

# OCST - Stardust II HST Recorder Operation - Procedure

**PURPOSE:** To ensure Home Sleep Test data is collected and transmitted correctly.

**POLICY:** Home Sleep Testing Recorders will be tested prior to application and the patient instructed in the use and care of the device.

## PROCEDURE:

1. Remove old battery and discard. Insert new battery by pressing and sliding off the cover. Check that the positive (+) and negative (-) connections are fitted correctly.
2. Connect the recorder cables.
  - a. Turn cover screw counter-clockwise, remove cover and connect cables.
    - 1) Remove sensor cover using screwdriver provided.
    - 2) Identify the proper recorder socket and gently connect the sensor plug into the socket. Do not use force, if the plug does not slide in easily, make sure the socket keys are aligned correctly.
    - 3) Replace sensor cover and tighten the sensor screw.
  - b. Cables are color coded: SpO2 is brown, flow is blue, effort sensor is green, and computer connector is black.
3. Verify Recorder Operation.
  - a. Turn power switch to the OFF position.
  - b. Apply finger sensor to yourself or the patient and turn the power switch on.
  - c. The amber and green lights will come on during a recorder self test. The green light will blink periodically while in the recording mode.
  - d. Turn off once correct operation has been verified.
4. Apply the Oximeter Sensor.
  - a. Align the Finger Clip so the top of the sensor lines up with the patient's finger nail (the top has the cable attached to it).
  - b. The LED light inside the sensor must be directly above the middle of the patients' nail bed.
  - c. Have the patient make a fist and tape the sensor cable to the back of the patient's hand.
5. Apply the Effort Belt.
  - a. Hang the pouch around the patient's neck, adjust the length so that it hangs in the center of the chest.
  - b. Pass the effort sensor through the loop on the back of the pouch and wrap the belt round the patient between the abdomen and the chest.
  - c. Hook the buckles together and adjust the belt so that it is secure but does not restrict normal breathing.
  - d. Make sure all sensors are attached, insert the recorder into the pouch and close the flap.
- 6) Apply the Airflow Sensor.
  - a) Place the nasal cannula above the upper lip with the cannula protruding slightly into the nostrils.
  - b) Run the cannula tubes behind the patient's ears.
  - c) Adjust the bolo tie to hold the cannula snugly in place.
  - d) If necessary, tape the cannula to the patient's cheek.
- 7) Instruct the patient in turning the recorder on and off and in using the event marker (purple button).
  - a) Instruct patient to check that the green and amber lights flash off and on when turning the recorder on.
  - b) Instruct patient to press the event marker such as turning off the lights, going to the bath room, chest pain, taking medication, etc. Assure the patient that pressing the event marker does not interfere with the recorder.
  - c) Instruct patient not to turn on the recorder until he/she is ready to go to sleep.
  - d) Instruct patient to turn off the recorder upon awakening in the morning.
    - i) Press the event marker to mark the waking up the morning.
    - ii) Turn off the recorder, remove the cannula, oximeter sensor and effort belt.
    - iii) Store the recorder and sensors in the carrying case and place in box to be mailed back or brought back to the office.

- 8) Clearing Memory. For the first time use, clearing the memory should be done using the PC software. To clear the memory using the recorder:
  - a. Ensure the recorder is not connected to the computer.
  - b. Press the event button and hold it down.
  - c. Turn on the recorder
  - d. Hold the event button down for 4 seconds and release.
  - e. When memory is clear, the amber light will be off and the green light will be on.
  - f. Turn the recorder off.
- 9) Cleaning the Recorder.
  - a) Dispose of the cannula.
  - b) Clean the Oximeter, the Airflow and Effort sensors with a cloth or strong paper towel dampened with Citrus II i) Germicidal Cleaner, or an approved germicidal cleaner.
  - c) The effort belt and pouch can be washed with a mild laundry detergent or mild dishwashing detergent.
  - d) Remove the battery, sensors and cables from the recorder and wipe the recorder with a damp cloth or strong towel.
  - e) Dry the recorder with a dry, soft cloth or paper towel.
- 10) Downloading to PC - Refer to Stardust II PC Manual.
- 11) Trouble Shooting. Refer to chart below.

## STARDUST II Troubleshooting Guide

### TROUBLESHOOTING

Symptom	Probable Cause	Remedy
No CPAP pressure in recorder	Recorder not correctly connected to CPAP.  Virtuoso LX devices with serial numbers 609849 or lower may not support the Stardust II System	Check Recorder and CPAP connections  Contact your local Resprionics representative  Contact the Service department for an upgrade.
No recording data in recorder	Recorder not connected to PC correctly  Recorder battery was low or dead  Recorder was not on during sleep period	Check recorder and PC connections. Try to upload data again  Insert new battery  Instruct patient on proper use
Recorder amber LED blinks <b>once</b> , then the green LED blinks once; the pattern repeats.	SpO <sub>2</sub> Sensor not positioned properly  SpO <sub>2</sub> Sensor is applied backwards  Signal is weak	Reposition sensor on finger and secure snugly
Recorder amber LED flashes <b>two times</b> , then the green LED blinks once; the pattern repeats.	Low airflow or weak signal	Reposition sensor beneath nostrils and secure snugly
Recorder amber LED flashes <b>three times</b> , then the green LED blinks once; the pattern repeats.	Low effort or weak signal	Reposition sensor around chest and secure snugly with tape
Recorder amber LED flashes <b>four times</b> , then the green LED blinks once; the pattern repeats.	Memory full. All recording sessions are used	Upload sleep data and clear memory
Recorder amber LED flashes <b>five times</b> , then the green LED blinks once; the pattern repeats.	9-volt battery is low	Replace battery in recorder
Recorder amber LED flashes <b>six times</b> , then the green LED blinks once; the pattern repeats.	Recorder memory corrupted	Clear memory and restart. If problem persists, call Resprionics Technical Support