

# NORAMCO FITNESS

13901 Highway 105 West  
Conroe, TX 77304

[www.NoramcoFitness.com](http://www.NoramcoFitness.com)

## Speed & Grade Calibration For 4616PR, 4616PRC and 4616HRT Models

**NOTE:** After you begin either of the calibration processes, you must complete the process by pressing ENTER repeatedly until the lights go out and the treadmill enters normal mode. If you exit the process by shutting down the power or pulling the stop magnet, your settings will not be saved.

**Short Cuts:** Hold down the UP, FASTER and PROGRAM buttons to skip speed calibration and move into grade calibration.

### Speed Calibration

1. Hold down the UP, FASTER and PROGRAM buttons until “SPd CAL” is displayed, then release.
2. Press POWER to start the speed calibration by setting the minimum speed.
3. Use the FASTER and SLOWER buttons to adjust the speed of the treadmill to 0.5 mph. The upper left window will display a PWM value that can be used to approximate the correct speed, but this number can vary widely. Start with the number 24 in the upper left window, then count the belt revolutions to set the speed correctly. Count the belt revolutions by watching for the belt seam, or put a piece of masking tape or a chalk mark on the belt. 0.5 mph is equal to 4 belt revolutions per minute.
4. Press ENTER to proceed to the maximum speed setting.
5. Use the FASTER and SLOWER buttons to adjust the speed of the treadmill to 16 mph. The upper left window will display a PWM value that can be used to approximate the correct speed, but this number can vary widely. Start with the number 148 in the upper left window, then count the belt revolutions to set the speed correctly. Count the belt revolutions by watching for the belt seam, or put a piece of masking tape or a chalk mark on the belt. 16 mph is equal to 125 belt revolutions per minute.
6. Press ENTER to proceed to the mid-point speed setting.
7. Use the FASTER and SLOWER buttons to adjust the speed of the treadmill to 8.0 mph. The upper left window will display a PWM value that can be used to approximate the correct speed, but this number can vary widely. Start with the number 82 in the upper left window, then count the belt revolutions to set the speed correctly. Count the belt revolutions by watching for the belt seam, or put a piece of masking tape or a chalk mark on the belt. 8.0 mph is equal to 63 belt revolutions per minute.
8. Press ENTER to save the settings and complete the speed calibration process.

The speed calibration process is complete. If the board was previously calibrated, the treadmill will return to the idle state – ready for normal operation. If the board has never been calibrated before, the display will automatically proceed to incline calibration.

# NORAMCO FITNESS

13901 Highway 105 West  
Conroe, TX 77304

[www.NoramcoFitness.com](http://www.NoramcoFitness.com)

## Calibration & Setup For 4616PR, 4616PRC and 4616HRT Models

**NOTE:** After you begin either of the calibration processes, you must complete the process by pressing ENTER repeatedly until the lights go out and the treadmill enters normal mode. If you exit the process by shutting down the power or pulling the stop magnet, your settings will not be saved.

**Short Cuts:** Hold down the UP, FASTER and PROGRAM buttons to skip speed calibration and move into grade calibration.

### Grade Calibration

1. Hold down UP, FASTER and PROGRAM buttons until “Grd CAL” is displayed then release.
2. Press POWER to begin the grade calibration process and set the maximum grade. The treadmill will incline all the way up and stop.
3. Press ENTER to save the setting and proceed to the minimum grade setting. The treadmill will decline all the way down and stop.
4. Press ENTER to save the settings and proceed to the potentiometer test.
5. If everything is working properly “PASS” should be displayed in the “Time” window.
6. Press ENTER to save the settings and complete the grade calibration process.

Grade calibration process is complete. The treadmill will return to the idle state – ready for normal operation.

**Note:** The “Calories/Mets/Watts” window will display the lift motor potentiometer voltages. This number should go up and down smoothly. If the pot reads erratically during the calibration process, “PF” (pot failure) will be displayed in the “Time” window.

### General Operation Failure Codes

- 1) The display will blink “PF” in the grade window if the pot reads erratically.
- 2) If the analog to digital converter on the processor fails, “CF” will be displayed in the grade window.
- 3) If at any time the EEPROM fails to record when a write is attempted, the message “EEPROM FAILURE” will be displayed.