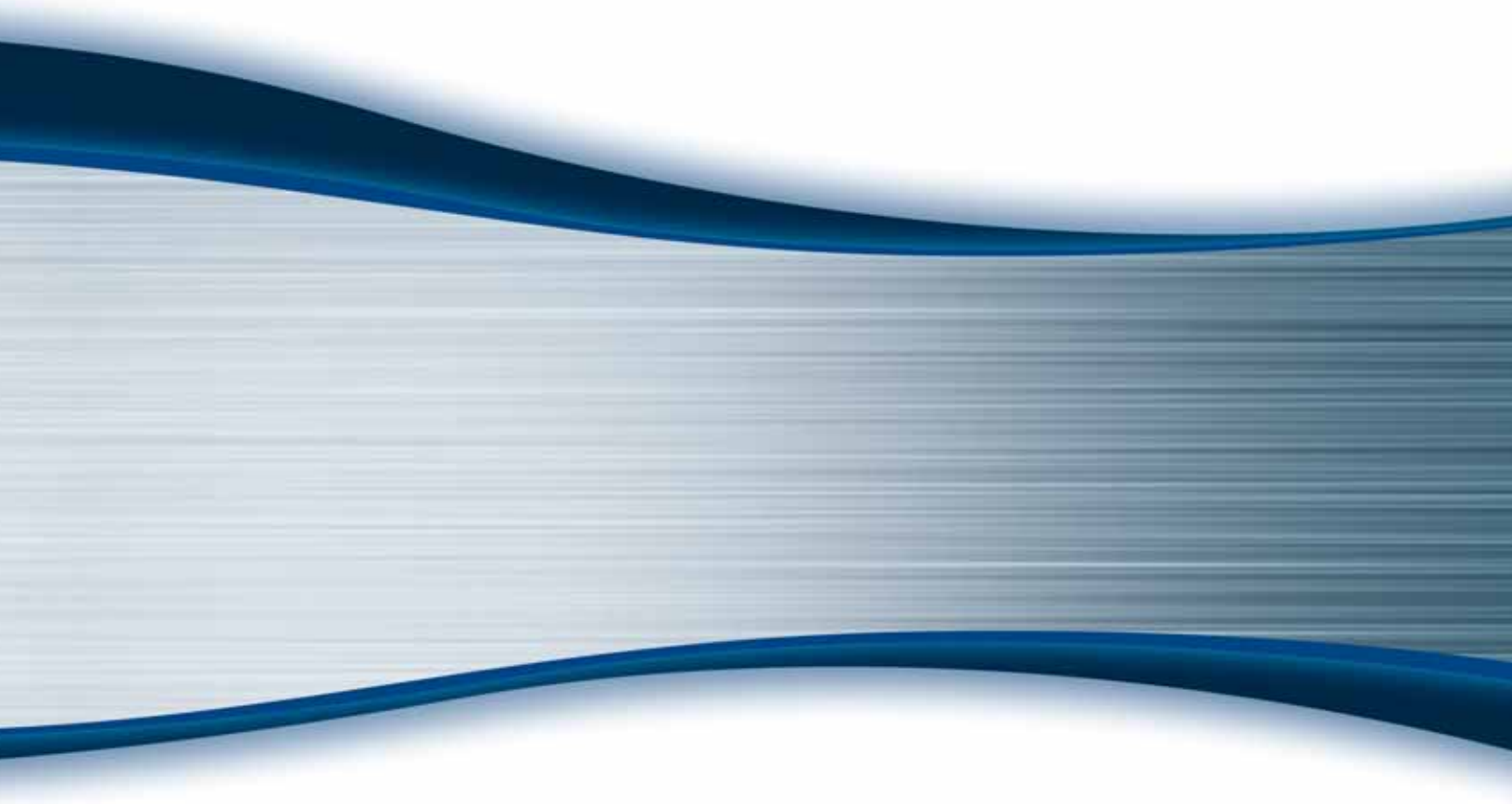
508 Interface Module User's Guide



GILSON

508 Interface Module User's Guide

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Table of Contents

Introduction 1

The Gilson 508 Interface Module connects your computer to many instruments made by Gilson. It permits bi-directional communication by interconverting the RS-232 signal levels used by computers and the RS-422/485 signal levels required by the Gilson Serial Input/Output Channel (GSIOC).

Unpacking

Unpack the interface module and its accessories carefully from the carton.

Verify that all parts are included and are undamaged.

Do this now, even if the interface module will not be used immediately. Many carriers must receive concealed damaged claims within seven days of delivery.

Please retain all packing material so the unit may be shipped safely, if necessary.

Standard Equipment

Once the instrument and the accessories have been unpacked, you should have the following:

- 508 Interface Module
- RS-232 cable
- power supply
- Euro plug adapter

Documentation

The following documents are included with the 508 Interface Module:

- 508 Interface Module Documentation CD
- Declaration of Conformity

Customer Service

Gilson, Inc. and its worldwide network of authorized representatives provide customers with the following types of assistance: sales, technical support, applications, and instrument repair.

If you need assistance, please contact your Gilson-authorized representative. Specific contact information can be found on the Gilson website at www.gilson.com. To help us serve you quickly and efficiently, please refer to **Repair and Return Policies** on page 5-3.

Technical Specifications

Please be aware of the following before connecting the interface module.

Warning! Changes or modifications to the interface module not expressly approved by Gilson could void the factory-authorized warranty.

The interface module has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC commercial environment. The system interface generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference; in which case, the user will be required to correct the interference at the user's own expense.

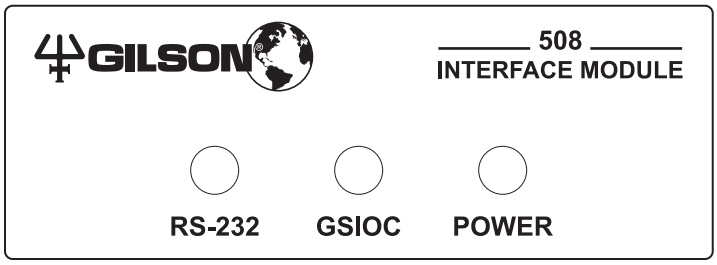
Shielded cables must be used with the interface module to ensure compliance with the Class A FCC limits.

Technical Specification	*Definition*
Baud rate	19200
Environmental conditions	Indoor use Altitude: up to 2000 m Temperature range: 5–40°C Air pressure: 75–105 kPa Pollution degree: 1 or 2, in accordance with IEC 66 Humidity: Maximum relative humidity 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C
Front panel	LED indicator lights for RS-232, GSIOC, and Power
Manufacturing standards	Meets applicable Safety and EMC certification standards; UL and CE certified.
Physical space requirement (W x D x H)	9.4 x 5.5 x 4 cm (3.7 x 2.2 x 1.6 in)
Power requirements	+12V DC at 50 mA supplied via a 2.1 mm ID power plug. Center contact is positive.
Weight	0.14 kg (0.3 lb)

Installation 2

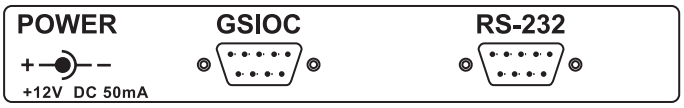
The 508 Interface Module is pre-configured as an RS-232-to-GSIOC interface.

Turn off and unplug all computers and instruments before making the connections described in this section.



Electrical Connections

Rear Panel



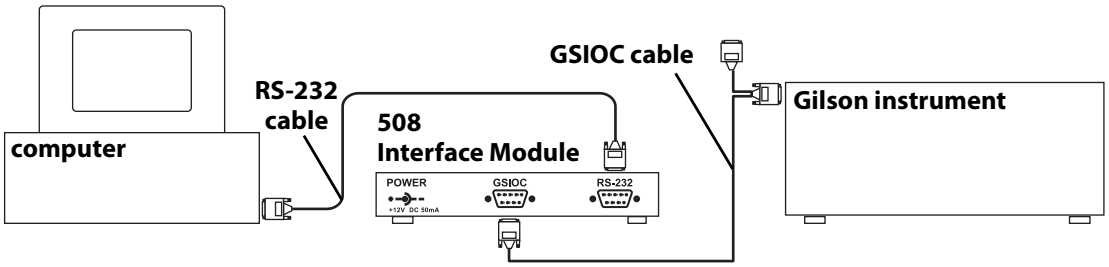
508 Interface Module Rear Panel

RS-232

Locate the RS-232 cable provided with the interface module.

Attach the male end of the RS-232 cable to the 508 RS-232 input. Tighten the retaining screws.

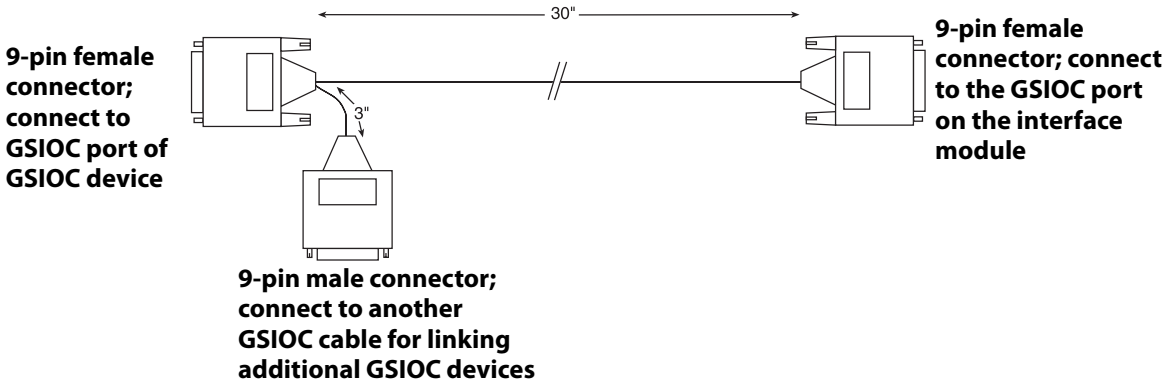
Connect the female end of the RS-232 cable to the computer's RS-232 serial communications port. Again tighten the retaining screws.



GSIOC

Use a GSIOC cable to connect the interface module to the Gilson instrument you wish to control. A GSIOC cable has two 9-pin female connectors and one male connector.

Refer to the diagram below to connect the 508 to another Gilson instrument using a GSIOC cable.



With additional GSIOC cables, you can connect as many as 32 devices. To connect additional GSIOC cables, connect the male connector to the next cable's female connector (use the female connector that's not joined to the male connector). Then connect the remaining female connector to the GSIOC port of the device.

Cables should be arranged in a linear fashion. Any "Y-branching" from the main GSIOC cable may increase noise.

Power

After you've made all the necessary connections, attach the power connector to the POWER input of the interface module and the transformer to a wall outlet. Since the interface module is designed to be left on at all times, it does not have a power switch. If you prefer to have a power switch, a switched power outlet strip is recommended.

The Power light indicates that power is being supplied to the unit.

Euro plug adapter

Locate the Euro Plug Adapter (part number 594505121) supplied with the 508 Interface Module. If necessary, attach to the power cord to connect the interface module to an AC power source.

Operation 3

The 508 Interface Module provides RS-232-to-GSIOC interface from the computer.

Gilson control software packages let you issue GSIOC commands that communicate with any GSIOC device connected to the interface module.

Status Lights

The status lights on the 508 Interface Module are useful for verifying operation.

If the Power light is off, power is not being sent to the interface module.

If the RS-232 light is flashing, the 508 Interface Module is responding to the RS-232 input.

If the GSIOC light is flashing, the 508 Interface Module is receiving a response from a GSIOC device.

Maintenance 4

The 508 Interface Module should not require maintenance. The best precautions for continued operation are to avoid spilling liquids on the connectors and to avoid mechanical strain on the wire connections.

Troubleshooting 5

When using the 508 Interface Module with Gilson-supplied accessories, computers and application software, troubleshooting is simple. Most problems are due to improper connections and installation.

Troubleshooting Chart

No response to RS-232 input

- There is no DC power connection at power input. If the Power light is off, check that transformer is plugged into an outlet.
- RS-232 connections are not correct. Check for proper cable and connectors.
- Check RS-232 port of computer for proper operation with other RS-232 devices.

GSIOC devices do not respond to commands

- Check GSIOC cable connections.
- Check GSIOC device unit ID numbers and baud rate settings (must be 19200 or External).

Repair and Return Policies

Before Calling Us

Gilson-authorized representatives will be able to serve you more efficiently if you have the following information:

- the serial number and model number of the instruments involved. The serial number is located on the bottom of the unit.
- the installation procedure you used
- list of concise symptoms
- list of operating procedures and conditions you were using when the problem arose
- list of other devices connected to the interface module and a description of those connections
- list of other electrical connections in the room

Warranty Repair

Units covered under warranty will be repaired and returned to you at no charge. If you have any questions about applicability, please contact your local distributor.

Non-Warranty Repair

For out-of-warranty repairs, contact your local distributor. A Customer Service representative will discuss service options with you and can assist in making arrangements to return the equipment, if necessary.

Rebuilt Exchange

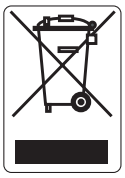
For some units, rebuilt exchange components are available. Contact your local distributor for details.

Return Procedure

Contact your local distributor's Customer Service Department to obtain authorization before returning any Gilson equipment. To return a piece of equipment:

- Carefully pack the unit to prevent damage in transit. Check with your distributor regarding proper method of shipment. No responsibility is assumed by Gilson or your distributor for damage caused by improperly packaged instruments. Indicate the authorization on the carton and on the packing slip.
- Always insure for the replacement value of the unit.
- Include a description of symptoms, your name, address, phone number, and purchase order to cover repair costs, return and shipping charges, if your institution requires it.

Unit End-of-Life



When a unit reaches the end of its useful life, refer to www.gilson.com for directions and information on the end-of-life policy. This is in accordance with the European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).