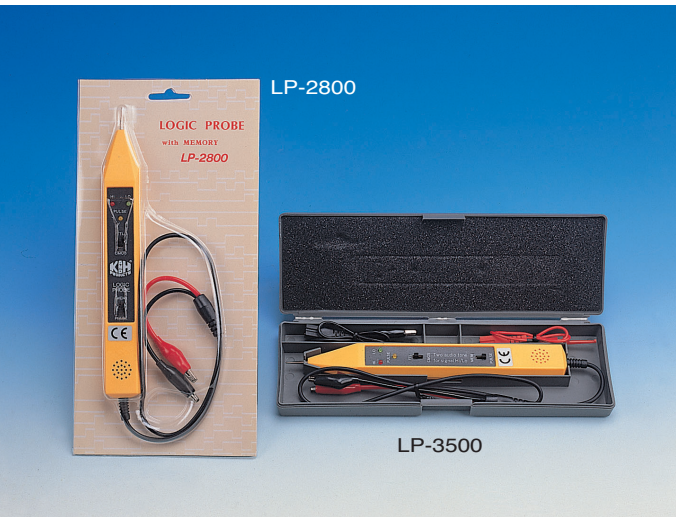




# LOGIC PROBE LP-2800 / LP-3500



## COMMON SPECIFICATIONS

- Input impedance. 1 M $\Omega$
- Width of min. pulse: 30 ns.
- Max. input frequency: 17 MHz.
- Measurable logic gate: TTL and CMOS
  - Logic 1 (red LED lights) and then buzz.  
2.3 V  $\pm$  0.2 V 70 % Vcc.
  - Logic 0 (green LED lights) and then buzz.  
0.8 V  $\pm$  0.2 V 30 % Vcc.
- Input overvoltage protection:  
 $\pm$  220V DC/AC 15 sec.
- Pulse (yellow LED) flashing time: 500ms.
- Power supply protection:  $\pm$  20 V.

Dimension	Weight
212x26.5x18mm(main body)	65g
235x78x32mm(with case)	210g

## Special functions for LP-3500

- ABS case.
- Two audio tones
- Two external terminal.  
It is also available for LP-2800 but at extra-pay

# LOGIC PULSER LP-540H



The K&H LP-540H logic pulser is a very effective tool for inspecting and repairing the logic circuits. It can be used directly to inject a signal into the logic circuits without removing the IC or reading the circuits. Using the logic probe as a monitor, you cannot only know the wiring errors but also check out mal-functional components. The reason is that it produce a very large transient current in a moment. Since the average power produced under these conditions is very small, the injected signal will not destroy any of the components in the circuits. Further, the pulser takes advantage of the voltage produced by a current flow through the inherent resistance of the circuit to produce the injected signal.

Logic Pulser can produce a 10  $\mu$ s pulse signal at 100 mA load. The signal frequency may be switched to either 0.5Hz or 400Hz, and as a result the Logic Pulser is a fairly powerful pulser. At the same time, the Logic Pulser can produce a 90% high digital signal at square wave output terminal, and it is easier to observe and trace circuits by using oscilloscope. The logic Pulser Probe also has a sync input point, which can be used to produce an externally synchronized signal.

## SPECIFICATION

- Sync input impedance .....1M $\Omega$
- Pulse repetition rate .....0.5 pps/400 pps
- Pulse width in pulser output at 100 mA load .....10  $\mu$ s
- Output current
  - (1) pulser mode .....100 mA sink/source
  - (2) square wave output .....5 mA sink/source
- Power supply protection .....  $\pm$  25 V/25 sec.
- Output protection .....  $\pm$  35 V/15 sec.
- Size .....212 x 26.5 x 18 mm
- Weight .....65 g

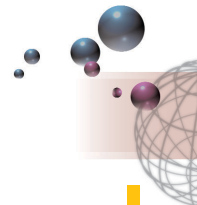
## GENERAL

- Maximum allowable supply voltage.....  $\pm$  20 V
- Operating supply voltage range .....3~15 V
- Max. output allowable connecting voltage .....  $\pm$  35 V
- Free air operating temperature range 0~50 $^{\circ}$ C
- Max. sync input voltage .....  $\pm$  120 V/15 sec.

## EXTRA ACCESSORIES

The logic pulser also can be used with changeable external terminal.  
Red terminal: to extend probe leads.  
Black terminal: to extend ground point to circuit.

# LOGIC PROBE & PULSER



## LOGIC PROBE LP-1001

- Testing TTL, DTL, HTL, CMOS and MOS
- Displaying pulse presence and logic states
- Catching pulse to 10ns or pulse trains to 50MHz
- Input overvoltage protection

### SPECIFICATIONS

MAX. allowable supply voltage	± 25 V
Guaranteed operation supply	
Voltage range	+3 ~ +18 V
Input voltage	± 50 V
Operating input voltage range	-25 ~ +25 V
Input impedance	120 K $\Omega$ typical
Minimum detectable pulse width	10 ns typical
Logic thresholds	
Logic 1 (green LED lights)	TTL 2.3 ± 0.2V CMOS 70% V <sub>cc</sub> ± 10%
Logic 0 (green LED off)	TTL 0.8 ± 0.1V CMOS 30% V <sub>cc</sub> ± 10%
High Impedance (green LED flash at frequency of 1 Hz)	200 K $\Omega$ Typical (5 V)
Input positive voltage (red LED lights)	+5 V Max
Input negative voltage (yellow LED lights)	-5 V Max
Max input frequency displayable	50 MHz Typical
Input overvoltage protection	± 50 V / 10 sec
Pulse LED (yellow flashing time)	1s
Power supply protection	± 25 V / 15 sec
Dimensions	16 $\phi$ x 160 mm ± 5%
Weight	Approx: 50 g

## PULSER LP-2001

- For TTL, DTL, RTL, HTL, CMOS and MOS
- Producing 10  $\mu$ s pulse signal
- Overload protection
- Output current up to 100 mA (pulse)

### SPECIFICATIONS

MAX. allowable supply voltage	± 25 V
Operating voltage range	+3 ~ +18 V
Max. Output allowable connection voltage	± 25 V
Max. sync. input voltage	± 120 V / 15 sec
Sync. input impedance	100 K $\Omega$ Min
Pulse repetition rate	0.5 Hz / 500 Hz
Pulse width at pulser output pin	10 $\mu$ s Typical 100 mA Load
Output current: pulse mode	100 mA sink/source
50 % pulse mode	4 mA sink/source
Power supply protection	± 25 V / 15 sec
Dimensions	16 $\phi$ x 160 mm ± 5%
Weight	Approx: 54 g