

# Load Pulse Unit

## Applications

The Load Pulse Unit is an electronic device for control systems used in generating electrical power. It is designed to reduce frequency deviations resulting from load transients.

It can be used with any number of 2301 or 2301A controls; it also can be used with up to five EGA, EGM, EPG, 2500, or Dual Dynamics 1000 controls.

The Load Pulse Unit can be used in a system consisting of only one generator, or it can be used in a system having several generators.

The Load Pulse Unit's ability to provide quick, precise response to load change is advantageous to almost any generating system that powers a process extremely sensitive to frequency spikes.

Note: When a Load Pulse Unit is used in a system having more than one generator, and the generators are connected in parallel, only one Load Pulse Unit must be used in the system.

## Installation Location

The Load Pulse Unit may be skid mounted. The unit's physical dimensions are shown in the outline drawing. Locate the unit within reasonable distance of the speed (or load) control. It should not be placed in a position that necessitates lengthy routing of CT lines.

## Operation

Whenever a load change is sensed by the Load Pulse Unit, an anticipatory signal is sent to the electronic control that regulates load or prime mover speed.

When the Load Pulse Unit senses a load change, the unit sends a pulse to the speed control or load sharing and speed control. This pulse causes the control to change fuel in a direction which counteracts the load change before the control actually senses a speed change. Therefore, the Load Pulse Unit minimizes frequency changes caused by load transients.

## Features

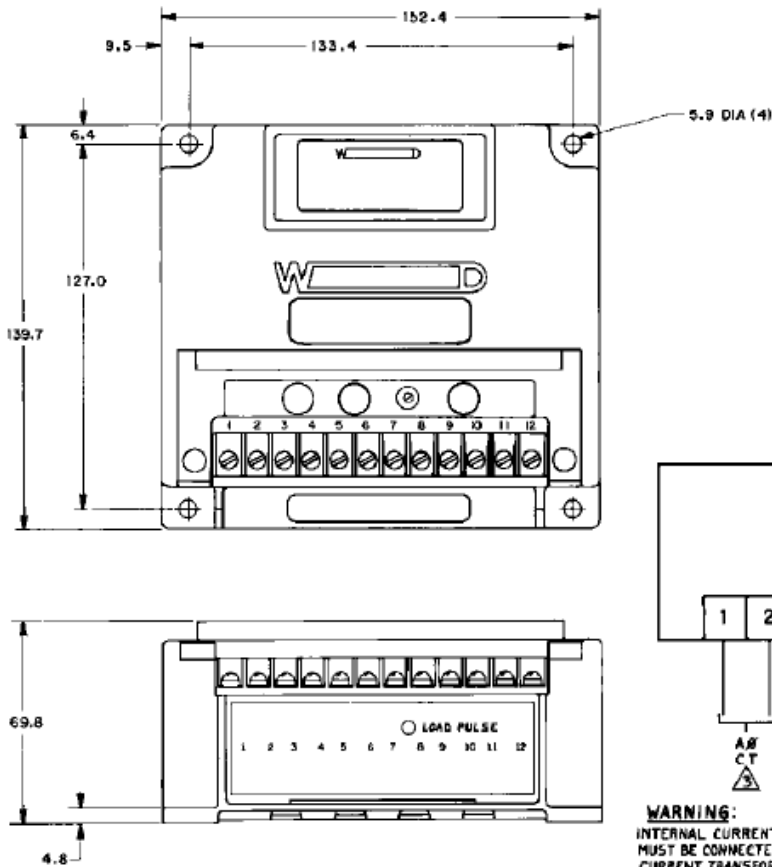
The unit receives its power from three current transformers (CTs), and is designed for use with CTs having an optimum current output of 5 A at full generator load. However, the unit will function accurately if the CT full-load current is between 3 and 7 A.

Phasing does not affect the operation of the Load Pulse Unit.

An easily accessible potentiometer allows the operator to set pulse magnitude to operational requirements.

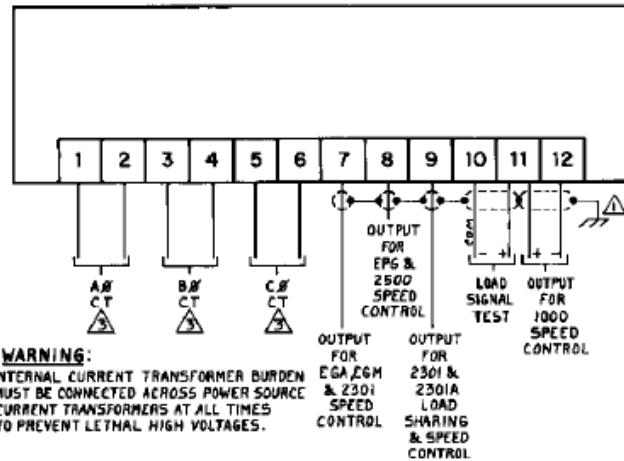


- Anticipates frequency changes
- May be used for individual or multi-generator systems
- Easily adapted to your system



**METRIC**

CONVERSION CHART	
MM	INCH
4.8	.188
5.9	.234
6.4	.250
9.5	.375
69.8	2.750
127.0	5.000
133.4	5.250
139.7	5.500
152.4	6.000



**WARNING:**  
INTERNAL CURRENT TRANSFORMER BURDEN MUST BE CONNECTED ACROSS POWER SOURCE CURRENT TRANSFORMERS AT ALL TIMES TO PREVENT LETHAL HIGH VOLTAGES.

**NOTES:**

- SHIELDED WIRES TO BE TWISTED PAIRS WITH SHIELD GROUNDED AT ONE END ONLY.
- SEE SHEETS 3 & 4 FOR SPECIFIC CONTROL PLANT WIRINGS.
- PHASING NOT IMPORTANT. POWER SOURCE CURRENT TRANSFORMERS MUST BE SIZED FOR AN OUTPUT OF 3-7 AMPS WITH THE GENERATOR AT FULL LOAD OUTPUT.

**PLANT WIRING**

TSP-5413

**Load Pulse Unit Outline Drawing and Typical Wiring Diagram**  
(Do not use for construction)



PO Box 1519, Fort Collins CO, USA 80522-1519  
1000 East Drake Road, Fort Collins CO 80525  
Tel.: +1 (970) 482-5811 • Fax: +1 (970) 498-3058  
[www.woodward.com](http://www.woodward.com)

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