NOTES:

- (1) PAD NUMBERS IN L.S.A AREAS ARE STANDARD
- (2) PINS 33 TO 64 ARE ON OPPOSITE SIDE OF BOARD

TYPICAL DP BOARD (VIEWED FROM L.S.A. SIDE)

Figure 1 ISSUE 3

4100/900
4.6.1.

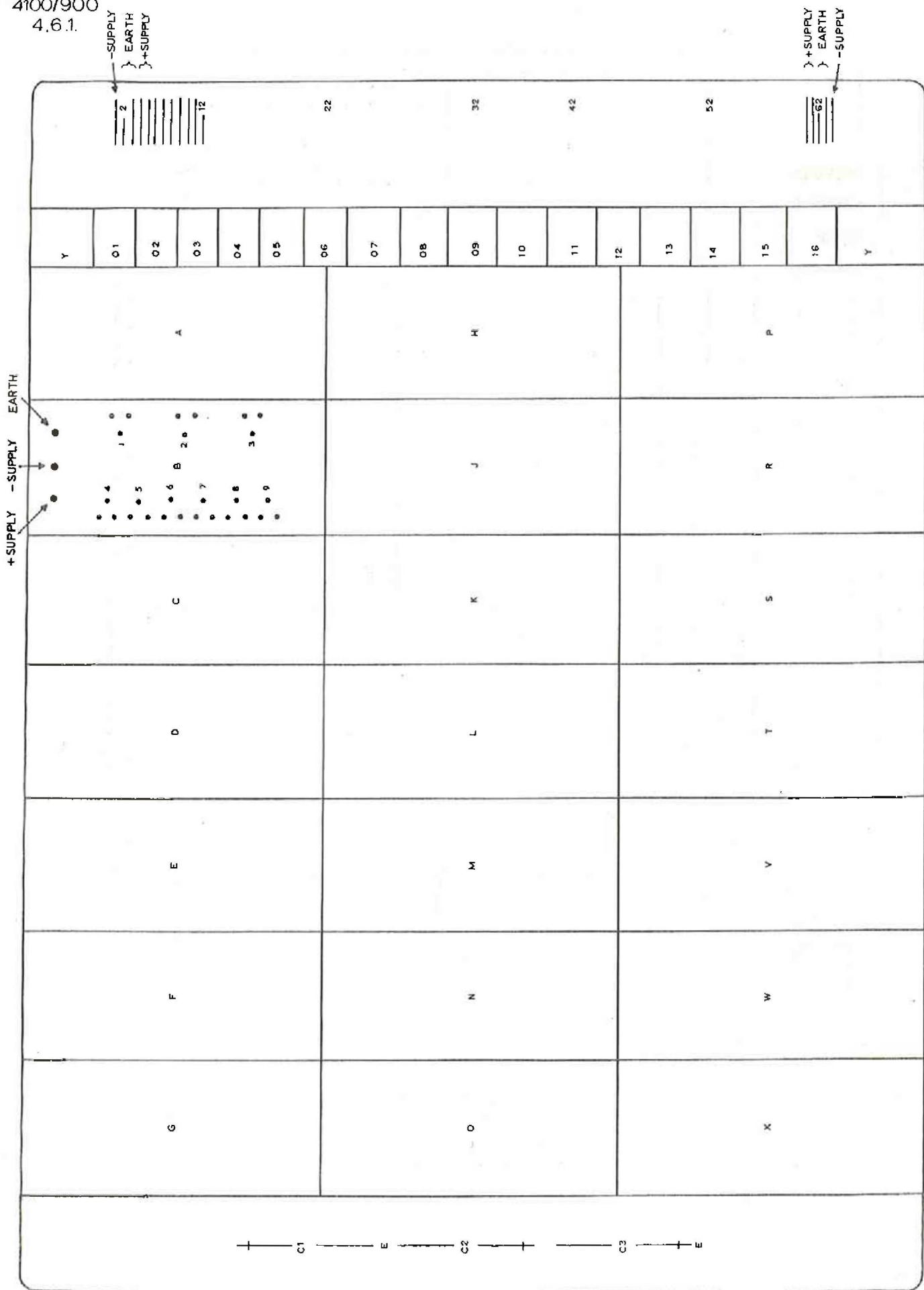
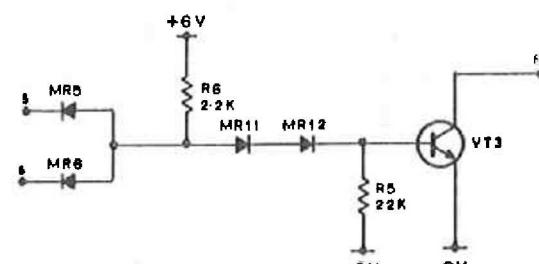
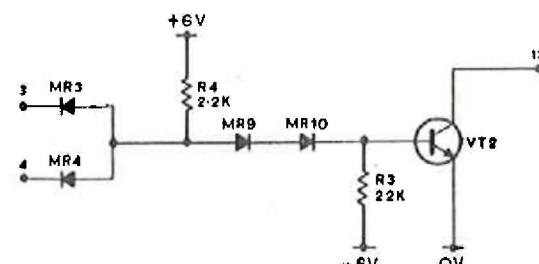
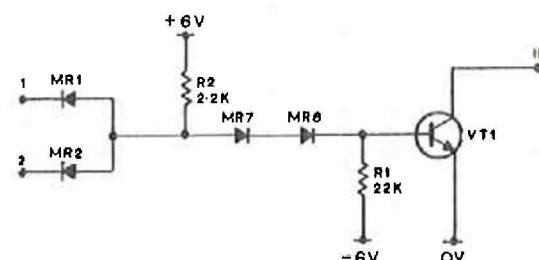
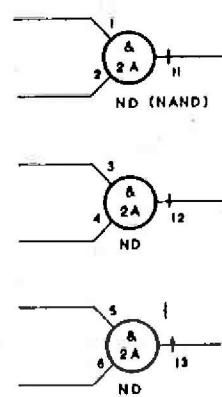
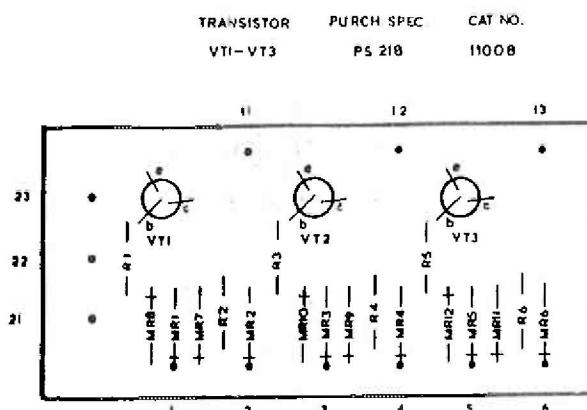


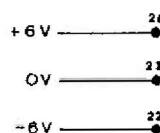
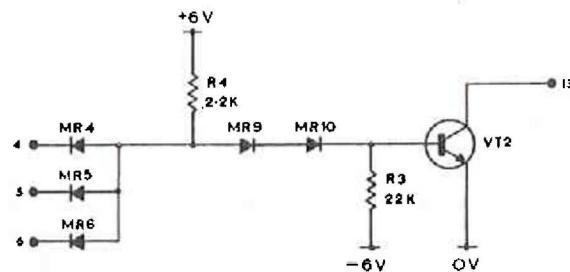
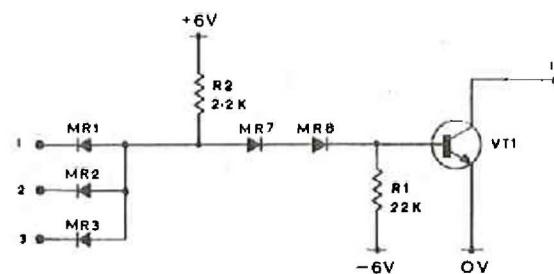
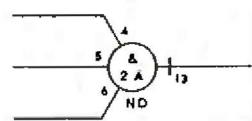
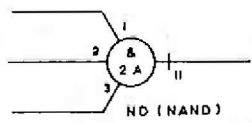
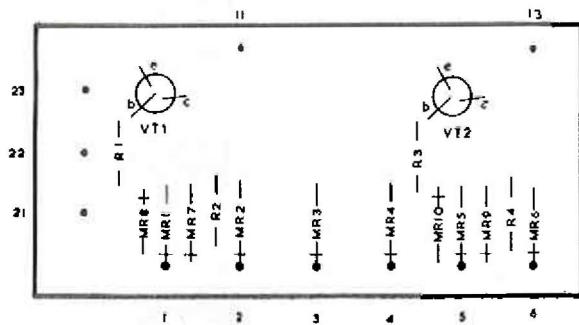
Figure 2 (ISSUE 2)



+6V ————— 21
OV ————— 22
-6V ————— 23

INPUT LOGIC LEVELS	
'1'	= $> 8V$
'0'	= $< 1V$

TRANSISTOR PURCH. SPEC. CAT. NO.
 VT1 VT2 PS 218 11008

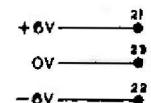
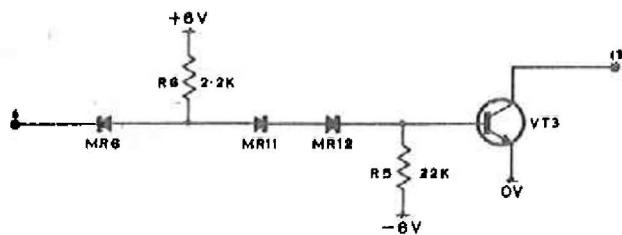
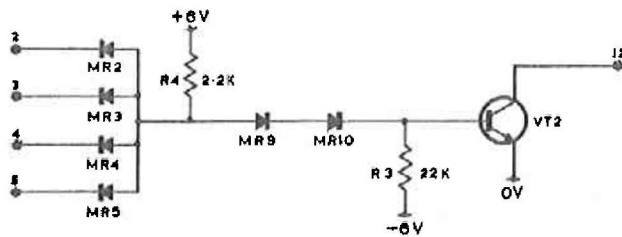
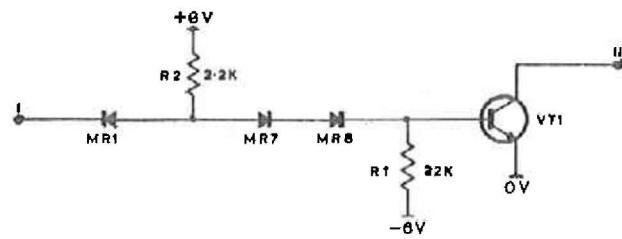
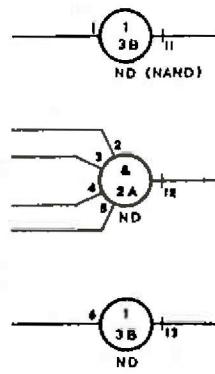
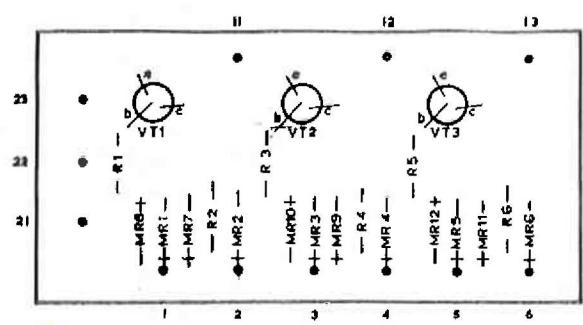


INPUT LOGIC LEVELS
'1' = $> 2\text{V}$
'0' = $< 1\text{V}$

Figure 4 (ISSUE 2)

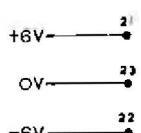
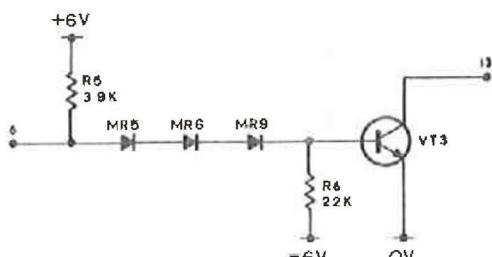
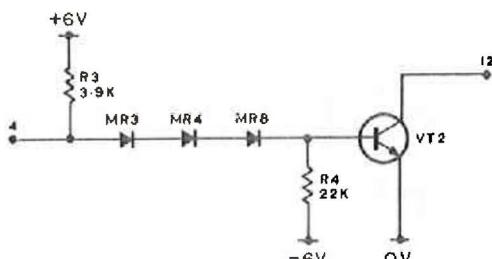
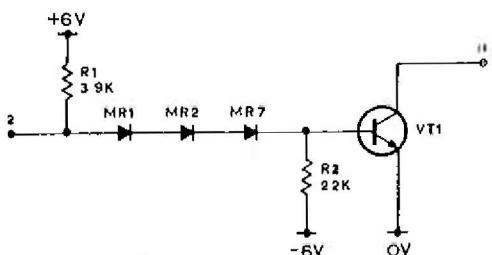
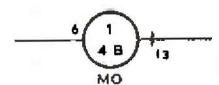
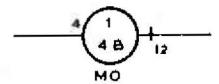
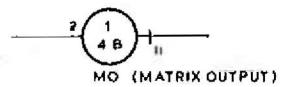
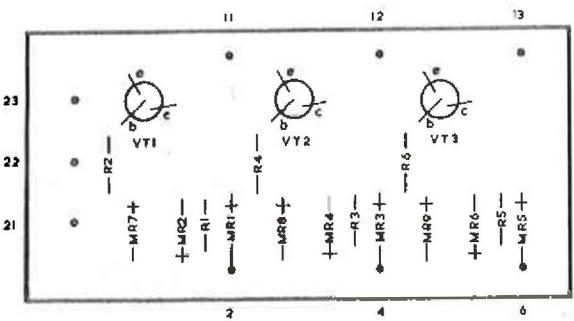
L.S.A.02

TRANSISTOR PURCH. SPEC. CAT. NO.
VT1-VT3 PS 21B 11008



INPUT LOGIC LEVEL	
'1'	= > 2 V
'0'	< 1 V

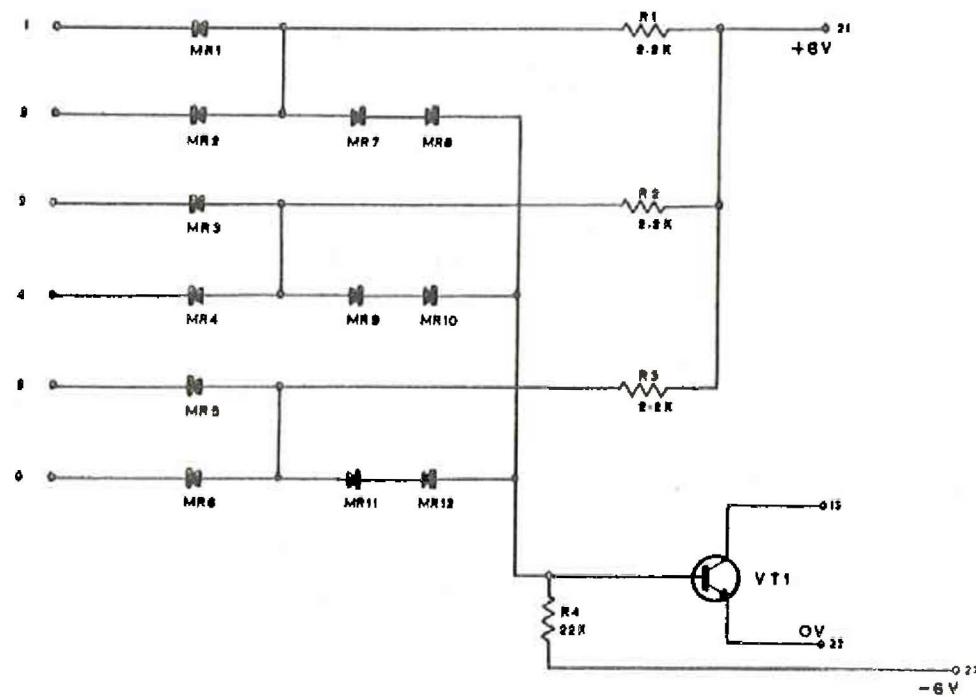
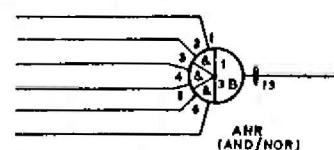
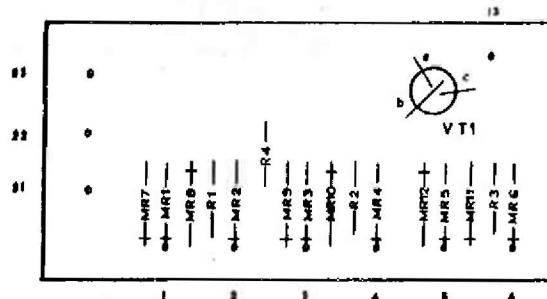
TRANSISTOR PURCH. SPEC. CAT NO.
VT1~VT3 PS 21B 11008



INPUT LOGIC LEVELS	
1	= $> 3V$
0	= $< 1V$

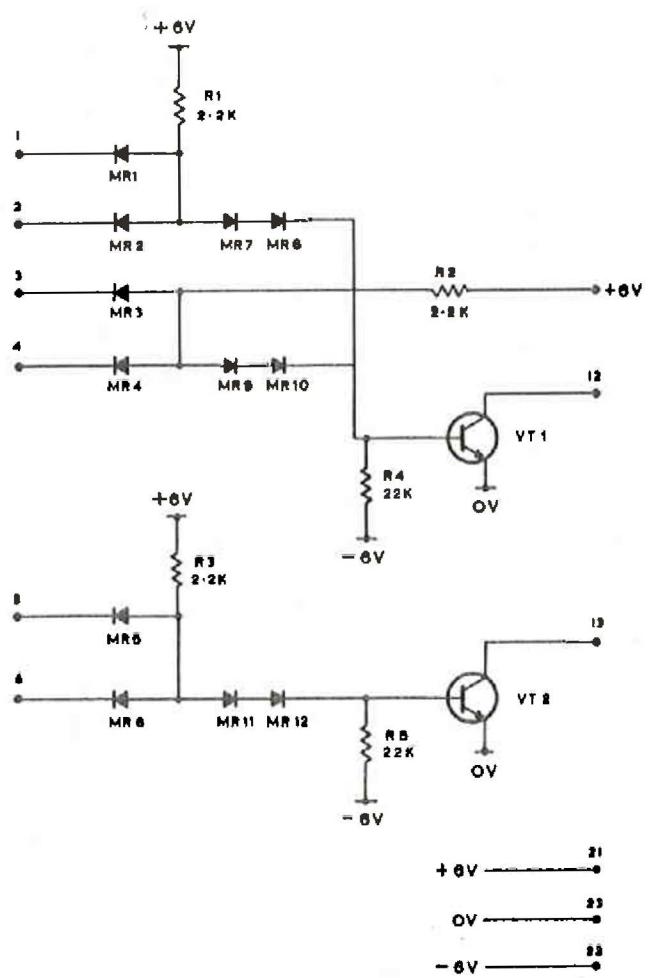
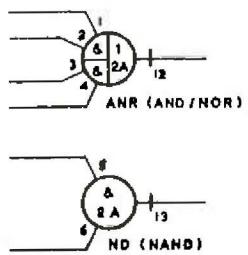
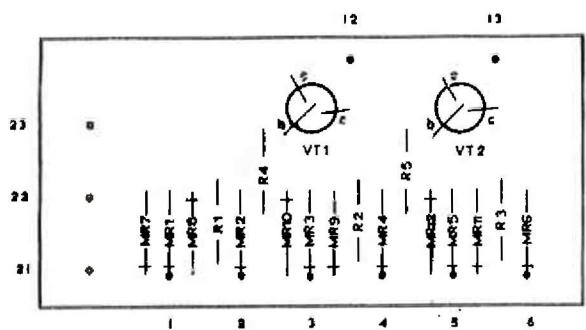
Figure 6 (ISSUE 2)

TRANSISTOR	PURCH. SPEC.	CAT. NO.
VT1	PS 21B	11008



INPUT LOGIC LEVELS

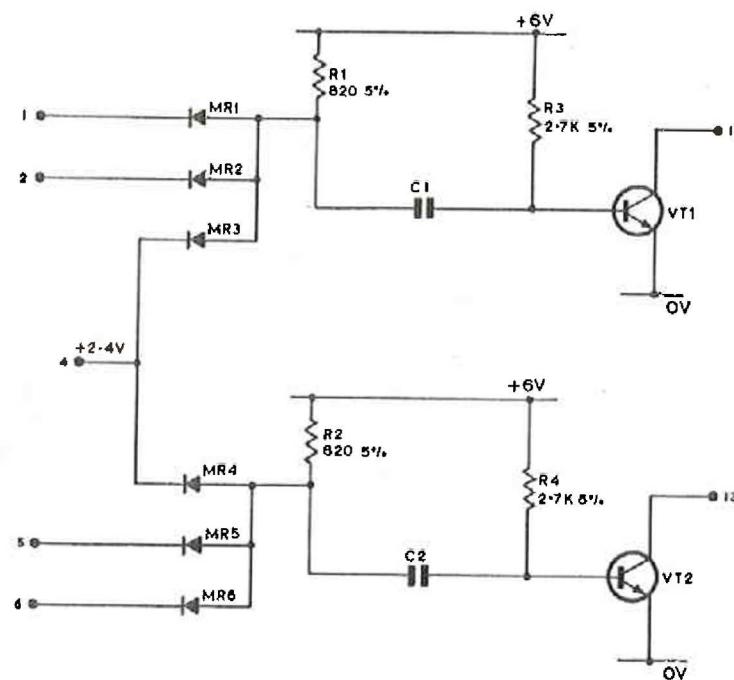
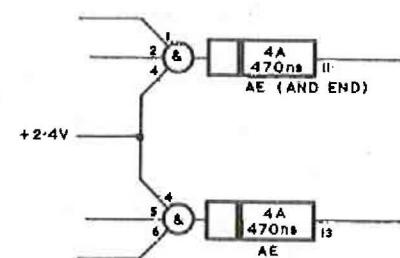
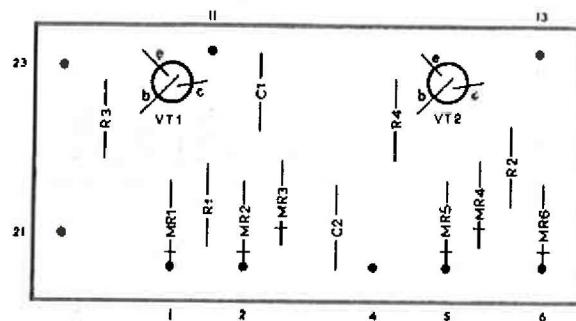
TRANSISTOR PURCH SPEC CAT NO.
VT1, VT2 PS 21B 11008



INPUT LOGIC LEVELS	
'1'	= > 2V
'0'	= < 1V

Figure 8 (ISSUE 2)

TRANSISTOR
VT1, VT2
PURCH. SPEC.
PS 218
CAT. NO.
11008



LSA No	C1 (pF)	C2 (pF)
07	100	100
13	330	330
137	220	220
138	470	470
34	100	330

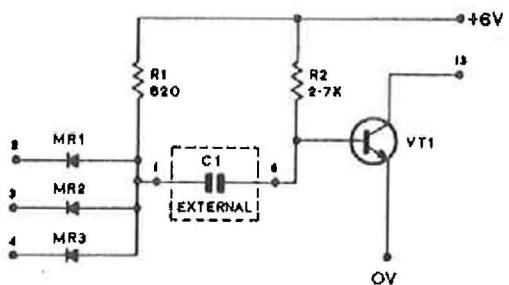
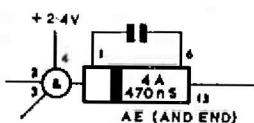
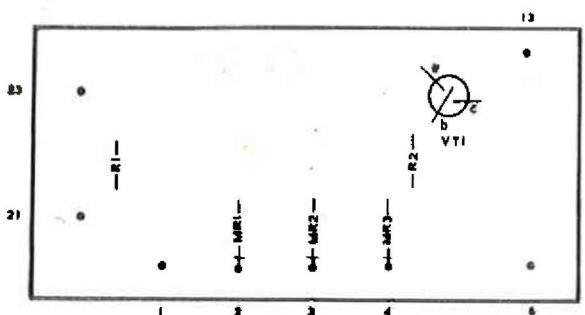
NOTES:

- (1) OUTPUT PULSE POSITIVE
- (2) PULSE TRIGGERED BY ANY INPUT REVERTING TO '0'
PROVIDING ALL I/P'S HAVE BEEN '1' FOR GREATER
THAN $C/2 \text{ ns}$ (WHERE C = CAPACITANCE IN pF)
- (3) PULSE WIDTH = Cns (WHERE C = CAPACITANCE IN pF)

+ 6V —————— 21
OV —————— 23

INPUT LOGIC LEVELS	
'1'	= $> 2\text{V}$
'0'	= $< 1\text{V}$

TRANSISTOR
VT1 PURCH. SPEC.
PS 21B CAT. NO.
11008

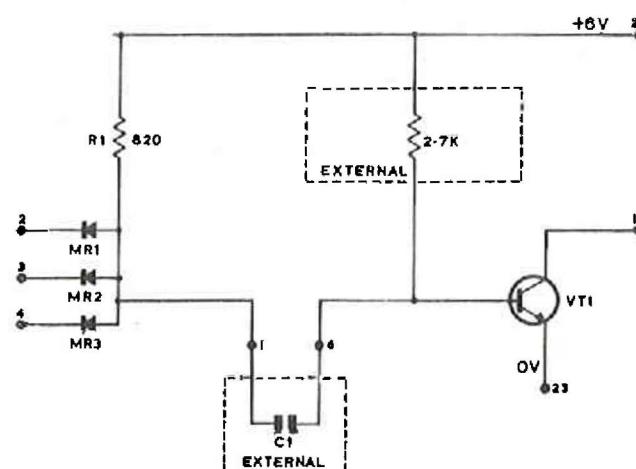
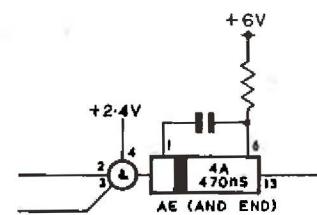
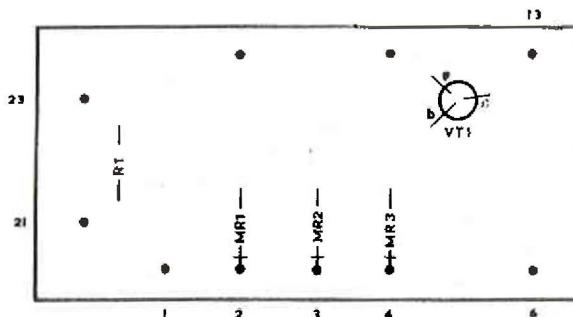


NOTES

- (1) OUTPUT PULSE POSITIVE.
- (2) PULSE TRIGGERED BY ANY INPUT REVERTING TO '0' PROVIDING ALL INPUTS HAVE BEEN '1' FOR $> C/2 \text{ ns}$ (WHERE C = CAPACITANCE IN pF).
- (3) PULSE WIDTH = $Cns/(C+R)$ (WHERE C = CAPACITANCE IN pF)
C1 WILL BE AN EXTERNAL CAPACITOR.

INPUT LOGIC LEVELS	
'1'	= $> 2\text{V}$
'0'	= $< 1\text{V}$

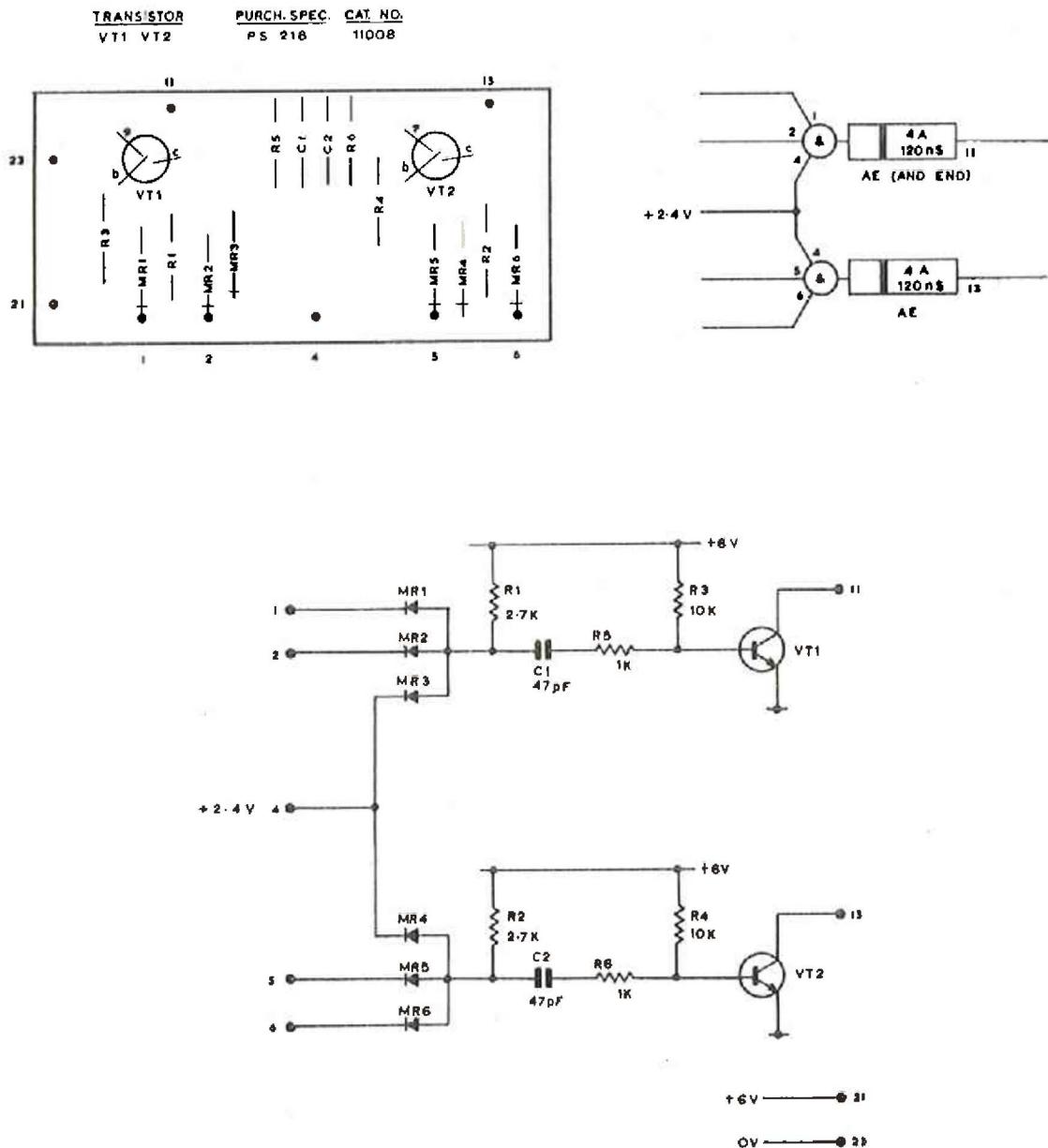
TRANSISTOR
VT1 PURCH. SPEC. CAT-No
PS 216 11008



NOTES:

- (1) OUTPUT PULSE POSITIVE.
- (2) PULSE TRIGGERED BY ANY INPUT REVERTING TO '0' PROVIDING ALL INPUTS HAVE BEEN '1' FOR $> \frac{1}{2}$ RS
- (3) PULSE WIDTH = C1RS (WHERE C = CAPACITANCE IN pF.)

INPUT LOGIC LEVELS	
'1'	= > 2 V
'0'	= < 1 V



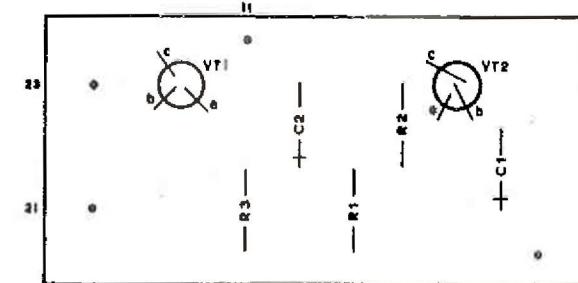
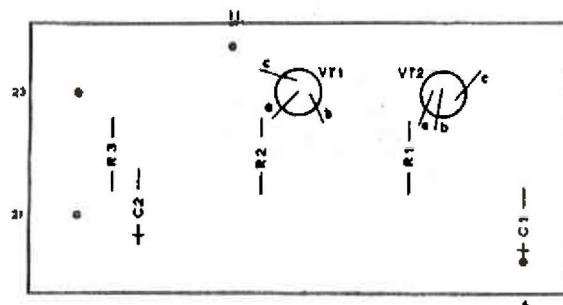
NOTES:-

- (1) OUTPUT PULSE POSITIVE
- (2) PULSE TRIGGERED BY ANY INPUT REVERTING TO '0' PROVIDING ALL I/P'S HAVE BEEN '1' FOR GREATER THAN 80 nS.
- (3) PULSE WIDTH = 120 nS ± 20%

INPUT LOGIC LEVELS	
'1'	= > 2V
'0'	= < 1V

TRANSISTOR
VT1, VT2

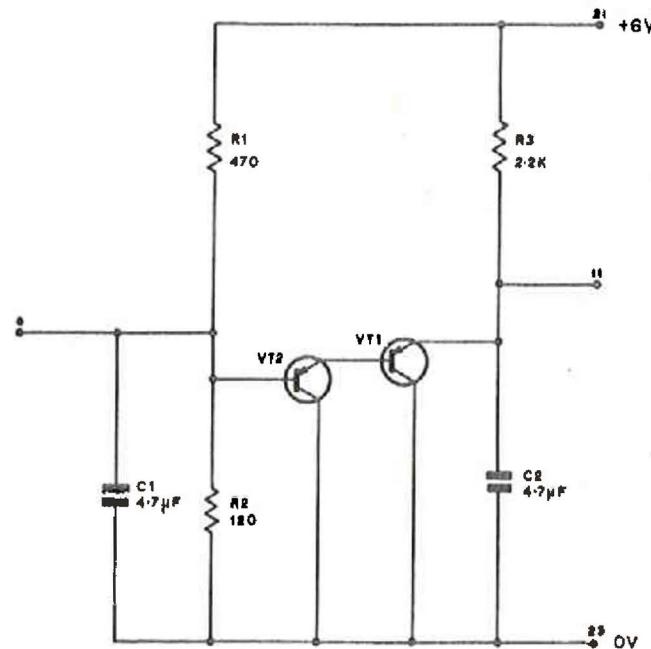
CAT. NO.
11740



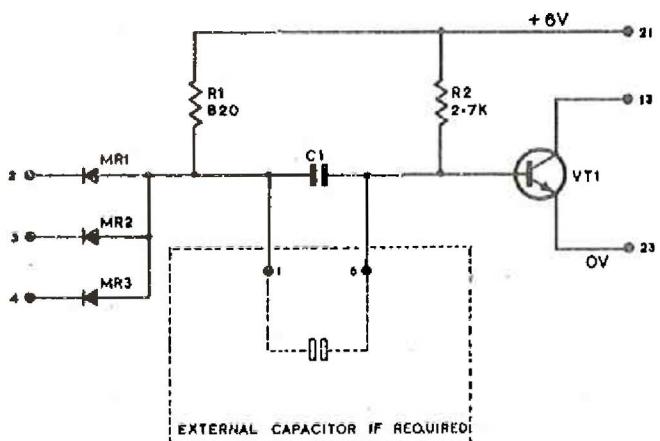
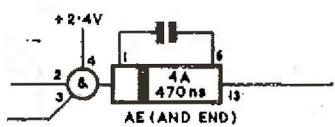
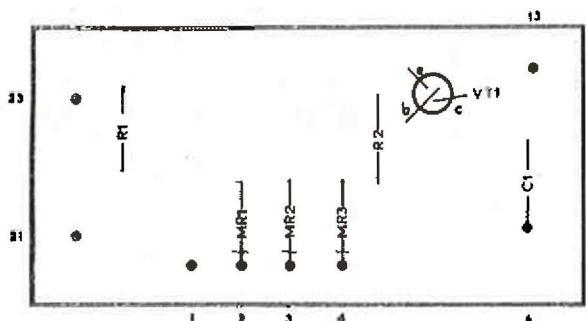
Alternative Layout.



VR (VOLTAGE REFERENCE)



TRANSISTOR
VT1 PURCH. SPEC.
PS 218 CAT. NO.
1100B



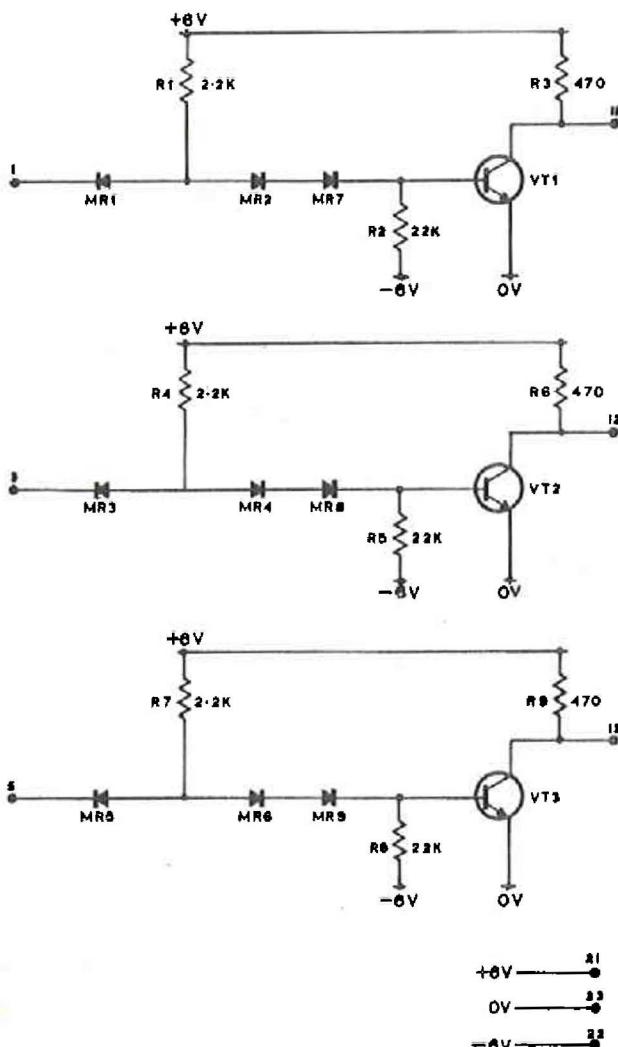
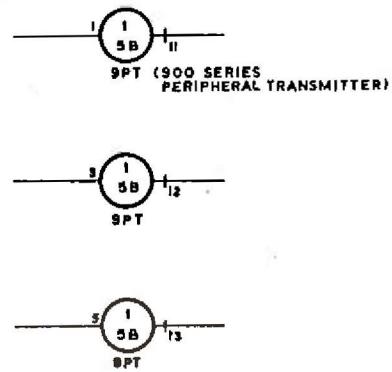
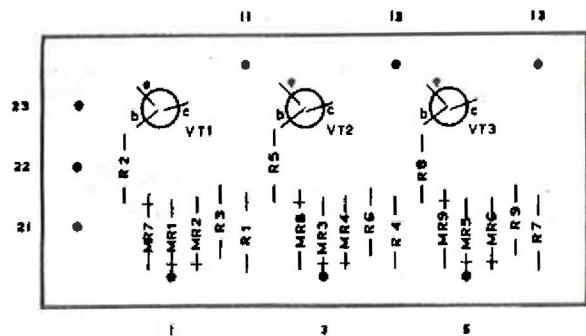
LSA NO	C1	PULSE WIDTH
09	470 pF	470 ns
14	680 pF	680 ns
130	>22 μF	220 μs
131	2.2 μF	2.2 ms

NOTES:

- (1) OUTPUT PULSE POSITIVE
- (2) PULSE TRIGGERED BY ANY INPUT REVERTING TO '0' PROVIDING ALL I/P'S HAVE BEEN '1'
FOR $>C/2\pi n_s$. (WHERE C = CAPACITANCE IN pF)
- (3) PULSE WIDTH = Cn_s (WHERE C = CAPACITANCE IN pF)
- (4) C1 MAY BE INCREASED BY EXTERNAL CAPACITOR

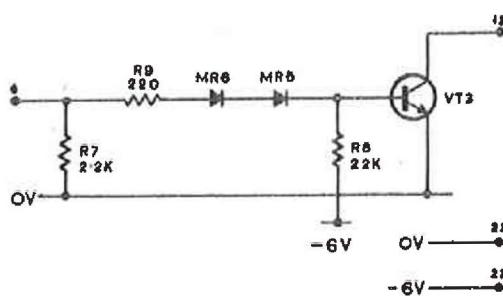
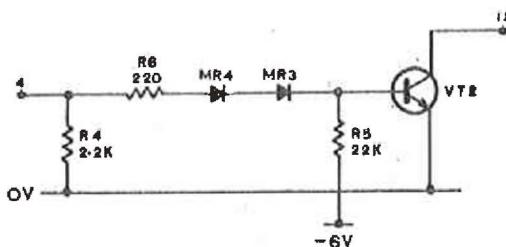
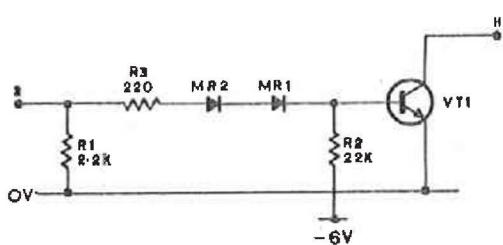
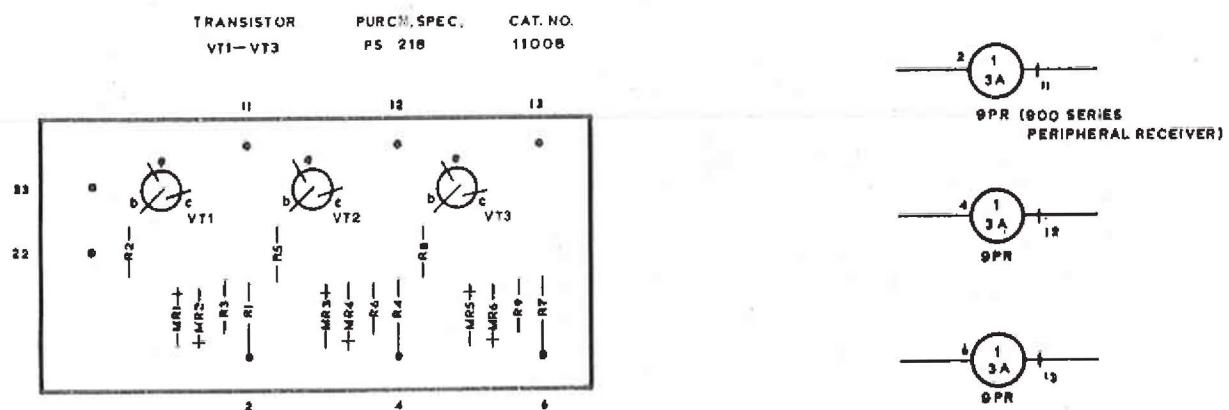
INPUT LOGIC LEVELS	
'1'	= > 2V
'0'	= < 1V

TRANSISTOR PURCH. SPEC. CAT. No.
VT1-VT3 PS 218 11008



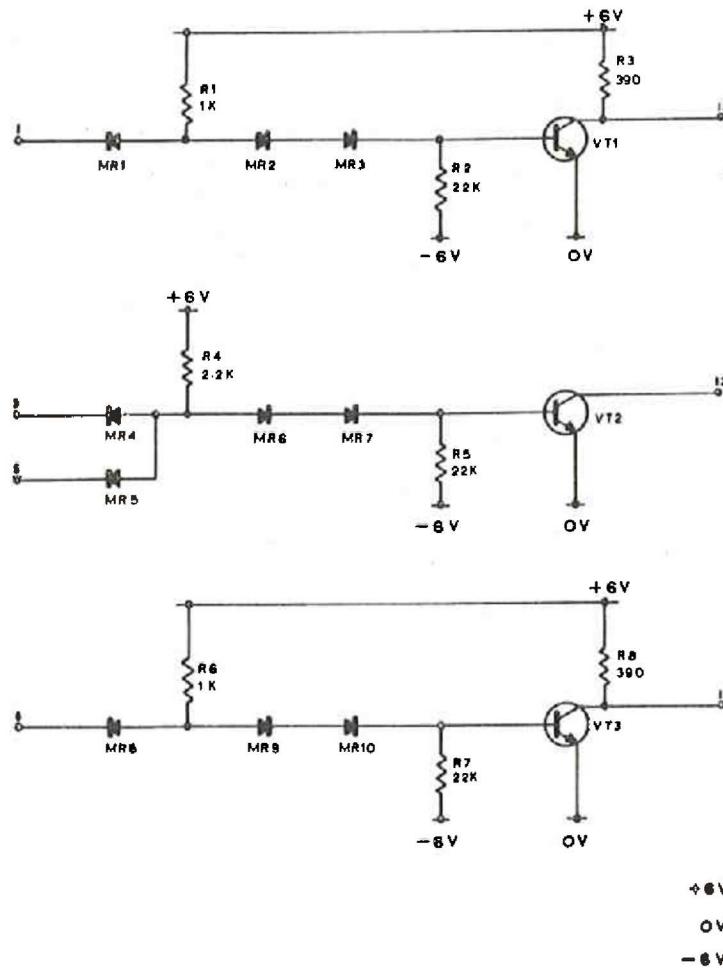
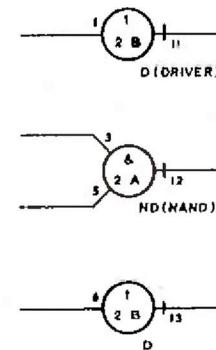
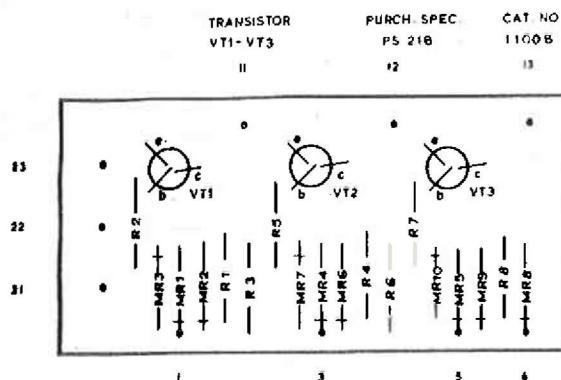
INPUT LOGIC LEVELS	
'1'	> 2V
'0'	< 1V

4.6.1.



INPUT LOGIC LEVELS	
'1'	= > 3 V
'0'	= < 1 V

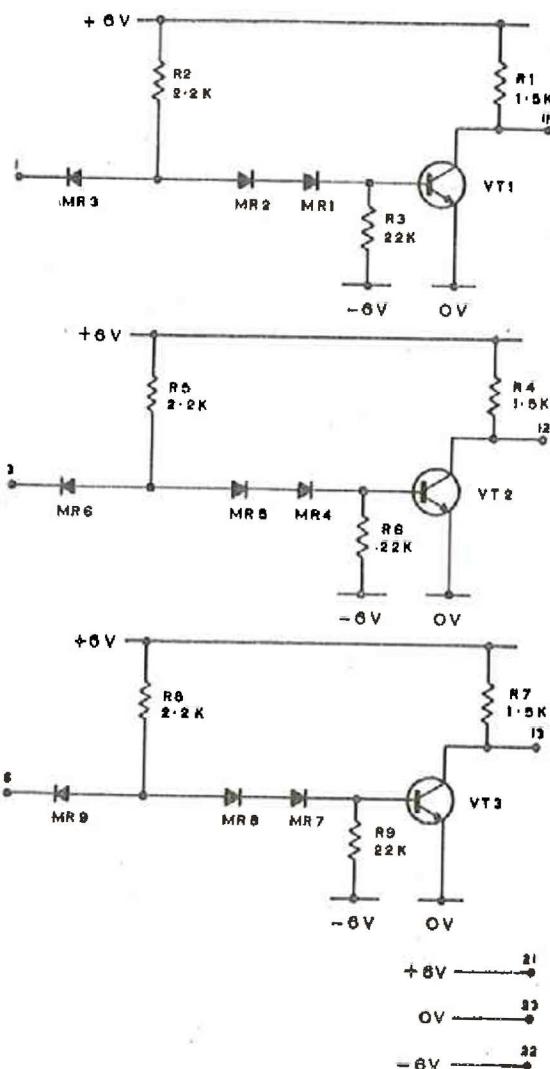
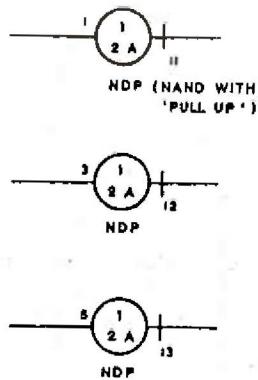
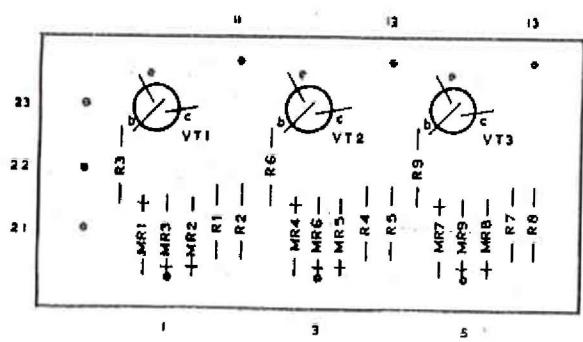
Figure 16 (ISSUE 2.)



INPUT LOGIC LEVELS	
'1'	= > 2 V
'0'	= < 1 V

4.6.1.

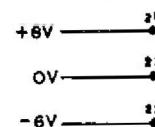
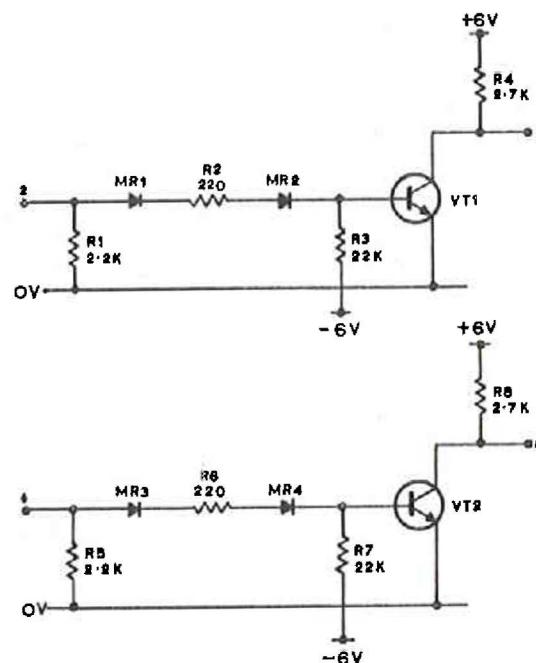
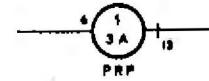
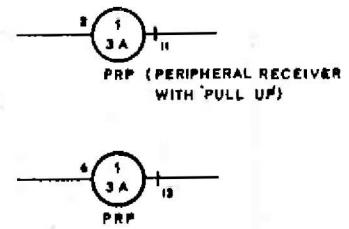
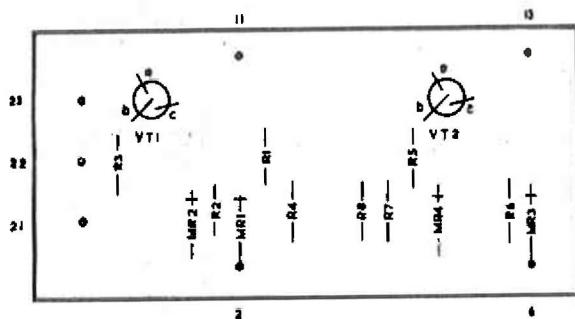
TRANSISTOR PURCH SPEC CAT NO.
VT1- VT3 PS 218 11008



INPUT LOGIC LEVELS	
'1'	= $\geq 6V$
'0'	= $< 1V$

Figure 18 (ISSUE 2)

TRANSISTOR PURCH. SPEC. CAT. NO.
VT1, VT2 PS216 11008



INPUT LOGIC LEVELS	
'1'	= $> 3V$
'0'	= $< 1V$

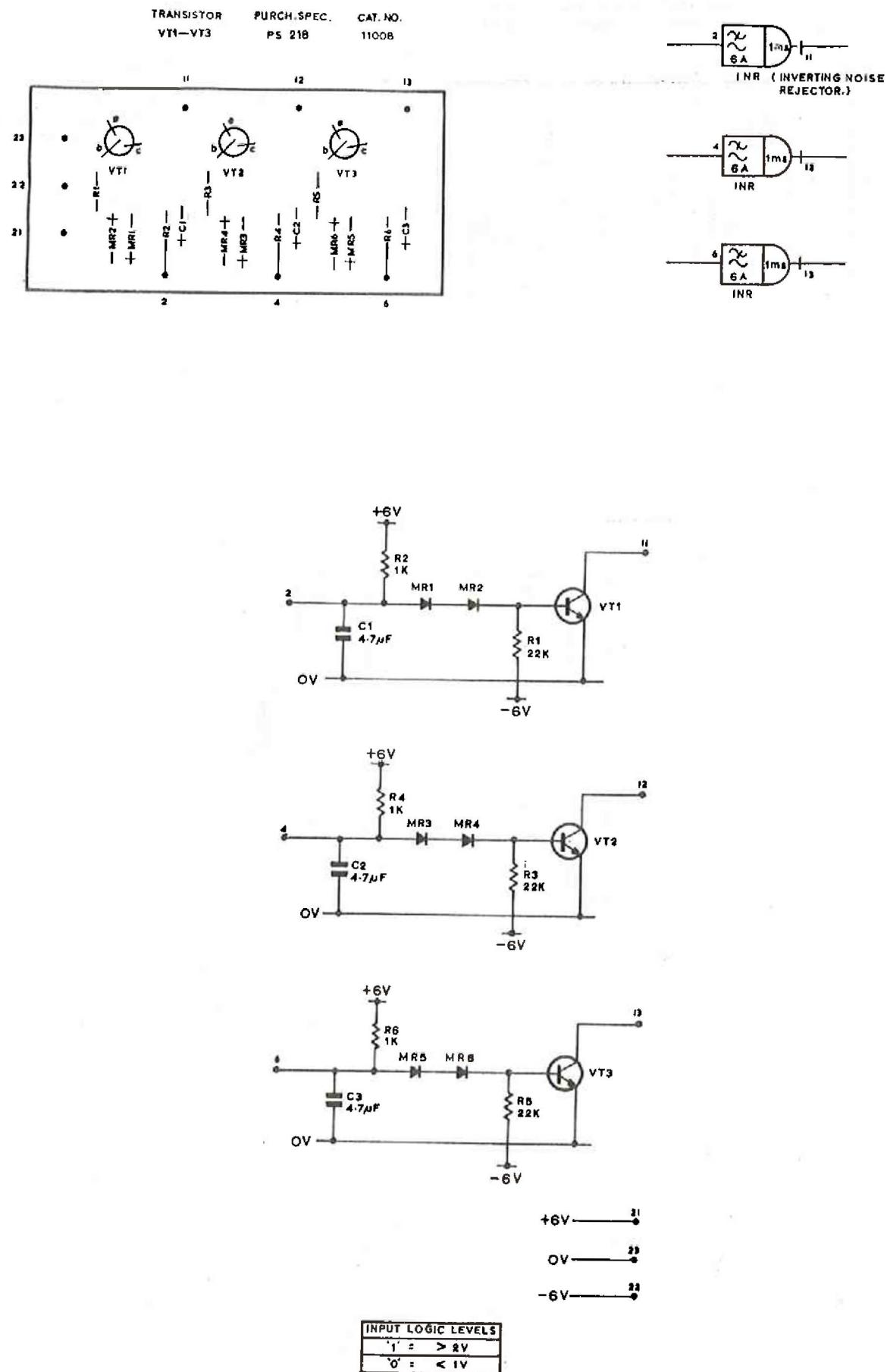
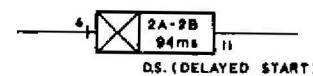
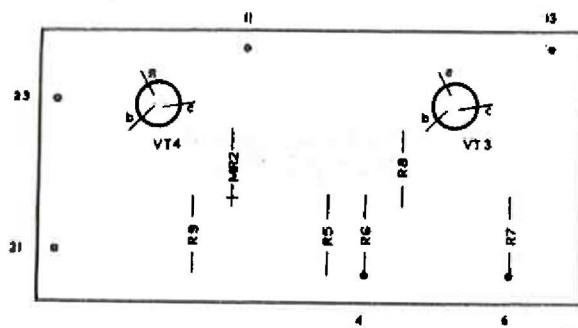
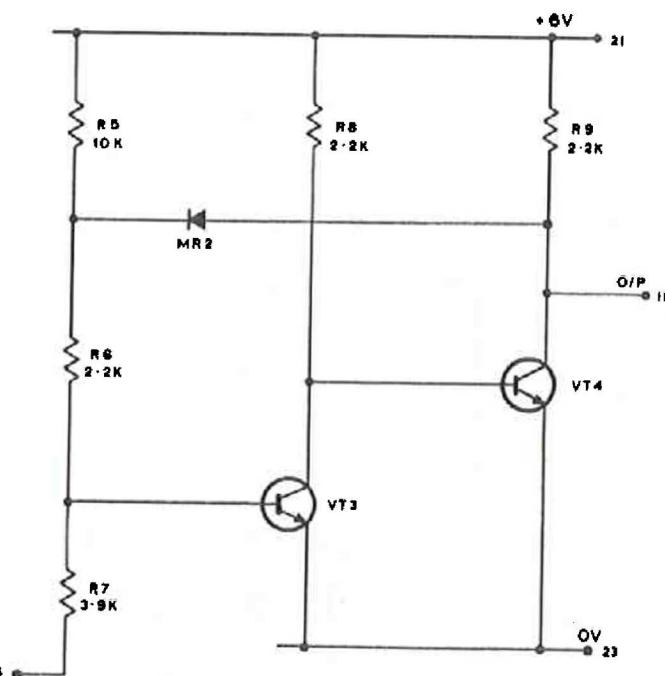


Figure 20 (ISSUE 2.)

TRANSISTOR PURCHASE SPEC. CAT. NO.
VT3 VT4 PS218 11008



NOTE :-
L.S.A.19 ALWAYS FOLLOWS L.S.A.
20, 21, 24 OR 25. THE SYMBOL
SHOWN IS A COMBINED SYMBOL
FOR THE 2 ELEMENTS.

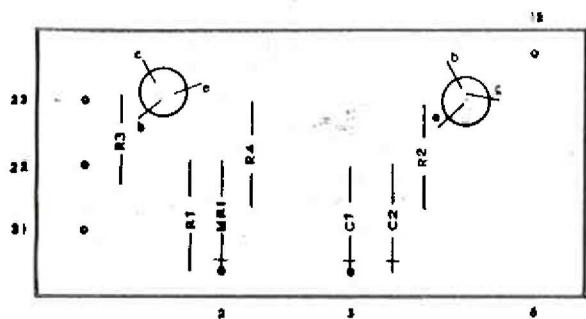


INPUT	THRESHOLD LEVEL
(AT 25°C)	= -0.4v ±10%

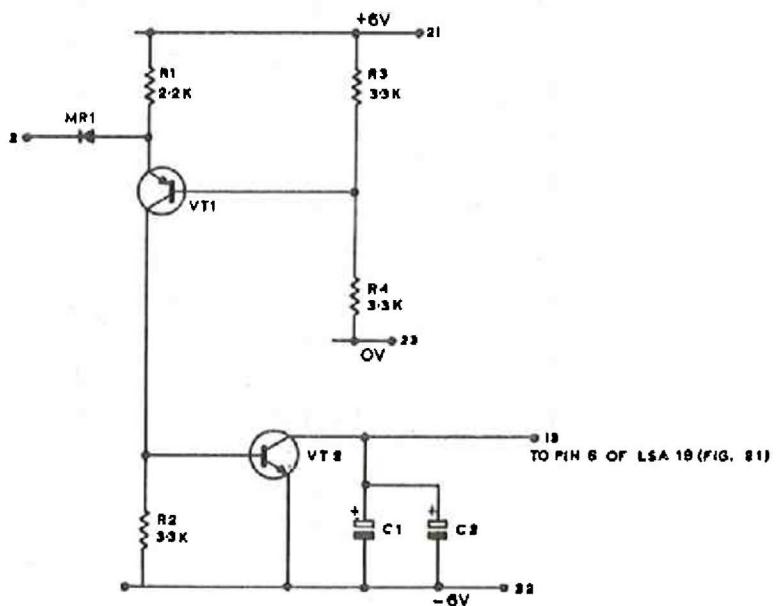
4100/900

4.6.1.

TRANSISTOR	PURCH. SPEC.	CAT. NO.
/VT1 VT2	- PS 21B	14581 11008



L.S.A. 19 ALWAYS FOLLOWS
L.S.A. 20, 24 OR 25 -
SEE FIG. 81 FOR COMBINED
SYMBOL.



L.S.A. No.	C1 μ F	C2 μ F	DELAY ms
20	4.7	4.7	94
24	2.2	1.0	32
25	2.2	0.47	26.7

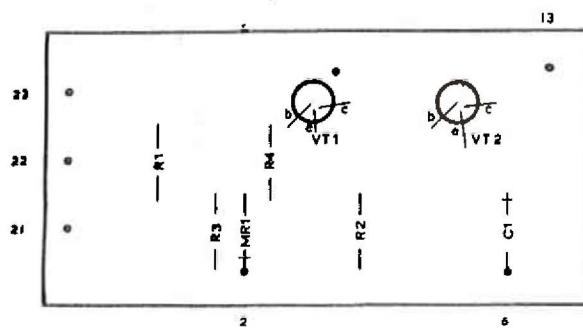
NOTE 1
DELAY Δ 10ms PER μ F (WHERE μ F IS CAPACITANCE OF C1 & C2)

INPUT LOGIC LEVELS
'1' = > 3V
'0' = < 1V

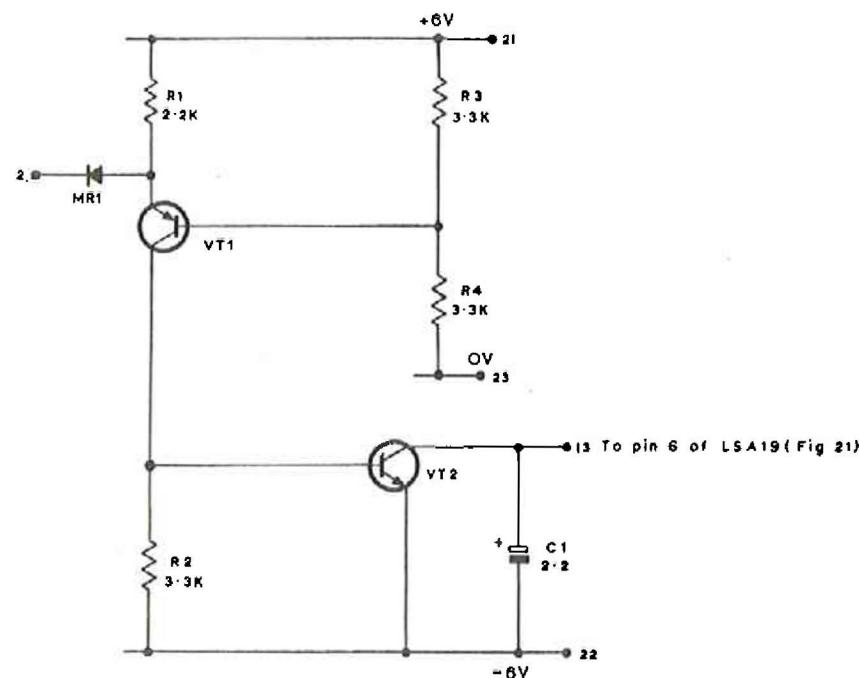
Figure 22 ISSUE B

L.S.A. 20,24,25

TRANSISTOR PURCH. SPEC. CAT. NO.
 VT1 — 14581
 VT2 PS 218 11008

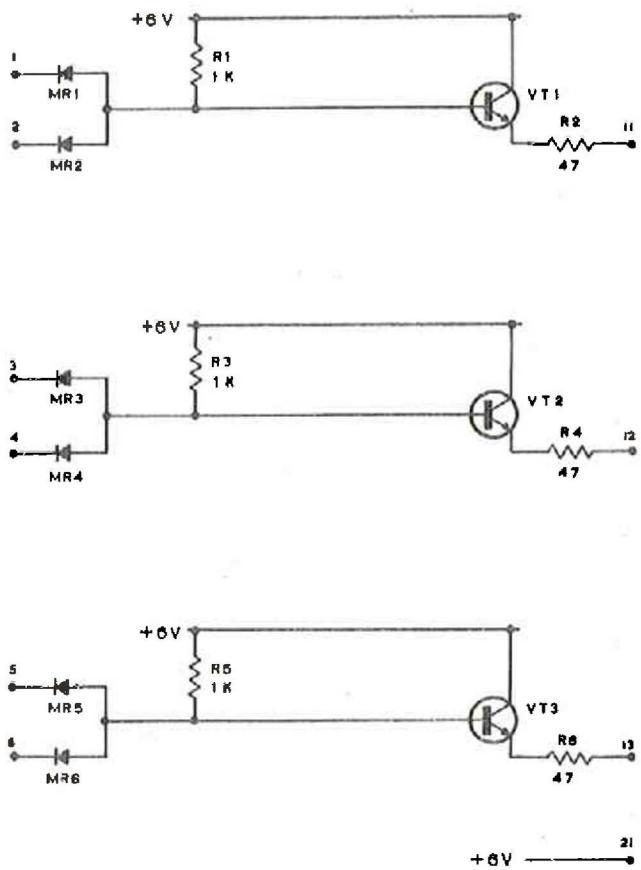
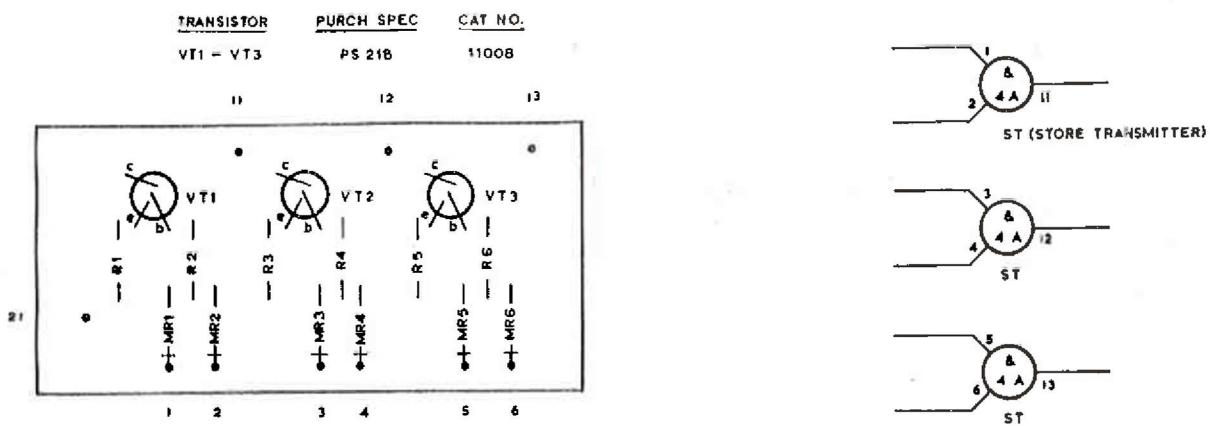


L.S.A.19 ALWAYS FOLLOWS
 L.S.A. 21 SEE FIGURE.21
 FOR COMBINED SYMBOL.

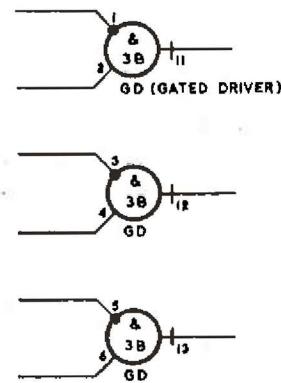
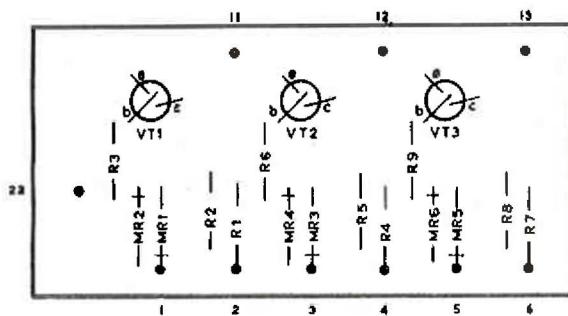


NOTE:
 1. DELAY Δ 10ms PER μ F
 (WHERE μ F IS CAPACITANCE
 OF C1) Δ 22ms.

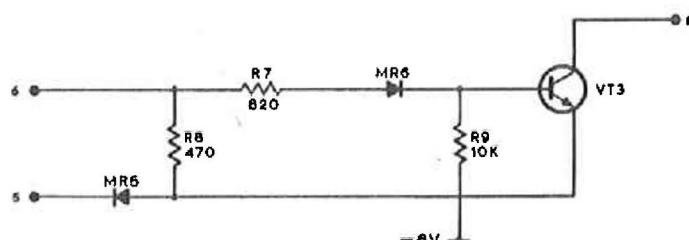
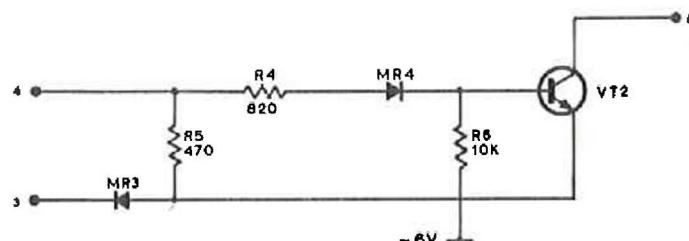
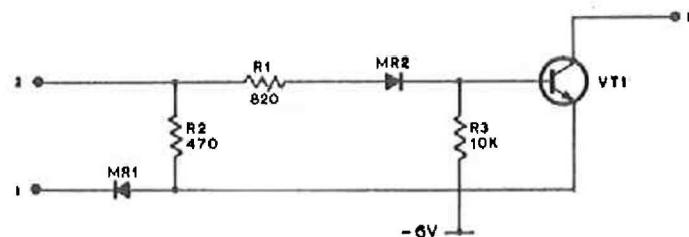
INPUT	LOGIC LEVELS
'1'	$> 3V$
'0'	$< 1V$



INPUT LOGIC LEVELS	
(1)	O/P FOLLOWS I/P OVER RANGE OV TO 4.7V
(2)	WHEN DRIVING A RECEIVER THE LOGIC LEVELS ARE :-
'1'	= > 3V
'0'	= < 1V

TRANSISTOR
VT1 - VT3PURCH. SPEC.
PS 218CAT. NO.
11008

*
See
ERRATA
PAGE 1



-6V —————— 22

INPUT LOGIC LEVELS	
'1'	= $\geq 3V$
'0'	= $< 1V$

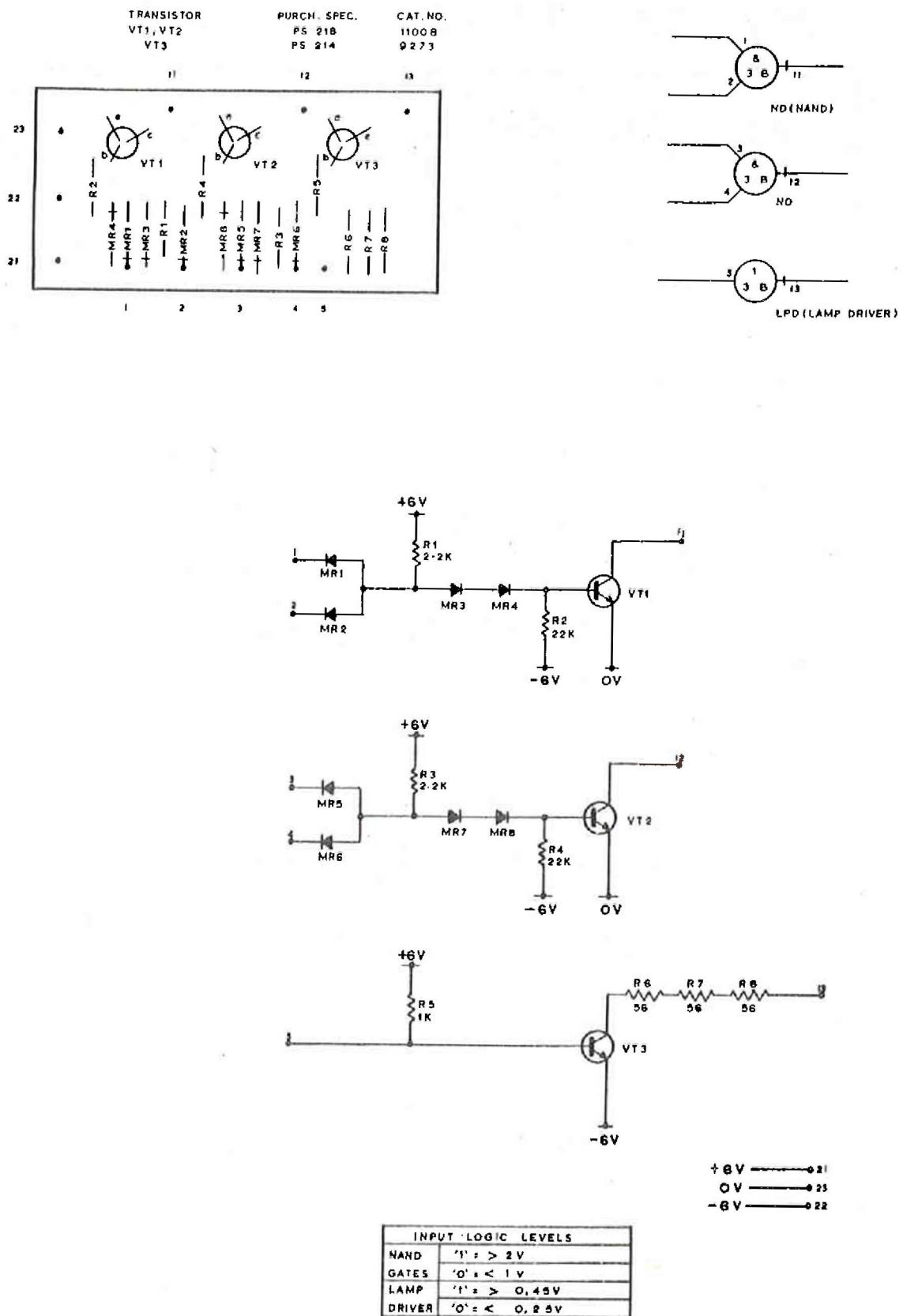
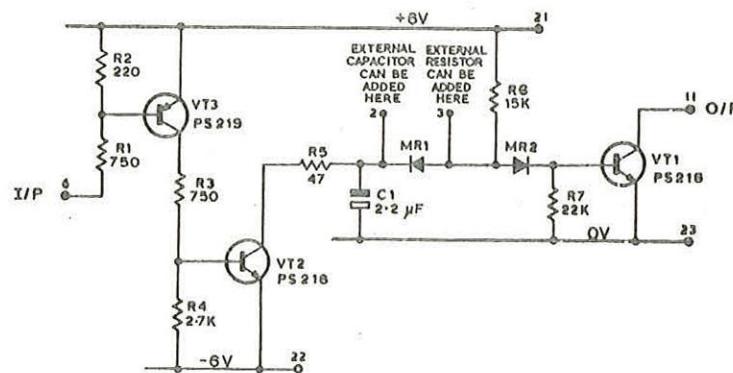
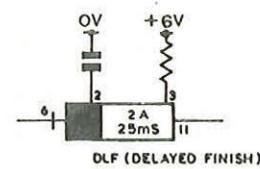
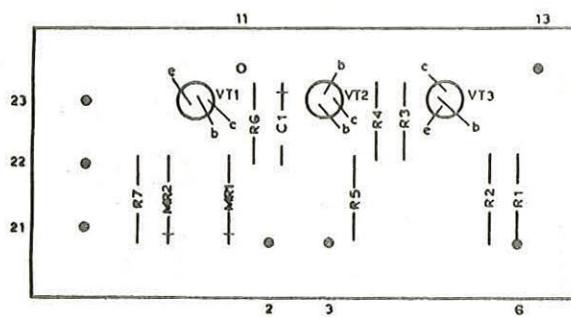


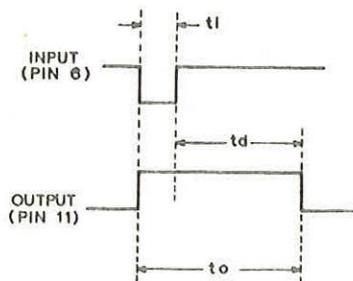
Figure 26 (issue 2)

TRANSISTOR PURCH. SPEC. CAT. No.

VT1, VT2 PS 218 11008
VT3 PS 219 11009

NOTE:

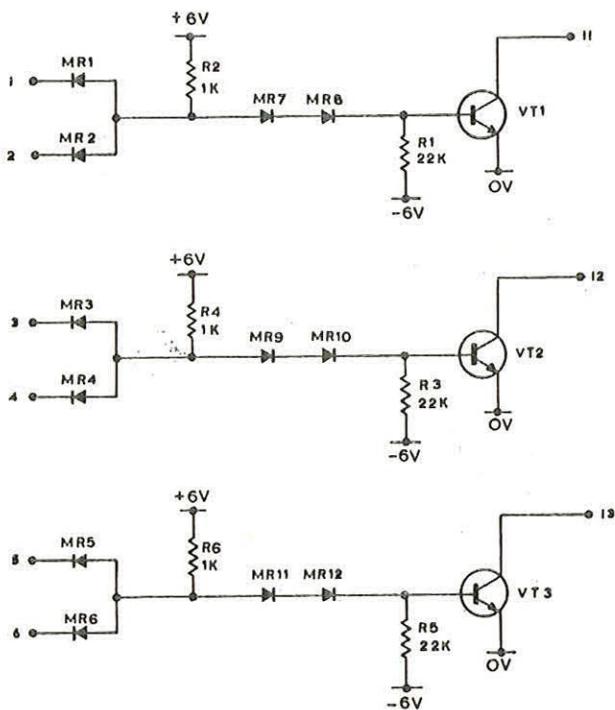
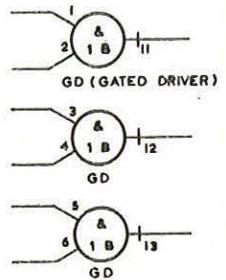
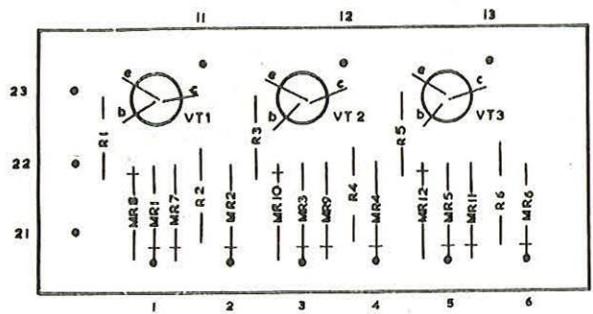
1. SHUNT C1 TO MAKE O/P $\geq 25\text{mS}$.
2. SHUNT R6 TO MAKE O/P $< 25\text{mS}$.



t_d NOMINAL = 25mS
 t_d RANGE = 1m - 5 Secs.
 t_d TOLERANCE = $\pm 30\%$

INPUT LOGIC LEVELS	
'1'	= $> 5.4\text{V}$
'0'	= $< 1\text{V}$

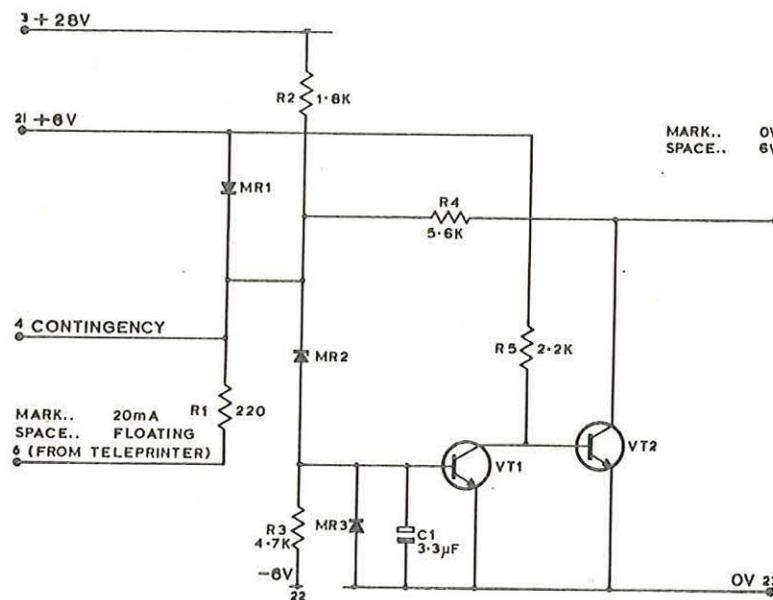
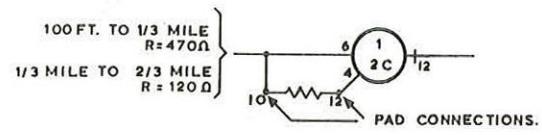
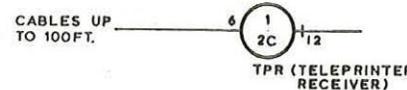
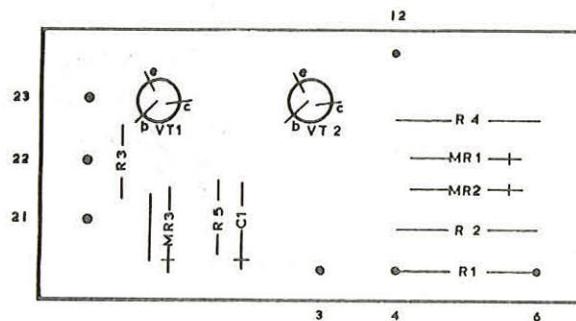
TRANSISTOR
VT1 - VT3 PURCH. SPEC.
PS 21B CAT. NO.
11008



+ 6 V —————— o 21
OV —————— o 23
- 6 V —————— o 22

INPUT LOGIC LEVELS	
'1' =	> 2V
'0' =	< 1V

TRANSISTOR PURCH. SPEC. CAT. No.
VT1, VT2 PS 218 1100B



NOTE:

THE ELEMENT IS CONSIDERED TO INVERT BECAUSE THE MARK CURRENT IS TAKEN TO REPRESENT A LOGIC "1", EVEN THOUGH THE POTENTIAL AT PIN 6 FALLS UNDER MARK CONDITIONS.

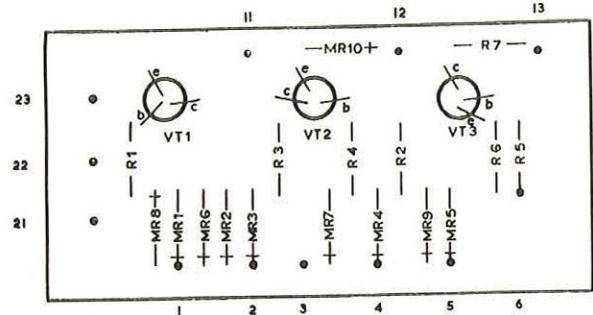
INPUT LOGIC LEVELS	
0 = > 5V	
1 = < 0.4V (ASSUMING NO EXTERNAL R AT PIN 4)	

4100 / 900
4.6.1.

TRANSISTOR
VT₁, VT₂
VT₃

PURCH. SPEC.
PS 218
PS 219

CAT. NO.
11008
11009



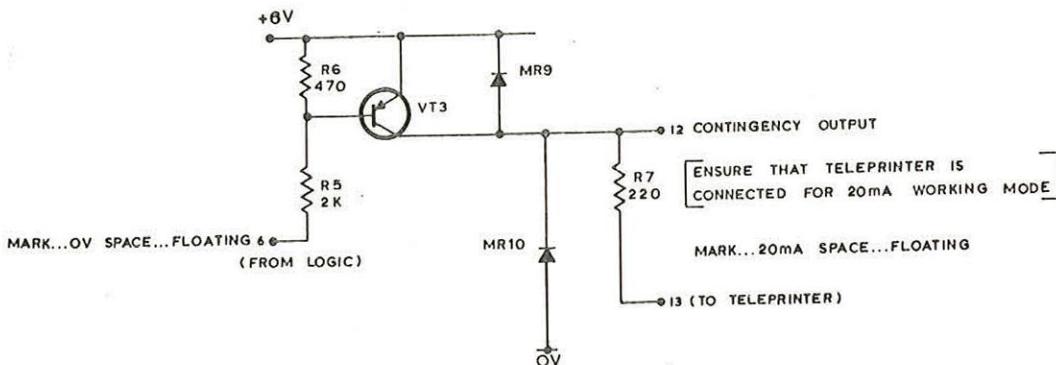
CABLES UP TO 100FT ————— 6
TPD (TELEPRINTER DRIVER)

100 FT TO $\frac{1}{3}$ MILE
 $R = 470 \Omega$
 $\frac{1}{3}$ MILE TO $\frac{2}{3}$ MILE
 $R = 120 \Omega$

$\frac{2}{3}$ MILE - 1 MILE

AND-OR
&
& 2A

AOR (AND OR)



TELEPRINTER DRIVER

INPUT LOGIC LEVELS	
'1'	= $> 4V$
'0'	= $< 1V$

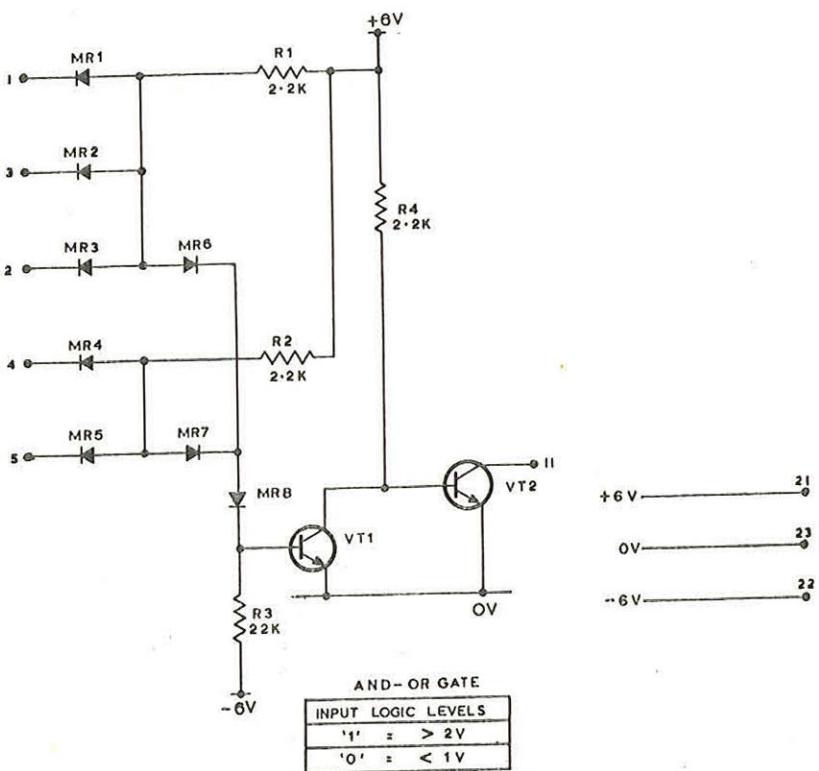
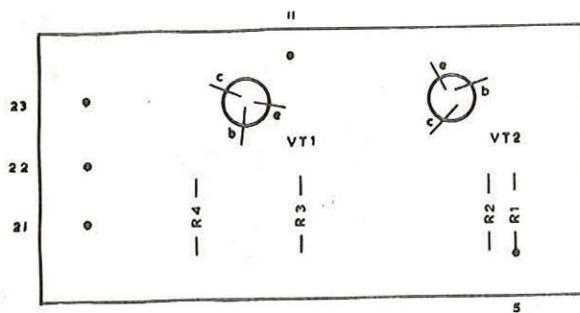
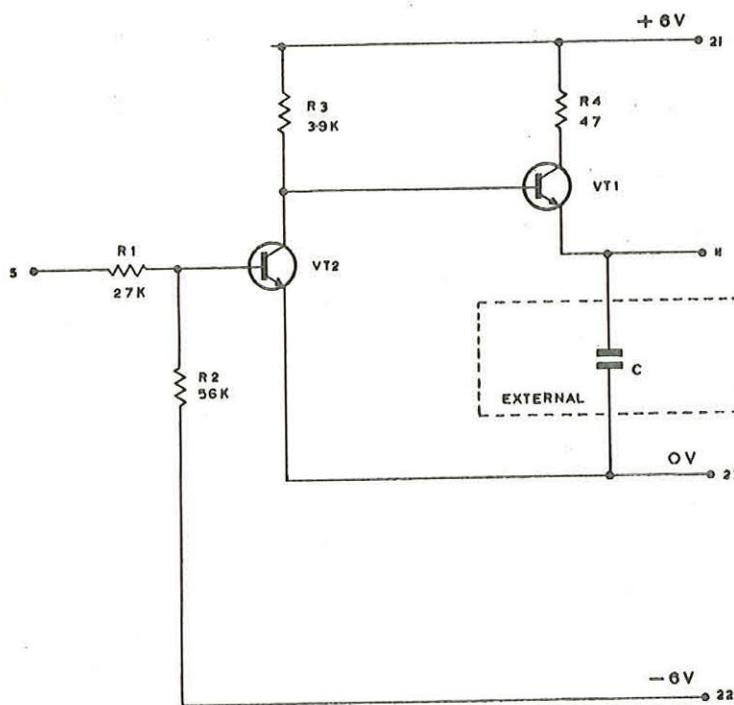


Figure 30 (ISSUE 2)

TRANSISTOR VT1, VT2	PURCH SPEC PS 212	CAT NO. 8843
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SEE FIGURE 32 FOR SYMBOL

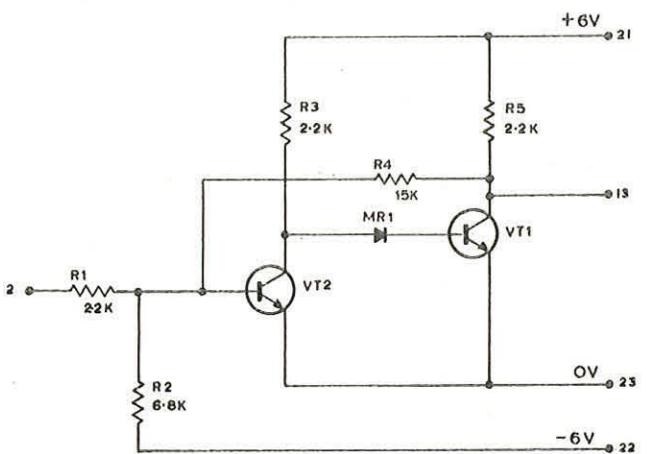
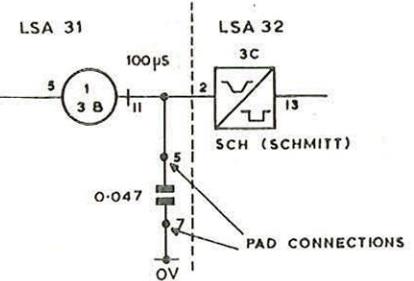
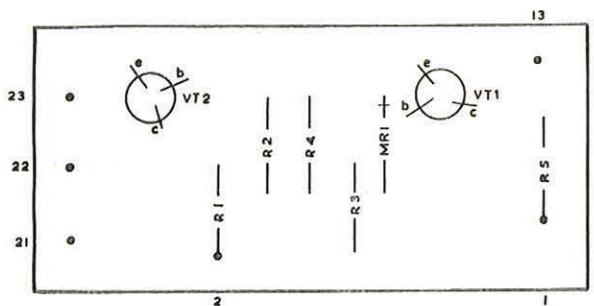


NOTES:

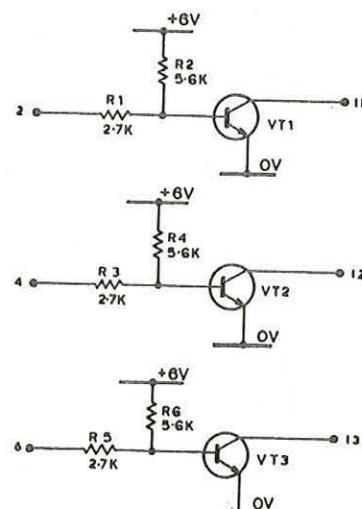
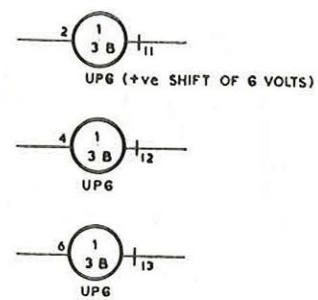
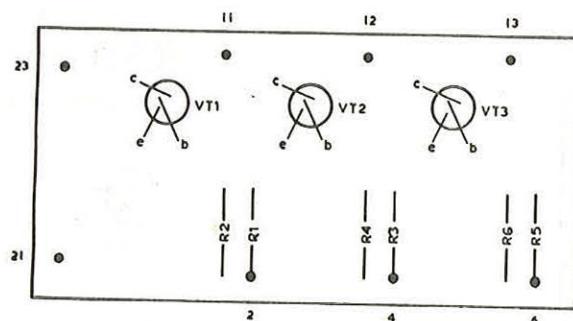
(1) INPUT VOLTAGE LEVELS ARE '1' = +12V ±3V; '0' = OV ±3V

(2) C IS CONNECTED EXTERNALLY WHEN USED IN CONJUNCTION WITH
A RESISTOR ON LSA 32

(3) C = 0.047 μF FOR A DELAY OF 100 μS.

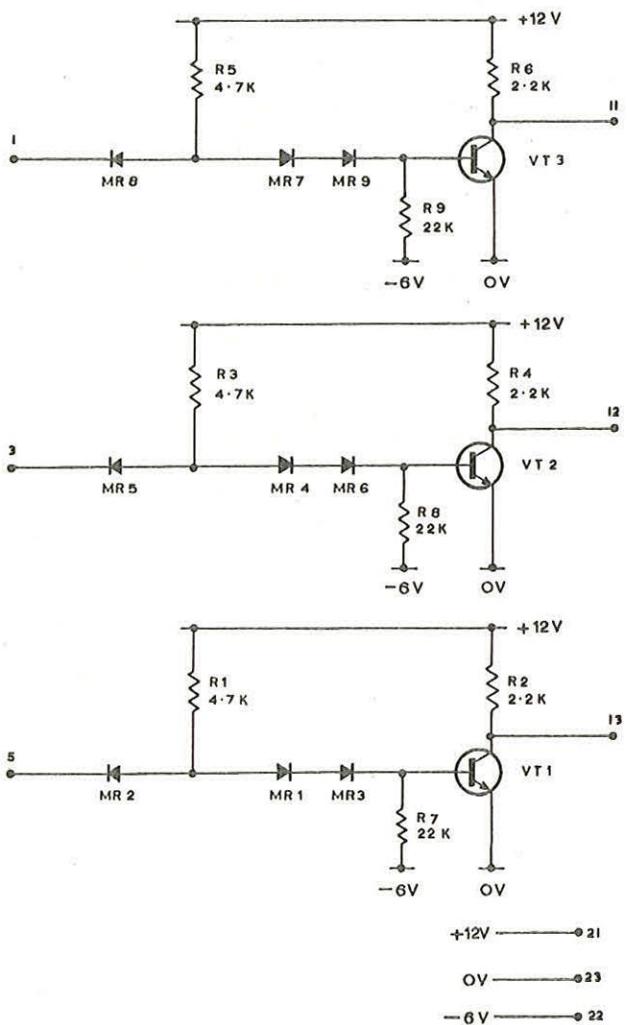
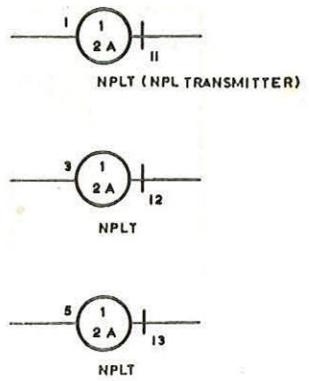
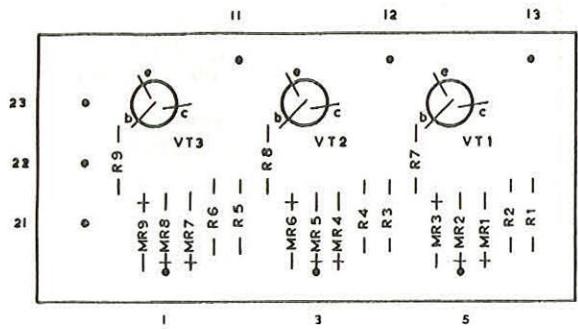
TRANSISTOR
VT1, VT2PURCH. SPEC.
PS 212CAT. NO.
8843

THRESHOLD VOLTAGE AT PIN 2	OUTPUT WAVEFORM PIN 13
RISING VOLTAGE +3.1V	
FALLING VOLTAGE +2.4V	

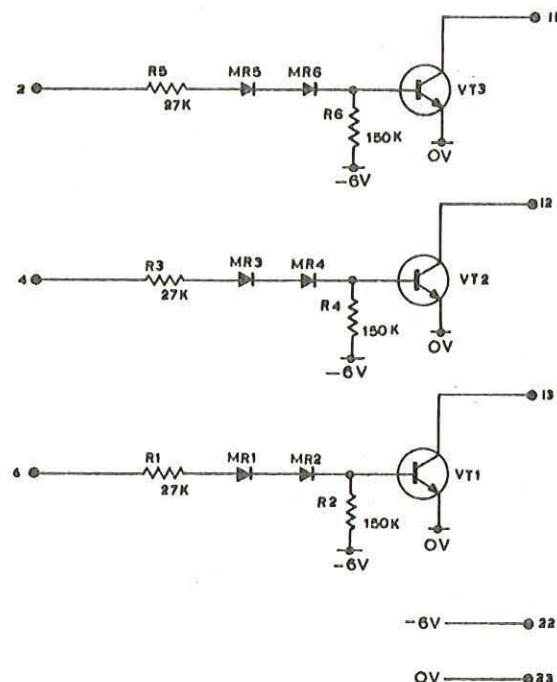
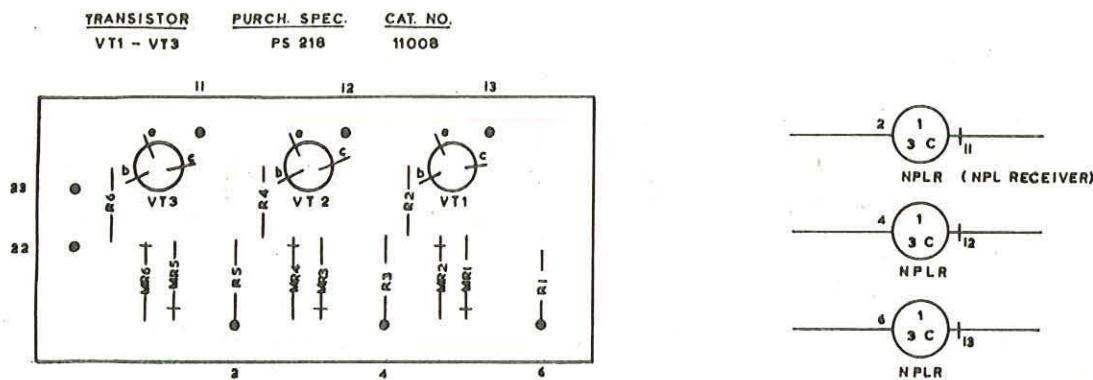
TRANSISTOR PURCH. SPEC. CAT. No.
VT1-VT3 PS 218 11008

INPUT LOGIC LEVELS	
'1'	= > -1.2V
'0'	= < -3V

TRANSISTOR PURCH. SPEC. CAT. NO.
VT1 - VT3 PS 218 11008



INPUT LOGIC LEVELS	
'1'	= > 2
'0'	= < 1

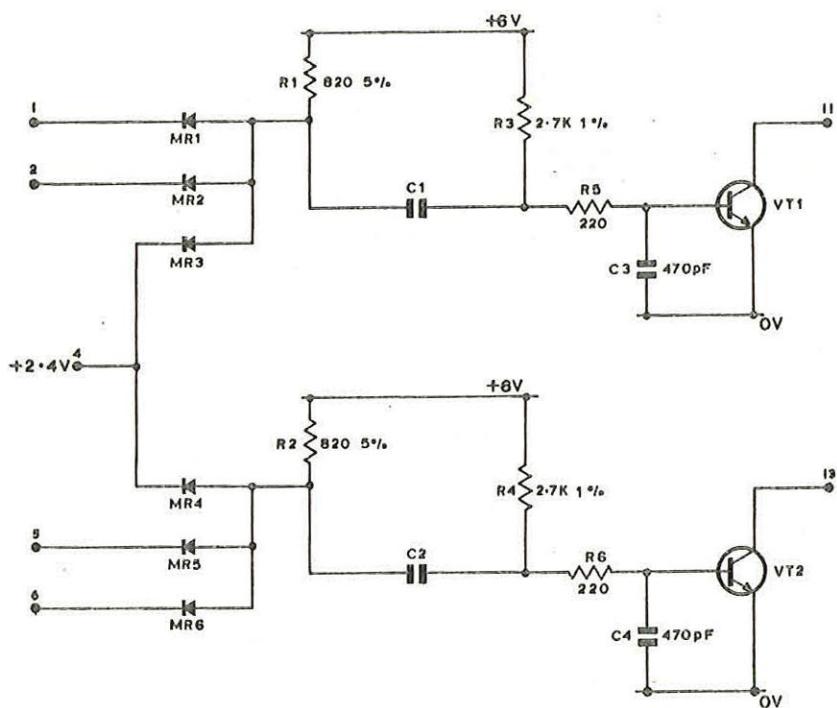
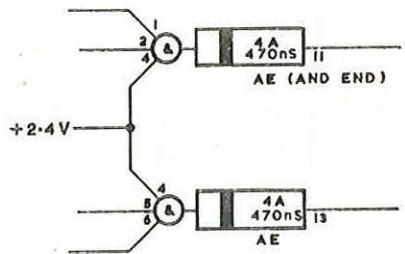
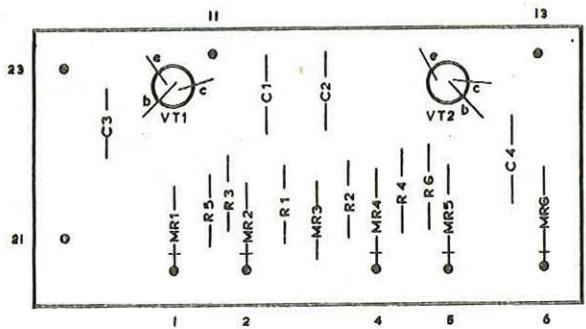


INPUT LOGIC LEVELS	
"1"	= > 2
'0'	= < 1

TRANSISTOR
VT1, VT2

PURCH. SPEC.
PS 218

CAT. NO.
11008



PULSE WIDTH = C _{ns} (WHERE C = CAPACITANCE IN pF.)		
	UPPER ELEMENT	LOWER ELEMENT
L.S.A.	C1	C2
37	680 pF	680 pF
39	100 pF	100 pF
40	330 pF	330 pF
41	220 pF	220 pF
42	470 pF	470 pF

NOTES:

- (1) OUTPUT PULSE POSITIVE.
- (2) PULSE TRIGGERED BY ANY INPUT REVERTING TO '0' PROVIDED ALL INPUTS HAVE BEEN '1' FOR GREATER THAN C/2 ns. (WHERE C = CAPACITANCE IN pF.)

+6V ————— 021

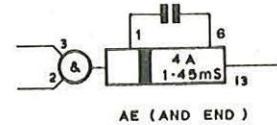
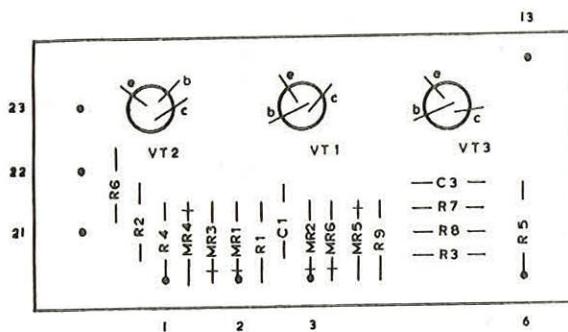
0V ————— 023

INPUT LOGIC LEVELS
'1' = > 2.4V
'0' = < 1V

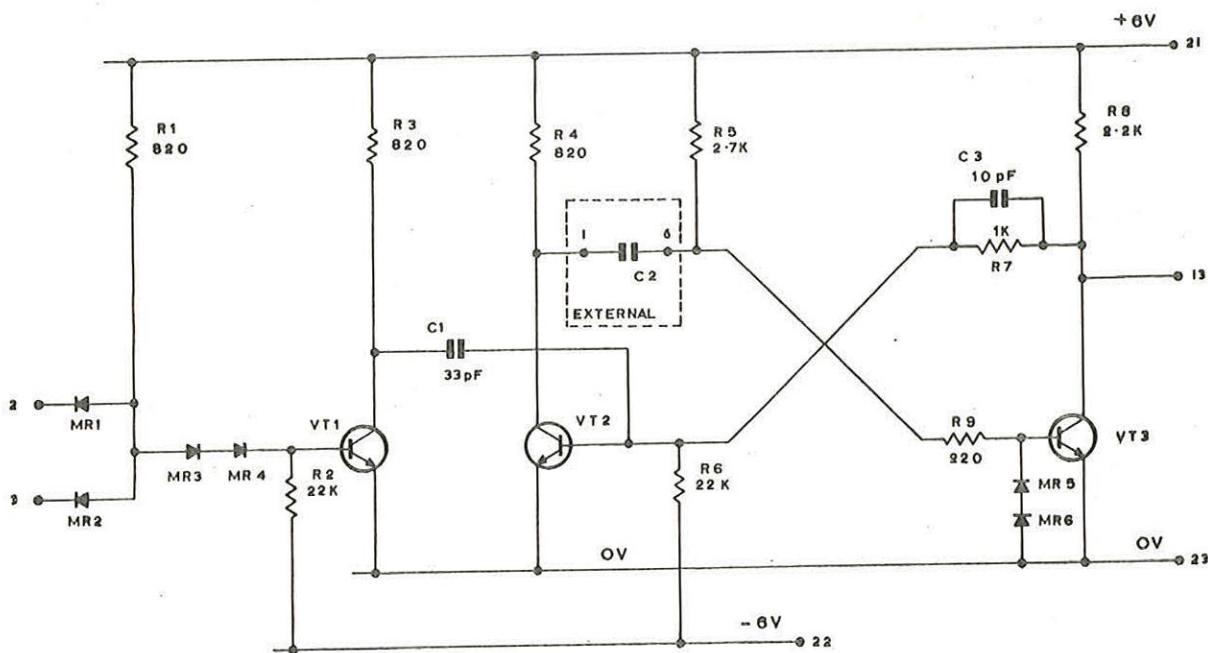
Figure 36 (ISSUE 2)

L.S.A. 37, 39, 40, 41, 42.

TRANSISTOR PURCH. SPEC. CAT NO.
VT1 - VT3 PS 218 11008



AE (AND END)



NOTES:

(1) C2 IS EXTERNAL AND SETS PULSE WIDTH

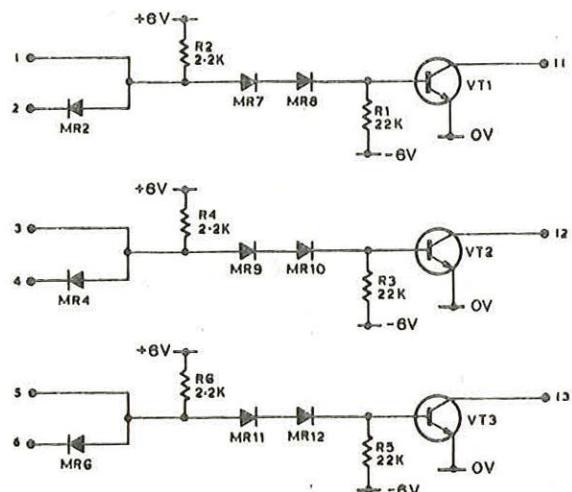
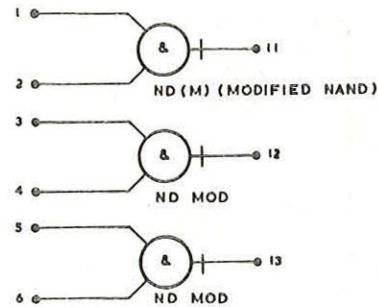
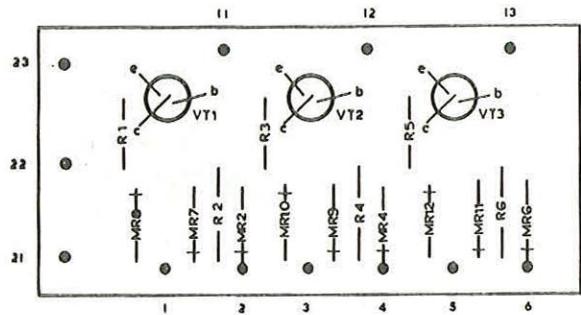
(2) OUTPUT PULSE POSITIVE

(3) PULSE TRIGGERED BY ANY INPUT REVERTING TO
A '0' PROVIDED OTHER INPUT IS A '1'(4) PULSE WIDTH $T = 1.36 \times C_2 \text{ ns}$ $\frac{1.36}{C_2} \text{ ns}$
(WHERE C2 IS IN pF)

INPUT LOGIC LEVELS	
'1' =	> 2
'0' =	< 1

4100/900
4.6.1.

TRANSISTOR
VT1-VT3 PURCH. SPEC.
PS 21B CAT. No.
11008

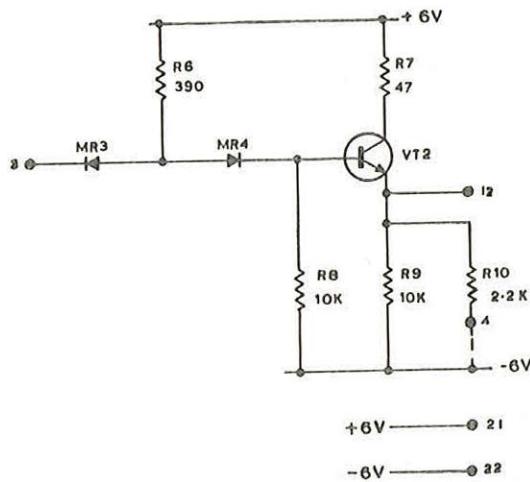
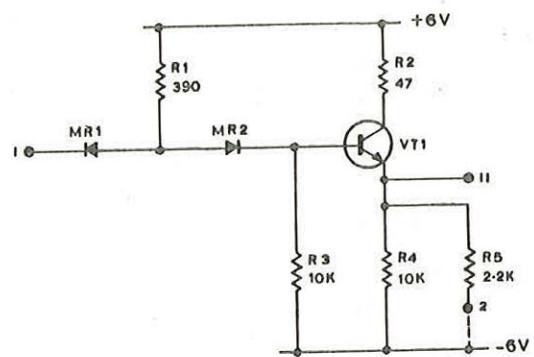
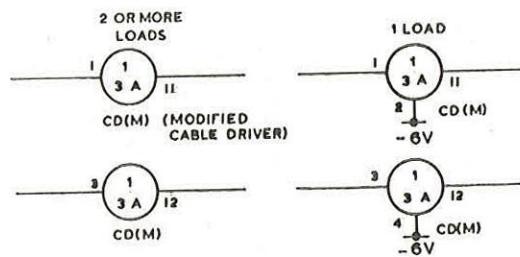
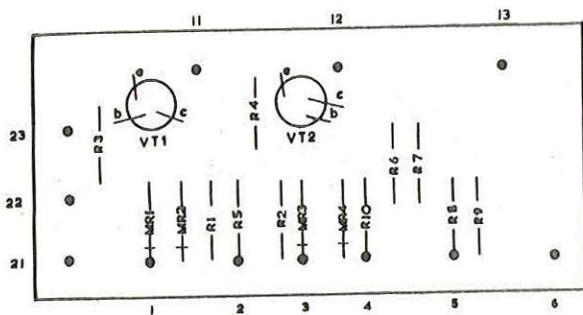


+6V —————— 0 21
OV —————— 0 22
-6V —————— 0 23

INPUT LOGIC LEVEL	
'1'	= > 2V
'0'	= < 1V

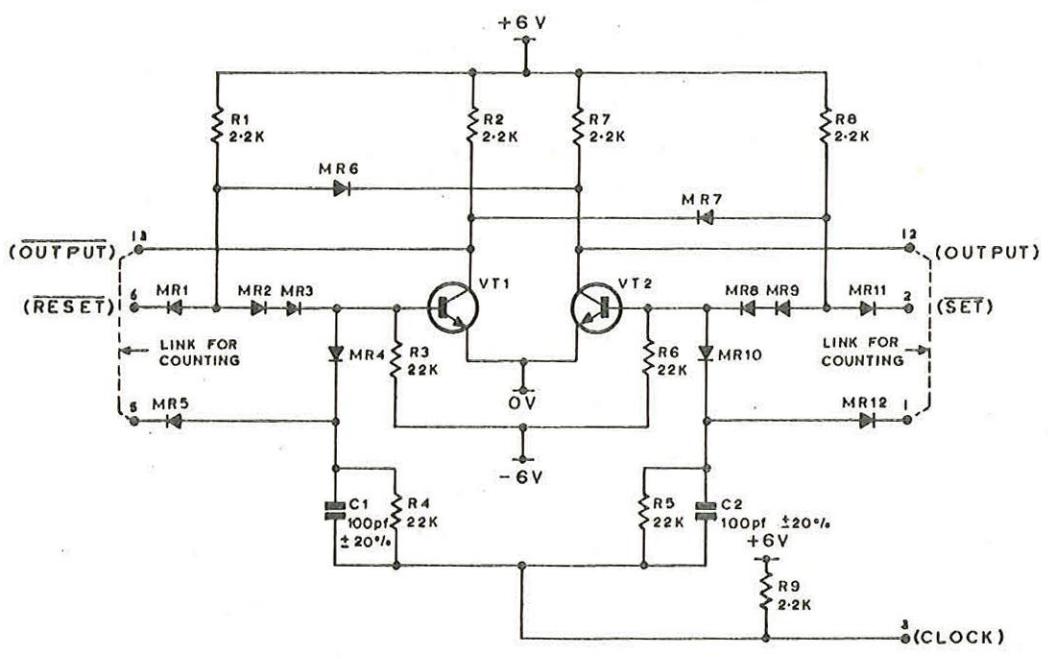
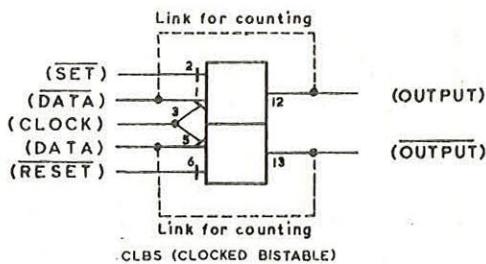
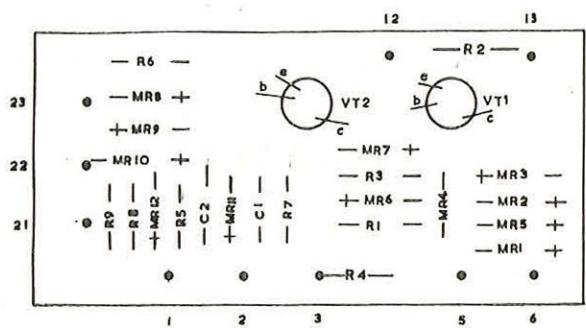
Figure 38 (ISSUE 2)

TRANSISTOR
VT1 VT2 PURCH. SPEC.
PS 218 CAT. NO.
11008



INPUT LOGIC LEVELS	
'1'	= > 2V
'0'	= < 1V

TRANSISTOR PURCH. SPEC. CAT.NO.
VT1, VT2 PS21B 11008

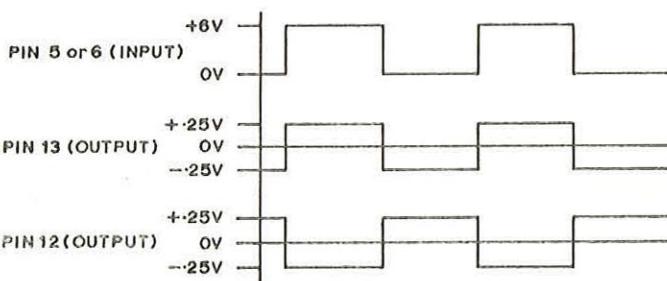
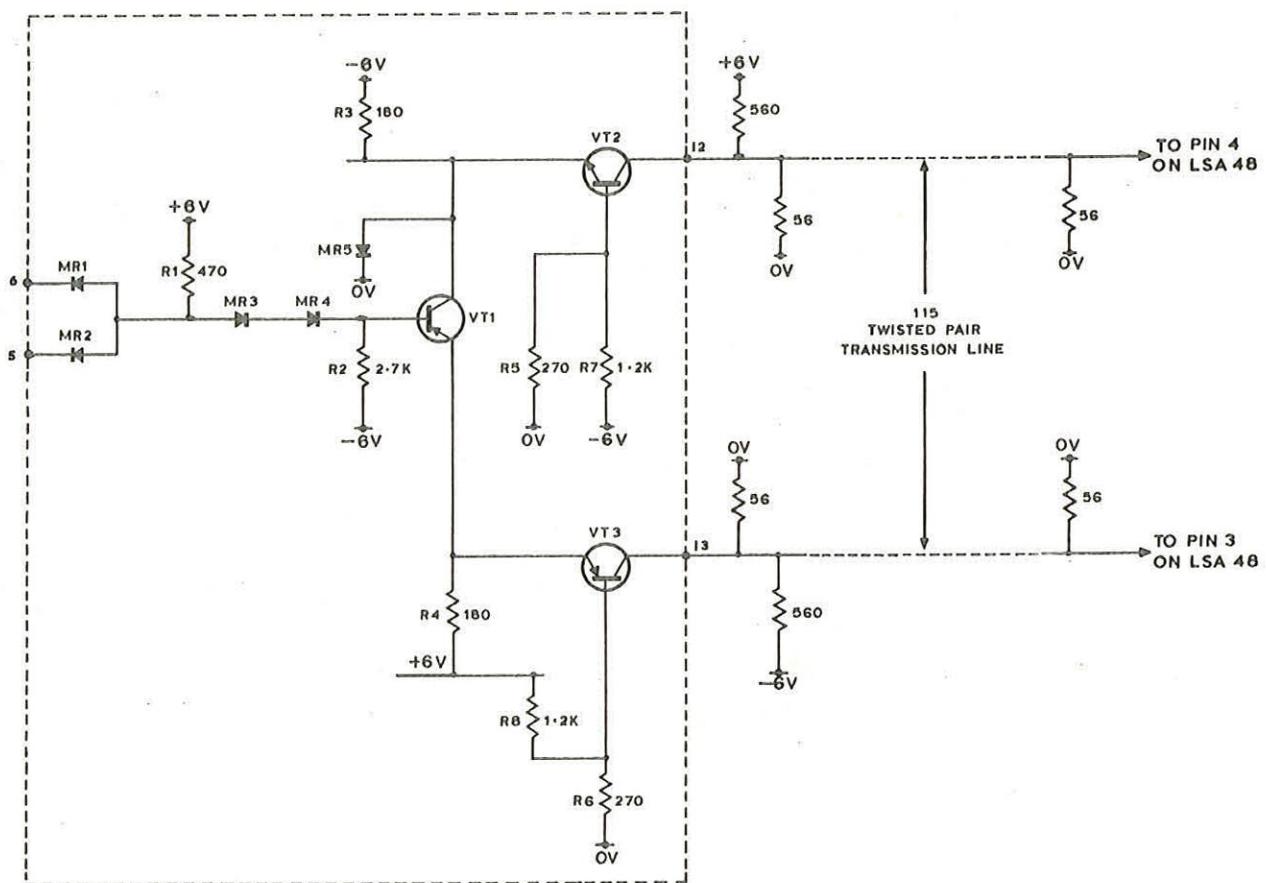
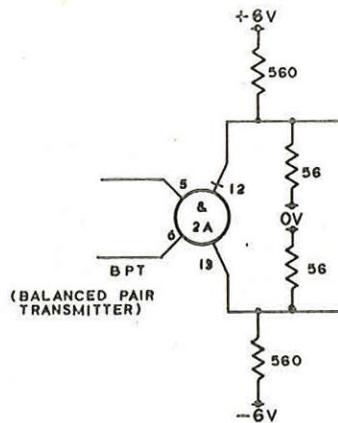
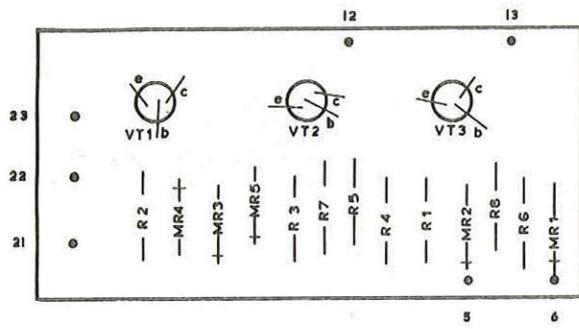


+ 6V → 21
OV → 23
- 6V → 22

INPUT LOGIC LEVELS	
'1'	= > 2 V
'0'	= < 1 V

Figure 40 (ISSUE 2)

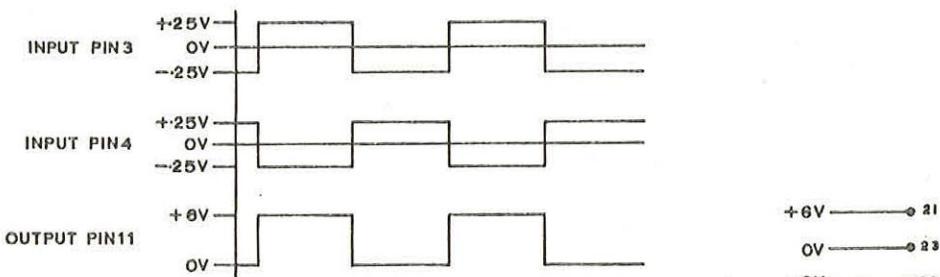
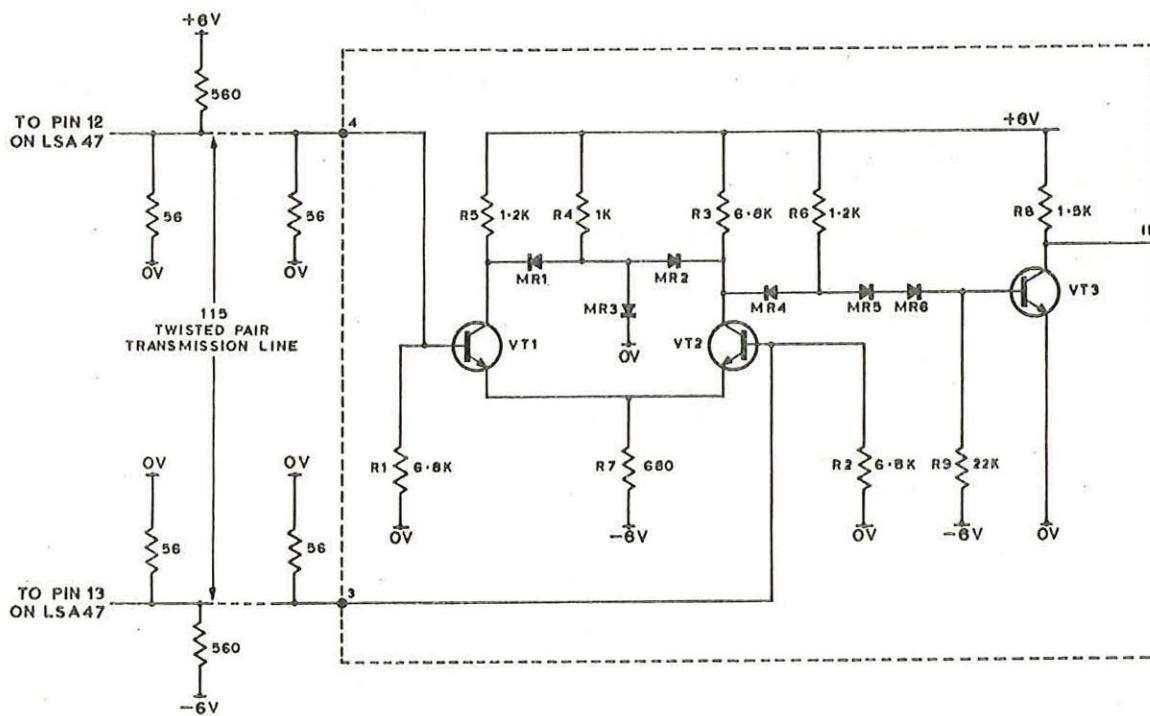
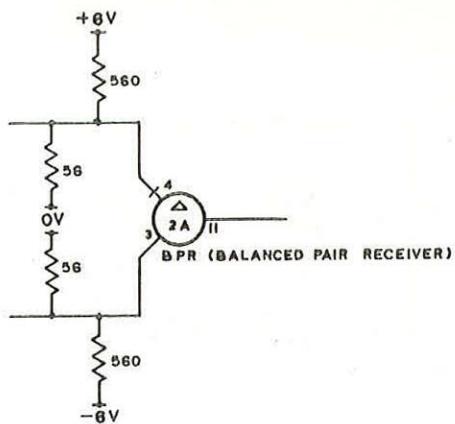
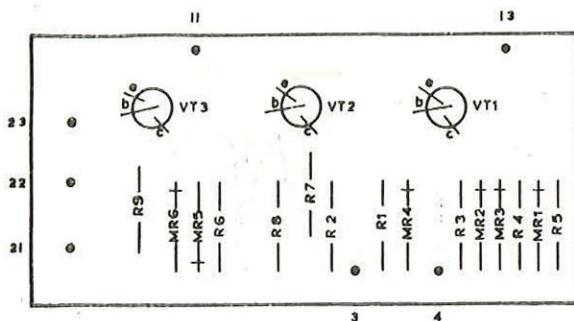
TRANSISTOR PURCH. SPEC. CAT. No.
 VT1, VT3. PS 216. 9725.
 VT2. PS 212. 8843.



+6V → 021
 OV → 023
 -6V → 022

NOTE:
 THE OUTPUT WAVEFORMS ABOVE ARE THOSE OBTAINED WITH TERMINATION AND BIASING AS USED ON THE CDC INTERFACE.
 THE 56Ω TERMINATING RESISTORS MUST BE ON EACH END OF THE TRANSMISSION LINE.
 THE 56Ω BIASING RESISTORS MAY BE AT EITHER END OF THE LINE, BUT NOT AT BOTH.

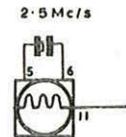
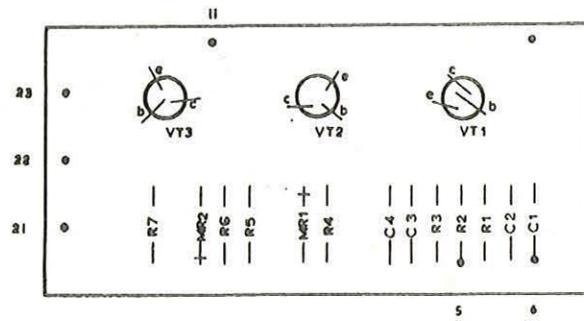
INPUT LOGIC LEVELS
'1' = > 2V
'0' = < 1V

TRANSISTOR
VT₁, VT₂
VT₃PURCH. SPEC.
PS 212
PS 218CAT. NO.
8843
11008

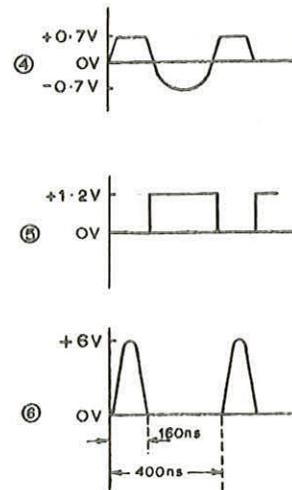
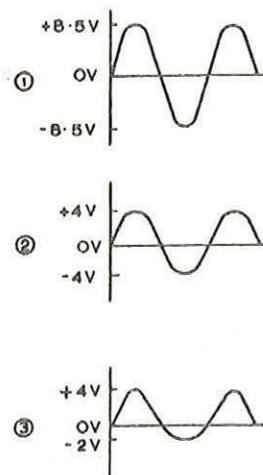
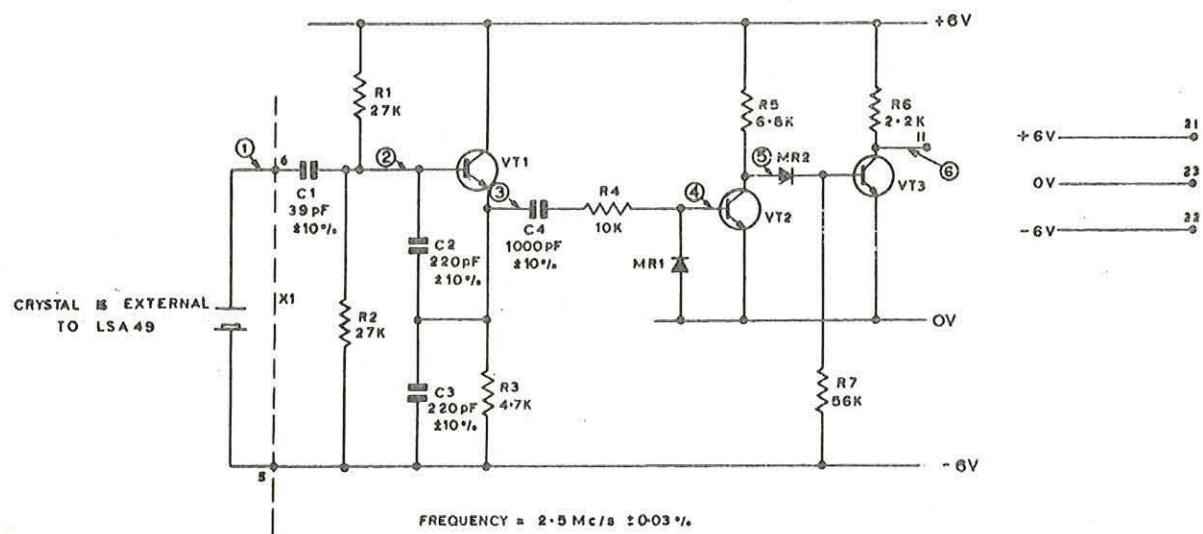
NOTE:
THE INPUT WAVEFORMS ABOVE ARE THOSE
OBTAINED WITH TERMINATION AND BIASING
AS USED ON THE CDC INTERFACE.
THE 6Ω TERMINATING RESISTORS MUST BE
ON EACH END OF THE TRANSMISSION LINE.
THE 56Ω BIASING RESISTORS MAY BE AT
EITHER END OF THE LINE, BUT NOT AT BOTH.

INPUT LOGIC LEVELS	
'1'=PIN 4 > PIN 3 BY	0.4V MIN. 0.6V MAX.
'0'=PIN 3 > PIN 4 BY	0.4V MIN. 0.6V MAX.

TRANSISTOR	PURCH. SPEC.	CAT. NO.
VT1	—	13053
VT2 VT3	PS 218	11008

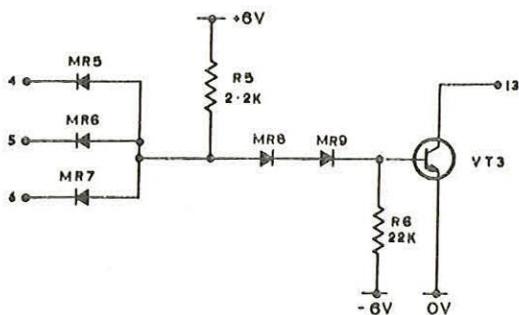
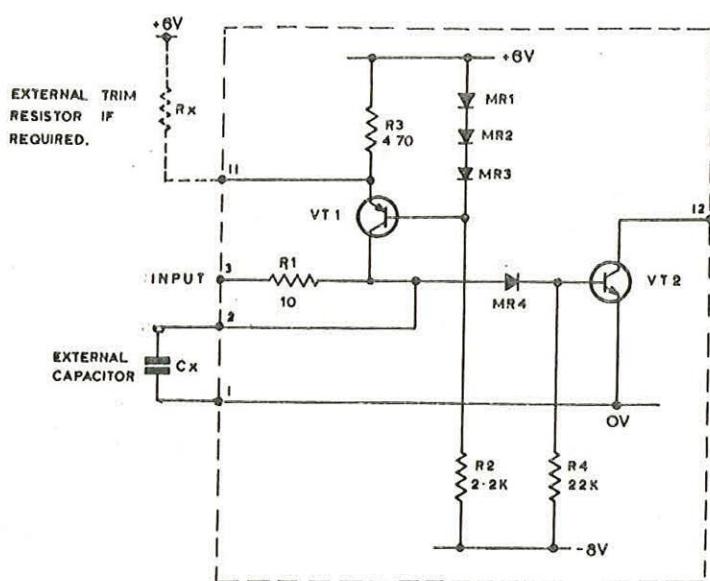
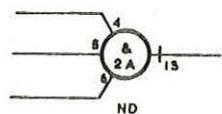
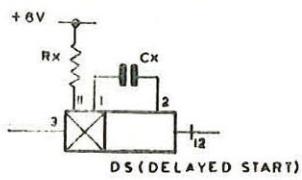
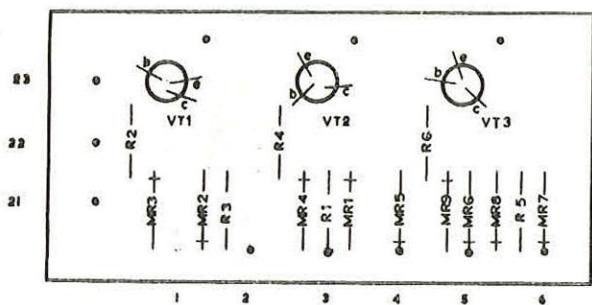


CO (CRYSTAL OSCILLATOR)

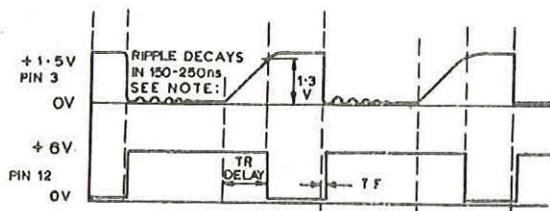


4.6.1.

TRANSISTOR	PURCH. SPEC.	CAT. NO.
VT1	PS 219	11009
VT2, VT3	PS 210	11008



ADD:
 $TR = 35 + 0.44 Cx \text{ ns}$
 (where Cx is in pF)
 $TF = 30 + 0.05 TR \text{ ns}$
 (where TR is in nS)



+6V → ②1
 OV → ②3
 -6V → ②2

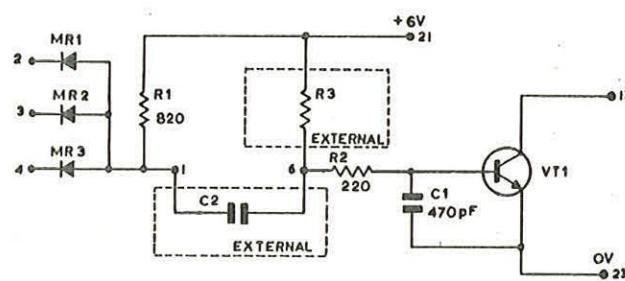
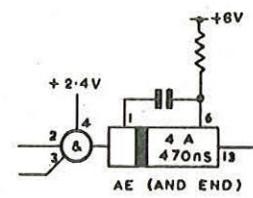
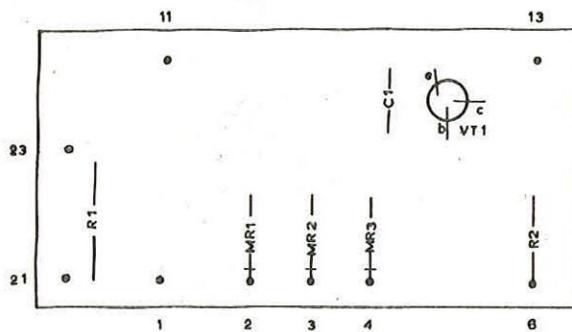
NOTE:

- Assuming connection to driving source is not more than 6ins long.

INPUT LOGIC LEVELS	
DELAY	'1' = $> 0.25\text{V}$ AT 3mA
ELEMENT	'0' = OPEN CIRCUIT
HAND	'1' = $> 2\text{V}$
GATE	'0' = $< 1\text{V}$

Value	Tol.	Voltage	Cat. No.	Nominal Delay
220 pf	\pm 5%	400V	9313	132 \pm 32. 9 ns.
330 pf	\pm 5%	400V	8479	180 \pm 45. 1 ns.
470 pf	\pm 5%	400V	7916	242 \pm 60. 4 ns.
680 pf	\pm 5%	400V	8480	334 \pm 83. 6 ns.
1000 pf	\pm 5%	400V	7917	475 \pm 119 ns.
1500 pf	\pm 5%	400V	7924	695 \pm 174 ns.
2200 pf	\pm 5%	400V	7918	1. 00 \pm 0. 251 μ s.
3300 pf	\pm 5%	400V	7919	1. 49 \pm 0. 372 μ s.
4700 pf	\pm 5%	125V	7920	2. 10 \pm 0. 526 μ s.
6800 pf	\pm 5%	125V	7921	3. 03 \pm 0. 757 μ s.
0. 01 μ F	\pm 5%	400V	7922	4. 44 \pm 1. 11 μ s.
0. 015 μ F	\pm 5%	125V	7504	6. 63 \pm 1. 66 μ s.
0. 022 μ F	\pm 5%	125V	7475	9. 72 \pm 2. 43 μ s.
0. 033 μ F	\pm 5%	125V	7720	14. 6 \pm 3. 64 μ s.
0. 047 μ F	\pm 5%	125V	7044	20. 7 \pm 5. 18 μ s.
0. 068 μ F	\pm 5%	125V	8481	30. 0 \pm 7. 49 μ s.
0. 1 μ F	\pm 5%	20V	9136	44. 0 \pm 11. 0 μ s.
0. 15 μ F	\pm 5%	20V	9915	66. 0 \pm 16. 5 μ s.
0. 22 μ F	\pm 5%	20V	11043	96. 8 \pm 24. 2 μ s.
0. 33 μ F	\pm 5%	15V	9369	145 \pm 36. 3 μ s.
0. 47 μ F	\pm 5%	15V	NR	207 \pm 51. 7 μ s.
0. 68 μ F	\pm 5%	15V	9430	299 \pm 74. 8 μ s.
1. 0 μ F	\pm 5%	15V	9386	440 \pm 110 μ s.
1. 5 μ F	NR	15V	----	660 \pm 165 μ s.
2. 2 μ F	NR	15V	----	968 \pm 242 μ s.
3. 3 μ F	\pm 5%	15V	9431	1. 45 \pm 0. 363 ms.
4. 7 μ F	\pm 5%	15V	9398	2. 07 \pm 0. 517 ms.
6. 8 μ F	\pm 5%	15V	9387	2. 99 \pm 0. 748 ms.
10. 0 μ F	\pm 5%	15V	9309	4. 40 \pm 1. 10 ms.
15. 0 μ F	\pm 5%	15V	NR	6. 60 \pm 1. 65 ms..
22. 0 μ F	\pm 5%	15V	9385	9. 68 \pm 2. 42 ms..
33. 0 μ F	\pm 5%	15V	11044	14. 5 \pm 3. 63 ms..
47. 0 μ F	\pm 5%	15V	11042	20. 7 \pm 5. 17 ms..
68. 0 μ F	\pm 5%	15V	9308	29. 9 \pm 7. 48 ms..
100. 0 μ F	\pm 5%	10V	9151	44. 0 \pm 11. 0 ms..

% Reduction of delay	0. 99	1. 4	2. 1	3. 0	4. 5	5. 4	6. 5	7. 7	9. 1	12	18
Resistor	47K	33K	22K	15K	10K	8. 2K	6. 8K	5. 6K	4. 7K	3. 3K	2. 2K
% Reduction of delay	24	32	36	41	46	50	59	68	76	82	
Resistor	1. 5K	1	820 Ω	680 Ω	560 Ω	470 Ω	330 Ω	220 Ω	150 Ω	100 Ω	

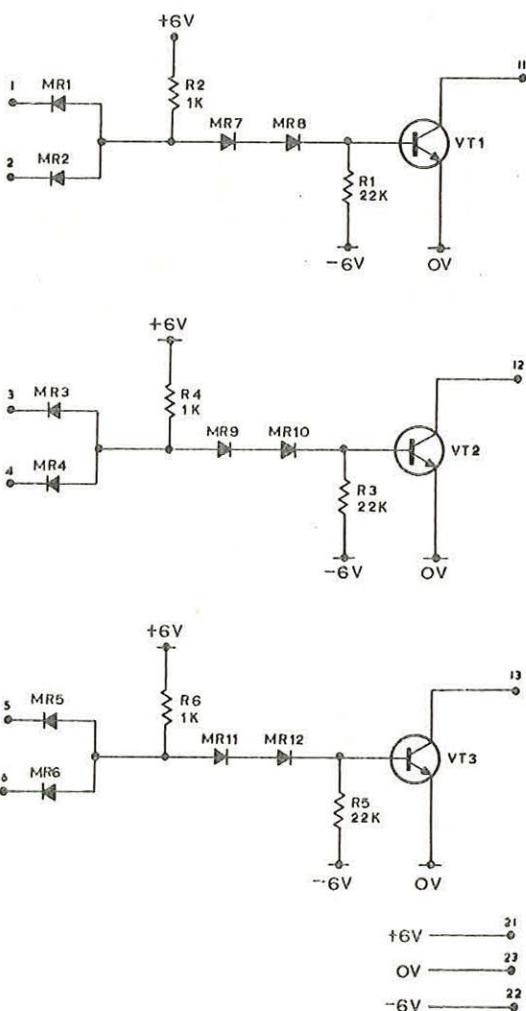
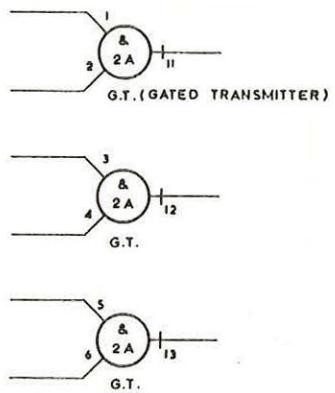
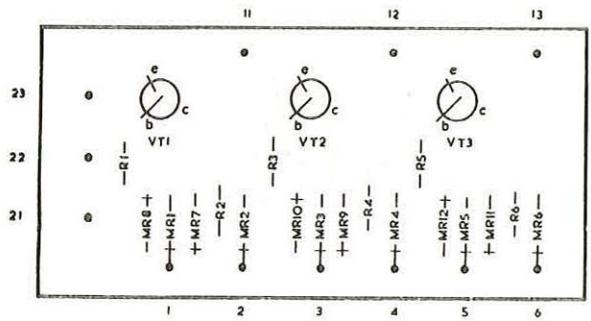
TRANSISTOR
VT1 PURCH. SPEC. PS 21B CAT NO. 1100B

NOTES

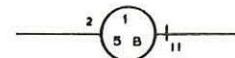
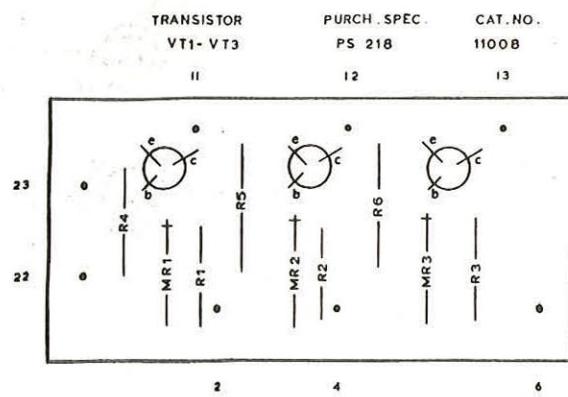
1. OUTPUT PULSE POSITIVE.
2. PULSE TRIGGERED BY ANY INPUT REVERTING TO '0' PROVIDED ALL I/P'S HAVE BEEN '1' FOR $\geq \frac{C}{2}$ nS.
(WHERE C = CAPACITANCE IN pF)
3. R3 AND C2 ARE EXTERNAL.
4. IF R3 = 2.7K THEN THE PULSE WIDTH = C nS (WHERE C IS CAPACITANCE OF C2 IN pF) INCREASING VALUE OF R3 INCREASE PULSE WIDTH IN PROPORTION.

INPUT	LOGIC LEVELS
'1'	= > 2V
'0'	= < 1V

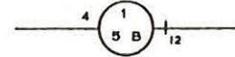
TRANSISTOR PURCH. SPEC. CAT. NO.
VT1-VT3 — 7573



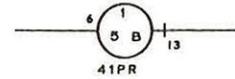
INPUT LOGIC LEVELS	
'1'	= $> 2\text{ V}$
'0'	= $< 1\text{ V}$



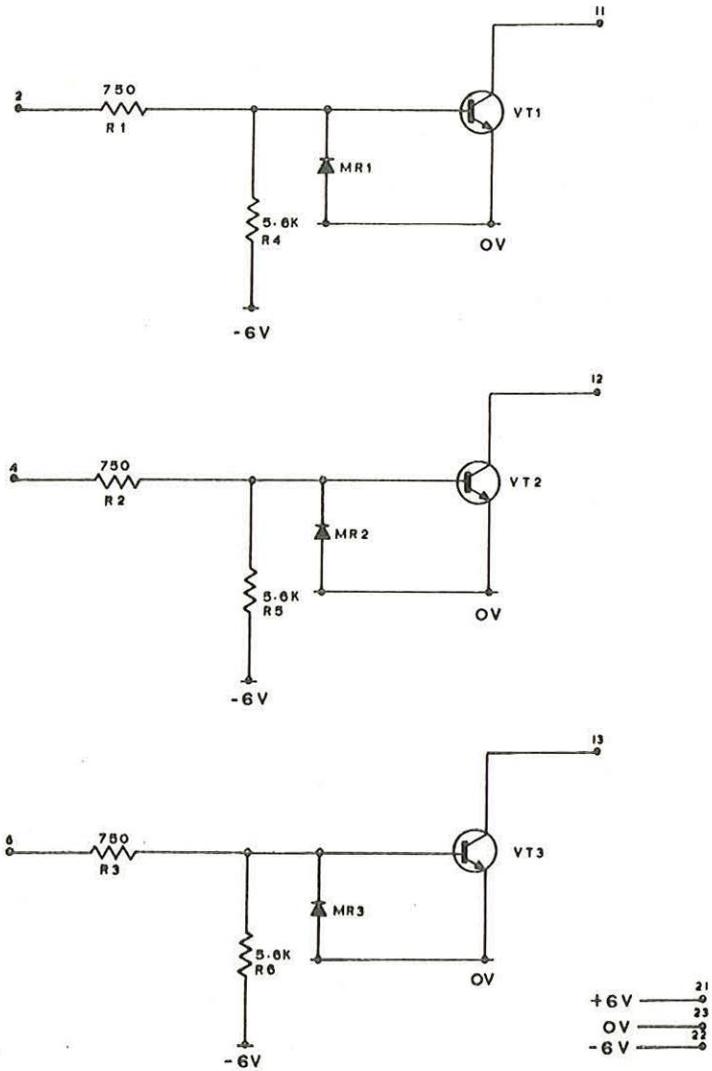
41PR (4100 PERIPHERAL RECEIVER)



41PR



41PR

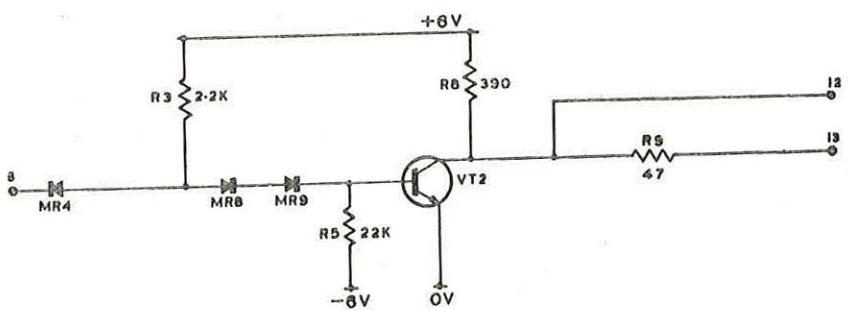
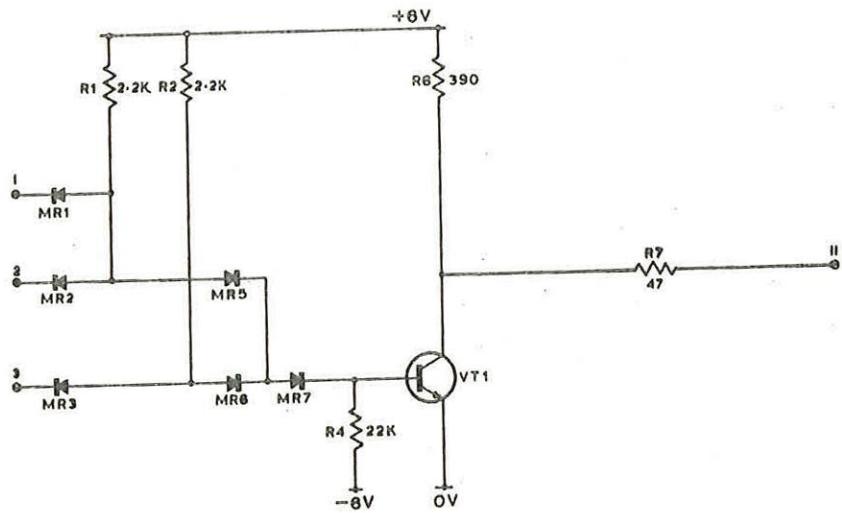
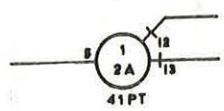
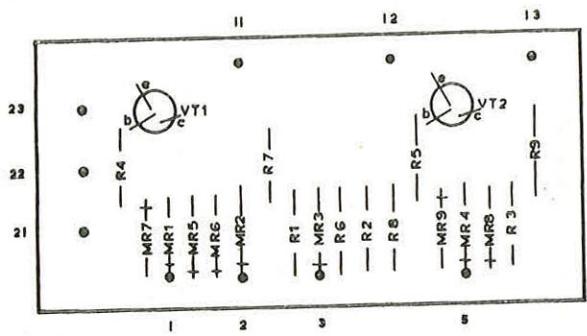


21
23
22
20

INPUT LOGIC LEVELS	
'1'	> 3 V
'0'	< 1 V

4100 / 900
4.6.1.

TRANSISTOR. PURCH. SPEC. CAT. No.
VT1, VT2. PS 216 1100B

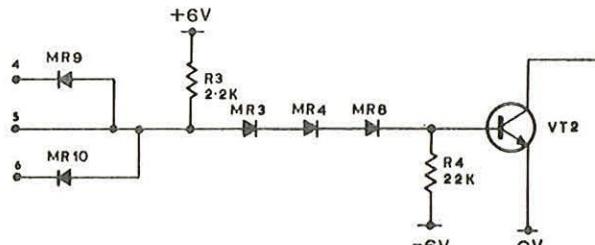
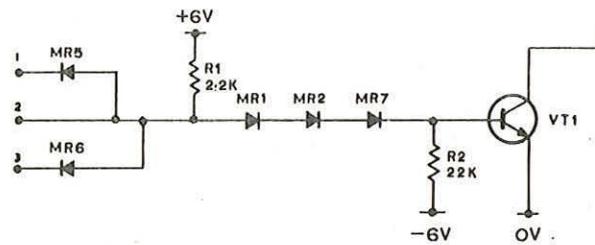
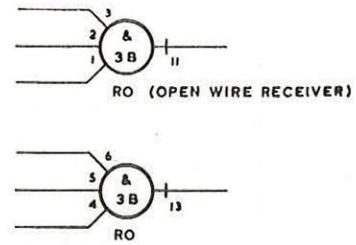
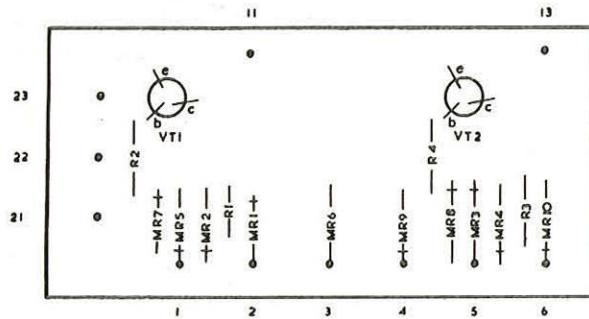


+6V —— 0.21
0V —— 0.23
-6V —— 0.22

INPUT LOGIC LEVELS	
↑	= > 2V
⊖	= < 1V

Figure 48 (ISSUE 2)

TRANSISTOR PURCH. SPEC CAT. NO.
VT1, VT2 PS 21B 11008

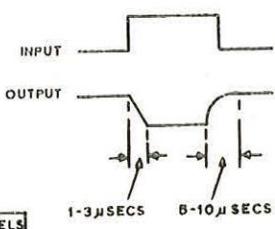
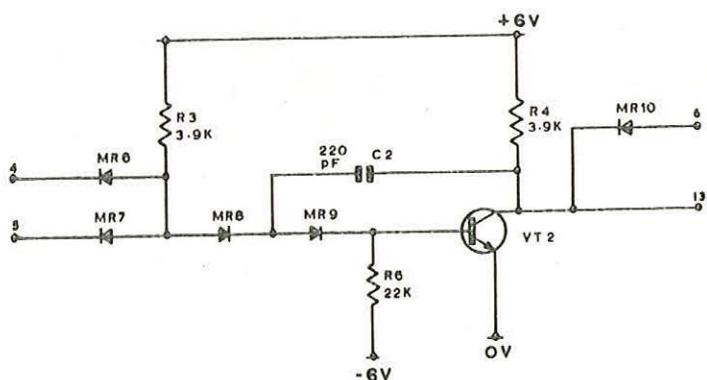
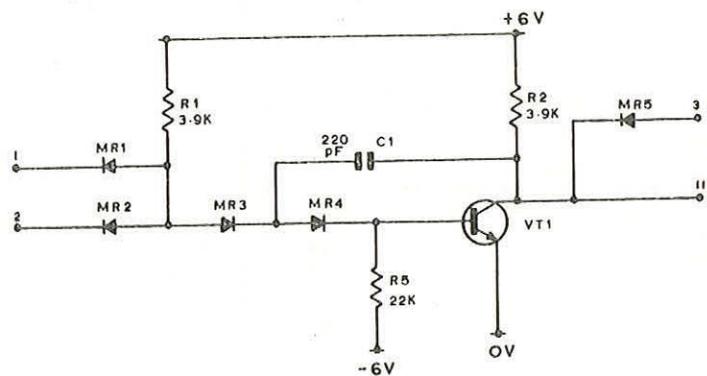
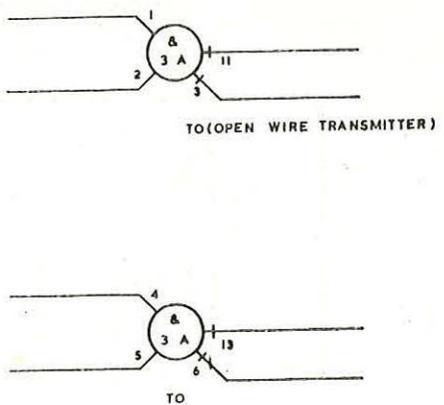
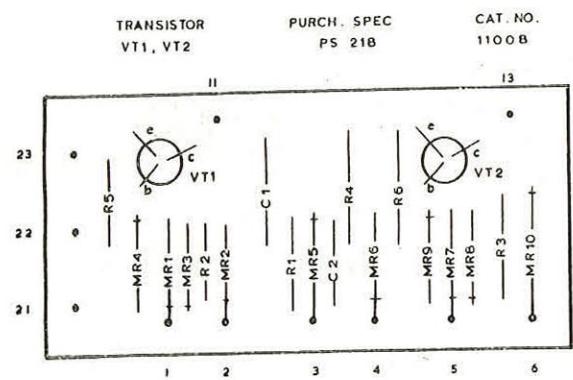


+6V —————— 21
OV —————— 23
-6V —————— 22

NOTE
INPUTS 1,2 AND 4,6, USED WHEN RECEIVING
FROM BUS INPUTS 2 AND 5 OTHERWISE

INPUT LOGIC LEVELS	
'1'	= > 2.5V
'0'	= < 1.5V

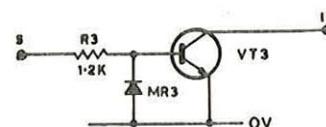
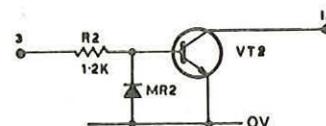
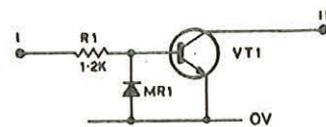
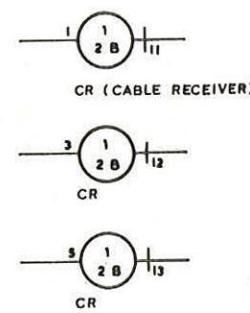
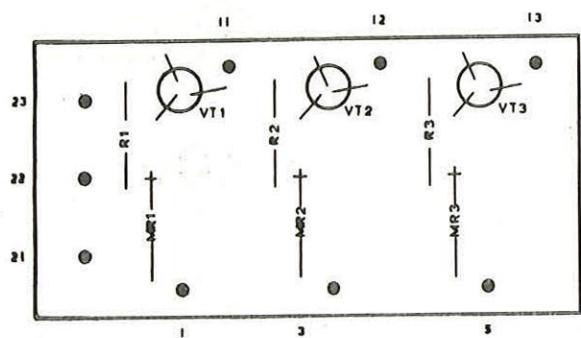
4.6.1.



INPUT LOGIC LEVELS	
'1'	= > 2 V
'0'	= < 1 V

NOTE:-
OUTPUTS 3&6 USED WHEN DRIVING
ON TO BUS. OUTPUTS 11&13 USED OTHERWISE.

TRANSISTOR
VT1-VT3 PURCH. SPEC. PS 218 CAT. No. 11008



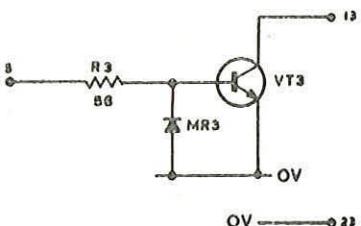
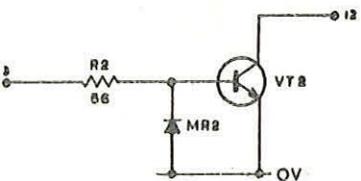
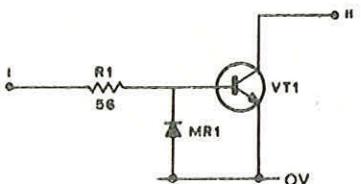
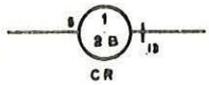
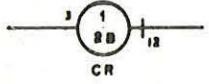
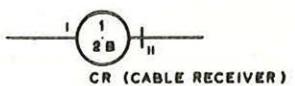
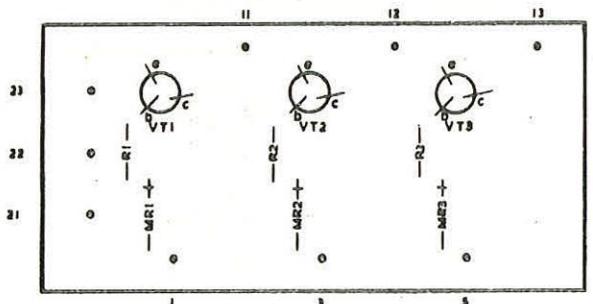
OV ————— 23

NOTE:-

USED IN CONJUNCTION WITH A SINGLE FAST CABLE DRIVER LSA12G FEEDING BUS OF RECEIVERS.

INPUT LOGIC LEVELS	
'1'	= > 2V
'0'	= < 1.5V

TRANSISTOR PURCH. SPEC. CAT NO.
VT1—VT3 PS 218 11008

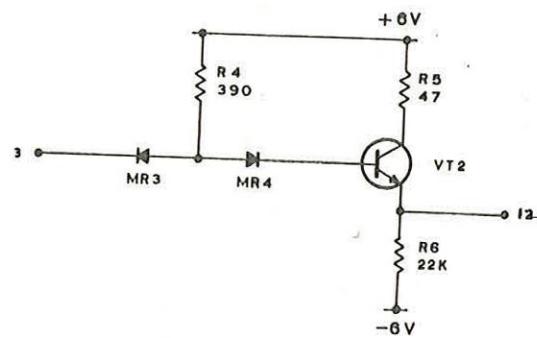
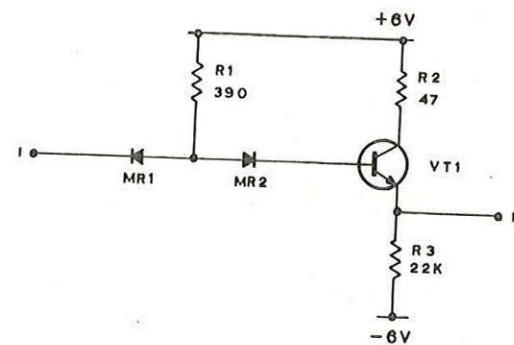
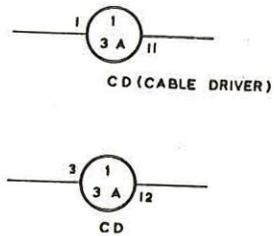
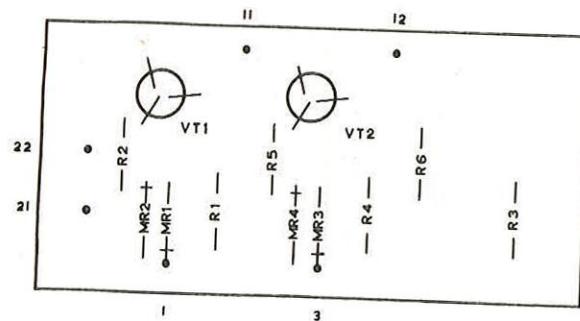


OV ————— 23

NOTE:
USED IN CONJUNCTION WITH A BUS OFF AST CABLE
DRIVERS L.S.A. 126 FEEDING A SINGLE RECEIVER.

INPUT LOGIC LEVELS	
'1'	= > 2V
'0'	= < 1.5V

TRANSISTOR
VT1, VT2 PURCH. SPEC.
PS 218 CAT. NO.
11008

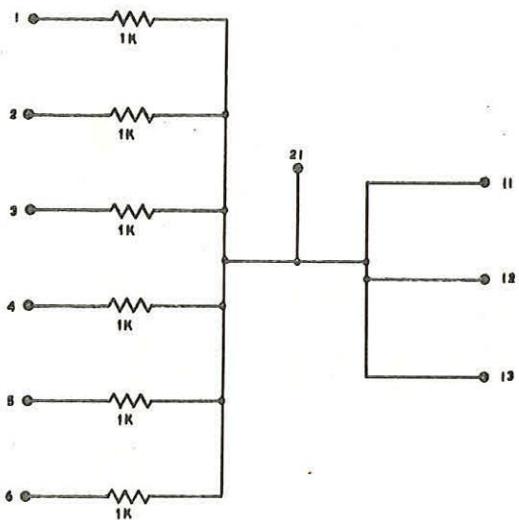
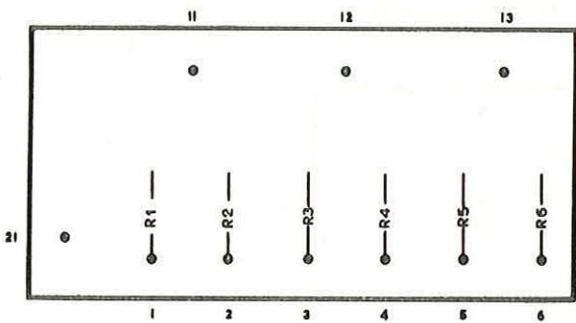


+6V —————— 21
-6V —————— 22

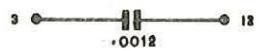
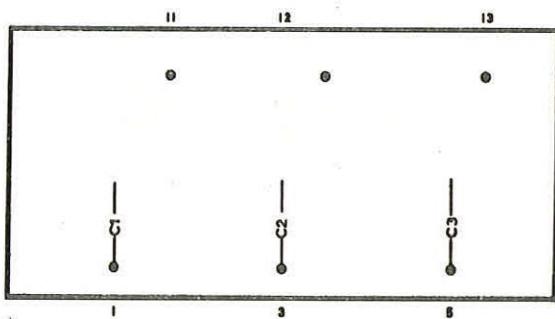
INPUT LOGIC LEVELS	
'1'	= > 3.5V
'0'	= < 1V

4100/900

4.1.6.



L.S.A. 132



L.S.A. 133

Figure 54 (ISSUE 2)

L.S.A.132 & L.S.A.133

TRANSISTOR CAT. No.
VT1—VT3 11740

