



WIRELESS COMPUTER

Thank you for your purchase of the Nashbar NB-WC Wireless computer. Packed with all the features that a professional rider needs to keep track of a workout, the NB-WC is a perfect training tool for any cyclist. The added convenience of wireless transmission makes installation simple.

BATTERY INSTALLATION:

To help you get started quickly, the NB-WC transmitter and computer batteries have been installed at the factory. Replacement batteries are available at most camera and electronic shops. Under normal usage batteries should last approximately one year. Note: Most problems that occur with cyclocomputers are caused by dead or weak batteries. If you are having problems with your computer's operation, check and replace the batteries first.

COMPUTER HEAD/RECEIVER

The Nashbar NB-WC computer head uses a common 3V CR2032 button cell battery.

STEP 1

To install or replace the battery, remove the battery cap from the bottom of the computer using a small coin. Remove the old battery and dispose of properly.

STEP 2

Install the battery in the battery compartment with the positive (+) pole facing the battery cap. See Figure 1. Be careful when installing the battery not to damage the battery contact.

STEP 3

Reinstall the battery cap and tighten firmly, making sure the rubber O-ring does not get pinched or distorted, as this will compromise the unit's watertight seal.

Note: During a battery change programmed settings and odometer mileage will be erased. Make a note of your current wheel size setting and cumulative odometer mileage before replacing the battery so you can reprogram these values after the battery change (see "Programming Wheel Size" and "Setting the Odometer").

STEP 4

If for some reason the screen is blank or shows an irregular display after a battery change, remove the battery and install again, which will restart the computer's microprocessor.

TRANSMITTER

The NB-WC transmitter uses a 12V VR22 / L1028 / A23 battery.

STEP 1

To install or replace the battery, remove the battery cap from the top of the transmitter case using a small coin. Remove the old battery and dispose of properly.

STEP 2

Install a new battery with the positive (+) pole facing the cap. See Figure 1. Reinstall the battery cap and tighten firmly, making sure that the rubber O-ring does not get pinched or distorted, as this will compromise the unit's watertight seal.

COMPUTER FUNCTIONS

SPEEDOMETER

Displays instantaneous speed up to 99.9 M/hr or KM/hr. Accurate to 0.1M/hr or KM/hr. Always displayed on top line.

CLOCK

Displays time of day in a 12 hour or 24 hour format.

TRIP DISTANCE (DST)

Displays distance traveled during current ride up to 999.99 miles or kilometers.

MAXIMUM SPEED (MXS)

Displays the fastest speed attained during a ride, up to 99.9 M/hr or KM/hr. Accurate to 0.1 M/hr or KM/hr.

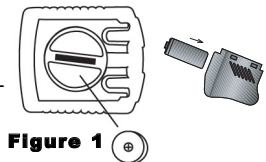
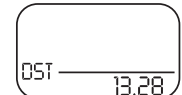


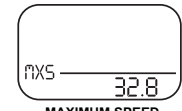
Figure 1



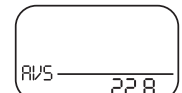
SPEEDOMETER



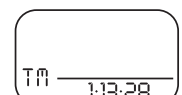
TRIP DISTANCE



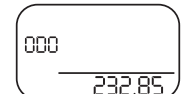
MAXIMUM SPEED



AVERAGE SPEED



AUTOMATIC RIDE TIMER



ODOMETER

For technical support, call 1-800-888-2710, M-F 9am-6pm EST

Bike Nashbar, 6103 Rt. 446, Canfield, OH. 44406

Made in China

www.nashbar.com

NB-WC, V1 - September 2004

AVERAGE SPEED (AVS)

Displays average speed up to 99.9 M/hr or KM/hr. Accurate to 0.1 M/hr or KM/hr. Calculated using ride time (TM) and trip distance (DST).

AUTOMATIC RIDE TIMER (TM)

Auto start/stop timer records actual ride time up to 9:59:59. Activated by front wheel movement.

ODOMETER (ODO)

Displays cumulative ride distance, up to 9,999.9 miles or kilometers.

SCAN

Allows hands free viewing of all screens. When activated, the scan feature scrolls through all display screens on a continuous loop, displaying the screens for three seconds each. To enter scan mode, press the RIGHT button repeatedly until "SCAN" appears in the upper left corner of the display. Press the RIGHT button again to exit scan mode.

SPEED COMPARISON (+/-)

Compares current speed to average speed. As you ride, a (+) or (-) will appear in the top right corner of the display screen to indicate whether your current speed is above (+) or below (-) your average speed. This function is automatic, requires no programming and cannot be disabled.

SPEED TENDENCY ICON

The wheels on the bicycle icon roll forward to indicate acceleration and backward to indicate deceleration.

MAINTENANCE INTERVAL REMINDER

The maintenance reminder can be set to remind you to perform periodic maintenance at programmed mileage intervals. At the pre-set mileage interval a wrench icon will appear and flash in the display screen. Press the LEFT button to turn off the icon.

EL BACKLIGHT

The electro luminescent backlight illuminates the display screen for viewing in low light conditions.

AUTO SLEEP

To prolong battery life, the NB-WC will automatically enter "sleep" mode after 5 minutes of non-use. The computer will automatically restart when it receives input from the speed sensor, or when any button is pressed.

FREEZE FRAME

This function is useful when crossing the finish line of a race to pause TM, DST and AVS because these functions cannot be stopped manually.

PROGRAMMING THE COMPUTER

Before using your Nashbar NB-WC cyclocomputer, you must program wheel size, select a speed scale (Miles or Kilometers), set the maintenance reminder, select a clock mode (12H or 24H) and set the clock. The first step is to determine wheel size.

DETERMINING WHEEL SIZE

The NB-WC uses wheel circumference (measured in millimeters) to calculate speed and distance. Note that while your computer can be programmed to +/-1mm for total accuracy, discrepancies of as much as 50mm will not have a significant effect on the accuracy of the unit for most normal rides. The following chart lists the programming sizes for some of the most popular tire sizes currently in use. These numbers are estimates which may not precisely match the circumference of your wheel, due to variations in tire size between brands and models.

TIRE SIZE	CIRCUMFERENCE millimeters	TIRE SIZE	CIRCUMFERENCE millimeters	TIRE SIZE	CIRCUMFERENCE millimeters
24 x 1.75	1888	26 x 1.75	2045	700 x 28	2136
26 x 1.4	1995	26 x 2	2099	700 x 32	2155
26 x 1.5	2030	700 x 25	2124	27 x 1 1/4	2155

WHEEL SIZE CALCULATION

If your specific tire size is not listed in the chart, follow these steps to measure wheel circumference. See Figure 2.

STEP 1

Stand your bicycle upright. With your tire inflated to its proper pressure, rotate your front wheel so that the valve is located at the bottom (6 o'clock position). Make a mark on the floor to indicate the valve location.

STEP 2

Roll the bicycle forward in a straight line for one complete wheel revolution, until the valve is again at the bottom (ideally, you should be on the bike). Make a mark on the floor to indicate the valve location.

STEP 3

Measure the distance between the marks in millimeters (1 inch = 25.4mm). This value is your wheel circumference. Enter this value in the computer (see "Programming Wheel Size").

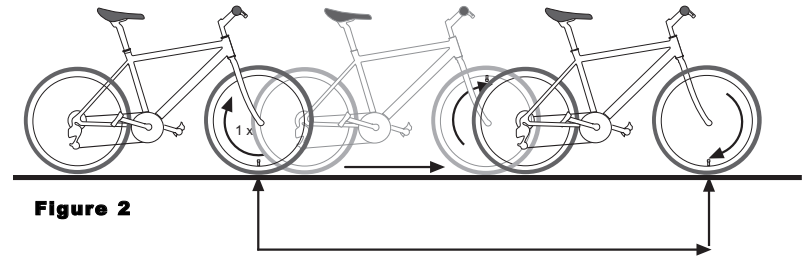
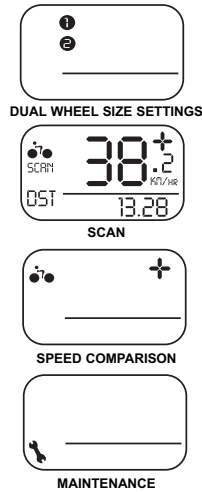


Figure 2

PROGRAMMING WHEEL SIZE

The default wheel size setting is 2124mm. After determining your wheel size as described above, enter the value in the computer.

STEP 1

In any display screen press and hold both buttons (LEFT and RIGHT) for three seconds to access the wheel size programming screen. The digit at the right of the screen will flash. Use the RIGHT button to adjust the value.

STEP 2

Press the LEFT button to confirm the value and advance to the next flashing digit.

STEP 3

Repeat this process until all digits have been set to the appropriate values.

STEP 4

Press the LEFT button to confirm the wheel size setting and proceed to the speed scale selection screen.

SELECTING MILES OR KILOMETERS

The Nashbar NB-WC is capable of displaying speed and distance information in either miles or kilometers.

STEP 1

After programming wheel size (above), the computer will automatically proceed to the speed scale selection screen.

STEP 2

"KM" will flash at the top of the screen. Press the RIGHT button to select miles (M) or kilometers (KM).

STEP 3

Press the LEFT button to confirm your selection and proceed to the maintenance interval screen.

SETTING THE MAINTENANCE INTERVAL REMINDER

The maintenance interval reminder is intended to remind you to perform periodic maintenance at pre-set mileage intervals. For example, if you select a maintenance interval of 400 miles (or kilometers), the maintenance wrench icon will appear when total distance (ODO) reaches 400, 800, 1200, 1600 miles (or kilometers), and so on.

STEP 1

After selecting speed scale (above), the computer will automatically proceed to the maintenance interval screen.

STEP 2

"600" miles (or kilometers) will flash in the display screen. Press the RIGHT button to select a maintenance interval of 200, 400, 600 or 800 miles (or kilometers).

STEP 3

Press the LEFT button to confirm your selection and return to the speed and clock display screen.

SETTING THE CLOCK

The NB-WC cyclocomputer is equipped with a digital clock that displays time of day in a 12 hour or 24 hour format.

STEP 1

In the speed and clock display screen, press and hold the LEFT button for two seconds to access the clock mode selection screen.

STEP 2

"24" will flash at the bottom of the display. Press the RIGHT button to select the 12 hour or 24 hour mode. Press the LEFT button to confirm your selection and advance to the hours setting.

STEP 3

Press the RIGHT button (or press and hold) to set the hours. Press the LEFT button to advance to the minutes setting.

STEP 4

Press the RIGHT button (or press and hold) to set the minutes. Once the minutes are set, press the LEFT button to confirm the setting and return to the speed and clock display screen.

SETTING THE ODOMETER

The NB-WC odometer can be programmed so that cumulative mileage can be restored after a battery change or transferred from another computer.

STEP 1

In the ODO display screen, press and hold the LEFT button for three seconds until the digit at the bottom right of the screen begins to flash.

STEP 2

Use the RIGHT button to adjust the value. Press the LEFT button to confirm the value and advance to the next flashing digit.

STEP 3

Repeat this process until all digits have been set to the appropriate values.

STEP 4

Once the last digit has been set, press the LEFT button to return to the ODO display screen.

RESET DISPLAY SCREENS

The DST, AVS and TM display screens are reset simultaneously. In the DST display screen, press and hold the LEFT button for three seconds to reset all three display screens to zero. The MXS display screen is reset separately. In the MXS screen, press and hold the LEFT button for three seconds to reset MXS to zero.

To reset all display screens AND reset all programmed settings (including CLK, ODO, wheel size settings and maintenance interval), press and hold both buttons (LEFT and RIGHT) for three seconds.

USING THE EL BACKLIGHT

There are two ways to use the backlight:

1. Press the LEFT button twice in any display screen to illuminate that screen for four seconds.
2. Press and hold the RIGHT button for two seconds. The backlight will illuminate for eight seconds while the computer scans through the DST, MXS, AVS and TM screens one time.

USING FREEZE FRAME

To activate freeze frame function press the LEFT button in any display screen. This will freeze TM, DST and AVS information (display will flash and screen will illuminate). To scroll between TM, DST and AVS press RIGHT button. To deactivate freeze frame function press LEFT button.

INSTALLATION

Since the NB-WC is wireless, installation is simple and straight forward. Begin by attaching the computer mounting bracket to the handlebar.

BRACKET AND COMPUTER INSTALLATION

STEP 1

Select the proper size mounting ring for your handlebar. Two mounting bracket rings and three rubber shims are included to accommodate a wide range of handlebar diameters. The smaller ring (already fitted to the bracket) fits standard 25.4mm - 26.4mm diameter handlebars. The larger ring fits 31.8mm oversize bars. If necessary, remove the smaller ring from the bracket and swap it with the larger ring. See Figure 3.

STEP 2

Clamp the bracket to the handlebar and tighten in place. See Figure 4. Do not over tighten the bracket as this may result in breakage. The bracket needs to be tightened only enough to prevent rotation on the handlebar during normal riding.

STEP 3

Attach the computer head to the bracket. Slide the computer head into the bracket from front to back. See Figure 5. You should hear an audible 'CLICK' indicating that the unit is locked firmly in place. Use the two bracket pivot points to adjust the viewing angle as desired.

STEP 4

To remove the computer head from the bracket, press down on the release tab at the rear of the bracket and slide the computer head forward.

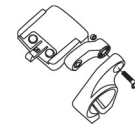


FIGURE 3

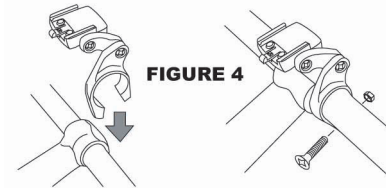


FIGURE 4

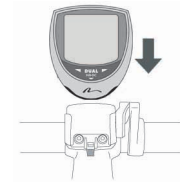


FIGURE 5

WHEEL MAGNET AND SPEED SENSOR INSTALLATION

STEP 1

Using the included rubber shim (which should be already attached to the transmitter) and zip-ties, loosely mount the transmitter (so that you can slide it around) to the leading edge of the left fork blade with the transmitter battery cap facing up. See Figure 6. The NB-WC wireless transmission range is 24" (60cm). The transmitter must be mounted no further than 24" from the receiver (computer head) in order for the receiver to pick up the signal.

STEP 2

Attach the wheel magnet loosely to one of the spokes on the same side of the wheel as the transmitter. Adjust the position of the magnet and transmitter by sliding both pieces up or down until the magnet passes the alignment mark on the transmitter with a clearance of 1-3mm (1mm is about the thickness of a penny). See Figure 6. If the magnet and transmitter are not close enough, computer readings will be inconsistent, erratic or completely absent. Most problems that occur when installing a new computer are related to magnet and sensor alignment and spacing.

STEP 3

Once the transmitter and wheel magnet are aligned properly, securely tighten both in place.

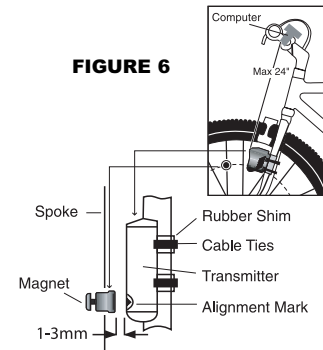


FIGURE 6

TEST OF INSTALLATION

Once the installation procedure is complete, test the unit to make sure everything is adjusted and working properly.

STEP 1

Pick up the front end of the bicycle and spin the front wheel. The computer should register a speed reading within 1-2 seconds. If it does not, check the alignment of the wheel magnet and transmitter, and make sure that the space between the magnet and transmitter is 3mm or less. Adjust as necessary and re-test.

Note: Wireless cyclocomputers are occasionally affected by electromagnetic interference. Common sources of electromagnetic signals include high voltage power lines, motor driven equipment and other wireless devices (such as heart rate monitors). If you experience unusually high speed readings, check your surroundings for possible sources of electromagnetic signals and move away from the source.