

## ADDITIONAL INFORMATION FOR THE PERFORMANCE MONITOR (PM4)

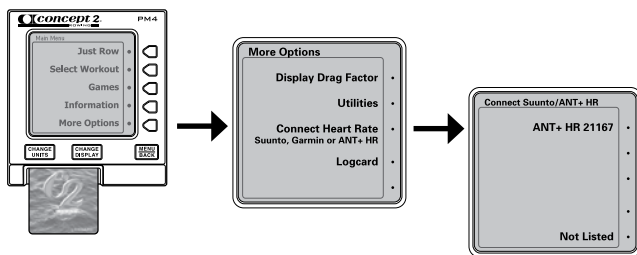
### Monitoring your Heart Rate

#### A. Using the Garmin™ Heart Rate Chest Belt

Your PM4 has been shipped with a Garmin heart rate chest belt. The Garmin chest belt allows you to view your heart rate on the PM4 while you row. Each Garmin chest belt has a five digit ID number that must be "identified" or "paired" by the PM4 each time you use it. Follow steps 1 and 2 to complete the process.

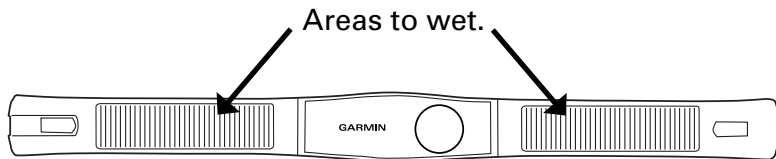
1. When wearing the chest belt, go to the **Main Menu** of your PM4 and select **More Options > Connect Heart Rate**.
2. Choose the ID number that corresponds to your Garmin chest belt and select **Confirm**.

You may also save your ID number to your LogCard by inserting your LogCard, following the same steps above and selecting **Remember** (instead of **Confirm**). The PM4 will automatically recognize your Garmin chest belt every time you insert your LogCard.



#### B. How to Wear the Chest Belt Transmitter

1. Wet the contacts, but not the area between the contacts, as shown in the illustration below:



2. The chest belt should be worn directly on your skin. Ensure the chest belt is positioned correctly and is the proper fit:

- The logo should be right-side-up.
- Men: Position the chest belt just under your pectoral muscles.
- Women: Position the chest belt just below your sports bra.
- Fit: The chest belt should be fairly tight around the torso; just tighter than is comfortable.

**Additional Tips:**

- If the chest belt is having trouble picking up your heart rate, try rotating the chest belt to the left side of your torso (closer to the heart). You can also try moving the chest belt higher or lower on your torso.
- Warm up, so that you are sweating a bit, before putting the chest belt on; this can help establish a connection between the skin and the contacts.
- Try using electrode gel on the contacts.
- Excessive body hair can degrade performance; shaving or moving the transmitter to a smoother area can help.
- Excessive body fat can block the signal from the chest belt. Position the transmitter in the leanest area possible, and avoid body parts, like the breasts, that are composed primarily of fatty tissue.

## C. Troubleshooting

**Symptom:** While rowing with a Garmin or Suunto chest belt, the heart rate occasionally or frequently disappears.

**Resolution:** Try to determine whether the chest belt is still transmitting. Do this as follows:

At a point when the heart rate disappears from the PM4, check the LED on the back of the monitor (near the network jacks). If the LED is blinking once per second, the chest belt is still transmitting and the PM4 is receiving; however, the chest belt may not be able to read the heart rate and so is not sending good data. This can be caused by any of the following:

- **Body/Chest Belt Not Warmed Up**—Wet the chest belt contacts, and warm up for at least five minutes.
- **Poor Chest Belt Positioning**—If the display continues to be intermittent, the signal may be blocked by fatty tissue or poor positioning. Check the chest belt's positioning on your torso, and make any recommended adjustments.
- **Radio Frequency (RF) Interference**—Transmission of the heart rate data may be affected by RF interference. Ensure that any local WiFi equipment is not transmitting on channels that overlap ANT transmission channels. WiFi (802.11b and 802.11g) can be safely configured on channels 1–6; Channels 7–14 may start to interfere with ANT Wireless. Consult your access point user manual for information on how to change the WiFi transmission channel.

**Symptom:** Pairing the chest belt with the PM4 was successful, but the Confirm screen displays “0” or unrealistic heart rate values.

**Resolution:** The heart rate values shown on the Confirm screen are real-time values and are not filtered. As such, they may fluctuate a bit. This is normal.

To determine whether valid heart rate values are being transmitted:

1. Warm up for at least five minutes.
2. If the values continue to be erratic post warm-up, check the chest belt’s positioning on your torso.

**Symptom:** While rowing with a Garmin or Suunto chest belt, the heart rate values seem incorrect.

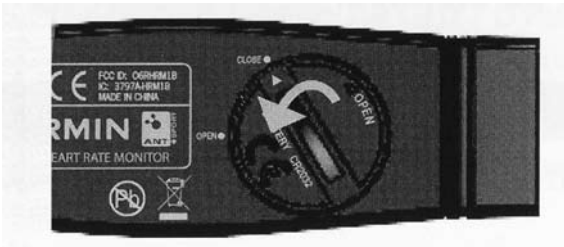
**Resolution:** The only true method for measuring heart rate is by counting heart beats during a complete one minute period; the instant values displayed on the monitor or on a watch are estimates. A tolerance of +/- 5 beats is typical.

To determine whether valid heart rate values are being transmitted:

1. Warm up for at least five minutes.
2. If the values continue to be erratic post warm-up, check the chest belt’s positioning on your torso.

## D. Battery Information

The Garmin chest belt uses one #2032 3-volt lithium coin cell battery, and should last about 300 hours. To replace the battery follow these steps:



1. Unbuckle the belt and remove from body.
2. On the back of the transmitter, open the battery cover by twisting the cover counter-clockwise with a coin until the arrow on the cover points to OPEN.
3. Remove the existing battery by pressing lightly on one edge of the battery until it pops free of the battery compartment.
4. Place the new battery into the battery compartment with the positive side facing up.
5. Using a coin, twist the cover clockwise so the arrow on the cover points to CLOSE.

Note: Be careful not to damage or misplace the O-ring gasket on the cover.

# Racing with the PM4

Refer to the Games Section of the Performance Monitor Manual for more information.

The PM4 offers three options for racing:

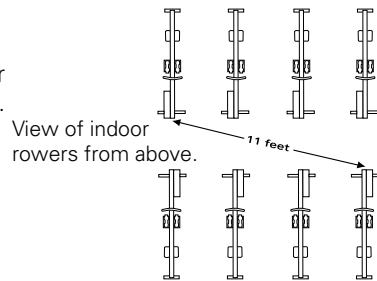
## 1. WIRELESS RACES

Small venue wireless races are convenient and easy to run. They are useful for group workouts and informal competitions.

- The PM4 runs the race. No personal computer(PC) required.
- Compact race display on PM4 screen; no audience display.
- Up to eight participants may race wirelessly.
- At the completion of a race, all participants must fully exit that race by returning to the **Main Menu** (by pressing the **MENU BACK** button) before setting up the next race.

**Note:** To ensure a successful wireless race, position one bank of four indoor rowers so that it faces another bank of four indoor rowers. Refer to the graphic at right. The maximum distance between indoor rowers on either corner is 11 feet.

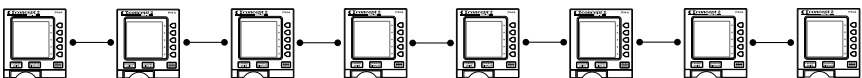
**Note:** Suunto and ANT SPORT™ wireless heart rate chest belts cannot be used at the same time as wireless racing.



## 2. WIRED RACES

Small venue races using cables are easy to run and are not subject to interference or range limitations. They are useful for small races or workouts where reliability is desired, but audience display is not necessary.

- The PM4 runs the race. No PC required.
- Compact race display on PM4 screen; no audience display.
- Up to eight participants may race.
- Indoor rowers are connected with RJ45 "Ethernet" cables (available from Concept2 or at your local electronics store).
- At the completion of a race, all participants must fully exit that race by returning to the **Main Menu** (by pressing the **MENU BACK** button) before setting up the next race.
- **Do not connect a PM4 to a network or a PC's network port. Damage may occur to your PC or PM4.**



●—● = RJ45 "Ethernet" cable

## 3. LARGE VENUE RACES

Where reliability is critical and audience display is needed, the PM4 can be used in conjunction with a PC and cables.

For more information, visit [concept2.com/PM4](http://concept2.com/PM4).