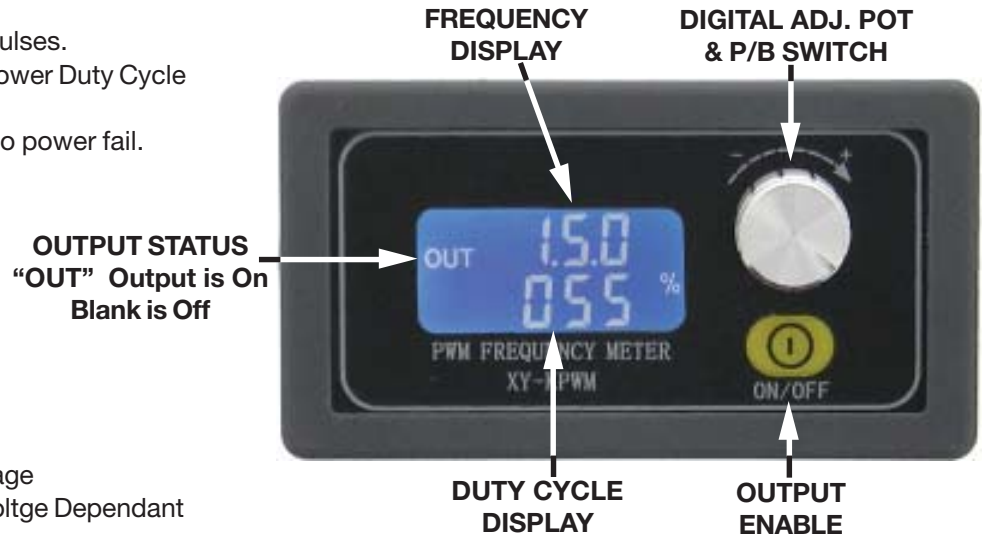


# 35800-TE

## Variable Frequency & Duty Cycle Pulse Generator

Snap-in Variable Frequency & Pulse Width Generator with back lit LCD Display.  
Simple source of Square Wave test pulses.  
Programmable & Lockable Upper & Lower Duty Cycle adjustment range limits.  
Auto Save prevents setting loss due to power fail.  
Power: 3.5~ 30VDC  
Frequency ranges: 2  
Normal mode: 1Hz ~ 150KHz;  
Accurate mode: 1Hz ~ 15KHz;  
Frequency Accuracy: 2%;  
Duty Cycle accuracy:  
1% in Normal mode  
0.1% in Accurate mode  
Range: 0.00% -100%;  
Output Voltage: ~ Same as Input Voltage  
Max Output Current: 5-30ma; Input Voltage Dependant  
Ambient temperature: -20 ~ +70 "C"  
Cutout: 74mm X 40mm  
**W:** 80mm **H:** 43mm **D:** 27mm (Body) **WT:** .1



### GENERAL

Digital Pot: Continuous rotation: Clockwise Increase Value, Counter clockwise: Decrease Value  
Pressing Selects Parameters  
Output Enable: Short Press: Turns Output On or Off (Alternate)  
Long Press >3sec: Selects Output Status upon Power Up.

### TYPICAL SCREENS

**ADJUSTMENTS  
LOCKED SCREEN**



**SET FREQUENCY  
SCREEN**



**SET DUTY CYCLE  
SCREEN**



**SET LOWER LIMIT  
SCREEN**



**SET UPPER LIMIT  
SCREEN**



Information including Drawings, Schematics, Links and Code (Software) Supplied or Referenced in this Document is supplied by MPJA inc. as a service to our customers and accuracy or usefulness is not guaranteed nor is it an Endorsement of any particular part, supplier or manufacturer. Use of information and suitability for any application is at users own discretion and user assumes all risk.

Information Subject to Change Without Notice  
All rights are retained by the respective Owners/Author(s)



**MARLIN P. JONES & ASSOC., INC.**

P.O. Box 530400 Lake Park, FL 33403  
800-652-6733 FAX 561-844-8764  
WWW.MPJA.COM



# 35800-TE

## Variable Frequency & Duty Cycle Pulse Generator

### OPERATION

Note: The Digital Pot serves several Functions depending how long you press it!!

Upon Power Up Display shows current: Output Status, Frequency and Duty Cycle

Whenever Output is set to OFF the Duty Cycle value will Flash.

#### Default Power Up

Turning the Digital Pot will adjust the Duty Cycle. "SET" and the flashing pointer will be displayed

A short Press of the Pot will switch to Frequency Adjust. "SET" and the flashing pointer will be displayed

#### To Set the lower & upper Duty Cycle Limit

Press & Hold Digital Pot ~3sec. "dn" will be displayed & Duty Cycle value will flash.

Rotate Pot to desired lower duty cycle limit

Short press Pot "UP" will be displayed & Duty Cycle value will flash.

Rotate Pot to desired upper duty cycle limit.

To Lock these values (Prevent accidental changes) Press & Hold ~ 7 sec.

To Release Lock: Press & Hold ~7 sec.

To Switch between "Normal" Frequency Range (1K-150KHz) and "Precise" Frequency Range (1Hz-15KHz)

Press & Hold Digital Pot for >15sec.

### FREQUENCY RANGE SETTING

Note the position of the decimal point and where it moves when adjusting the Digital potentiometer.

As you rotate the Pot, the decimal point will shift as you move into a new range.


Max. 150KHz in "Normal"

Max. 15KHz in "Precise"

Display "XXX" No decimal point, The minimum frequency is 1Hz. The frequency range is 1Hz ~ 999Hz.

Display "X.XX"  The decimal point is the 1st. position, The minimum frequency is 0.01KHz. The frequency range is 1.00KHz ~ 9.99KHz.

Display "XX.X"  The decimal point is the second position, The minimum frequency is 0.1KHz. The frequency range is 10.0KHz ~ 99.9KHz.

Display "X.X.X"  Both decimal points are lit, The minimum frequency is 1KHz. The frequency range is 1KHz ~ 150KHz.

Example:

Display "150" means PWM output frequency is 150Hz;

Display "1.50" means PWM output frequency is 1.50KHz;

Display "15.0" means PWM output frequency is 15.0KHz;

Display "1.5.0" means PWM output frequency is 150KHz;