

Giraffe Incubator

Chassis Replacement Kit - Replacement Instructions

This instruction refers to the following:
6600-0278-850 Giraffe Incubator/OmniBed Chassis Replacement Kit



WARNING! Disconnect the unit from the power source while performing the replacement procedure.



Follow the Electro Static Discharge (ESD) sensitive devices handling practices while handling the optical fan sensor. If necessary, order the ESD control workstation, Stock No. 0175-2311-000.

Reference documents:

6600-0354-000 Giraffe Incubator Operation and Maintenance Manual
6000-0356-000 Giraffe Incubator Service Manual
6600-2502-100 Servo Oxygen System Installation, Instructions for Field Use

Work sequence shown in this document is the suggested sequence. Parts may be assembled (disassembled) in other sequences if test or inspection steps are not skipped.

Some steps require two people to be safely and successfully performed.

Engineering
QA
Marketing
Service

Setting Up

Unpack the Chassis Replacement Kit and inspect for visible shipping damage. Check to make sure that included parts match bill of material for the kit ordered (See last page of this document).

First, set up the unit and arrange your workspace to simplify the process.

1. Raise the elevating base to its maximum height before beginning the procedure to gain better access to the chassis components.
2. Ensure that a clear, flat work surface is available near the unit. The surface must be large enough to support the old and new chassis.

Note: Place new chassis on a padded surface to prevent scratching and scraping.

3. Place the new chassis bottom side up on the work surface.
4. Turn off the unit and unplug the unit's power cord from the receptacle.



WARNING! You must, switch off the unit and disconnect it from the power source before proceeding to the next step. If unit was in use, let it cool. Some parts inside the bed may be hot. **Failure to perform this step may result in injury.**

Removing the side doors and hood

Next, clear the infant compartment, disconnect the hood's hinges and remove the hood.

1. Remove the side doors.
2. Remove the following parts from the infant compartment.
 - Mattress 6600-0689-800
 - Mattress tray support 6600-1353-500
 - Translation deck 6600-1352-500
 - Tilt platform 6600-1313-500
 - Pan 6600-1168-500
3. Remove the following fan parts.
 - Fan 6600-1738-500
 - Fan hub 6600-1440-500
 - Fan seal 6600-1557-500



4. Remove the tilt mechanism by unscrewing the plastic cap and removing 4 screws using a 2.5 mm hex wrench.
5. Use a small straight-blade screwdriver to remove the 2 snap fasteners from the inside of the hood hinges.
6. Remove the compartment probe back plate by removing 2 screws (6600-0706-406) using a 2mm hex wrench. Disconnect the connectors but do not remove the sensor. Refer to Service Manual Section 6.13 Hood & Compartment Air Probe.



7. Free up the compartment probe cable under the plastic clip using the 2.5 mm hex wrench and the 7 mm nut driver.
8. Push the trigger on the hood latch post to disengage the latch and carefully lift the hood off the chassis.

Removing the storage drawer and humidifier reservoir

Next, remove the storage drawer and humidifier reservoir.

1. Slide the storage drawer all the way to one side.
2. Remove the 4 captive screws (6600-0706-408) using a 2.5 mm hex wrench from both sides of the drawer.
3. Slide the drawer to the opposite side and remove 4 remaining captive screws.
4. Remove the drawer.
5. Remove the slide from the back drawer mounting bracket using a 2.5 mm hex wrench.
6. Remove the back drawer mounting bracket (6600-1716-500).
7. Remove the humidifier reservoir (6600-0216-850).

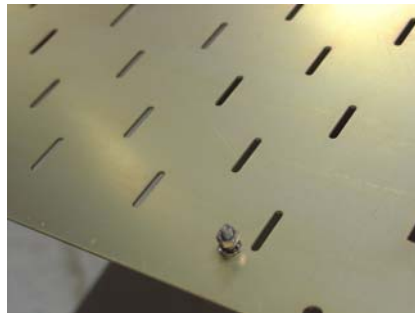
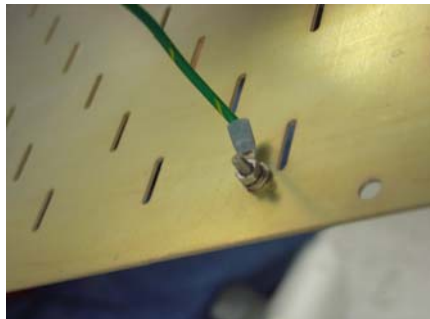
8. Remove two lower raceway cover screws (6600-0706-406) using a 2 mm wrench.



Removing the Chassis

Next, you remove the chassis cover, disconnect all wiring, and remove the old chassis from the unit.

1. Remove the 6 screws (6600-0908-402) from the chassis bottom cover (6600-1888-500) using a 2.5 mm hex wrench.
2. Slide the chassis cover forward to remove.
3. Remove the ground connector using a 7 mm nut driver. Reattach the nut and two star washers to prevent the hardware loss.



4. Disconnect the wiring harnesses and heaters.



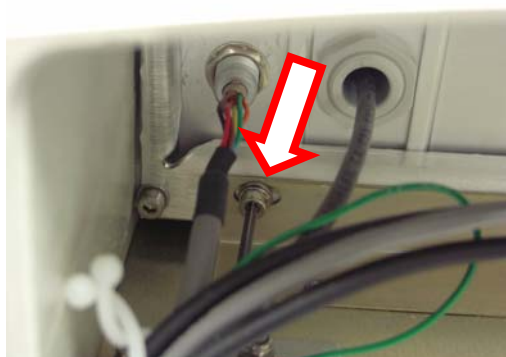
Note: The fan optical sensor is static-sensitive.

5. Disconnect the ground wire from the heatsink using a 3 mm hex wrench. Replace the screw and 2 star washers once the ground wire is free to prevent hardware loss.

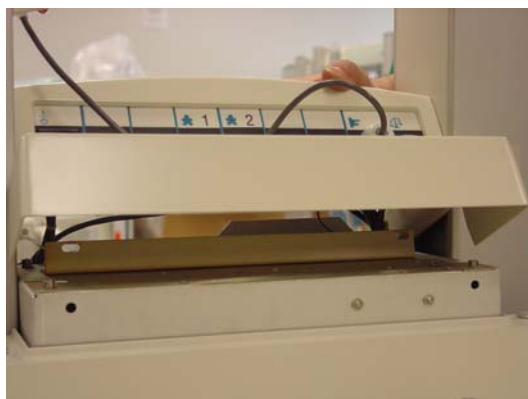
6. Remove the electronic enclosure back cover by removing and loosening screws as needed using a 2.5 mm hex wrench.



7. Remove 2 screws from the bezel using a 3mm hex wrench.



8. Tilt bezel.



9. While supporting the chassis, loosen the 5 screws on either side of the bracket casting, then remove the 4 screws from each side completely. Leave one screw on each side.

Note: Use a 6 mm ball-end hex wrench to remove screws that you have to access from an angle.

10. **ATTENTION! This step requires two people to perform.** While one person supports the chassis, remove the 2 remaining screws before taking off the chassis.

Transferring parts to the new chassis

Next, you transfer the heat sink, fan motor, fan sensor, drawer slide brackets, and humidifier to the new chassis.

1. Place the chassis bottom side up next to the new chassis.



Giraffe Incubator Chassis Replacement

2. Apply the blank labels 6600-2410-100 and language specific ECMO label (6600-2546-101, 6600-2546-102, or M1093199) to the new chassis as shown.



3. Remove the 4 fan motor screws using a 2.5 mm hex wrench. Install the fan on the new chassis.

Note: Be sure that you install the fan motor on the new chassis exactly as it was oriented on the old chassis.



4. Remove fan speed sensor and install on the new chassis.

Note: if unit has a Servo Oxygen module, the fan speed sensor should be moved together with the Servo Oxygen Module (See the Removing and reinstalling the Servo Oxygen Module section).

5. Remove remaining humidifier raceway cover screws (6600-0706-406) using a 2 mm wrench. Remove the humidifier raceway. (Spare M3 screws and washers are included in the kit.)
6. Remove the humidifier with a long T handle 2.5 mm hex wrench or screwdriver. Install the humidifier on the new chassis.
7. Remove front end drawer slide bracket, with the slide still attached, using a 3mm hex wrench. Install the bracket on the new chassis.
8. Move the wire ties using a 3mm hex wrench. (Spare wire ties are included in the kit.)
9. Unscrew the filter cover knob and transfer the filter and filter cover to the new chassis.

Removing and reinstalling heat sink

Next, you remove the heatsink and gasket from the old chassis and install it on the new chassis.

1. Remove the 14 screws attaching the heat sink to the old chassis using a 4 mm hex wrench.
2. Flip the new chassis over so it is top side up.
3. Remove gasket from the old chassis.
4. Install heatsink gasket by aligning the pockets of the gasket with the positioning pins on the new chassis.
5. Attach the heatsink to the new chassis with 2 screws, then flip the chassis over and install 12 remaining screws. Do not tighten any screws; make sure that the heatsink can be moved.

Note: Use the fan seal to precisely position the heatsink. Ensure that the fan motor shaft is in the dead center of the seal before tightening the heatsink.



Removing and reinstalling Servo Oxygen Module

Note: Servo Oxygen is installed as an option on Giraffe Incubator units – not all units will have a Servo Oxygen unit.

1. Disconnect two tubes connecting the module to the chassis and heatsink fittings by pushing the collar in and pulling the tube free.
2. Remove the servo oxygen unit and fan speed sensor using 10 mm wrench and a 2.5 mm hex wrench.
3. Move the chassis vent fitting using 14 mm and 16 mm wrenches.
4. Install the fan speed sensor and Servo Oxygen unit on the new chassis.
5. Reconnect two tubes by pushing them into the push-in fittings located on the heatsink and chassis vents.

Note: Check that none of the hoses is kinked.

Removing and reinstalling hinges

Next, you remove the side door hinge and hood hinge and reinstall them on the new chassis.

1. Remove side panels using a 3 mm hex wrench.
2. Remove 2 screws from the center pivot block using 3 mm hex wrench.
3. Remove the rubber hinge button at the end of the hinge rod from the side opposite to where you are working.
4. Push rod forward to expose the C-clip. Remove it with needle nose pliers. (Spare C-clips are included in the kit.)



5. Pull the rod toward you and remove the second C-clip. Remove the hinge rod by pulling it toward you.
 6. Position the pivot block (attached with screws), washers, spring and hinges on the new chassis.
 7. Install the rod and reattach the C-clips and rubber button.
- ATTENTION! The hinge collar must be captured by chassis flange as shown on pictures.
8. Repeat the previous seven steps to transfer the other hinge.

9. Reinstall the hinge covers from the front of the chassis using a 4 mm hex wrench.



10. Reinstall the side panels using a 3 mm hex wrench.

Attaching new chassis to the unit

Next, you attach the new chassis to the unit.

1. **ATTENTION! This step requires two people to perform.** While supporting the chassis, replace the tie-down cylinders and install 5 screws on either side of the bracket casting.
2. Install tilt mechanism.
3. Put bezel back in place and attach using a 3 mm hex wrench.
4. Attach electrical enclosure back cover.
5. Reconnect wire harnesses to humidifier, fan motor, heaters. Reconnect the ground on the heatsink with star washers on both sides of the terminal.
6. Install the bottom chassis cover on the new chassis. Reconnect the ground with star washers on both sides of the terminal.

Note: Make sure harnesses are tucked up out of the way so they are not pinched and the cover can be mounted flush.

7. Install 2 screws for the raceway cover.
8. Install the fan components.
9. Put hood back on the unit and secure the hinges.
10. Reattach the air probe and humidity sensor.
11. Install the side doors.
12. Perform the Service Checkout Procedure from the Giraffe Incubator Operation and Maintenance Manual 6600-0354-000.

Chassis Kit BOM

Item Number	Packaged Item	Part Name	Description	Qty,	UOM
1	Chassis	6600-1167-500	CHASSIS BED GH GI	1	Each
2	Spare hardware in plastic bag	6600-0706-406	M3 X 6 BTNHD SCREW	6	Each
		6600-0713-431	M3 INT STAR WASHER	7	Each
		6600-0712-402	M3 FL WASHER	5	Each
		6600-1197-600	CLIP	2	Each
		6600-1045-400	C-CLIP	2	Each
		6600-0713-443	M4 STAR WASHER EXT	1	Each
		6600-0712-408	M4 FL WASHER	1	Each
		6600-0706-409	M4 X 10 BTNHD SCR	2	Each
		6600-0572-600	RETAINER FOOT SWITCH CONNECTOR	4	Each
3	Installation instructions and labels in plastic bag	M1145857	INSTRUCTION, INSTALLATION CHASSIS UPGRADE GINC	1	Each
		M1145855	INSTRUCTION, INSTALLATION CHASSIS UPGRADE GIRAFFE OMNIBED	1	Each
		6600-2546-101	ECMO label, EN FR SP GR IT DU	1	Each
		6600-2546-102	ECMO label, RU SW NO DA JP CN	1	Each
		M1093199	ECMO label, PG EST TU ROM CZ POL		
		6600-2410-100	LABEL SET, BLANK	1	Each
		6600-0736-701	EAST HANDSWITCH	1	Each
		6600-0736-702	WEST HANDSWITCH	1	Each