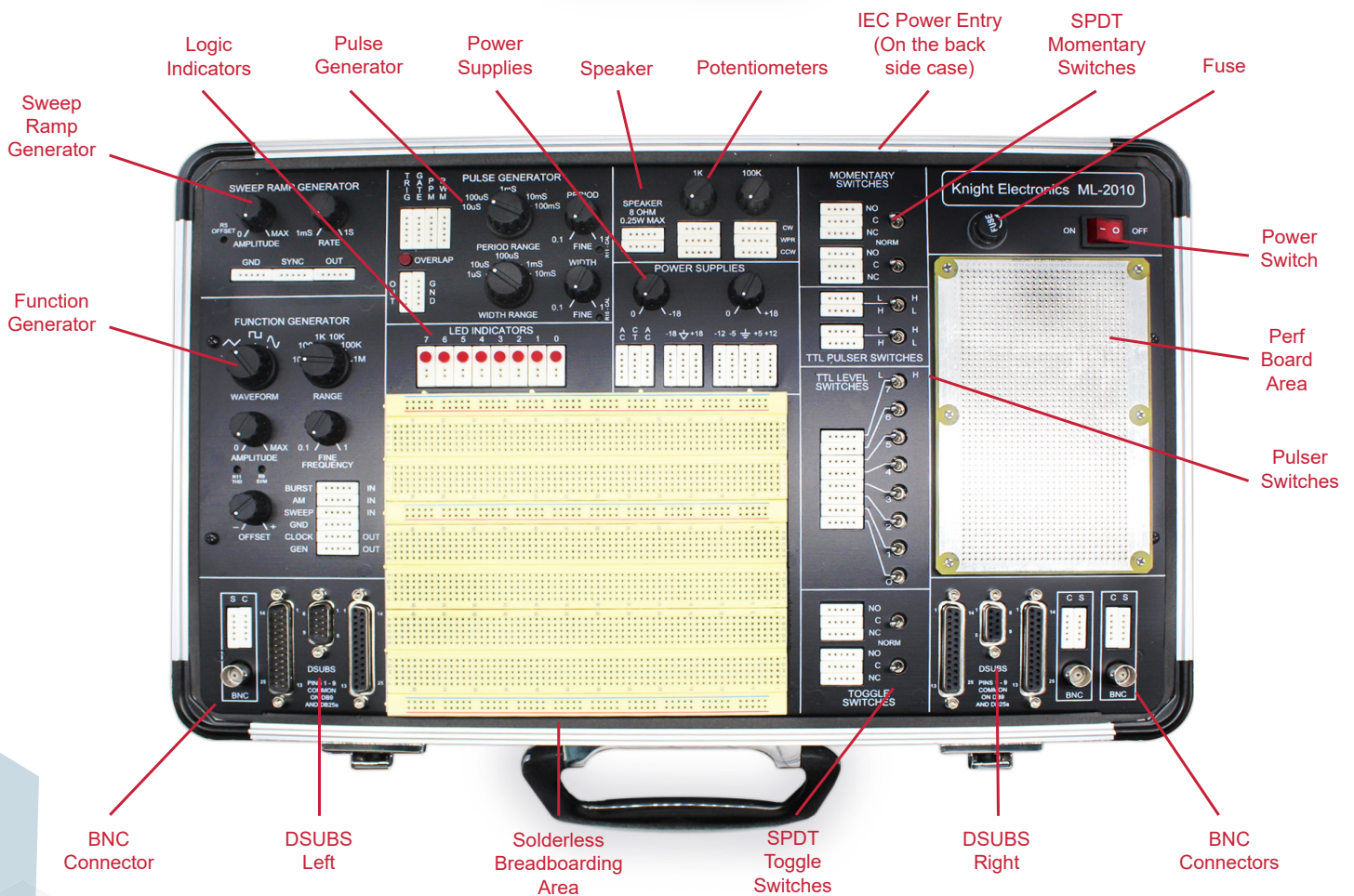
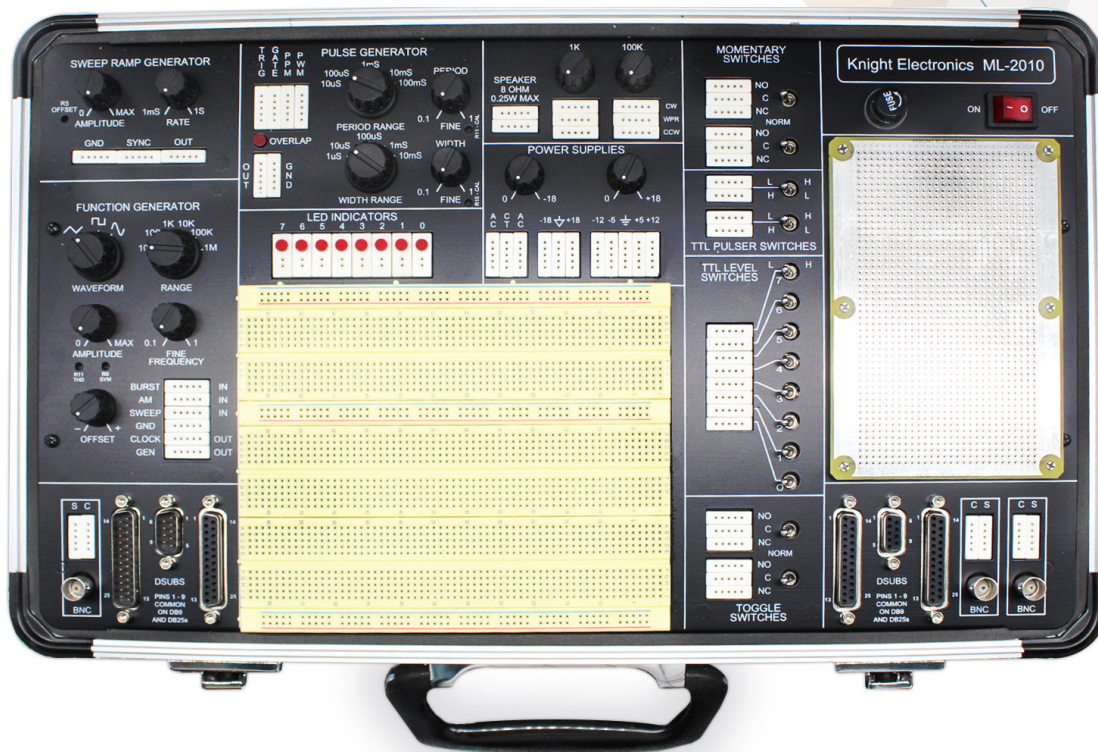




## ML2010 MINI LAB

The ML2010 is a complete prototyping station and has been designed to consolidate all of your test equipment needs into one compact package. This miniature laboratory used in conjunction with an oscilloscope and multimeter puts everything you need at your fingertips for building and testing all types of digital and analog circuits. The features incorporated in this equipment are perfect for the hobbyist, designer, technician, and student in electronics.





## SPECIFICATIONS

### POWER INPUT:

120 VOLT AC 50/60 HZ  
FUSED (2A 250V, 5x20mm GLASS, FAST ACTING)  
LIGHTED POWER ON INDICATOR

### DC POWER SOURCES:

+5 VOLTS  $\pm 3\%$  @ 1 AMP  
-5 VOLTS  $\pm 3\%$  @ 1 AMP

+12 VOLTS  $\pm 3\%$  @ 1 AMP  
-12 VOLTS  $\pm 3\%$  @ 1 AMP

0 TO  $>+18$  VOLTS VARIABLE @ 1 AMP  
0 TO  $>-18$  VOLTS VARIABLE @ 1 AMP  
(ISOLATED GROUND FOR VARIABLE SUPPLIES)

0.1% LINE REGULATION  
0.1% LOAD REGULATION

SHORT CIRCUIT AND THERMAL OVERLOAD PROTECTED

### AC POWER SOURCE:

15 VOLTS CENTER TAPPED @ 500 MILLIAMPS

### PULSE GENERATOR:

CONTINUOUSLY VARIABLE IN FIVE DECADE RANGES:

PULSE WIDTH:  $\leq 100\text{nSEC}$  TO  $\geq 10\text{mSEC}$

PULSE REPETITION:  $\leq 1\mu\text{SEC}$  TO  $\geq 100\text{mSEC}$

OVERLAP INDICATOR

CAPABLE OF 100% DUTY CYCLE

PULSE POSITION AND WIDTH MODULATION INPUTS

TTL COMPATIBLE GATE AND TRIGGER INPUTS

RISE AND FALL TIMES LESS THAN 10nSEC

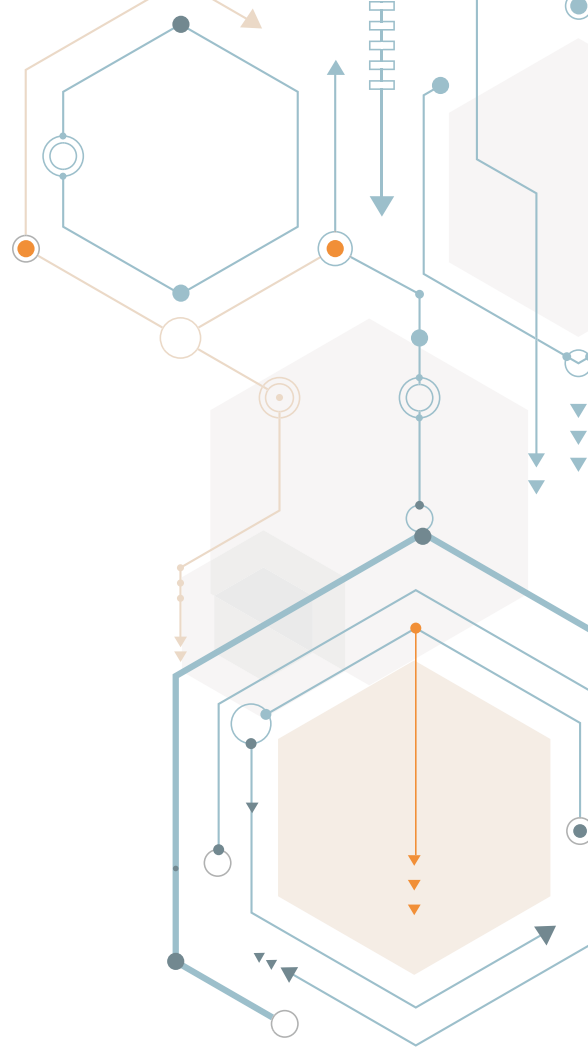
### SWEEP RAMP GENERATOR:

ADJUSTABLE PERIOD -  $\leq 1\text{mSEC}$  TO  $\geq 1\text{SEC}$

ADJUSTABLE 0 TO 3.7 VOLT OUTPUT AMPLITUDE

NEGATIVE LINEAR RAMP OUTPUT FOR LINEAR SWEEP

SEPARATE TTL COMPATIBLE SYNC OUTPUT



## FUNCTION GENERATOR:

SINE, SQUARE, OR TRIANGLE WAVE OUTPUT

0 TO 18 VPP OUTPUT AMPLITUDE  
~500 OHM OUTPUT IMPEDANCE  
SHORT CIRCUIT PROTECTED

DC OFFSET ADJUSTABLE FROM 0 TO  $\pm 10$  VOLTS

SEPRATE TTL/HC COMPATIBLE CLOCK OUTPUT  
(20mA OUTPUT AT 0.33VDC (LOW) OR 4.3VDC (HIGH)  
RISE/FALL TIME LESS THAN 20nSEC

CONTINUOUSLY VARIABLE FREQUENCY FROM 1HZ TO 1MHZ  
IN SIX DECADE RANGES

(NOTE: DUE TO LIMITATIONS OF THE FUNCTION GENERATOR CHIP WAVEFORM VARIATIONS,  
OR ROLL OFF, MAY BE EXPERIENCED AT THE MAXIMUM RANGE.)

DISTORTION: SINE WAVE  $\leq 2\%$  TO  $\geq 100\text{KHZ}$   
TRIANGLE WAVE  $\leq 2\%$  TO  $\geq 100\text{KHZ}$

RISE & FALL: SQUARE WAVE  $\leq 20\text{nSEC}$

FREQUENCY MODULATION INPUT  
AMPLITUDE MODULATION INPUT  
BURST INPUT  
SWEEP INPUT CAPABLE OF 1000:1 SWEEP  
(START FREQUENCY DETERMINED BY SWEEP RAMP AMPLITUDE  
STOP FREQUENCY DETERMINED BY GENERATOR FREQUENCY SETTING)

## SPEAKER:

2-1/4"  $8\Omega$  0.25W

## POTENTIOMETERS:

UNDEDICATED  $1\text{K}\Omega$  AND  $100\text{K}\Omega$   
LINEAR TAPER  
20% 0.125W

## INDICATORS:

EIGHT BUFFERED LED (CMOS/TTL COMPATABLE)

## SWITCHES:

EIGHT LEVEL - 0V OR +5V UNBUFFERED TOGGLE SWITCHES  
TWO UNDEDICATED SPDT TOGGLE SWITCHES [ON – NONE – ON]  
TWO UNDEDICATED SPDT MOMENTARY [ON – NONE – (ON)]

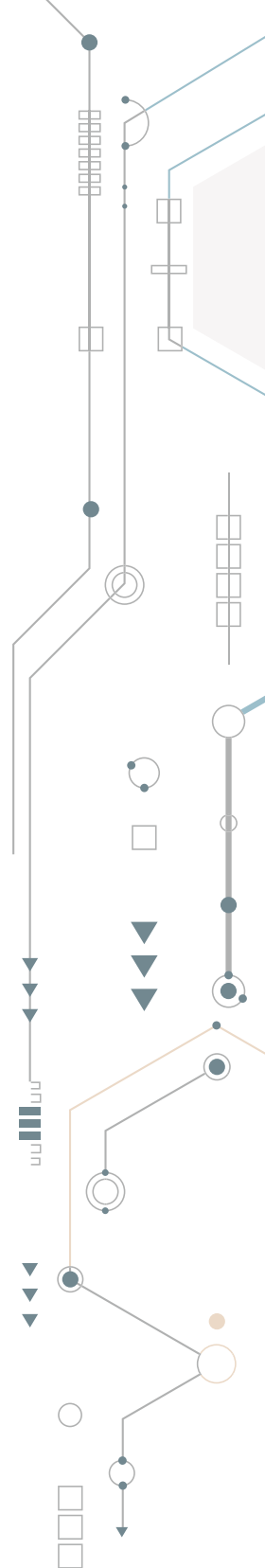
## PULSERS:

TWO TTL LEVEL DEBOUNCED PULSERS WITH COMPLEMENTARY OUTPUTS

## INTERFACE:

DB25 MALE – DB9 MALE – DB25 FEMALE  
DB25 FEMALE – DB9 FEMALE – DB25 FEMALE  
(DB25 TO DB25 PINNED 1 TO 1 WITH DB9 COMMON TO FIRST 9)

THREE BNC TO TIE-POINT BLOCK



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Orion Fans:](#)

[ML2010](#)