



User's Guide

## **GVIS 300 - Video Inspection Scope**

GVIS1-00-2000, Rev A, 6-09-20  
Specifications subject to change without notice

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## Section 1 - General Overview

- A. The purpose of this user's guide is to familiarize the user to the features and benefits of the GVIS 300 and its accessories and components. Please complete the enclosed registration card to continue to receive product updates and application information. You may also visit our web site @ [www.tempo.textron.com](http://www.tempo.textron.com). The offices of Tempo Europe Ltd are open from 8:00 am till 5:00 pm. Please see below for additional information.

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B. Unpacking and inspection

The GVIS 300 is carefully inspected and packed according to standard shipping practices. The individual components of the GVIS 300 systems include:

1. GVIS monitor housed in a protective nylon padded pouch
2. GVIS Probe with SC bulkhead adaptor tip attached.
3. AC Charger for GVIS monitor
4. 2.5m universal connector adaptor tip
5. Basic cleaning pads w/ wet pen solution
6. Hard carry case
7. User's guide and warranty information

## Section 2 - Operating Instructions and Feature Overview

The GVIS 300 is an extremely easy to use video fiber connector inspection system. The GVIS 300 advances field connector inspection by a unique focus system. This development virtually eliminates the need to place the users hand in the same position each time for effective focus control. To inspect the backplane connector the user simply inserts the probe into the connector adaptor. To focus simply turn the entire probe  $\frac{1}{4}$  to  $\frac{1}{2}$  turns for complete focus range. No longer is it necessary for the user to keep one hand on the focus wheel.

The GVIS 300 includes a bright 3.5 inch LCD display and precision optics to provide an unmatched FOV (field of view) of 630 $\mu$ m by 440 $\mu$ m. Extended use Lithium Ion batteries provide 8-10 hours of continuous use. When charging is necessary the included "smart AC charger" charges the battery in 3 hours and allows the unit to continue to operate during the charging cycle.

The GVIS 300 comes with two user selected adaptor tips. Optional tips for most commonly used connectors are available.

The GVIS 300 monitor is supplied in a padded nylon case. Both the probe and monitor are transported in a hard carry case that also includes the charger, extra adaptor tips and cleaning aids.

For digital archiving of the connector polish, Tempo offers the GVCM 410 Video Capture Module. This accessory allows quick storage of the image to any Windows based computer. In addition the GVIS 300 hand held display may be equipped with the video capture module internal to the monitor display case, please call Tempo to learn more of this feature.

Please refer to Figure 1 below for reference to control features and buttons:

1. **Adaptor Tip Ring** – Adaptor tips allow the GVIS 300 to access either the bulkhead panel connector or the actual connector end if access is available. The GVIS 300 is supplied with two adaptors, the SC bulkhead adaptor and a 2.5mm universal adaptor tip to allow inspection of any 2.5 mm ferrule connector (SC, ST or FC).

To connect the appropriate adaptor tip place the tip on the end of the probe being careful to screw the adaptor to the **Adaptor Tip Ring** completely and ***finger tight only***. ***DO NOT HOLD OR TURN THE FOCUS RING WHILE ATTACHING THE ADAPTOR TIP.*** For

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bulkhead adaptors it is helpful to align the key of the adaptor tip to the center position facing the user.

2. **Focus Ring** – Two focus methods are used to adjust the image while using the GVIS 300. The first technique is used when using any of the “universal” tips for direct connector inspection. To focus, insert the connector into the adaptor tip and adjust the image by turning the **Focus Ring** with the users thumb.

To focus on the bulkhead connector surface the GVIS 300 uses a unique focus system by use of specially equipped adaptors tips. These bulkhead tips include key way devices to lock the GVIS probe into the bulkhead under inspection. To focus on the bulkhead simply insert the bulkhead adaptor tip into the bulkhead and rotate the probe slightly either direction for full focus control. The probe may be held anywhere while rotating allowing for much easier focus control.

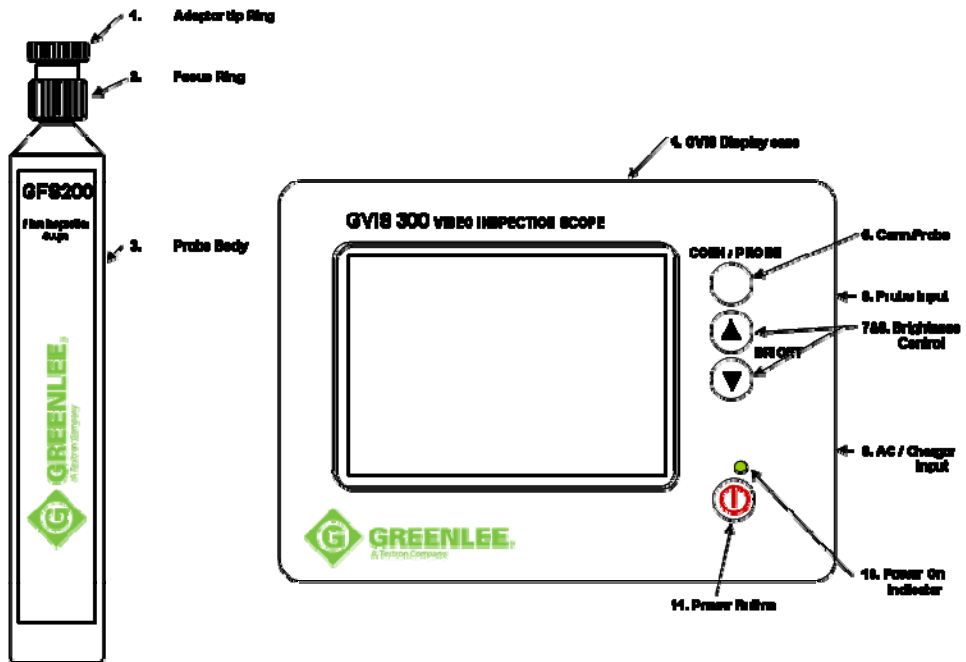
3. **Probe Body** – The Probe Body houses the optical interface, camera system and lighting system. The probe body houses no user serviceable devices inside the



housing. Please refer to the maintenance section for proper care of the optical interface at the tip of the probe.

4. **GVIS Display Case** – The GVIS Display Case include the 3.5” LCD display, battery and control features to display the required image. No user serviceable components are found inside.
5. **Conn/Probe** – This control button is functional only on the GVIS 400 model. Please call Tempo Europe Ltd. for availability of this upgrade.
6. **Probe Input** – Insert the probe connector to the connector port located on the side of the GVIS display case. Power to the probe is automatic and will remain powered while connected. To conserve on battery use please remove the probe from the display case during periods of inactivity.
7. **Brightness Control** – Brightness control is adjusted with the up/down arrow control buttons. Please be advised that the GVIS 300 has a default position of two positions below the brightest possible image. This brightness control allows the user to discern defects with greater ease.
8. **See #7 above**

9. **AC Charger input – If the GVIS 300 display does not illuminate the screen once powered on, then the battery must be charged.** To charge the battery and simultaneously use the GVIS 300, insert the AC charger connector into the port on the lower left side of the display case. Total charge time is approximately three hours and indicates a fully charged battery by displaying a green LED on the charger. While charging this LED remains red.
10. **Power On** – The GVIS display will indicate power available to the LCD and Probe by indication of this green LED. During low battery conditions this LED will remain in the off position.
11. **Power** – Power to the GVIS display is enabled by pressing the Power control button. Pressing this button while the unit is ON will power the unit OFF.



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### Section 3 – General Care and Maintenance

- A. General overview – This precision optical device includes components that should be treated with care when handling. Although Tempo Europe Ltd has designed this product with field ruggedness in mind the user must take certain precautions when handling this device. Please keep all protective dust caps in place when not in use.
- B. Probe optical lens care & cleaning – The optical lens assembly is located on the tip of the probe. To access the external surface of the lens assembly remove the adaptor tip. To remove the adaptor hold the adaptor in the hand and gently rotate the Adaptor Tip Ring in a counter-clockwise position with the other hand. Do not turn the focus ring to attempt to remove the adaptor tips. Once the adaptor tip is removed the external lens assembly may be inspected and/or cleaned. To clean this surface, gently wipe off debris with appropriate lens cleaning solutions. Typical eyeglass cleaning materials may be used for this procedure. For more recommendations on this subject please call Tempo Europe Ltd on +44 (0)1633 627710.

- C. Display maintenance – The GVIS 300 display case comes housed in a padded protective nylon case. Although this case provides field abuse protection, the GVIS 300 display must be protected from direct impact. Should the display need surface cleaning, optical grade cleaning solutions and tissues may be used.
- D. GVIS 300 battery maintenance – The GVIS 300 includes a rechargeable Lithium Ion battery capable of powering the unit for more than 8 hours of continuous use. The GVIS 300 includes a “smart charging adaptor” that charges the GVIS 300 and shuts down the charging when fully charged. Approximately three hours are necessary for full charge. In the event the display does not power on when the power switch is depressed, insert the AC charger into the lower right side charge port. Power to the display will be restored once the charger is connected.
- E. Warranty & Repair – Tempo Europe Ltd. warranties this product against defective material and workmanship for a period of two years from date of shipment to the original customer. Should the unit be non-functional please call the Tempo support line @ +44 (0)1633 627710. In no event shall Tempo Europe Ltd’s liability exceed the original purchase

price of the product. In all cases of repair the user must obtain a RMA prior to return of the instrument. In no event will the warranty apply to misuse, unauthorized repair, neglect or accident.

**Section 4 – Specifications**

FOV (Field of View)	FOV 630µm X 440µm
Resolution	¼ micron
Light Source	Blue LED
Lighting Technique	Coaxial
Display screen size	3.5 inch diagonal
Battery Life	8 to 10 hours continuous
Battery charge time	Three hours
Size	Probe - 7"x 1"x .75" (180mm x 25mm x 19mm) Monitor - 4.75"x 2.5"x 1.25" (120mm x 80mm x 32mm)
Weight – (monitor, probe & case)	1.2lb (.54kg)
Operating Temp.	0° to 50 ° C
Storage Temp.	- 40 ° to 70 ° C

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Thank you for choosing Tempo Europe Limited.

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