



CMA Testing and Certification Laboratories

廠商會檢定中心 TEST REPORT

Report No. : AR0066921(2) Date : 27 Nov 2013

Application No. : LR033775(3)

Applicant : Atech Scientific Measurement Limited
Unit A-C, 18F., Luk Hop Ind. Bldg. 8 Luk Hop Street
San Po Kong, Kowloon

Client : EASTON BELL SPORTS (ASIA) LTD
SUITE 1003 SKYLINE TOWER, 39 WANG KWONG
KOWLOON BAY, KOWLOON

Sample Description : One(1) item of submitted sample stated to be Wireless bicycle computer - Console
100 of Model No. BCAC0667
Sample registration No. : RR036985-002
Radio Frequency : 110.72 kHz Transmitter
Rating : 1 x 3V button cell
No. of submitted sample : Three (3) set (s)

Date Received : 04 Sep 2013

Test Period : 24 Sep 2013 to 26 Nov 2013.

Test Requested : FCC Part 15 Certificate

Test Method : 47 CFR Part 15 (10-1-12 Edition), ANSI C63.4 – 2009

Test Engineer : Mr. LEUNG Shu-kan, Ken

Test Result : See attached sheet(s) from page 2 to 32.

Conclusion : The submitted sample was found to comply with requirement of FCC Part 15 Subpart C.

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : 

Mr. WONG Lap-pong, Andrew
Assistant Manager
Electrical Division

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FCC ID: UWWCONSOLE100



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1 General Information

1.1 General Description

The equipment under test (EUT) is a transmitter. It operates at 110.72 kHz and the oscillation of radio control is generated by a LRC circuit. The EUT is powered by 1 x 3V button cell. The oscillator operates when magnet getting close to the reed switch sensor. The oscillator works with LC network and amplifier. RF signal is transmitted once via a ferrite bar antenna to receiver.

The antenna / antenna terminal is permanently attached in EUT and the radio output power is unable to adjust.

The brief circuit description is listed as follows:

- Reed Switch and its associated circuit act as switch
- T3, L1, L2 and its associated circuit act as RF circuit

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1.2 Location of the test site

FCC Registered Test Site Number: 552221

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2009. A Semi-Anechoic Chamber Testing Site is set up for investigation and located at:

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
Hong Kong.

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2009. A shielded room is located at :

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
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1.3 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due Date	Calibration Period
EMI Test Receiver	R&S	ESCI	100152	08 Jul 2014	1 Year
Broadband Antenna	Schaffner	CBL6112B	2692	16 Jan 2014	1 Year
Loop Antenna	EMCO	6502	00056620	15 Sep 2014	1 Year
Coaxial Cable	Schaffner	RG 213/U	N/A	28 May 2014	1 Year
Coaxial Cable	Suhner	RG 214/U	N/A	28 May 2014	1 Year



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1.4 Measurement Uncertainty

The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%.

Radiated emissions

Frequency	Uncertainty (U_{lab})
30MHz ~ 200MHz (Horizontal)	4.83dB
30MHz ~ 200MHz (Vertical)	4.84dB
200MHz ~1000MHz (Horizontal)	4.66dB
200MHz ~1000MHz (Vertical)	4.65dB

Conducted emissions

Frequency	Uncertainty (U_{lab})
150kHz~30MHz	3.02dB



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2 Description of the radiated emission test

2.1 Test Procedure

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2009.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1 m above the ground.

For 30MHz to 1GHz, broadband antenna with its vertical and horizontal plane is placed 3m from the EUT and rotated about its vertical and horizontal axis for maximum response at each azimuth about the EUT. And the reference point of antenna shall be 1 m above the ground.

For above 1GHz, horn antenna with its vertical and horizontal plane is placed 3m from the EUT and rotated about its vertical and horizontal axis for maximum response at each azimuth about the EUT. Preamplifier and High Pass filter was used for measurements. The reference point of antenna shall be 1 m above the ground.

The device was rotated through three orthogonal to determine which attitude and configuration produce the highest emission during measurement for Radiated Emission measurement.

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2.2 Test Result

Peak Detector data were measured unless otherwise stated.

The frequencies from fundamental up to that tenth harmonics were investigated, and emissions more 20dB below limit were not reported. Thus, those highest emissions were presented in next page (section 2.3).

It was found that the EUT meet the FCC requirement.



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2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart C

Environmental conditions:

Parameter	Recorded value
Ambient temperature:	28 °C
Relative humidity:	61 %

Detector: Peak (110kHz – 490kHz)

Quasi-peak (other frequency)

RBW: 9kHz, VBW: 120kHz (for 9kHz – 30MHz)

RBW: 120kHz, VBW: 300kHz (for 30MHz – 1GHz)

Testing frequency range: 9kHz to 1GHz

Frequency (kHz)	Polarity (H/V)	Reading at 3m (dB μ V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
110.720	H	42.0	11.7	53.7	126.7	- 73.0
221.369	H	28.7	11.6	40.3	120.7	- 80.4
331.693	H	28.5	11.5	40.0	117.2	- 77.2
442.664	H	27.7	11.5	39.2	114.7	- 75.5
552.952	H	21.4	11.6	33.0	72.7	- 39.7
663.285	H	20.8	11.6	32.4	71.2	- 38.8
774.226	H	20.2	11.6	31.8	69.8	- 38.0
884.359	H	19.8	11.6	31.4	68.6	- 37.2
995.113	H	19.4	11.6	31.0	67.6	- 36.6
1105.933	H	18.7	11.8	30.5	66.7	- 36.2

Remark: Peak measurement values are lower than average limit, therefore average measurement is not necessary

Other emission more than 20dB below the limit are not reported.



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3 Description of the Line-conducted Test

3.1 Test Procedure

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2009. The EUT was setup as described in the procedures, and both lines were measured.

3.2 Test Result

No measurement is required as the EUT is a battery-operated product.

3.3 Graph and Table of Conducted Emission Measurement Data

Not Applicable



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4 Photograph

4.1 Photographs of the Test Setup for Radiated Emission and Conducted Emission

For electronic filing, the photos are saved with filename TSup1.jpg to TSup4.jpg.

4.2 Photographs of the External and Internal Configurations of the EUT

For electronic filing, the photos are saved with filename ExPho1.jpg to ExPho2.jpg and InPho1.jpg to InPho2.jpg.



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5 Supplementary document

The following document were submitted by applicant, and for electronic filing, the document are saved with the following filenames:

Document	Filename
ID Label/Location	LabelSmp.jpg
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem.pdf
Users Manual	UserMan.pdf
Operational Description	OpDes.pdf

5.1 Bandwidth

The plot saved in TestRpt2.pdf shows the fundamental emission is confined in the specified band. It shows the 20dB bandwidth.

5.2 Duty cycle

Not Applicable

5.3 Transmission time

Not Applicable

5.4 Power Spectral Density

Not Applicable

5.5 Average on time

Not Applicable



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6 Appendices

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A2	Photos of External Configurations	1	page
A3	Photos of Internal Configurations	1	page
A4	ID Label/Location	1	page
A5	Bandwidth Plot	1	page
A6	Block Diagram	1	page
A7	Schematics Diagram	1	page
A8	User Manual	10	pages
A9	Operation Description	1	page

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A1. Photos of the set-up of Radiated Emissions



(Front view, 9KHz – 30MHz)



(Back view, 9KHz – 30MHz)

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew



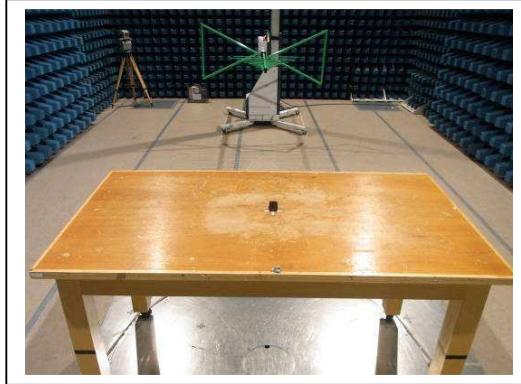
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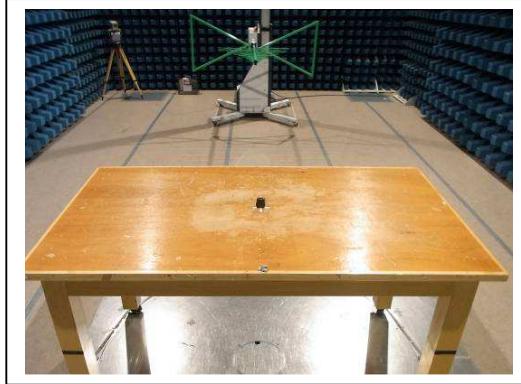
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A1. Photos of the set-up of Radiated Emissions



(Front view, 30MHz – 1GHz)



(Back view, 30MHz – 1GHz)

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Reviewed by:

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A2. Photos of External Configurations



External Configuration 1



External Configuration 2

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Reviewed by:

Mr. WONG Lap-pong, Andrew



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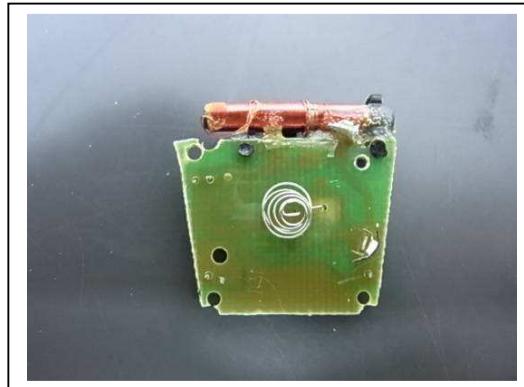
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A3. Photos of Internal Configurations



Internal Configuration 1



Internal Configuration 2

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Reviewed by:

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A4. ID Label / Location



ID Label 1

Tested by:

Jan

Mr. LEUNG Shu-kan, Ken

Reviewed by:

= P.R.

Mr. WONG Lap-pong, Andrew

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EEG IN AMYOTROPHIC LATERAL SCLEROSIS

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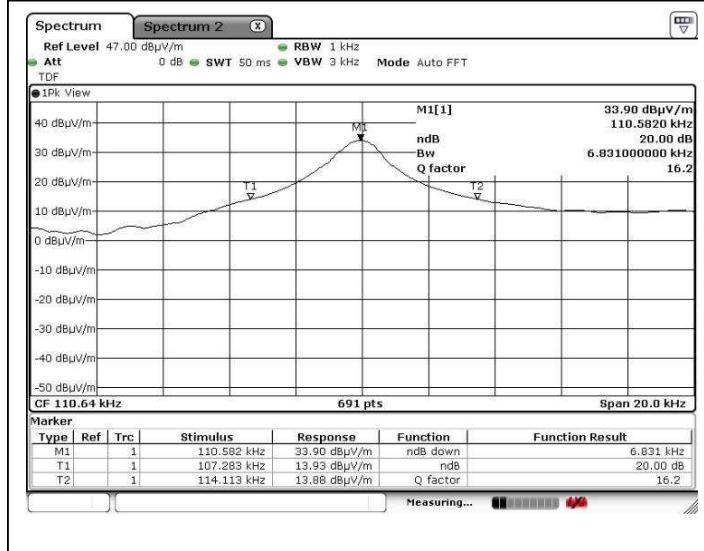
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A5. Bandwidth Plot



Bandwidth 1

Tested by:

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Mr. WONG Lap-pong, Andrew

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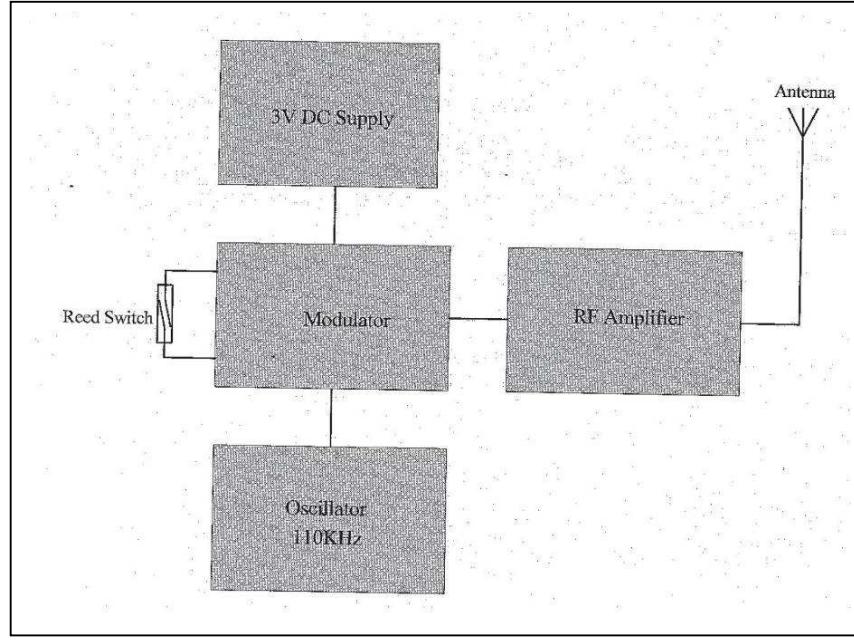
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A6. Block Diagram



Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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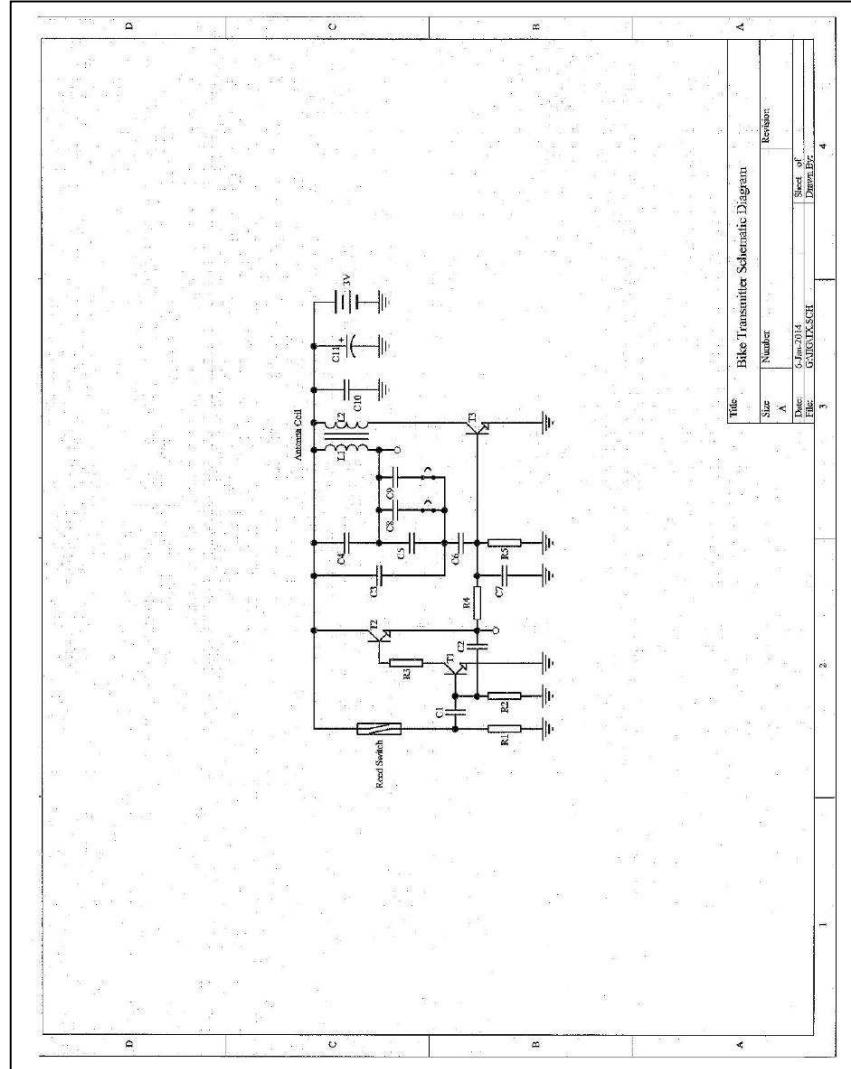
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A7. Schematics



Tested by:

Jan

Mr. LEUNG Shu-kan, Kem

Reviewed by:

:= P.L.

Mr. WONG Lap-pong, Andrew

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A8. User Manual

BELL
THE ORIGINAL

CONSOLE™ 100/150

8-FUNCTION WIRELESS BICYCLE COMPUTER MANUAL

MANUEL DE L'ORDINATEUR DE BICYCLETTE SANS FIL À 8 FONCTIONS

MANUAL DE CICLOCOMPUTADOR INALÁMBRICO DE 8 FUNCIONES

ENGLISH 2
FRANÇAIS 14
ESPAÑOL 26

BELL

ENGLISH

1 Computer
2 Computer Sensor
3 Magnet

WARNING:
Follow instructions carefully. Make sure that no part of the computer assembly interferes with the brakes or wheels. Check screw and zip ties regularly to be sure they are secure.

Visit THEBELLGARAGE.COM for video instructions.

Tested by:

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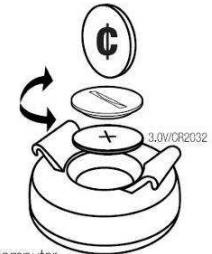
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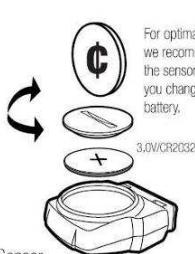
Date : 27 Nov 2013

A8. User Manual

Use a coin to remove the battery cover from the computer. Press the provided battery (3.0V/CR2032) firmly into the unit with positive side facing up, then replace the battery cover. **NOTE:** Sensor comes with the same type of battery pre-installed.



Computer



Sensor

STEP 1 **STEP 2**

Install Batteries **Program Computer**

Step A: Set the Wheel Value
Using the table provided on the next page, determine the correct 4-digit wheel value based on the size of your tire. The wheel value is the distance in millimeters per one revolution of the wheel. **After replacing the battery OR holding the button for 5 seconds in clock mode, the unit will be reset.** The default wheel value of 2124 will appear. The first digit to the right will start to flicker and automatically begin scrolling. Press the button when the digit has advanced to the desired value. Press the button to confirm and the digit to the left will start to flicker. Repeat the process until the correct wheel value is set. If a mistake is made during this process, hold down the button for 5 seconds to reset and start over.

3
4

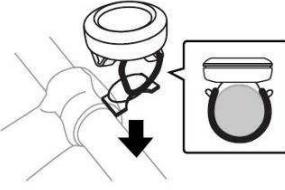
Step B: Set KM or Mile Selection
After setting the wheel value, the KM/M selection will appear; press the button to confirm selection.

Step C: Set the Clock
In clock mode, hold the button for 2 seconds until the 12/24-Hr selection appears. Press the button to confirm the selection. The hour digit will start to flash and begin scrolling. Press the button to confirm and repeat the process to set the minutes.

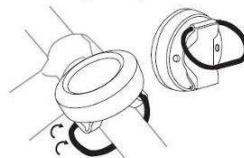
STEP 3

Install Computer

A Place rubber grip insert on underside of the computer, touching the handlebar.



B Secure the computer onto the handlebar using the O-ring.



5
6

NOTE: Wheel size can be found on your tire or by consulting your bicycle's manual.

To change silicone covers (for Console 150 only):



Tested by:



Mr. LEUNG Shu-kan, Ken

Reviewed by:



Mr. WONG Lap-ping, Andrew



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A8. User Manual

Position the computer sensor on the right side of the fork when facing the front of the bicycle so:

A) The battery compartment faces away from the bike.
B) The sensor is as close to the spokes as possible. You can adjust the positioning as necessary. Secure the sensor using one zip tie.



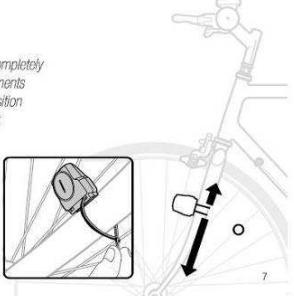
CORRECT



INCORRECT

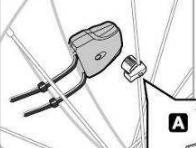
Do not tighten completely as further adjustments to the sensor position will be necessary.

STEP 4
Install Computer Sensor



7

STEP 5
Install Magnet



8

Secure the magnet to a spoke on the right side of the front wheel when facing the front of the bicycle. The clamp will work with both (A) thick and (B) thin spokes. Screw to attach.

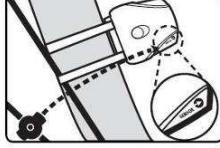
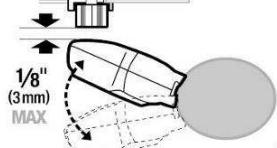
Make sure the magnet faces towards the outside of the wheel.

Adjust the sensor and magnet so that:

A) The magnet passes by the edge of the sensor marked with the arrow when the wheel rotates.
B) There is no more than $\frac{1}{8}$ " (3 mm) clearance between the sensor and the magnet.

Lift and spin the front wheel. The computer display will change with the spinning wheel, when the sensor and magnet are installed correctly. If the computer display remains constant, further adjustment of the sensor and magnet location is necessary. When adjustments have been made and the computer operates correctly, tighten the screw and two zip ties.

See the troubleshooting section for more information.

9 10

STEP 6
Fine Tune Magnet/Sensor Positioning

The computer has 3 modes displayed at the bottom of the screen including:

- 1) Clock Mode—Clock (CLK) and Odometer (ODO)
- 2) Speed Mode—Maximum Speed (MXS) and Average Speed (AVS)
- 3) Distance Mode—Trip Distance (DST) and Trip Timer (TTM)

Pressing the button will advance the display to the next mode. Functions are automatically alternated on the screen in each mode.



Clock Mode—Odometer (ODO)
Total distance travelled. The odometer can only be reset by resetting the computer.



Speed Mode—Maximum Speed (MXS)
Maximum speed is stored in memory and updates only when a higher speed is reached. To reset MXS, press and hold the button for 2 seconds in Speed Mode.

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Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew



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Date : 27 Nov 2013

A8. User Manual

ADDITIONAL FUNCTION MODES		TROUBLESHOOTING		
Speed Mode—Average Speed (AVS) Speed readings work in conjunction with the Trip Timer (TTM) to calculate the average speed for a specific trip. To reset AVS, press and hold the button for 2 seconds in Distance Mode. Note that DST and TTM will also be reset.		Problem	Possible Cause	Recommended Action
Distance Mode—Trip Meter (DST) The trip meter is activated automatically with speedometer input, starting automatically when riding and turning off when stopped. To reset DST, press and hold the button for 2 seconds in Distance Mode. Note that AVS and TTM will also be reset.		No speedometer display and/or no data reading.	Possible interference from electrical sources Improper magnet/sensor alignment.	Move computer to a different area Ensure speedometer sensor and magnet are properly installed and aligned (Step 6)
Distance Mode—Trip Timer (TTM) The trip timer is activated automatically with speedometer input, starting automatically when riding and turning off when stopped. To reset TTM, press and hold the button for 2 seconds in Distance Mode. Note that AVS and DST will also be reset.		Slow display response.	Poor battery contact or low/dead battery Temperature outside of operational limits (0-60°C or 32-140°F)	Replace battery Only use computer when temperature is within operational limits
		Display shows irregular features.	Poor battery contact or low/dead battery	Replace battery
		Black display.	Temperature too hot or display exposed to sunlight too long Computer damaged or dropped	Only use computer when temperature is within operational limits, remove from sunlight Computer is broken
		No trip distance reading.	Improper sensor/magnet alignment	Ensure proper alignment
		Speed function shuts off after reaching a certain speed.	Wheel flex creating too much space between the sensor and magnet	Check sensor and magnet for tightness, reduce space between sensor and magnet slightly (< 3 mm)

11 12

FCC WARNING

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.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning this equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FRANÇAIS

1 Ordinateur
2 Capteur d'ordinateur
3 Aimant

AVERTISSEMENT :
Suivre les instructions sans faute. S'assurer qu'aucune pièce de l'ordinateur ne gêne les freins ou les roues. Vérifier les vis et les attaches de câble régulièrement pour s'assurer qu'elles sont bien fixées.

Visiter le site Internet THEBELLGARAGE.COM pour visualiser les instructions.

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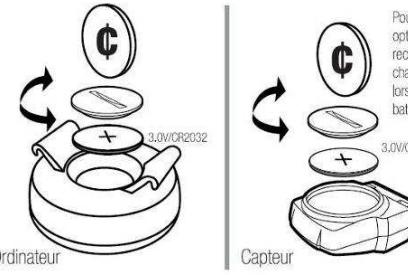
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A8. User Manual

ÉTAPE 1
Installation des piles

Utiliser une pièce de monnaie pour enlever le couvercle des piles de l'ordinateur. Enfoncer la pile fournie (3,0 VCR2032) pour l'insérer fermement dans l'unité, côté positif orienté vers le haut, puis remettre le couvercle de pile en place. **REMARQUE :** Le capteur est fourni avec le même type de pile préinstallée.



15 16

Étape B : Configurer la sélection de l'unité KM ou Mille
Après la configuration de la valeur de la roue, la sélection km/h-mille/h (KM/M) s'affiche, appuyer sur le bouton pour confirmer la sélection.

Étape C : Configurer l'horloge
En mode horloge, maintenir le bouton enfoncé pendant 2 secondes jusqu'à ce que la sélection 12/24 heures s'affiche. Appuyer sur le bouton pour confirmer la sélection. Le chiffre des heures se met à clignoter et commence à se dérouler. Appuyer sur le bouton pour confirmer la sélection et répéter l'opération pour configurer les minutes.

Étape A : Configurer la valeur de la roue
À l'aide de la table fournie à la page suivante, déterminer la valeur de la roue à 4 chiffres basée sur la dimension du pneu de vélo. La valeur de la roue est la distance en millimètres parcourue par une révolution de la roue. **Après avoir remplacé la pile OU appuyé sur le bouton pendant 5 secondes en mode horloge, l'unité est réinitialisée.** La valeur par défaut de la roue, soit 2124, s'affiche. Le premier chiffre à droite se met à clignoter et se met à dérouler automatiquement. Appuyer sur le bouton lorsque le chiffre atteint la valeur souhaitée. Appuyer sur le bouton pour confirmer et le premier chiffre à gauche se met à clignoter. Recommencer l'opération jusqu'à ce que la valeur correcte de la roue soit configurée. En cas d'erreur pendant la configuration, maintenir le bouton enfoncé pendant 5 secondes pour remettre à zéro et recommencer la configuration.

ÉTAPE 2
Configuration de l'ordinateur

ÉTAPE 3
Installation de l'ordinateur

A Placer l'insert de la prise en caoutchouc sous l'ordinateur, contre le guidon.

B Fixer l'ordinateur sur le guidon à l'aide du joint torique.

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A8. User Manual

ÉTAPE 4
Installation du capteur de l'ordinateur

Placer le capteur de l'ordinateur côté droit de la fourche lorsqu'on fait face à l'avant de la bicyclette, pour :

A) que le compartiment des piles soit orienté vers l'arrière du vélo ;
B) que le capteur soit aussi proche que possible des rayons. Sa position peut être ajustée, le cas échéant. Fixer le capteur à l'aide d'une attache de câble.

CORRECT

INCORRECT

Ne pas serrer complètement car des réglages de position du capteur seront nécessaires ultérieurement.

ÉTAPE 5
Installation de l'aimant

Fixer l'aimant sur un rayon côté droit de la roue avant lorsqu'on fait face à l'avant de la bicyclette. Le collier est adapté à la fois aux rayons épais (A) et minces (B). Visser le collier d'attache.

Vérifier que l'aimant est orienté vers l'extérieur de la roue.

ÉTAPE 6
Ajustement précis de la position de l'aimant et du capteur

Ajuster le capteur et l'aimant pour :

A) que l'aimant passe devant le bord du capteur marqué d'une flèche quand la roue tourne.
B) qu'il n'y ait pas plus de 3 mm (1/8 po) de jeu entre le capteur et l'aimant.

Soulever et faire tourner la roue avant. L'affichage de l'ordinateur change au fur et à mesure que la roue tourne si le capteur et l'aimant sont correctement installés. Si l'affichage reste constant, il faut encore ajuster la position du capteur et de l'aimant. Quand les ajustements sont terminés et que l'ordinateur fonctionne correctement, serrer la vis et deux attaches de câble. Voir la section Dépannage pour de plus amples renseignements.

MODES DE FONCTIONNEMENT SUPPLÉMENTAIRES

L'ordinateur a 3 modes de fonctionnement affichés au bas de l'écran, notamment :

- 1) Mode horloge—Horloge (CLK) et Totaliseur (ODO)
- 2) Mode vitesse—Vitesse maximale (MXS) et Vitesse moyenne (AVS)
- 3) Mode distance—Compteur de distance (DST) et Indicateur de temps passé (TTM)

Appuyer sur le bouton pour faire avancer l'affichage au mode suivant. Les fonctions alternent automatiquement sur l'écran dans chaque mode.

Mode horloge—Totaliseur (ODO)
Distance totale parcourue. Le totaliseur ne peut être remis à zéro que si l'on réinitialise l'ordinateur.

Mode vitesse—Vitesse maximale (MXS)
La vitesse maximale est enregistrée en mémoire et ne s'actualise que si une vitesse supérieure est atteinte. Pour réinitialiser la MXS, appuyer sur le bouton et le maintenir enfoncé pendant 2 secondes en Mode vitesse.

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A8. User Manual

MODES DE FONCTIONNEMENT SUPPLÉMENTAIRES		DÉPANNAGE		
Mode vitesse—Vitesse moyenne (AVS) Les affichages de vitesse fonctionnent en rapport avec l'Indicateur de temps passé (TTM) pour calculer la vitesse moyenne au cours d'un trajet spécifique. Pour réinitialiser l'AVS, appuyer sur le bouton et le maintenir enfoncé pendant 2 secondes en Mode distance. Remarque : le Compteur de distance (DST) et l'Indicateur de temps passé (TTM) sont également remis à zéro.		Problème Aucun affichage et/ou aucune donnée n'apparaît sur le compteur de vitesse	Cause possible Parasite(s) provenant de sources électriques Mauvais alignement de l'aimant et du capteur	Solution recommandée Placer l'ordinateur à un endroit différent Vérifier que l'installation du capteur de vitesse et de l'aimant est correcte ainsi que l'alignement (Étape 6) Remplacer la pile
Mode distance—Compteur de distance (DST) Le compteur de distance est activé automatiquement par les données d'entrée de l'Indicateur de vitesse ; il démarre automatiquement quand on monte à vélo et s'arrête lorsqu'on descend de vélo. Pour réinitialiser le Compteur de distance (DST), appuyer sur le bouton et le maintenir enfoncé pendant 2 secondes en Mode distance. Remarque : la Vitesse moyenne (AVS) et l'Indicateur de temps passé (TTM) sont également remis à zéro.		Problème Réaction lente de l'affichage	Cause possible La température extérieure est en dehors des limites opérationnelles (0 à 60 °C ou 32 à 140 °F)	Solution recommandée Utiliser l'ordinateur seulement lorsque la température est dans les limites opérationnelles
		Problème L'affichage est irrégulier	Cause possible Mauvais contact des piles ou piles faibles/épuisées	Solution recommandée Remplacer la pile
		Problème Écran vide	Cause possible Température trop élevée ou affichage exposé trop longtemps au soleil L'ordinateur est endommagé ou est tombé	Solution recommandée Utiliser l'ordinateur seulement lorsque la température est dans les limites opérationnelles, ne pas le laisser au soleil L'ordinateur est brisé Vérifier et corriger l'alignement
		Problème Aucune valeur affichée pour la distance parcourue	Cause possible Mauvais alignement du capteur et de l'aimant	
		Problème La fonction Vitesse disparaît quand une certaine vitesse est atteinte	Cause possible La flexion de la roue crée trop d'espace entre le capteur et l'aimant	Solution recommandée Vérifier que le capteur et l'aimant sont bien fixés. légèrement réduire l'espace entre eux deux (< 3 mm)

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AVERTISSEMENT DE L'AGENCE FÉDÉRALE AMÉRICAINE DES COMMUNICATIONS (FCC)

Ce dispositif est conforme aux Règles de la FCC, Partie 15 du code. Le fonctionnement est soumis aux deux conditions suivantes :
(1) Ce dispositif ne doit pas causer de parasites gênants, et (2) Ce dispositif doit accepter tout parasite reçu, notamment des parasites pouvant causer des troubles de fonctionnement.

Avertissement : Les changements ou modifications apportés à l'unité qui ne sont pas expressément approuvés par la partie responsable du respect de la conformité peuvent annuler la licence conférée à l'utilisateur lui permettant de faire fonctionner l'équipement.

Remarque : Cet équipement a subi des essais et a été déclaré conforme aux limites d'un dispositif numérique de Classe B, en vertu des Règles de la FCC, Partie 15 du code. Ces limites sont destinées à assurer une protection raisonnable contre les parasites gênants dans une installation résidentielle. Cet équipement génère, utilise et peut irradier de l'énergie en radiofréquences et, s'il n'est pas installé et utilisé conformément aux instructions, peut causer des parasites gênants pour les radiocommunications.

Cependant, il n'existe aucune garantie contre la présence de parasites dans une installation particulière. Si cet équipement cause effectivement des parasites gênants pour la réception des signaux de radio et de télévision, ce qui peut être déterminé en allumant et en éteignant alternativement l'équipement, il est conseillé à l'utilisateur de corriger les parasites en prenant une ou plusieurs des mesures suivantes :
- Réorienter ou changer le lieu d'installation de l'antenne réceptrice.
- Augmenter la distance séparant l'équipement et le récepteur.
- Raccorder l'équipement à une prise installée sur un circuit différent de celui sur lequel est branché le récepteur.
- Consulter le distributeur ou un technicien radio/télévision qualifié pour obtenir de l'aide.

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ESPAÑOL

1 Ordenador
2 Sensor de ordenador
3 Imán

ADVERTENCIA:
Siga las instrucciones cuidadosamente. Asegúrese de que ninguna parte del ensamblaje del ordenador interfiera con los frenos o ruedas. Verifique el apriete de los tornillos y las bridas plásticas.

Acceda a THEBELLGARAGE.COM para ver instrucciones en video.

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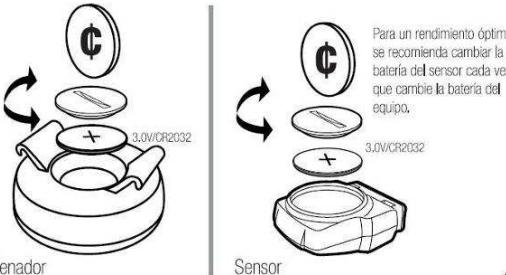
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A8. User Manual

PASO 1
Cómo instalar la pila

Use una moneda para quitar la tapa de la pila del ordenador. Inserte firmemente la pila incluida (3.0 V/CR2032) dentro de la unidad con el lado positivo hacia arriba, luego vuelve a colocar la tapa de la pila. **NOTA:** el sensor se incluye con el mismo tipo de pila ya instalado.



Ordenador

Sensor

PASO 2
Cómo programar el ordenador

Paso A: Fijar el valor de la rueda
Utilizando la tabla en la página siguiente, determine el valor de 4 dígitos de la rueda basándose en el tamaño de su cubierta. El valor de la rueda es la distancia en milímetros obtenida en una revolución de la rueda. **Después de reemplazar la pila 0 de mantener pulsado el botón durante cinco (5) segundos en el modo de reloj, la unidad queda restaurada.** Aparecerá el valor implícito de rueda de 2124. El primer dígito a la derecha empezará a brillar intermitentemente y automáticamente empezará a avanzar. Pulse el botón cuando el dígito ha avanzado al valor deseado. Pulse el botón para confirmar y el dígito a la izquierda empezará a brillar intermitentemente. Repita el proceso hasta fijar el valor correcto de la rueda. Si se tiene una equivocación durante este proceso, mantenga el botón pulsado durante cinco (5) segundos para restaurar la unidad y empezar de nuevo.

Paso B: Fijar la selección de km o millas
Después de fijar el valor de la rueda, aparecerá la selección KM/M; pulse el botón para confirmar la selección.

Paso C: fijar la hora del reloj
En el modo de reloj, mantenga pulsado el botón durante dos (2) segundos hasta que aparezca la selección de 12/24 Hr. Pulse el botón para confirmar la selección. El dígito de hora empezará a brillar intermitentemente y a avanzar. Pulse el botón para confirmar y repita el proceso para fijar los minutos.

PASO 3
Cómo instalar el ordenador

A Coloque el protector de agarre de caucho en el reverso del ordenador;

B Asegure el ordenador sobre el manillar mediante el anillo tórico.

Bicicleta de ruta Bicicleta de montaña

20"	1596	24"	1888
22"	1759	26"	2045
24"	1916	26 x 2.25"	2077
26"	2073	27"	2155
27"700c	2124	29 x 2.1"	2288
28"	2237	29 x 2.23"	2326

NOTA: El tamaño de su llanta se puede encontrar en su cubierta o al consultar el manual de su bicicleta.

Para cambiar las cubiertas de silicona (únicamente en el modelo Console 150):



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Coloque el sensor del ordenador en el lado derecho de la horquilla viendo hacia el frente de la bicicleta de manera tal que:

- A) El compartimento de la pila se dirige hacia fuera de la bicicleta.
- B) El sensor está lo más cerca posible de los radios. Usted puede ajustar la posición según corresponda. Fije el sensor mediante el uso de una brida plástica.



No lo apriete al máximo ya que serán necesarios mayores ajustes de la posición del sensor.

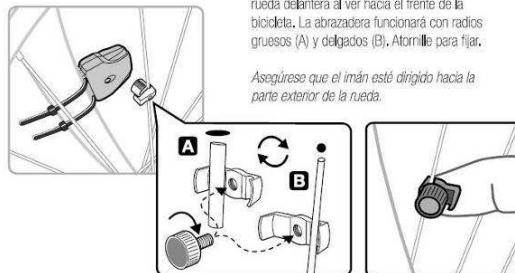
PASO 4

Cómo instalar el sensor del ordenador



PASO 5

Cómo instalar el imán



Fije el imán a un radio en el lado derecho de la rueda delantera al ver hacia el frente de la bicicleta. La abrazadera funcionará con radios gruesos (A) y delgados (B). Atomile para fijar.

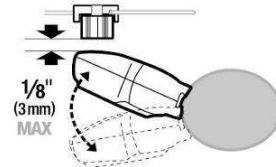
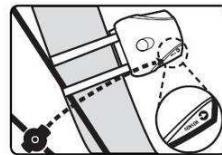
Asegúrese que el imán esté dirigido hacia la parte exterior de la rueda.

Ajuste las posiciones del sensor y del imán de manera tal que:

- A) El imán pase por el borde del sensor marcado con la flecha cuando gire la rueda.
- B) Se tiene una separación no mayor de 3 mm (1/8") entre el sensor y el imán.

Eleve y gire la rueda delantera. La pantalla de visualización del ordenador cambiará con el giro de la rueda, cuando se han instalado correctamente el sensor y el imán. Si la pantalla de visualización del ordenador permanece constante, será necesario un mayor ajuste de las posiciones del sensor y del imán. Una vez hechos los ajustes y el ordenador funciona correctamente, apriete el tornillo y las dos bridas plásticas.

Vea la sección de localización de fallos para mayor información.



PASO 6

Afinación de posiciones de imán/sensor

MODOS DE FUNCIONES ADICIONALES

El ordenador tiene tres (3) modos visualizados en la parte inferior de la pantalla que incluyen:

- 1) Modo de reloj—Reloj (CLK) y Odómetro (ODO)
- 2) Modo de velocidad—Velocidad Máxima (MXS) y Velocidad Media (AVS)
- 3) Modo de distancia—Distancia de Recorrido (DST) y Cronómetro de Recorrido (TTM)

Al pulsar el botón se avanzará la pantalla al siguiente modo. En cada modo se alternan las funciones automáticamente en la pantalla.



Modo de reloj—Odómetro (ODO)

Distancia total recorrida. El odómetro se puede restaurar únicamente al restaurar el ordenador.



Modo de velocidad—Velocidad máxima (MXS)

La velocidad máxima se almacena en la memoria y solo se actualiza cuando se logra una velocidad mayor. Para restaurar MXS, pulse y mantenga pulsado el botón durante dos (2) segundos en el Modo de velocidad.

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A8. User Manual

MODOS DE FUNCIONES ADICIONALES		LOCALIZACIÓN DE FALLOS	
Modo de velocidad—Velocidad media (AVS) Las lecturas de velocidad funcionan conjuntamente con el Cronómetro de Recorrido (TTM) para calcular la velocidad media de un recorrido específico. Para restaurar AVS, pulse y mantenga pulsado el botón durante dos (2) segundos en el Modo de distancia. Observe que tanto DST como TTM también serán restaurados.		Problema No se visualiza el velocímetro y/o no hay lectura de datos	Causa posible Posible interferencia de fuentes eléctricas Alineación incorrecta de imán/sensor
Modo de distancia—Distancia recorrida (DST) El medidor de distancia recorrida se activa automáticamente con la entrada del velocímetro; arranca automáticamente al viajar y se apaga al detenerse la bicicleta. Para restaurar DST, pulse y mantenga pulsado el botón durante dos (2) segundos en el Modo de distancia. Observe que tanto AVS como TTM también serán restaurados.		Problema Mal contacto de la pila o pila baja/descargada	Causa posible Use el ordenador únicamente cuando la temperatura está dentro de los límites de funcionamiento (0–60°C o 32–140°F)
Modo de distancia—Cronómetro de recorrido (TTM) El cronómetro de recorrido se activa automáticamente con la entrada del velocímetro; arranca automáticamente al viajar y se apaga al detenerse la bicicleta. Para restaurar TTM, pulse y mantenga pulsado el botón durante dos (2) segundos en el Modo de distancia. Observe que tanto AVS como DST también serán restaurados.		Problema La pantalla muestra aspectos irregulares Pantalla de visualización oscura	Causa posible Mal contacto de la pila o pila baja/descargada Temperatura demasiado caliente o pantalla expuesta a la luz solar durante demasiado tiempo Ordenador dañado o que se dejó caer
		Problema No hay lectura de distancia recorrida La función de velocidad se apaga después de lograr una clara velocidad	Causa posible Alineación incorrecta de imán/sensor Flexión de la cuerda genera demasiado espacio entre el sensor y el imán
		35	36
ADVERTENCIA DE LA FCC			
<p>Este dispositivo cumple con la Parte 15 del Reglamento de la FCC (Comisión Federal de Comunicaciones) de los EE. UU.). El funcionamiento está sujeto a las siguientes dos condiciones: (1) Este dispositivo no podrá causar interferencias dañinas y (2) este dispositivo debe aceptar cualquier interferencia recibida, incluyendo la interferencia que puede causar un funcionamiento indeseado.</p> <p>Advertencia: Los cambios o modificaciones que no se describen en este manual o que no son aprobados expresamente por el fabricante pueden anular la autorización del usuario para hacer funcionar el equipo.</p> <p>Nota: este equipo ha sido probado y cumple con los límites establecidos para un dispositivo digital Clase B, de acuerdo con las disposiciones de la Parte 15 del Reglamento de la FCC. Estos límites han sido establecidos para dar una protección razonable contra interferencia novedosa en una instalación residencial. Este equipo genera, utiliza y puede emitir radiaciones de radiofrecuencia y si no se instala y se usa de acuerdo con las instrucciones, podría causar interferencia novedosa a las radiocomunicaciones.</p> <p>Sin embargo, no existe ninguna garantía que no pueda ocurrir interferencia en determinada instalación. Si este equipo interfiere con la recepción de radio o televisión, lo cual puede determinarse al apagar y encender el equipo, el usuario debe procurar corregir la interferencia con una o más de las siguientes medidas:</p> <ul style="list-style-type: none"> - Reorientar o reubicar la antena receptora. - Aumentar la separación entre el equipo y el receptor. - Conectar el equipo a una toma de corriente distinta a la que esté conectado el receptor. - Solicitar ayuda del distribuidor o de un técnico experimentado en radio o televisión. 			
<p>© 2014 Bell Sports, Inc. 1-800-456-BELL / 1001 Innovation Road, Rantoul, IL 61866 WWW.THEBELLGARAGE.COM</p> <p>Item# 7025146, 7025147, 7046554, 7046555, 7046556</p> <p>Rev. 08.13.13</p>			

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A9. Operation Description

Console 100 is operated by a 3V button cell. The oscillator operates when magnet getting close to the reed switch sensor. The oscillator works with LC network and amplifier transistor. A 110kHz RF signal is transmitted once via a ferrite bar antenna with specified interval which controlled by parameter of circuitry. This transmitter transmits an ON-OFF Keying modulation to receiver.

Circuit composition

1. Switch
Reed switch
2. RF circuit
T3, L1, L2

***** End of Report *****

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