WOODWARD

Installation Procedure Supplement

Manual 26852 (Revision A, 8/2023)
2301E / 2300E Digital Load Sharing and Speed Controls

This document contains the following information:
- Where to obtain the complete 2301E / 2300E manuals
- Important Definitions
- Contacting Woodward or a Woodward Channel Partner
- Regulatory Compliance and Declarations

See Manual 26641 (for 2301E) or Manual 26691 (for 2300E) for complete installation, operation, maintenance, and certification information. Publications can be found on our website at www.woodward.com/publications.

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

Lockout/Tagout
LOTO

Ensure that personnel are fully trained on LOTO procedures prior to attempting to replace or service equipment on a "live" running engine. All safety protective systems (overspeed, over temperature, overpressure, etc.) must be in proper operational condition prior to the start or operation of a running engine. Personnel should be equipped with appropriate personal protective equipment to minimize the potential for injury due to release of hot hydraulic fluids, exposure to hot surfaces and/or moving parts, or any moving parts that may be activated and are located in the area of control of the unit.

WARNING

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.

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. The latest version of most publications is available on the Woodward website.

http://www.woodward.com

If your publication is not there, please contact your customer service representative to get the latest copy.

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.

NOTICE

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.

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*.

Go to www.woodward.com/publications for complete instructions for the 2301E control (Manual 26641) or the 2300E control (Manual 26691).

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 phone number of contact person;
- description of the problem;
- name and location where the control is installed;
- complete Woodward part number(s) and serial number(s);
- instructions describing the desired type of repair.

Contacting Woodward's Support Organization

For the name of your nearest Woodward Full-Service Distributor or service facility, please consult our worldwide directory at www.woodward.com/support, where you may also find the most current product support and contact information.

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) 8818 5515
Germany:	+49 (711) 78954-510
India	+91 (124) 4399500
Japan	+81 (43) 213-2191
Korea	+82 (32) 422-5551
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) 8818 5515
Germany	+49 (711) 78954-510
India	+91 (124) 4399500
Japan	+81 (43) 213-2191
Korea	+ 82 (32) 422-5551
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) 8818 5515
India	+91 (124) 4399500
Japan	+81 (43) 213-2191
Korea	+ 82 (32) 422-5551
The Netherlands-	+31 (23) 5661111
Poland	+48 (12) 295 13 00
United States	+1 (970) 482-5811

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Regulatory Compliance & Declarations

European Compliance for CE Mark
These listings are limited only to those units bearing the CE Marking.

Low Voltage Directive: Directive 2014/35/EU on the harmonisation of the laws of the Member States relating to making electrical equipment available on the market that is designed for use within certain voltage limits.

ATEX – Potentially Explosive Atmospheres Directive: Directive 2014/34/EU on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres.
Zone 2, Category 3, Group II G, Ex ec IIC T3 Gc
Zone 2, Category 3, Group II G, Ex ec IIC T4 Gc

EMC Directive: Declared to Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility (EMC).

Other European Compliance:
Compliance with the following European Directives or standards does not qualify this product for application of the CE Marking.

RoHS Directive: Restriction of Hazardous Substances 2011/65/EU:
This product is intended to be sold and used only as equipment that is specifically designed, and is to be installed, as part of another type of equipment that is excluded or does not fall within the scope of this Directive, which can fulfil its function only if it is part of that equipment, and which can be replaced only by the same specifically designed equipment, and therefore fulfills the requirements stated in Art.2.4(c), and as such, is excluded from the scope of the Directive.

United Kingdom Compliance for UKCA Marking:
These listings are limited only to those units bearing the UKCA Marking.
Units bearing the UKCA Mark in addition to the marking indicating Zone 2 are acceptable for use in UKEX Hazardous Locations.

EMC: S.I. 2016 No. 1091: Electromagnetic Compatibility Regulations 2016 and all applicable amendments.

UKEX: S.I. 2016 No.1107: Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres Regulations 2016.

RoHS Directive: S.I. 2020 No. 1647: The Hazardous Substances and Packaging (Legislative Functions and Amendments) (EU Exit) Regulations 2020.

This product is intended to be sold and used only as equipment that is specifically designed, and is to be installed, as part of another type of equipment that is excluded or does not fall within the scope of this Regulation, which can fulfil its function only if it is part of that equipment, and which can be replaced only by the same specifically designed equipment and therefore fulfills the requirements stated in Part 2 of Schedule1 clause 16, and as such, is excluded from the scope of the Regulation.

North American Compliance
These listings are limited only to those units bearing the appropriate CSA identification and marking.

CSA: CSA Certified for Class I, Division 2, Groups A, B, C, D, T3 or T4 Hazardous Locations and ordinary locations at 70 °C ambient. For use in Canada and the United States.
Certificate 1150575

NOTE—Wiring must be in accordance with applicable electric codes with the authority having jurisdiction.
T3 when the Potential Transformer input is 240 Vac
T4 when the Potential Transformer input is 120 Vac or less

Marine Compliance

American Bureau of Shipping: ABS Rules 2020 SVR 1-1-4/7.7, 1-1-A3, 4-2-1/7.3, 7.5.1; 4-9-3/17, 4-9-4/23 & 4-9-7/Table 9 (as appropriate).

Bureau Veritas: BV Rules for the Classification of Steel Ships, Approval valid for ships intended to be granted with the following additional class notations: AUT- UMS, AUT-CCS, AUT-PORT and AUT-IMS.

China Classification Society: CCS Chapter 2, Part Seven of CCS ~ “Rules for Classification of Sea-going Steel Ships~” 2021.

Del Norske Veritas: Type Approval Certification No. TAA000000H, 2022 Temperature Class B, Humidity Class B, Vibration Class A, EMC Class A, Enclosure required protection according to the rules to be provided upon installation onboard.

Lloyd’s Register of Shipping: LR Type Approval Test Specification No. 1, 2020 for Shipping: Environmental Categories ENV1, ENV2, ENV3 and ENV4.

Nippon Kaiji Kyokai: Requirements specified in Chapter 1, Part 7 of Guidance for the approval and Type Approval of materials and equipment for Marine use and relevant Society’s Rules.

Australia & New Zealand Compliance
These listings are limited to those units bearing the C-Tick mark:

C-Tick (ACA/RSM): Declared Separately to the Australian Radiocommunications Act of 1992 and the New Zealand Radiocommunications Act of 1989.

EU DECLARATION OF CONFORMITY

EU DoC No.:	00448-04-EU-02-01
Manufacturer's Name:	WOODWARD INC.
Manufacturer's Contact Address:	1041 Woodward Way Fort Collins, CO 80524 USA
Model Name(s)/Number(s):	2300E, 2301E
The object of the declaration described above is in conformity with the following relevant Union harmonization legislation:	Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility (EMC) Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits
Markings in addition to CE marking:	Ex II 3 G, Ex ec IIC T3 Gc Ex II 3 G, Ex ec IIC T4 Gc
Applicable Standards:	
ATEX:	EN IEC 60079-0, 2018: Explosive Atmospheres - Part 0: Equipment – General requirements EN 60079-7:2015, EN IEC 60079-7:2015/A1:2018: Explosive Atmospheres - Part 7: Equipment protection by type of protection "ec"
EMC:	EN 61000-6-2:2005, EN61000-6-2:2005/AC: 2005: EMC Part 6-2: Generic Standards - Immunity for Industrial Environments EN 61000-6-4:2007, EN 61000-6-4:2007/A1:2011: EMC Part 6-4: Generic Standards - Emissions for Industrial Environments
LVD:	EN 61010-1:2010, EN 61010-1:2010/A1:2019/AC:2019-04, EN 61010-1:2010/A1:2019 - Electrical Equipment for measurement, control, and laboratory use – Part 1: General requirements

This declaration of conformity is issued under the sole responsibility of the manufacturer
We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

MANUFACTURER

Annette Lynch
Signature

Annette Lynch
Full Name

Engineering Manager
Position

Woodward, Fort Collins, CO, USA
Place

07 July 2023
Date

5-09-1183 Rev 39

UKCA DECLARATION OF CONFORMITY

UKCA DoC No.: 00448-04-UKCA-02-01
Manufacturer's Name: WOODWARD INC.

Manufacturer's Contact Address: 1041 Woodward Way
Fort Collins, CO 80524 USA

Model Name(s)/Number(s): 2300E, 2301E

Markings in addition to CE marking: Ex II 3 G, Ex ec IIC T3 Gc
Ex II 3 G, Ex ec IIC T4 Gc

The object of this Declaration is in full conformity with the following UK Statutory Instruments (and their amendments):

S.I. 2016 No. 1107	Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016
S.I. 2016 No. 1091	Electromagnetic Compatibility Regulations 2016
S.I. 2016 No. 1101	Electrical Equipment (Safety) Regulations 2016

The Object of this Declaration is in conformity with the applicable requirements of the following designated standards and technical specifications.

EN IEC 60079-0:2018	Explosive Atmospheres - Part 0: Equipment – General requirements
EN 60079-7:2015, EN IEC 60079-7:2015/A1:2018	Explosive Atmospheres - Part 7: Equipment protection by type of protection "ec"
EN 61000-6-2:2005, EN 61000-6-2:2005/AC:2005	EMC Part 6-2: Generic Standards - Immunity for Industrial Environments
EN 61000-6-4:2007, EN 61000-6-4:2007/A1:2011	EMC Part 6-4: Generic Standards - Emissions for Industrial Environments
EN 61010-1:2010, EN 61010-1-2010/A1:2019/AC:2019-04, EN 61010-1:2010/A1:2019	Electrical Equipment for measurement, control, and laboratory use – Part 1: General requirements

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