

PHYSICS LAB KIT 29:128

EXPERIMENT NUMBER 1

Resistors: 1/4w, 5%
1ea.-100, 330, 560, 1k, 1.6k, 3.3k, 15k,
47k, 51k, 220k, 680k

EXPERIMENT NUMBER 2

Resistors: 1/4w, 5%
1ea.- 5.1k

Capacitors:
1ea.-.0033uf 50v

EXPERIMENT NUMBER 3

Power diode: 8 ea.-1N4003

Signal diode: 2ea.-1N4148

Zener diode: 2ea.-1N4735 6.2v 1w

Resistors: 1/4w, 5%
1ea.-1k, 2k, 10k, 56k, 110k

Resistor: 2w, 5%
1ea.-91

Capacitors:
1ea.-.01uf 50v, .47uf 63v, 4.7uf25v,
10uf16v, 1000uf25v
2ea.-100uf25v
Potentiometer: 1ea.-50k 1 turn trim

SCR: 1ea.-MCR72-6, 8A 400v

Lamp: 1ea.-#2112, 6.3v .2A, wire lead

IC: 1ea.-78L05, 5v regulator TO92 pkg

EXPERIMENT NUMBER 4

Transistor:
1ea.-PN2222A, Silicon NPN, amp/switch
1ea.-2N3904, Silicon NPN, amp

Lamp: 1ea.-#2112 6.3v .2A with wire leads

Resistor: 1/4w, 5%
1ea.-1k, 3.3k, 10k, 22k, 33k, 1M

Capacitors: 1ea.- .1uf 50v

EXPERIMENT NUMBER 5

Transistor: 3ea.-2N3904, Silicon NPN, amp

Resistor: 1/4w, 5%
1ea.- 220, 680, 1k, 2.7k, 5.6k, 6.8k, 7.5k
1 ea. - 12k, 82k
2ea.-100
3ea.-10k

Capacitor:
1ea.-.1uf 50v, 10uf 16v
2ea.-1uf 50v

Potentiometer: 1ea.-1k 1 turn trim

EXPERIMENT NUMBER 6 (OMITTED)

EXPERIMENT NUMBER 7

IC: 2ea.-LF411CN, op-amp 8 pin DIP

Resistor: 1/4w, 5%
1ea.- 22k, 5.1M
2ea.-1k, 100k
4ea.-10k

Capacitor: 1ea.-47pf 500v, .01uf 50v

EXPERIMENT NUMBER 8

Resistor: 1/4w, 5%
4ea.-220, 1k

IC:
1ea.-74HC00, 74LS00, (Quad NAND),
74HC04(Hex inverter)
74LS02(Quad NOR), 74LS86(XOR)
74LS151(8 Input Multiplexer)
74LS240(Tristate Octal Buffer)

LED: 4ea.-LN21RPHL Red diffused

EXPERIMENT NUMBER 10

IC:
1ea.- 74121 one shot
MC1455(555) timer
DAC0808 8Bit DAC
ADC0804 8 Bit ADC

Resistor: 1/4w, 5%
2ea.-3k, 5.1k
4 ea – 10k

Capacitor:
1ea.-.001uf 50v, .01uf 50v
3ea.-.1uf 50v

EXPERIMENT NUMBER 9

IC:
1ea.-74LS00 Quad NAND
74LS42 BCD to Decimal Decoder
74LS47 BCD to 7-seg.decoder driver CA
74LS90 decade counter
74LS112 JK flip-flop
74LS161 4-Bit Synchronous Binary Counter
74LS175 D flip-flop
74LS195 4-Bit Shift Register

Resistor: 1/4w, 5%
1ea.-150
2ea.-10k

Capacitor: 1ea.-.1uf 50v

LED: 1ea.-MAN71, 7 segment CA

EXPERIMENT NUMBER 11

LED: HLMP-C115 (note: chosen for its
30 nsec response time)
Phototransistor: PNA 1801 (Panasonic)
Resistor: 1/4w, 5%
1 ea. – 270, 1k