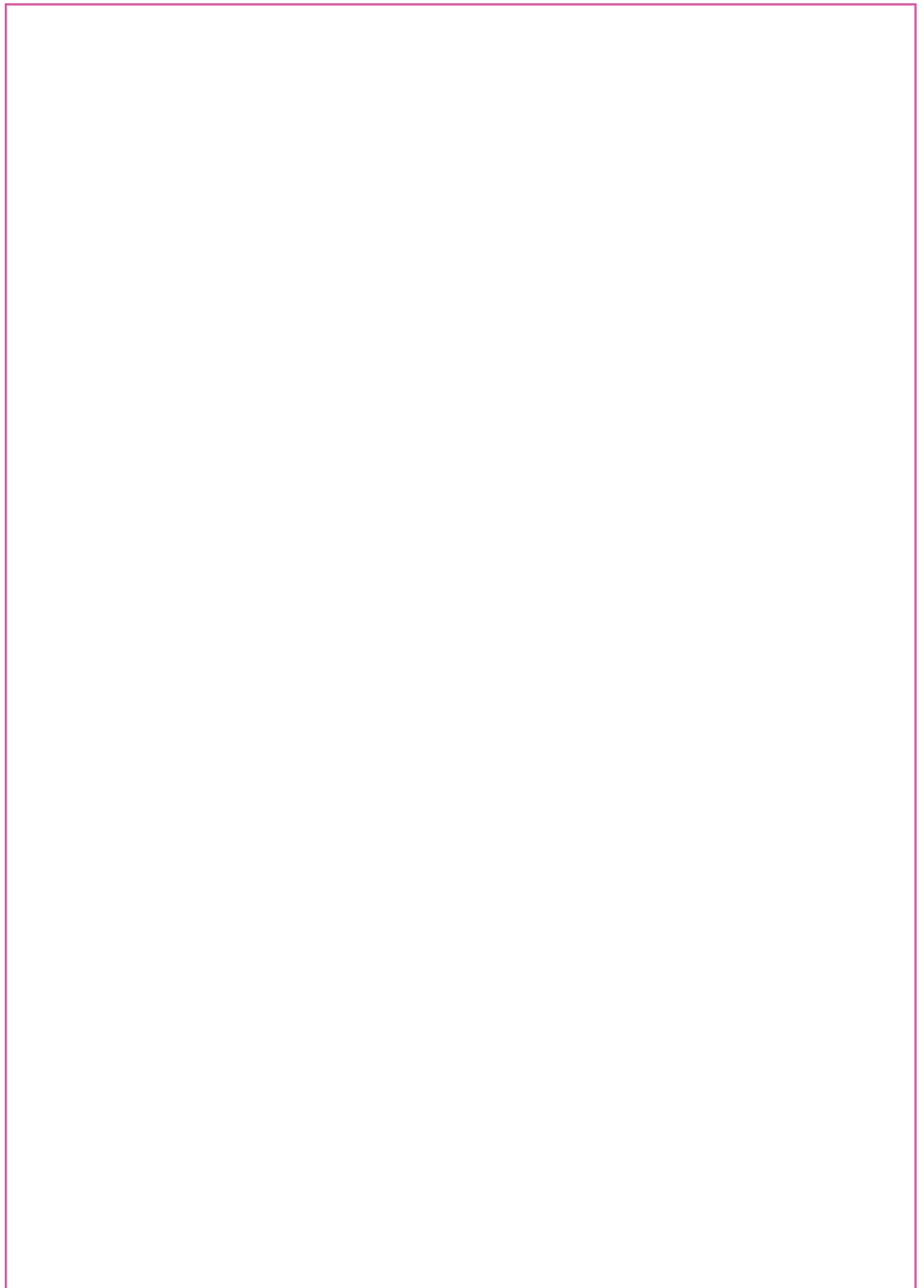


INSTRUCTION MANUAL





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IMPORTANT SAFETY INSTRUCTIONS



WARNING

BEFORE BEGINNING THIS OR ANY EXERCISE PROGRAM, CONSULT YOUR PHYSICIAN.

CERTAIN EXERCISES, PROGRAMS, OR TYPES OF EQUIPMENT MAY NOT BE APPROPRIATE FOR ALL INDIVIDUALS, ESPECIALLY IF YOU ARE ABOVE 40 YEARS OF AGE, AND/OR HAVE PRE-EXISTING HEALTH, AND/OR ORTHOPEDIC MEDICAL CONDITIONS. YOUR PHYSICIAN CAN HELP YOU DETERMINE WHAT ACTIVITIES OR PROGRAMS ARE MOST SUITABLE FOR YOU.

WARRANTY

This is to certify that the Pilot © wireless cadence meter is warranted by HOIST Fitness to be free of all defects in materials and workmanship. This warranty does not apply to any defect caused by negligence, misuse, accident, alteration, improper maintenance, or an “act of God.” The Pilot cadence meter can only be used on the Rev-Master series indoor cycling bikes. Any attempts to use this meter on any other equipment voids the warranty. The Pilot carries a one year warranty on the meter and transmitter. Batteries are not warranted. Contact our Customer Service Department to report any problems. When calling, please be prepared to provide the customer service representative with the following information: Your name, the serial number of the inoperable unit, and the date(s) of purchase for the meter. If warranty replacement parts are shipped to you, you may be required to return the inoperable part. HOIST Fitness neither makes, assumes nor authorizes any representative or other person to make or assume for us, any other warranty whatsoever, whether expressed or implied, in connection with the sale, service, or shipment of our products. We reserve the right to make changes and improvements in our products without incurring any obligation to similarly alter products previously purchased. In order to maintain your product warranty and to ensure the safe and efficient operation of your cadence meter, only authorized replacement parts can be used. This warranty is void if parts other than those provided by HOIST Fitness are used.

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NOTE:

- o Press any key to turn on the Pilot console.
- o Never disassemble the console or transmitter as it cannot be reassembled.
- o The console is water resistant, not water proof. Do not deliberately place it in water.
- o To clean the console, wipe it off with a clean rag sprayed with diluted household cleaner.

DESCRIPTION

The Pilot assembly consists of a console, a magnet, and a transmitter. A sensor in the transmitter counts the number of times a magnet mounted in the right crank passes the sensor. The transmitter will then send a coded ANT+ signal to the console containing the measured values. The console has inboard receivers that pick up RPM signals from the transmitter and heart rate signals from a telemetry chest strap. The heart rate is then shown in the display window. The console will track cadence (RPMs), time, distance, and caloric (KCAL) expenditure.

NOTE:

- o Excessive use of the back light will drain the console batteries prematurely.
- o Expected life of the console batteries is 6 months to 1 year.
- o Expected life of the transmitter batteries is 6 months to 1 year.
- o If the console battery power is low, then a low battery indicator will be visible.

INSTALLATION OF THE PILOT

NOTE:

The Pilot can only be installed on a LeMond RevMaster Pro or Sport bike.

The console uses three (3) AAA batteries and the transmitter uses two (2) AA batteries as a source of power. Install the supplied batteries in the transmitter. Follow the battery installation instructions for the console.

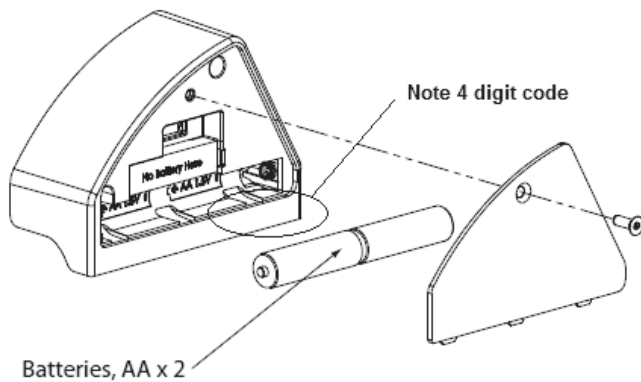
To install the meter (console and the transmitter), you will need the following tools:

- o 2.5-mm Hex Key (supplied)
- o 3-mm Hex Key (supplied)

Transmitter Battery Installation:

1. Remove the battery cover screw and cover from the transmitter with a 2.5-mm hex key.
2. Install two (2) AA batteries in the battery compartment.
3. **Retain the battery cover and its screw** until you have installed the transmitter on the bike. You will reinstall the battery cover at that time.

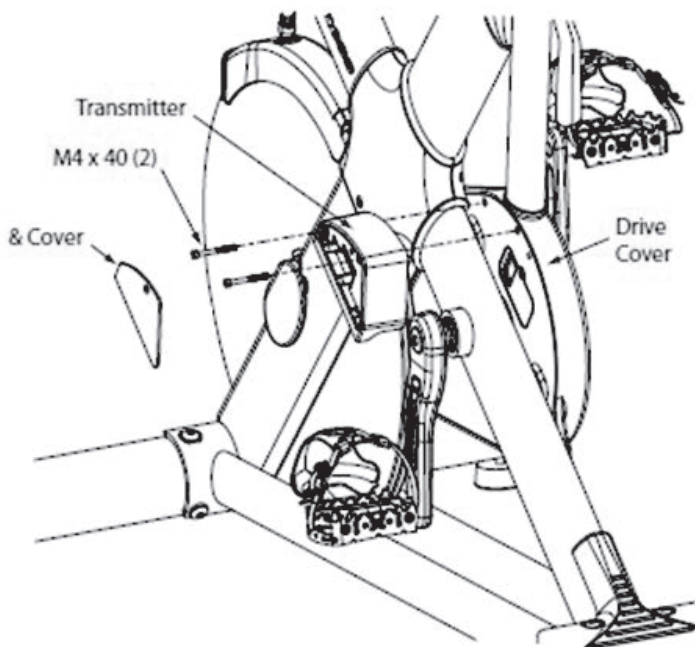
Note the 4 digit pairing code on the transmitter.



Transmitter Installation on a RevMaster Pro bike:

1. Ensure that the batteries are installed in the transmitter.
2. From the left side of the bike, position the transmitter next to the drive cover and use a 3 mm hex key to install and tighten two M4 X 40mm lg. socket head cap screws. (See illustration below.)

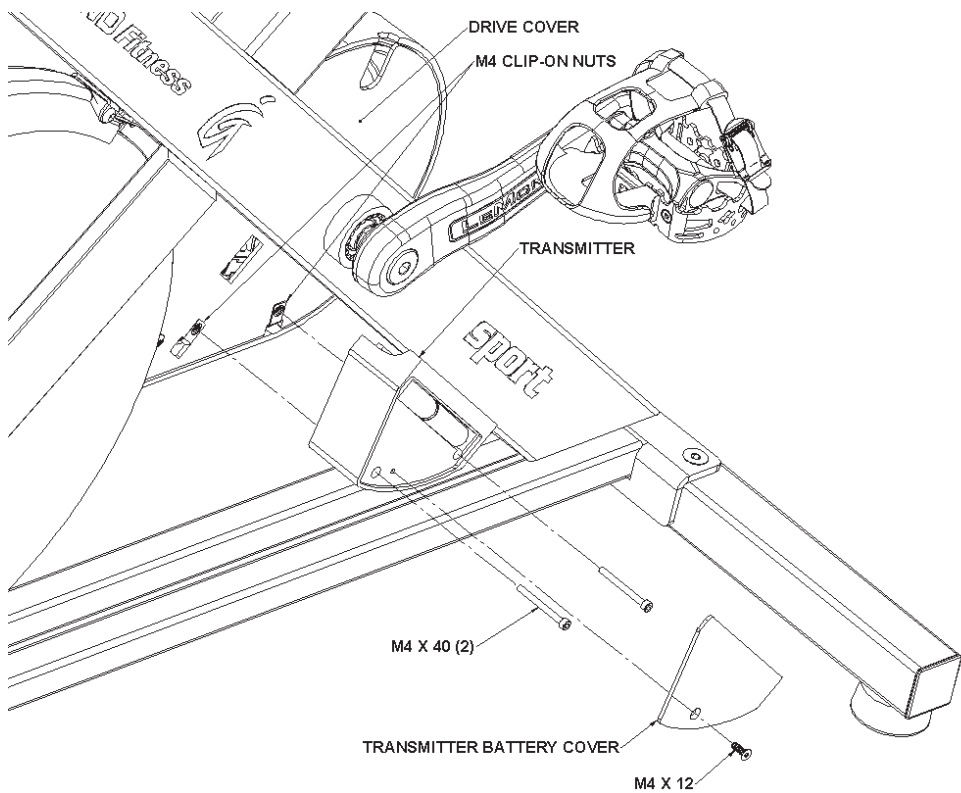
Note: The RPM sensor at the back of the transmitter will align with the indentation in the back of the drive cover.



3. Install the transmitter battery cover and screw; tighten with a 2.5 mm hex key.

Transmitter Installation on a RevMaster Sport bike:

1. Ensure that the batteries are installed in the transmitter.
2. From the left side of the bike, position the transmitter next to the (2) M4 clip-on nuts mounted on the drive cover. Insert (2) M4 X 40mm lg. socket head cap screws through the transmitter and align to the clip-on nuts. Use a 3 mm hex key to install and tighten the socket head cap screws. (See illustration below.)



3. Install the transmitter battery cover and screw; tighten with a 2.5 mm hex key.

Pairing the transmitter to the console:

1. Remove the battery bay cover and **Install only TWO** of the AAA batteries into the battery bay compartment.
See figure 1 (**do not install the third battery yet**)

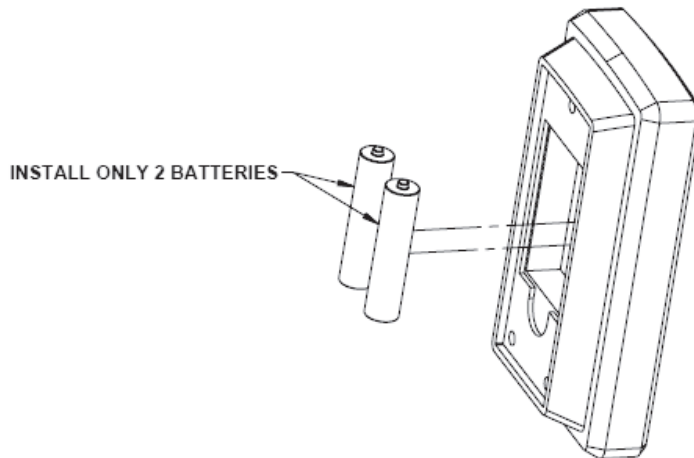


FIGURE 1

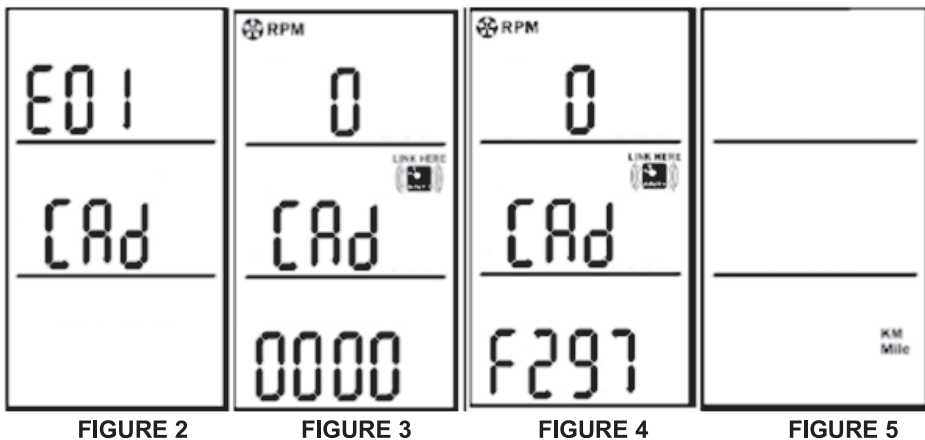
2. Insert the third battery while pressing and holding any of the four buttons on the front of the console. The display will now show the maintenance screen.

3. Press the Set button which will show CAD in the middle display and E01 in the top display (see Figure 2).

4. Press the Set button again, which will show CAD in the middle display, 0 in the top RPM display and 0000 in the bottom display (see Figure 3).

NOTE: The bottom display may already show the pairing code, but this procedure should still be completed.

5. Pair automatically by pressing the Mode button. The 4-digit alpha-numeric code should match the 4 digit code on the transmitter (see Figure 4, F297 is an example transmitter code).



6. If needed, a manual pairing can be done by pressing and holding the Mode button. The first digits of the 4 digit code (0000) should be flashing.

7. Adjust the digit using the up (▶||/▲) or down (☼/▼) button.

8. Press the Set button after each digit has been paired to the cadence transmitter.

9. Press the Set button to select between distance in kilometers (KM) or Miles.

10. Use the up (▶||/▲) or down (☼/▼) button to select either KM or Miles (see Figure 5).

11. Press the Set button to finish and begin exercise.

12. After completing the steps to pair the transmitter to the console, close the battery bay cap (see Figure 6).

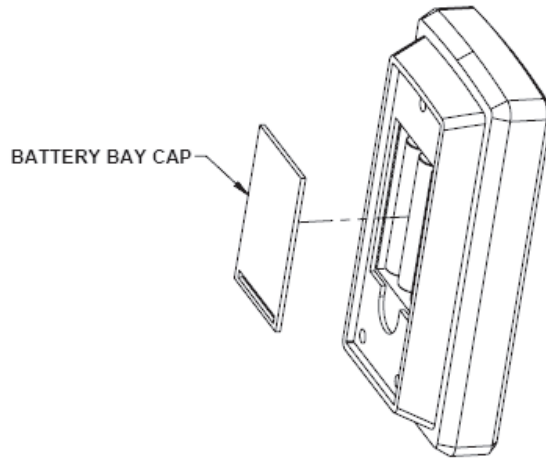


FIGURE 6

13. Place the rubber gasket on the back of the console (see Figure 7).

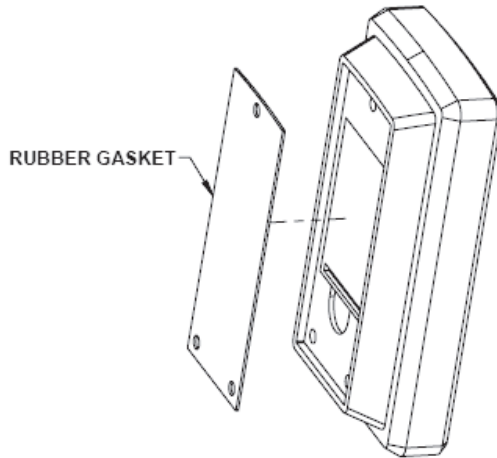


FIGURE 7

14. Attach the mount assembly to the back of the console with three M5 button head cap screws x 10mm lg. using a 3mm hex key (see assembled view Figure 8).

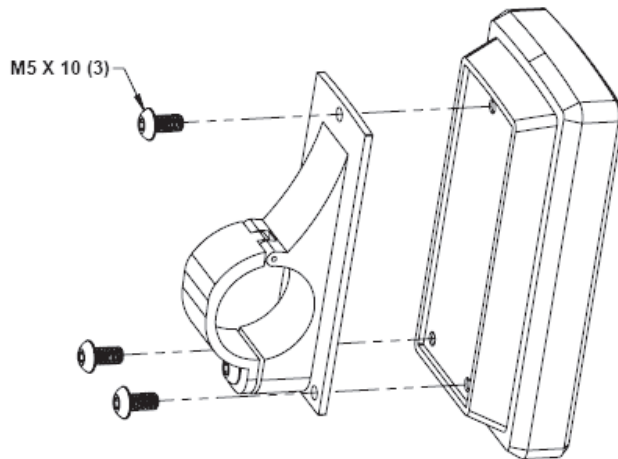


FIGURE 8

Mounting the Console to the Bike:

1. To attach the mount assembly to the handlebars, remove the pre-installed M5 button head cap screw x 20mm lg. from the bar clamp portion of the mount assembly using a 3mm hex key. Position the mounted console at the desired angle on the handle bars and tighten the clamp in place with the M5 button head cap screw x 20mm lg. previously removed. On the Sport bike only the rubber strip provided will need to be wrapped around the handle bars first before clamping in place. (See figures 9&10)

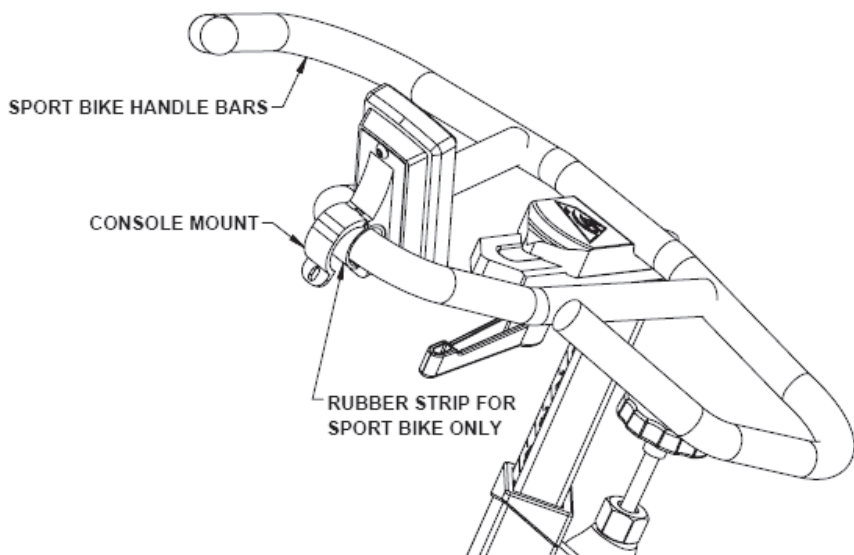


FIGURE 9

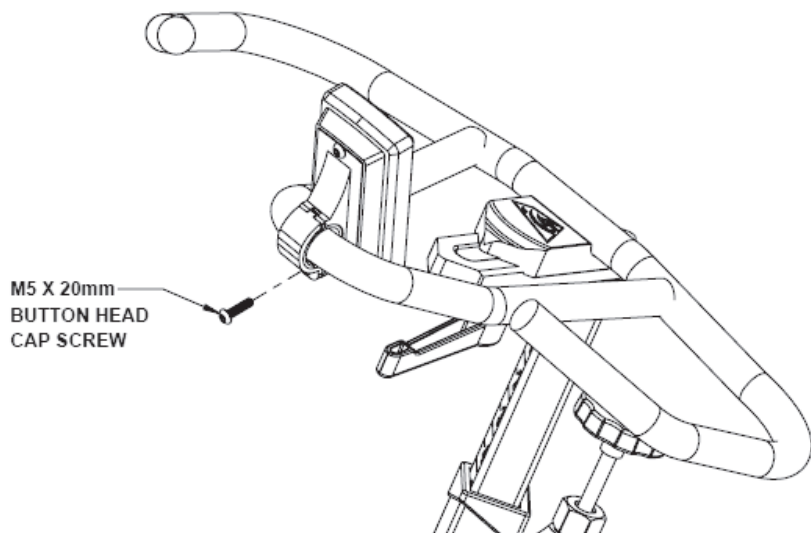


FIGURE 10

Pairing the Console to a Heart Rate Monitor:

1. Wet the heart rate monitor strap sensors slightly and securely attach the monitor around your chest. In order to pair the heart rate monitor to the computer, you **must** be wearing the monitor, and be within 12 inch. (30 cm) of the ANT+ symbol on the console. ANT+ straps will display a four digit alphanumeric code.
2. Power up the console by pressing any button.
3. Press and hold the Set button. This will display the heart rate and ANT+ symbol (See Figure 11).
4. For automatic pairing, press the Mode button. The 4 lines will start to rotate as the console searches for the heart rate monitor. Wait up to 30 seconds and the bottom screen will display a 4 digit code below the heart rate. (see Figure 12, 7236 is an example of a 4 digit code).



FIGURE 11



FIGURE 12

5. Once the heart rate monitor has been paired to the console, press the Set button to input personal data settings. The console comes with the following three settings set to the following defaults:

a. **Age (AGE):** 30 (see Figure 13). . In the age screen use the Up (▶II/▲) or Down (⊙/▼) button to set age. When complete, press the SET button to move to the ambient heart rate screen.

b. **Ambient heart rate* (AHR):** 70 bpm (see Figure 14). *Ambient heart rate is your normal heart rate during the day when going about day-to-day activities, but not exercising. In the ambient heart rate screen use the Up (▶II/▲) or Down (⊙/▼) button to set ambient heart rate. When complete, press the SET button to move to the weight screen.

c. **Weight (WT):** 70 kg / 154 lbs (see Figure 15). . In the weight screen use the Up (▶II/▲) or Down (⊙/▼) button to set weight. The weight values in both units will adjust simultaneously.



FIGURE 13



FIGURE 14



FIGURE 15

When complete, press the SET button to move to the main screen (see Figure 16).

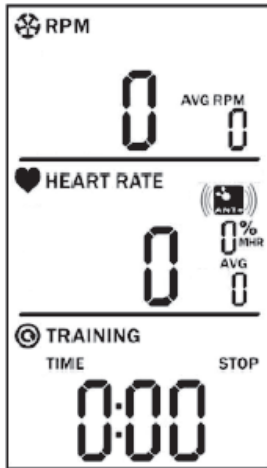


FIGURE 16

The personal data will be stored in the console memory for as long as the console is powered up. The data can be changed at any time during the exercise session by pressing and holding the Set button. The heart rate transmitter must be paired to the console whenever the console is powered on and before the exercise session in order to achieve accurate data for the session. The console will shut off after five minutes of non-activity. When the console shuts off, the personal data values return to their default values. The values must be set prior to the start of each new exercise session if the console has been shut off.

NOTE: The console's default settings are:

Age: 30, Ambient heart rate: 70, Weight: 154 lbs. (70 kg.). Using the console's default settings may not accurately represent your own caloric expenditure.

NOTE: Once the pairing has been completed, the code is stored in the on-board memory so that the code is retained during a battery change, avoiding the need to re-pair.

Instructions on Using the Console:

The console's main screen is divided into three sections (see Figure 17):

- RPM (top)
- HEART RATE (middle)
- TRAINING (bottom)

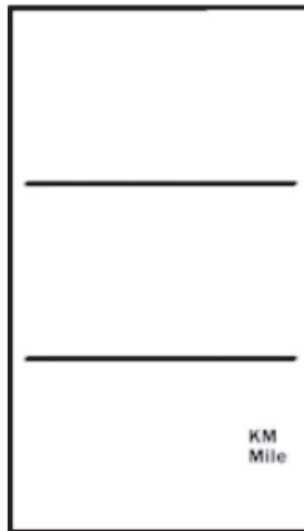


FIGURE 17

RPM:

The RPM display shows the following data (see Figure 18):

- RPM: Cadence (rotational speed) of the crank
- AVG RPM: Average RPM of the training session
- Low battery indicator



FIGURE 18

HEART RATE:

The HEART RATE display shows the following data (see Figure 19):

- Heart Rate in beats per minute
- %MHR: Percent of maximum heart rate, calculated using the formula $220 - \text{AGE}$ to estimate maximum heart rate
- AVG: Average heart rate for the training session



FIGURE 19

TRAINING:

The training display shows the following data (see Figure 20):

- Training session time
- Training session KCAL (Calories)
- Training session distance travelled. Distance is calculated based upon the revolutions of the flywheel, and is calculated from the RPMs.



FIGURE 20

1. To start a training session, press the Start (▶||/▲) button. This will start the timer. The timer must be running in order to measure KCAL and distance.
2. To pause a training session press the pause (▶||/▲) button.
3. To reset the training session timer, press and hold the Mode button
4. To cycle through the data display, press the Mode button
5. To activate the SCAN feature, press the Mode button three times. When the SCAN feature is activated, SCAN will appear on the screen, and the console will cycle through the data (time, KCAL, distance) at three second intervals.
6. To deactivate the scan feature press the Mode button.
7. To illuminate the backlight press the Light button. The light button will illuminate for five seconds then turn off. This setting cannot be changed. When powered on, the console will remain on for five minutes with **no activity**.

Cadence (RPM):

Cadence is the measurement of how fast the crank is rotating in RPM's.

Time:

Time is the length of time (min:sec) since you pressed the start button.

Distance:

Distance is calculated as if the user was riding a bike with tires the same size of the flywheel.

Speed at 80 Pedal RPM ~ 18MPH

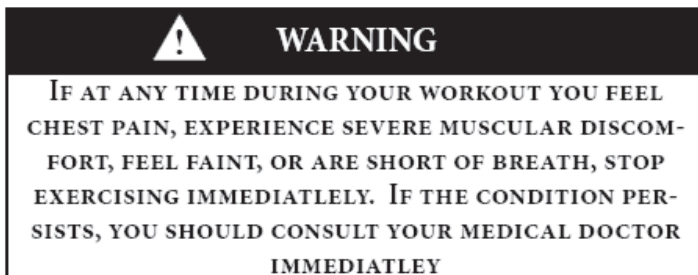
KCAL:

Kcal is the approximation of calories burned during your workout. The calories are estimated by measuring your instantaneous heart rate (HR) and factoring in your age, ambient HR, and weight.

HEART RATE:

This is the measurement by telemetry (chest strap), of your heart rate in beats per minute (BPM).

Note: *You must wear a chest strap during your workout in order to see your heart rate. The Pilot Pro console will detect heart rate signals from most chest straps that emit an analog signal and all ANT+ digital chest transmitters.*



<u>Resistance Used</u>	<u>Cadence</u>	<u>Heart Rate</u>	<u>RPE</u>	<u>Feeling</u>
Light	RPM 50-70	35%-50% MHR	1-2	Very easy
Light	RPM 70-90	50%-60% MHR	3-4	Easy
Light	RPM 90-100	60%-70% MHR	5	Steady; comfortable
Light	RPM 100-135	70%-85% MHR	6+	Challenging
Moderate	RPM 50-70	55%-65% MHR	4-5	Somewhat hard
Moderate	RPM 70-90	65%-75% MHR	5-6	Challenging, steady
Moderate	RPM 90-100	75%-85% MHR	6-7	Hard!
Moderate	RPM 100+ 85%-100% MHR		7-10	Very hard; chasing
Heavy	RPM 50-60	70%-80% MHR	6-7	Hard; talking is hard
Heavy	RPM 60-70	80%-85% MHR	7-8	Very hard; pushing
Heavy	RPM 70-80	85%-90% MHR	8-9	Very Hard!!
Heavy	RPM 80+	90%-100% MHR	9-10	Maximal

<u>Resistance Used</u>	<u>Speed Change</u>	<u>Effects on Heart Rate</u>
Light	Lower RPM	HR remains relaxed
Light	Higher RPM	HR begins to rise
Moderate	Lower RPM	HR near to steady state
Moderate	Higher RPM	HR rises from steady state
Heavy	Lower RPM	HR rises - hard effort
Heavy	Higher RPM	HR rises very hard to maximal effort








Warm-Up:

A warm up is of critical importance to the success of your cycling. The demands of your riding profile should be prepared in the warm-up to achieve maximal results. You must get your working muscles to a temperature of optimum performance where the circulatory system is delivering oxygen and nutrients efficiently to those muscles. Depending on the workout session goal, warm up can take from 15 minute to 20 minutes.

Maintenance:

We strongly recommend performing regular daily, weekly, and monthly preventative maintenance actions outlined below in the Table. If any items need replacement, contact Hoist Fitness Systems Customer Support at +1(858) 578-7676

D = Daily, W = Weekly, M = Monthly

D	W	M	Action
			Wipe computer with a soft, non-abrasive cloth to remove all sweat after each use.
			Using a soft, non-abrasive cloth and mild spray cleanser, clean computer. Never use abrasive cleaning liquids, cleaning liquids with an oil base, ammonia, or alcohol when cleaning the computer
			Inspect each computer for loose parts or fasteners. Adjust as necessary
			Remove and replace any computers that are damaged or deemed unsafe
			Inspect all components for any damaged pieces that need to be replaced.
			Replace batteries when low-battery icon appears in the top section of the screen. Always use high-quality AAA alkaline batteries.
			Inspect the cadence sensor transmitter and magnet to ensure they are in place and working properly.

Note: Depending on the amount of use, some actions may need to be performed more frequently.

Frequently Asked Questions:

1. How do I turn the console off?

The console does not have a button to turn it off. The console shuts itself off after five minutes of inactivity.

2. What are the console's default personal data settings?

Default age is 30, ambient heart rate is 70, weight 154 lbs. (70 kg.).

3. What if I do not want other riders to know my personal data settings?

Inputting your personal data is the most accurate method for calculating an estimate of caloric expenditure. This information will NOT be stored, and the console will revert back to the default settings when it turns off. The console will turn off five minutes after the riding session or when not in use for five minutes.

4. What is ambient heart rate (AHR)?

Ambient heart rate (AHR) is your normal heart rate during the day when you are going about your day-to-day activities, but not engaged in exercise or other physical activities that would cause your heart rate to rise. You can measure your ambient heart rate while you are sitting and reading a book, watching TV, working on the computer, etc. Take your ambient heart rate measurement three times over three days to determine your average ambient heart rate. Ambient heart rate for the general population is between 70 and 80 beats per minute, and for highly trained athletes can be as low as 40 to 60 beats per minute.

5. How does ambient heart rate (AHR) differ from resting heart rate (RHR)?

Resting heart rate (RHR) is your heart rate when you are in a complete state of rest. It is usually taken in the morning after waking and before arising from bed. Whereas ambient heart rate (AHR) is your normal heart rate during the day as you are going about your normal day-to-day activities.

6. In the Heart Rate display, what is %MHR?

The console will automatically determine your estimated maximal heart rate (MHR) when you input your personal data during the setup. The %MHR display indicates exercise intensity using the formula $220 - \text{age}$ to represent maximum heart rate, and then current heart rate as a percentage of the maximum.

7. What do I do if the console is not picking up my heart rate?

- Make sure the heart rate strap is fitted snugly at the bottom of your ribcage and that the sensors are slightly moistened.
- Follow the instructions on page 15 to pair your heart rate strap to the console.
- Try changing the battery in your heart rate strap.
- Check the distance between your heart rate strap and the console when pairing. You must be within 12 in. (30 cm) in order to pair.

8. Which heart rate monitors are compatible with the computer?

ANT+ 2.4 GHz heart rate monitors. To see if your brand heart rate monitor is compatible, go to the product directory www.thisisant.com/directory/star-trac-group-cycling-computer/ and check to verify that your monitor is compatible.

9. Why am I picking up another users heart rate on my computer?

When bikes and riders are too close together while wearing analogue straps, it is possible to get crosstalk between the straps, where the signal from another rider nearby shows up on the console. Moving the bikes further apart should eliminate crosstalk. Using an ANT+ heart rate strap will also prevent crosstalk.

10. Do I require a heart rate monitor to see calories (KCAL)?

Yes, an ANT+ heart rate monitor is required to detect calories (KCAL) when exercising.

11. Why is the console not scanning between time, KCAL, and distance?

The SCAN feature must be activated by pressing the Mode button three times. When the feature is activated, SCAN will appear on the screen, and the console will cycle through the data at three second intervals.

12. Why is the console timer not working?

You must press the Start (▶||/▲) button to start the timer. The timer may be in PAUSE mode

13. What is the life of the batteries, and what factors affect the life of the batteries?

Battery life varies widely depending on use and will depend on frequency of use. Excessive use of the backlight will decrease battery life.

14. What batteries do the console and cadence sensor transmitter use?

The console requires three AAA alkaline batteries. The transmitter requires two AA batteries.

15. Can I display the data from the console on an external leader board system?

The console is not capable of transmitting data.

TROUBLESHOOTING

No Display on Console:

1. Press any key to bring the console out of sleep mode.
2. Ensure that the batteries are installed properly in the console and transmitter. If they are, install fresh batteries.
3. Verify that the transmitter and console are paired correctly (see pages 10 & 11).
4. Call our Customer Service department at 858-578-7676 for assistance.

No Heart Rate signal displayed:

1. Ensure that your chest strap is worn correctly, and that there is moisture under the electrodes of the chest strap.
2. Relocate the RevMaster bike away from any equipment that could potentially interrupt the radio frequency signal, such as a DVD player or television, etc.
3. Ensure that there is at least 36 inches between bikes in a group exercise class setting.
4. Call our Customer Service department at 858-578-7676 for assistance

RPM or HR does not change:

1. Press the Set button to finish and begin exercise.
2. Call our Customer Service department at 858-578-7676 for assistance.

RPM / Cadence number jumps high or low:

1. Verify that the transmitter and the console are paired correctly (see pages 10 & 11).
2. Relocate the bike to a different part of the room, away from any RF interference areas.

CERTIFICATIONS:

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by Hoist Fitness Systems could void the user's authority to operate the equipment

FCC ID: QSWASPDCS

EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC.

This computer is ANT+ certified.



NOTE: The users' device must be ANT+ compatible and capable of receiving the data files broadcast by the ANT+ chip. Users should consult with the documentation for their device, or check the ANT+ website at www.thisisant.com for compatibility.



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