DYNA II Single Phase Load Pulse Part No. DYN2 50000 and DYN2 50001

General

The Barber-Colman DYNA II Single Phase Load Pulse Control is used with an engine-generator set to significantly improve generator offspeed performance.

The Single Phase Load Pulse Control monitors the output of one phase of the generator. When a step load change occurs, the control signals the governor to apply fuel before an actual speed change occurs.

By anticipating impending speed change, offspeed transient performance is improved. Depending upon the engine used, this improvement may be 25 to 30 percent better than possible without the control. Use of this control may permit satisfying an offspeed requirement for an installation by using a smaller engine-generator than might otherwise be necessary.

- **Part No. DYN2 50000**
  DYNA I All-Electric Governor Compatibility with the DYN1 10004, DYN1 10114, DYN1 10504 or DYN1 10624 Series Controllers
  The DYNA II Single Phase Load Pulse, DYN2 50000, operates with the DYNA I all-electric governor using any actuator in the DYNA series.
- **Part No. DYN2 50001**
  DYNA I All-Electric Governor Compatibility with the DYN1 10613, DYN1 10614 or DYN1 10616 Controller
  The DYNA II Single Phase Load Pulse, DYN2 50001, operates with the DYNA MASTER all-electric governor using any DYNA MASTER actuator.
- **Adjustable Pulse Capability**
  The control pulse that is sent to the governor is adjustable from 0 to 100 percent using a convenient control on the module.
- **Dual Inputs**
  The Single Phase Load Pulse can be operated from either 1 amp or 5 amp current transformers.
- **High Reliability**
  The DYNA II Single Phase Load Pulse employs all-solid-state circuitry for high reliability. Electronic components are sealed in an encapsulated package. After assembly each unit is subjected to thorough functional testing under operating conditions.
- **All Electric**
- **Speed Change Anticipation**
- **Improved Performance**
- **Panel Mounted**
- **Mounts in Any Position**
- **No Special Maintenance**

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Specifications

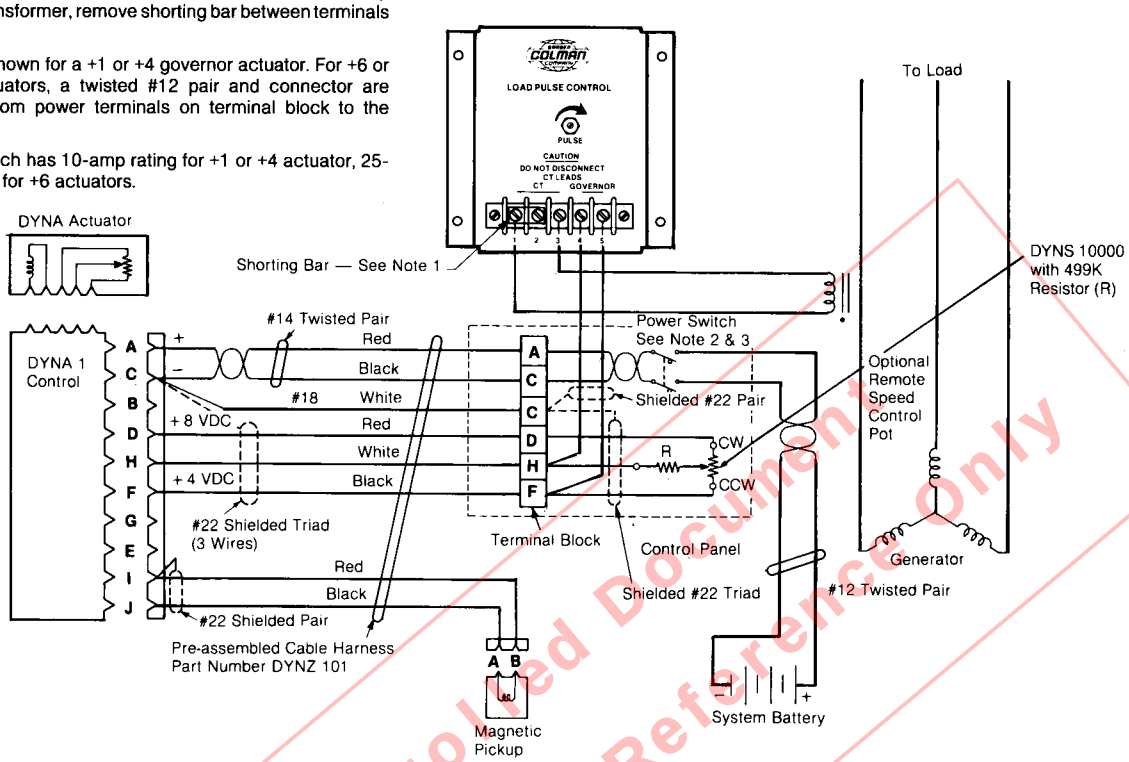
- **Operating Voltage**
  Unit obtains its power from the DYN1 Controller.
- **Ambient Operating Temperature**
  −55° to 85°C (−65° to 185°F).
- **Chassis Design**
  The chassis is sturdily constructed of steel and is designed for behind-the-panel mounting.
- **Vibration**
  Withstands the following vibration without failure or degraded performance: 0.06 inch double amplitude at 5 to 18 Hz; 1 G at 18 to 30 Hz; 0.02 inch double amplitude at 30 to 48 Hz; 2.5 G's at 48 to 70 Hz.
- **Shock**
  Withstands 15 G's in each of three mutually perpendicular axes.
- **Finish**
  Dark blue, baked enamel.
- **Weight**
  0.8 Kg (1.75 lb.).

Electrical Connections

Typical Connections between DYNA II Single Phase Load Pulse Control, DYN2 50000, and DYNA I Controller DYN1 10004 Series, DYN1 10114 Series

NOTES:

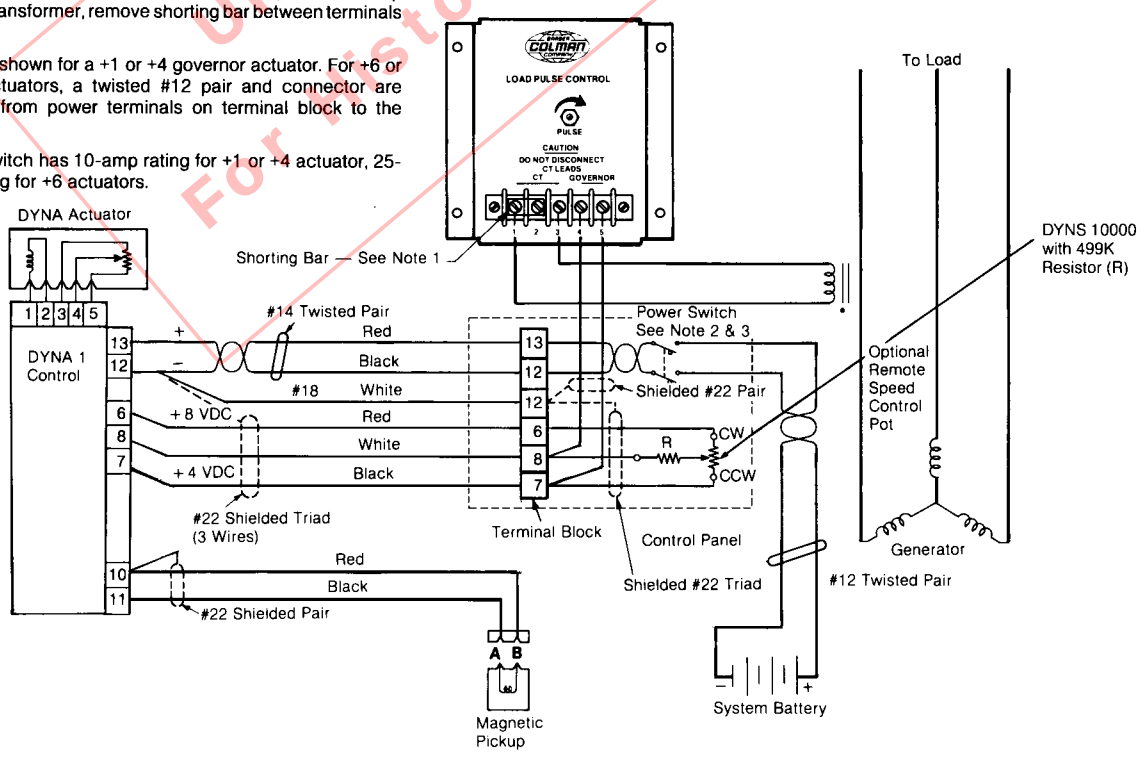
1. Connections shown are for use of single phase load pulse with a 5-amp current transformer. For use with a 1-amp current transformer, remove shorting bar between terminals 1 and 2.
2. Wiring is shown for a +1 or +4 governor actuator. For +6 or larger actuators, a twisted #12 pair and connector are required from power terminals on terminal block to the actuator.
3. Power switch has 10-amp rating for +1 or +4 actuator, 25-amp rating for +6 actuators.



Typical Connections between DYNA II Single Phase Load Pulse Control, DYN2 50000, and DYNA I Controller DYN1 10503, DYN1 10504 or DYN1 10506

NOTES:

1. Connections shown are for use of single phase load pulse with a 5-amp current transformer. For use with a 1-amp current transformer, remove shorting bar between terminals 1 and 2.
2. Wiring is shown for a +1 or +4 governor actuator. For +6 or larger actuators, a twisted #12 pair and connector are required from power terminals on terminal block to the actuator.
3. Power switch has 10-amp rating for +1 or +4 actuator, 25-amp rating for +6 actuators.



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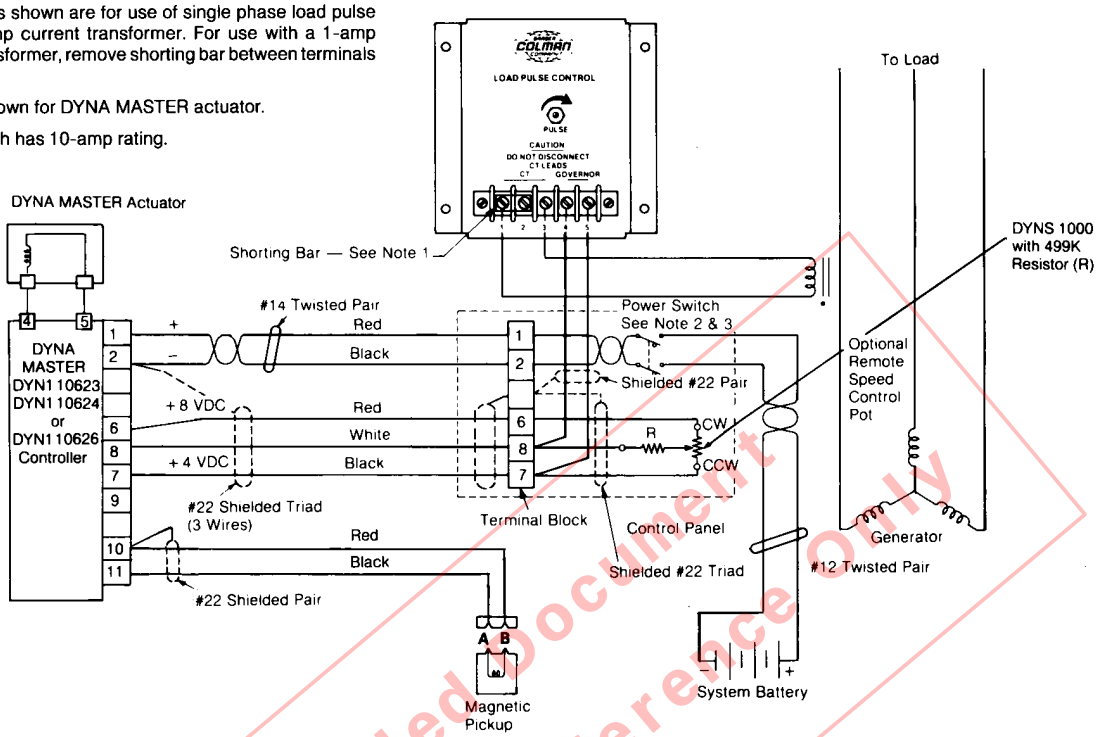
Electrical Connections

Typical Connections between DYNA II Single Phase Load Pulse Control, DYN2 50000, and DYNA MASTER Controller DYN1 10623, DYN1 10624 or DYN1 10626

NOTES:

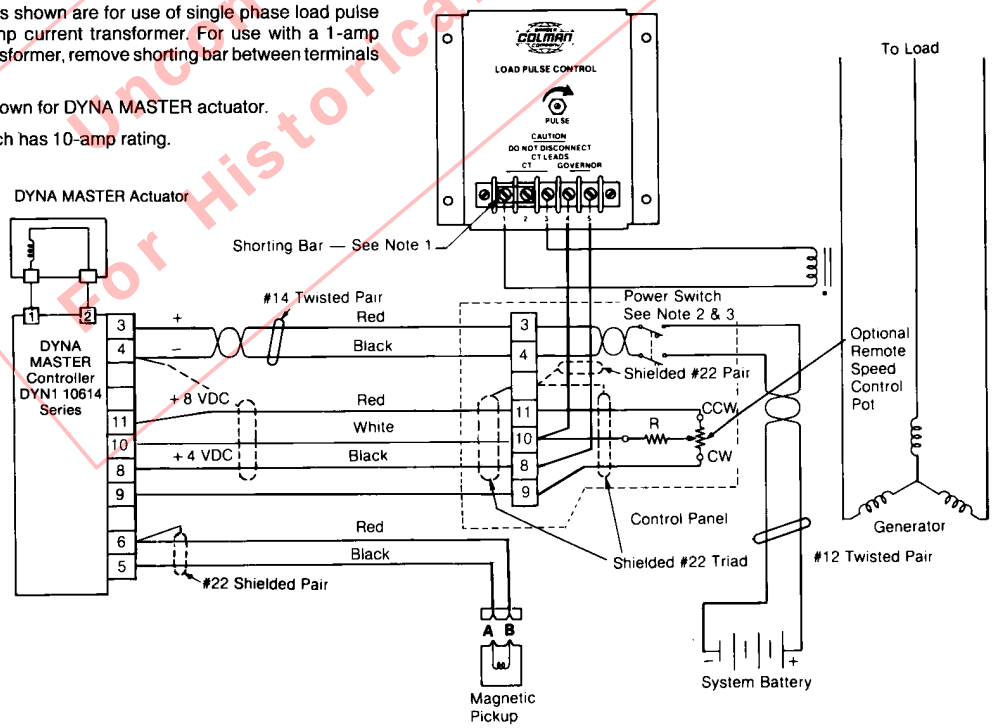
1. Connections shown are for use of single phase load pulse with a 5-amp current transformer. For use with a 1-amp current transformer, remove shorting bar between terminals 1 and 2.
2. Wiring is shown for DYNA MASTER actuator.
3. Power switch has 10-amp rating.



Typical Connections between DYNA II Single Phase Load Pulse Control, DYN2 50001, and DYNA MASTER Controller DYN1 10613, DYN1 10614 or DYN1 10616

NOTES:

1. Connections shown are for use of single phase load pulse with a 5-amp current transformer. For use with a 1-amp current transformer, remove shorting bar between terminals 1 and 2.
2. Wiring is shown for DYNA MASTER actuator.
3. Power switch has 10-amp rating.



*Shielded Cable — Should be purchased from Barber-Colman or customer should purchase a cable with a wrapped mylar supported aluminum foil shield with a drain wire.

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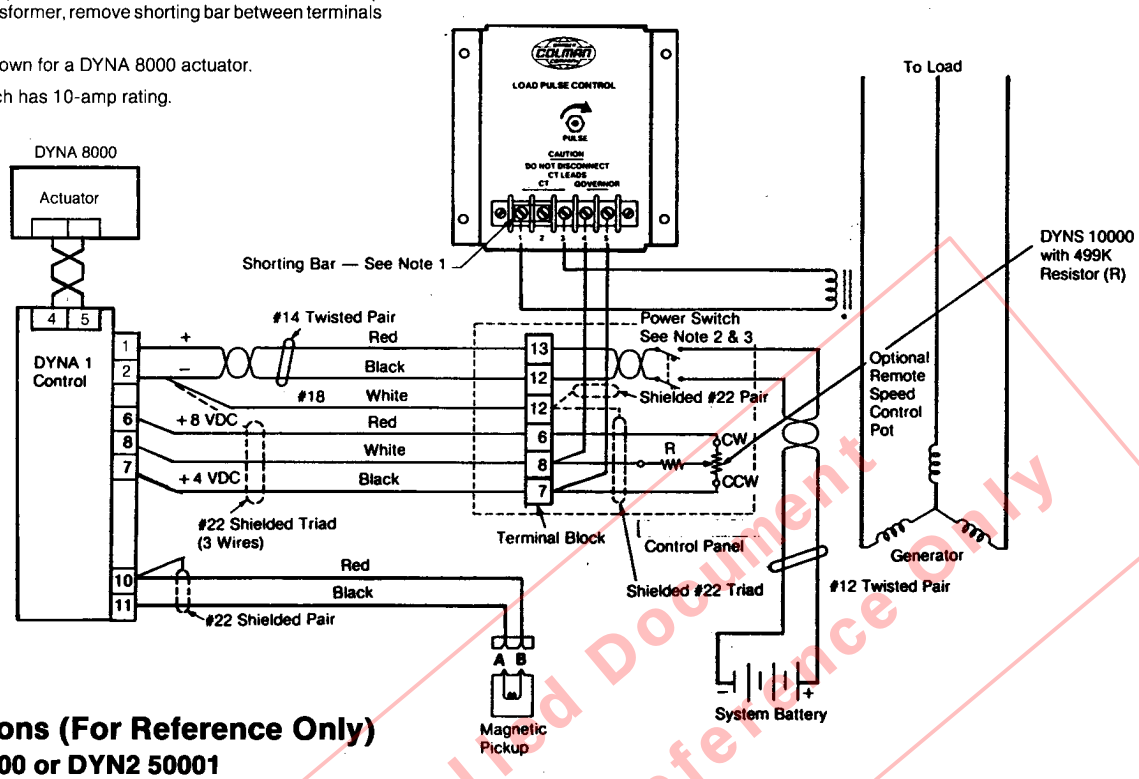
Electrical Connections

Typical Connections between DYNA II Single Phase Load Pulse Control, DYN2 50000, and DYNA 8000 Controller DYN1 10652, DYN1 10653, DYN1 10654 or DYN1 10656

NOTES:

1. Connections shown are for use of single phase load pulse with a 5-amp current transformer. For use with a 1-amp current transformer, remove shorting bar between terminals 1 and 2.
2. Wiring is shown for a DYNA 8000 actuator.
3. Power switch has 10-amp rating.



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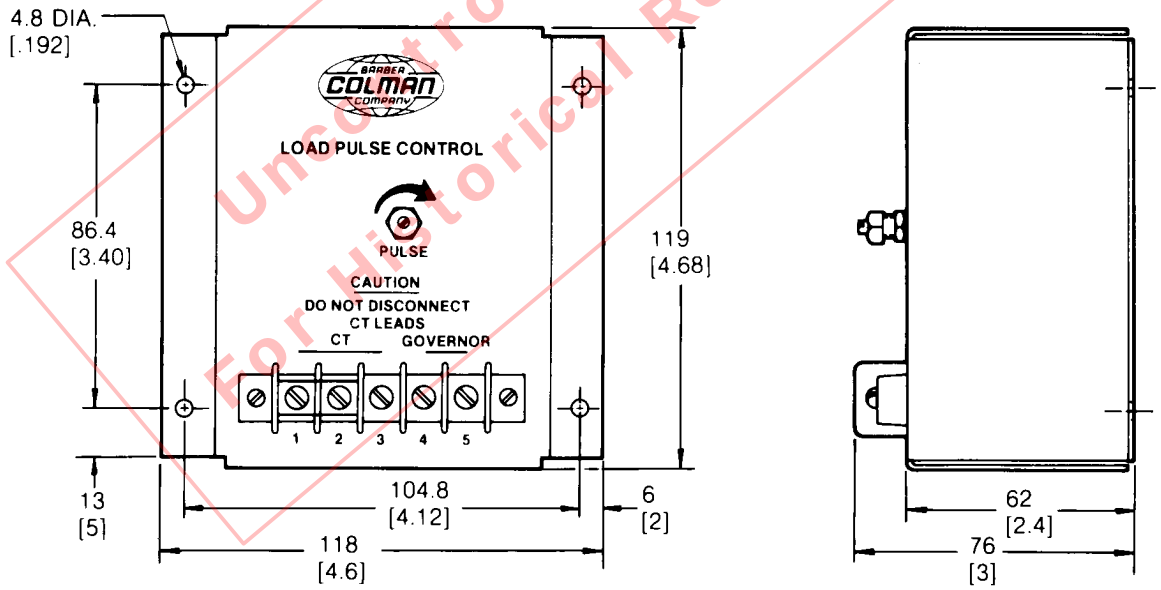
Dimensions (For Reference Only)

DYN2 50000 or DYN2 50001



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Dimensions in Millimeters
Inches in Brackets [ ]

NOTE

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