Heart Rate Monitoring

The Polar telemetry system for heart rate detection and transmission has been time-tested and shown to be accurate and reliable; however, there is a small percentage of people for whom the system will not work. If all the steps in the following table are performed and the belt and controller appear to be operating correctly, the user's heart rate may not be detectable by the system.

- The handgrip system will work well for most people. However, some will not get good results from this system. These users should opt for the Polar telemetry (chest strap) method of monitoring.

Problem	Possible Cause	Remedy
Heart rate reading is erratic or absent.	**Wireless (telemetry)** Poor electrode contact	1. Be sure that the logo on the belt is facing out, that the belt is tight enough, and that the electrodes are flat against the skin. 2. Moisten the electrodes again. 3. Be sure the receiver is within range—30 inch (81 cm). 4. Wash belt.
	Handgrip Hand movement during exercise	1. Reduce hand movement during exercise
Heart rate is erratic or above 200.	**Wireless (telemetry)**	
	1. HRM treadmills too close together.	1. Move the treadmills at least 18 inch (46 cm) apart.
	2. Interference from electromagnetic signals (e.g., other belt transmitters, T.V., motors, computers, and such).	2. Move the treadmill away from the source of interference.
	Handgrip Interference with Wireless HR system preventing use of handgrips.	1. Move the treadmill away from the source of interference.

Problem	Possible Cause	Remedy
No signal on controller	**Wireless (telemetry)**	
	1. No electrode contact	1. Reposition chest belt, re-wet electrodes.
	2. Faulty chest belt	2. Test signal using different belt transmitter or a pulse simulator; replace old belt if faulty.
	3. Faulty receiver	3. Test the belt transmitter using a different receiver. If transmitter is working correctly, replace receiver.
	Handgrip	
	1. Poor handrail contact.	1. Reposition hands on handrail
	2. Temporarily disabled electronics.	2. Power treadmill off, then back on from main power switch on back of treadmill.
	3. Loose wire harnesses	3. Check handrail and interface wire harnesses for snug fit into connectors.
	4. Faulty Handgrip module	4. Replace module

Testing Wireless System Heart Rate Accuracy

Use a pulse simulator (P/N 34198-008) and a Polar watch receiver (P/N 34198-009) to test the accuracy of the controller's heart rate function.

1. Turn on the pulse simulator. The LED on the front of the simulator will blink in synch with the signal.
2. Place the Polar watch receiver next to the pulse simulator to begin receiving. The watch will display the digital heart rate.
3. Check the rate displayed on the watch against the rate displayed on the controller. If the controller differs by five beats, replace the receiver (P/N 34295) and retest. If the problem remains, replace the controller assembly (P/N 34297).

Testing Handgrip Heart Rate Accuracy

The handgrip accuracy can best be tested at the Quinton factory with the use of specialized equipment. You can, however, perform a simple check by placing your hands on the Handgrip sensors while standing still. Allow thirty seconds to obtain a stable reading. Compare this to your pulse rate taken manually immediately after.