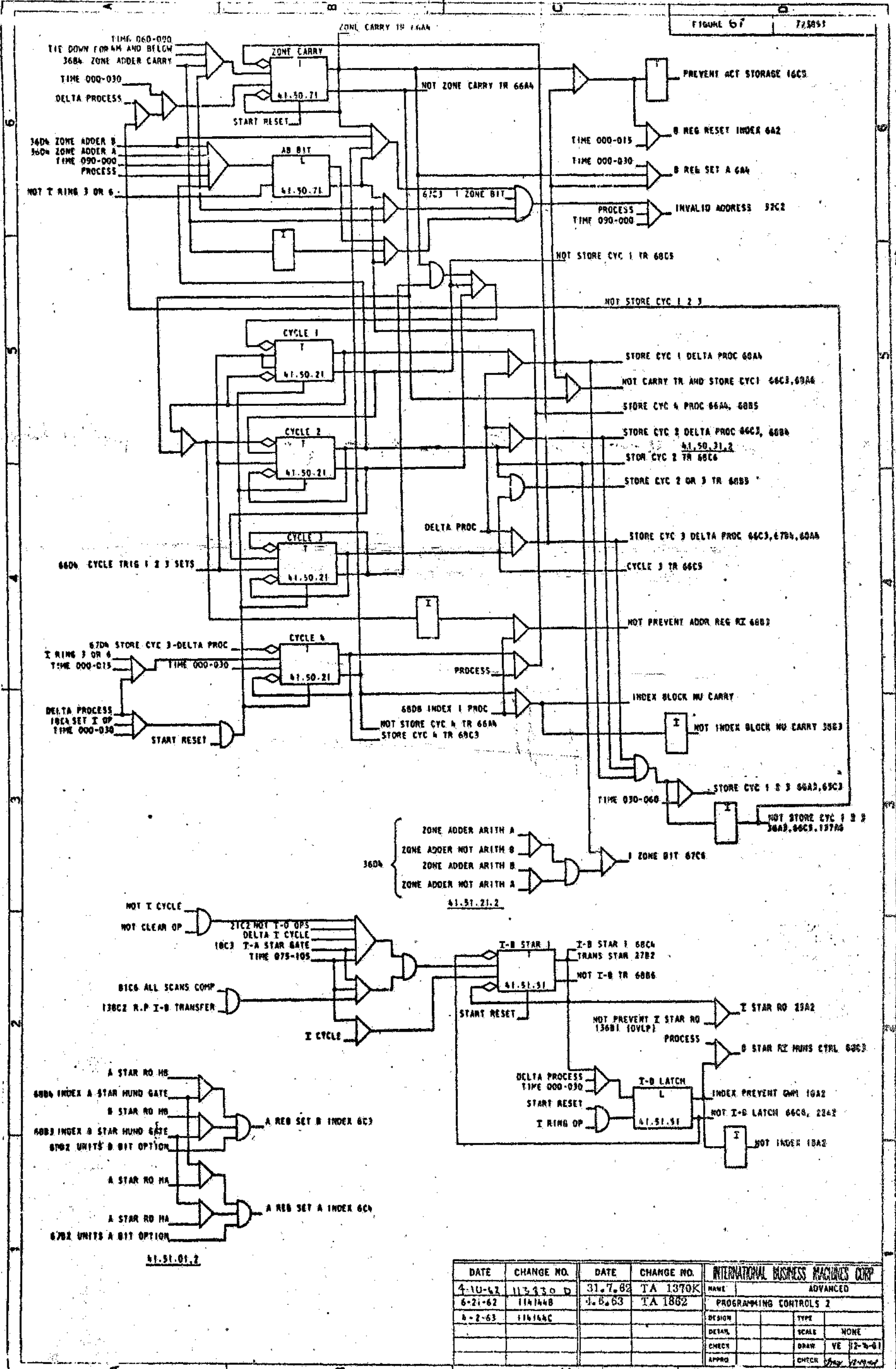


FIGURE 66 723852

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
7-10-62	118130-D			NAME ADVANCED PROGRAMMING
8-21-62	118144B	31.7.62	TA 1370K	CONTROLS I
8-25-62	118144C	15.11.62	TA 604D	DESIGN
9-25-62	118584			TYPE
				SCALE
				NAME
				DETAIL
				CHECK
				APPRO
				CHECK

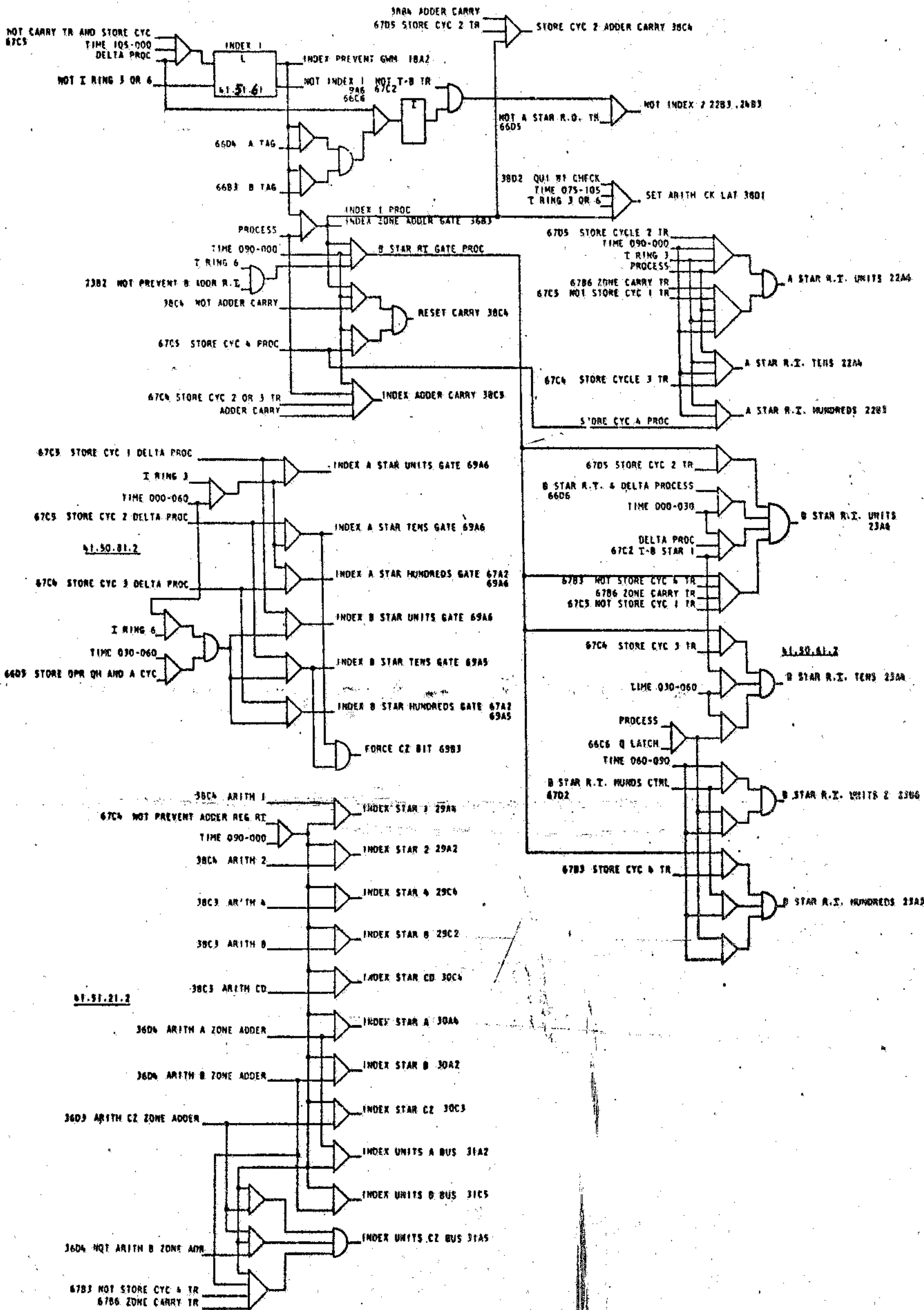
723852

FIGURE 67 775893



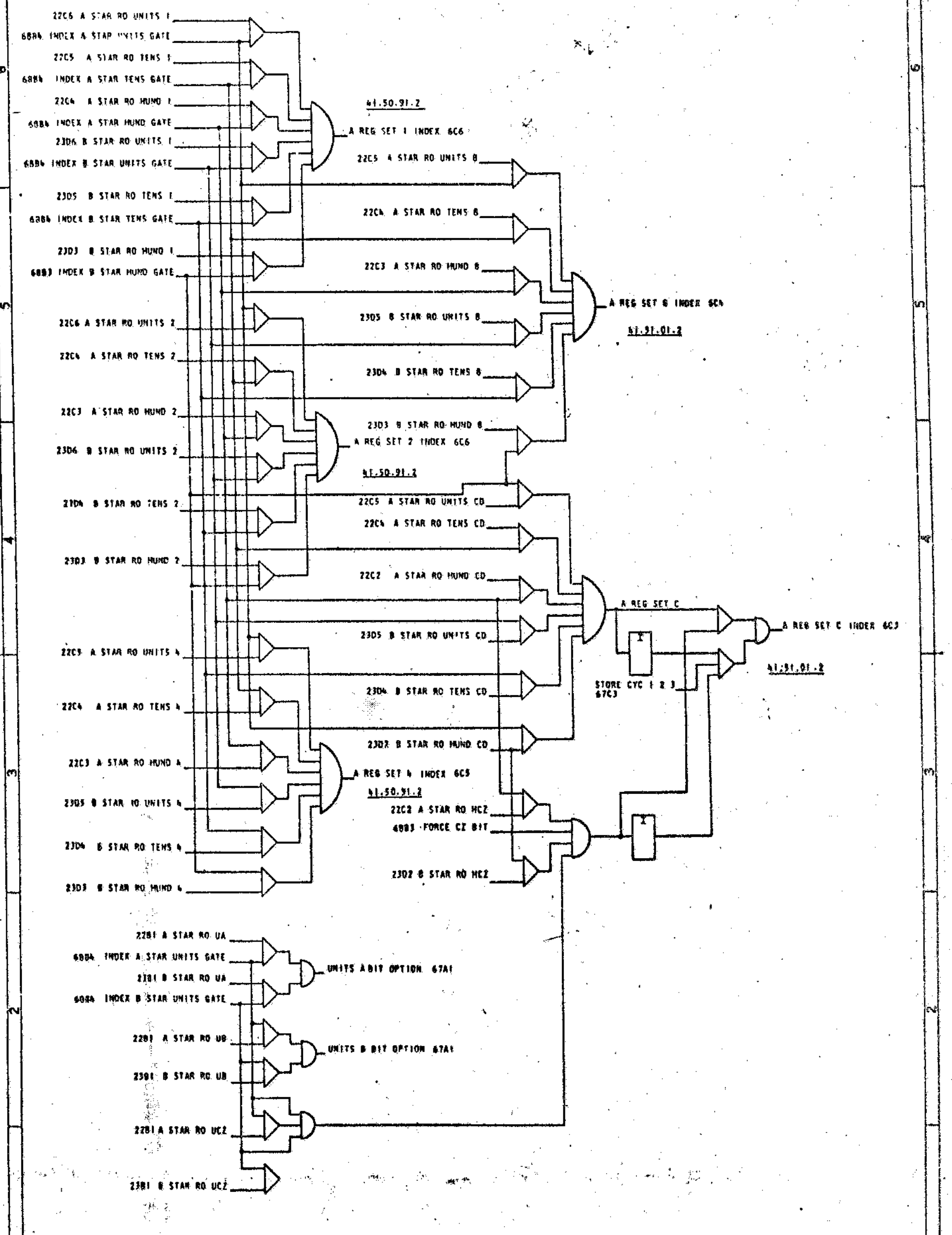
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113330 D	31.7.62	TA 1370K	NAME	ADVANCED		
6-21-62	114144B	9.8.63	TA 1862	PROGRAMMING CONTROLS 2			
8-2-63	116166C			DESIGN		TYPE	
				DETAIL		SCALE	NONE
				CHECK		DRAW	VE (2-6-61)
				APPRO		CHECK	12-12-61

116166C
 12-12-61



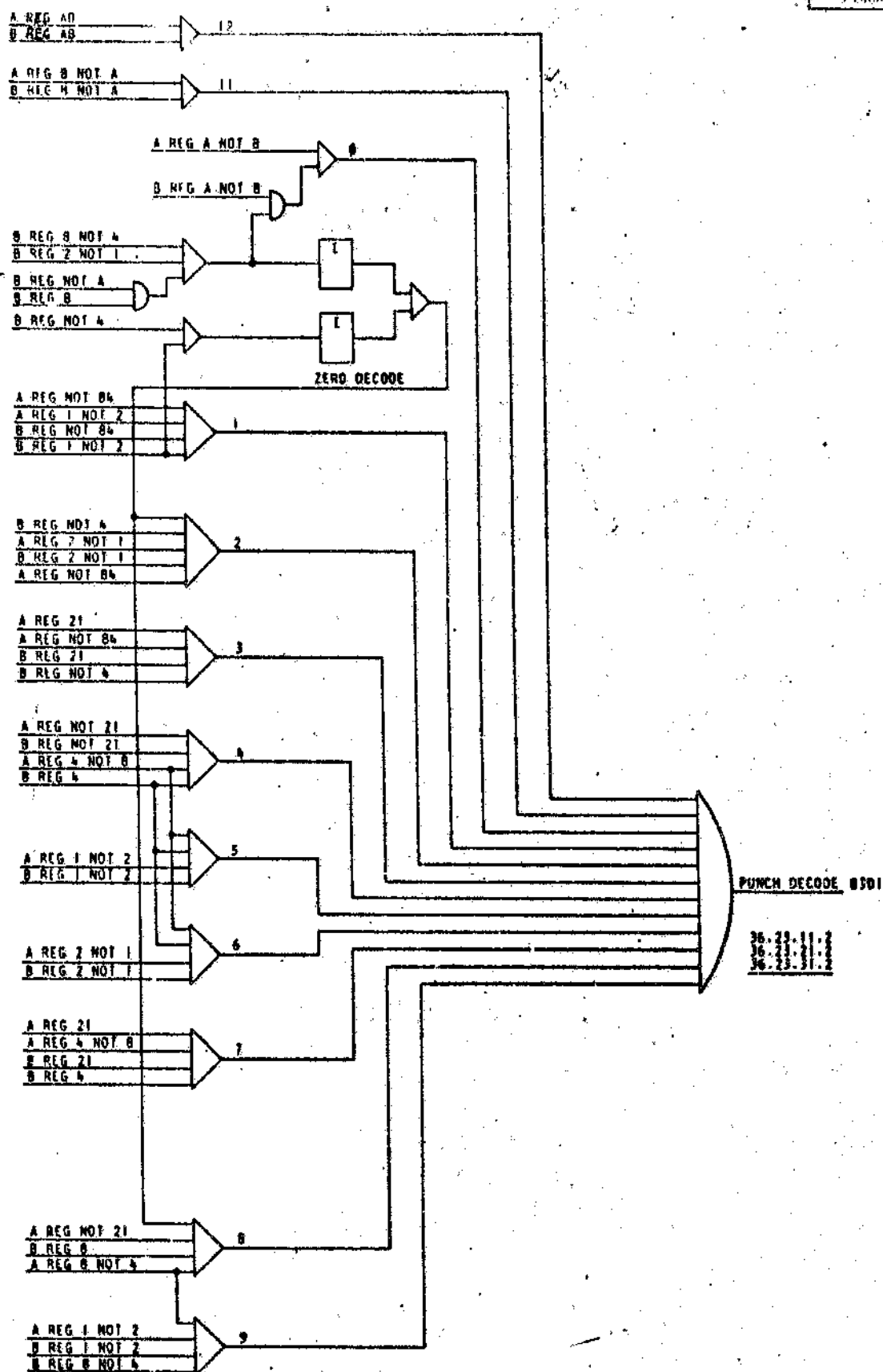
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113250	31.7.62	TA 1370K	NAME	ADVANCED PROGRAMMING
4-2-63	11414C	4.8.63	TA 1862	CONTROLS 3	
				DESIGN	TYPE
				DETAIL	SCALE NONE
				CHECK	DRAW VE 12-14-61
				APPRO	CHECK

600071
 0084, 11



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113830 D	31-7-62	TA 1870K	NAME	ADVANCED PROGRAMMING
4-2-63	FINANC	4-6-63	TA 1862	CONTROLS &	
				DESIGN	TYPE
				DETAIL	SCALE NONE
				CHECK	DRAW VE 12-14-61
				APPRO	CHECK

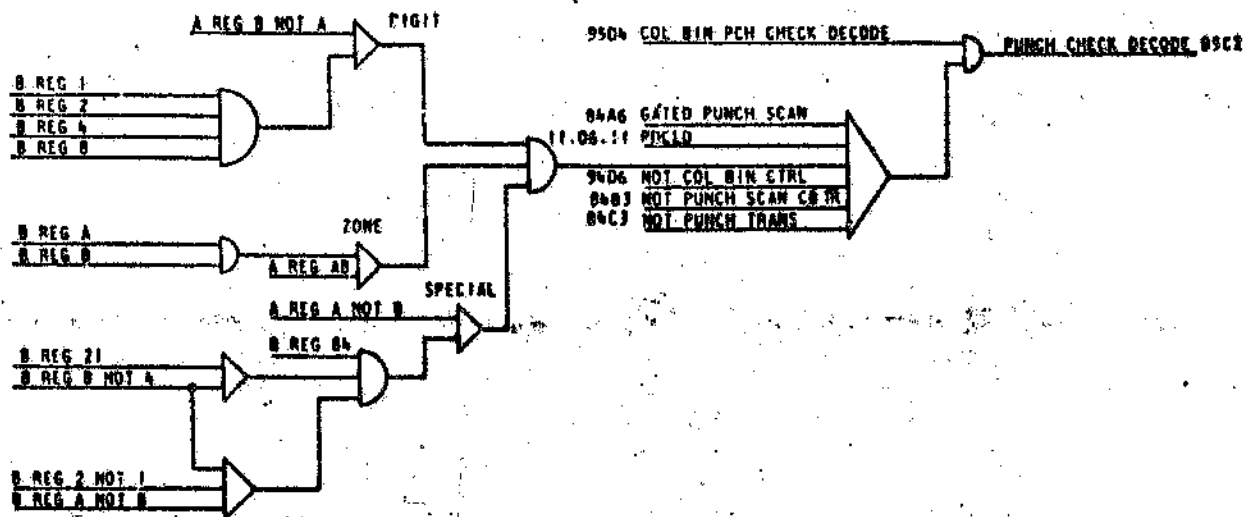
713855
662



PUNCH DECODE 0501

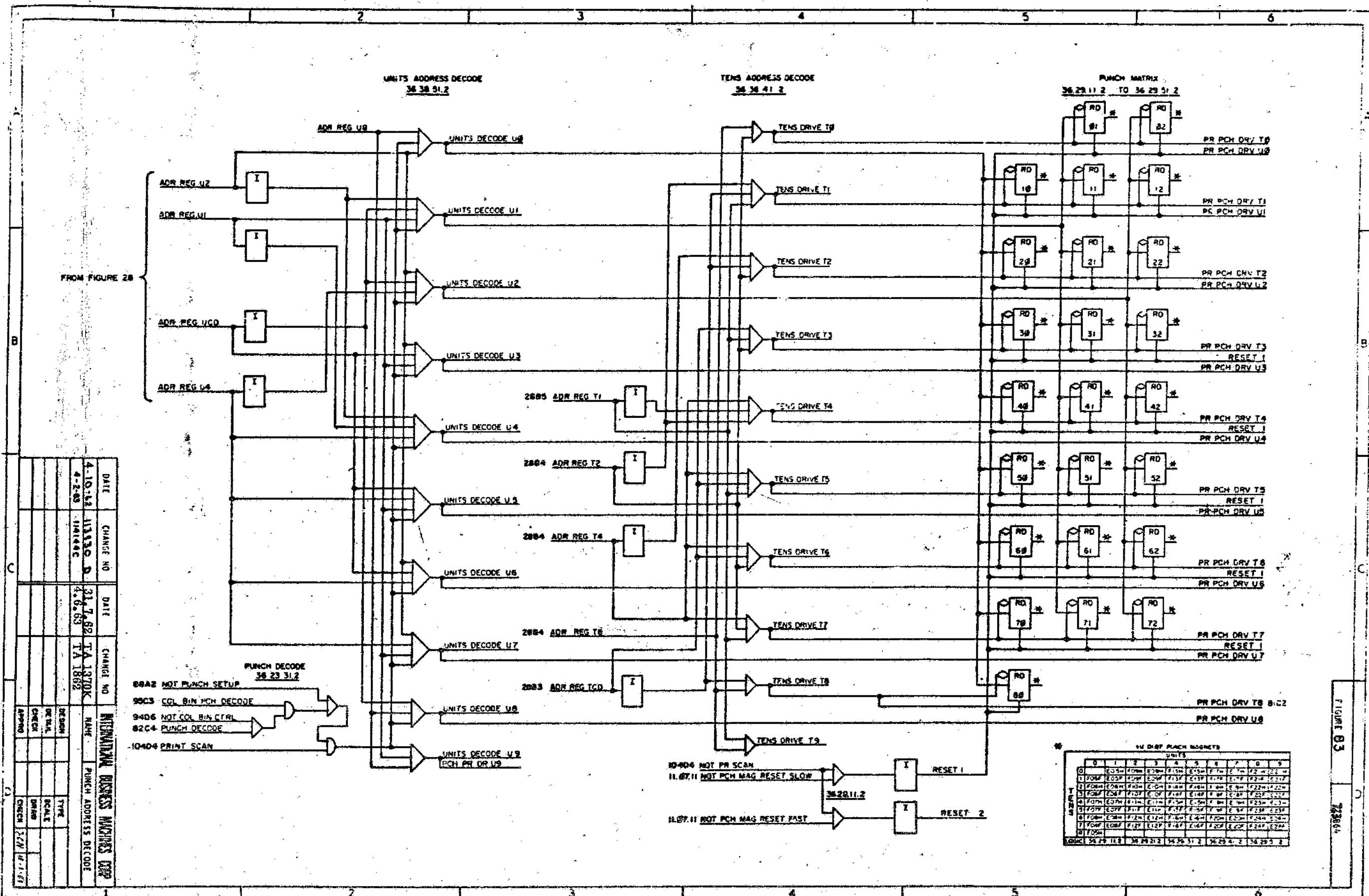
36-23-11-2
36-23-11-2
36-23-11-2

PUNCH CHECK DECODE
36-23-11-2



DATE	CHANGE NO	DATE	CHANGE NO	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-61	11310 B	21.7.62	TA 1378K	NAME	PUNCH A REG DECODE
4-2-63	116144C	4.6.63	TA 1862	AND PUNCH CHECK DECODE	
				DESIGN	TYPE
				DETAIL	SCALE
				CHECK	DRAWN VE 7-11-61
				APPRO	CHECK

723863
1862



FROM FIGURE 28

DATE	CHANGE NO	DATE	CHANGE NO	NAME	PUNCH ADDRESS DECODE
4-10-62	11330 D	31-7-62	TA 1370K	INTERVAL BUSINESS MACHINES CORP	
4-2-63	11414C	4-6-63	TA 1882		
				REVISION	TYPE
				DESCRIPTION	SCALE
				CHECK	DATE
				APPROV	DATE

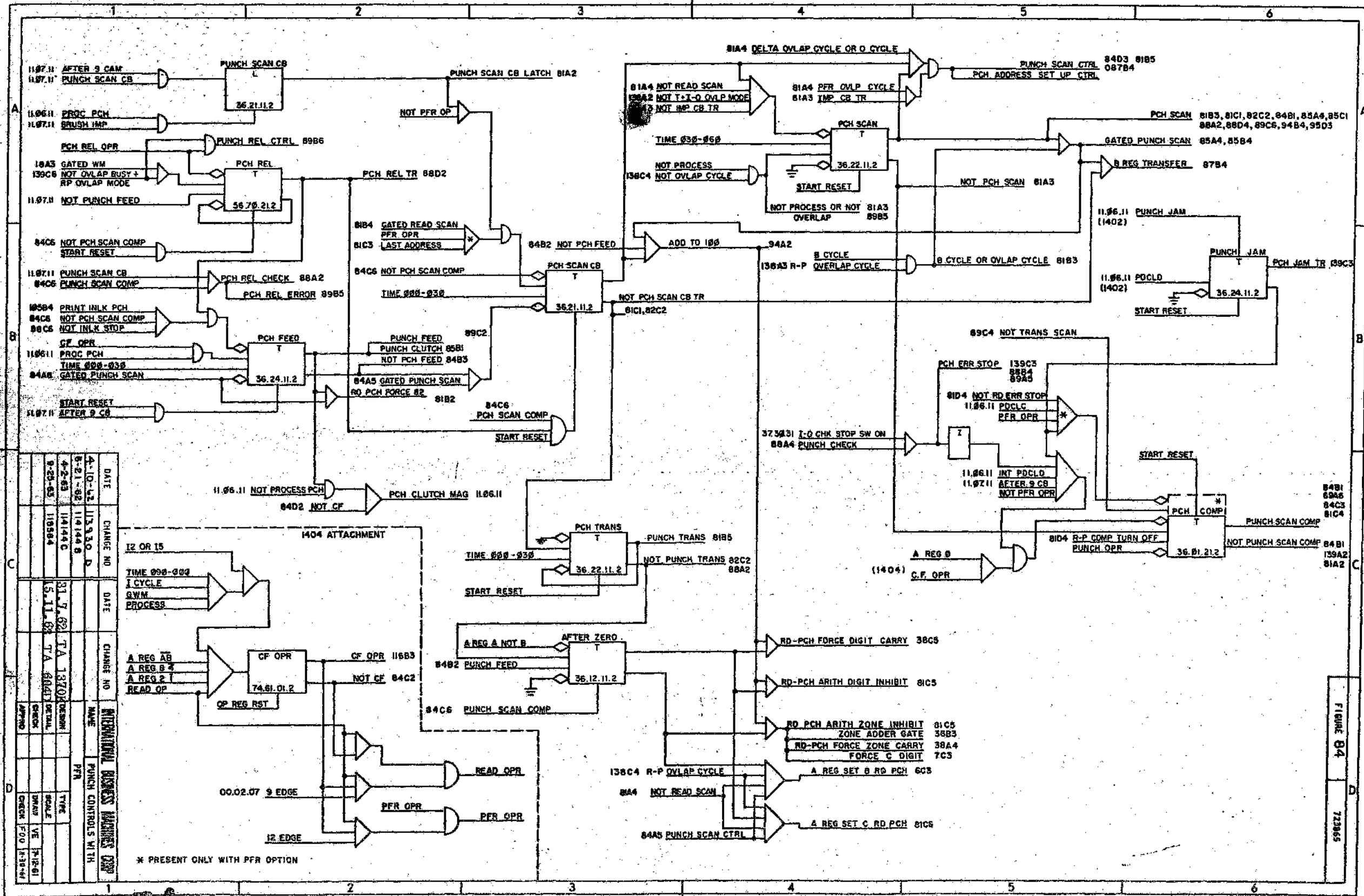
- 88A2 NOT PUNCH SETUP
- 96C3 COL BIN PCH DECODE
- 9406 NOT COL BIN CTRL
- 82C4 PUNCH DECODE
- 10404 PRINT SCAN

- 10404 NOT PR SCAN
- 11.07.11 NOT PCH MAG RESET SLOW
- 11.07.11 NOT PCH MAG RESET FAST

UNITS	0	1	2	3	4	5	6	7	8	9
0	E05W	E06W	E07W	E08W	E09W	E10W	E11W	E12W	E13W	E14W
1	F05W	F06W	F07W	F08W	F09W	F10W	F11W	F12W	F13W	F14W
2	G05W	G06W	G07W	G08W	G09W	G10W	G11W	G12W	G13W	G14W
3	H05W	H06W	H07W	H08W	H09W	H10W	H11W	H12W	H13W	H14W
4	I05W	I06W	I07W	I08W	I09W	I10W	I11W	I12W	I13W	I14W
5	J05W	J06W	J07W	J08W	J09W	J10W	J11W	J12W	J13W	J14W
6	K05W	K06W	K07W	K08W	K09W	K10W	K11W	K12W	K13W	K14W
7	L05W	L06W	L07W	L08W	L09W	L10W	L11W	L12W	L13W	L14W
8	M05W	M06W	M07W	M08W	M09W	M10W	M11W	M12W	M13W	M14W
9	N05W	N06W	N07W	N08W	N09W	N10W	N11W	N12W	N13W	N14W

FIGURE 03
72864

723864

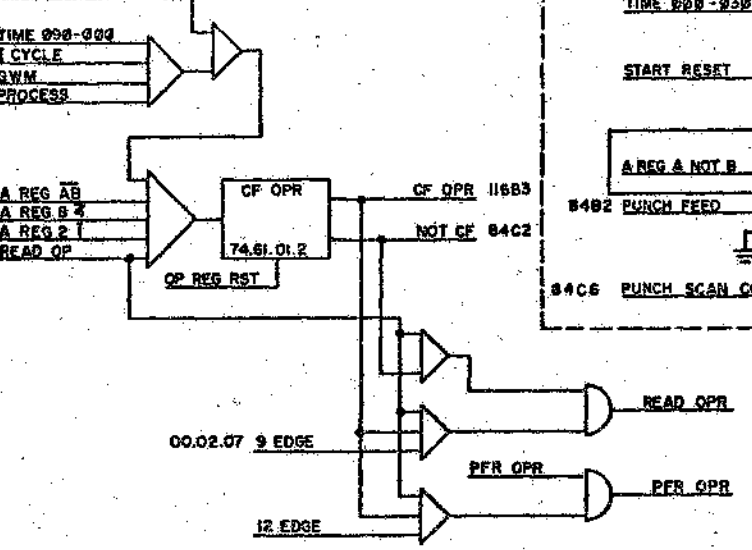


DATE	CHANGE NO	DESCRIPTION
4-10-62	113930 D	
8-21-62	119144 B	
4-2-63	114140 C	
8-23-63	118884	
5-11-64	TA 13702	
5-11-64	TA 8047	

DATE	CHANGE NO	DESCRIPTION
5-11-64	TA 13702	
5-11-64	TA 8047	

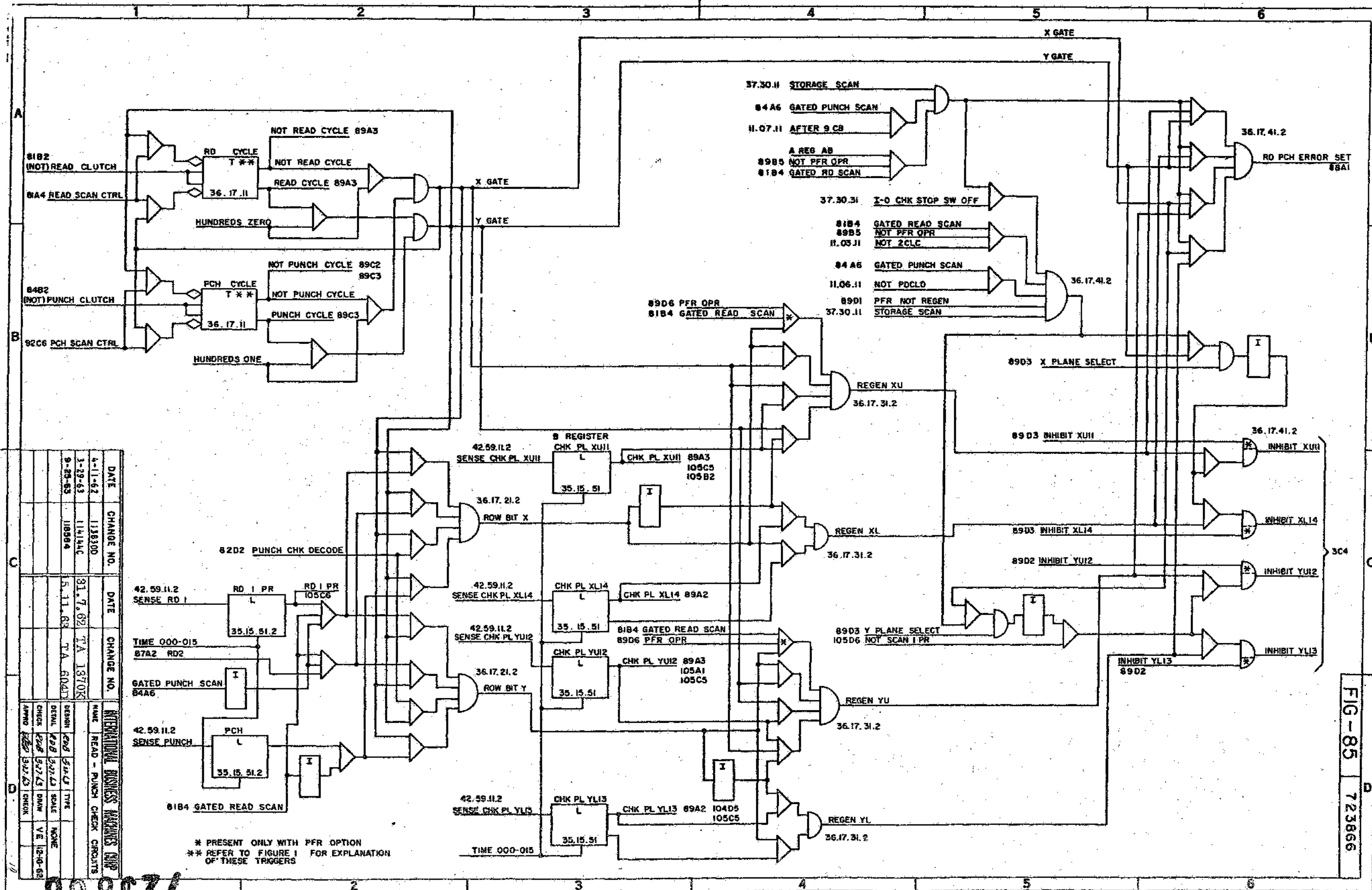
DATE	CHANGE NO	DESCRIPTION
5-11-64	TA 13702	
5-11-64	TA 8047	

1404 ATTACHMENT



7238 65

FIGURE 84
723865



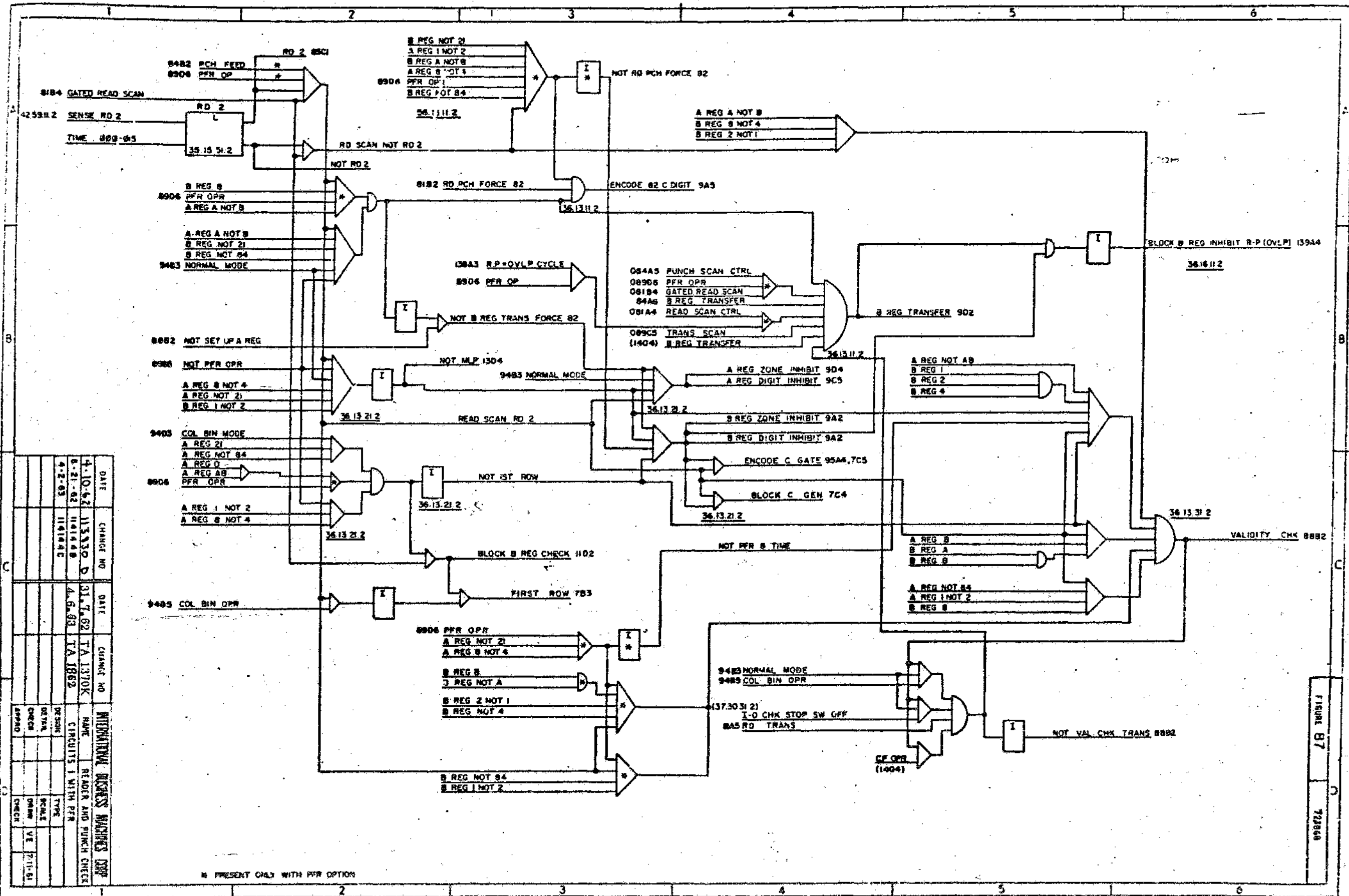
DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-62	118800	31.7.62	TA 1370K
3-29-63	11414AC		
9-29-63	118984	5.11.63	TA 604D

NAME	DESIGN	CHK	DATE	TIME
READ - PUNCH CHECK CIRCUITS	208	208	5/27/63	10:00
	208	208	5/27/63	10:00
	208	208	5/27/63	10:00
	208	208	5/27/63	10:00
	208	208	5/27/63	10:00
	208	208	5/27/63	10:00

* PRESENT ONLY WITH PFR OPTION
 ** REFER TO FIGURE 1 FOR EXPLANATION OF THESE TRIGGERS

FIG-85 723866

723866



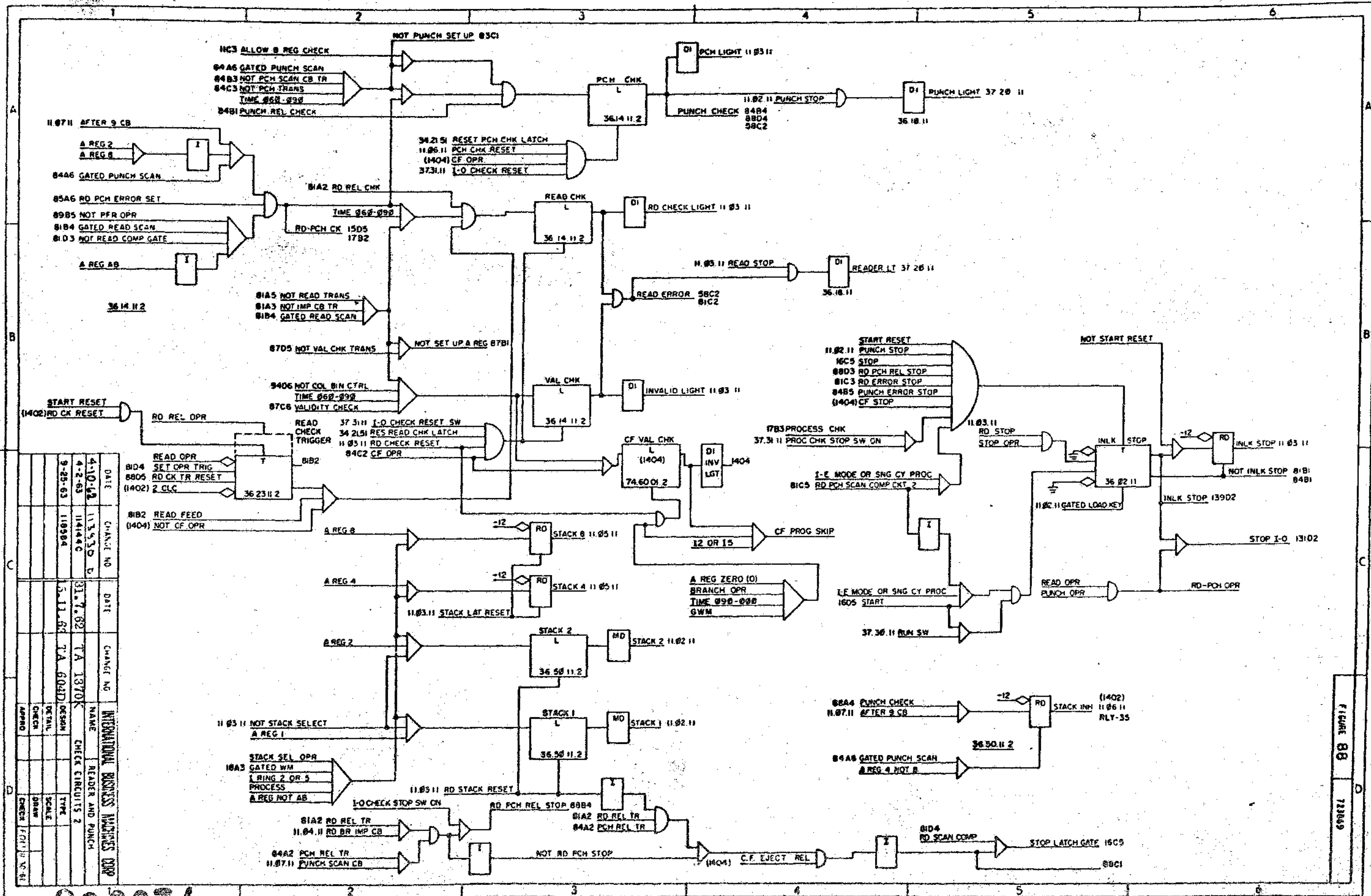
DATE	CHANGE NO	DATE	CHANGE NO	DESIGN	CHECK	APPRO
4-10-62	11330	3-17-62	TA 1370K	DESIGN		
6-21-62	11414A	4-6-62	TA 1852	CHECK		
4-2-63	11418AC			APPRO		

NAME	TYPE	DATE
READER AND PUNCH CHECK		
CIRCUITS WITH PFR		

IS PRESENT ONLY WITH PFR OPTION

FIGURE B7
72868

723868
MAR 2



DATE	CHANGE NO	DATE	CHANGE NO
4-10-61	11530 D	3-17-62	TA 1370K
4-2-63	11440 C	5-11-62	TA 6040D
9-25-63	11898 A		

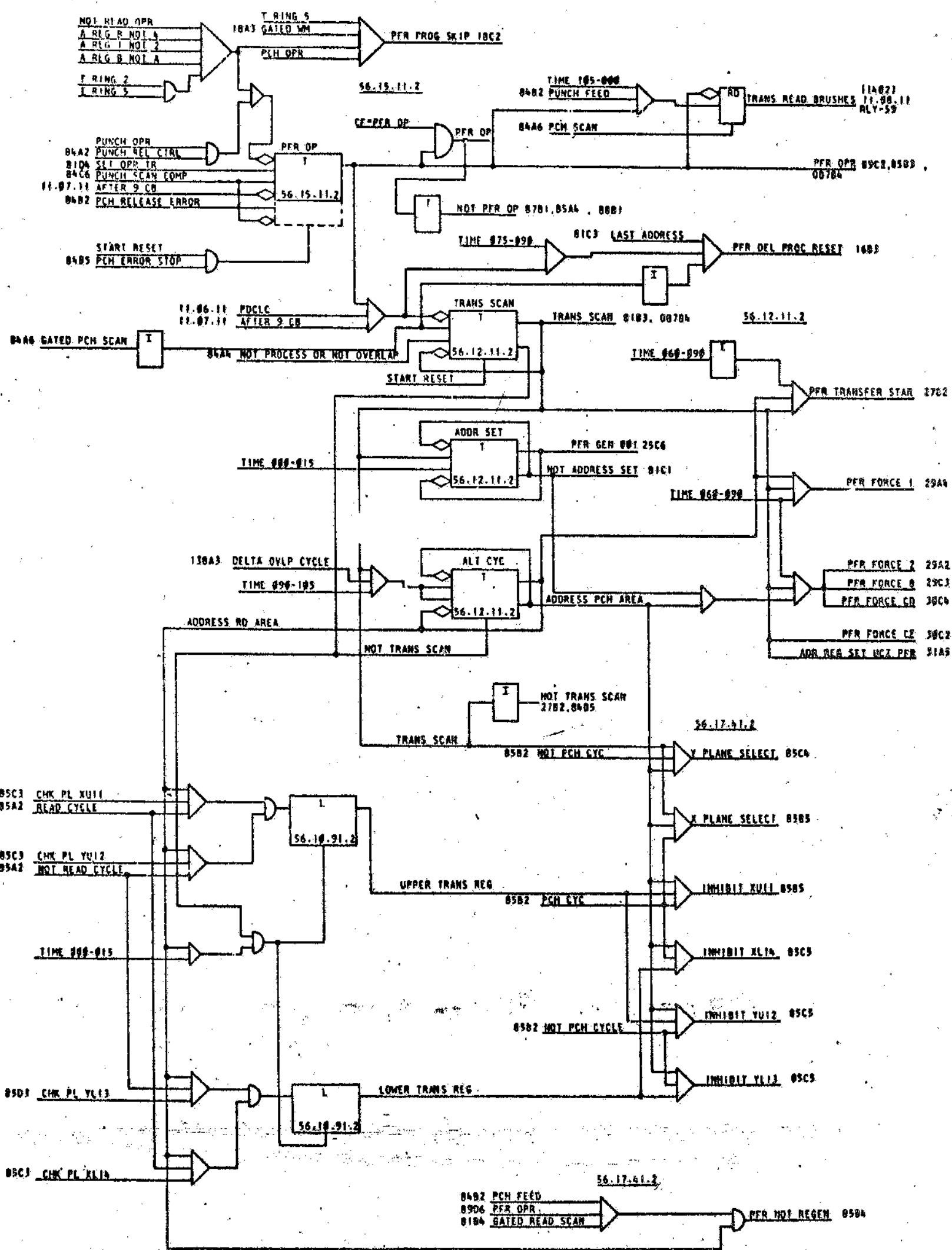
NAME	READER AND PUNCH CHECK CIRCUITS 2
DESIGN	
CHECK	
APPROV	
DRAW	
SCALE	
CHECK FOR 1/2 NO. 61	

FIGURE 88
72389

72389

FIGURE 89

723870

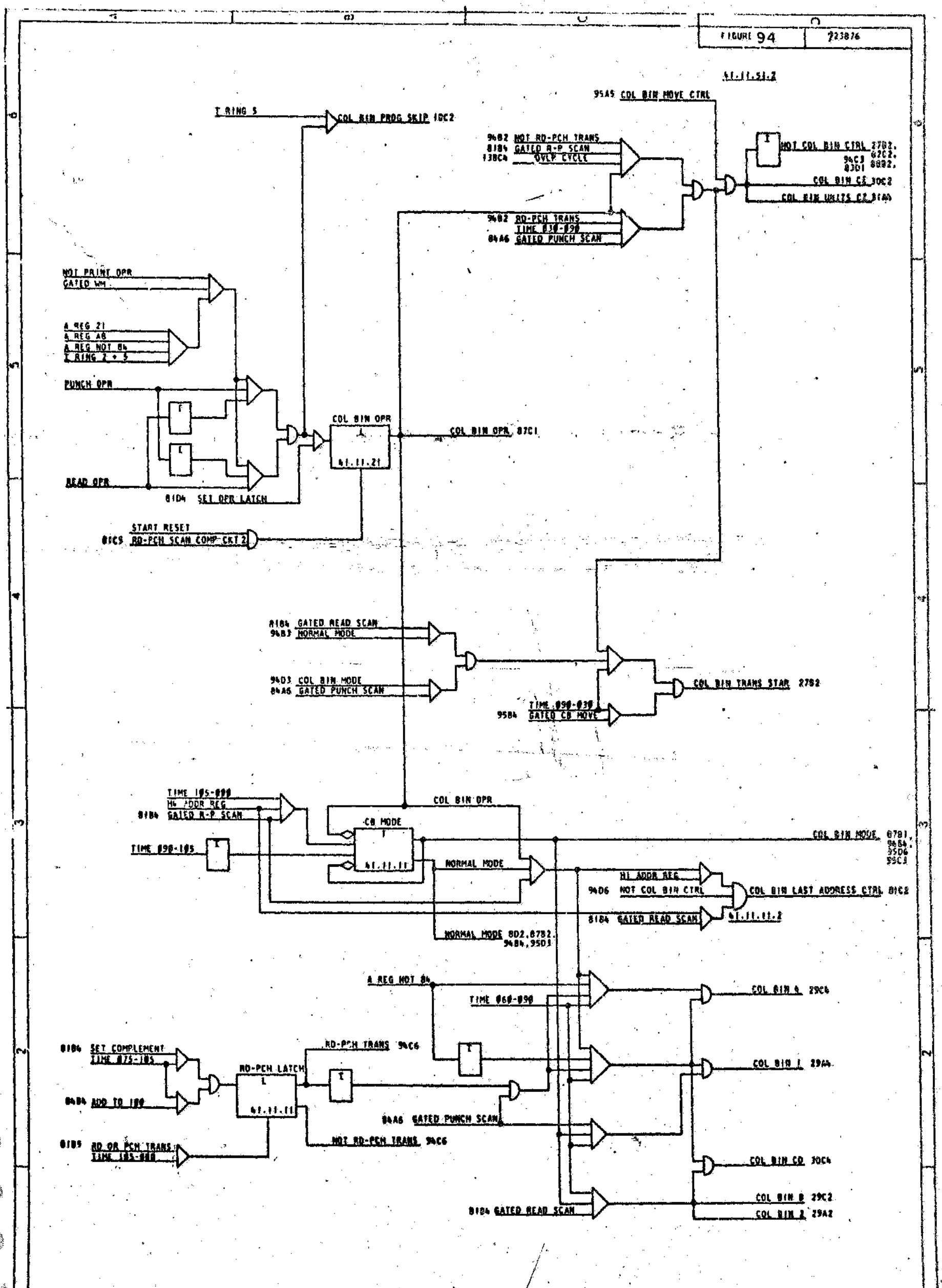


DATE	CHANGE NO	DATE	CHANGE NO	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113830 0	31.7.62	TA 1370K	NAME	PFR CONTROLS
6-21-62	114744B	4.6.63	TA 1882	DESIGN	TYPE
4-2-63	114744C			DETAIL	SCALE
				CHECK	DRAWN VE 7-8-61
				APPRO	CHECK 11.1.11

1862
723870

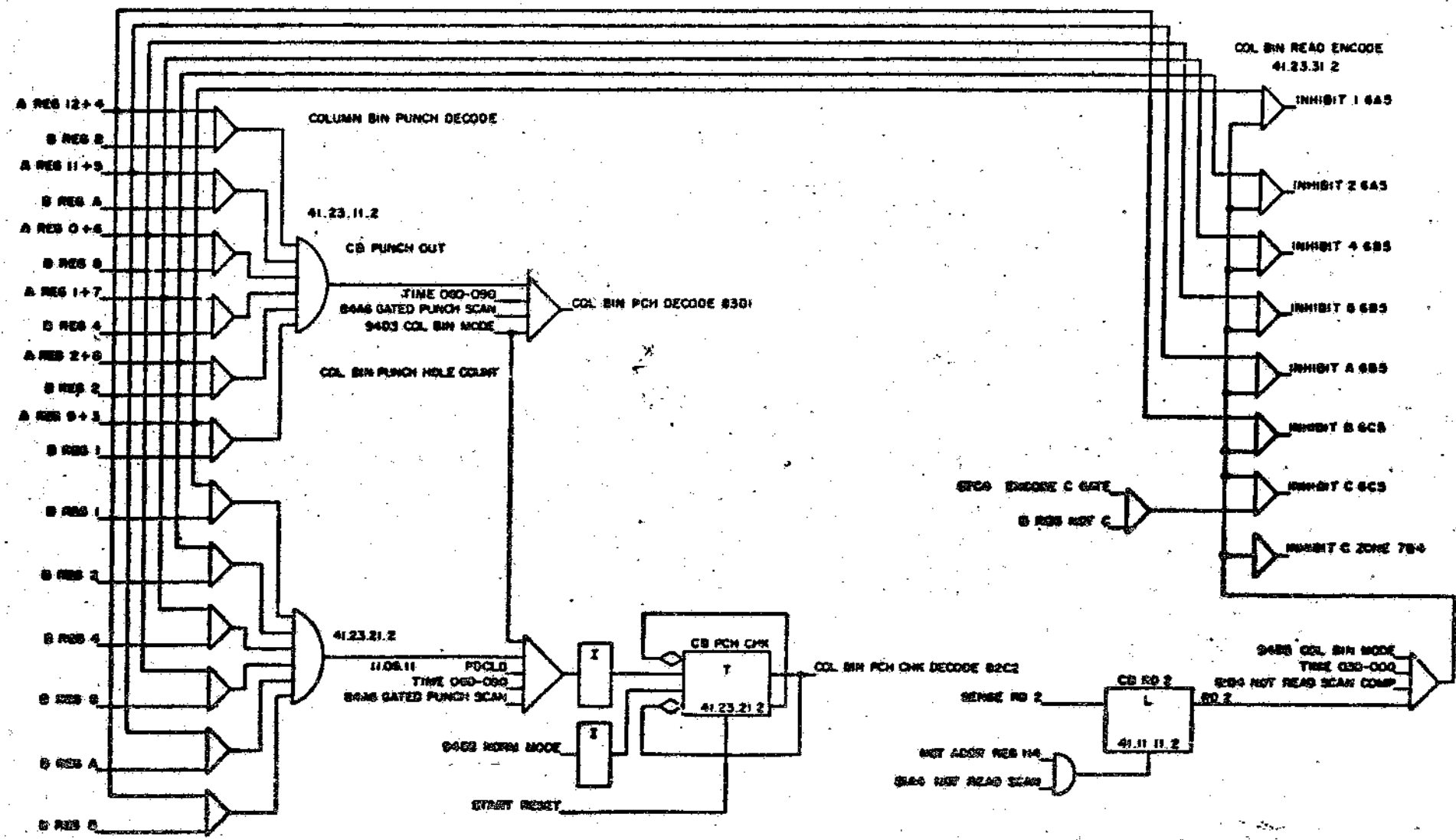
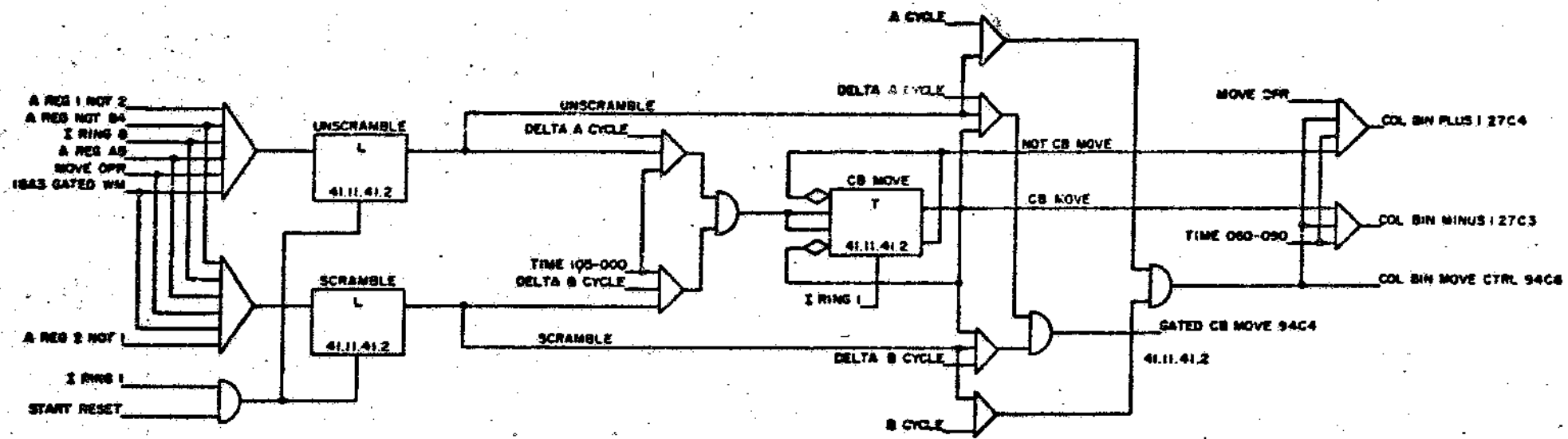
FIGURE 94 723876

61-11-51.2



DATE	CHANGE NO	DATE	CHANGE NO	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	11330-D	31-7-62	TA 1370K	NAME	COLUMN BINARY		
4-2-63	11410AC	4-6-63	TA 1862	CONTROLS I			
				DESIGN		TYPE	
				DETAIL		SCALE	
				CHECK		DRAW	VE 7-9-61
				APPRO		CHECK	

723876 1862



DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-52	1139100	01.7.62	TA 1360K
3-29-53	114134C	1.8.62	TA 1862

DATE	CHANGE NO.	DATE	CHANGE NO.
04.08.52	114134C	01.7.62	TA 1360K
05.08.52	114134C	1.8.62	TA 1862

DATE	CHANGE NO.	DATE	CHANGE NO.
07.05.52	114134C	01.7.62	TA 1360K
08.05.52	114134C	1.8.62	TA 1862

DATE	CHANGE NO.	DATE	CHANGE NO.
09.05.52	114134C	01.7.62	TA 1360K
10.05.52	114134C	1.8.62	TA 1862

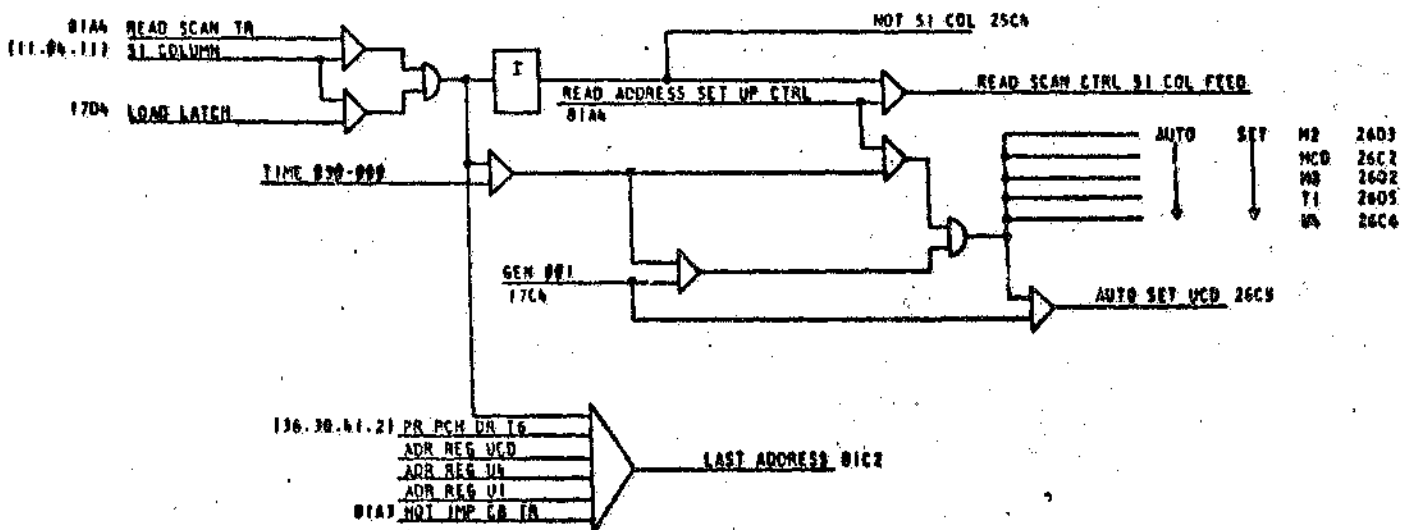
FIG-95 723877

1862
723877

FIGURE 97

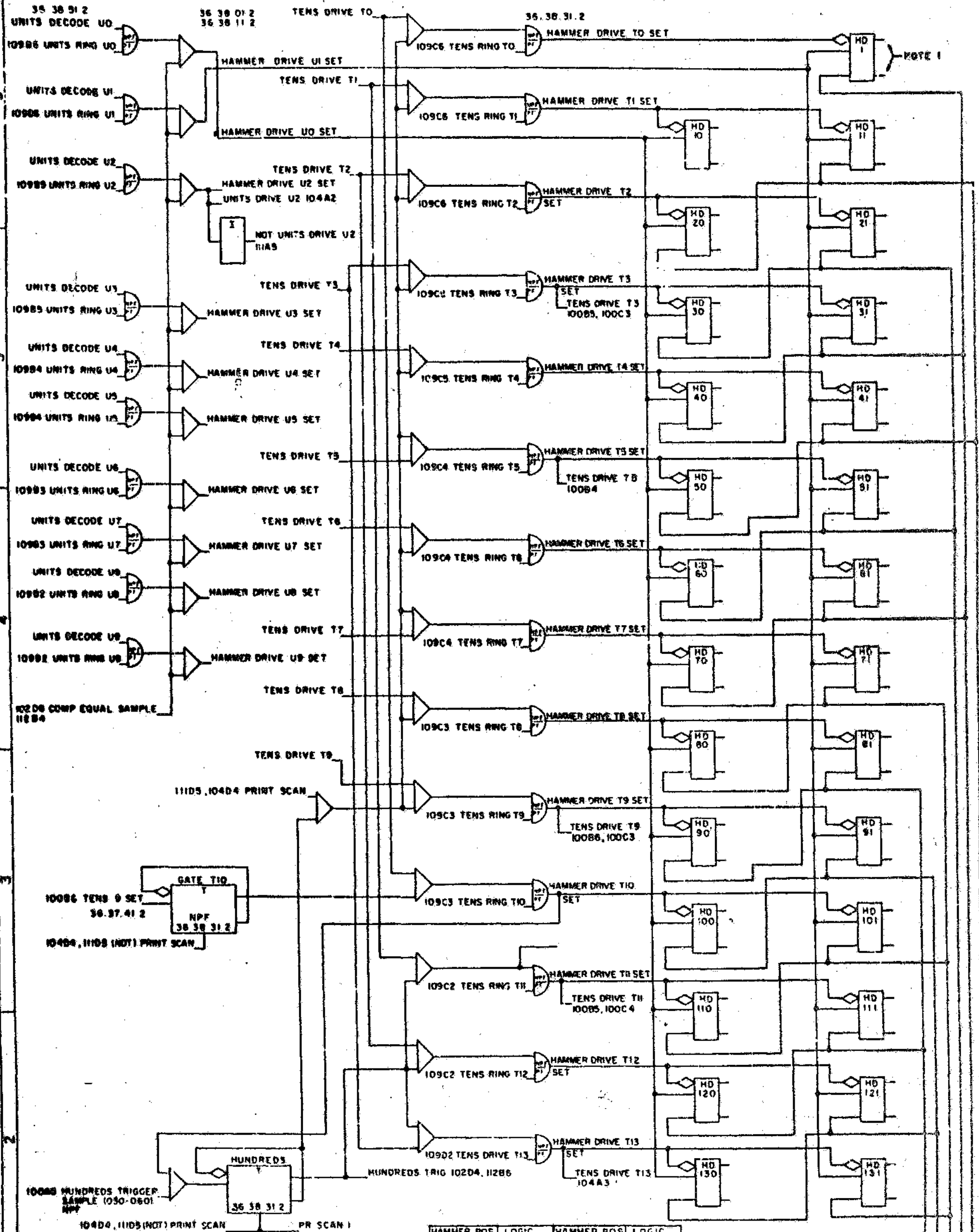
723879

SI COLUMN FEED
36.80.11.2



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113930 D	31.7.62	TA 1370K	SI COLUMN FEED			
1-2-63	FINANC	1.4.63	TA 1862	DESIGN		TYPE	
				DETAIL		SCALE	
				CHECK		DRAW	VE 9-12-61
				APPRO		CHECK	

723879
4862



HAMMER FIRE TEST POINTS V OIBS

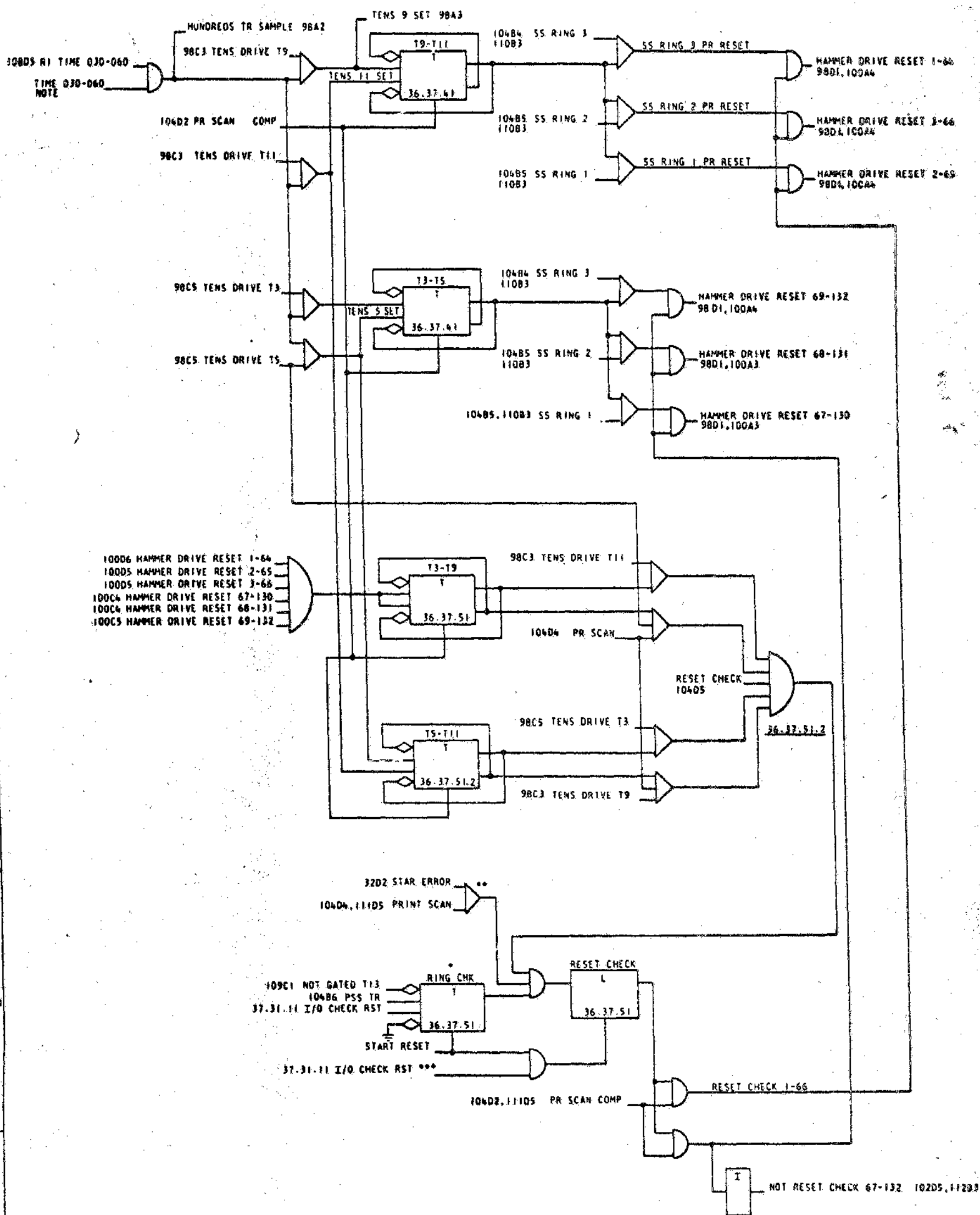
	UNITS								
	1	2	3	4	5	6	7	8	9
0	B05D	C05R	D05D	B04R	C05D	C05R	B06D	C06R	D06D
1	B06R	C06D	D06R	B07D	C07R	D07D	B07R	C07D	D07R
2	C08R	D08D	B08R	C08D	D08R	B09D	C09R	D09D	B09R
3	U09R	B10D	C10R	D10D	B10R	C10D	D10R	B11D	C11R
4	B11R	C11D	D11R	B12D	C12R	D12D	B12R	C12D	D12R
5	C13R	D13D	B13R	C13D	D13R	B14D	C14R	D14D	B14R
6	D14R	B15D	C15R	D15D	B15R	C15D	D15R	B16D	C16R
7	B16R	C16D	D16R	B17D	C17R	D17D	B17R	C17D	D17R
8	C18R	D18D	B18R	C18D	D18R	B19D	C19R	D19D	B19R
9	D19R	B20D	C20R	D20D	B20R	C20D	D20R	B21D	C21R
10	B21R	C21D	D21R	B22D	C22R	D22D	B22R	C22D	D22R
11	C23R	D23D	B23R	C23D	D23R	B24D	C24R	D24D	B24R
12	D24R	B25D	C25R	D25D	B25R	C25D	D25R	B26D	C26R
13	B26R	C26D	D26R						

HAMMER POS	LOGIC	HAMMER POS	LOGIC
1-9	36 38 61 2	90-99	36 39 51 2
10-19	36 38 71 2	100-109	36 39 61 2
20-29	36 38 81 2	110-119	36 39 71 2
30-39	36 38 91 2	120-129	36 39 81 2
40-49	36 39 01 2	130-132	36 39 91 2
50-59	36 39 11 2		
60-69	36 39 21 2		
70-79	36 39 31 2		
80-89	36 39 41 2		

- 10005 HAMMER RESET 89-132
- 10004 HAMMER RESET 67-130
- 10004 HAMMER RESET 68-131
- 10005 HAMMER RESET 3-68
- 10005 HAMMER RESET 1-64
- 10005 HAMMER RESET 2-65

NOTE 1 - TOP HALF OF HD'S GOES TO HAMMER COILS BOTTOM HALF OF HD'S GOES OUT AS RESPONSE LINES

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-11-62	1138300	31-7-62	TA 1370K	NAME PRINT - DATA FLOW
1-29-63	114144C	4-6-63	TA 1862	DESIGN 1/2 1/63 TYPE
				DETAIL 1/2 1/63 SCALE NONE
				CHECK 1/2 1/63 DRAW VE 12-10-
				APPN

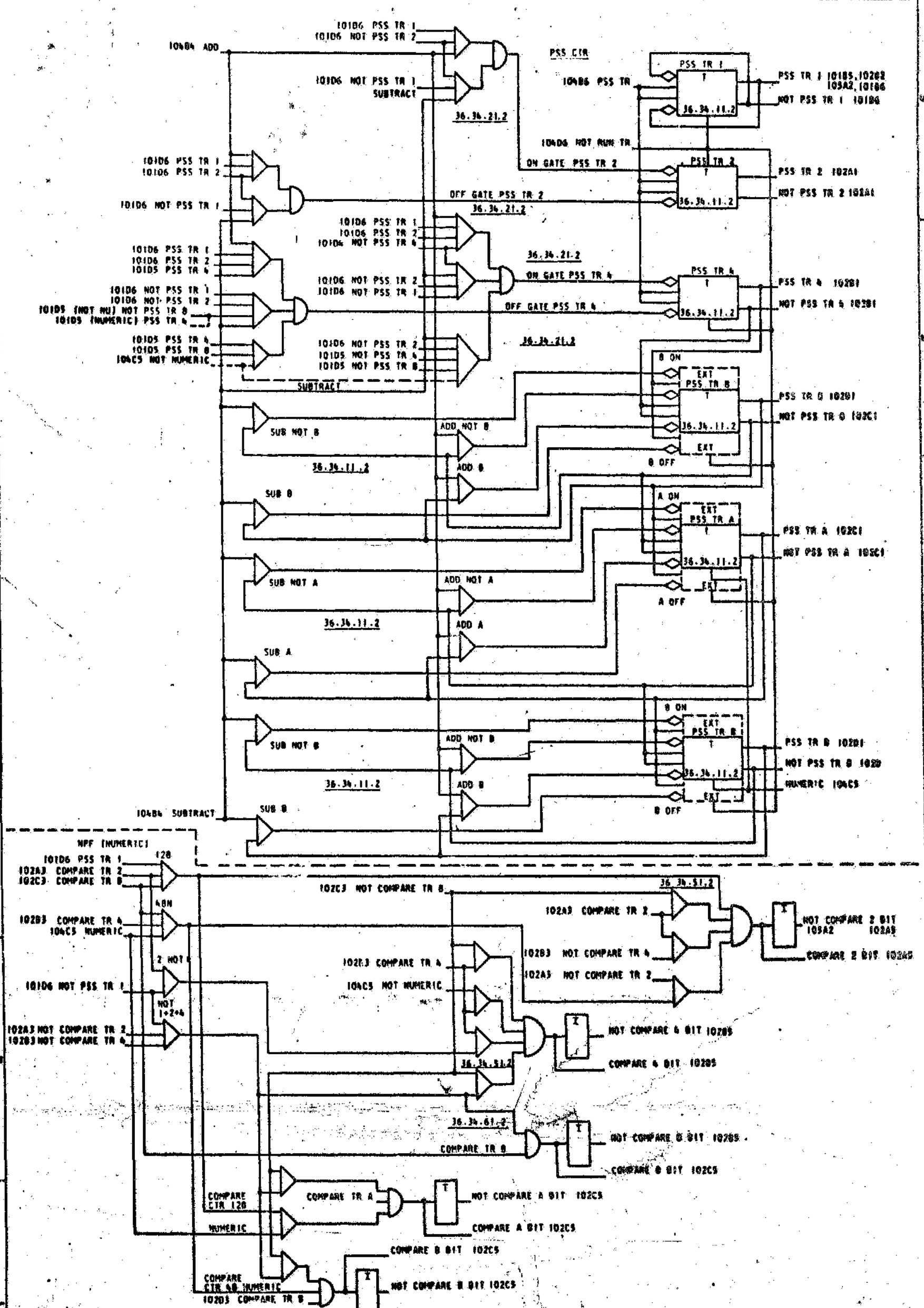


NOTE: REFER TO LOGIC 36.37.41 FOR DIFFERENCE OF PF AND NPF

*PRESENT WITH PF OPTION ONLY
 **PRESENT WITH NPF OPTION ONLY
 ***CAPACITOR INPUT-LATCH CAN NOT BE HELD IN THE OFF CONDITION

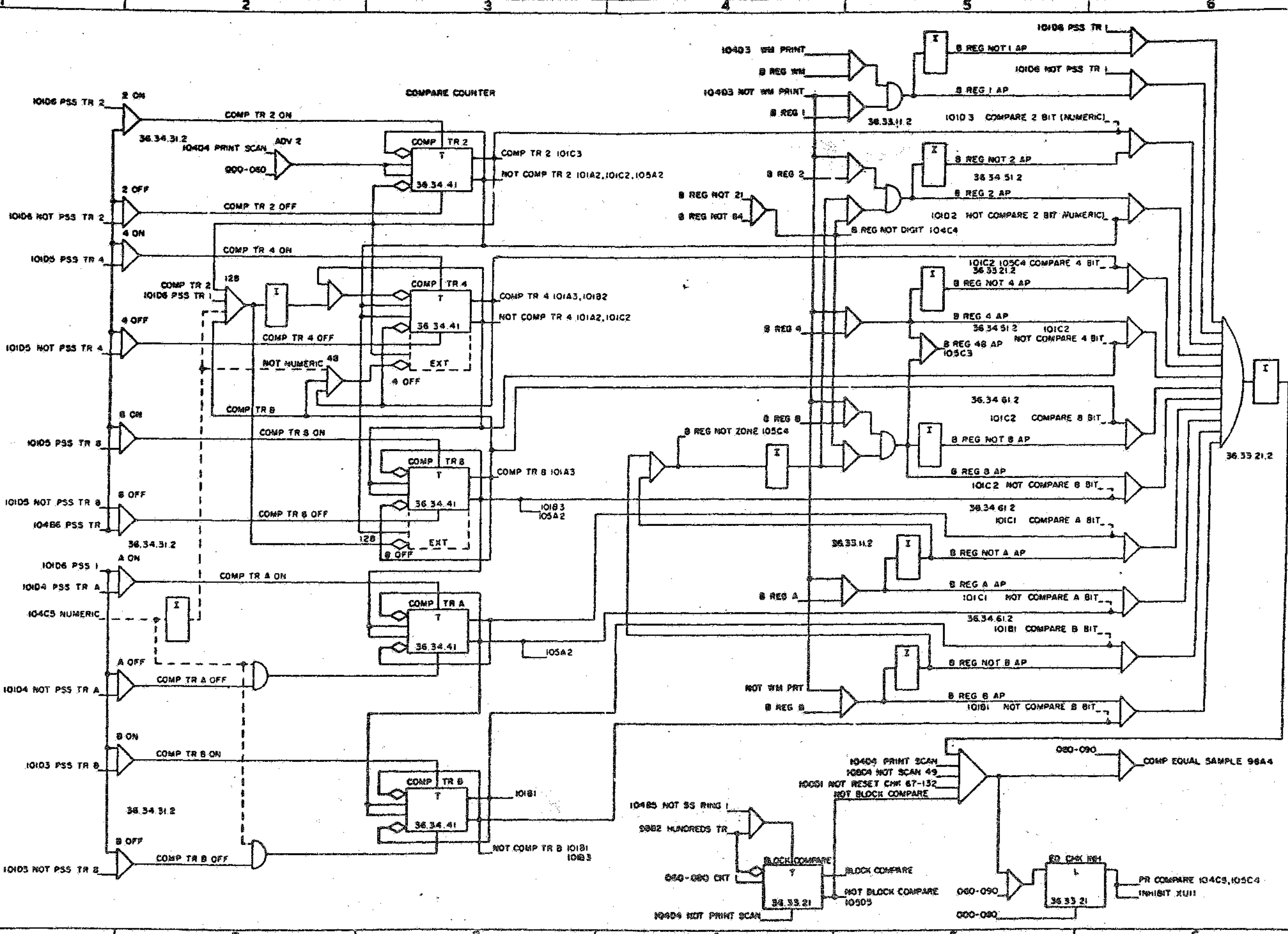
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	112930 D			NAME HAMMER DRIVE RESET			
6-21-62	114144B						
4-2-63	114144C	31.7.62	TA 1370K	DESIGN		TYPE	
9-25-63	118584	15.11.63	TA 604D	DETAIL		SCALE	NONE
				CHECK		DRAW	VE 3-9-62
				APPRO		CHECK	

FIGURE 101 723883



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP		
4-10-62	11330 D	31.7.62	TA 1370K	NAME		
4-2-63	11414C	4.6.63	TA 1862	PRINT	SUB SCAN COUNTERS (NPF)	
				DESIGN		TYPE
				DETAIL		SCALE NONE
				CHECK		DRAW VE 11-0-61
				APPRO		CHECK 47431-2361

17284871



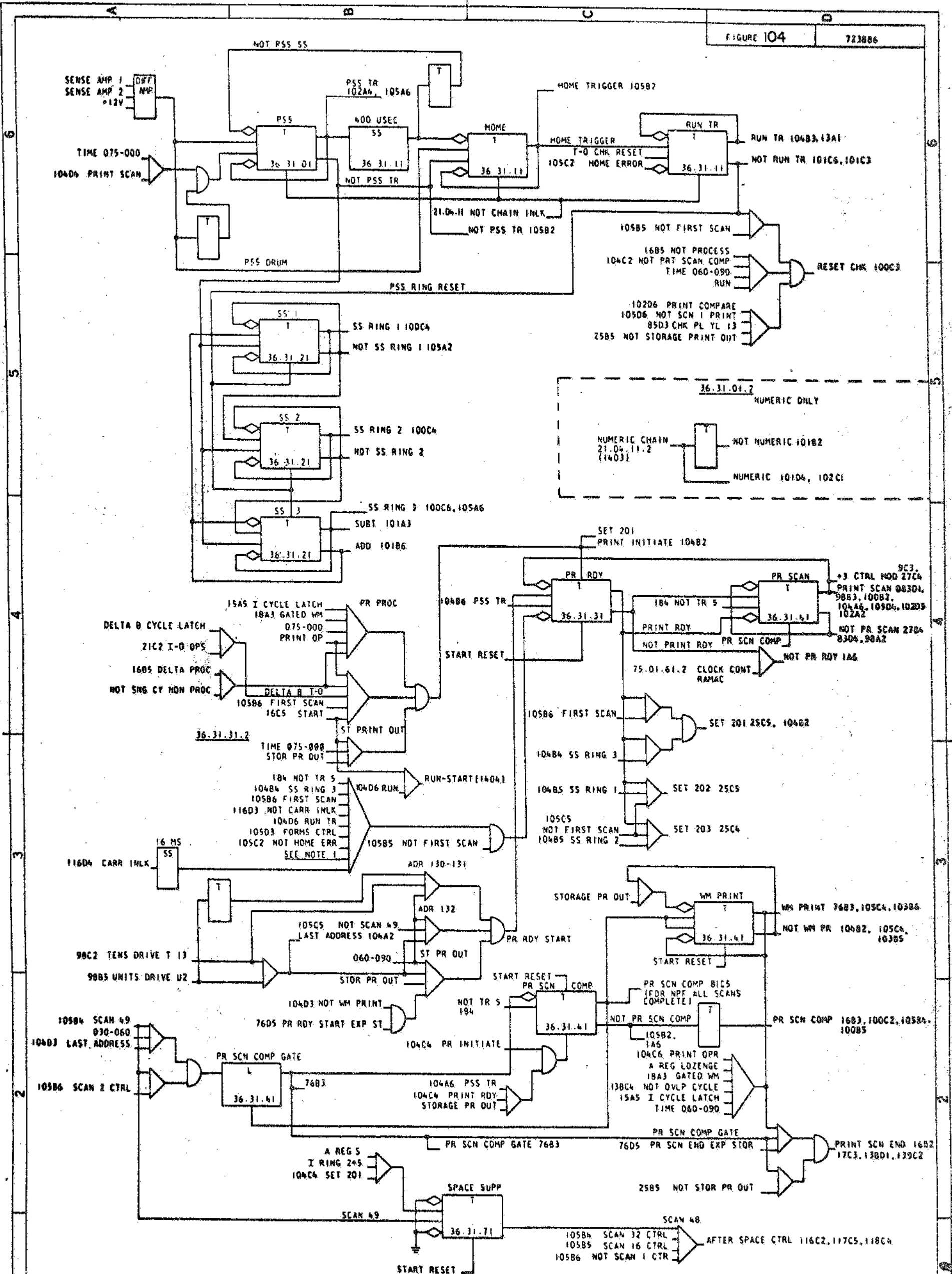
DATE	CHANGE NO.	DATE	CHANGE NO.
4-11-62	11830D	31.7.62	TA 1370K
1-29-63	11419AC	4.6.63	TA 1862

DESIGN	DATE	TYPE
COB 5 21 63	5/21/63	SCALE
COB 5 21 63	5/21/63	SCALE
COB 5 21 63	5/21/63	SCALE
COB 5 21 63	5/21/63	SCALE
COB 5 21 63	5/21/63	SCALE

NAME	PRINT COMPARE (MFR)
INTERNATIONAL BUSINESS MACHINES CORP	

FIG-102 723884

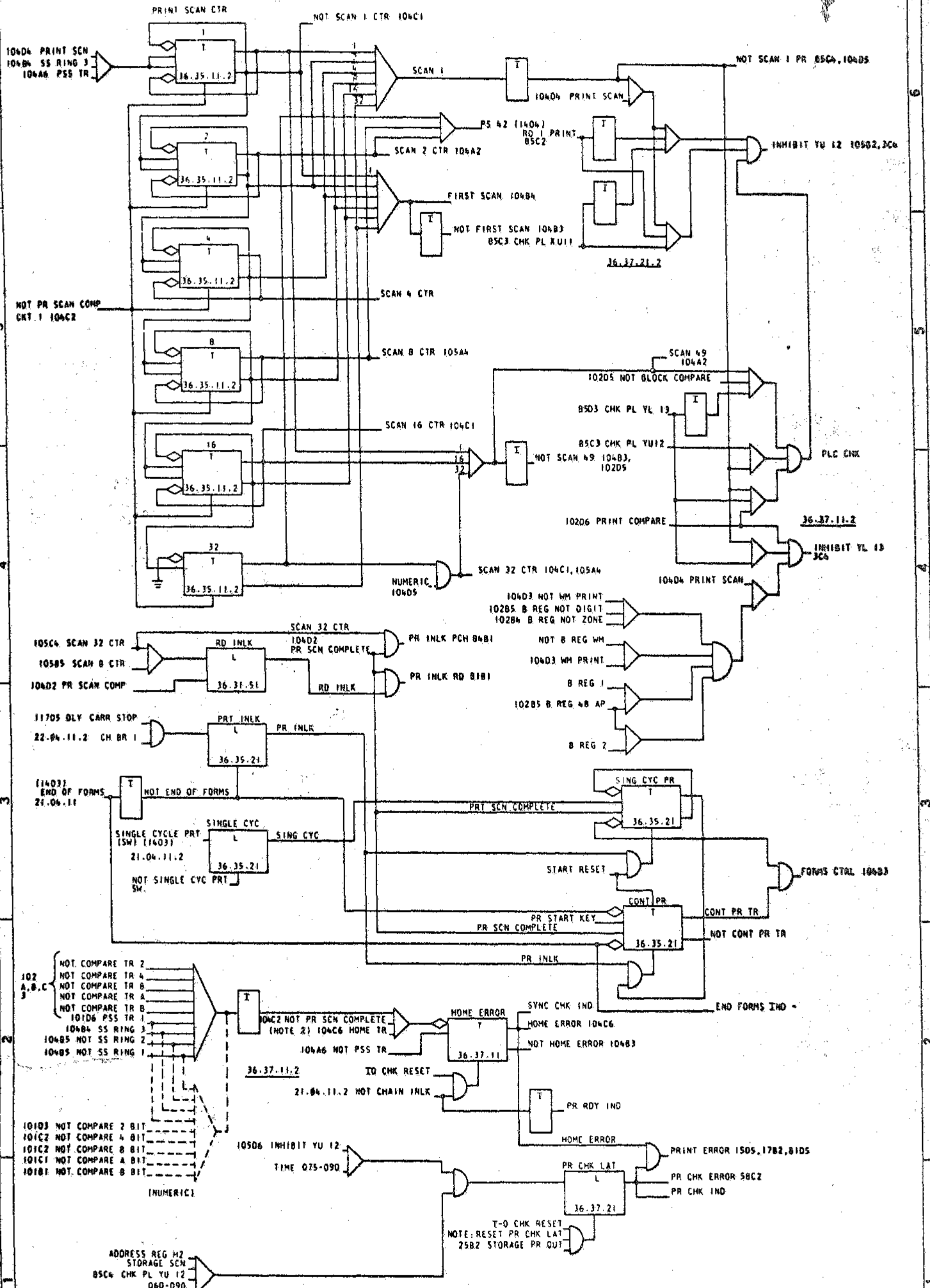
788371



NOTE 1: NORMALLY TIE TO 807K TO ALLOW PRINTING TO BEGIN ONLY. WITH HOME PULSE CHANGE JUMPER FROM 807K TO A10N.

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	117330			NAME PSS RINGS AND PRINT
4-2-63	114144C	31.7.63	TA 1370K	CONTROL (NPF)
9-25-63	118584	16.11.63	TA 604D	DESIGN
				TYPE
				DETAIL
				SCALE NONE
				CHECK
				DRAW VE 11-8-61
				APPRO CHECK 1778 11-27-61

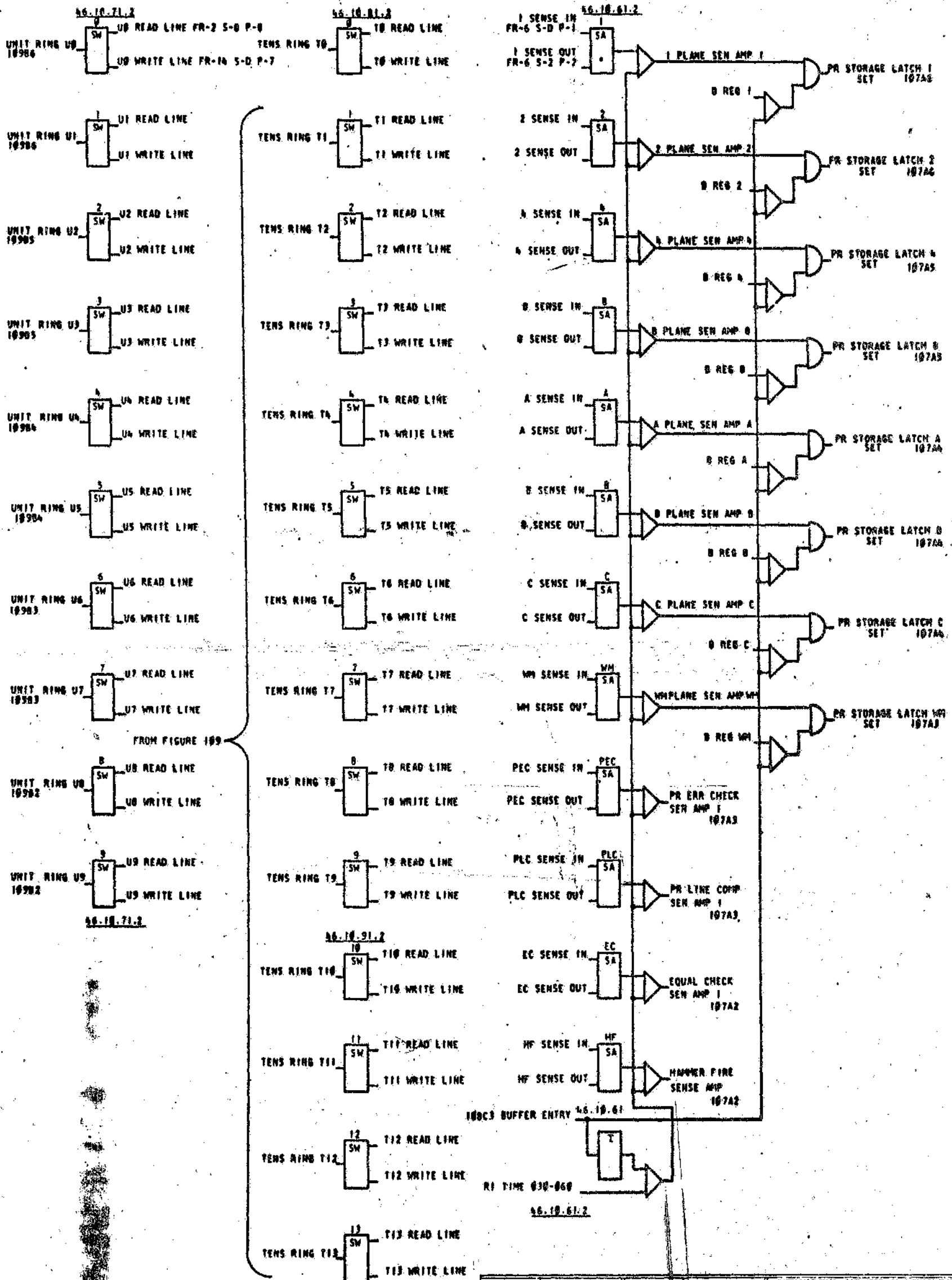
723886



NOTE 1: FROM BRANCH ON PRINTER ERROR CKT. LOGIC 34-21.51.2
 2: NORMALLY TIE TO ADIM. TO ALLOW SYNC CHECKS TO OCCUR WHEN NOT PRINTING, CHANGE JUMPER FROM ADIM TO ADIK

INTERNATIONAL BUSINESS MACHINES CORP			
DATE	CHANGE NO.	DATE	CHANGE NO.
4-10-62	11330-D		
4-2-63	114144C	31.7.62	TA 1370K
9-25-63	110584	15.11.63	TA 3041D

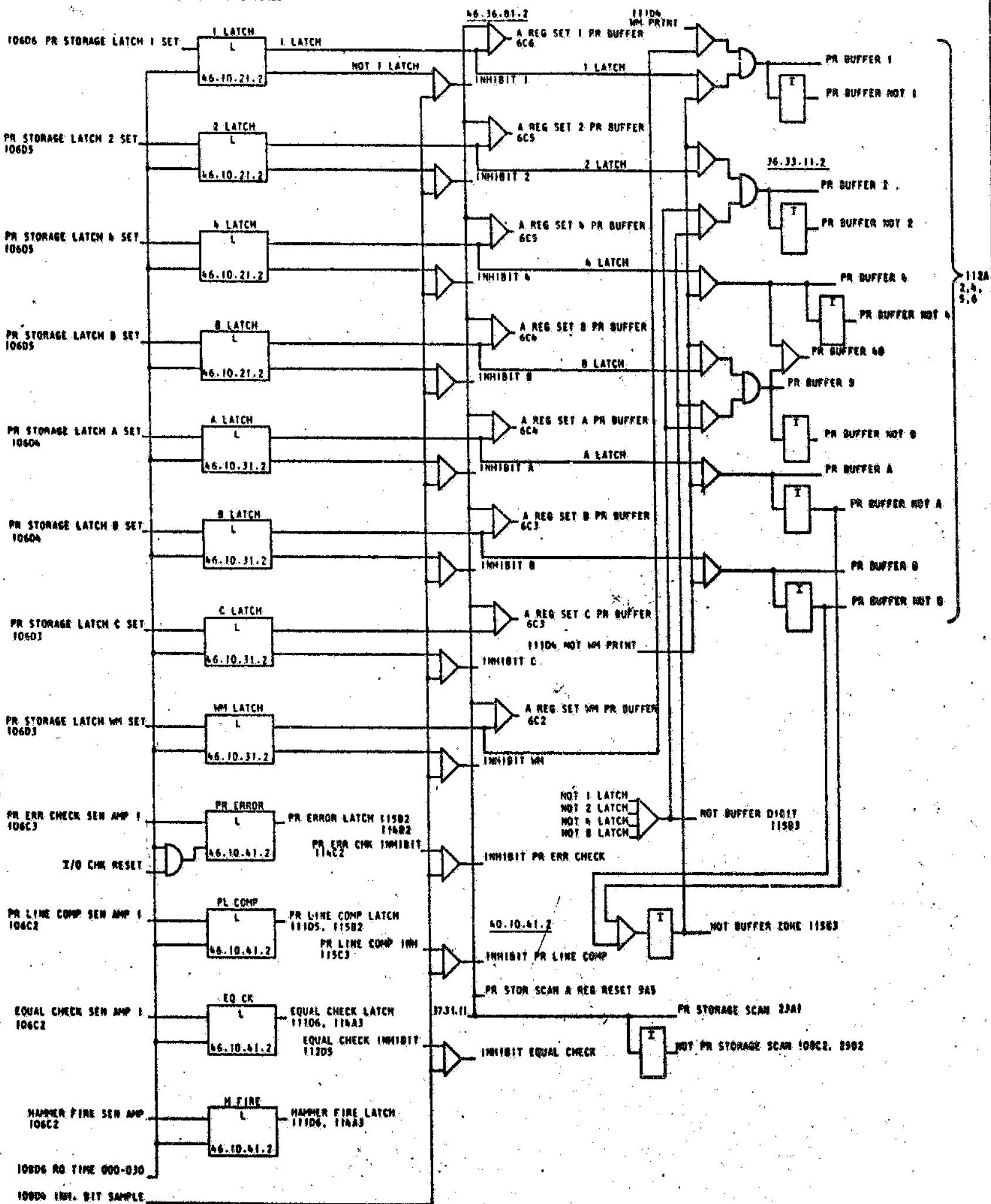
723887



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	11330 D	31.7.62	TA 1870K	NAME PRINT BUFFER STORAGE AND
4-2-63	11416NC	4.6.63	TA 1862	DATA FLOW I (PF1)
				DESIGN
				SCALE NONE
				CHECK
				DRAW YE 11-29-61
				APPRO. CHECK 11-2-61

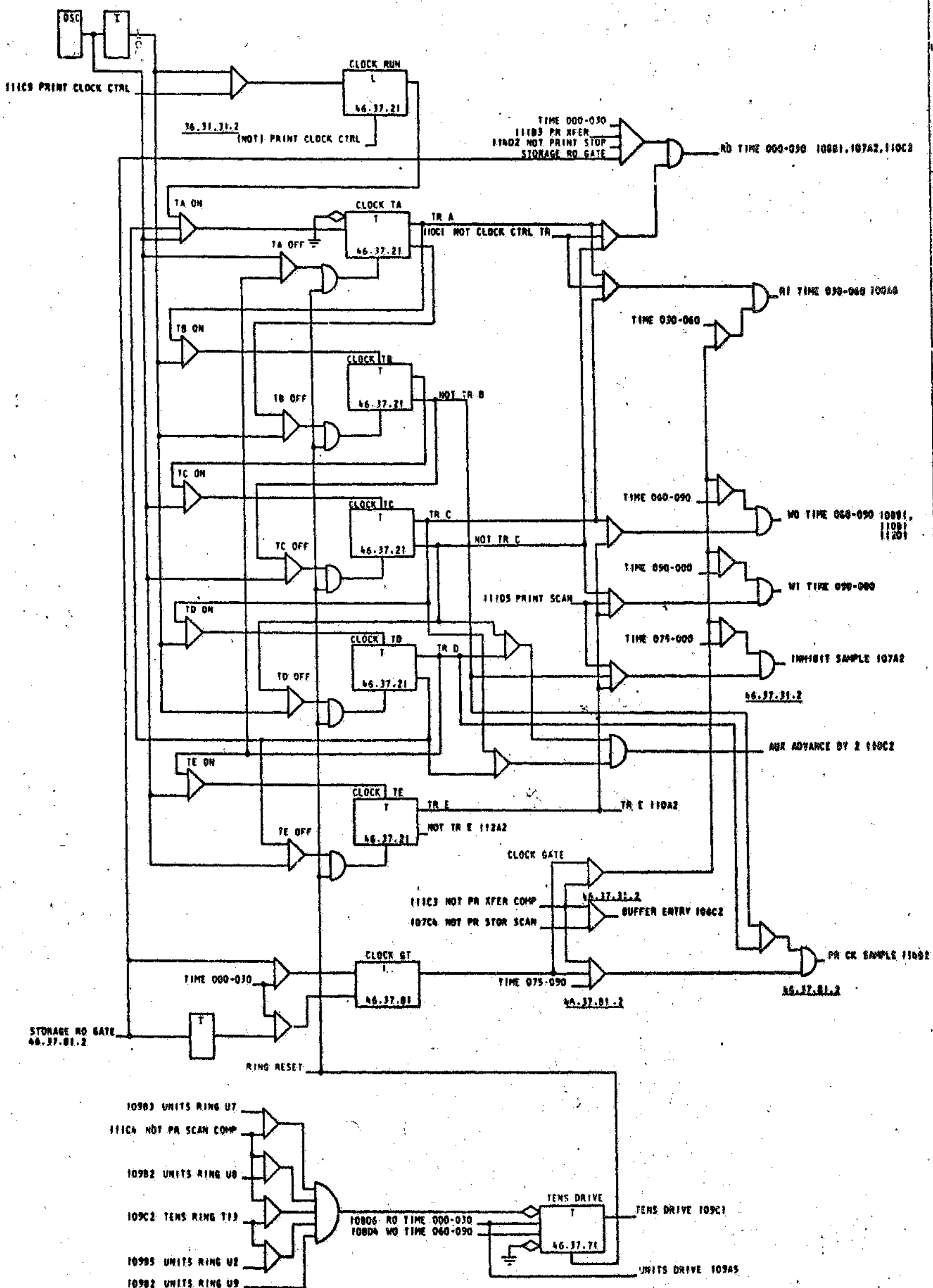
723000

PRINT STORAGE LATCHES



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113330	31.7.62	TA 1370K	NAME	PRINT BUFFER STORAGE AND
4-2-63	114164C	4.6.63	TA 1862		DATA FLOW 2 (PF)
				DESIGN	TYPE
				DETAIL	SCALE
				CHECK	DATE 11-29-61
				APPRO	CHECK 12-4-61

723859



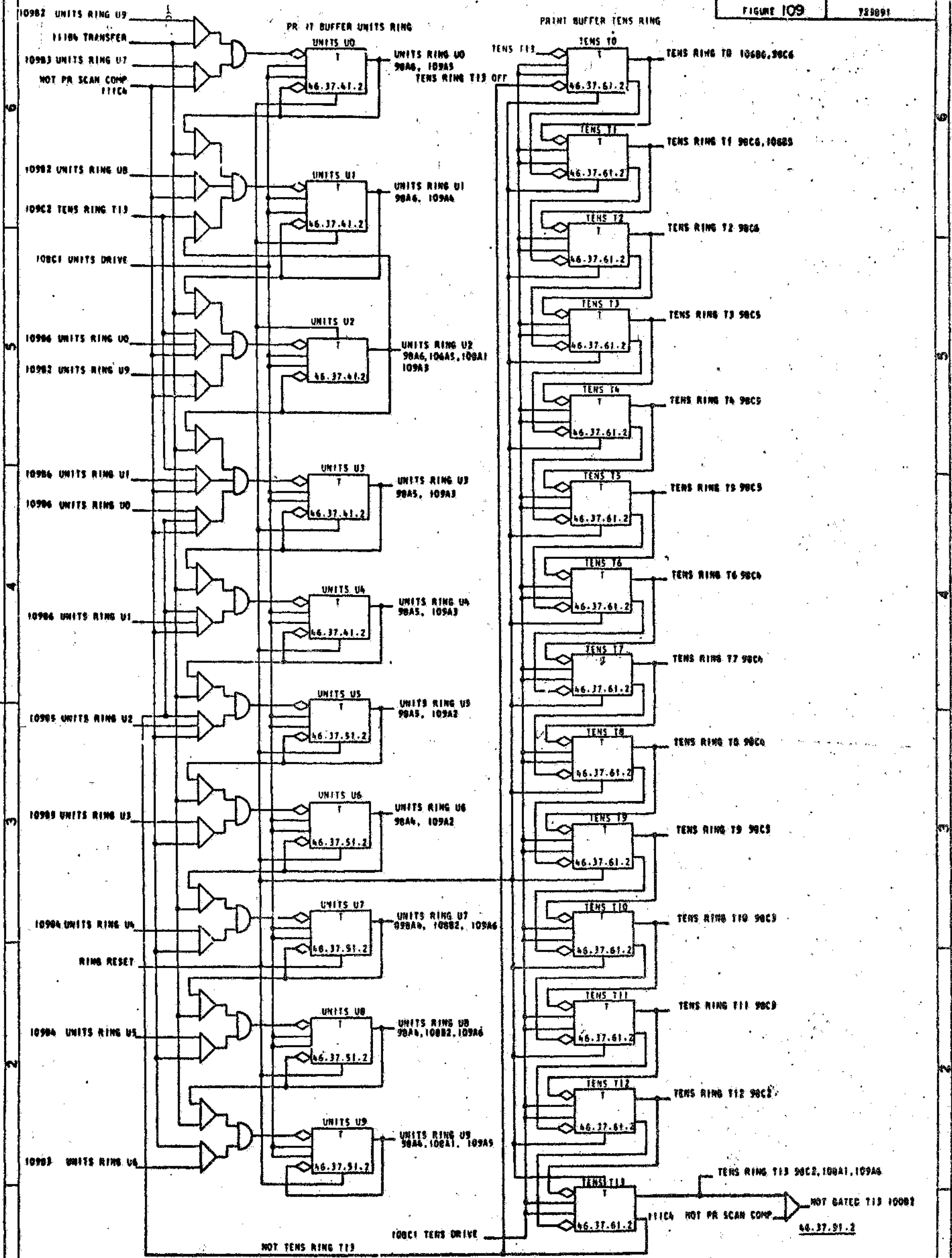
- 10983 UNITS RING U7
- 111C4 NOT PR SCAN COMP
- 10982 UNITS RING U8
- 109C2 TENS RING T13
- 10985 UNITS RING U2
- 10982 UNITS RING U9

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113930 D	31.7.62	TA 1370K	NAME	PRINT BUFFER CLOCK (PF)		
4-2-63	111A6C	4.8.63	TA 1802	DESIGN	TYPE	SCALE	NGNE
				DETAIL		DRAW	VE 1-10-62
				CHECK		CHECK	
				APPRO			

723890

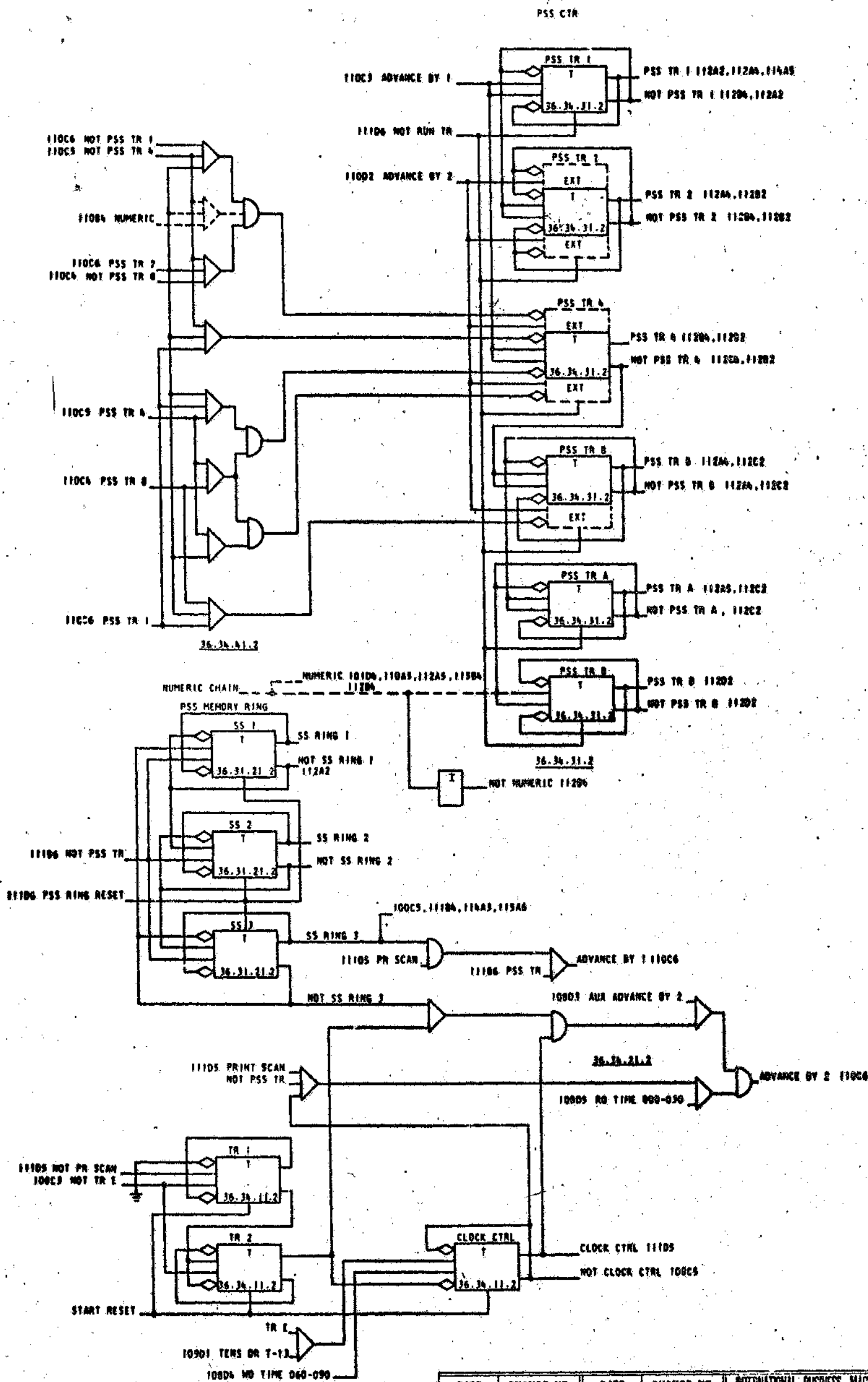
FIGURE 109

723891



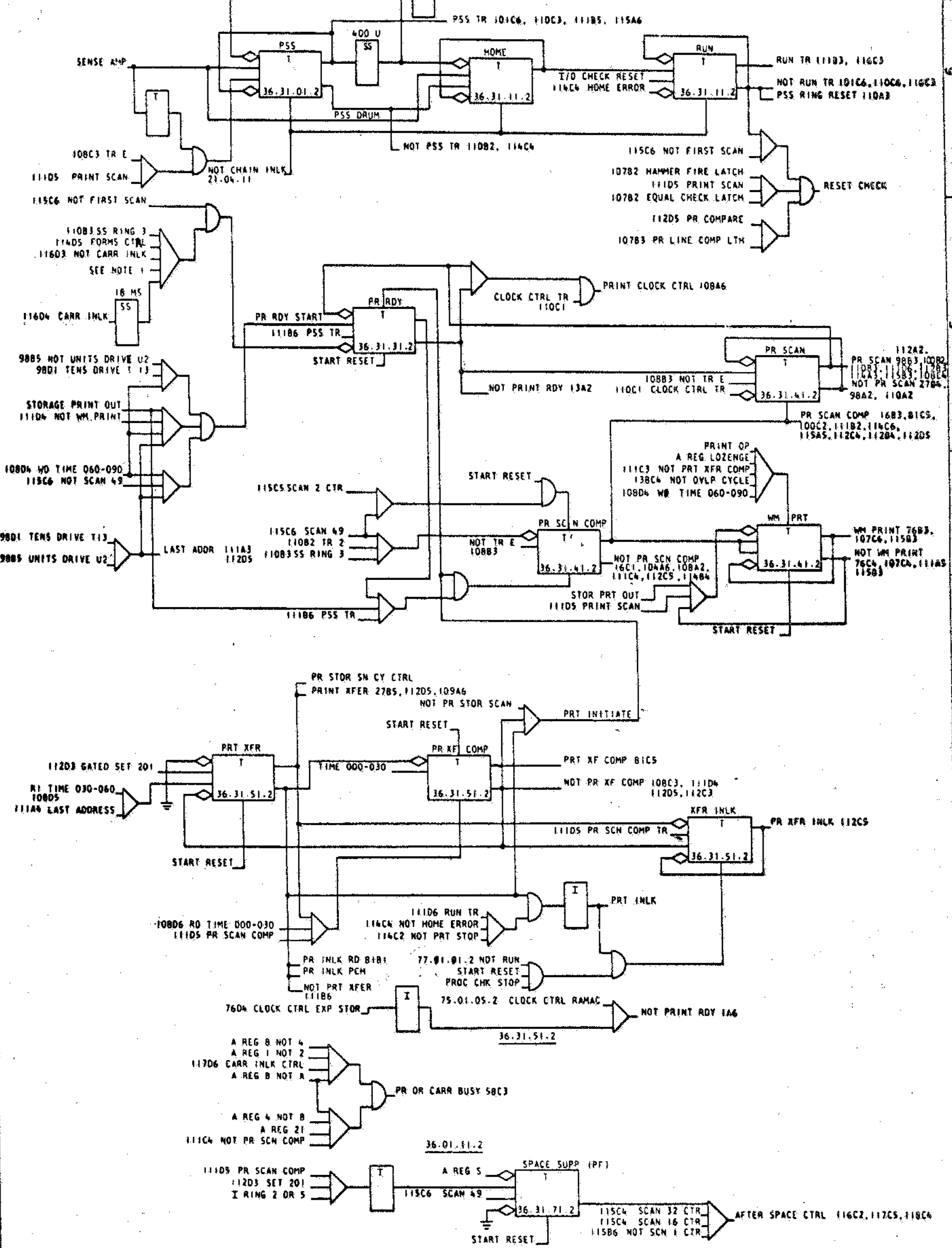
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-63	113330 N	31.7.62	TA 1370K	NAME	PRINT BUFFER RINGS		
8-2-63	116144C	4.8.63	TA 1862		(PP1)		
				DESIGN		TYPE	
				DETAIL		SCALE	NONE
				CHECK		DRAW	VE 1-40-62
				APPRO		CHECK	

723891



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP		
4-10-62	112370	31.7.62	TA 1370K	NAME	PRINT BUFFER COUNTERS	
4-2-63	112144C	4.6.62	TA 1862	(PP)	DESIGN	TYPE
				DETAIL	SCALE	NONE
				CHECK	DRAW	VE (1-10-61)
				APPRO	CHECK	CCN (11-27-61)

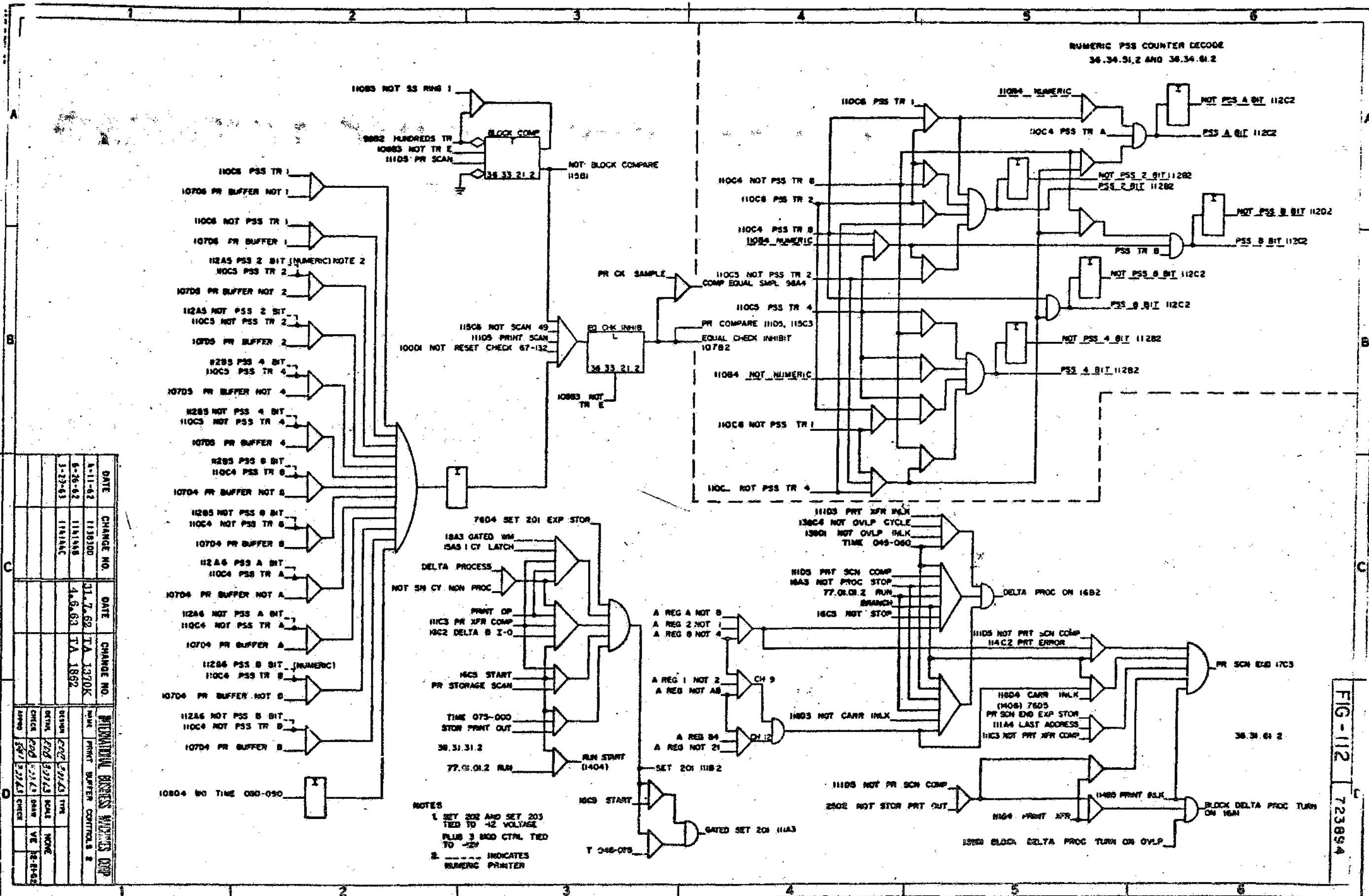
723892
1062



NOTE 1 JUMPER HOME PULSE TO ALLOW PRINTING TO BEGIN AT HOME TIME ONLY FOR DIAGNOSTIC USE

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	117220 D			NAME PRINT BUFFER CONTROLS I
4-2-63	114144C	31.7.62	TA 1370K	(PF)
9-25-63	118584	18.11.63	TA 6011	DESIGN
				DETAIL
				CHECK
				APPRO
				TYPE
				SCALE
				NGNE
				DRAW VE 148-61
				CHECK 2774-112761

143003



DATE	CHANGE NO.	DATE	CHANGE NO.
1-11-62	118100	31.7.62	TA 1370K
5-26-62	119148	4.6.63	TA 1862
1-23-63	121142		

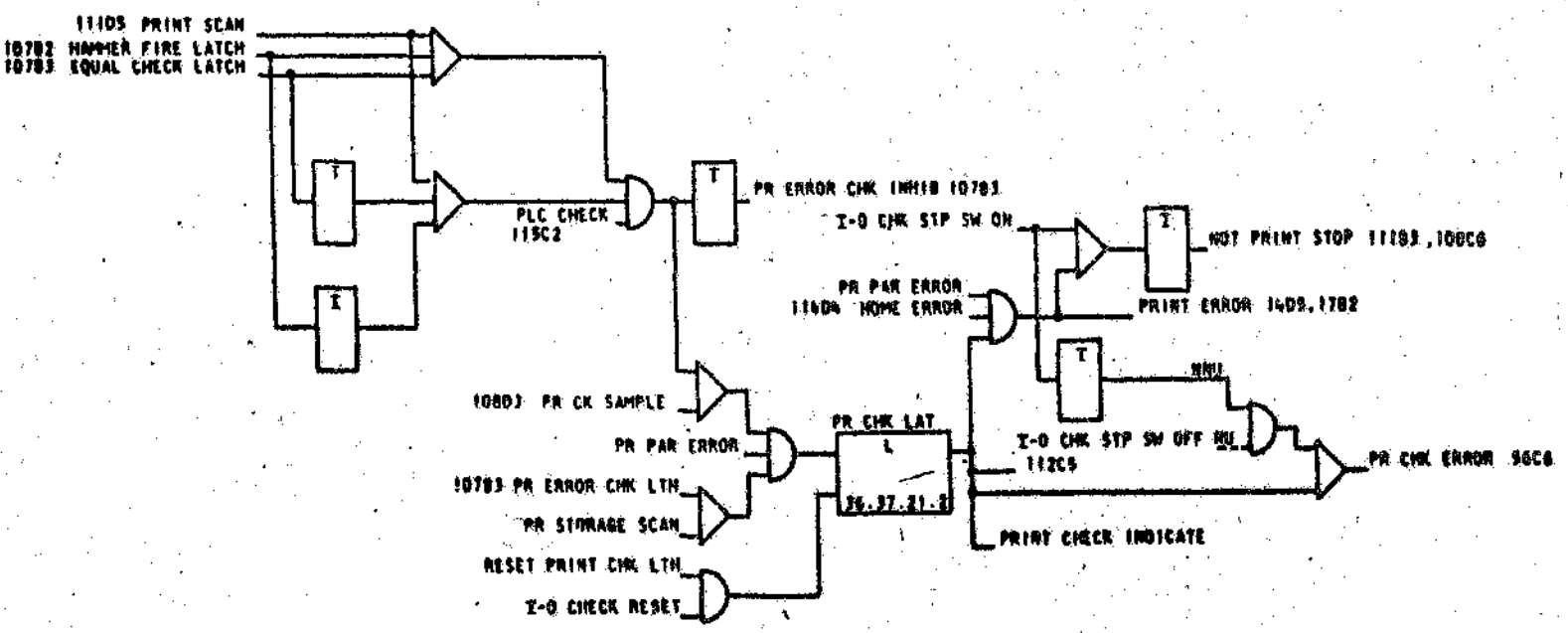
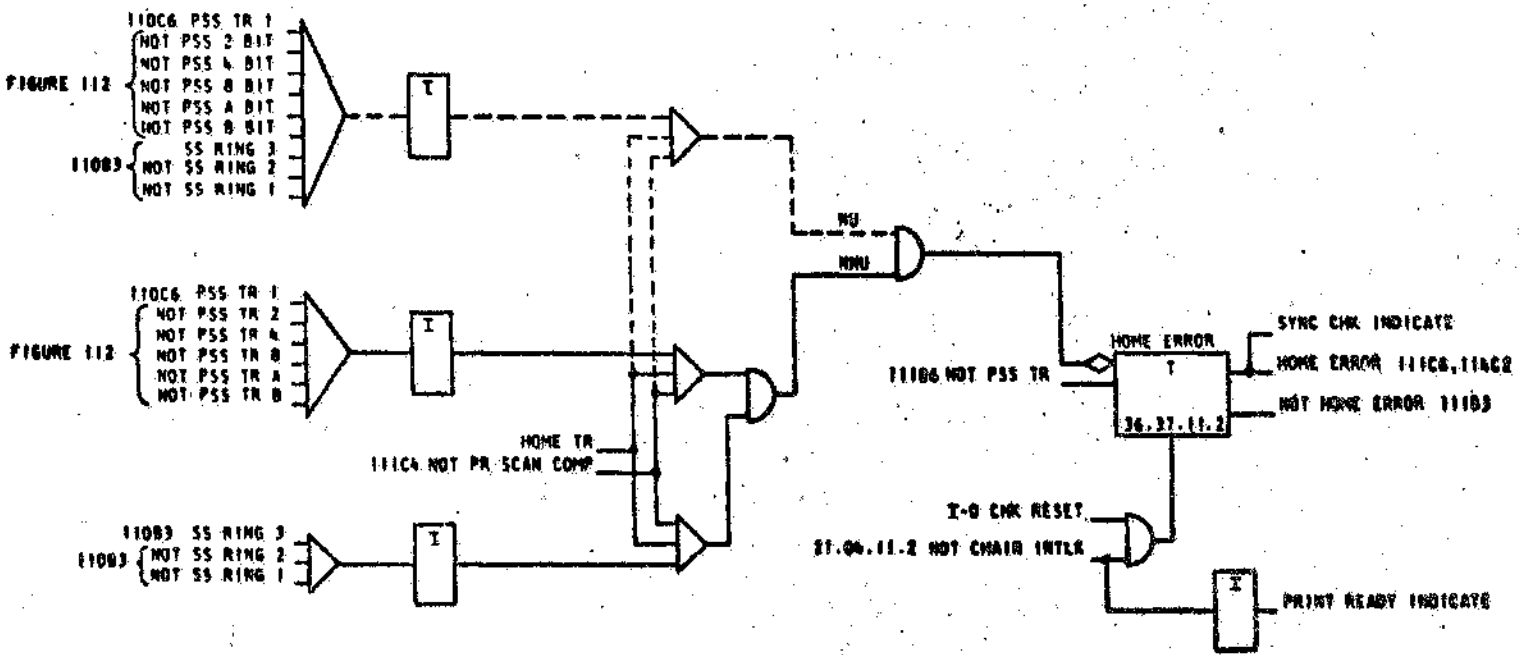
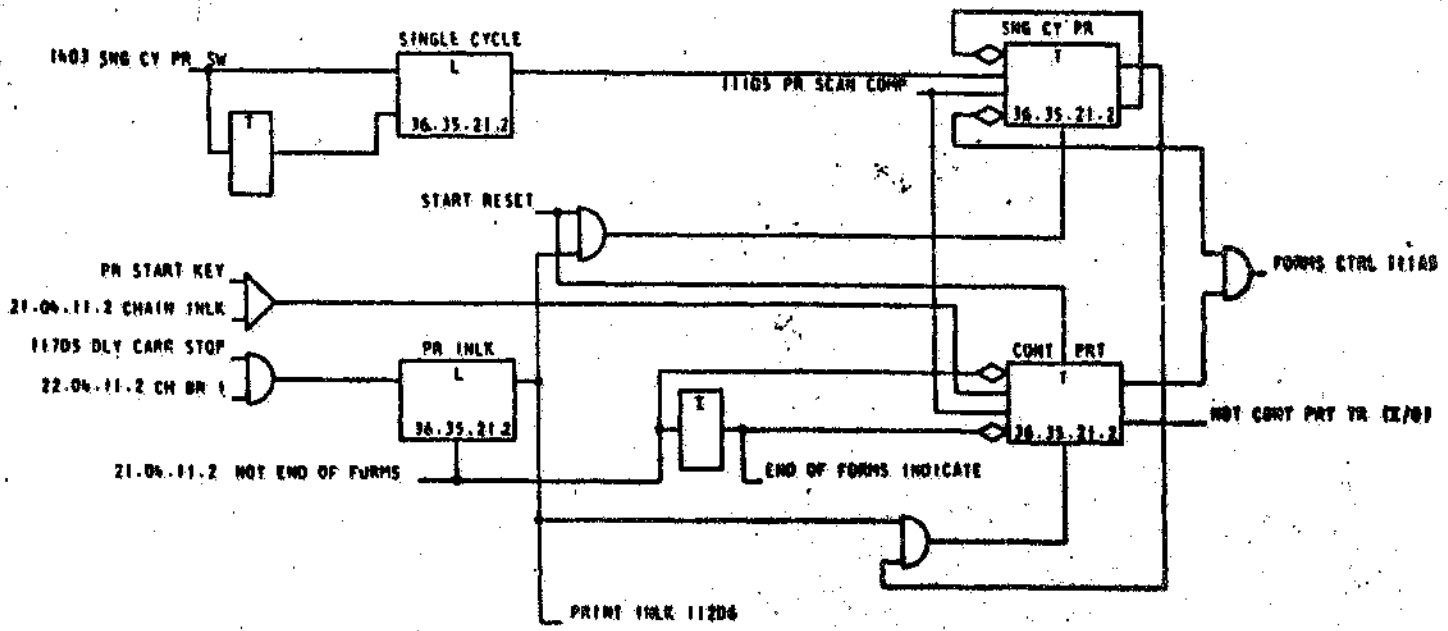
DESIGN	CHKD	DATE	BY	REVISION
507	507	5/27/63		1

NAME	PRINT BUFFER CONTROLS B
DESIGN	507
CHKD	507
DATE	5/27/63
BY	
REVISION	

NOTES
 1. SET 202 AND SET 203 TIED TO -12 VOLTAGE PLUS 3 BCD CTRL TIED TO -20V
 2. --- INDICATES NUMERIC PRINTER

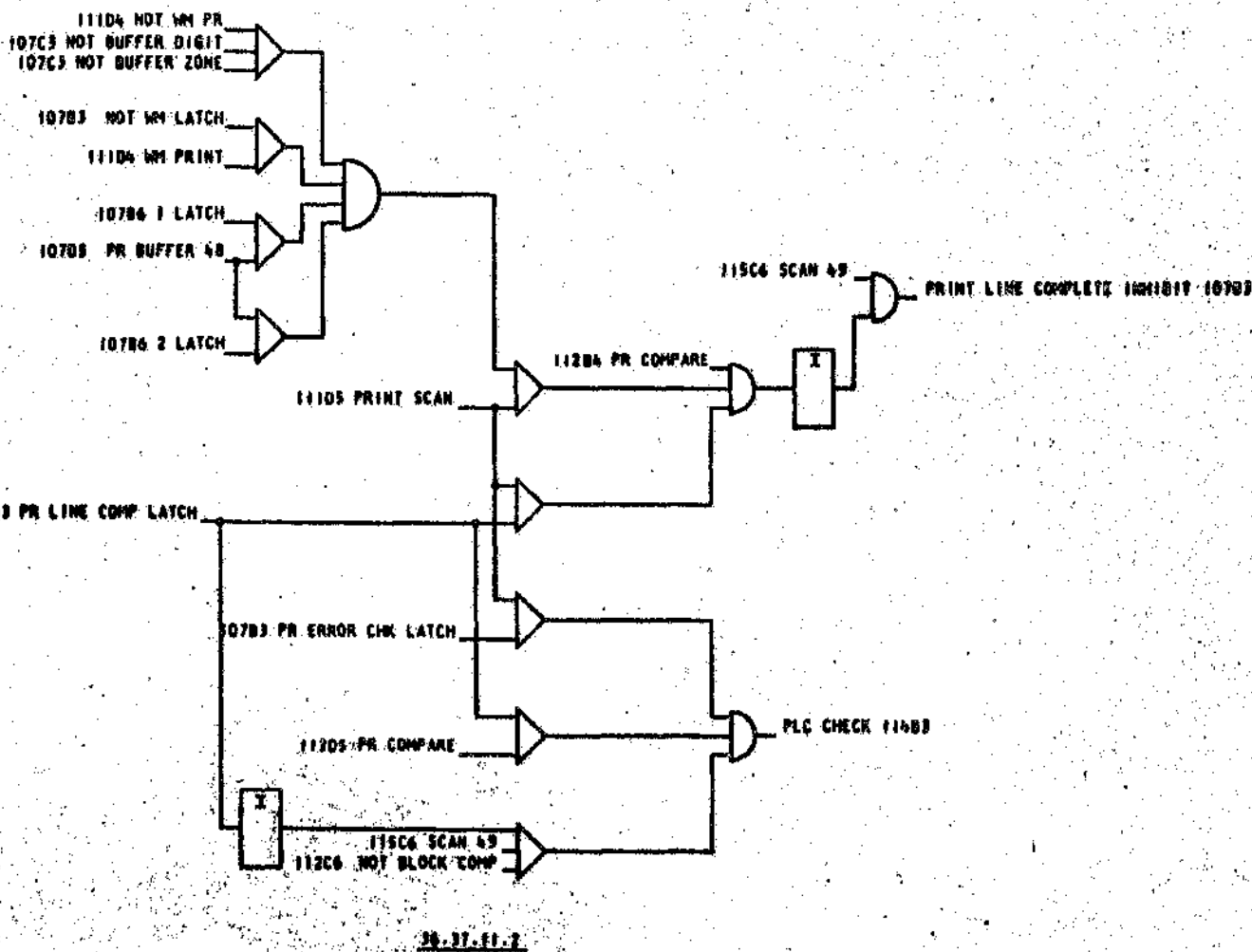
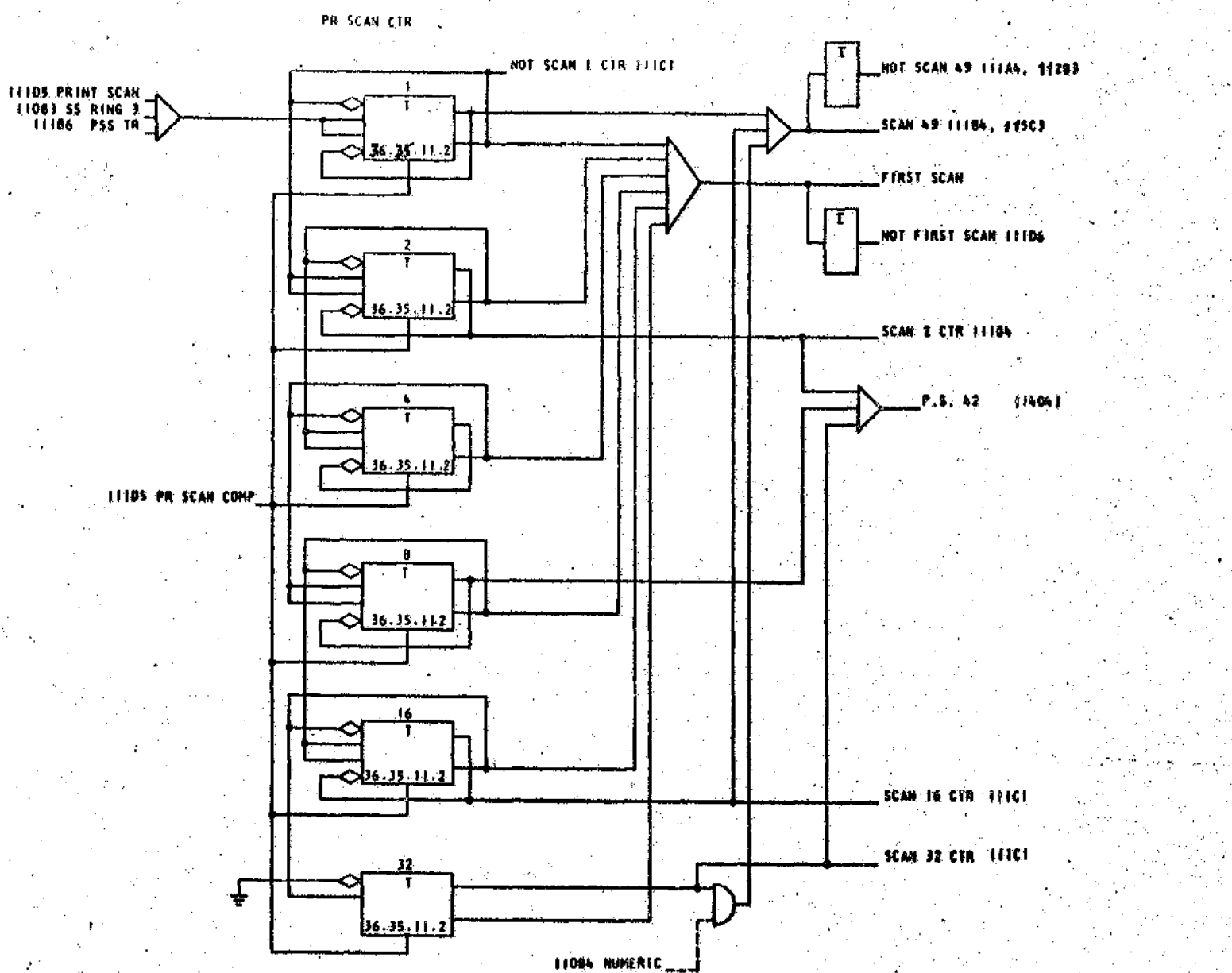
FIG-112 723894

723894
 1862



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	11330-D	31.7.62	TA 1370K	NAME	PRINT BUFFER CONTROL 3
4-2-63	114140C	4.6.63	TA 1862		IPF1
				DESIGN	TYPE
				DETAIL	SCALE NONE
				CHECK	DRWR VE 11-40-61
				APPROV	CHECK 11-27-61

723896

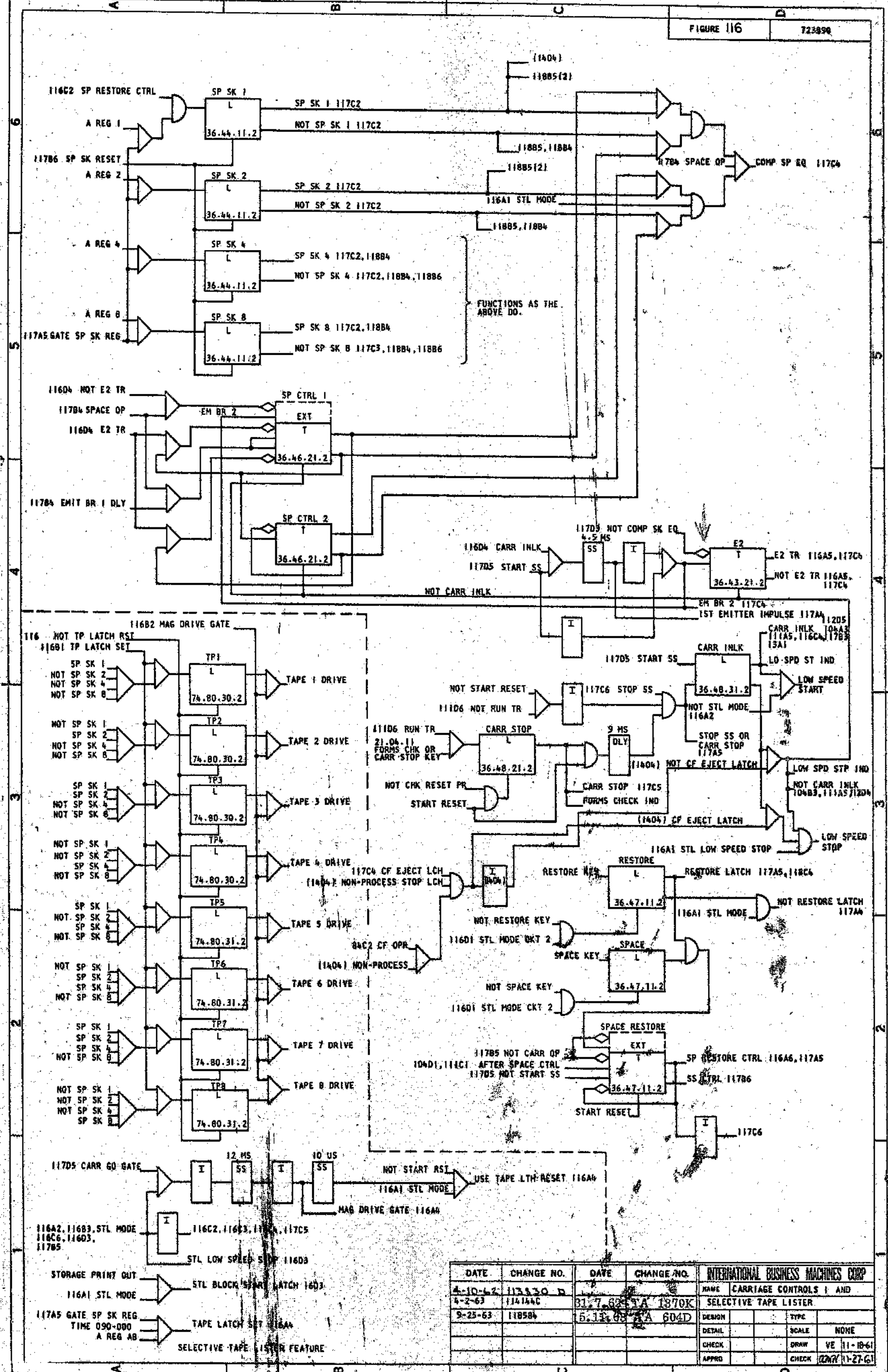


38.37.11.2

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	11230 D	31.7.62	TA 1370K	NAME	PRINT BUFFER CONTROLS 4		
4-2-63	116146C	4.6.63	TA 1862		(PF)		
				DESIGN		TYPE	
				DETAIL		SCALE	NONE
				CHECK		DRAWN	VE 11-18-61
				APPROV		CHECK	Q2711-2761

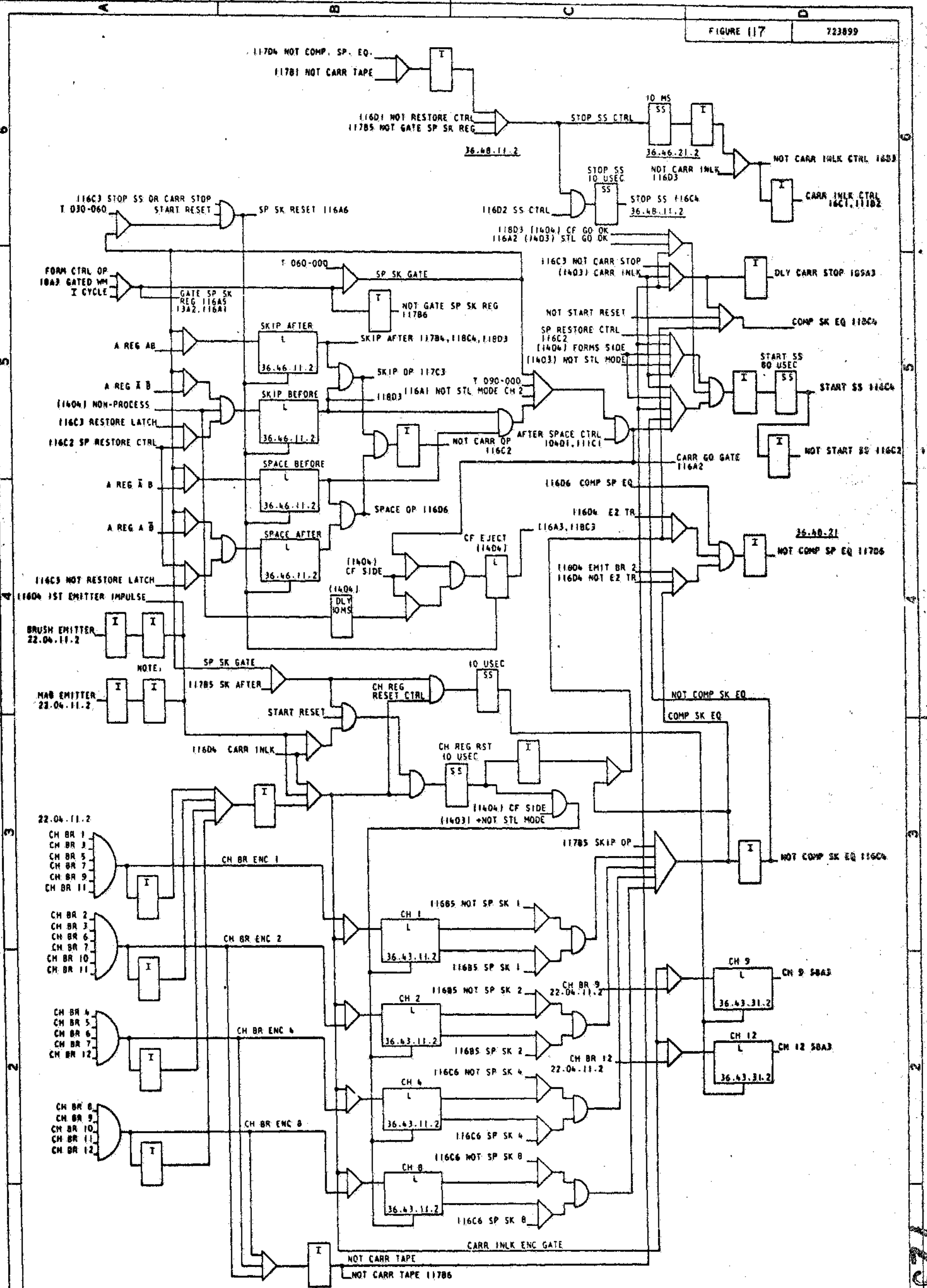
723897

18621



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	11330 D			NAME CARRIAGE CONTROLS 1 AND
5-2-63	114144C	31-7-63	TA 1870K	SELECTIVE TAPE LISTER
9-25-63	118584	5-11-63	TA 604D	DEMON
				TYPE
				SCALE NONE
				CHECK DRAW VE 11-10-61
				APPRO CHECK 11-27-61

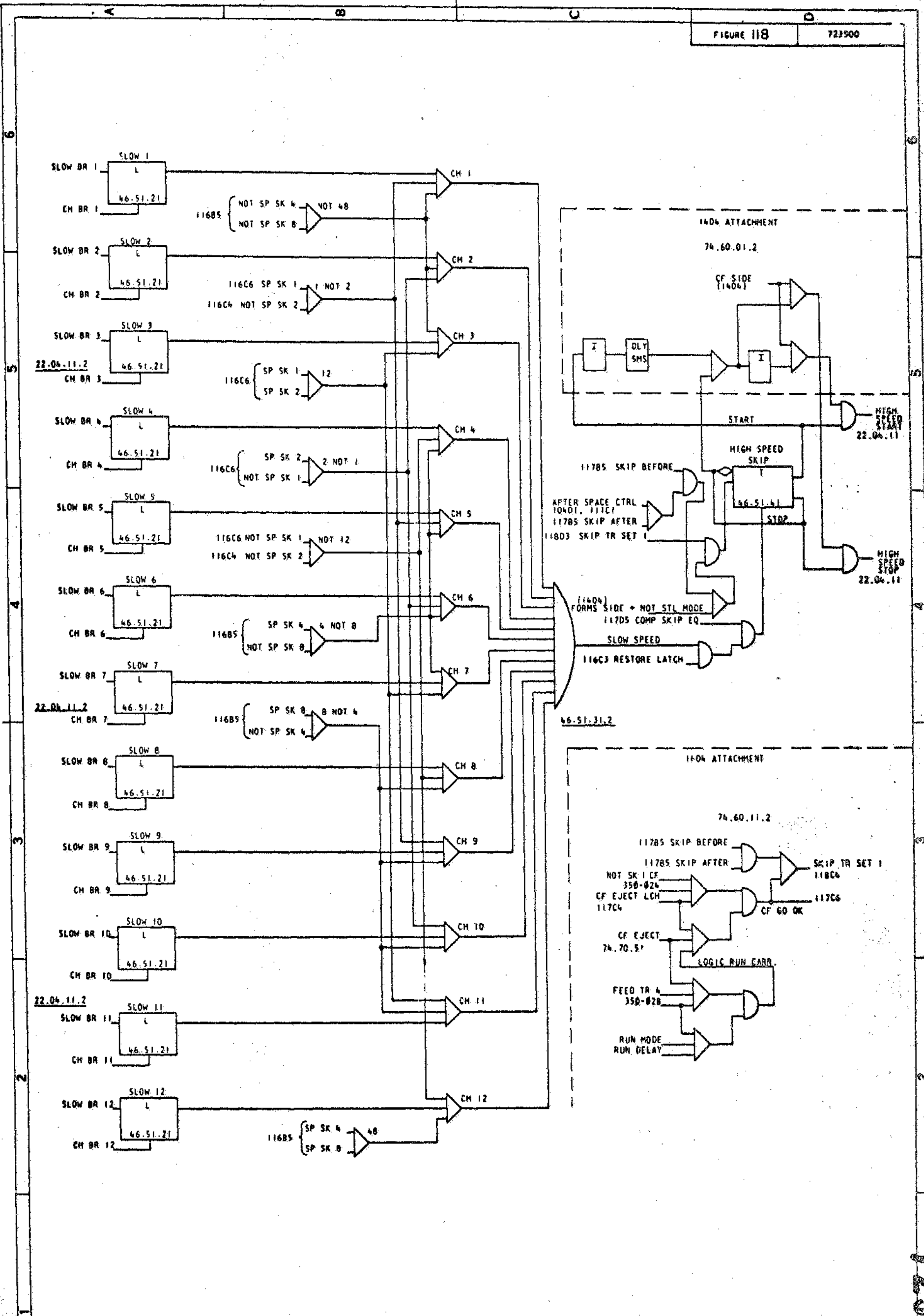
723898



NOTE: THE 1401 MACHINE MAY HAVE EITHER THE MAGNETIC EMITTER OR THE BRUSH EMITTER, WHICHEVER ONE IT HAS THE OTHER SHOULD BE TIED OFF.

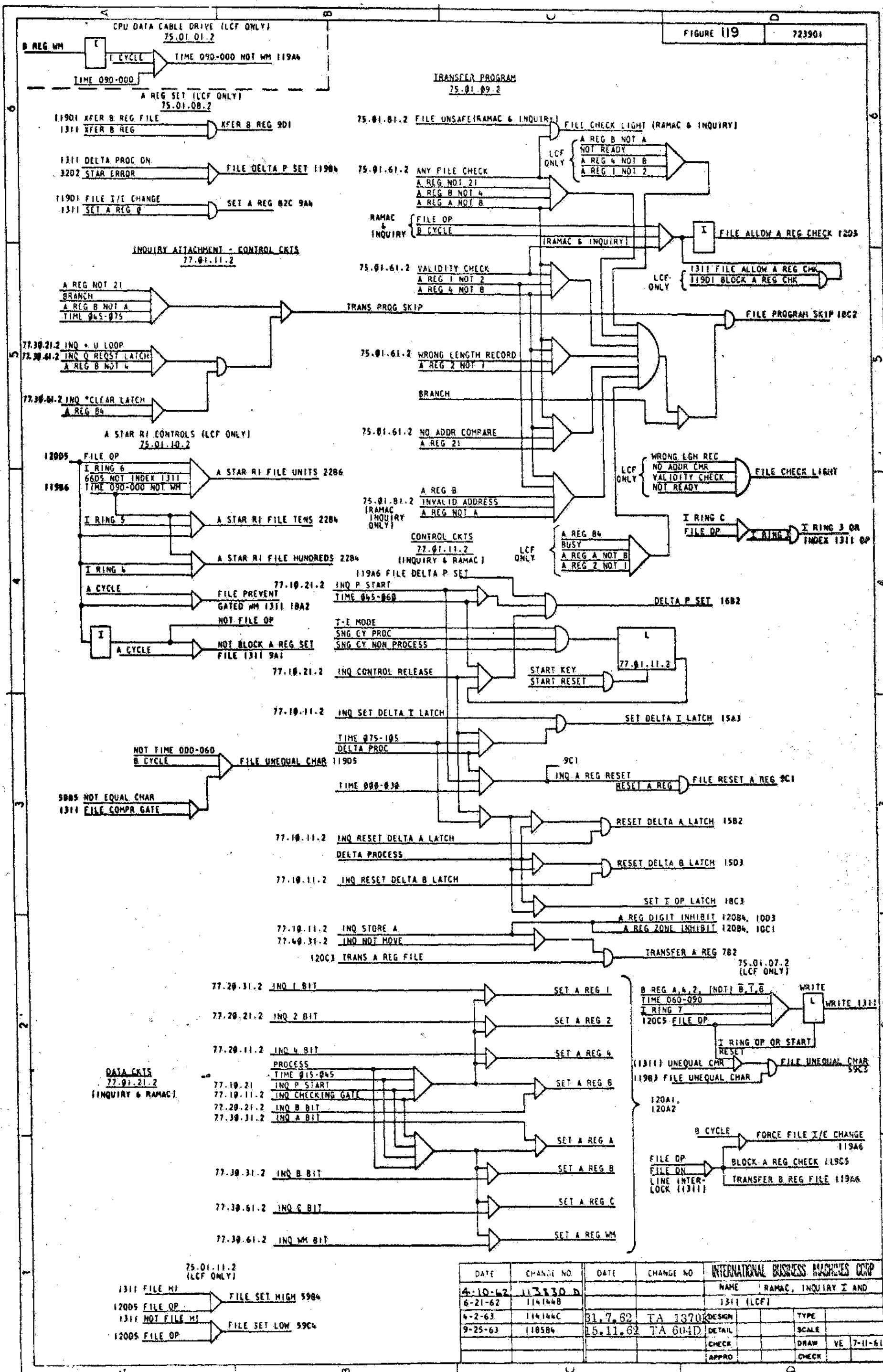
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	11330 D			NAME	CARRIAGE CONTROLS 2		
6-21-62	114148			DESIGN		TYPE	
4-2-63	114144C	11.7.62	TA 1370K	DETAIL		SCALE	NONE
9-25-63	118584	15.11.63	TA 804D	CHECK		DRAW	VE 11-18-61
				APPRO		CHECK	(27-27-61)

723899



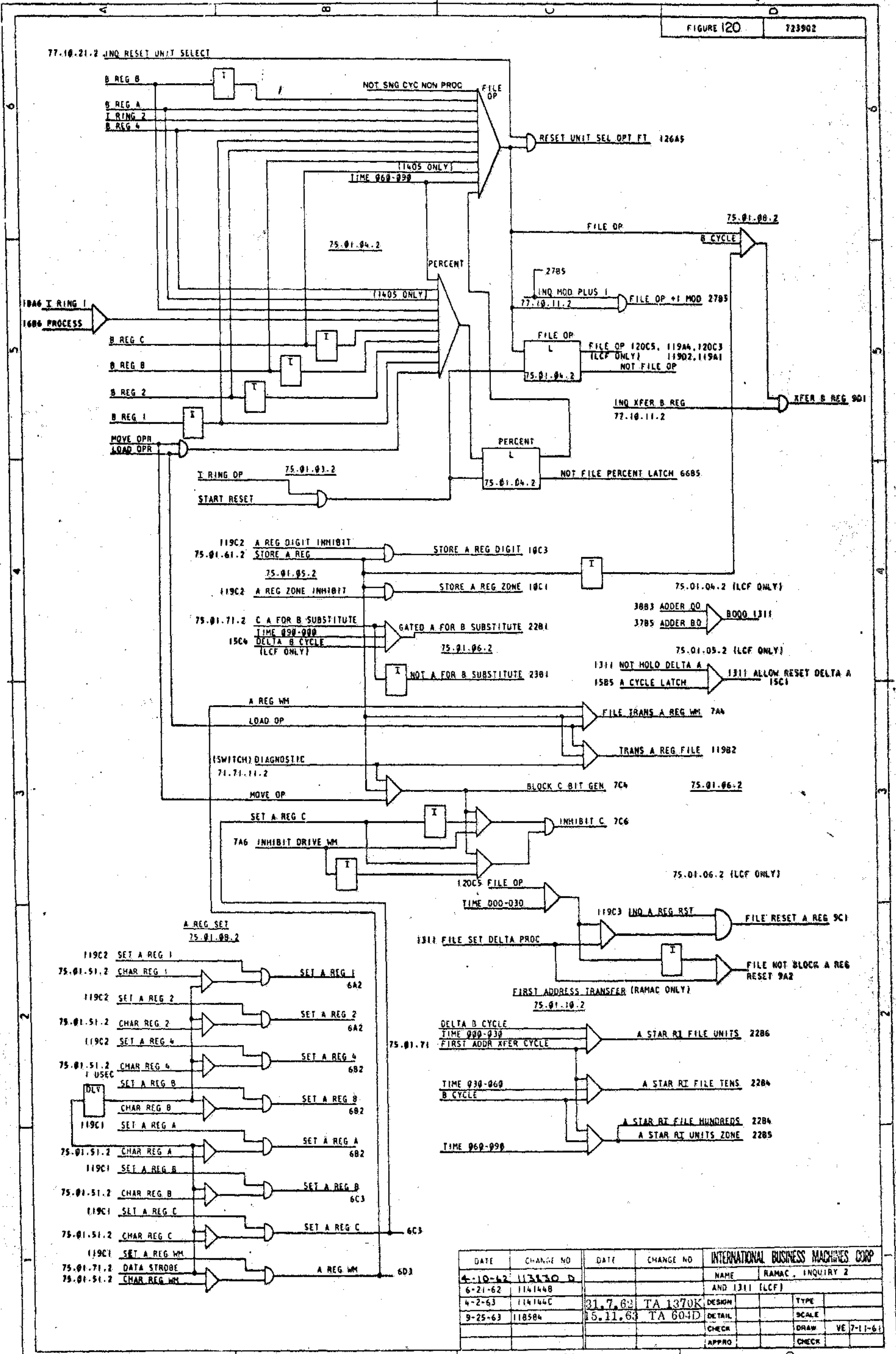
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	113930 D			NAME DUAL SPEED CARRIAGE
4-2-63	116144C	31.7.62	TA 1370K	CONTROLS
9-25-63	118584	15.11.63	TA 604D	DESIGN TYPE
				DETAIL SCALE NONE
				CHECK DRAW VE 11-29-61
				APPRO CHECK 12-4-61

723900



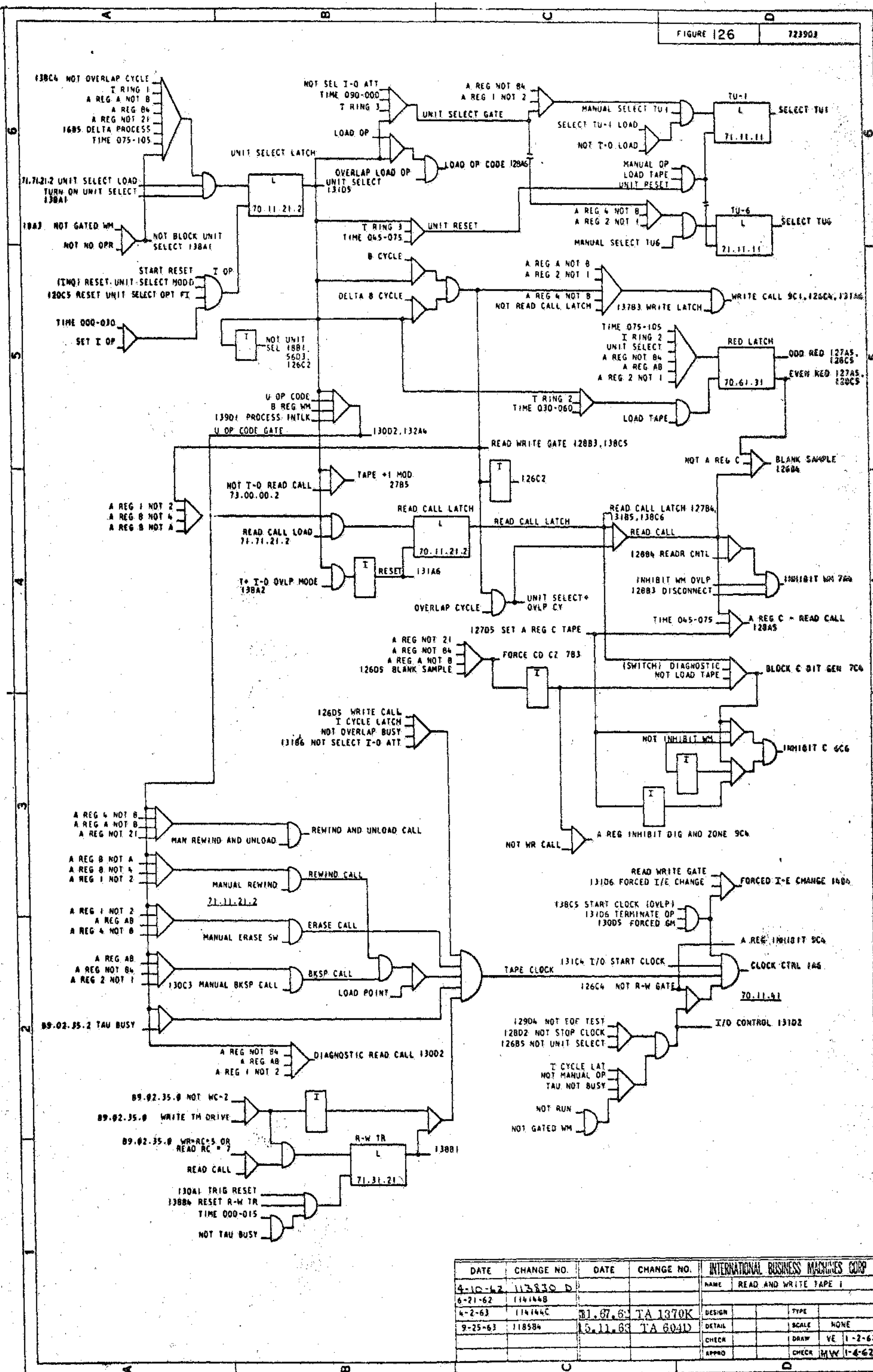
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	113330 D			NAME RAMAC, INQUIRY I AND
6-21-62	114144B			1311 (LCF)
6-2-63	114144C	31.7.62	TA 1370	DESIGN
9-25-63	118584	15.11.62	TA 604D	DETAIL
				CHECK
				APPRO
				TYPE
				SCALE
				DRAW VE
				7-11-61

723901



DATE	CHANGE NO	DATE	CHANGE NO	INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113130 D			NAME	RAMAC, INQUIRY 2		
6-21-62	114144B			AND 1311 (LCF)			
4-2-63	114144C	31.7.62	TA 1370K	DESIGN		TYPE	
9-25-63	118584	15.11.63	TA 604D	DETAIL		SCALE	
				CHECK		DRAW	VE 7-1-61
				APPRO		CHECK	

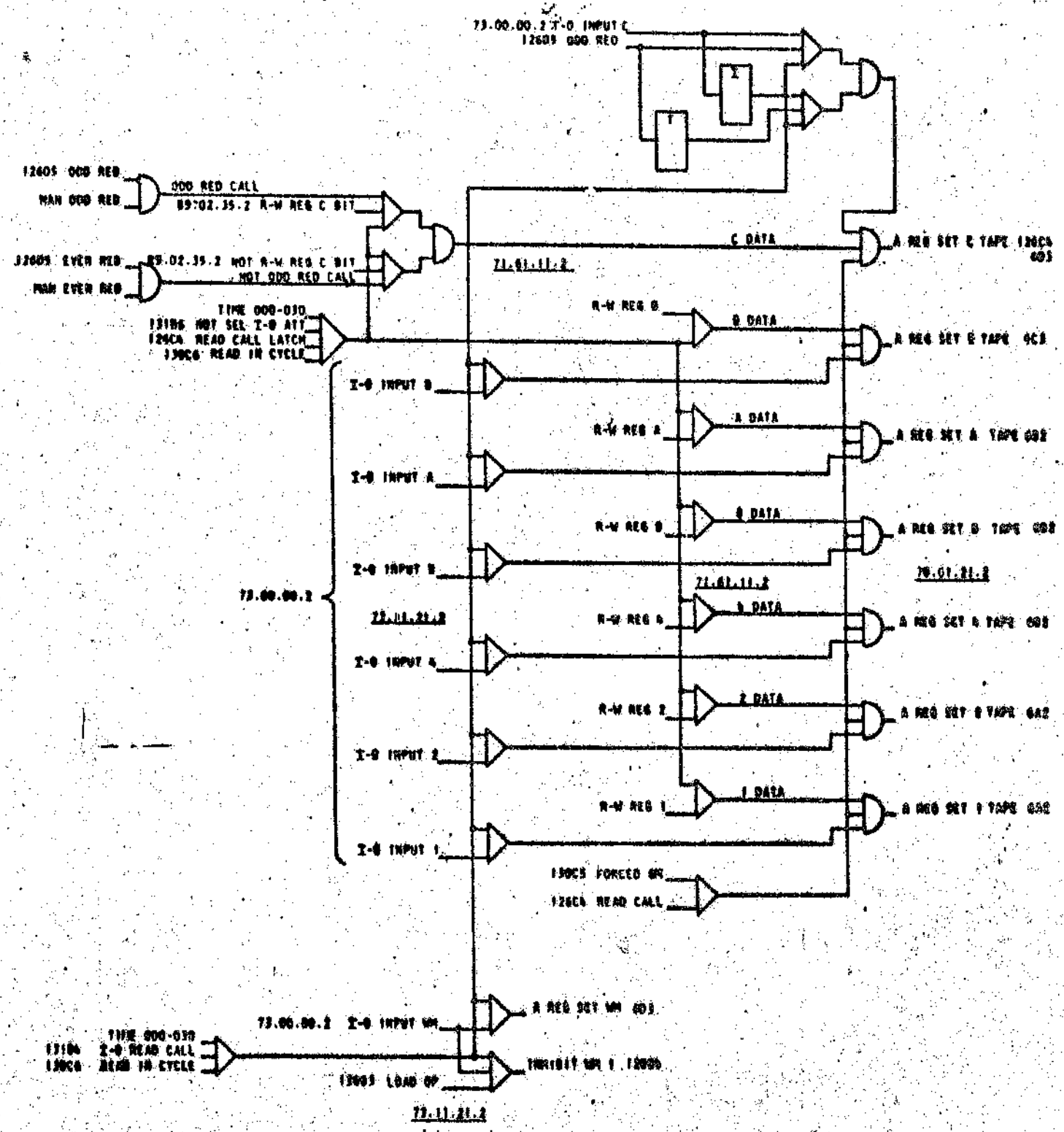
723902



INTERNATIONAL BUSINESS MACHINES CORP					
DATE	CHANGE NO.	DATE	CHANGE NO.	NAME	TYPE
4-10-62	113830 D			READ AND WRITE TAPE I	
6-21-62	114144B				
4-2-63	114144C	31.07.63	TA 1370K	DESIGN	SCALE NONE
9-25-63	118584	15.11.63	TA 604D	CHECK	DRAW VE 1-2-63
				APPRO	CHECK HW 1-4-63

723903

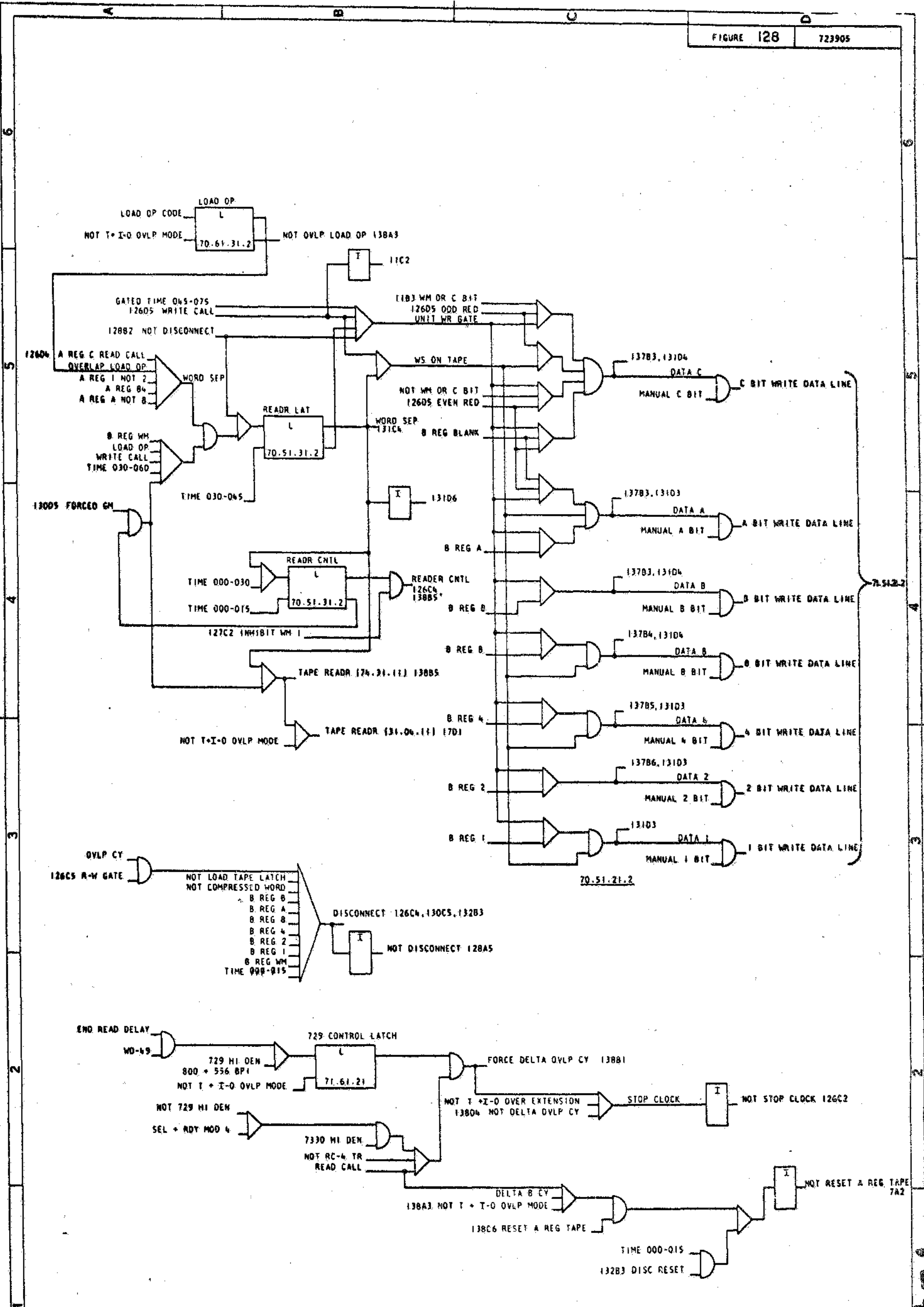
FIGURE 127 723904



INTERNATIONAL BUSINESS MACHINES CORP.			
DATE	CHANGE NO.	DATE	CHANGE NO.
4-10-62	113530 D	11-7-62	TA-1370K
4-2-63	114144C	4-8-63	TA-1380

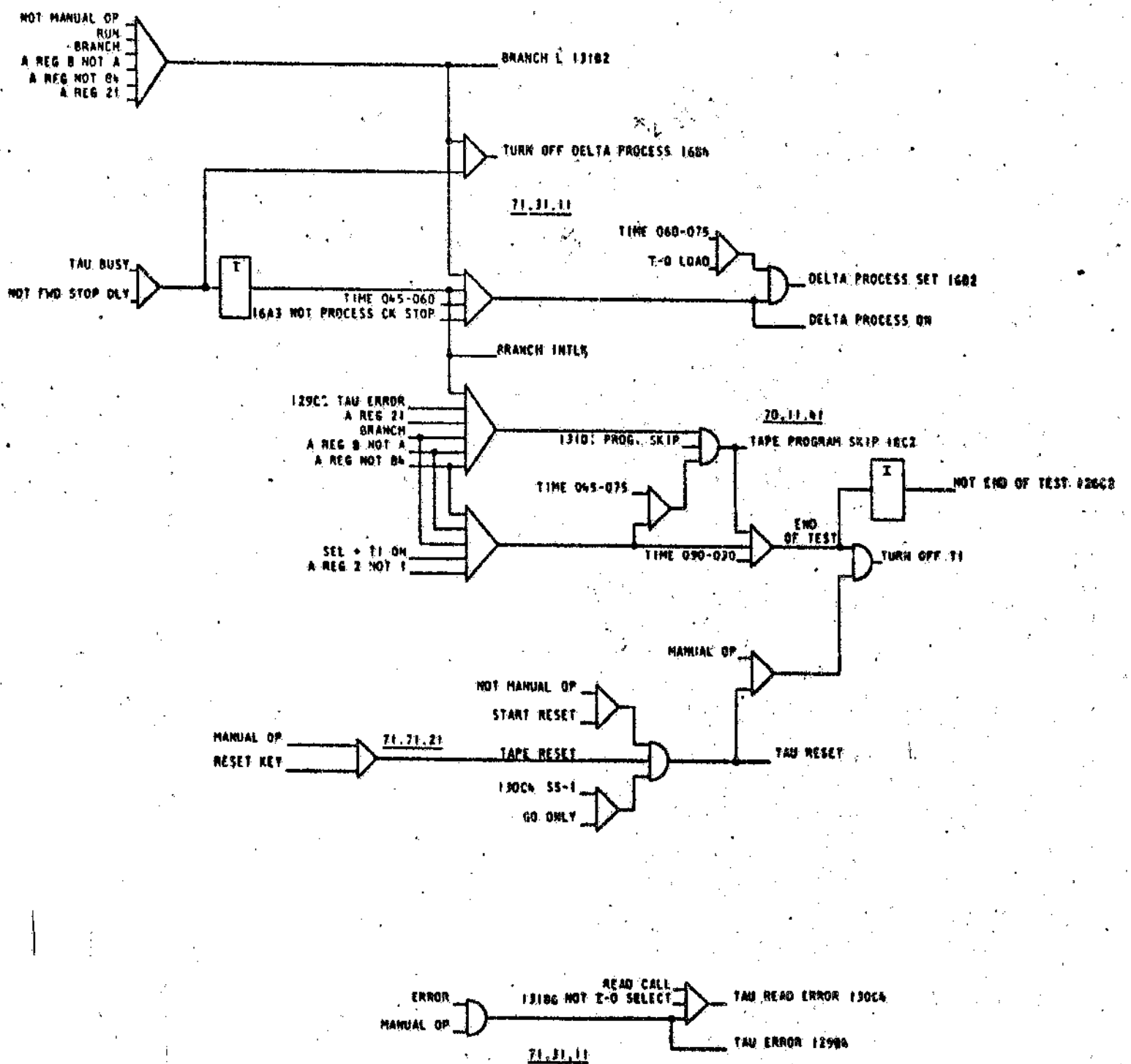
DESIGN	TYPE		
DETAIL	SCALE	MORE	
CHECK	DRAWN	VE 4-1-61	
APPROV	CHECK	MW 11-5-62	

1862
723904

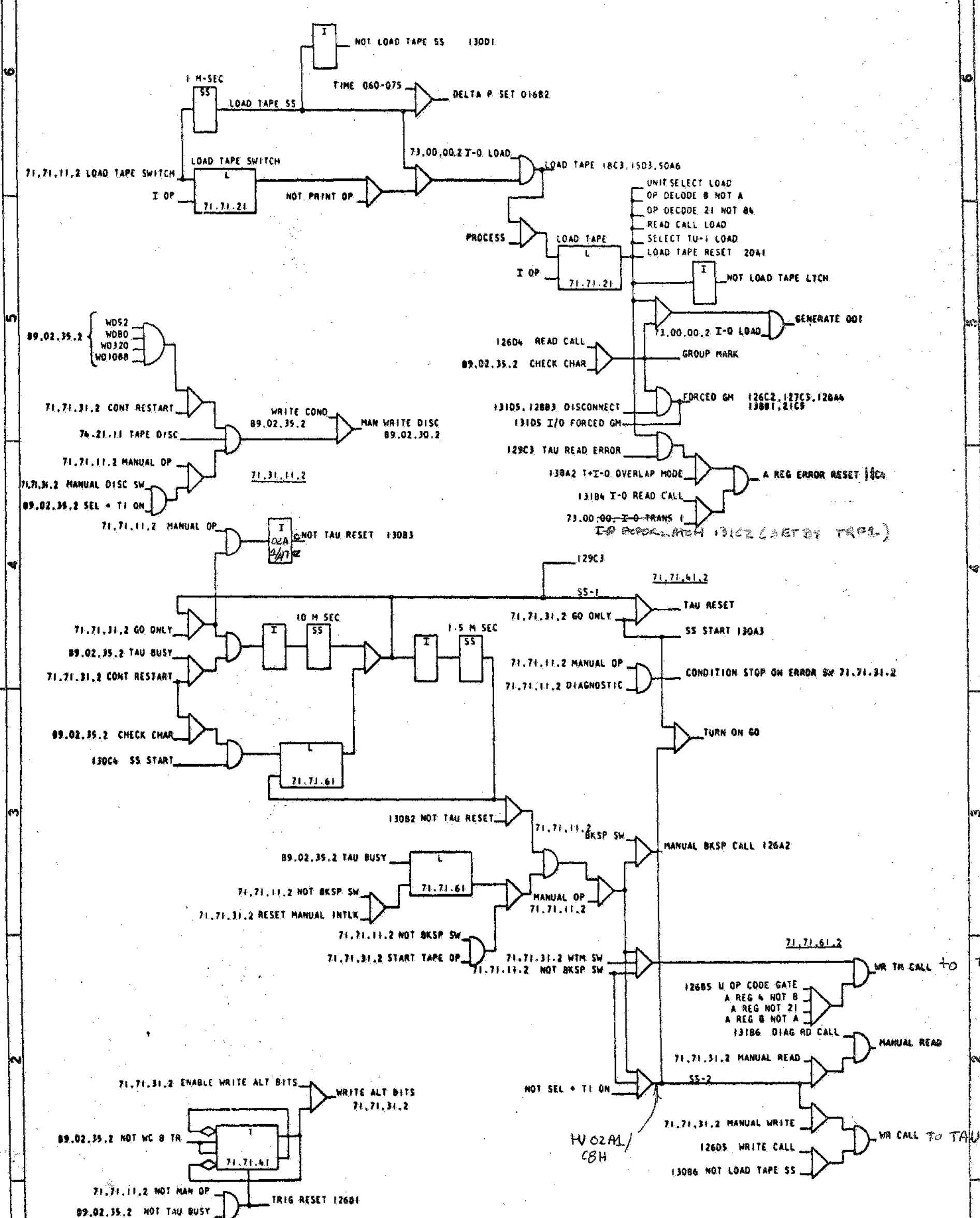


INTERNATIONAL BUSINESS MACHINES CORP			
DATE	CHANGE NO.	DATE	CHANGE NO.
4-10-62	113930 D		
6-21-62	114144B		
4-2-63	114144C	31.7.62	TA 1370K
9-25-63	118584	15.11.63	TA 604D
NAME READ AND WRITE TAPES WITH WORD MARKS			
DESIGN		TYPE	
DETAIL		SCALE	NONE
CHECK		DRAW	VE 4-3-62
APPRO		CHECK	MV 11-5-62

723905

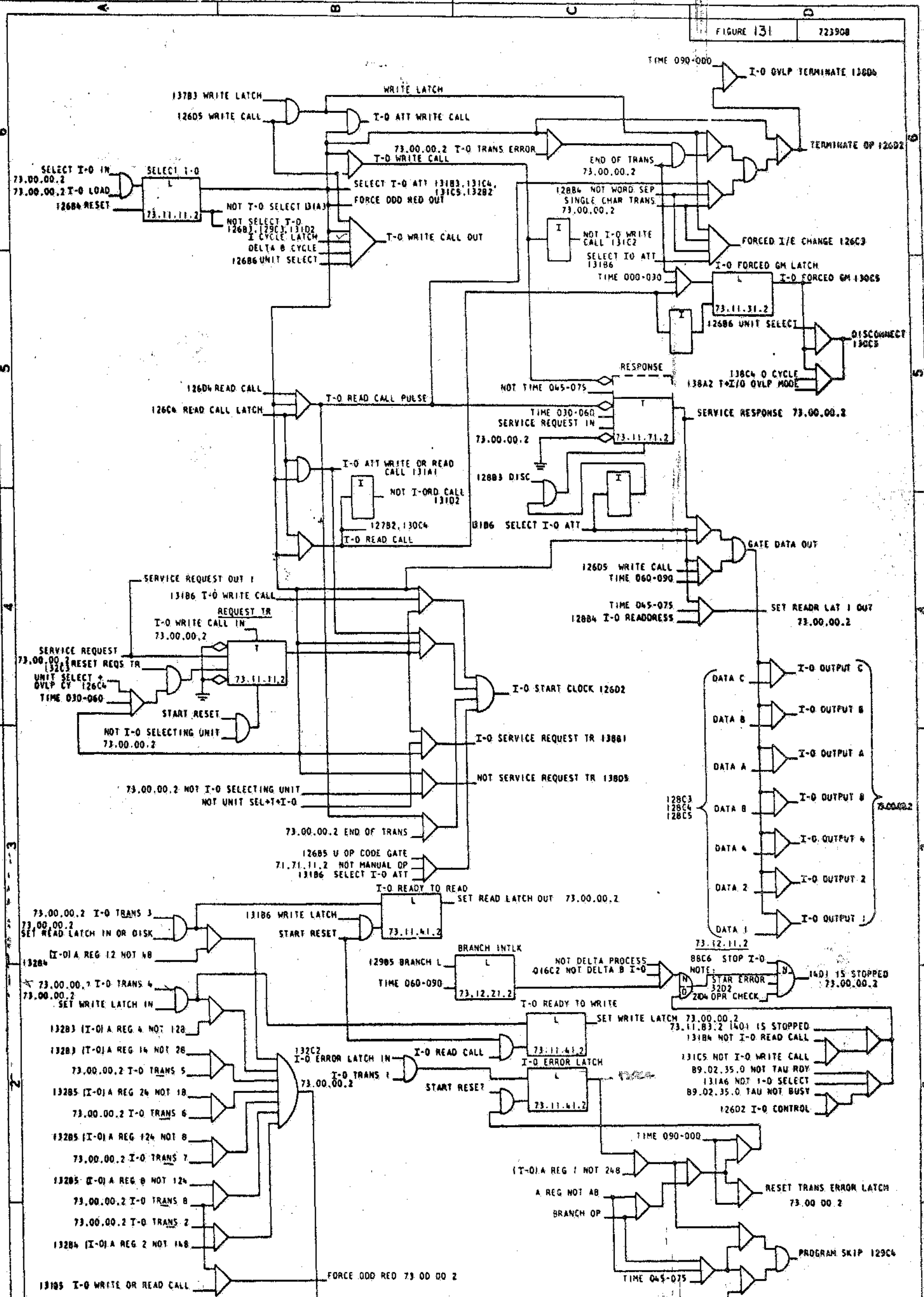


DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP	
4-10-62	113330 D	31. '7. 62	TA 1870K	NAME	TAPE BRANCH CODES
3-21-62	114144B	4. 6. 63	TA 1862		
4-2-63	114164C			DESIGN	TYPE
				DETAIL	SCALE NONE
				CHECK	DRAW VE 1-3-62
				APPRO	CHECK M.W. 1-4-61



DATE		CHANGE NO.		INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	113830 D			NAME	MANUAL TAPE OPERATION.		
6-21-62	114144B				RESET AND LOAD		
8-2-63	114144C	31.7.62	TA 1370K	DESIGN		TYPE	
9-25-63	118584	15.11.63	TA 604D	DETAIL		SCALE	NONE
				CHECK		DRAW	VE 1-3-62
				APPRO		CHECK	M.W 1-4-62

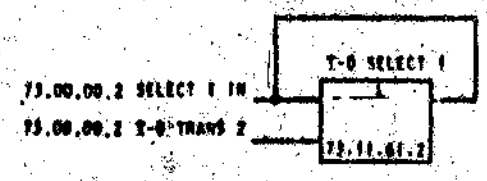
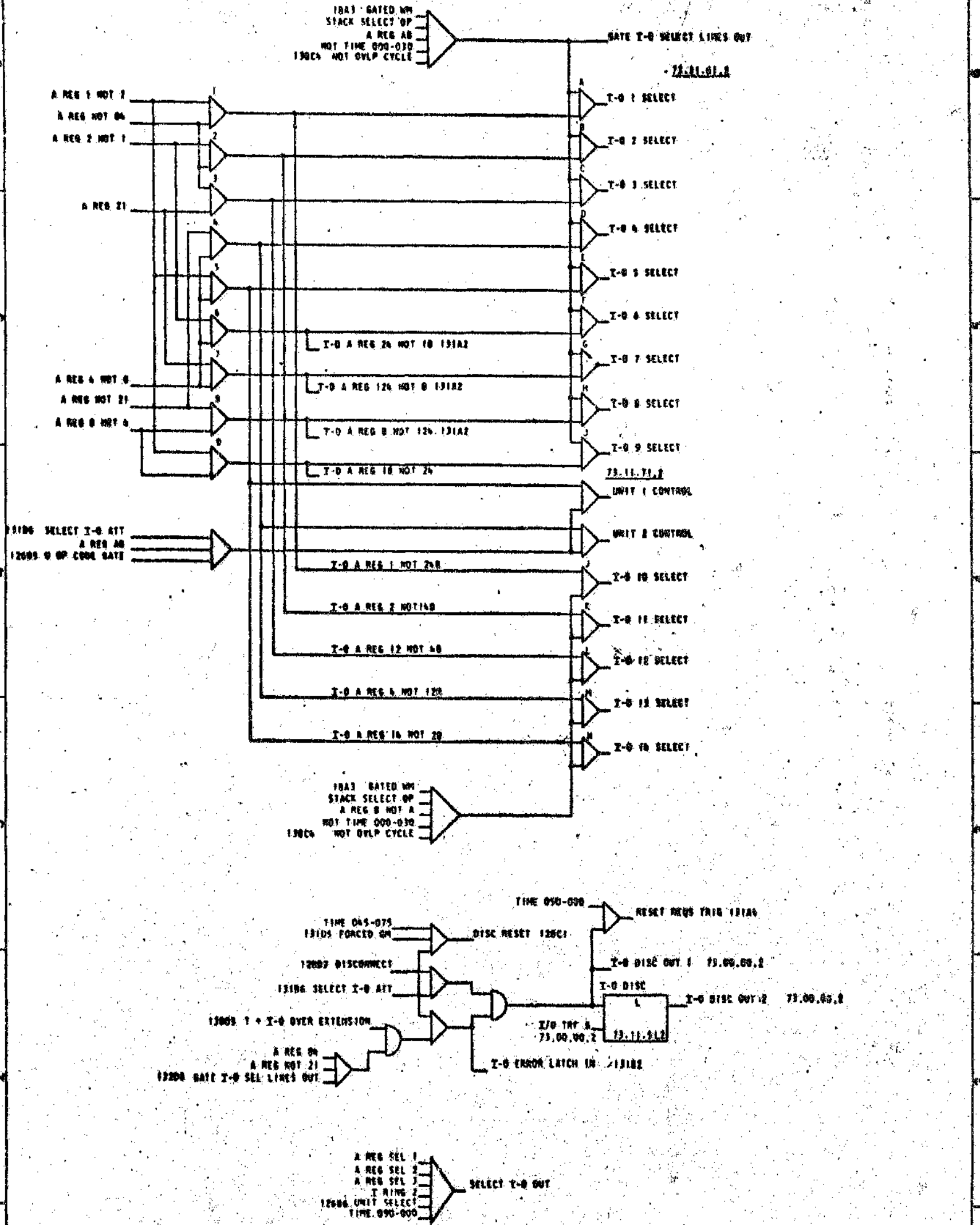
723907



NOTE: N - NORMAL I/O (THIS WILL NOT BE PRESENT ON OVERLAP SYSTEMS)
O - OVERLAP & I/O

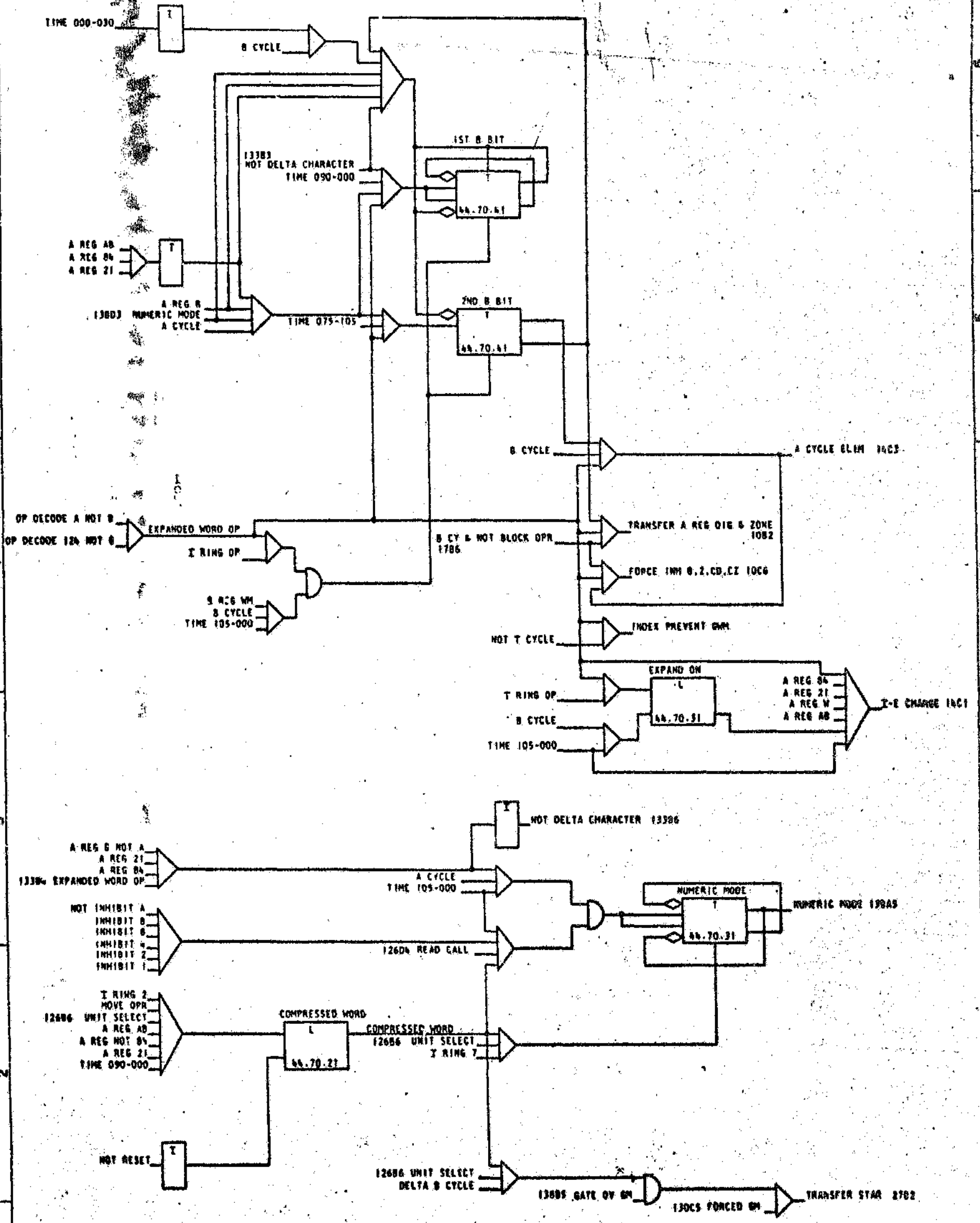
DATE		CHANGE NO.		INTERNATIONAL BUSINESS MACHINES CORP			
4-10-62	11330 D			NAME	I-O CONTROLS		
6-21-62	114144B			DESIGN		TYPE	
6-2-63	114144C	31-7-62	TA 1370K	DETAIL		SCALE	NONE
9-25-63	118584	15-11-63	TA 604D	CHECK		DRAW	VE 1-3-62
				APPRO		CHECK	MW 1-4-62

723908



DATE	CHANGE NO.	DATE	CHANGE NO.	INTEGRATIONAL BUSINESS MACHINES CORP
4-10-62	115140 D	31.7.62	TA 1370K	NAME I-O SELECT LINES 2
6-21-62	116144 B	5.6.62	TA 1800	
8-2-62	117148 C			
				DESIGN
				DRAWN
				CHECKED
				APPROVED
				SCALE NONE
				DATE 1-3-62
				DRAWN MWS 1-4-61

723909
1862



DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	113330	31.7.62	TA 1370K	NAME COMPRESSED TAPE CONTROLS
4-2-63	116144C	4.683	TA 1862	
				DESIGN
				SCALE NONE
				DRAW VE 2-13-61
				CHECK

723910

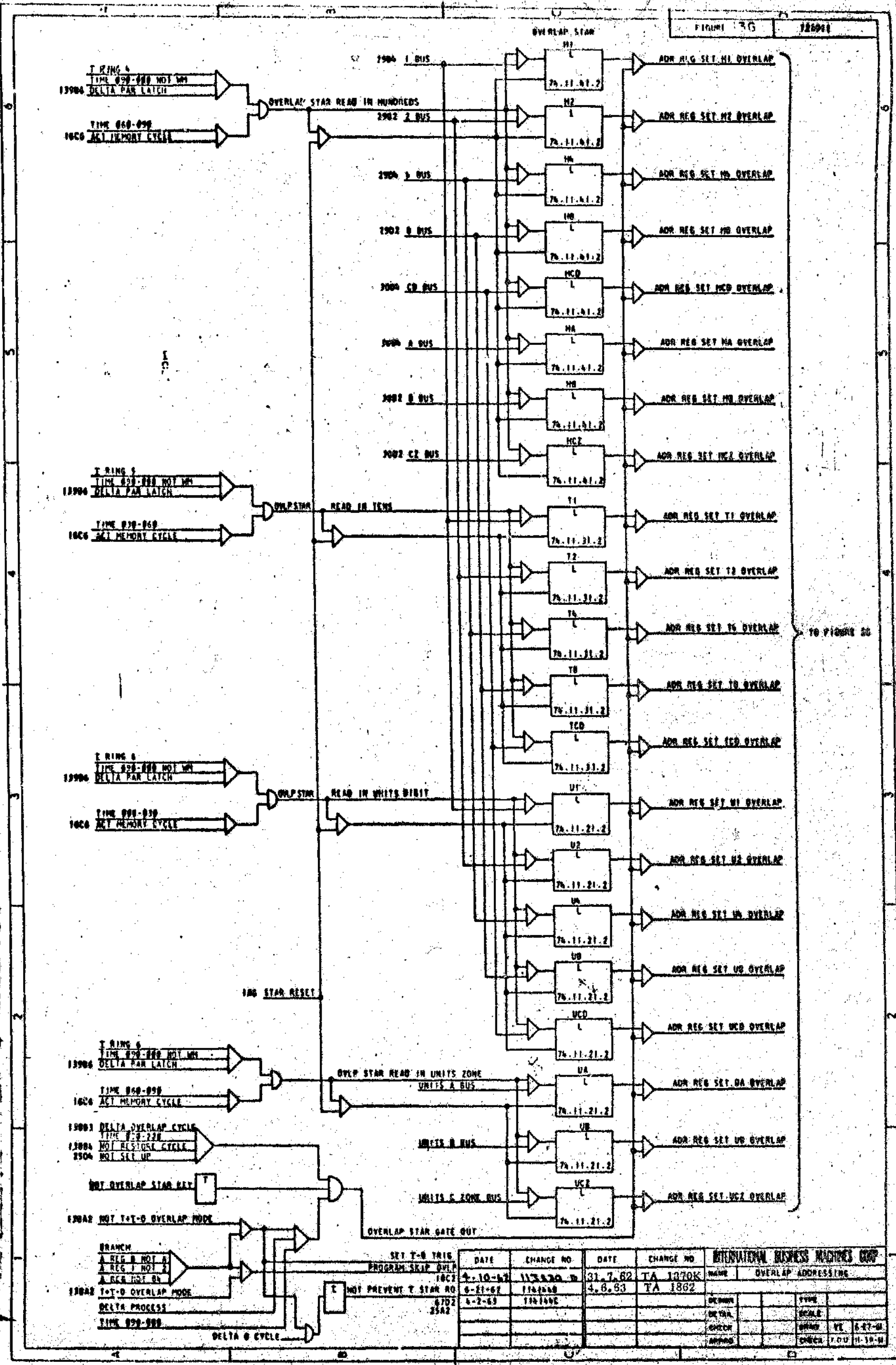
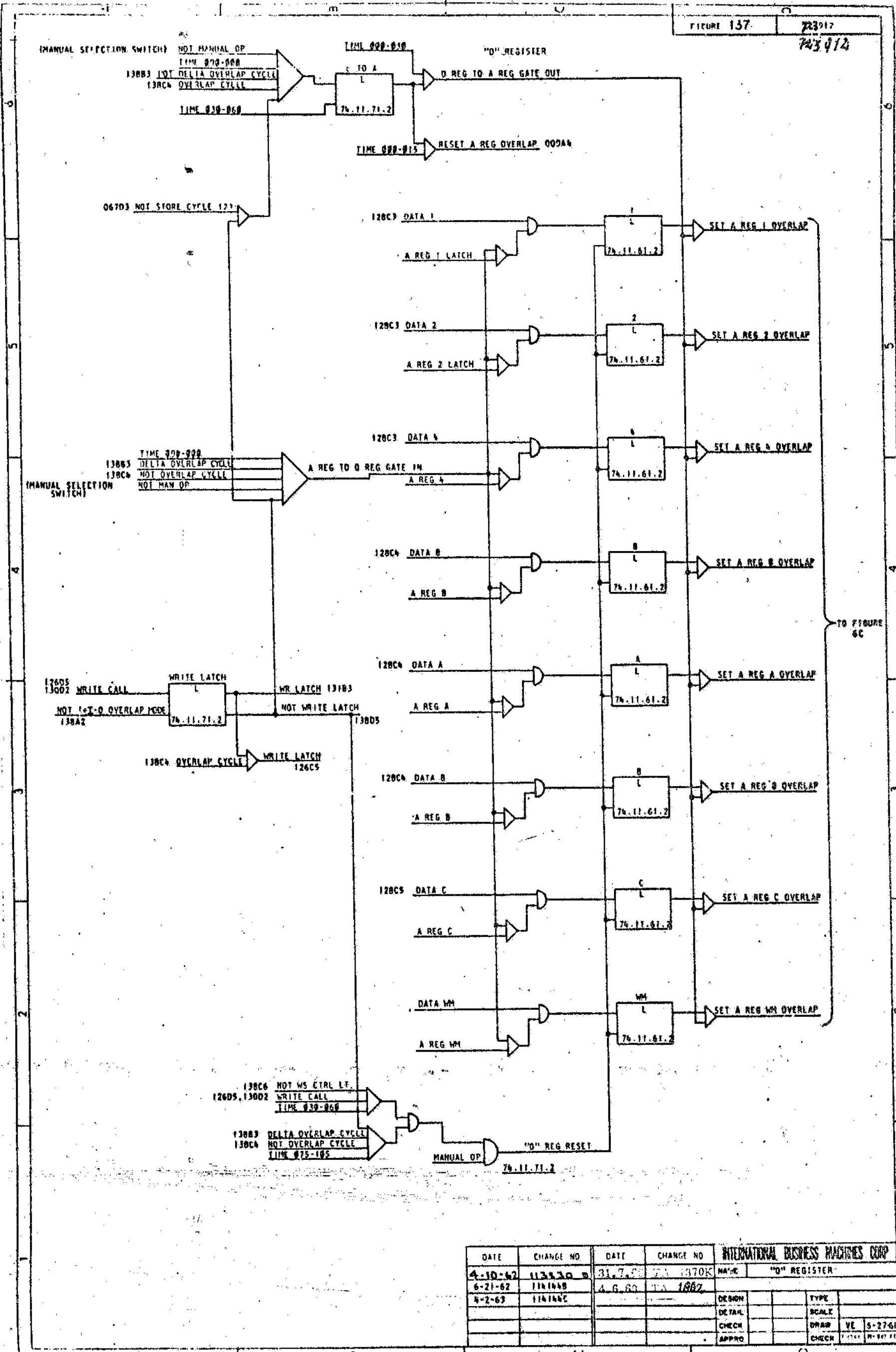


FIGURE 30 18094

TO FIGURE 20

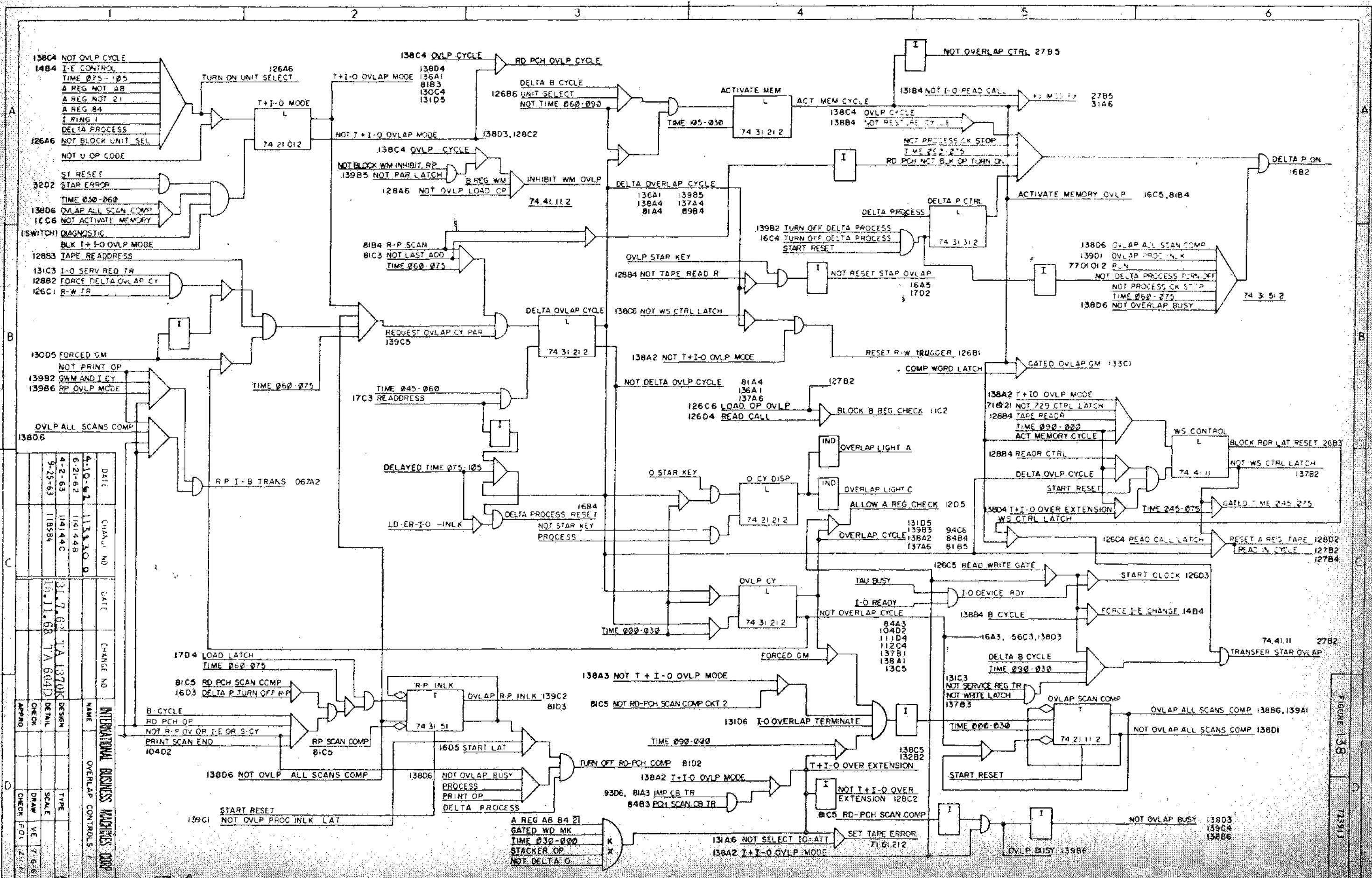
DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP.
4-10-67	113330	31-7-62	TA 1070K	NAME OVERLAP ADDRESSING
6-21-67	114144	4-8-63	TA 1862	
8-2-63	114144E			

723911 1862-7



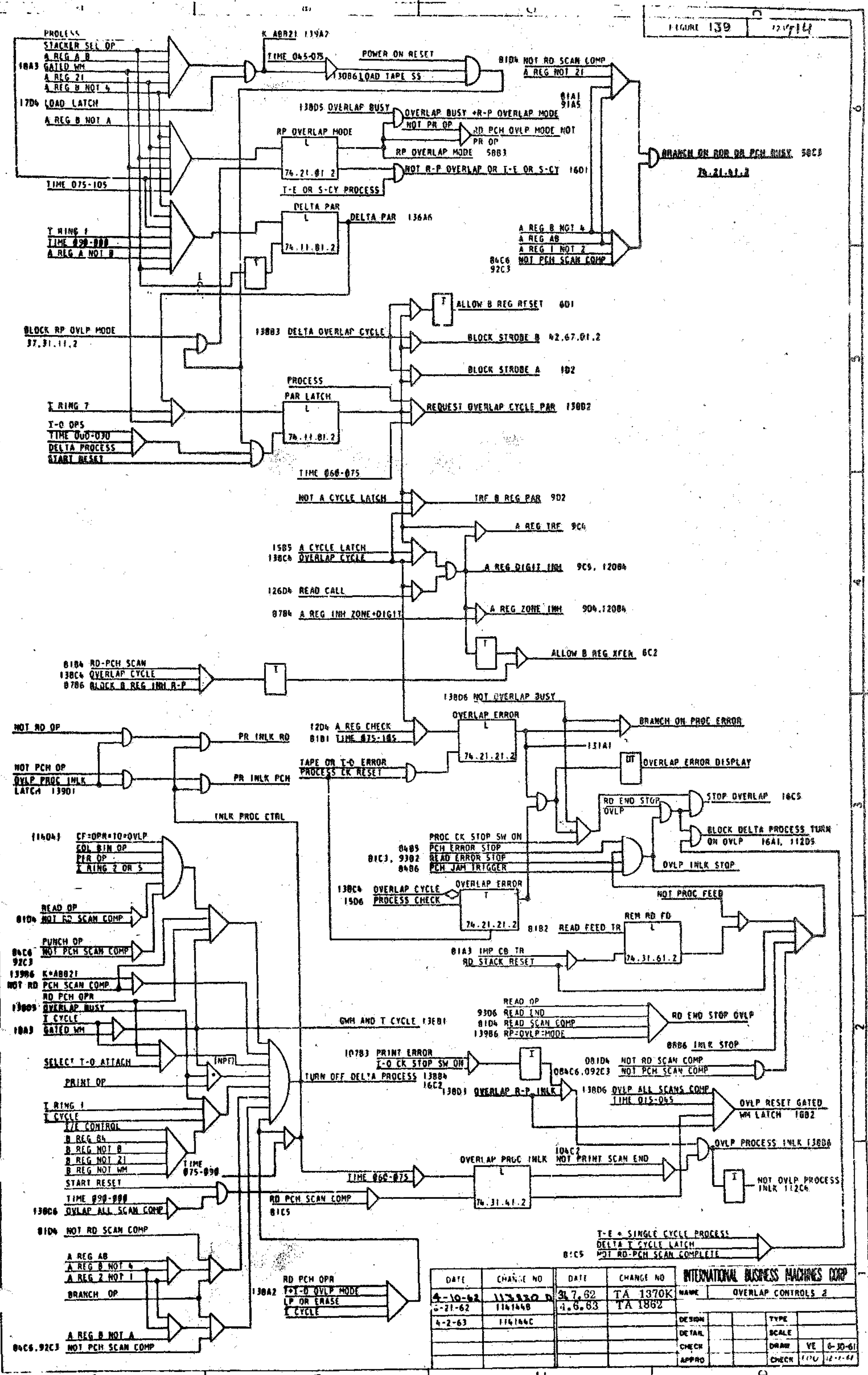
INTERNATIONAL BUSINESS MACHINES CORP			
DATE	CHANGE NO	DATE	CHANGE NO
4-10-62	113930 B	31.7.60	TA 1370K
6-21-62	114148 B	4.6.60	TA 1882
8-2-63	114148 C		
		DESIGN	TYPE
		DETAIL	SCALE
		CHECK	DRAW VE 5-2761
		APPRO	CHECK

12001862



DATE	CHAN. NO	DATE	CHANGE NO	NAME	TYPE	SCALE	VE	T	B	G	CHECK	FOL	A	V	L
4-10-62	113A00	31-7-62	1A1370K	DESIGN											
4-2-62	114448	16-11-68	1A 6041D	DETAIL											
4-2-63	114144C			CHECK											
9-25-63	115584			CHECK											

FIGURE 150
73313



INTERNATIONAL BUSINESS MACHINES CORP				NAME		OVERLAP CONTROLS 2	
DATE	CHANGE NO	DATE	CHANGE NO	DESIGN	TYPE	SCALE	
4-10-62	113330	3/7.62	TA 1370K				
5-21-62	114144B	4.6.63	TA 1862				
4-2-63	114166C						

1062-15001

(900) 4 ORIG A-FIELD
(901) 5 (658) (678) ORIG B-FIELD
(908) 2

A2 6 5 RESULTANT A-FIELD
ABS 4 3 2 B1 FINAL RESULTANT B-FIELD Q 0 2 6 ABS

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE															
				I	A	B	A	B	A	B	B	B	I	OP					
				3	6	9	0	3	6	9	0	3	6	9	0	3	6	9	0
1 STORAGE ADDRESS REGISTER	-		32.35.XX.2	908	458	678	457	677	456	676	675	674	908						
2 B-REGISTER	-		35.11.XX.2	WHC2	C41	CB1	C42	2	WMA2	C21	6	AB41	WH2C						
3 A-REGISTER	-		35.11.XX.2	045-075															
4 -T RESET ADD OP	O1B1		35.24.11.2	OP DECODE A B B 2 4															
5 -T ARITH OPERATION	O1B1		35.27.11.2																
6 -T GATED WORD MARK	O1B2		31.07.11.2	B WM A WM B WM															
7 -T I-E CHANGE	O1B2		31.05.31.2																
8 +U DELTA I CYCLE	O1B2		31.21.11.2	7 16 DELTA CYC LATCH GATE															
9 -T I-CYCLE LATCH	O1B2		31.24.11.2																
10 +U I-STAR RESTORE GATE	O1A7		32.39.11.2	6 9															
11 +U DELTA A-CYCLE	O1B2		31.22.11.2	RESET 13 NOT 7 24															
12 -T A-CYCLE LATCH	O1B2		31.25.11.2																
13 -T DELTA B-CYCLE LATCH	O1B2		31.23.11.2	12 7 16															
14 +U B-CYCLE	O1B2		31.26.11.2	13															
15 -T FIRST B-CYCLE TRIGGER	O1B3		36.31.13.2	5 6 9 16															
16 -T B-REGISTER ZONE INHIBIT	O1A3		35.10.21.2	9 12 12 9															
17 -T B-REGISTER DIGIT INHIBIT	O1A3		35.10.31.2	9 NOT MANUAL ENTRY 12 12 9															
18 -T B-REGISTER C-BIT INHIBIT	O1A3		35.10.21.2	9 NOT MANUAL ENTRY 12															
19 -T B-REGISTER WORD MARK INHIBIT	O1A3		35.10.21.2	NOT MANUAL ENTRY															
20 -T A-REGISTER DIGIT INHIBIT	O1A3		35.10.61.2	6 NOT BLOCK OPR AND B-CYCLE															
21 -T ARITHMETIC ZONE INHIBIT	O1A3		35.10.51.2	15 NOT BLOCK OPR AND B-CYCLE															
22 +U INHIBIT C-ZONE	O1A3		35.15.11.2	6 16 NOT 15															
23 +U A-WORD MARK LATCH	O1B2		31.06.11.2	11 5															
24 +U A-CYCLE ELIMINATE	O1B2		31.06.11.2	2 3															
25 -T ARITHMETIC A-WORD MARK LATCH	O1A3		35.10.61.2	16 5 NOT 15 9															
26 +U A-REG SET B-2-C	O1A3		35.10.61.2	14 25 28 NOT RECOMP															
27 +U MODIFIER CONTROL / 1	O1AB		32.42.11.2																
28 +U MODIFIER CONTROL - 1	O1AB		32.42.11.2																
29 -T MODIFIER CONTROL REFR	O1AB		32.42.41.2																
30 +U MODIFIER OUTPUT ON BUS LINES	-		32.43.XX.2	909/900	457	677	456	676	455	675	674	673	909						
31 DATA ON INHIBIT DRIVE LINES	-		-	WH2C	C4041	C441	C24	C24	WMA2	C2	C02	WH02	WH2C						

DATE CHANGE NO DATE CHANGE NO INTERNATIONAL BUSINESS MACHINES CORP
4 10-67 113830 31.7.62 TA 1370 K NAME FIGURE 1 RESET ADD 8
(AAA) (BBB)

DESIGN	TYPE
DETAIL	SCALE NONE
CHECK	DRAW VE 1-23-62
APPRO	CHECK

(900) 4
(901) 5 450 678
(908) 2

ORIGINAL A-FIELD AO 2 6 B5
ORIGINAL B-FIELD A1 9 8 A6

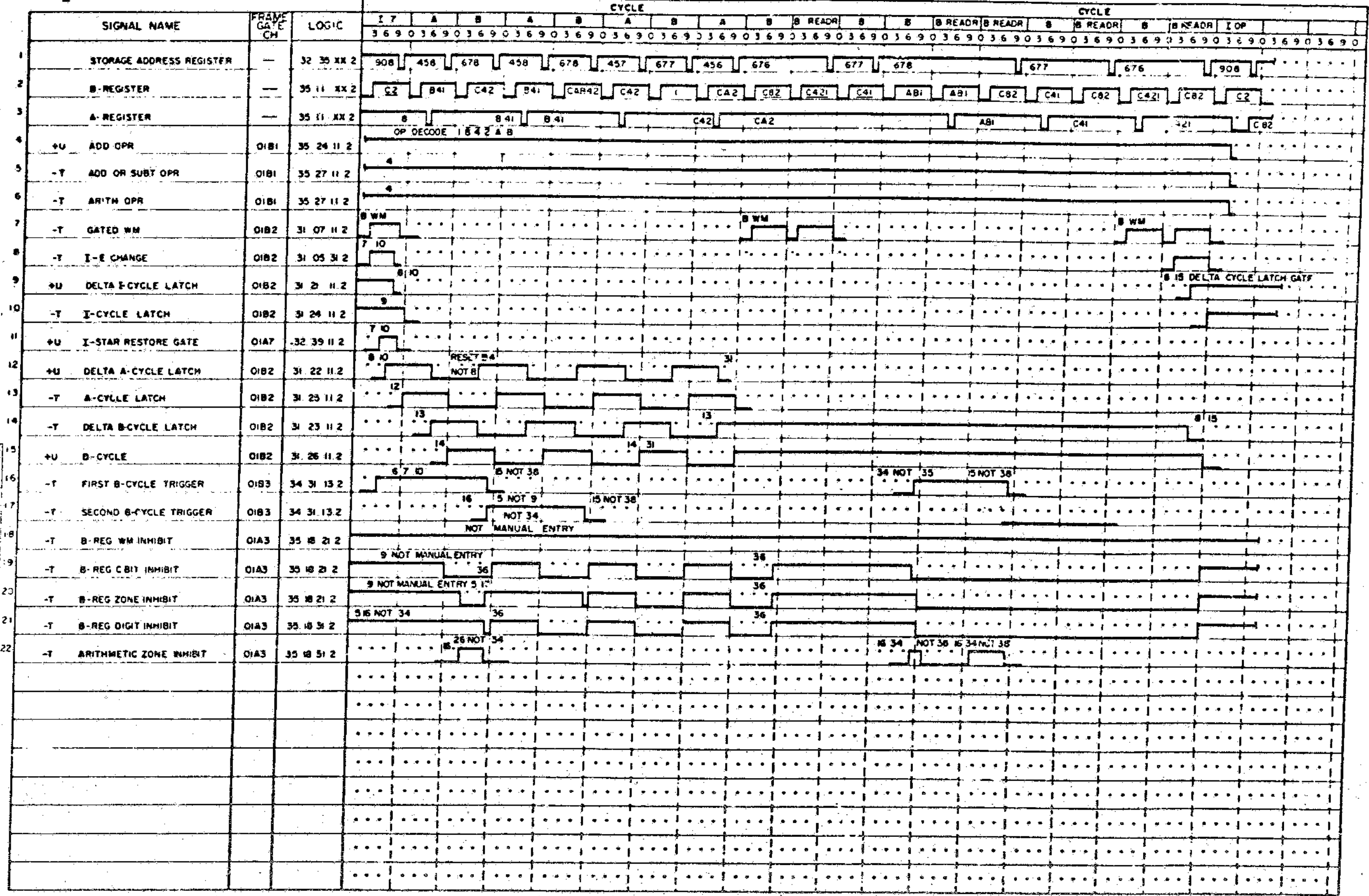
RESULTANT A-FIELD AO 2 6 B5
FINAL RESULTANT B-FIELD B2 2 6 A9

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE																															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1 STORAGE ADDRESS REGISTER			32-35.XX.2	900	450	167B	450	167D	457	677	456	167E	455	675	900	1																			
2 B-REGISTER			35-11.XX.2	C2	B41	CA6	B41	CA6	C62	0	2	C61	CA62	A1	C2																				
3 A-REGISTER			35-11.XX.2	0	B41		B41		C62		2		CA62		C62																				
4 -T SUBTRACT DP	O1B1		35-26.11.2	DP DECODE A 2 T & B																															
5 -T ARITH OPERATION	O1B1		35-27.11.2																																
6 -T GATED WM	O1B2		31-07.11.2	B WM A WM B WM																															
7 -T T-Z CHANGE	O1B7		31-05.31.2																																
8 +U DELTA T CYCLE	O1B2		31-21.11.2																																
9 -T T-CYCLE LATCH	O1B2		31-24.11.2																																
10 +U T-STAR RESTORE GATE	O1A7		32-39.11.2																																
11 +U DELTA A - CYCLE	O1B2		31-22.11.2	NOT 7 RESET 13																															
12 -T A-CYCLE LATCH	O1B2		31-25.11.2																																
13 -T DELTA B-CYCLE LATCH	O1B2		31-29.11.2																																
14 +U B-CYCLE	O1B2		31-26.11.2																																
15 -T FIRST B-CYCLE TRIGGER	O1B3		34-31.13.2	5 6 9 16																															
16 -T SECOND B-CYCLE TRIGGER	O1B3		34-31.13.2	13 NOT 15 16																															
17 -T B-REGISTER ZONE INHIBIT	O1A3		35-18.21.2	B NOT 11 MANUAL ENTRY XFER B REG																															
18 -T B-REGISTER DIGIT INHIBIT	O1A3		35-18.31.2	B NOT MANUAL ENTRY XFER B REG																															
19 -T B-REGISTER C-BIT INHIBIT	O1A3		35-18.21.2	B XFER B-REG B REG																															
20 -T B-REGISTER WORD MARK INHIBIT	O1A3		35-18.21.2	NOT MANUAL ENTRY																															
21 -T ARITHMETIC ZONE INHIBIT	O1A3		35-18.51.2	B WM & NOT 15 ORIG																															
22 -T ARITHMETIC DIGIT INHIBIT	O1A3		35-18.51.2	4 NOT 26																															
23 +U INHIBIT C-ZONE	O1A7		35-19.11.2	22 NOT 16 OR 21 21																															
24 +U TRANSFER STAR	O1B3		34-31.13.2	4 15 NOT 8 15																															
25 -T ADDEN CARRY	O1B3		34-31.13.2	4 16 25 NOT 15 OR 16 NOT 125																															
26 -T CARRY TRIGGER	O1B3		34-31.14.2																																
27 +U ZONE ADDER GATE	O1B3		34-33.11.2	B WM NOT 15																															
28 +U MODIFIER CONTROL PLUS 1	O1A8		32-42.11.2	B																															
29 +U MODIFIER CONTROL MINUS 1	O1A8		32-42.11.2	NOT 9 OR 30																															
30 -T MODIFIER CONTR. XFER	O1A8		32-42.41.2	26 26																															
31 +U MODIFIER OUTPUT ON BUS LINES			32-43.XX.2	909/900	450	678	457	677	456	676	455	675	454	674	909																				
32 DATA ON INHIBIT DRIVE LINES				C2	B41	CA6	B41	A61	C62	0	2	C61	CA62	B2	C2																				

DATE CHANGE NO DATE CHANGE NO
 4-10-62 5-3-62 5-17-62 TA 1370 K
 INTERNATIONAL BUSINESS MACHINES CORP
 NAME FIGURE 2 TRUE ADD
 DESIGN DETAIL CHECK APPROD TYPE SCALE NONE DRAW VE 1-10-62 CHECK

723926

900 4 ORIG A-FIELD A4 A2 8 B5 RESULTANT A-FIELD A2 8 B5 C B
901 4 (M58)1673)ORIG B-FIELD A 0 1 6 RESULTANT B-FIELD, 7 5 A81 2 4 9 (C2 4 8 81)
902 4 A 1 6



DATE
CHANGE NO
DATE
CHANGE NO
INTERNATIONAL BUSINESS MACHINES CORP
RECOMPLEMENT A 1A4A11881

900 4 ORIG A-FIELD A4 A2 6 B5 RESULTANT A-FIELD A2 6 B5 C B
 901 1 M581 (578) ORIG B-FIELD A 0 1 6 RESULTANT B-FIELD 7 5 A81 2 4 9 (C2 4 B 0 Z)
 908 2



DATE CHANGE NO DATE CHANGE NO
 1-10-52 1335 D 31 7 69 TA 1370 K
 INTERNATIONAL BUSINESS MACHINES CORP
 NAME FIGURE 3 COMPLEMENT ADD-
 RECOMPLEMENT A (AA118881)
 DESIGN TYPE
 ORIGIN SCHEM NO

1900) 5
1901) A 450 670
1908) 2

ORIGINAL A-FIELD A2 6 D5
ORIGINAL B-FIELD A1 5 1 A6

RESULTANT A-FIELD A2 6 D5
FINAL RESULTANT B-FIELD B 0 5 A81

SIGNAL NAME	NAME CATE CH	TEST POINT	LOGIC	CYCLE															
				T	7	A	B	A	B	A	B	A	B	A	B	A	B	T	OP
1 STORAGE ADDRESS REGISTER	---		32.35.XX.2	908	450	670	450	670	457	677	456	676	475	908	1	...			
2 B-REGISTER	---		35.11.XX.2	C2	B41	A42	B41	CABW2	C42	1	A2	C21	CAB2	C2	...				
3 A-REGISTER	---		35.11.XX.2	6	B41	B41	B41	C42	A2	C42	C82	...							
4 -T ADD OPERATION	01B1		35.24.11.2	OP DECODE 1 2 4 8															
5 -T ARITH OPERATION	01B1		35.27.11.2	...															
6 -T GATED WORD MARK	01B2		31.07.11.2	A WH B WH															
7 -T I/E CHANGE	01B2		31.05.31.2	...															
8 +U DELTA T CYCLE LATCH	01B2		31.21.11.2	...															
9 -T T-CYCLE LATCH	01B2		31.24.11.2	...															
10 +U DELTA A-CYCLE LATCH	01B2		31.22.11.2	...															
11 -T A-CYCLE LATCH	01B2		31.25.11.2	...															
12 -T DELTA B-CYCLE LATCH	01B2		31.27.11.2	...															
13 +U B-CYCLE	01B2		31.26.11.2	...															
14 -T FIRST B-CYCLE LATCH	01B3		34.31.13.2	...															
15 -T SECOND B-CYCLE LATCH	01B3		35.31.13.2	...															
16 -T B-REGISTER ZONE INHIBIT	01A3		35.18.21.2	B NOT MANUAL ENTRY															
17 -T B-REGISTER DIGIT INHIBIT	01A3		35.18.31.2	B NOT MANUAL ENTRY XFER B REG															
18 -T B-REGISTER C-BIT INHIBIT	01A3		35.18.21.2	B XFER B-REG															
19 -T B-REGISTER WORD MARK INHIBIT	01A3		35.18.21.2	NOT MANUAL ENTRY															
20 -T ARITHMETIC DIGIT INHIBIT	01A3		35.18.51.2	NOT 23															
21 -T ARITHMETIC ZONE INHIBIT	01A3		35.18.51.2	...															
22 +U INHIBIT C-ZONE	01A3		35.19.11.2	...															
23 +U TRANSFER STAR	01B3		34.31.13.2	NOT 0															
24 +U COMPLEMENT LATCH	01B3		34.31.11.2	...															
25 -T ADDER CARRY	01B3		34.31.15.2	...															
26 -T CARRY TRIGGER	01B3		34.31.14.2	...															
27 +U A-WORD MARK LATCH	01B2		31.06.11.2	...															
28 +U A-CYCLE ELIMINATE	01B2		31.06.11.2	...															
29 -T ARITHMETIC A-WORD MARK LATCH	01A3		35.18.61.2	...															
30 A-REGISTER SET B2 C	01A3		35.18.61.2	...															
31 MODIFIER CONTROL PLUS 1	01A0		32.42.11.2	...															
32 MODIFIER CONTROL MINUS 1	01A0		32.42.11.2	...															
33 MODIFIER CONTROL TRANSFER	01A0		32.42.41.2	...															
34 MODIFIER OUTPUT ON BUS LINES	---		32.43.XX.2	450	670	457	677	456	676	455	675	476	908	...					
35 DATA ON INHIBIT DRIVE LINES	---		---	C2	B41	CAB 42	B41	A81	C42	C41	A2	C82	B2	C2	...				

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	113250 D	31.7.62	TA 1870 K	NAME | FIGURE 4 COMPLEMENT ADD
				NO RECOMPLEMENT
DESIGN		TYPE		
DETAIL		SCALE		MORE
CHECK		DRAW		VE 1-22-62
APPRO		CHECK		

9370 K-723929

(901) A 458 678
 (908) A 778 678
 (915) A 901 -

ORIGINAL A-FIELD B7
 ORIGINAL B-FIELD A

RESULTANT A-FIELD B7
 FIRST RESULTANT B-FIELD A B9

FINAL RESULTANT B-FIELD B9

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE																			
				17	A	B	A	B	B-READR	B-READR	B-READR	T OP											
				3	6	9	0	3	6	9	0	3	6	9	0	3	6	9	0	3	6	9	0
1 STORAGE ADDRESS REGISTER			32.35.XX.2	908	458	678	458	678								908							
2 B-REGISTER			35.11.XX.2	BC21	CB421	42	CB421	AB42	ABB1	ABB1	B2	BC21											
3 A-REGISTER			35.11.XX.2			CB 421		CB 421		ABB1		BAR											
4 +U ADD OPERATION	01B1		35.24.11.2	OP DECODE AB 1 B 2																			
5 -T ADD OR SUBT OPERATION	01B1		35.27.11.2																				
6 -T ARITH OPERATION	01B1		35.27.11.2																				
7 -T GATED WORD MARK	01B2		31.07.11.2	B WH																			
8 -T T-E CHANGE	01B2		31.05.31.2																				
9 +U DELTA I-CYCLE	01B2		31.21.11.2																				
10 -T I-CYCLE LATCH	01B2		31.24.11.2																				
11 +U I-STAR RESTORE GATE	01A7		32.39.11.2																				
12 +U DELTA A-CYCLE LATCH	01B2		31.22.11.2	RESET 14																			
13 -T A-CYCLE LATCH	01B2		31.25.11.2	NOT B																			
14 -T DELTA B-CYCLE LATCH	01B2		31.23.11.2																				
15 +U B-CYCLE	01B2		31.26.11.2																				
16 -T FIRST B-CYCLE TR	01B3		34.31.13.2	6 7 10 15 NOT 38 34 NOT 35 15 NOT 38																			
17 -T SECOND B-CYCLE TR	01B3		34.31.13.2	5 16 NOT 9 34 15 NOT 38																			
18 -T B-REGISTER WORD MARK INHIBIT	01A3		35.18.21.2	NOT MANUAL ENTRY																			
19 -T B-REGISTER C-BIT INHIBIT	01A3		35.18.21.2	9 NOT MANUAL ENTRY 36 36																			
20 -T B-REGISTER ZONE INHIBIT	01A3		35.18.21.2	9 NOT MANUAL ENTRY 17 5 36																			
21 -T B-REGISTER DIGIT INHIBIT	01A3		35.18.31.2	5 16 NOT 34 36 36																			
22 -T ARITH ZONE INHIBIT	01A3		35.18.51.2	16 26 NOT 34 36 NOT 38																			
23 -T ARITH DIGIT INHIBIT	01A3		35.18.51.2	5 NOT 25 35 38 NOT 35 38 34 NOT 35 38																			
24 +U INHIBIT C-ZONE	01A3		35.15.11.2	20																			
25 +U TRANSFER STAR	01B3		34.31.13.2	5 16 NOT 9 34 NOT 16																			
26 +U COMPLEMENT LATCH	01B3		34.31.11.2	15 16 A-REG NOT A B-REG PLUS NOT 36 19																			
27 -T ADDER CARRY	01B3		34.31.15.2																				
28 -T CARRY TRIGGER	01B3		34.31.14.2	5 16 26 27 NOT 35 NOT 38																			
29 +U ARITH READDRESS	01B3		34.31.16.2	5 26 NOT 27 34 29																			
30 +U A WORD MARK LATCH	01B2		31.06.11.2	29																			
31 +U A-CYCLE ELIMINATE	01B2		31.06.11.2	30																			
32 -T READDRESS LATCH	01B2		31.04.11.2	29 37 38																			
33 +U REVERSE SCAN TRIGGER	01B2		31.04.11.2	29 37																			
34 +U RECOMPLEMENT LATCH	01B3		34.31.17.2	5 35 NOT 10																			
35 +U CYCLE CNTRL REVERSE SCAN	01B2		31.04.11.2	33 33																			
36 +U TRANSFER B-REGISTER	01A3		35.18.11.2	10 NOT 13 13 NOT 13 5 35 NOT 35																			
37 +U REVERSE SCAN READDRESS	01B3		34.31.16.2	B-REG B NOT 16 5 35																			
38 -T READDRESS TRIGGER	01B3		34.31.17.2	15 34 NOT 35																			
39 -T FORCE B 2	01A3		35.18.31.2	NOT BLOCK OP 34 AND B-CYCLE 38																			
40 +U MODIFIER CONTROL I	01A8		32.42.11.2	7 10																			
41 +U MODIFIER CONTROL - I	01A8		32.42.11.2																				
42 -T MODIFIER CONTROL XFER	01A8		32.42.41.2	25																			
43 MODIFIER OUTPUT ON BUS LINES			32.43.11.2	909/908	458	678	457	677	679	677	677	909											
44 DATA ON INHIBIT DRIVE LINES				BC 21	CB421	AB42	CB421	ABB1	ABB1	B2	B1	BC21											

NO ADDRESS MODIFICATION FIRST FORWARD SCAN REVERSE SCAN SECOND FORWARD SCAN

DATE 4-10-62 CHANGE NO. 113430 D DATE 31.7.62 CHANGE NO. TA 1370 K

INTERNATIONAL BUSINESS MACHINES CORP.
 NAME: 1515 REVERSE COMPLEMENT ADD-ONE CHARACTER FIELD

CHECK APPROD

TYPE SCALE NONE
 DRAW VE
 CHECK

299 A (219) (319) ORIG A-FIELD DATA 4973
 400 B ORIG B-FIELD DATA 03865

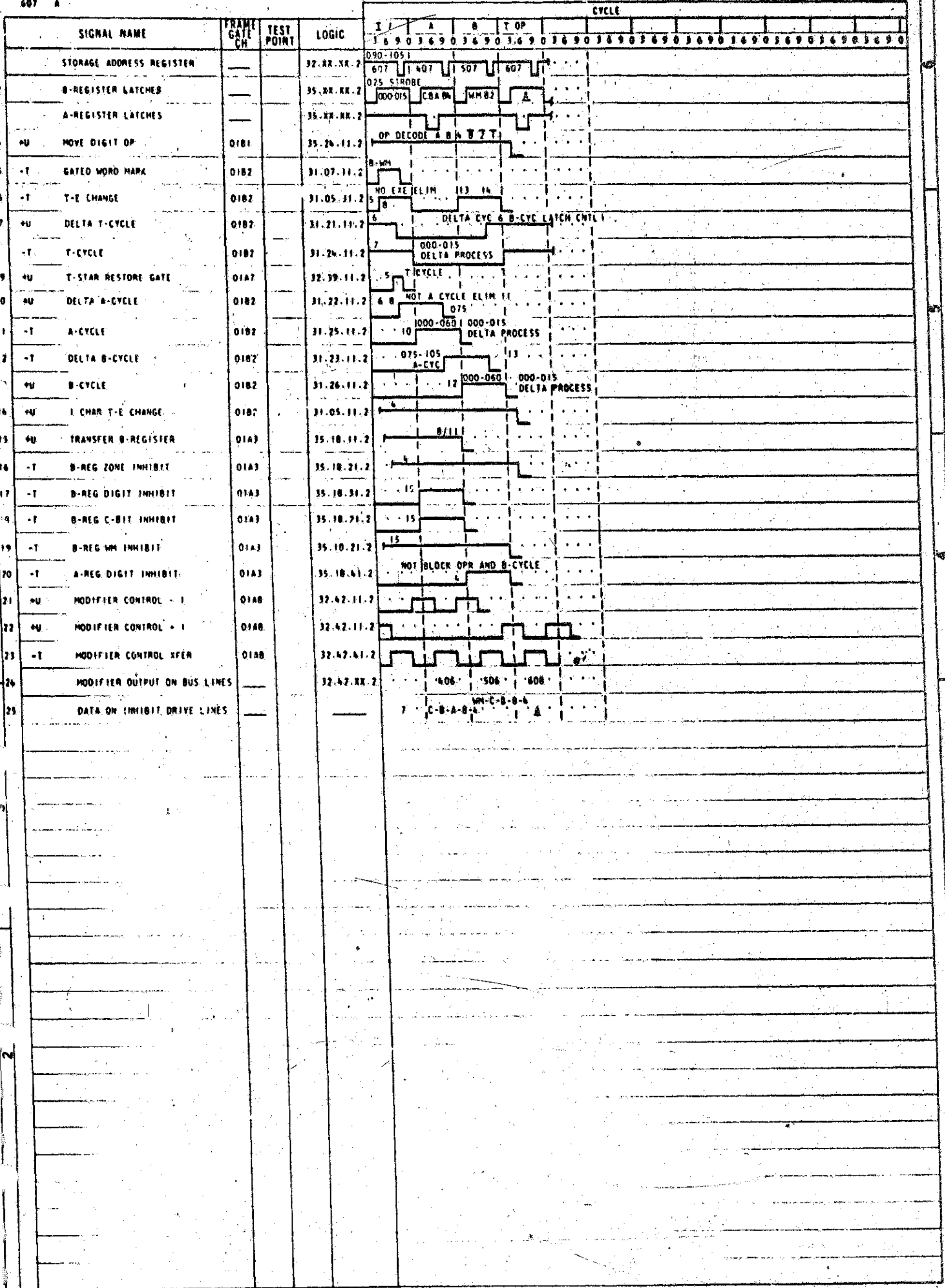
RESULTANT A-FIELD 4973
 RESULTANT B-FIELD 04973

6
5
4
3
2

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE													
				I 7	A	B	A	B	A	B	A	B	I GP				
STORAGE ADDRESS REGISTER	---		32.XX.XX.2	407	219	319	718	318	217	317	216	316	407				
B-REGISTER LATCHES	---		35.XX.XX.2	5	3	5	7	6	9	9	4	3					
A-REGISTER LATCHES	---		35.XX.XX.2		3		7		9		4						
+U MOVE OPERATION	01B1		35.25.11.2	OP DECODE B A 4 8 2													
-T GATED WORD MARK	01B2		31.07.11.2	B-WM													
-T T/E CHANGE	01B2		31.05.31.2	5 NO EXE ELIM													
+U DELTA I-CYCLE	01B2		31.21.11.2	6 8 6 13 DELTA CYC LAT GATE													
-T I-CYCLE LATCH	01B2		31.24.11.2	7 RESET CY LATS													
+U T-STAR RESTORE GATE	01A7		32.39.11.2	5 8 ALTER													
+U DELTA A-CYCLE	01B2		31.22.11.2	6 8 NOT A-CYCLE ELIM RESET DELTA B 11 075													
-T A-CYCLE LATCH	01B2		31.25.11.2	10 RESET CY LATS													
-T DELTA B-CYCLE LATCH	01B2		31.23.11.2	075-105 11 075 6 13													
+U B-CYCLE	01B2		31.26.11.2	12 GATE CY OUT RESET CY LATS													
+U TRANSFER B-REGISTER	01A3		35.18.11.2	11													
+U T/E CONTROL 1	01B2		31.05.21.2	4													
-T B-REG ZONE INHIBIT	01A3		35.18.21.2	14													
-T B-REG DIGIT INHIBIT	01A3		35.18.31.2	14													
-T B-REG C-BIT INHIBIT	01A3		35.18.21.2	14													
-T B-REG WM INHIBIT	01A3		35.18.21.2	14													
-T A-REG ZONE INHIBIT	01A3		35.18.41.2	4 NOT BLOCK OPR & B-CYCLE													
-T A-REG DIGIT INHIBIT	01A3		35.18.41.2	4 NOT BLOCK OPR & B-CYCLE													
+U A-REG DIGIT AND ZONE C BIT GEN TAKES OVER																	
+U A-REG WM LATCH	01B2		31.06.11.2	5 090-000 8													
+U MODIFIER CONTROL -1	01A8		32.42.11.2														
+U MODIFIER CONTROL 1	01A8		32.42.11.2	26													
-T MODIFIER CONTROL XFER	01A8		32.42.41.2														
MODIFIER OUTPUT ON BUS LINES	---		32.43.XX.2		218	318	217	317	216	316	215	315	408				
DATA ON INHIBIT DRIVE LINES	---		---		3	3	7	7	9	9	4	4					
+U INHIBIT DRIVE C	01A3		35.17.11.2														

599 A ORIG A-FIELD CHAR C-B-A-B-4
600 D 14071 15071 ORIG B-FIELD CHAR WM-B-2
607 A

RESULTANT B-FIELD CHAR WM-C-B-B-4



599 A ORIG A-FIELD CHAR C-B-A-B-A
 600 Y (407) (507) ORIG B-FIELD CHAR WM-B-2
 607 A

RESULTANT B-FIELD CHAR WM-C-B-A-2

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE															
				I7	A	B	T OP												
1 STORAGE ADDRESS REGISTER			32.XX.XX.2	090-105															
2 B-REGISTER LATCHES			35.XX.XX.2	025 STROBE															
3 A-REGISTER LATCHES			35.XX.XX.2																
4 +U MOVE ZONE DP	O1B1		35.26.11.2	OP DECODE A B B 2 7															
5 T GATED WORD MARK	O1B2		31.07.11.2	B-WM															
6 T T-E CHANGE	O1B2		31.05.31.2	5 NO EXE ELIM 13 14															
7 +U DELTA I-CYCLE	O1B2		31.21.11.2	61 B 6 B CYC LATCH CNTL 1 DELTA CYC LATCH GATE															
8 T T-CYCLE	O1B2		31.24.11.2	7 RESET CY LATS															
9 +U T-SHAR RESTORE GATE	O1A7		32.39.11.2	5 T CYCLE ALTER															
10 +U DELTA A-CYCLE	O1B2		31.22.11.2	8 6 NOT A-CYC ELIM 11 075 RESET CY LATS															
11 -T A-CYCLE	O1B2		31.25.11.2	10 RESET CY LATS															
12 -T DELTA B-CYCLE	O1B2		31.23.11.2	6 A CYCLE ELIM RESET DELTA B LAT															
13 +U B-CYCLE	O1B2		31.26.11.2	12 000-015 DELTA PROCESS															
14 +U CHAR T-E CHANGE	O1B2		31.05.11.2																
15 +U TRANSFER B-REGISTER	O1A3		35.18.11.2	8/11															
16 T B REG ZONE INHIBIT	O1A3		35.18.21.2	15															
17 T B REG DIGIT INHIBIT	O1A3		35.18.31.2																
18 -T B-REG C-BIT INHIBIT	O1A3		35.18.21.2	15															
19 -T B-REG WM INHIBIT	O1A3		35.18.21.2																
20 -T A-REG ZONE INHIBIT	O1A3		35.18.41.2	NOT BLOCK OPR AND B-CYCLE															
21 +U MODIFIER CONTROL - 1	O1A8		32.42.11.2																
22 +U MODIFIER CONTROL + 1	O1A8		32.42.11.2																
23 -T MODIFIER CONTROL XFER	O1A8		32.42.41.2																
24 MODIFIER OUTPUT ON BUS LINES			32.43.XX.2	406 506 608															
25 DATA ON INHIBIT DRIVE LINES				7 C-B-A-B-A WM-C-B-A-A															

DATE 4-10-62 CHANGE NO 113930 DATE 31.7.62 CHANGE NO TA 1370 K

INTERNATIONAL BUSINESS MACHINES
 NAME FIGURE 8 MOVE ZONE Y
 (AAA) (BBB)

DESIGN		TYPE	
DETAIL		SCALE	NC
CHECK		DRAW	VE
APPROD		CHECK	

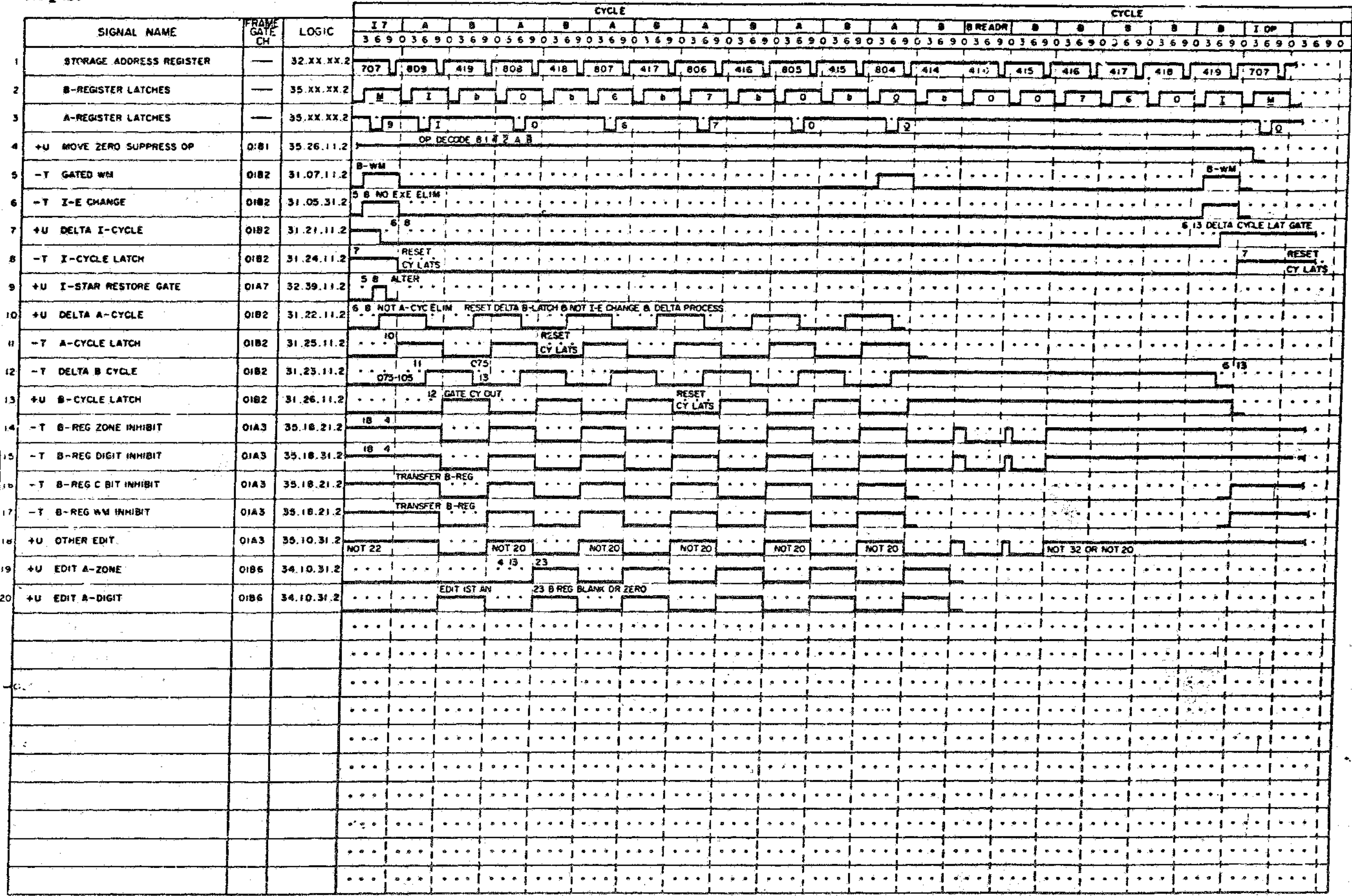
700 2 809 419
707 519 419
714 700-

A-FIELD DATA 007601
B-FIELD DATA 500500

RESULTANT A-FIELD (BEFORE ZERO SUPP-AFTER MOVE) 007601
RESULTANT B-FIELD (BEFORE ZERO SUPP-AFTER MOVE) 007601

RESULTANT B FIELD
(AFTER ZERO SUPP) 007601

9370 K



DATE	CHANGE NO.	DATE	CHANGE NO.
31.7.62	TA 1370 K		
MEMORIAL BUSINESS MACHINES CO			
NAME: FIGURE 9 MOVE ZERO			
SUPPRESS Z (AA) (BB)			
DESIGN	TYPE	SCALE	NONE
CHKD	DRW	VE	5-28-62
APPRO	CHKD		

700 Z 809 419
707 B 519 419
714 B 700 -

A-FIELD DATA 007601
B-FIELD DATA 555555

RESULTANT A-FIELD (BEFORE ZERO SUPP - AFTER MOVE) 007601
RESULTANT B-FIELD (BEFORE ZERO SUPP - AFTER MOVE) 007601

RESULTANT B-FIELD (AFTER ZERO SUPP) 007601

SIGNAL NAME	FRAME GATE CH	LOGIC	CYCLE																		CYCLE																	
			I7	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	I7	A	B	A	B	A	B	A	B	A	B	A	B						
21 -T A-REG ZONE INHIBIT	01A3	35.18.41.2	19 NOT BLOCK OPR AND B-CYCLE																																			
22 -T A-REG DIGIT INHIBIT	01A3	35.18.41.2	20 NOT BLOCK OPR AND B-CYCLE																																			
23 -T BODY TRIGGER	01B6	34.10.41.2	4 13 NOT 31 NOT REV SCAN DLY																																			
24 -T EDIT WM SET	01B6	34.10.51.2	4 13 NOT 33 NOT 25 030-060																																			
25 -T ZERO SUPPRESS LATCH	01B6	34.10.51.2	4 24 SIG NU DIGIT 33 13 B REG NOT AB																																			
26 +U A-WM LATCH	01B2	31.06.11.2	5 11 090-000																																			
27 +U A-CYCLE ELIMINATE	01B2	31.06.11.2	26																																			
28 +U 1ST EDIT READDRESS	01B6	34.10.61.2	4 13 NOT 33 26																																			
29 -T READDRESS LATCH	01B2	31.04.11.2	28																																			
30 +U REVERSE SCAN TRIGGER	01B2	31.04.11.2	28 60-90																																			
31 +U CYCLE CONTROL REV SCAN	01B2	31.04.11.2	30 30																																			
32 +U EDIT REGEN C-BIT	01B5	34.10.61.2	ZERO COMMA OR DECIMAL 25 33																																			
33 +U REVERSE SCAN DELAY LATCH	01B6	34.10.51.2	4 31																																			
34 +U INHIBIT C-ZONE	01A3	35.15.11.2	NOT BLOCK OPR 32 B B-CYCLE																																			
35 +U MODIFIER CONTROL -1	01A8	32.42.11.2	[Pulse train]																																			
36 +U MODIFIER CONTROL +1	01A8	32.42.11.2	[Pulse train]																																			
37 -T MODIFIER CONTROL TRANSFER	01A8	32.42.41.2	[Pulse train]																																			
38 MODIFIER OUTPUT ON BUS LINES	---	32.43.XX.2	708/707	808	418	807	417	806	416	805	415	804	414	803	413	415	416	417	418	419	420	708																
39 DATA ON INHIBIT DR LINES	---	---	8	1	1	0	0	6	6	7	7	0	0	9	9	6	6	7	6	0	1	8																
40			FORWARD SCAN (MOVE PORTION OF OPR) REVERSE SCAN																																			

DATE	CHANGE NO.	DATE	CHANGE NO.
4-10-62	15330 D	31-7-62	TA 1370K
DESIGN	CHECK	DESIGN	CHECK
APPRO		APPRO	

899 1 ORIGINAL A-FIELD DATA 5 9 7 3
900 L (409) (509) ORIGINAL B-FIELD DATA 0 3 9 6 5
907 A

RESULTANT B-FIELD 0 3 9 7 3

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE																			
				T	A	B	A	B	A	B	A	B	T	OP									
				3	6	9	0	3	6	9	0	3	6	9	0	3	6	9	0	3	6	9	0
STORAGE ADDRESS REGISTER	—		32.XX.XX.2	907	409	509	408	508	407	507	406	506											
B-REGISTER LATCHES	—		35.XX.XX.2	A	3	5	7	6	9	9	5	3											
A-REGISTER LATCHES	—		35.XX.XX.2																				
+U LOAD OPERATION	O1B1		35.25.11.2	OP DECODE B A 1 2 5 8																			
-T GATED WORD MARK	O1B2		31.07.11.2	B-WM 11																			
-T I/E CHANGE	O1B2		31.05.31.2	5 NO EXE ELIM 13 16 26																			
+U DELTA I-CYCLE	O1B2		31.21.11.2	6 DELTA CYC LAT GATE B CY LAT CTRL 1																			
-T I-CYCLE	O1B2		31.24.11.2	7 RESET CYCLE LATCHES																			
+U I-STAR RESTORE GATE	O1A7		32.39.11.2	5 B NOT ALTER																			
+U DELTA A-CYCLE	O1B2		31.22.11.2	6 B NOT A CYC ELIM RESET DELTA B LATCH 075																			
-T A-CYCLE	O1B2		31.25.11.2	10 RESET CYCLE LATCHES																			
-T DELTA B-CYCLE	O1B2		31.23.11.2	075-105 075 13 6 13																			
+U B-CYCLE	O1B2		31.26.11.2	12 GATE CY OUT RESET CY LATCHES																			
+U TRANSFER A-REGISTER	O1A3		35.18.41.2	4 NOT BLOCK OPR AND B CYCLE																			
+U TRANSFER B-REGISTER	O1A3		35.18.11.2	11																			
+U I/E CONTROL 1	O1B2		31.05.21.2	4																			
+U I/E CONTROL 2	O1B2		31.05.21.2	4																			
-T B-REG ZONE INHIBIT	O1A3		35.18.21.2	15																			
-T B-REG DIGIT INHIBIT	O1A3		35.18.31.2	15																			
-T B-REG C-BIT INHIBIT	O1A3		35.18.21.2	15																			
-T B-REG WM INHIBIT	O1A3		35.18.21.2	SUPPRESSED BY 4																			
-T A-REG ZONE INHIBIT	O1A3		35.18.41.2	4 NOT BLOCK OPR AND B-CYCLE																			
-T A-REG DIGIT INHIBIT	O1A3		35.18.41.2	4 NOT BLOCK OPR AND B-CYCLE																			
+U INHIBIT C	O1A3		35.14.11.2	14 A REG C																			
+U INHIBIT DRIVE WM	O1A3		35.14.51.2	14 A REG WM																			
+U A-WORD MARK LATCH	O1B2		31.06.11.2	5 11 8																			
+U MODIFIER CONTROL -1	O1A8		32.42.11.2																				
+U MODIFIER CONTROL +1	O1A8		32.42.11.2																				
-T MODIFIER CONTROL XFER	O1A8		32.42.41.2																				
MODIFIER OUTPUT ON BUS LINES	—		32.43.XX.2		408	508	407	507	406	506	405	505											
DATA ON INHIBIT DRIVE LINES	—		—		9	3	7	7	9	9	5	5											

723934 1370 K

DATE	CHANGE NO.	DATE	CHANGE NO.	INTERNATIONAL BUSINESS MACHINES CORP
4-10-62	113830 D	31.7.62	TA 1370 K	NAME FIG 10 LOAD L (AAA) (BBB)
				DESIGN
				DETAIL
				CHECK
				APPRO
				TYPE
				SCALE NONE
				DRAW VE 1-24-62
				CHECK

899 2 ORIG B-FIELD 73487
900 / (A04) RESULTANT B-FIELD 00000
904 8

SIGNAL NAME	FRAME GATE CH	TEST POINT	LOGIC	CYCLE																											
				T 4	B	B	B	B	B	I OP																					
				3	6	9	0	3	6	9	0	3	6	9	0	1	6	9	0	3	6	9	0	3	6	9	0	3	6	9	0
STORAGE ADDRESS REGISTER			32.XX.XX.2	904	404	403	402	401	400	904																					
B-REGISTER LATCHES			35.XX.XX.2	025-STRORE																											
A-REGISTER LATCHES			35.XX.XX.2	A 7 B 4 3 7 A																											
+U CLEAR OPERATION	01B1		35.26.11.2	I OP DECODE A B 1 B 5 21																											
-T GATED WORD MARK	01B2		31.07.11.2	B WM																											
-T T-E CHANGE	01B2		31.05.31.2	5 NO EXE ELIM												4 NOT I CY															
+U DELTA T-CYCLE	01B2		31.21.11.2	6 B												6 11 DELTA CYC LAT GATE															
-T T-CYCLE	01B2		31.26.11.2	7												RESET CYCLE LATCHES															
+U T-STAR RESTORE GATE	01A7		32.39.11.2	5 B																											
-T DELTA B-CYCLE	01B2		31.23.11.2	6 B 16												6 11															
+U B-CYCLE	01B2		31.26.11.2	10												RESET CYCLE LATCHES															
-T B-REG ZONE INHIBIT	01A3		35.18.21.2	SUPPRESSED BY 4																											
-T B-REG DIGIT INHIBIT	01A3		35.18.31.2	SUPPRESSED BY 4																											
-T FIRST ROW	01A3		35.15.11.2	4 NOT BLOCK OPR AND B-CYCLE																											
-T B-REG WM INHIBIT	01A3		35.18.21.2	SUPPRESSED BY 4																											
+U A-CYCLE ELIM	01B2		31.06.11.2	4																											
+U UNITS BORROW-CARRY	01AB		32.42.31.2	BORROW 000-030 OR CARRY																											
+U TENS BORROW-CARRY	01AB		32.42.31.2	TENS POSITION SERIAL 2 AND 8 045-040																											
+U MODIFIER CONTROL - 1	01AB		32.42.11.2	17 18																											
+U MODIFIER CONTROL - 1	01AB		32.42.11.2	7 NOT 21																											
-T MODIFIER CONTROL AFTER	01AB		32.42.41.2																												
MODIFIER OUTPUT ON BUS LINES			32.43.XX.2	403 402 401 400 399 905																											
DATA ON INHIBIT DRIVE LINES				b b b b b b																											