
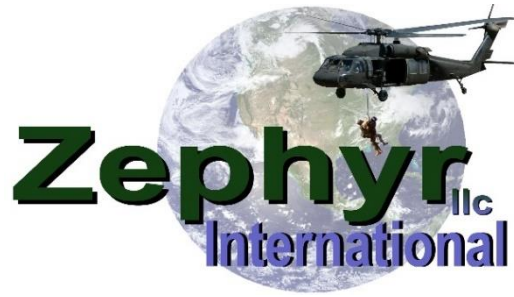


Document Title		Load Cell Indicator Replacement for Manual and Electric RHGSE					
Document No.	Rev	Document Type	Reason	Recommendation	Release Date	Revision Date	
ZSB-030	A	Replacement Instructions	Obsolete Parts	As Needed	4/25/2022	11/28/2023	




ZSB-030 Load Cell Indicator Replacement for Manual and Electric RHGSE

Upgrading from ZGS-11100-2 to ZGS-11100-3 Displays

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Keeping Helicopter Rescue Hoist Users Safe Worldwide.

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2.0 Technical Support

If any issues arise during the installation of this Upgrade Kit, please contact Zephyr International, LLC directly for the fastest technical support.

Tech Support Info	
Phone:	1-843-365-2675
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3.0 Introduction

3.1 Definitions of WARNINGS, CAUTIONS and NOTES

The following are examples of Warning, Cautions and Notes that may be found inside this document.



Shall be used when there is danger of injury or death to personnel.



Shall be used when there is danger of damage to equipment.

NOTE:

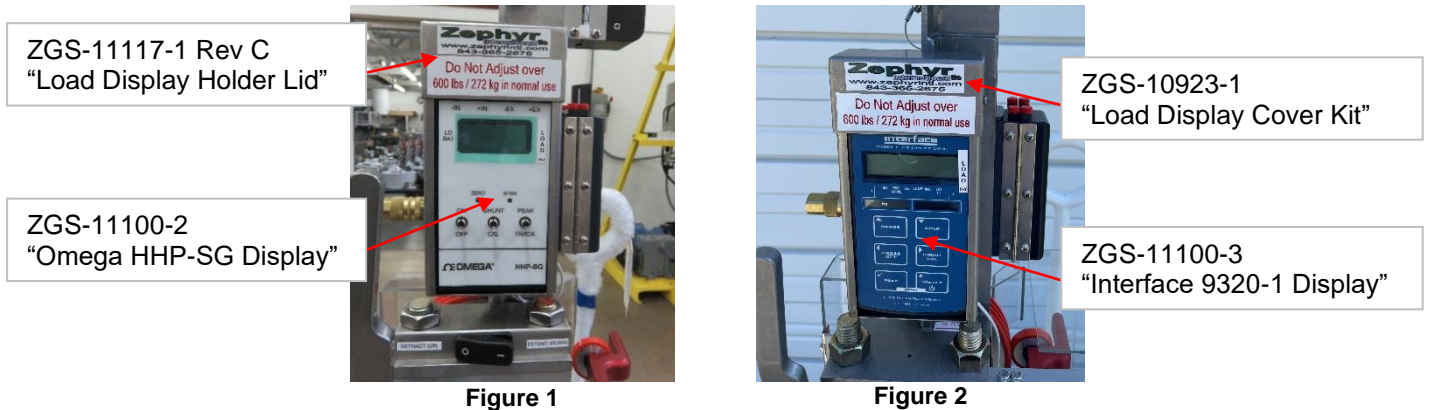
Shall be used to highlight essential procedures or statements which may facilitate performance of a procedure or operation.

3.2 Purpose

This document is to advise customers that part ZGS-11100-2 “Omega HHP-SG Display” has become obsolete and provide instructions for upgrading to ZGS-11100-3 “Interface 9320-1 Display.”

3.3 Scope

The document will include details on all required components needed as well as detailed installation instructions for changing from the ZGS-11100-2 “Omega HHP-SG Display” to the ZGS-11100-3 “Interface 9320-1 Display.” This applies only to Zephyr Manual and Electric RHGSE’s.



4.0 Required Items


4.1 ZGS-11528-1” Load Cell Indicator Replacement Kit”

Qty.	Part Number	Part Name
1	ZGS-11100-3	Interface 9320-1 Display
1	25795	90 Degree Load Display Connector

4.2 ZGS-10923-1 “Load Display Cover Kit”

Qty.	Part Number	Part Name
1	ZGS-11117-1	Load Display Holder Lid (Rev D)
1	BG2902	Grommet .375 ID
2	9632	6-32 x 3/16” Pan Head



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5.0 Removing Obsolete Display

- Step 1 - Remove and discard the (2) 6-32 x .188" pan head screws that fasten the Load Display Cover to the Load Display Holder. Figure 3
- Step 2 - Remove and discard the Load Display Cover.
- Step 3 - Remove and discard the Old Load Display by loosening the Red and Black thumb knobs. Figure 4



Figure 3



Figure 4

6.0 Installing Load Display Connector

6.1 Needed Items

Qty.	Part Number	Part Name
1	BG2902	Grommet .375 ID
1	25795	90 Degree Load Display Connector

6.2 Instructions

- Step 1 - Disassemble the 25795 "90 Degree Load Display Connector" to expose the internal solder terminals and all loose components.
- Step 2 - Install BG2902 "Rubber Grommet" onto the Load Cell wire.
- Step 3 - Install Strain Relief Cap onto the Load Cell wire.
- Step 4 - Install Strain Relief Compressor onto the Load Cell wire.
- Step 5 - Install Strain Relief Seal onto the Load Cell wire.
- Step 6 - Install Back Shell onto the Load Cell wire.
- Step 7 - Solder the Load Cell wires to the Connector solder terminals per the following table.



Figure 5

Pin	Name	Wire Color
1	+ Excitation	Red
2	- Excitation	Black
3	+ Signal	Green
4	- Signal	White

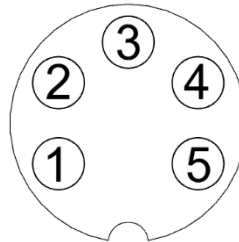



Figure 6

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NOTE:

The Connector should be assembled so wires aim towards the side of the display as seen in figures below.

Step 8 - Insert the Pin segment into the Back Shell. Orient the Pins so that the Key is perpendicular to the Back shell as seen in Figure 7.

Step 9 - Install the Connector Nose as seen in Figure 8.

Step 10 - Ensure Connector orientation matches Figure 9.



Figure 7



Figure 8



Figure 9

7.0 Installing Load Display

7.1 Needed Items

Qty.	Part Number	Part Name
1	ZGS-11100-3	Interface 9320-1 Display
1	ZGS-11117-1	Load Display Holder Lid
2	9632	6-32 x 3/16" Pan Head

7.2 Instructions

Step 1 - Connect the Load cell to the ZGS-11100-3 "Interface 9320-1 Display" by attaching the 90 Degree Load Display Connector as shown in Figure 10.

Step 2 - Place the Load Display into the Display Holder as shown in **Figure 11**.

Step 3 - Insert the Load Cell wire Grommet into the slot of ZGS-11117-1 "Load Display Holder Lid" as shown in Figure 12.

Step 4 - Place all excess wire inside the Lid and install it onto the Display Holder Lid.

Use (2) 6-32 x 3/16" Pan Head screws to fasten the ZGS-11117-1 "Load Display Holder Lid" to the Display Holder as shown in Figure 13.



Figure 10




Figure 11



Figure 12



Figure 13

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8.0 Programming the Display

8.1 Buttons



Figure 14

8.2 Menu Path

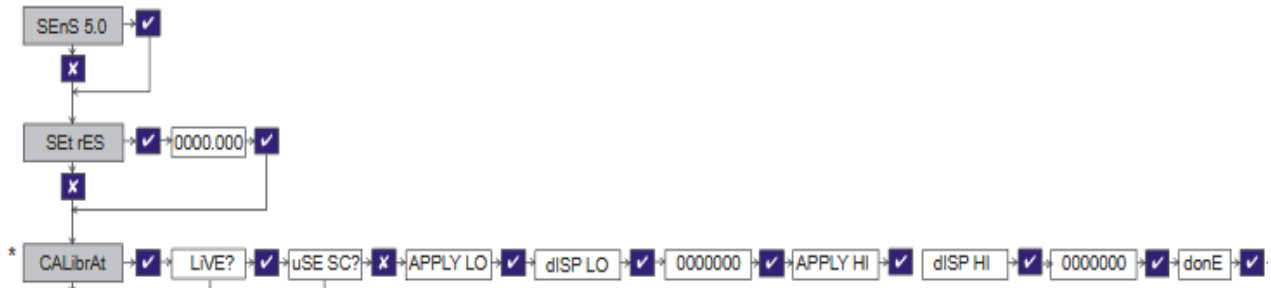


Figure 15

8.3 Disable TEDS

NOTE:

TEDS must be disabled for live scaling to be used.

- | | |
|--|---|
| Step 1 - Display is OFF | Hold VALLEY for 3 seconds to turn ON the Display. |
| Step 2 - Select Range 1 | Press RANGE until range 1 is selected (indicated by a small arrow at the bottom of the LCD.) |
| Step 3 - Enter Programming | Hold RANGE and HOLD button for 5 seconds. |
| Step 4 - SEnS 5.0 is displayed. | Press VALLEY to skip. |
| Step 5 - Set rES is displayed. | Press VALLEY to skip. |
| Step 6 - CALibrAt is displayed. | Press VALLEY to skip. |
| Step 7 - tedS is displayed. | Press PEAK modify. |
| Step 8 - EnAbLEd? Is displayed | Press VALLEY to Turn TEDS OFF. |


8.4 RHGSE Setup



Never Operate the RHGSE without proper training or understanding of the equipment. Failure to do so could result in serious injury or damage to the equipment.

Step 1 - Setup and attach the rescue hoist cable to the RHGSE.

Step 2 - Extend the rescue hoist cable into the RHGSE until the Full-Out limit switch is triggered.

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8.5 Live Scaling

- | | |
|---------------------------------------|---|
| Step 1 - Display is OFF | Hold VALLEY for 3 seconds to turn ON the Display. |
| Step 2 - Enter Programming | Hold RANGE and HOLD button for 5 seconds. |
| Step 3 - SEnS 5.0 is displayed | Press VALLEY to skip. |
| Step 4 - Set rES is displayed | Press PEAK to Enter. |
| Step 5 - Set resolution | Press GROSS / SHUNT to move selection. Press RANGE / HOLD to change the values. Press both buttons to move the decimal. Set Resolution to " 0000001 " for Imperial or to " 000000.1 " for Metric. |
| Step 6 - 0000001 is displayed | Press PEAK to Accept Changes. |
| Step 7 - CALibrAt is displayed | Press PEAK to Enter. |
| Step 8 - Live ? is displayed | Press PEAK for YES. |
| Step 9 - uSE SC ? is displayed | Press VALLEY for NO. |

NOTE:

There must be zero load on the RHGSE, Brake Handle must be disengaged, and the rescue hoist cable must be slack when setting the Low Value.

- | | |
|--|---|
| Step 10 - APPLY LO is displayed | Ensure zero load is on the RHGSE. Wait 3 seconds then press PEAK to capture Value. |
| Step 11 - dISP LO is displayed | Press PEAK to Enter. |
| Step 12 - Set Low Display to "0000000" | Press GROSS / SHUNT to move selection. Press RANGE / HOLD to change the values. |
| Step 13 - 0000000 is displayed | Press PEAK to Accept Changes. |

CAUTION

Use small adjustments when attempting to get the RHGSE into a hover. Over-tightening the Load Adjust Knob could cause skewed scaling values. Once the RHGSE is in a hover, only adjust the Knob until the RHGSE stops slipping down the cable.

- | | |
|--|--|
| Step 14 - APPLY HI is displayed | Begin SLOWLY retracting the rescue hoist cable and engage the brake handle. Slowly rotate the load adjust knob until the RHGSE begins to hover. Use small incremental adjustments and stop immediately when the RHGSE is stalled on the cable. Press PEAK to capture Value. |
| Step 15 - dISP HI is displayed | Press PEAK to Enter. |
| Step 16 - Set High Display Value | Press GROSS / SHUNT to move selection. Press RANGE / HOLD to change the values. Set the High Display value to " 0000575 " for Imperial, or " 000261.4 " for Metric |
| Step 17 - dONE is displayed | Press PEAK for YES. |

NOTE:

This procedure is now complete and the 9320-1 has been scaled. Please reference the Operations and Maintenance Manual for the best known practices for Operating the RHGSE.