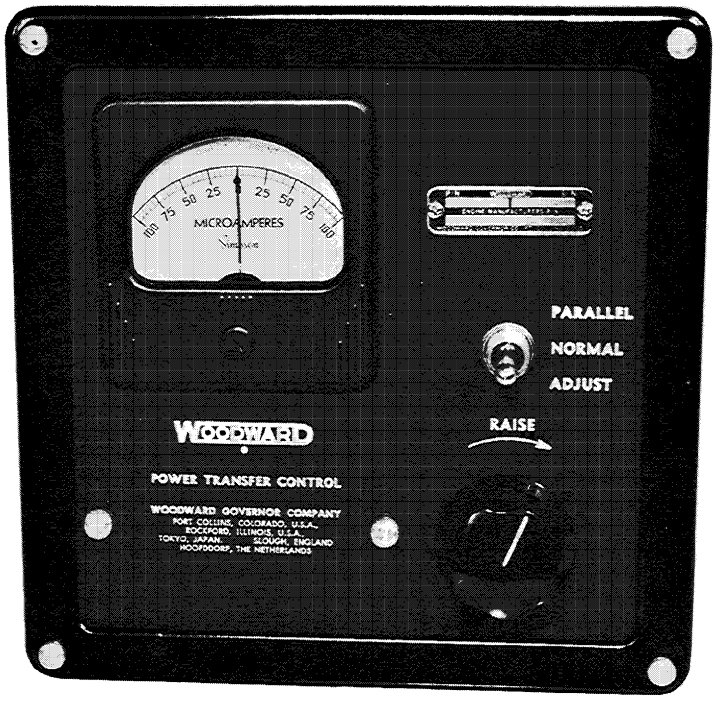
WOODWARD

Product Manual 37714
(Revision B)
Original Instructions



EG Power Transfer Control

Operation Manual

General Precautions

Read this entire manual and all other publications pertaining to the work to be performed before installing, operating, or servicing this equipment.

Practice all plant and safety instructions and precautions.

Failure to follow instructions can cause personal injury and/or property damage.

Revisions

This publication may have been revised or updated since this copy was produced. To verify that you have the latest revision, check manual *26311* , *Revision Status & Distribution Restrictions of Woodward Technical Publications*, on the *publications page* of the Woodward website:

www.woodward.com/publications

The latest version of most publications is available on the *publications page*. If your publication is not there, please contact your customer service representative to get the latest copy.

Proper Use

Any unauthorized modifications to or use of this equipment outside its specified mechanical, electrical, or other operating limits may cause personal injury and/or property damage, including damage to the equipment. Any such unauthorized modifications: (i) constitute "misuse" and/or "negligence" within the meaning of the product warranty thereby excluding warranty coverage for any resulting damage, and (ii) invalidate product certifications or listings.

Translated Publications

If the cover of this publication states "Translation of the Original Instructions" please note:

The original source of this publication may have been updated since this translation was made. Be sure to check manual *26311* , *Revision Status & Distribution Restrictions of Woodward Technical Publications*, to verify whether this translation is up to date. Out-of-date translations are marked with ⚠. Always compare with the original for technical specifications and for proper and safe installation and operation procedures.

Contents

Illustrations and Tables

Warnings and Notices

Important Definitions

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

- **DANGER**—Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
- **WARNING**—Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- **CAUTION**—Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- **NOTICE**—Indicates a hazard that could result in property damage only (including damage to the control).
- **IMPORTANT**—Designates an operating tip or maintenance suggestion.

⚠WARNING

Overspeed / Overtemperature / Overpressure

The engine, turbine, or other type of prime mover should be equipped with an overspeed shutdown device to protect against runaway or damage to the prime mover with possible personal injury, loss of life, or property damage.

The overspeed shutdown device must be totally independent of the prime mover control system. An overtemperature or overpressure shutdown device may also be needed for safety, as appropriate.

⚠WARNING

Personal Protective Equipment

The products described in this publication may present risks that could lead to personal injury, loss of life, or property damage. Always wear the appropriate personal protective equipment (PPE) for the job at hand. Equipment that should be considered includes but is not limited to:

- **Eye Protection**
- **Hearing Protection**
- **Hard Hat**
- **Gloves**
- **Safety Boots**
- **Respirator**

Always read the proper Material Safety Data Sheet (MSDS) for any working fluid(s) and comply with recommended safety equipment.

⚠WARNING

Start-up

Be prepared to make an emergency shutdown when starting the engine, turbine, or other type of prime mover, to protect against runaway or overspeed with possible personal injury, loss of life, or property damage.

⚠WARNING

Automotive Applications

On- and off-highway Mobile Applications: Unless Woodward's control functions as the supervisory control, customer should install a system totally independent of the prime mover control system that monitors for supervisory control of engine (and takes appropriate action if supervisory control is lost) to protect against loss of engine control with possible personal injury, loss of life, or property damage.

NOTICE

Battery Charging Device

To prevent damage to a control system that uses an alternator or battery-charging device, make sure the charging device is turned off before disconnecting the battery from the system.

Electrostatic Discharge Awareness

NOTICE

Electrostatic Precautions

Electronic controls contain static-sensitive parts. Observe the following precautions to prevent damage to these parts:

- **Discharge body static before handling the control (with power to the control turned off, contact a grounded surface and maintain contact while handling the control).**
- **Avoid all plastic, vinyl, and Styrofoam (except antistatic versions) around printed circuit boards.**
- **Do not touch the components or conductors on a printed circuit board with your hands or with conductive devices.**

To prevent damage to electronic components caused by improper handling, read and observe the precautions in Woodward manual *82715*, *Guide for Handling and Protection of Electronic Controls, Printed Circuit Boards, and Modules*.

Follow these precautions when working with or near the control.

1. Avoid the build-up of static electricity on your body by not wearing clothing made of synthetic materials. Wear cotton or cotton-blend materials as much as possible because these do not store static electric charges as much as synthetics.
2. Do not remove the printed circuit board (PCB) from the control cabinet unless absolutely necessary. If you must remove the PCB from the control cabinet, follow these precautions:
   - Do not touch any part of the PCB except the edges.
   - Do not touch the electrical conductors, the connectors, or the components with conductive devices or with your hands.
   - When replacing a PCB, keep the new PCB in the plastic antistatic protective bag it comes in until you are ready to install it. Immediately after removing the old PCB from the control cabinet, place it in the antistatic protective bag.

Chapter 1.
General Information

Introduction

This manual provides general information installation instructions, operating information, principles of operation, maintenance, and replaceable parts information for the EG Power Transfer Control. Contact Woodward for information concerning specialized applications, or for information not included in this manual.

Purpose

The power transfer control (see Specifications below) is primarily designed to transfer load from a commercial bus to a local bus and vice versa. As a secondary function, the power transfer control provides a means of manually synchronizing the local bus to the commercial bus by adjusting the front-panel RAISE control before the main breaker is closed. After the breaker is closed, adjusting the front-panel RAISE control provides the power transfer function by loading or unloading the local bus.

Description

The power transfer control consists of a 7-3/8 inch (187 mm) square panel assembly (see Figures 1-2, 1-3, and 1-4) which is designed to be mounted in the master control panel for the generating system. The meter and the controls are available on the front of the panel assembly. The remainder of the components are either mounted on the back side of the panel itself or on the 3 x 3-1/2 inch (76 x 89 mm) printed circuit board (PCB). Power and output connections are made to a 6- or 12-pin terminal strip on the back of the panel.

Specifications

Output

Maximum Level:	6.5 V (16 V for LSG governors)
Maximum Units on Parallel Lines:	7

Power

Voltage:	120/208 V, 50/60 Hz, 3-phase
Tolerance:	20%

Construction

PCB:	3 x 3-1/2” (76 x 89 mm)
Panel:	7-3/8 x 7-3/8 (187 x 187 mm)
Connections:	To 6-pin or 12-pin terminal strip
Weight:	Approx. 6 lb (3 kg)

Mounting

Attitude:	Any position
Location:	Anywhere convenient except on engine
Bolts:	8-32 x 3/4 fil. hd. (4)

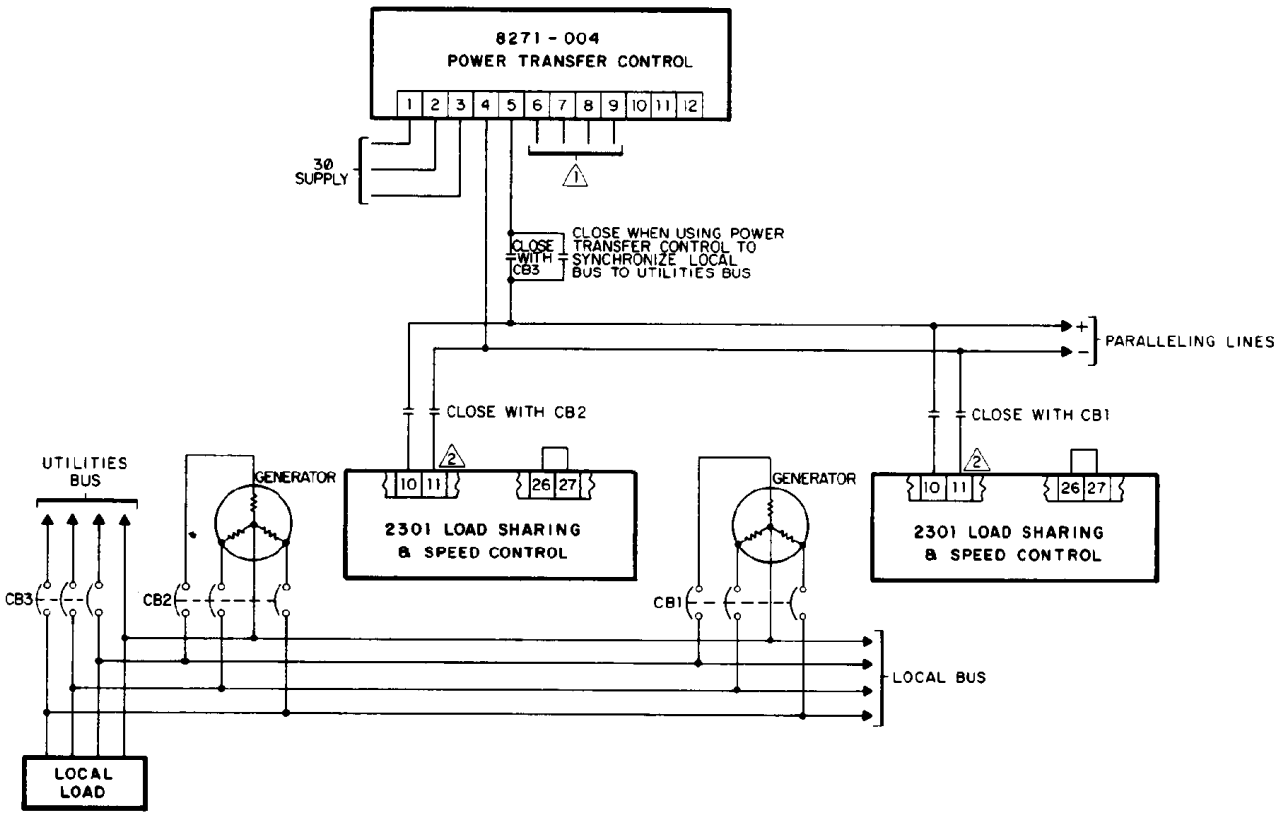


Figure 1-1. Plant Wiring for a Typical Application

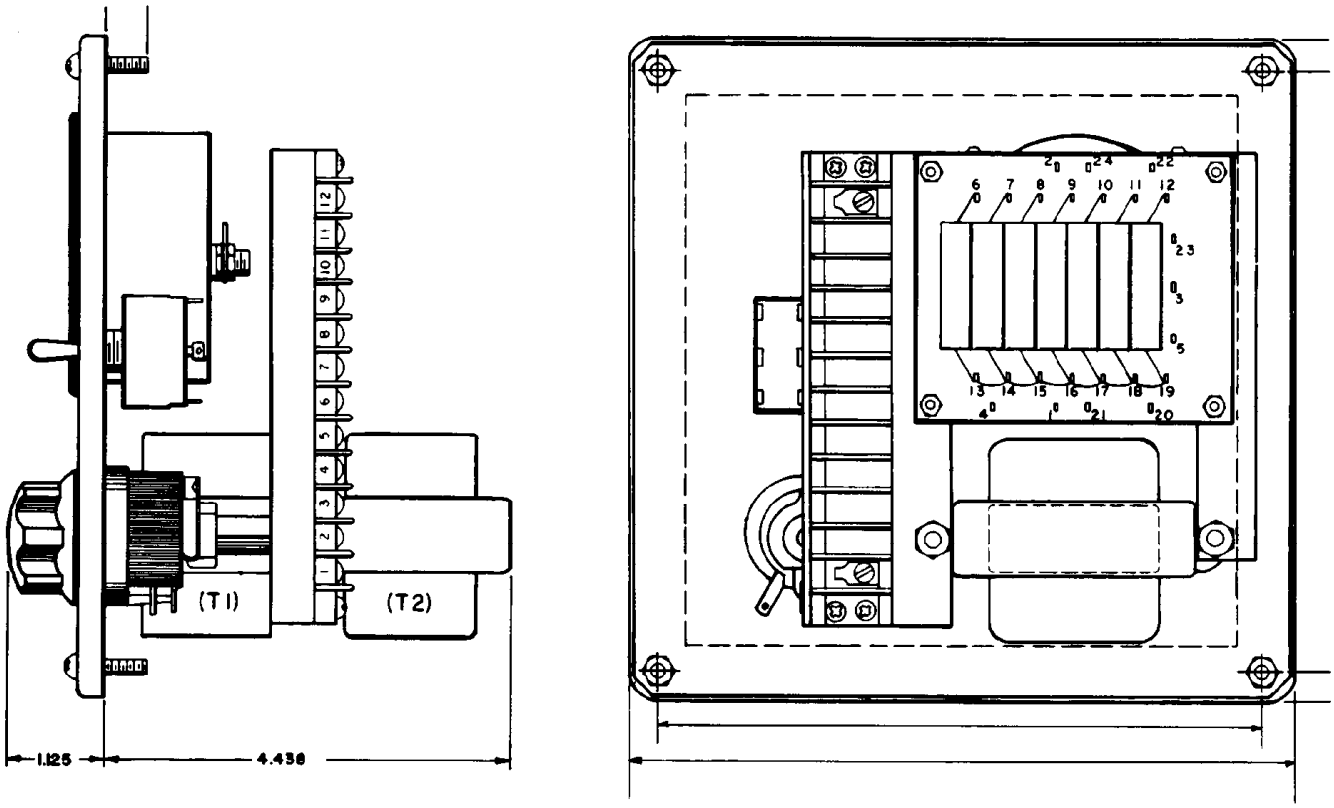


Figure 1-2. Outline Drawing of the EG Series Power Transfer Control

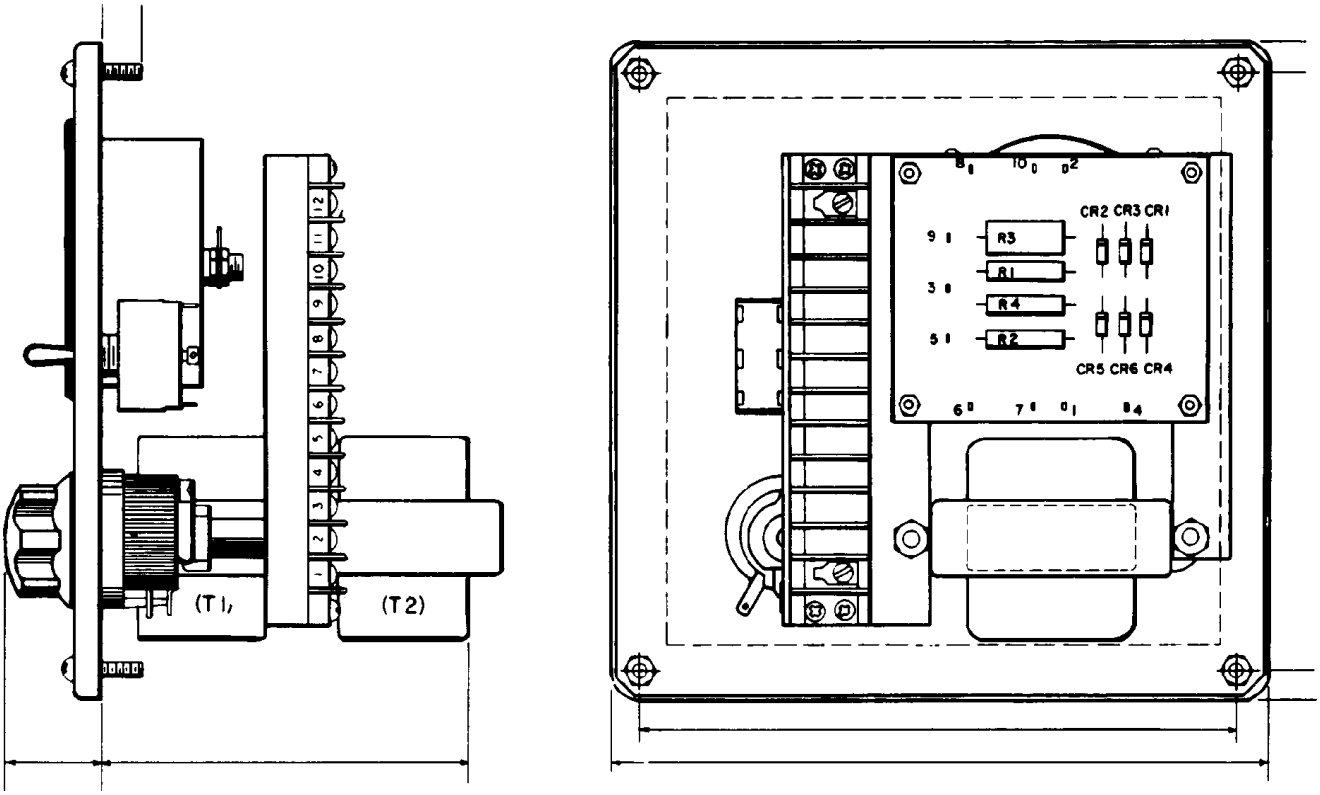


Figure 1-3. Outline Drawing of the 2301 Power Transfer Control

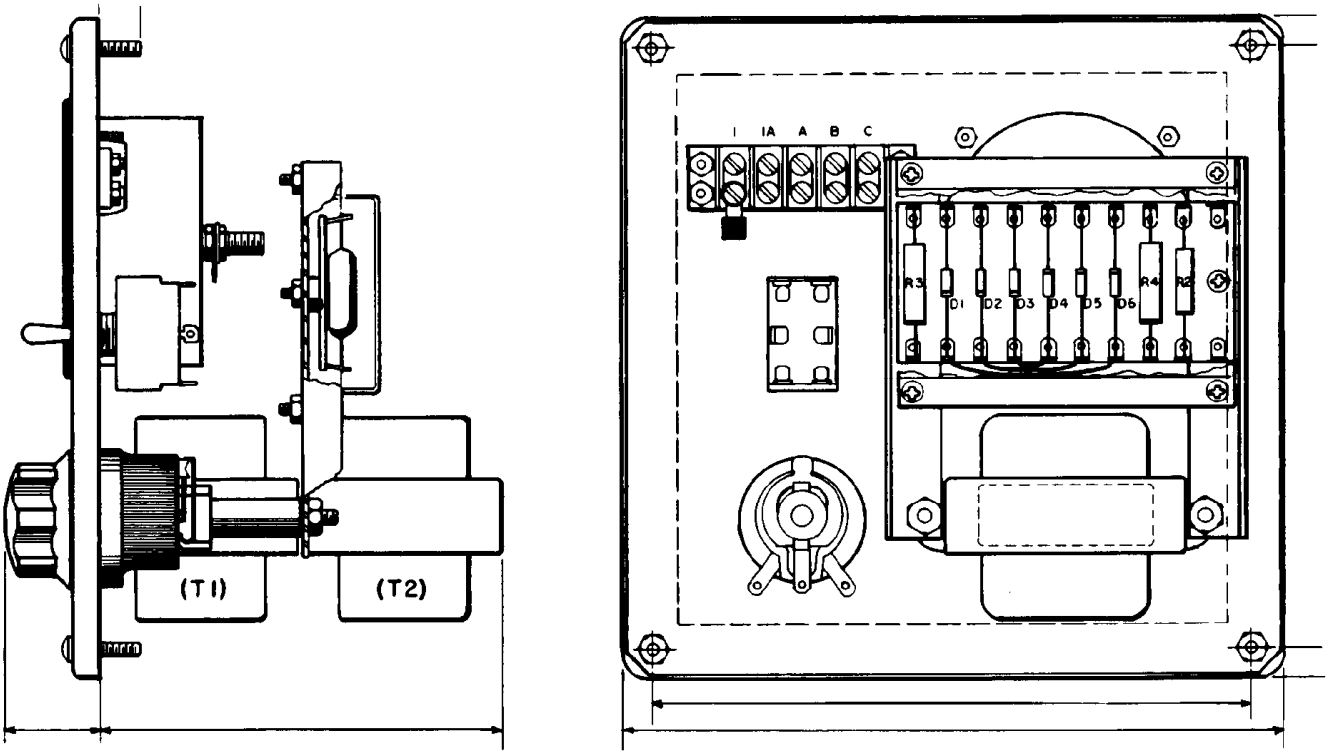


Figure 1-4. Outline Drawing of the LSG Power Transfer Control

Chapter 2.
Installation and Operation

Unpacking

Take care when unpacking the power transfer control assembly. Inspect the unit for any signs of damage such as bent or dented panels, scratches, or loose or broken parts. If any damage is found, immediately notify the carrier and Woodward.

Power Requirements

The power transfer control is capable of operating with either 120 V three-phase or 208 V three-phase operating voltage. Figures 3-1, 3-2, and 3-3 show the power transformers and output terminal connections. Before operating, check the transformer wiring to ensure that it is wired for the desired operating voltage.

Electrical Connections

A plant wiring for a typical application (Figure 1-1) provides point by point external wiring connections for a power transfer control. Use a two-conductor shielded cable between the power transfer control and the electric governing control. The shield should be connected to circuit common at the electronic governor control end only.

The wiring schematics (Figures 3-1, 3-2, and 3-3) show the wiring connections for each of the different power transfer controls. On the EG power transfer control, terminals 6 through 12 are connected to terminal 21 of each EGA Control Box connected to the parallel lines (or to terminal 11 on each EGM Control Box).

Operation

Controls

Parallel/Normal/Adjust Switch—The Parallel/Normal/Adjust switch (see Figure 2-1) selects the operating mode of the power transfer control. The PARALLEL position couples the control signal directly to the paralleling lines. The NORMAL position open circuits the control signal from the paralleling mm. The ADJUST position couples the control signal through the front-panel meter to allow adjustment of the control signal to match the load signal at the load sensor.

IMPORTANT **The Parallel/Normal/Adjust switch must be in the PARALLEL position whenever the local units are connected to the commercial bus.**

Raise Control—The RAISE control determines the amount of artificial load signal applied to the electric governing control. Clockwise rotation increases the output voltage and increases this signal to increase the power transfer to the local bus. Slight adjustment of the RAISE control while observing the synchroscope allows the operator to manually synchronize the local bus to the commercial bus before the load is transferred.

Figure 2-1. Controls and Indicator

Meter Display—The front-panel microammeter displays the difference between the artificial and the actual load signal when the front-panel switch is in the ADJUST position. The meter indicates 0 mA current at center scale, and moves in a positive or negative direction when the artificial load signal is greater than or less than the actual load signal.

Operating Procedure

Plant Loading—The following procedural steps explain the proper procedure to follow to transfer load from a commercial bus to the local bus (local plant).

1. Set the power transfer control PARALLEL/NORMAL/ADJUST switch to NORMAL.
2. Complete the pre-start instructions outlined in appropriate electric control unit and actuator manuals.
3. Start the prime movers in accordance with manufacturer's instructions.
4. Set the RAISE control CCW (counterclockwise).
5. Set the PARALLEL/NORMAL/ADJUST switch to PARALLEL.
6. Synchronize the local units to the local bus.
7. Close unit circuit breakers to put the local units onto the local bus (the local units will take on a small amount of load).

8. Slowly adjust the RAISE control clockwise (CW) (all engine-generator sets in local plant will take on load, each in proportion to its size) until switchboard instruments show that the local plant is carrying all the load and that no power is being supplied by the commercial bus.

9. Open the main circuit breaker between the local bus and the commercial bus.

10. Set the PARALLEL/NORMAL/ADJUST switch to NORMAL.

Plant Unloading—The following procedural steps explain the proper procedure to follow to transfer load from the isolated local bus back to a commercial bus.

1. Set the PARALLEL/NORMAL/ADJUST switch to ADJUST.

2. Adjust the RAISE control as required until the panel-mounted meter indicates 0 µA (center scale).

3. Set the PARALLEL/NORMAL/ADJUST switch to PARALLEL.

4. Synchronize the local bus to the commercial bus using an automatic synchronizer or manually as follows:
   a. Energize the synchroscope or synchronizing lights.
   b. Adjust the RAISE control slightly CW or CCW as required to synchronize the local bus with the commercial bus.

5. Close the main circuit breaker to put the local bus on the commercial bus.

6. Adjust the RAISE control slowly CCW to unload all the engine-generator sets in the local plant simultaneously, each in proportion to its size.

7. When the local plant is unloaded, open the circuit breakers for the individual engine-generator sets.

Chapter 3.
Principles of Operation

Introduction

Circuit theory is the same for all versions of the Power Transfer Control. As shown in the detailed schematic diagrams (Figures 3-1, 3-2, and 3-3), there are three basic versions of the control: the EG series, 2301, and LSG type.

2301 and LSG Control

The three-phase input voltage applied to step-down transformers TI and T2 is rectified by full wave rectifiers CR1/CR4, CR2/CR5, and CR3/CR6. The positive output voltage from diodes CR1 through CR3 is the supply output, the negative voltage from diodes CR4 through CR6 is the tic common.

The positive supply voltage is applied through series resistor R3 and applied to the PARALLEL/NORMAL/ADJUST switch, S1-1. When S1 is set to either PARALLEL or ADJUST, the positive voltage is connected to RAISE potentiometer R1. The other end of R1 is connected through series resistor R2 to dc common. The value of resistors R2 and R3 determines the minimum and maximum voltage levels to the paralleling lines.

Setting S1 to PARALLEL connects the wiper output of RAISE potentiometer R1 directly to series resistor R4 and into the paralleling lines. Setting S1 to NORMAL disconnects the RAISE potentiometer from the paralleling lines. The ADJUST position connects the control voltage from front-panel meter M1 through switch contacts S1-2 to series resistor R4 and into the paralleling lines.

EG Series Control

The power transfer control for the EG series electric governing control is the same as the standard control described earlier. The only exception is the addition of suppressor capacitors C1 through C7. The suppressor capacitors are connected to the summing point input of the individual electric governing controls which are connected to the paralleling lines.

Setting S1 to PARALLEL connects dc common through S1-3 to the common side of the suppressor capacitors. When S1 is set to NORMAL or ADJUST, dc common is disconnected from the capacitors, effectively disconnecting the capacitors from the electric governing controls.

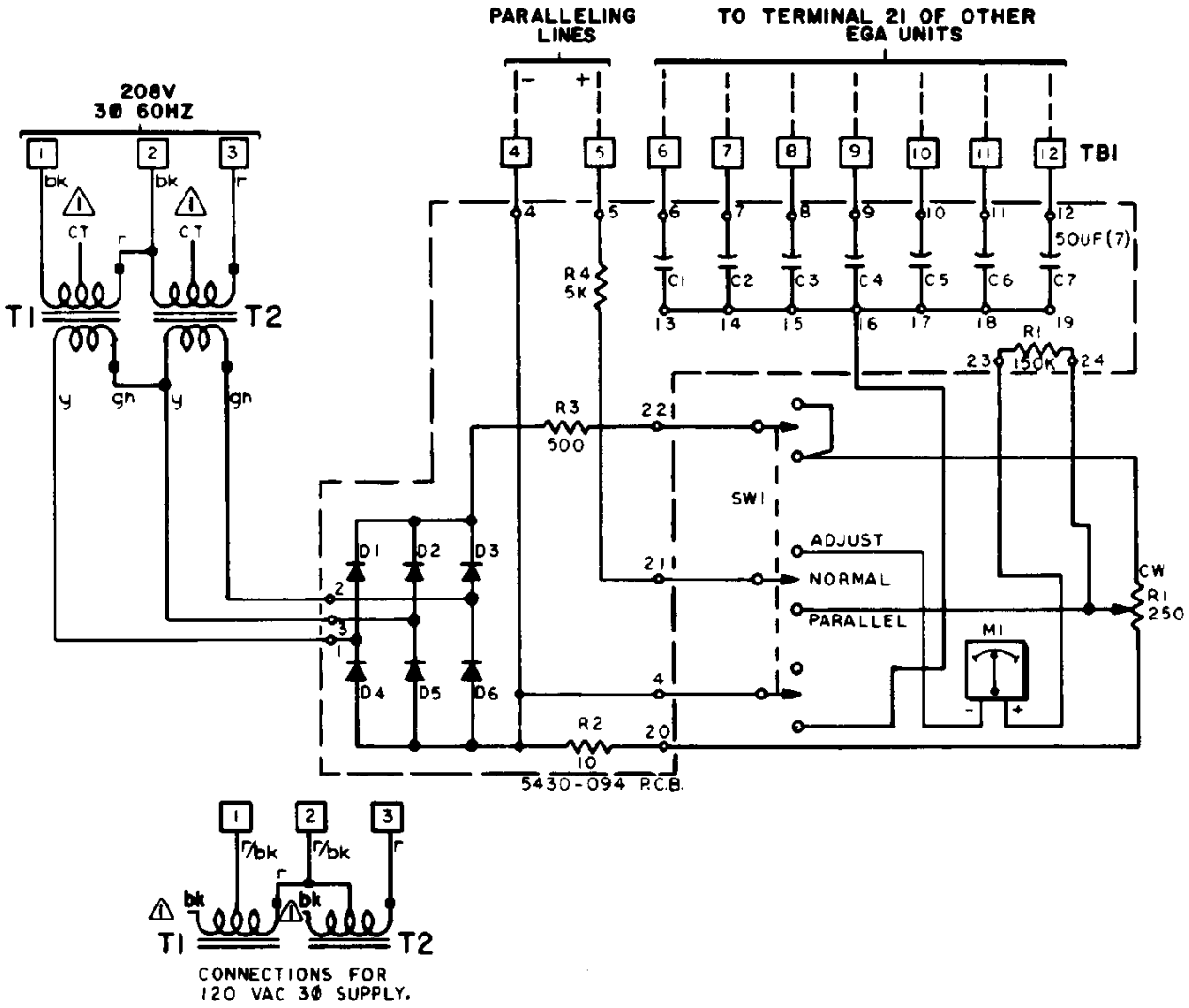


Figure 3-1. Wiring Schematic of the EG Series Power Transfer Control

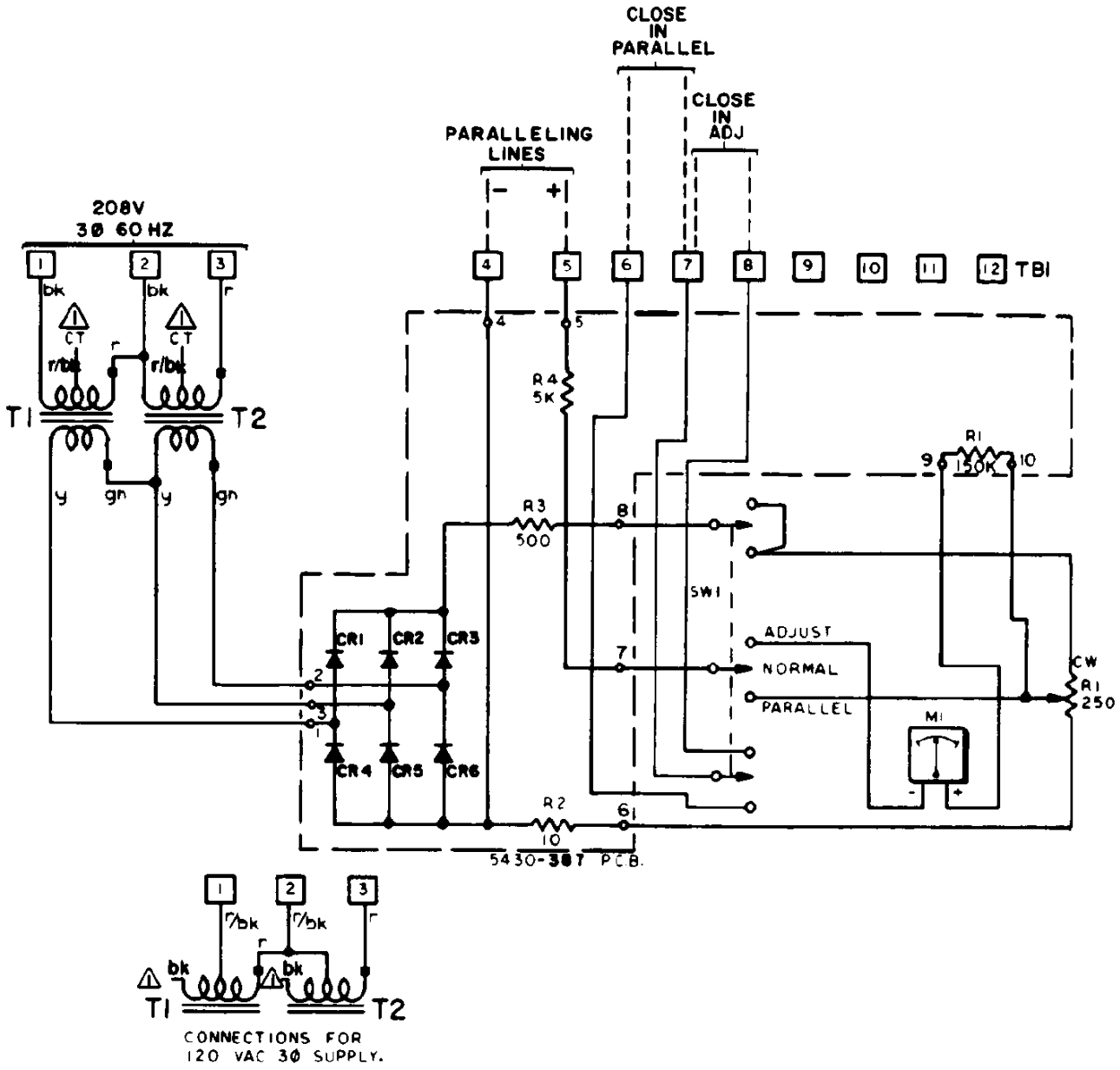


Figure 3-2. Wiring Schematic of the 2301 Power Transfer Control

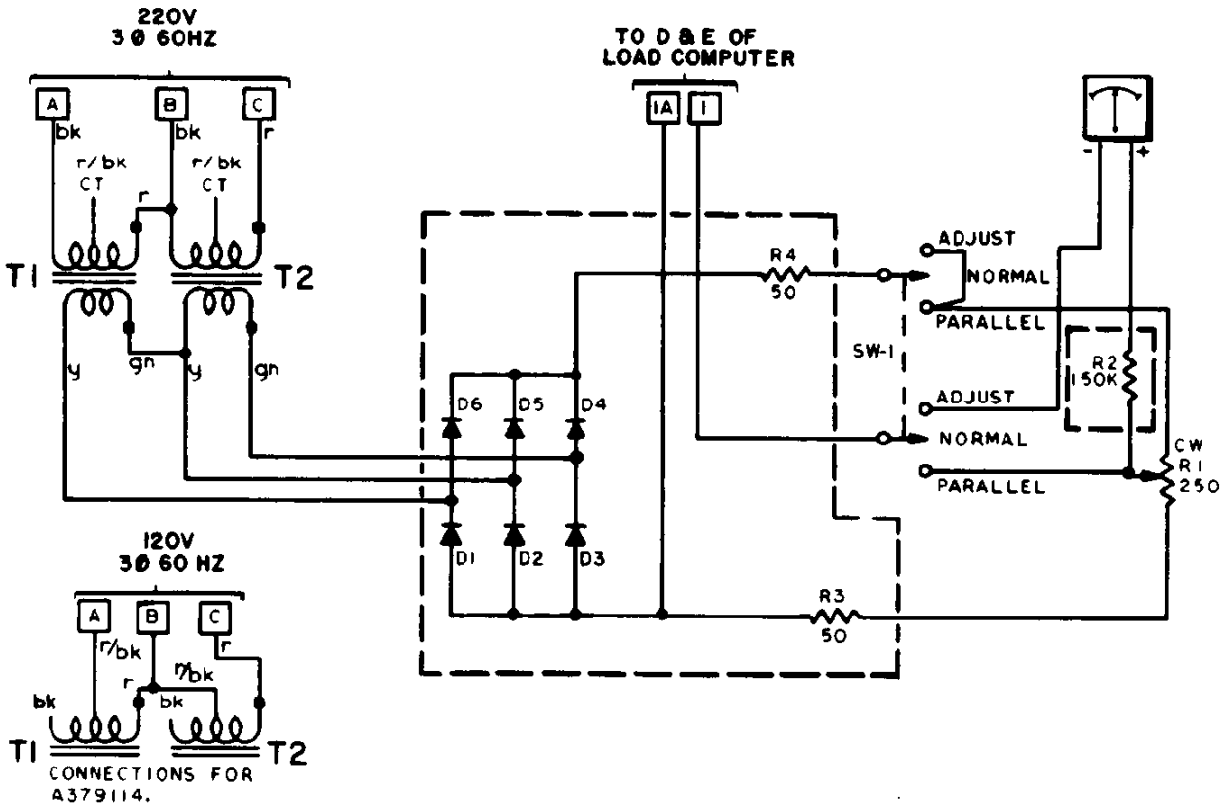


Figure 3-3. Wiring Schematic of the LSG Power Transfer Control

Chapter 4. Maintenance

Bench Performance Check

The only test equipment required to maintain the power transfer control is a Simpson Model 260 volt-ohm-ammeter or equivalent. If the power transfer control fails to perform as follows, check the circuit wiring and the individual components using the basic power transfer control schematic diagrams (Figures 3-1, 3-2, and 3-3).

1. Connect a three-phase input voltage to the appropriate transformer configuration.

2. Set the PARALLEL/NORMAL/ADJUST switch to NORMAL.

3. Measure the voltage from PCB terminal 22 to terminal 20 (output of R3 to output of R2 if terminal numbering differs from that shown in Figures 3-1, 3-2, and 3-3). Test result: 19 ±1 Vdc.

4. Set the PARALLEL/NORMAL/ADJUST switch to PARALLEL.

5. Measure the voltage from PCB terminal 21 to terminal 20 with front-panel RAISE control at maximum CCW (counterclockwise) and at maximum CW (clockwise). Test Result: 0.25 to 6.5 V (or 2.7 to 16.3 V with R2 and R3 each 50 Ω for LSG version).

6. Set the PARALLEL/NORMAL/ADJUST switch to ADJUST.

7. Apply +4.5 V to chassis terminals 4(–) and 5(+) (paralleling line outputs).

8. Adjust the RAISE potentiometer from end-to-end to ensure that meter M1 can be zeroed.

Servicing Etched Circuit Board

The power transfer control uses a double-sided printed circuit board with plated through-holes. Plated through-holes permit component removal or replacement by soldering or unsoldering from either side of the board.

When soldering, use a low wattage soldering iron (25–30 W) with a small pencil tip to avoid damaging the PCB. After removing a component, clean all remaining solder from the mounting holes using a desoldering tool (such as Soldapullt, manufactured by Edsyn Company of California) or a toothpick.

Chapter 5.
Replacement Parts

When ordering replacement parts for the power transfer control, it is essential to include the following information:

- Unit part number and serial number (shown on nameplate). These are needed since the manual reference numbers do not identify the actual part number for any specific power transfer control assembly.
- Manual number (this is manual 37714).
- Item number (shown in Figures 5-1, 5-2, and 5-3) and description of part.

Figures 5-1, 5-2, and 5-3 show all the replaceable parts for the power transfer control. Each part in the breakdown is indexed to the parts list. The reference number does not identify the actual pert number for any specific power transfer control assembly. From the information given, Woodward will determine the correct pert for your specific unit.

Parts List For Figure 5-1

Ref. No.	Part Name	Quantity
37714-1	Panel, power transfer control	1
37714-2	Meter, 100/0/100 micro amp	1
37714-3	Board assy., power transfer control	1
37714-4	Transformer, rectifier pack	2
37714-5	Terminal block	1
37714-6	Bracket, terminal board	1
37714-7	Potentiometer, 250 ohm	1
37714-8	Switch, 3PDT CTR OFF	1
37714-9	Bezel (not shown)	1
37714-10	Knob, ohmite (not shown)	1
37714-11 through 37714-20		Not used

Figure 5-1. Illustrated Parts Breakdown (EG)

Parts List For Figure 5-2

Ref. No.	Part Name..... Quantity
37714-21	Panel, power transfer control.....1
37714-22	Meter, 100/0/100 micro amp.....1
37714-23	Board assy., power transfer control.....1
37714-24	Transformer, rectifier pack.....2
37714-25	Terminal block.....1
37714-26	Bracket, terminal block.....1
37714-27	Bracket, terminal block.....1
37714-28	Potentiometer, 250 ohm.....1
37714-29	Switch, 3PDT CTR OFF.....1
37714-30	Bezel (not shown).....1
37714-31	Knob, ohmite (not shown).....1
37714-32 through 37714-42	..... Not used

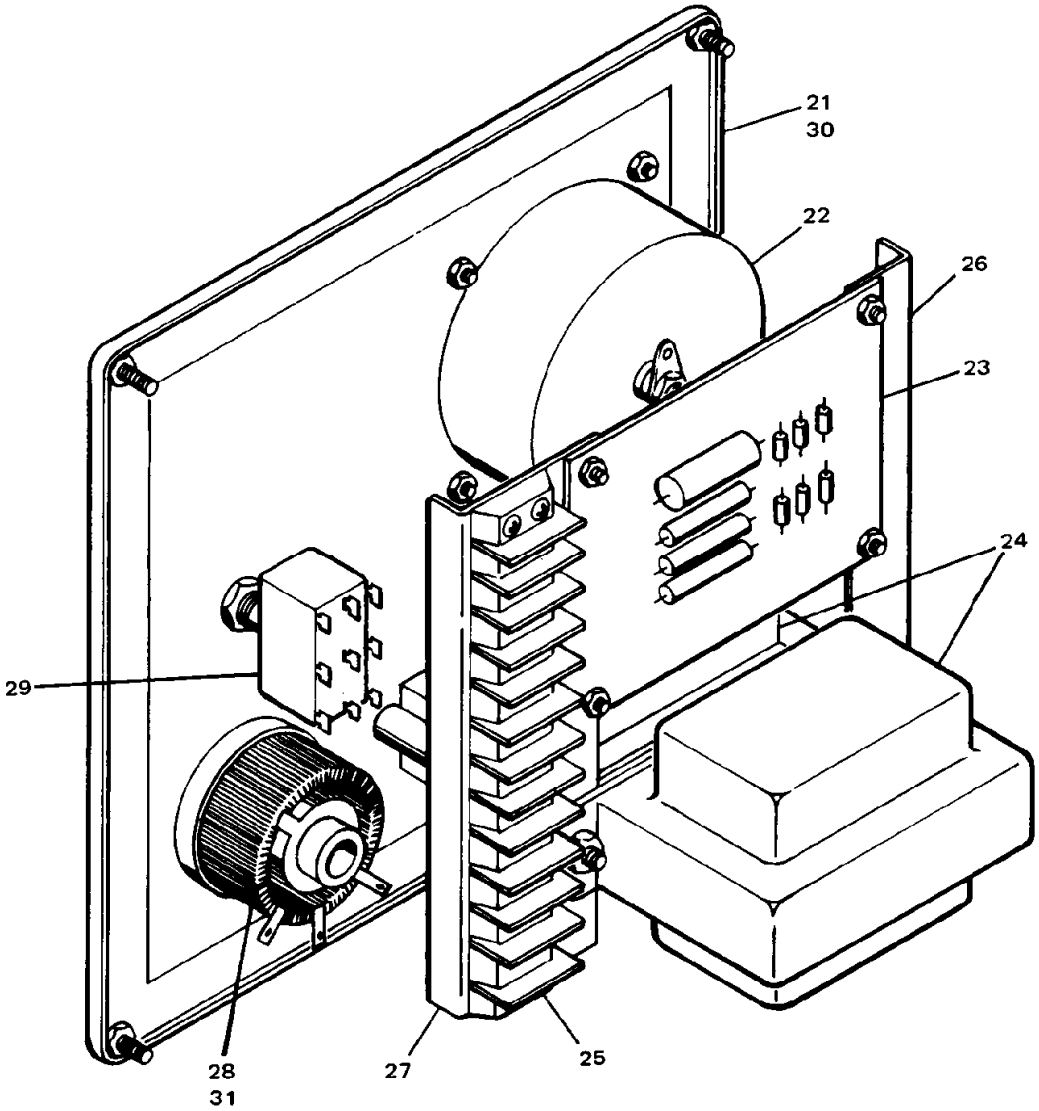


Figure 5-2. Illustrated Parts Breakdown (2301)

Parts List For Figure 5-3

Ref. No.	Part Name	Quantity
37714-43	Panel, power transfer control	1
37714-44	Meter, 100/0/100 micro amp	1
37714-45	Board assy., power transfer control	1
37714-46	Transformer, rectifier pack	2
37714-47	Terminal block	1
37714-48	Bracket, terminal board	1
37714-49	Bracket, terminal board	1
37714-50	Potentiometer, 250 ohm	1
37714-51	Switch, 3PDT CTR OFF	1
37714-52	Bezel (not shown)	1
37714-53	Knob, ohmite (not shown)	1
37714-54	Cover	1
37714-55 through 37714-65		Not used

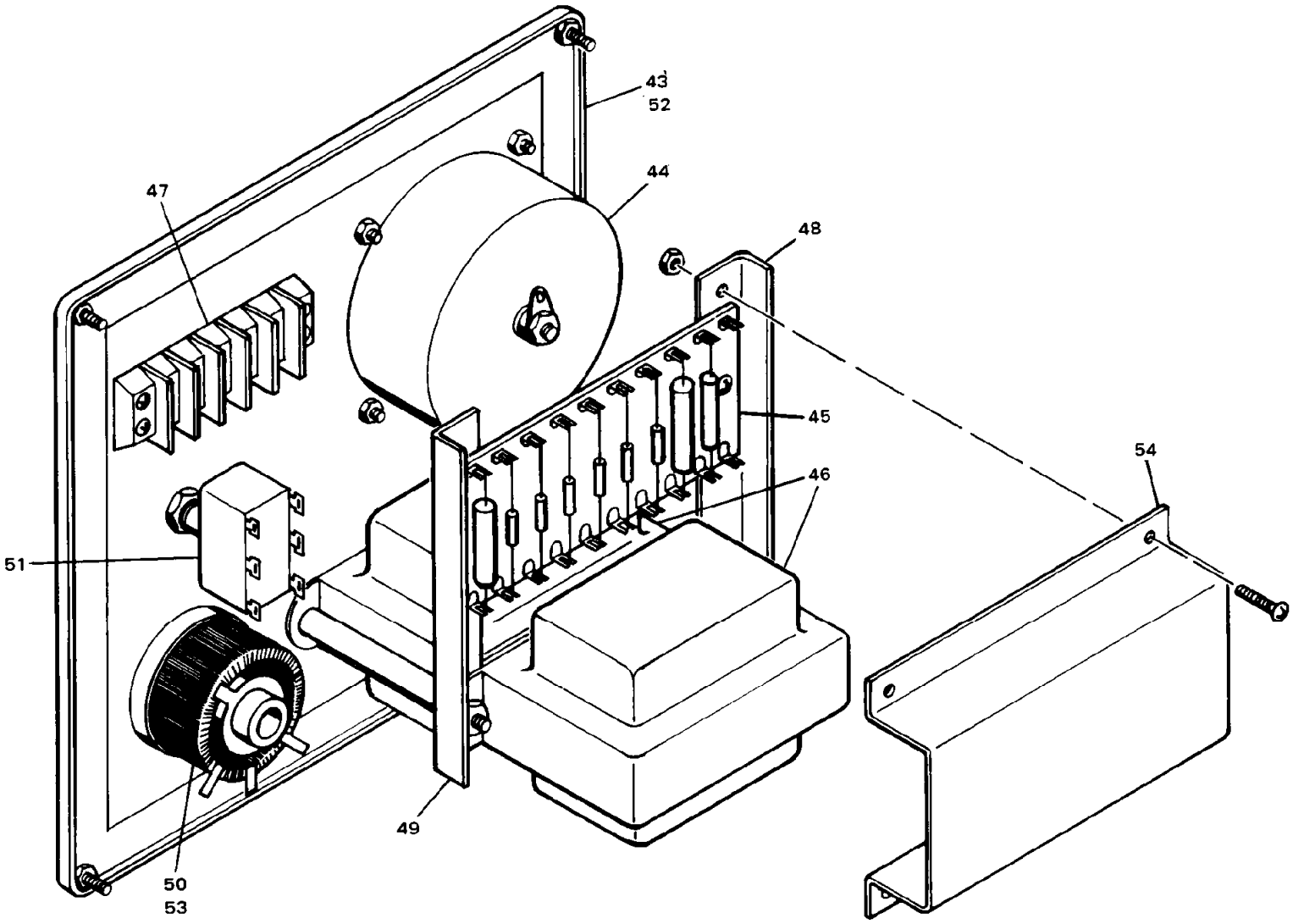


Figure 5-3. Illustrated Parts Breakdown (LSG)

Chapter 6.
Product Support and Service Options

Product Support Options

If you are experiencing problems with the installation, or unsatisfactory performance of a Woodward product, the following options are available:

1. Consult the troubleshooting guide in the manual.
2. Contact the **OE Manufacturer or Packager** of your system.
3. Contact the **Woodward Business Partner** serving your area.
4. Contact Woodward technical assistance via email (**EngineHelpDesk@Woodward.com**) with detailed information on the product, application, and symptoms. Your email will be forwarded to an appropriate expert on the product and application to respond by telephone or return email.
5. If the issue cannot be resolved, you can select a further course of action to pursue based on the available services listed in this chapter.

OEM or Packager Support: Many Woodward controls and control devices are installed into the equipment system and programmed by an Original Equipment Manufacturer (OEM) or Equipment Packager at their factory. In some cases, the programming is password-protected by the OEM or packager, and they are the best source for product service and support. Warranty service for Woodward products shipped with an equipment system should also be handled through the OEM or Packager. Please review your equipment system documentation for details.

Woodward Business Partner Support: Woodward works with and supports a global network of independent business partners whose mission is to serve the users of Woodward controls, as described here:

- A **Full-Service Distributor** has the primary responsibility for sales, service, system integration solutions, technical desk support, and aftermarket marketing of standard Woodward products within a specific geographic area and market segment.
- An **Authorized Independent Service Facility (AISF)** provides authorized service that includes repairs, repair parts, and warranty service on Woodward's behalf. Service (not new unit sales) is an AISF's primary mission.
- A **Recognized Engine Retrofitter (RER)** is an independent company that does retrofits and upgrades on reciprocating gas engines and dual-fuel conversions, and can provide the full line of Woodward systems and components for the retrofits and overhauls, emission compliance upgrades, long term service contracts, emergency repairs, etc.

A current list of Woodward Business Partners is available at **www.woodward.com/directory**.

Product Service Options

Depending on the type of product, the following options for servicing Woodward products may be available through your local Full-Service Distributor or the OEM or Packager of the equipment system.

- Replacement/Exchange (24-hour service)
- Flat Rate Repair
- Flat Rate Remanufacture

Replacement/Exchange: Replacement/Exchange is a premium program designed for the user who is in need of immediate service. It allows you to request and receive a like-new replacement unit in minimum time (usually within 24 hours of the request), providing a suitable unit is available at the time of the request, thereby minimizing costly downtime.

This option allows you to call your Full-Service Distributor in the event of an unexpected outage, or in advance of a scheduled outage, to request a replacement control unit. If the unit is available at the time of the call, it can usually be shipped out within 24 hours. You replace your field control unit with the like-new replacement and return the field unit to the Full-Service Distributor.

Flat Rate Repair: Flat Rate Repair is available for many of the standard mechanical products and some of the electronic products in the field. This program offers you repair service for your products with the advantage of knowing in advance what the cost will be.

Flat Rate Remanufacture: Flat Rate Remanufacture is very similar to the Flat Rate Repair option, with the exception that the unit will be returned to you in "like-new" condition. This option is applicable to mechanical products only.

Returning Equipment for Repair

If a control (or any part of an electronic control) is to be returned for repair, please contact your Full-Service Distributor in advance to obtain Return Authorization and shipping instructions.

When shipping the item(s), attach a tag with the following information:
- return number;
- name and location where the control is installed;
- name and phone number of contact person;
- complete Woodward part number(s) and serial number(s);
- description of the problem;
- instructions describing the desired type of repair.

Packing a Control

Use the following materials when returning a complete control:
- protective caps on any connectors;
- antistatic protective bags on all electronic modules;
- packing materials that will not damage the surface of the unit;
- at least 100 mm (4 inches) of tightly packed, industry-approved packing material;
- a packing carton with double walls;
- a strong tape around the outside of the carton for increased strength.

NOTICE

To prevent damage to electronic components caused by improper handling, read and observe the precautions in Woodward manual 82715, *Guide for Handling and Protection of Electronic Controls, Printed Circuit Boards, and Modules*.

Replacement Parts

When ordering replacement parts for controls, include the following information:
- the part number(s) (XXXX-XXXX) that is on the enclosure nameplate;
- the unit serial number, which is also on the nameplate.

Engineering Services

Woodward's Full-Service Distributors offer various Engineering Services for our products. For these services, you can contact the Distributor by telephone or by email.

- Technical Support
- Product Training
- Field Service

Technical Support is available from your equipment system supplier, your local Full-Service Distributor, or from many of Woodward's worldwide locations, depending upon the product and application. This service can assist you with technical questions or problem solving during the normal business hours of the Woodward location you contact.

Product Training is available as standard classes at many Distributor locations. Customized classes are also available, which can be tailored to your needs and held at one of our Distributor locations or at your site. This training, conducted by experienced personnel, will assure that you will be able to maintain system reliability and availability.

Field Service engineering on-site support is available, depending on the product and location, from one of our Full-Service Distributors. The field engineers are experienced both on Woodward products as well as on much of the non-Woodward equipment with which our products interface.

For information on these services, please contact one of the Full-Service Distributors listed at **www.woodward.com/directory**.

Contacting Woodward's Support Organization

For the name of your nearest Woodward Full-Service Distributor or service facility, please consult our worldwide directory published at **www.woodward.com/directory**.

You can also contact the Woodward Customer Service Department at one of the following Woodward facilities to obtain the address and phone number of the nearest facility at which you can obtain information and service.

Products Used In Electrical Power Systems

Facility	Phone Number
Brazil	+55 (19) 3708 4800
China	+86 (512) 6762 6727
Germany:	
Kempen	+49 (0) 21 52 14 51
Stuttgart	+49 (711) 78954-510
India	+91 (129) 4097100
Japan	+81 (43) 213-2191
Korea	+82 (51) 636-7080
Poland	+48 12 295 13 00
United States	+1 (970) 482-5811

Products Used In Engine Systems

Facility	Phone Number
Brazil	+55 (19) 3708 4800
China	+86 (512) 6762 6727
Germany	+49 (711) 78954-510
India	+91 (129) 4097100
Japan	+81 (43) 213-2191
Korea	+82 (51) 636-7080
The Netherlands	+31 (23) 5661111
United States	+1 (970) 482-5811

Products Used In Industrial Turbomachinery Systems

Facility	Phone Number
Brazil	+55 (19) 3708 4800
China	+86 (512) 6762 6727
India	+91 (129) 4097100
Japan	+81 (43) 213-2191
Korea	+82 (51) 636-7080
The Netherlands	+31 (23) 5661111
Poland	+48 12 295 13 00
United States	+1 (970) 482-5811

For the most current product support and contact information, please visit our website directory at **www.woodward.com/directory**.

Technical Assistance

If you need to contact technical assistance, you will need to provide the following information. Please write it down here before contacting the Engine OEM, the Packager, a Woodward Business Partner, or the Woodward factory:

General

Your Name _____

Site Location _____

Phone Number _____

Fax Number

Prime Mover Information

Manufacturer _____

Engine Model Number _____

Number of Cylinders _____

Type of Fuel (gas, gaseous, diesel, dual-fuel, etc.) _____

Power Output Rating _____

Application (power generation, marine, etc.)

Control/Governor Information

Control/Governor #1

Woodward Part Number & Rev. Letter _____

Control Description or Governor Type _____

Serial Number

Control/Governor #2

Woodward Part Number & Rev. Letter _____

Control Description or Governor Type _____

Serial Number

Control/Governor #3

Woodward Part Number & Rev. Letter _____

Control Description or Governor Type _____

Serial Number

Symptoms

Description _____

_____

If you have an electronic or programmable control, please have the adjustment setting positions or the menu settings written down and with you at the time of the call.

We appreciate your comments about the content of our publications.

Send comments to: icinfo@woodward.com

Please reference publication 37714B.

WOODWARD

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