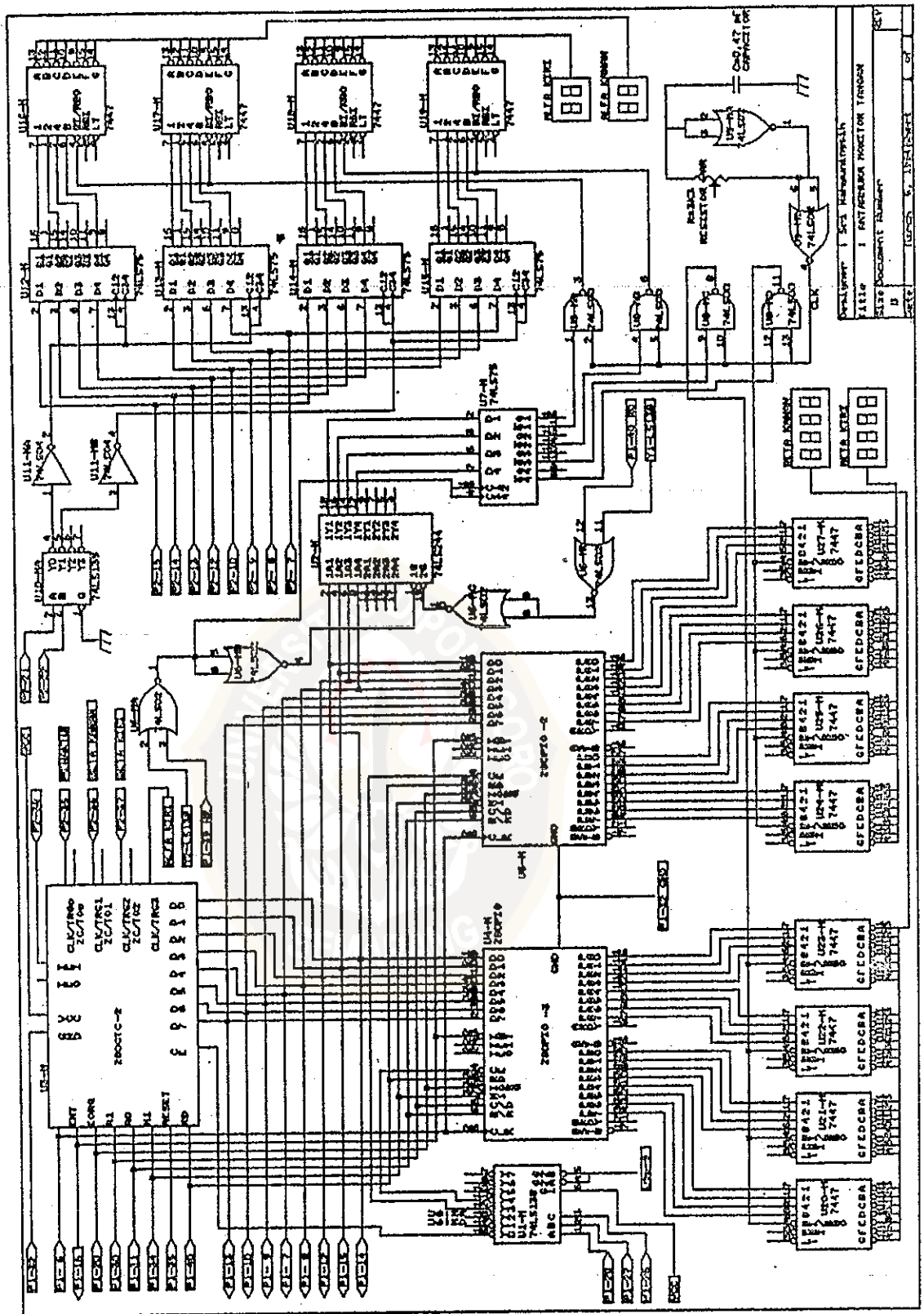


~~LAMPIRAN LAMPIRAN~~





PROGRAM PENGUJIAN DEKODER ALAMAT IC 74LS138

- a. Program pengujian pena keluaran Y0 yang akan mengaktifkan CE CTC-2 :

```
1800 DB CO      LOOP IN A, COH
1802 18 FC      JR LOOP
```

- b. Program pengujian pena keluaran Y1 yang akan mengaktifkan G2 IC 74LS244:

```
1800 DB C8      LOOP IN A, CSH
1802 18 FC      JR LOOP
```

- c. Program pengujian pena keluaran Y2 yang akan mengaktifkan G1 IC 74LS244:

```
1800 D3 D0      LOOP OUT (DOH), A
1802 18 FC      JR LOOP
```

- d. Program pengujian pena keluaran Y3 yang akan mengaktifkan CE PIO-2:

```
1800 D3 D8      LOOP OUT (D8H), A
1802 18 FC      JR LOOP
```

- e. Program pengujian pena keluaran Y4 yang akan mengaktifkan CE PIO-3 :

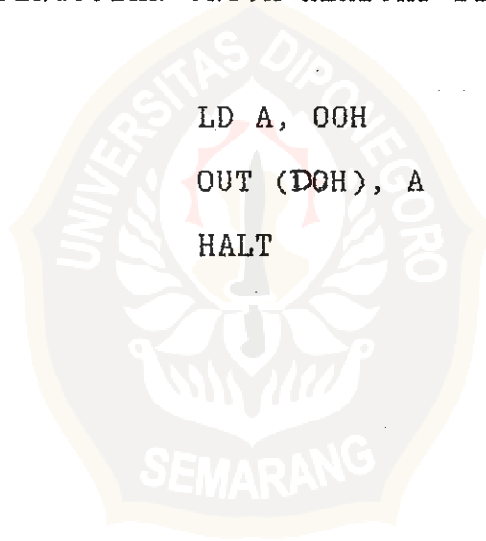
```
1800 D3 E0      LOOP OUT (EOH), A
1802 18 FC      JR LOOP
```

PROGRAM PENGUJIAN PENAHAN BISTABIL IC 74LS75
SEBAGAI PENGGERBANG

1800	3E 03	LD A, 03H
1802	D3 DO	OUT (DOH), A
1804	76	HALT

PROGRAM PENGUJIAN UNTUK MEMBUAT BI IC 7447 TINGGI

1800	3E 00	LD A, 00H
1802	D3 DO	OUT (DOH), A
1804	76	HALT



PROGRAM PENGUJIAN TAMPILAN DUA DIGIT

UNTUK CACAH ALFA TANGAN KANAN

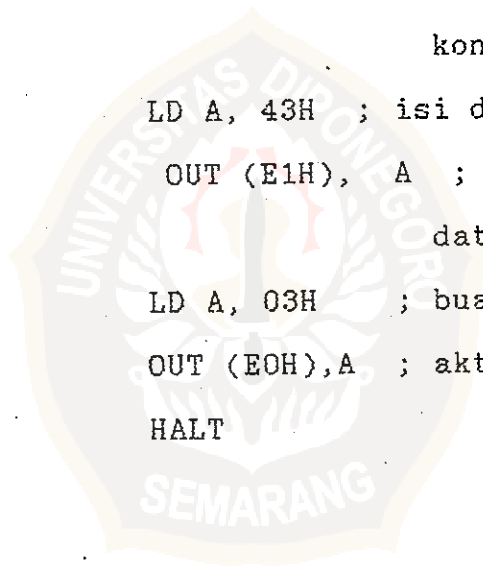
```
1800 3E CF      LD A, CFH      ; set port A PIO-1 modus 3
1802 D3 82      OUT (82H),A ; lempar ke register
                    kontrol port A
1804 3E 00      LD A, 00H      ; PA0-PA7 sebagai keluaran
1806 D3 82      OUT(82), A
1808 3E 72      LD A, 72H      ; isi data 72H ke register A
180A D3 80      OUT (80H), A ; lempar ke register data
                    port A
180C 3E CF      LD A, CFH      ; set port B PIO-1 modus 3
180E D3 83      OUT (83H),A ; lempar ke register
                    kontrol port B
1810 3E 00      LD A, 00H      ; PBO-PB7 sebagai keluaran
1812 D3 83      OUT (83H), A
1814 3E 00      LD A, 00H      ; aktifkan YO 74LS139
1816 D3 81      OUT (81H), A ; lempar ke regiser data
                    port B
1818 3E 01      LD A, 01H      ; buat BI tinggi
181A D3 D0      OUT (D0H), A ; aktifkan 74LS75
181C 76         HALT
```

PROGRAM PENGUJIAN TAMPILAN DUA DIGIT
UNTUK CACAH ALFA TANGAN KIRI

```
1800 3E CF      LD A, CFH      ; set port A PIO-1 modus 3
1802 D3 82      OUT (82H),A ; lempar ke register
                    kontrol port A
1804 3E 00      LD A,00H      ; PA0-PA7 sebagai keluaran
1806 D3 82      OUT(82), A
1808 3E 36      LD A, 36H     ; isi data 36H ke register A
180A D3 80      OUT (80H), A ; lempar ke register data
                    port A
180C 3E CF      LD A, CFH     ; set port B PIO-1 modus 3
180E D3 83      OUT (83H),A ; lempar ke register
                    kontrol port B
1810 3E 00      LD A, 00H     ; PBO-PB7 sebagai keluaran
1812 D3 83      OUT (83H), A
1814 3E 01      LD A, 01H     ; aktifkan Y0 74LS139
1816 D3 81      OUT (81H), A ; lempar ke regiser data
                    port B
1818 3E 02      LD A, 02H     ; buat BI tinggi
181A D3 D0      OUT (D0H), A ; aktifkan 74LS75
181C 76        HALT
```

PROGRAM PENGUJIAN TAMPILAN EMPAT DIGIT
UNTUK CACAH BETA TANGAN KANAN

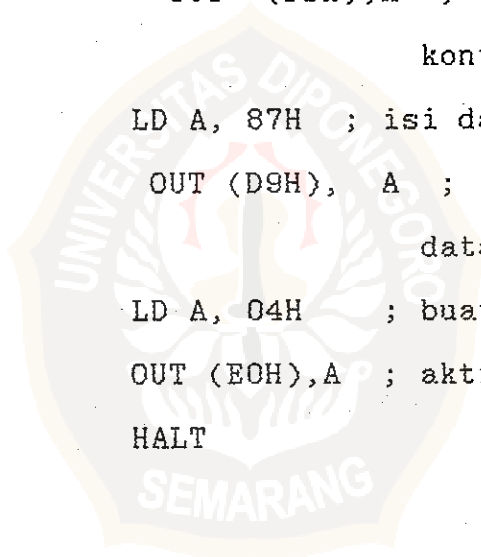
```
1800 3E 0F      LD A, 0FH      ; set port A PIO-3 modus 0
1802 D3 E2      OUT (E2H), A   ; lempar ke register
                    kontrol port A
1804 3E 21      LD A, 21H     ; isi data 21H ke register A
1806 D3 E0      OUT (E0H), A   ; lempar ke register
                    data port A
1808 3E 0F      LD A, 0FH     ; set port B PIO-3 modus 0
180A D3 E3      OUT (E3H), A   ; lempar ke register
                    kontrol port B
180C 3E 43      LD A, 43H     ; isi data 43H ke register A
180E D3 E1      OUT (E1H), A   ; lempar ke register
                    data port B
1810 3E 03      LD A, 03H     ; buat BI tinggi
1812 D3 E0      OUT (E0H), A   ; aktifkan PIO-3
1814 76        HALT
```



PROGRAM PENGUJIAN TAMPILAN EMPAT DIGIT

UNTUK CACAH BETA TANGAN KIRI

```
1800 3E 0F      LD A, 0FH      ; set port A PIO-2 modus 0
1802 D3 DA      OUT (DAH), A   ; lempar ke register
                                   kontrol port A
1804 3E 65      LD A, 65H     ; isi data 65H ke register A
1806 D3 D8      OUT (D8H), A  ; lempar ke register
                                   data port A
1808 3E 0F      LD A, 0FH     ; set port B PIO-3 modus 0
180A D3 DB      OUT (DBH),A  ; lempar ke register
                                   kontrol port B
180C 3E 87      LD A, 87H     ; isi data 87H ke register A
180E D3 D9      OUT (D9H), A  ; lempar ke register
                                   data port B
1810 3E 04      LD A, 04H     ; buat BI tinggi
1812 D3 E0      OUT (E0H),A  ; aktifkan PIO-3
1814 76        HALT
```



PROGRAM PENGUJIAN CTC SEBAGAI PENCACAH 8 BIT

```
;CTC0-1 EQU 40H
;CTC2-1 EQU 42H
;CTC0-2 EQU COH
;SCAN EQU 05FEH
;HEX7SG EQU 0678H
```

```
1930 3E 35          LD A, 35H
1932 D3 40          OUT (40H), A
1934 3E D2          LD A, D2H
1936 D3 40          OUT (40H), A
1938 3E CD          LD A, CDH
193A D3 CO          OUT (COH), A
193C 3E A7          LD A, A7H
193E D3 CO          OUT (COH), A
1940 ED 5E          IM 2
1942 3E 19          LD A, 19H
1944 ED 47          LD I, A
1946 3E 80          LD A, 80H
1948 D3 CO          OUT (COH), A
194A 3E 55          LD A, 55H
194C D3 42          OUT (42H), A
194E 3E FF          LD A, FFH
1950 D3 42          OUT (42H), A
1952 FB            EI
```

```

1953 DD 21 5F 19 ;MAIN :LD IX, BUFSIN
1957 CD FE 05          CALL SCAN
195A 18 F7            JR MAIN
195C 00 00 00 00 ;BUFSIN :DEFB 00H, 00H, 00H,
1960 00 00          00H, 00H, 00H
1980 A0 19          DEFW INTERRUPT

```

; INTERRUPT :

```

19A0 F5          PUSH AF
19A1 C5          PUSH BC
19A2 D5          PUSH DE
19A3 E5          PUSH HL
19A4 DB 42      IN A, 42H
19A6 32 5E 19  LD (195EH), A
19A9 3E 53      LD A, 53H
19AB D3 42      OUT (42H), A
19AD 11 5C 19  LD DE, (195CH)
19B0 21 5F 19  LD HL, (195FH)
19B3 06 03      LD B, 3
19B5 1A          ;LOOP :LD A, (DE)
19B6 CD 78 06  CALL HEX7SG
19B9 13          INC DE
19BA 10 F9      DJNZ LOOP
19BC 3E 55      LD A, 55H
19BE D3 42      OUT (42H), A
19C0 3E FF      LD A, FFH

```

19C2	D3 42	OUT (42H), A
19C4	E1	POP HL
19C5	D1	POP DE
19C6	C1	POP BC
19C7	F1	POP AF
19C8	FB	EI
19C9	ED 4D	RETI



PROGRAM PENGUJIAN CTC SEBAGAI PENCACAH 16 BIT

ORG 1930

;CTCO-1 EQU 40H

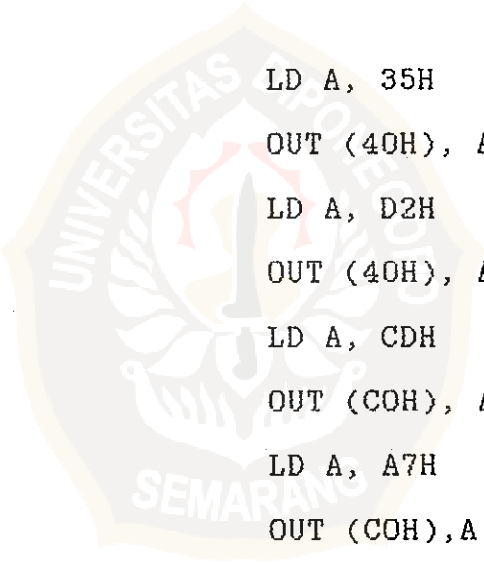
;CTC1-1 EQU 41H

;CTC2-1 EQU 42H

;CTCO-2 EQU COH

;CTC1-2 EQU C1H

;CTC2-2 EQU C2H



1930 3E 35 LD A, 35H
1932 D3 40 OUT (40H), A
1934 3E D2 LD A, D2H
1936 D3 40 OUT (40H), A
1938 3E CD LD A, CDH
193A D3 C0 OUT (COH), A
193C 3E A7 LD A, A7H
193E D3 C0 OUT (COH), A
1940 ED 5E IM 2
1942 3E 19 LD A, 19H
1944 ED 47 LD I, A
1946 3E 80 LD A, 80H
1948 D3 C0 OUT (COH), A
194A 3E 55 LD A, 55H
194C D3 42 OUT (42H), A

```

194E 3E 0A          LD A, 0AH
1950 D3 42          OUT (42H), A
1952 3E 55          LD A, 55H
1954 D3 41          OUT (41H), A
1956 D3 C1          OUT (C1H), A
1958 3E FF          LD A, FFH
195A D3 41          OUT (41H), A
195C D3 C1          OUT (C1H), A
195E FB            EI

195F DD 21 6B 19 ;MAIN :LD IX, BUFSIN
1963 CD FE 05          CALL SCAN
1966 18 F7            JR MAIN
1968 00 00 00 ;BUFSIN :DEFB 00H, 00H, 00H,
196B 00 00 00 00      00H, 00H, 00H
196F 00 00

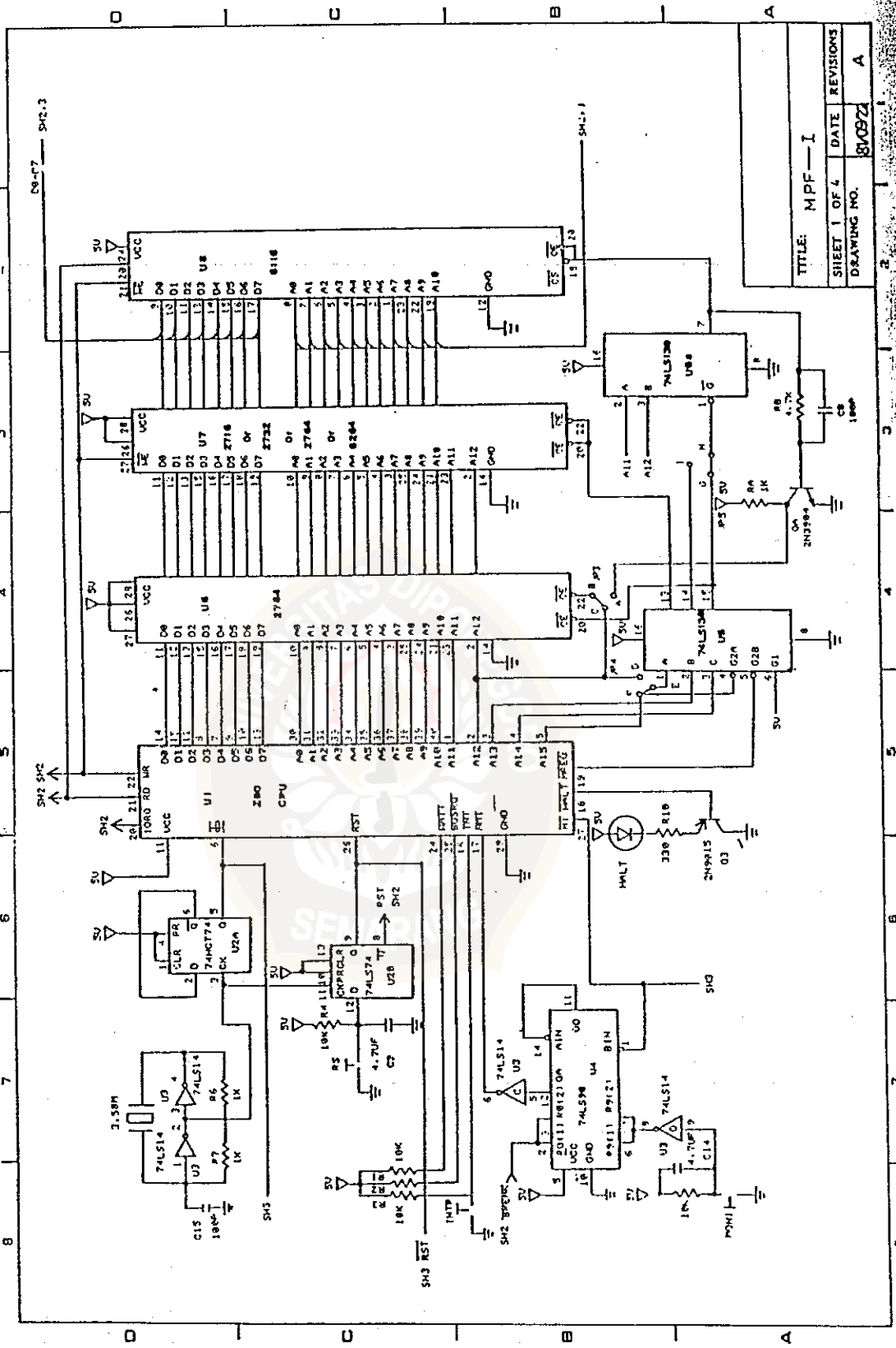
1980 A0 19          DEFW INTERRUPT

; INTERRUPT :

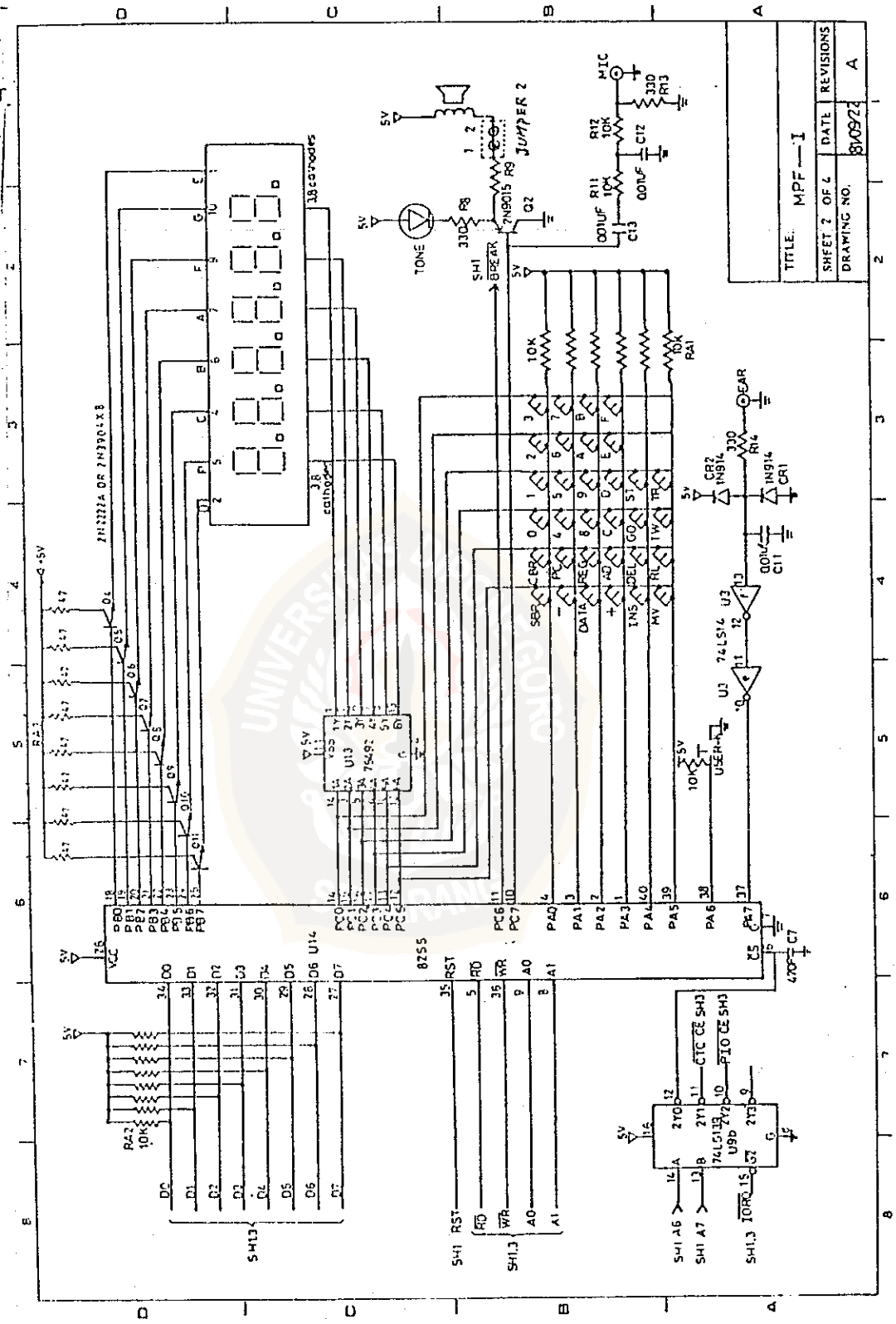
19A0 F5            PUSH AF
19A1 C5            PUSH BC
19A2 D5            PUSH DE
19A3 E5            PUSH HL
19A4 DB 41          IN A, 41H
19A6 32 69 19      LD (1969H), A

```

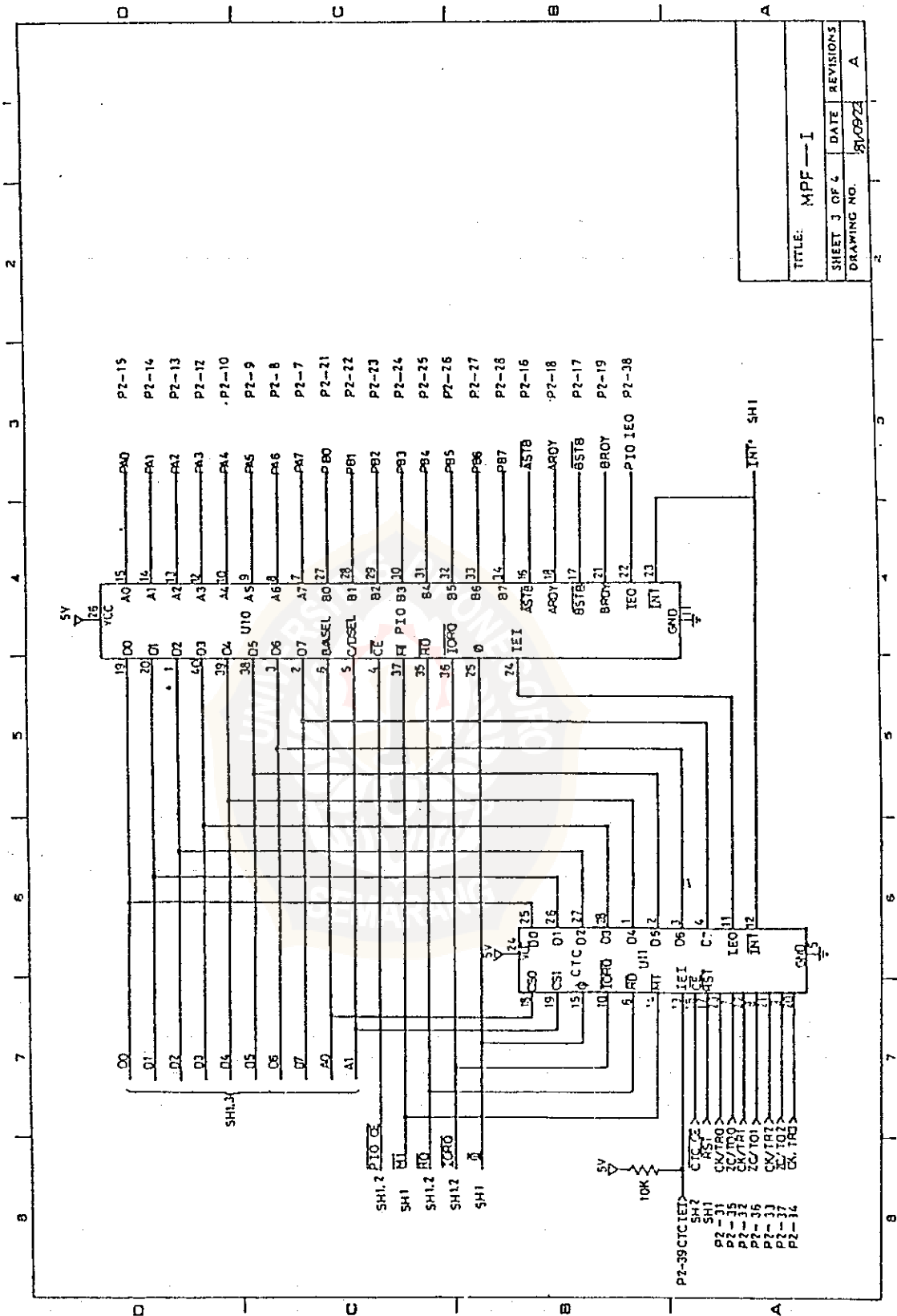
19A9	DB C1		IN A, C1H
19AB	32 6A 19		LD (196AH), A
19AE	3E 53		LD A, 53H
19B0	D3 41		OUT (41H), A
19B2	D3 C1		OUT (C1H), A
19B4	11 68 19		LD DE, (1968H)
19B7	21 6B 19		LD HL, (196BH)
19BA	06 03		LD B, 3
19BC	1A	;LOOP	:LD A, (DE)
19BD	CD 78 06		CALL HEX7SG
19C0	13		INC DE
19C1	10 F9		DJNZ LOOP
19C3	3E 55		LD A, 55H
19C5	D3 41		OUT (41H), A
19C7	D3 C1		OUT (C1H), A
19C9	3E FF		LD A, FFH
19CB	D3 41		OUT (41H), A
19CD	D3 C1		OUT (C1H), A
19CF	E1		POP HL
19D0	D1		POP DE
19D1	C1		POP BC
19D2	F1		POP AF
19D3	FB		EI
19D4	ED 4D		RETI



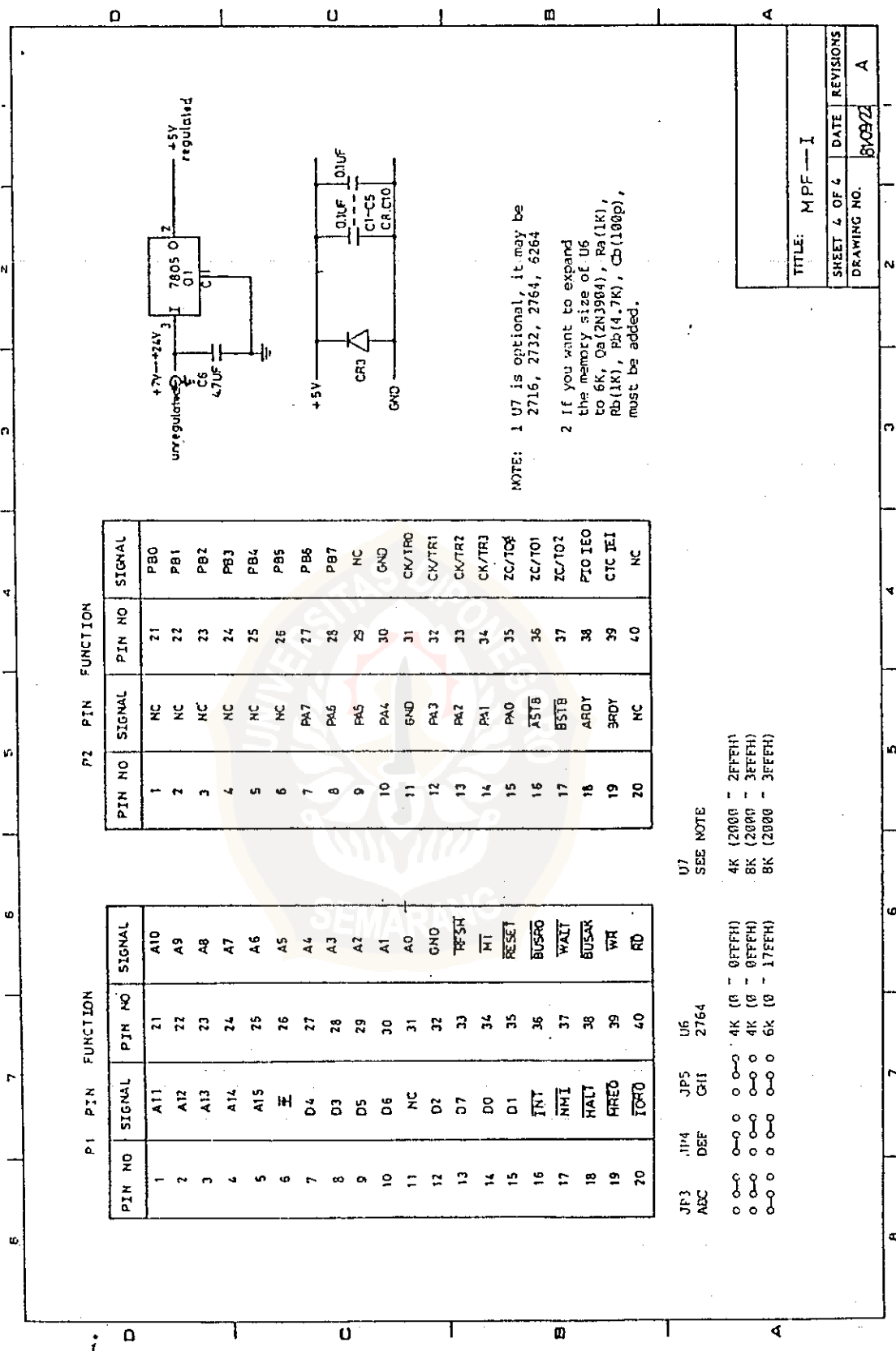
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SHEET ? OF 2	DATE
DRAWING NO.	810972
	A



TITLE: MPF--I			
SHEET 3 OF 4	DATE	REVISIONS	
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U7
 SEE NOTE
 4K (2000 - 2FFFH)
 8K (2000 - 3FFFH)
 8K (2000 - 3FFFH)

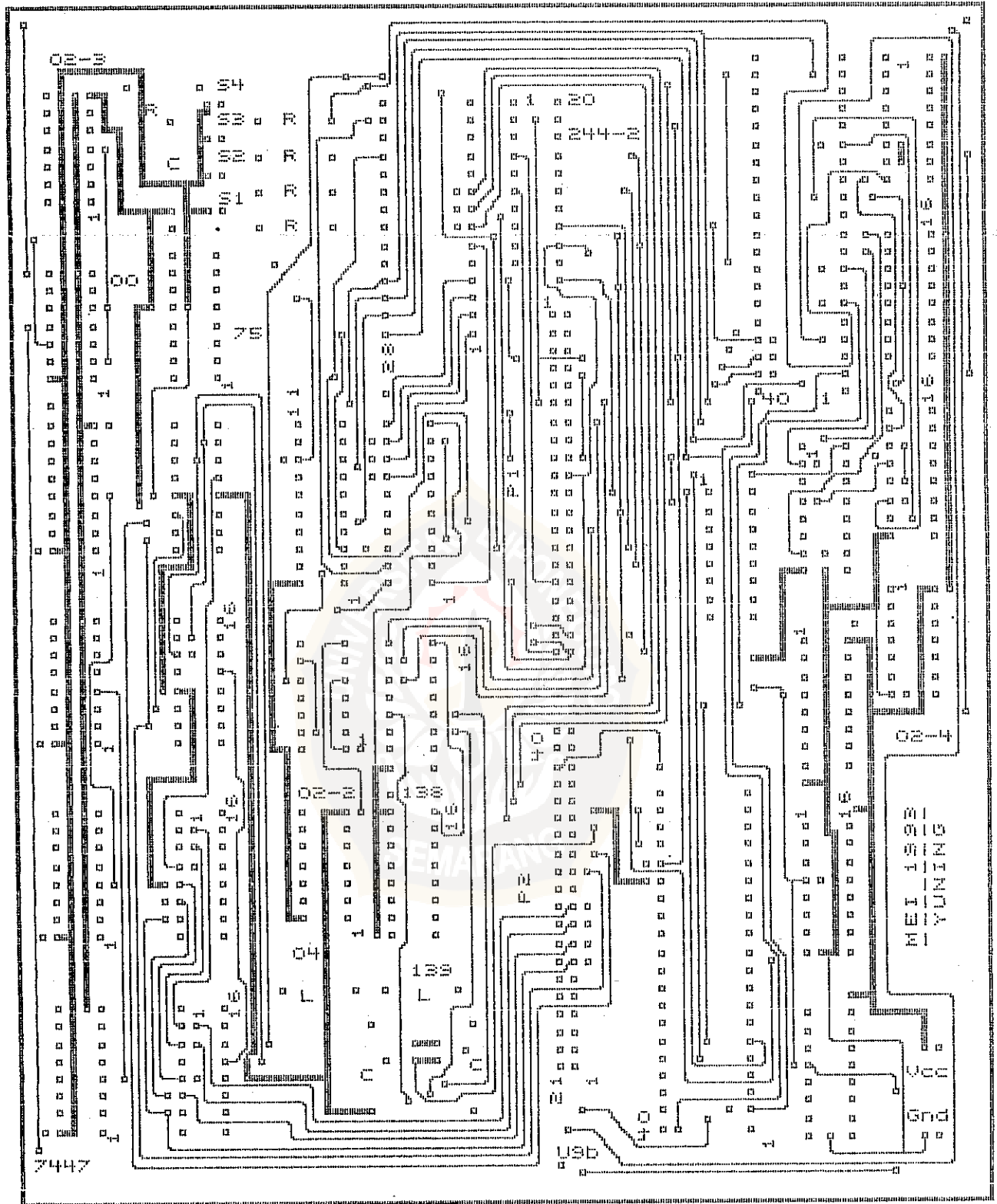
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DRAWING NO.	REVISIONS
8409/23	A

1X checkplot 9 Jul 1993 15:34:09

b:hm.pcb

v1.2 r3 holes: 886 component side

approximate size: 6.50 by 6.55 inches



1X checkplot 9 Jul 1993 15:32:42

b:hm.pcb

v1.2 r3 holes: 886 solder side

approximate size: 6.50 by 6.55 inches

