



GE Healthcare

# GIRAFFE SHUTTLE

## Customer Information

**Customer Name:****Service Record #:****System ID/ Serial Number****Customer Equipment ID:****Service Manual Document #** M1142240**Software Version:****PM Frequency:****Voltage Rating (VAC):** 110-115 VAC**Form Status:**  Complete  Incomplete**Start Date** mm/dd/yyyy**Country** UNITED STATES-US**Modality** MIC **Installation****Installation**

Test	Expected Results	Results	Comments
Tool Requirements	Below listed tools are required 1. Standard service tools (such as a 4 mm hex key, a small point, and an ESD kit), 2. Multimeter capable of measuring AC voltage and frequency 3. Electrical safety analyzer	<input type="text"/>	<input type="text"/>

Test	Expected Results	Results	Comments
Set the brakes	Ensure unit stationary after brakes applied	▼	
Connector connectivity	Ensure that black battery harness connector to the Universal Power Module. Ensure that sensor circuit-battery connector at 4-pin	▼	
Water ingress shield sides positioning	Ensure that the water ingress shield sides are positioned properly so that they overlap the water ingress bypass LH and RH parts	▼	
Warmers- Bed Attachment Considerations	The Shuttle can be docked to the north or south end of the Warmers. North end docking may require bed height adjustment when using gas cylinders mounted to the Giraffe or Panda iRes Resuscitation System as interference may occur between the cylinders and Shuttle thus activating the inference alarm.	▼	
Incubators- Bed Attachment Considerations	The Shuttle can be docked to the north or south end of an Incubator. North end docking may require bed height adjustment as interference may occur thus activating the inference alarm.	▼	
Cord and Hose Routing-Bed Attachment Considerations	Ensure cords and hoses routed correctly along the sides of warmer or Incubator. Refer service manual section 2.5.1	▼	
OmniBed and Incubator O2 Connection - Bed Attachment Considerations	Ensure OmniBed and Incubator O2 Connection connected correctly. Refer service manual section 2.5.2	▼	
DIN Rail - Bed Attachment Considerations	Either remove the DIN rail or replace the DIN rail with the Shuttlecompatible DIN rail. Refer service manual section 2.5.3	▼	

Test	Expected Results	Results	Comments
Center Shelf Installation - Bed Attachment Considerations	Always mount the center shelf on the inner dovetail slot that is closest to the handles to avoid contact with the bed when transporting on a ramp. Refer service manual section 2.5.4	▼	

## Visual Inspection Check

Test	Expected Results	Results	Comments
Power cord and adaptor check	No evident sign of damage exists	▼	
Power cord retainer check	Power cord retainer is in place	▼	
Power cord retainer function check	Retainer securely retains the cord in the AC inlet	▼	
Missing or damaged parts check	No missing or damaged parts	▼	
Label check	No missing or improperly-attached labels	▼	
Wheel check	Ensure wheel are in firm contact with the floor and Unit is stable.	▼	
Wheel lock check	Wheel locks function properly	▼	
Lock pedal check	Unlock pedal goes up when lock pedal pressed	▼	

Test	Expected Results	Results	Comments
Unlock pedal check	lock pedal goes up when unlock pedal pressed	▼	
Dock mechanism check	No cracks or breaks on dock mechanism parts	▼	

## Functional Check

Test	Expected Results	Results	Comments
POST check	unit beeps and LEDs illuminate per POST	▼	
Battery health indicator check - Shuttle is plugged to wall outlet	Indicator is Green	▼	
AC power availability check	AC power is available on all outlets	▼	
Fans check with Shuttle plugged into wall outlet	All 3 fans are operating	▼	
Fans check with Shuttle unplugged from wall outlet	All 3 fans are operating	▼	
Battery health indicator check - Shuttle is unplugged from wall outlet	Indicator is Green	▼	
Battery runtime indicator check - Shuttle is unplugged from wall outlet	At least one green LED is ON	▼	

Test	Expected Results	Observed Results	Results	Comments
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Test	Expected Results	Observed Results	Results	Comments
Shuttle power cord voltage checks - Shuttle is unplugged from wall outlet	All voltages are less than 30VAC	<p><b>Voltage between Line 1 and Line 2 (V):</b></p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> <p><b>Voltage between Line 1 and Ground (V):</b></p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> <p><b>Voltage between Line 2 and Ground (V):</b></p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	
Shuttle outlet voltage Check - Shuttle is unplugged from wall outlet	Voltage is within 5% of unit voltage rating	<b>Outlet voltage (V):</b> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	
Shuttle outlet frequency Check	Frequency is within 3Hz of unit frequency rating	<b>Outlet Frequency (Hz):</b> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	
Test	Expected Results	Results	Comments	
STOP/GO indicator check - Shuttle is detached and unlocked	No light is illuminated	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>		
STOP/GO indicator check - Shuttle is attached and unlocked	Red (STOP) light is illuminated	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>		
STOP/GO indicator check - Shuttle is detached and locked	Red (STOP) light is illuminated	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>		
STOP/GO indicator check - Shuttle is attached and locked	Green (GO) light is illuminated	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>		

Test	Expected Results	Results	Comments
Interference switch alarm check	Alarm is activated once switch is pressed	<input type="text"/> ▼	<input type="text"/>

Test	Expected Results	Observed Results	Results	Comments
Interference switch sound activation distance check	Distance is at least 20mm	<b>Distance value (mm):</b> <input type="text"/>	<input type="text"/> ▼	<input type="text"/>

Test	Expected Results	Results	Comments
Lock arm pad check - Unlock pedal is pressed	Lock arm pad corner aligns with or is higher than the casting corner	<input type="text"/> ▼	<input type="text"/>
Lock arm pad check - Lock pedal is pressed	Lock arm pad corner aligns with or is lower than the casting corner	<input type="text"/> ▼	<input type="text"/>

## Electrical Safety Test

Test	Expected Results	Observed Results	Results	Comments
Ground resistance check between ground pin on line cord plug and exposed metal on shuttle enclosure.	Ground resistance is less than 0.1 ohm	<b>Ground resistance (ohm):</b> <input type="text"/>	<input type="text"/> ▼	<input type="text"/>

Test	Expected Results	Observed Results	Results	Comments
Ground resistance check between ground pin on line cord plug and ground terminal on shuttle outlets	Ground resistance is less than 0.1 ohm	<input type="checkbox"/> Ground resistance on	<input type="button" value="▼"/>	

**Outlet 1 (ohm):**

**Outlet 2 (ohm):**

**Outlet 3 (ohm):**

**Outlet 4 (ohm):**

N/A

Test	Expected Results	Observed Results	Results	Comments
Earth leakage current check - Normal condition and 115VAC unit	Earth leakage current in each condition is less than 140 microamperes	<input type="checkbox"/> Earth leakage currents for normal conditions, 115VAC unit	<input type="button" value="▼"/>	

**Normal Polarity,  
unit is ON (uA):**

**Normal Polarity,  
unit is OFF (uA) :**

**Reverse Polarity,  
unit is ON (uA):**

**Reverse Polarity,  
unit is OFF (uA):**

N/A

Test	Expected Results	Observed Results	Results	Comments
Earth leakage current check - Normal condition and 220-240VAC unit	Earth leakage current in each condition is less than 320 microamperes	<input type="checkbox"/> Earth leakage currents for normal conditions, 220-240VAC unit	<input type="button" value="▼"/>	

**Normal Polarity,  
unit is ON (uA):**

**Normal Polarity,  
unit is OFF (uA) :**

**Reverse Polarity,  
unit is ON (uA):**

**Reverse Polarity,  
unit is OFF (uA):**

N/A

Test	Expected Results	Observed Results	Results	Comments
Earth leakage current check - Single-fault condition and 115VAC unit	Earth leakage current in each condition is less than 290 microamperes	<input type="checkbox"/> Earth leakage currents for single-fault conditions, 115VAC unit	<input type="checkbox"/> ▼	

**Normal Polarity,  
Open Neutral, unit  
is ON (uA):**

**Normal Polarity,  
Open Neutral, unit  
is OFF (uA) :**

**Reverse Polarity,  
Open Neutral, unit  
is ON (uA):**

**Reverse Polarity,  
Open Neutral, unit  
is OFF (uA):**

N/A

Test	Expected Results	Observed Results	Results	Comments
Earth leakage current check - Single-fault condition and 220-240 VAC unit(VAC)	Earth leakage current in each condition is less than 760 microamperes	<input type="checkbox"/> Earth leakage currents for single-fault conditions, 220-240VAC unit	<input type="button" value="▼"/>	<input type="button"/>

Planned Maintenance

Corrective Repair

## Comments, tools, and attachments

**Comments** Character(s) 2000

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## Tools used

**Description****Serial Number****Bar Code****Cal Due Date** mm/dd,**ADD**

## Attachments

**Choose Files** No file chosen

## GE Representative

### Number of Signers

 1**Name:****SSO #:****SR #****Date complete****Form complete**  mm/dd/yyyy

## Customer Signature

 Yes  Not Required**SUBMIT FORM****SAVE CURRENT FORM****VALIDATE FORM****CLEAR FORM****Document Number:** BBGWW0845 **Revision:** 2