

Charge on Stroller:

Purpose

The purpose of this test is to make sure there is no charge on the stroller with the added electrical components attached (battery, microcontroller, display, seat heater).

Procedure

1. Connect handheld multimeter to ground
2. Probe different places around the stroller along the metal frame
3. Record the readout from the multimeter

Results (pass or fail)

The multimeter read a negligible amount of charge at all points on the stroller. The system passed the test.

Conclusion

There is no charge on the stroller, therefore there is no concern for the parent or the child to be shocked.

System Startup and Shutdown

Purpose

The purpose of this test is to make sure that the heating system on the stroller starts up and shuts down properly by using the controls.

Procedure

1. Measure the ambient temperature in the room
2. Turn on the system by using the switches on the outside of the battery box
3. Watch the temperature increase on the display
4. Turn off the system using the switches
5. Watch the temperature decrease down to ambient temperature

Results (pass or fail)

The system passed the test.

Conclusion

The heating system communicates with the controls and no further action is needed.

Emergency Shutoff

Purpose

The purpose of this test is to make sure that the emergency shutoff works properly.

Procedure

1. Measure ambient temperature
2. Turn on the system and let the seat heat to 10 degrees F higher than the ambient temperature
3. Engage emergency shutoff button
4. Watch temperature decrease down to ambient temperature

Results (pass or fail)

The temperature decreased after the emergency shut-off was activated. The emergency shut-off passed this test.

Conclusion

The emergency shut-off works properly and not further action is needed.