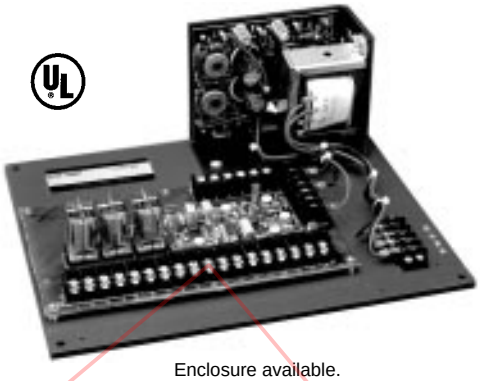
DYNA II Load Commander

General

The Barber-Colman DYNA II Load Commander is used to control the power level on one or more engine generator sets when in parallel with an infinite bus.

The Load Commander impresses a signal on the paralleling lines of the Isochronous Load Sharing Control to dictate the percentage load being carried by the generators. The input to the Load Commander can be manual or various automatic control signals.

Various systems can be constructed to cause the generators to provide a constant power, the commercial power to be constant or to modulate the generator power in different manners.



Enclosure available.

Standard Features

- **DYNA I All-Electric Governor Compatibility**

  The DYNA II Load Commander operates with the DYNA I all-electric governor system equipped with a Barber-Colman Isochronous Load Module.

- **Adjustable Load Capability**

  The Load Commander is capable of controlling the generator load from 0 to 100 percent capacity.

- **Load Ramping**

  This standard feature permits the generators to be ramped up or down for additions or subtractions of power level on the engine generator. The ramp time is adjustable.

- **Adjustable High and Low Limits**

  Electrical limits are internally adjustable to limit the maximum and minimum percentage of power provided by the generators.

- **Accepts Automatic Synchronizer Input**

  One or more generators can be automatically synchronized to the commercial power.

- **Accepts Time Correction Signals**

  When the generators are providing the only power, time correction signals can be used to provide more accurate frequency control.

- **Bumpless Transition When Paralleling to Commercial Power**

  A smooth transition of power delivery is made even when the generators are carrying load prior to paralleling to commercial power.

- **Governors Operated in Isochronous Mode**

  Because the governors are not operated in droop, they are readily available without extra switching for auxiliary power generation.

- **Versatile Operation**

  Various additional items are readily available to provide a wide range of system flexibility. The input signal can be provided from a manual or motor-driven potentiometer, various controllers, an isochronous load sharing control or any one of several control units.

- **Simple Installation**

  The Load Commander uses all electronic control circuitry but also includes high quality relays to provide simple installation by the user.

Specifications

- **Operating Voltage**

  The Load Commander will operate from 115 VAC ±10% or 230 VAC ±10%, 50 or 60 Hz and a maximum burden of 25 VA.

- **Ambient Operating Temperature**

  -55° to 85°C (-65° to 185°F).

- **Enclosure**

  An optional oil-tight, steel JIC enclosure is available upon request.

- **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.

Specifications (Cont.)

- **Shock**

  Withstands 15 G's in each of three mutually perpendicular axes.

- **Weight**

  7.9 Kg (17.3 lbs.)

- **Mounting Attitude**

  Any position (panel or wall).

- **Finish**

  Dark blue, baked enamel.

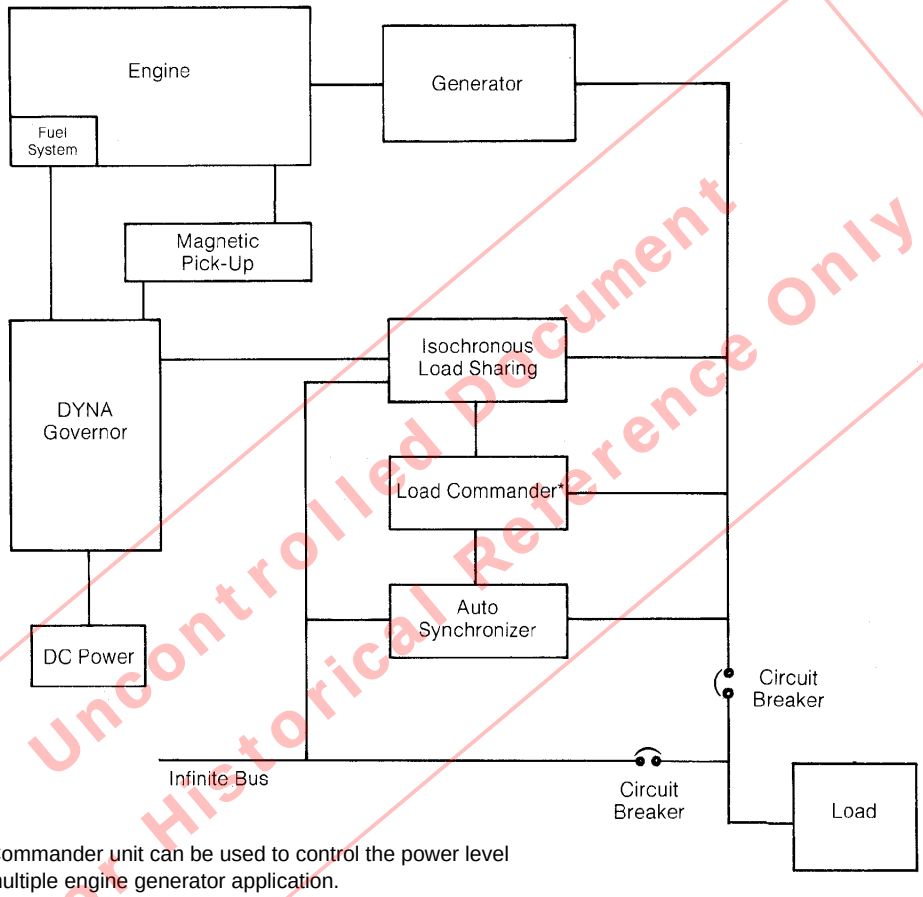
- **No Special Maintenance**

- **Calibration Sheet**

  F-18920

BASIC DYNA LOAD COMMANDER SYSEM

Block Diagram



* A single Load Commander unit can be used to control the power level on a single or multiple engine generator application.

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— NOTE —
Barber-Colman believes that all information provided herein is correct and reliable and reserves the right to update at any time. Barber-Colman does not assume any responsibility for its use unless otherwise expressly undertaken.

— CAUTION —
As a safety measure, the engine should be equipped with an independent overspeed shutdown device in the event of failure which may render the governor inoperative.