



SCHWINN

Core Health & Fitness

MPower™ Echelon2 Console

MPower™ Echelon2 Power Upgrade

MPower™ Echelon2 External Wiring Kit

INSTALLATION GUIDE



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This installation guide details how to install and setup the following:

- Schwinn® MPower™ Echelon2 Console, P/N **740-8727**
- Schwinn® MPower™ Echelon2 Optional Power Upgrade, P/N **740-8730**
- Schwinn® MPower™ Echelon2 External Wiring Kit, P/N **740-8875**

Use the matrix below to determine which configuration is appropriate for the install:

Bike + Sensor Config.	Uses 740-8727?	Uses 740-8730?	Uses 740-8875?	Page
AC Sport w/RPM (Speed) Sensor only*	Y	N	Y	Pg. 7
AC Sport w/RPM & Power Sensor*	Y	Y	Y	Pg. 7
AC Performance (SKU 100175) w/RPM (Speed) Sensor only*	Y	N	Y	Pg. 7
AC Performance (SKU 100175) w/RPM & Power Sensor*	Y	Y	Y	Pg. 7
AC Performance + ACPP w/RPM Sensor only	Y	N	N	Pg. 20
AC Performance + ACPP w/RPM & Power Sensor	Y	Y	N	Pg. 20

***NOTE:** The console cable must be externally routed on the AC™ Performance (100175 SKU ONLY) and AC™ Sport model (ALL SKUs). This requires that the External Wiring Kit, [740-8875](#) be used.

Tools Needed (not included in kit)

- Phillips screw driver
- 2.5mm hex key
- 3mm hex key
- Glove
- Soft-jaw pliers (Pliers with protective rubber or plastic caps over jaws)

WHAT'S IN THE BOX?



The complete contents of the box include the following parts. If any parts are missing from the box, contact customer service.

SCHWINN® Echelon2 (Part #740-8727)



Package includes components listed below

Index	Part Number	Description	QTY
1	740-8727	SCHWINN® Echelon2	X
1.1	110-3640	SCREW, PHP, M4x0.7x10, SS	3
1.2	110-3641	SCW-BHCS M5x0.8x14 SS	2
1.3	110-3642	SCREW, M3X0.5,12mm, SHC, HK, SS,GR 8.8	2
1.4	110-3643	SCREW, M3X0.5,6mm,RHM,PH,SS	1
1.5	140-3585	KIT,WIRE SADDLE CLIP, ECH 2	1
1.6	740-8727	016 BOX, MPOWER Q	1
1.7	740-8822	SRB, MPOWER Q, RECTANGLE HOLE	1
1.8	740-8925	ASSY, SCHWINN® Echelon2,COMPUTER	1
1.9	740-8926	SPEED SENSOR ASSY, WIRED	1
1.1	740-8927	COSMETIC CAP ASSY	1
1.11	740-8928	RJ45 2-PIN LONG CABLE	1
1.12	740-8929	MOUNT, M POWER Q	1
1.13	740-8930	SRB MOUNT, M POWER Q	1
1.14	740-8938	CD,OWNERS/INST MANUAL,ECH 2C7	1

SCHWINN® Echelon2 Power Upgrade Kit (Part #740-8730)



Package includes components listed below

Index	Part Number	Description	QTY
1	740-8730	SCHWINN® Echelon2 POWER UPGRADE	X
1.1	110-3644	SCREW, M4X0.7X14, BHSC,HE,SS	3
1.2	740-8607	CALIBRATION TOOL, ZERO POINT, ACPP	1
1.3	740-8730-005	POWER SENSOR UPGRADE PACKAGING	1
1.4	740-8931	POWER UPGRADE CABLE, RJ45	1
1.5	740-8932	2-PIN SHORT SPEED SENSOR CABLE	1
1.6	740-8933	ASSY, MAGNET, SENSOR, ECH 2	1
1.7	740-8934	ASSY, ECH2 POWER	1
1.8	740-8935	PAD,RUBBER,POWER SENSOR	1

SCHWINN® Echelon2 External Wire Kit (Part #740-8875)



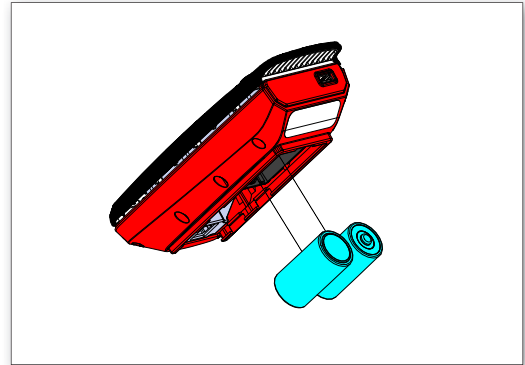
Package includes components listed below

NOTE: The console cable must be externally routed on the AC™ Performance (100175 SKU ONLY) and all AC™ Sport models. This requires that the External Wiring Kit, 740-8875 be used. The console cable for the AC Performance Plus is routed internally

Index	Part Number	Description	QTY
1	740-8875	KIT, EXTERNAL WIRE, Echelon2	1
1.1	740-8875_001	EXTERNAL CABLE COVER ASSY	2
1.2	740-8875_005	CABLE CLAMP	1

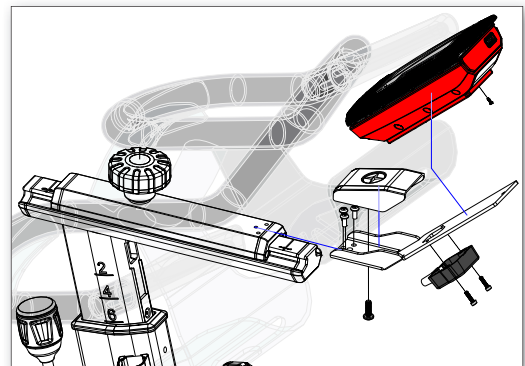
Installing the Echelon2 with the RPM (Speed) Sensor & External Wiring Kit

1. Insert batteries into console following the pattern in the case.

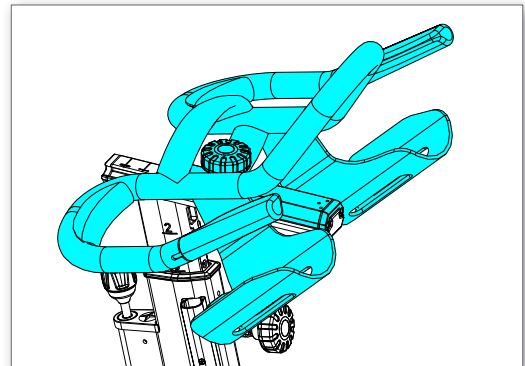


2. Mount the console

NOTE: On the AC Sport (ALL SKUs) the console mount attached to the bottom of the handlebar slider.



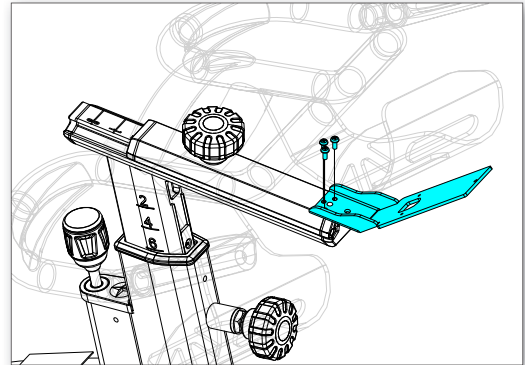
- a. Loosen pop pin
- b. Push handlebar slider forward to the limit
- c. Tighten pop pin



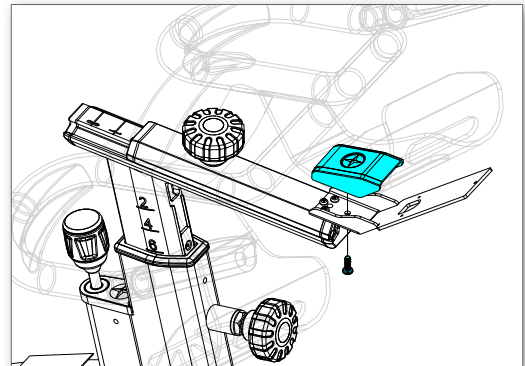
- d. Mount the console bracket using three M5 x 14mm button head screws.



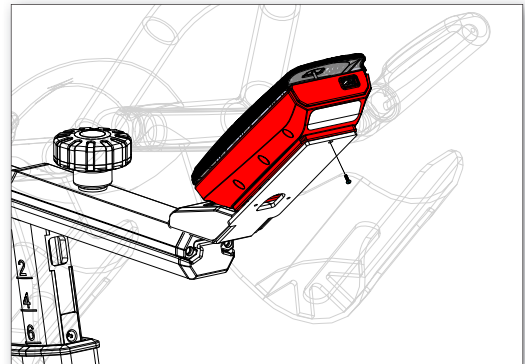
Caution: over-tightening screws by using an impact, screw gun, etc. will damage the handlebar



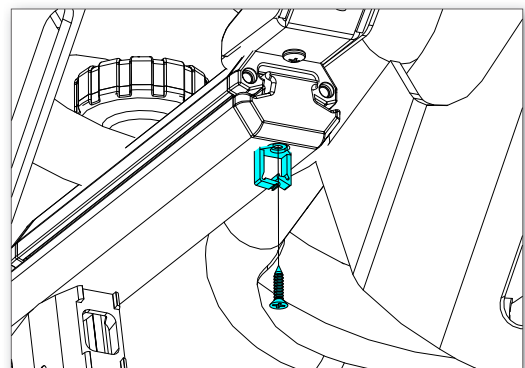
- e. Secure the cosmetic cover with the M5 x 16mm screw



- f. Slide the console onto the bracket. Insert the M3 x 6mm pan head screw and tighten with the screw driver



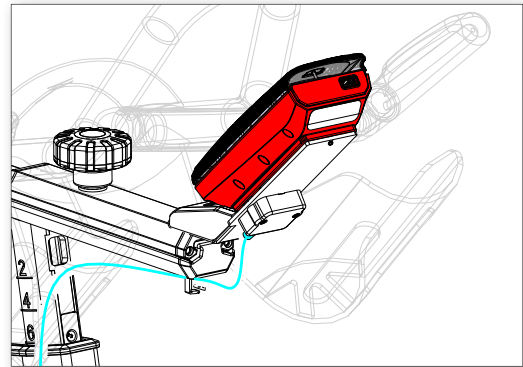
3. Remove the screw from under the handlebar, install one of the wire clips, and secure with the same screw.



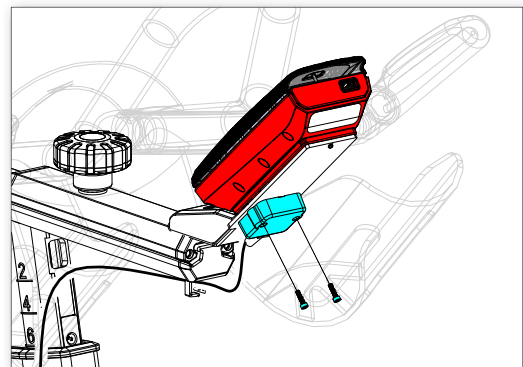


If installing the Power sensor (740-8730), skip to Page 14, Step 1. Otherwise, continue to Step 4.

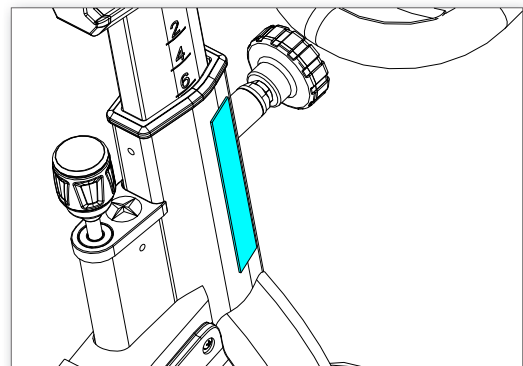
4. Plug the console cable (740-8928 "RJ45 2-PIN LONG CABLE") RJ45 connector into the console then slide the grommet of the cable into the slot on the connector protective cap as shown.



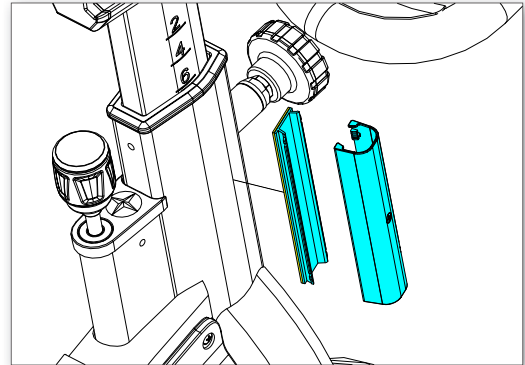
5. Attach the protective cap to the bracket using the two M3 x 12mm socket head cap screws, and tighten with the 2.5mm hex key



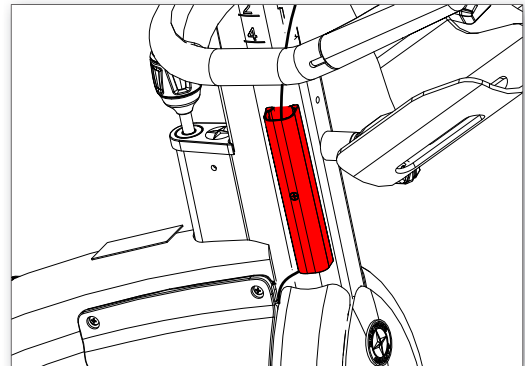
6. Prior to installing the upper conduit, clean head tube with isopropyl alcohol and allow to air dry.



7. Peel the non-stick strip off the plastic conduit base (yellow).
8. Attach the base (blue) aligned to forward edge and lower edge of the frame tube.



9. Insert the cable through the slot
10. Snap the outer part of the cable duct onto the base with the cable inside

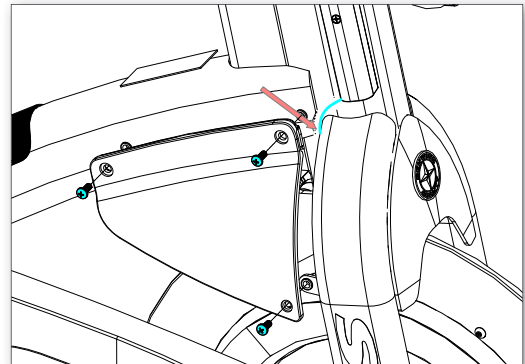


11. Using a Phillips screw driver, remove the sweat guard

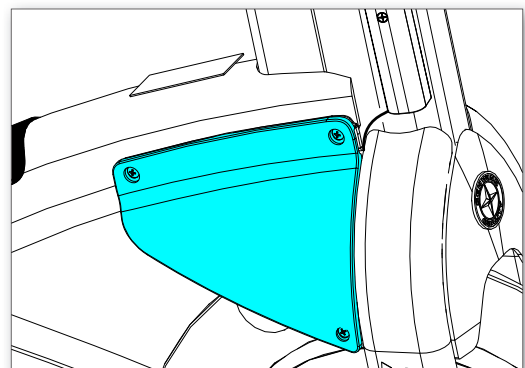


Caution: Do not use a power drill in removing and re-installing, over-tightening screws will damage the frame

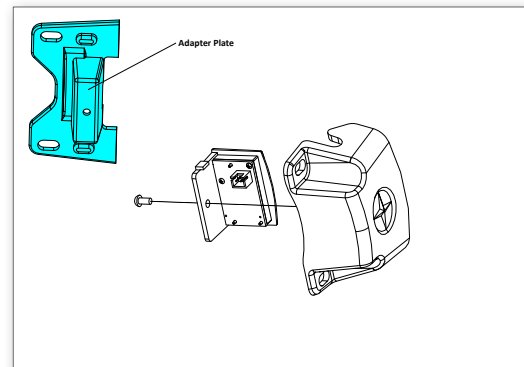
12. Route the cable through the sweat guard



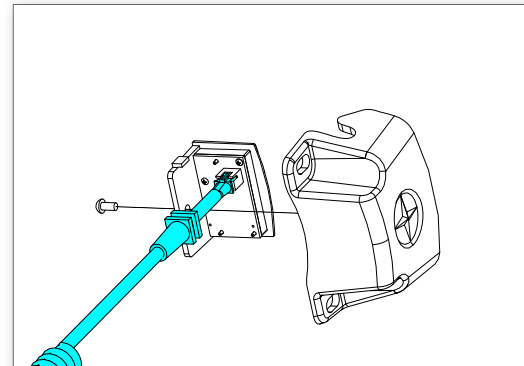
13. Re-mount the sweat guard



14. Remove the RPM sensor from the box and disassemble. Discard the adapter plate (blue) which is not used on this model bike.



15. Plug the RPM sensor cable 2-pin connector into the RPM sensor connector

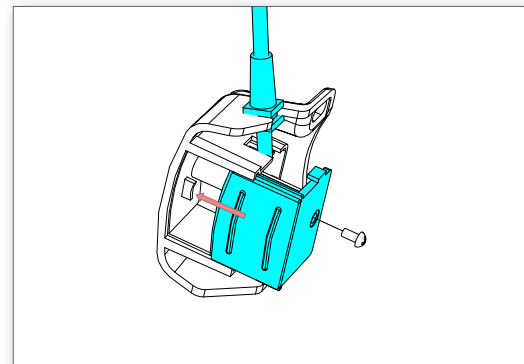


16. Slide the cable grommet into the slot in the RPM sensor housing.

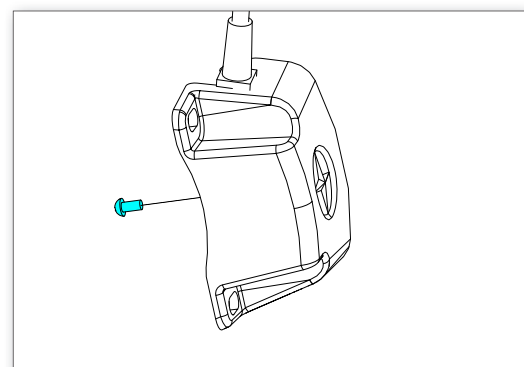


Caution: Make sure the internal wires are coiled so that the screws don't cut or compress the wire.

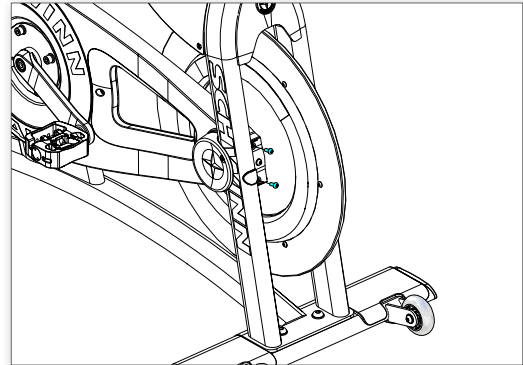
17. Reinstall the RPM sensor cover into the housing



18. Reinstall the M3 x 6mm Phillips Pan Head screw

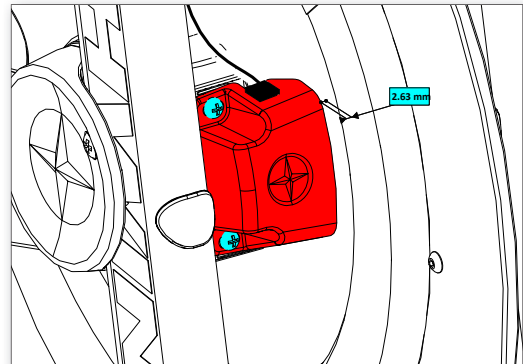


19. Remove the top and bottom screw from the front of the chain guard

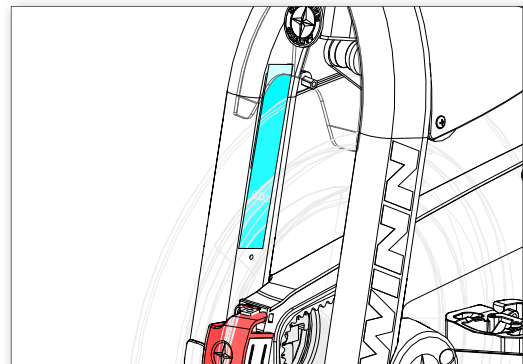


20. Position the RPM sensor as shown and reinstall the two chain guard screws. The RPM sensor should be approx. 2-3mm away from the flywheel, or about the width of a credit card.

If the RPM sensor is too close, it will rub against the sensor magnet that is embedded in the flywheel. If the RPM sensor is too far away, the sensor will intermittently pick up a signal from the magnet or will not pick up any signal at all; this will cause an erratic RPM display, or no RPM display

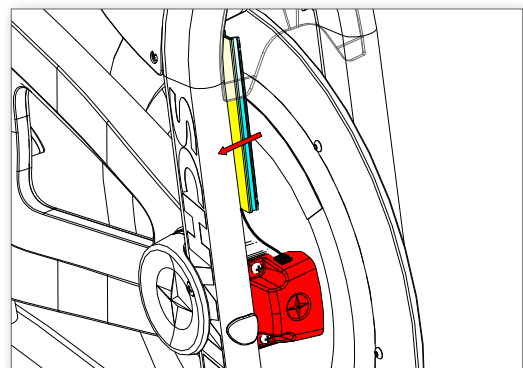


21. Prior to applying the lower conduit, clean the surface of the inner right fork with isopropyl alcohol and allow to air dry.

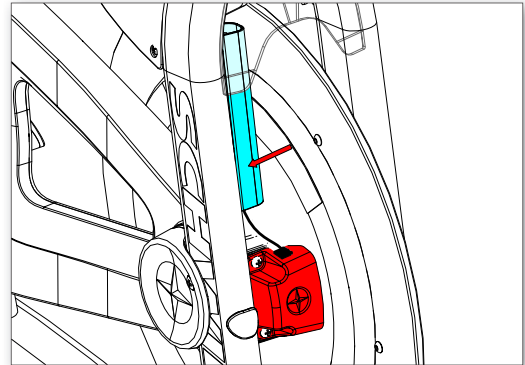


22. Peel the non-stick strip off the plastic conduit base (yellow).
23. Attach the base (blue) firmly on the inside of the right hand fork. There should be about one inch gap between chain guard/rpm sensor bracket and the wire conduit.

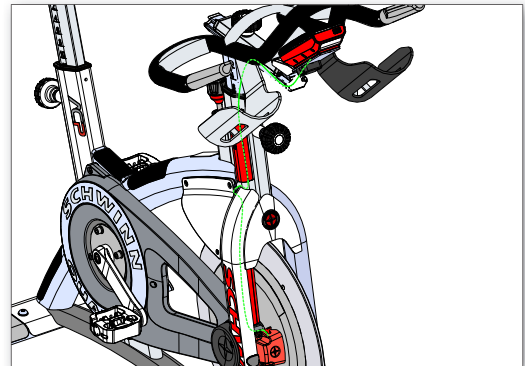
The top of the conduit should be as high as the beginning bend in the fork



24. Route the wire inside the conduit and snap the conduit outer cover on to the base



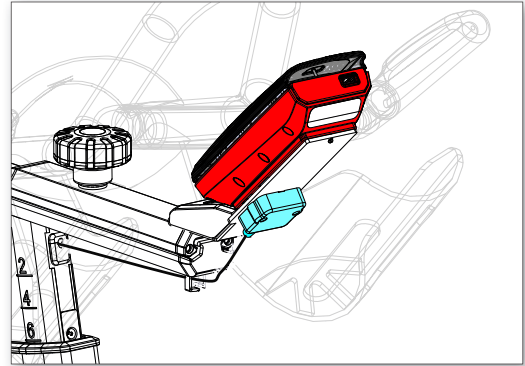
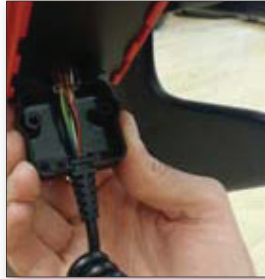
25. Final wiring path shown to the right in green



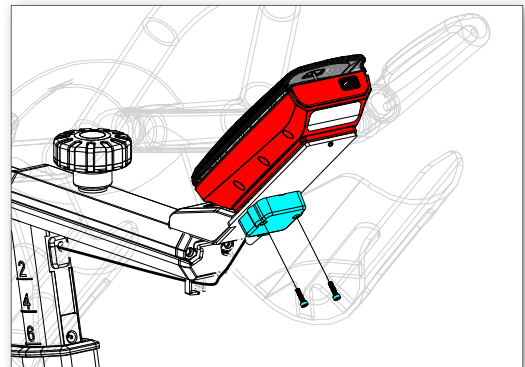
26. Installation complete, power on the display and spin the crank to ensure RPMs are displayed on the console.



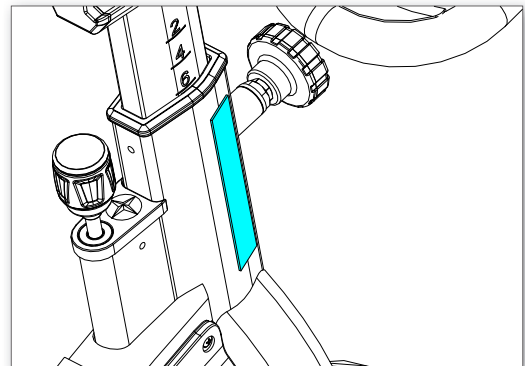
1. Plug the console cable (740-8931 "POWER UPGRADE CABLE, RJ45) RJ45 connector into the console then slide the grommet of the cable into the slot on the connector protective cap as shown.



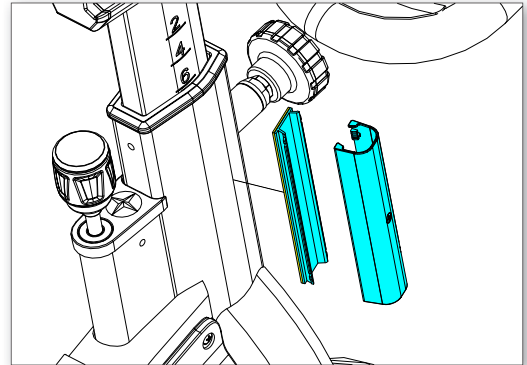
2. Attach the protective cap to the bracket using the two M3 x 12mm socket head cap screws, and tighten with the 2.5mm hex key



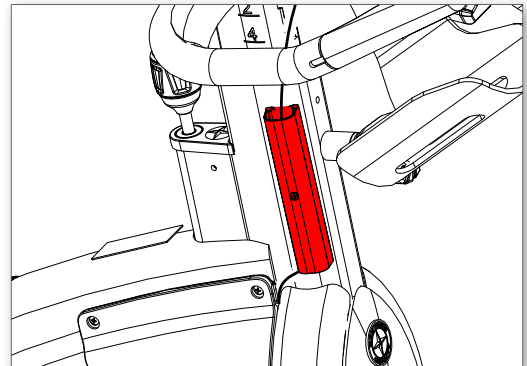
3. Prior to installing the upper conduit, clean head tube with isopropyl alcohol and allow to air dry.



4. Peel the non-stick strip off the plastic conduit base (yellow).
5. Attach the base (blue) aligned to forward edge and lower edge of the frame tube.



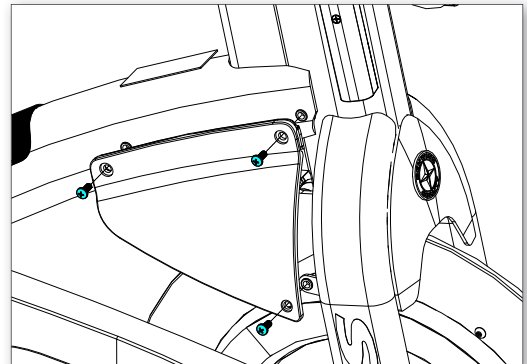
6. Insert the cable through the slot
7. Snap the outer part of the cable duct onto the base with the cable inside



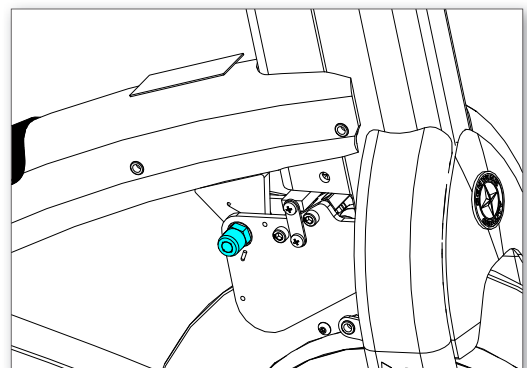
8. Using a Phillips screw driver, remove the sweat guard



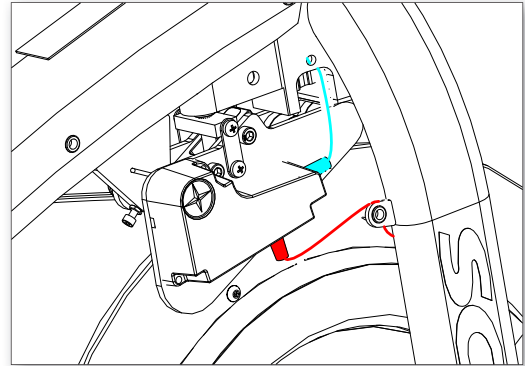
Caution: Do not use a power drill in removing and re-installing; over-tightening screws will damage the frame



9. Verify the updated bolt & magnet are installed on the bike as shown below. (Serials after XXXXXXDAY1642XXXX)



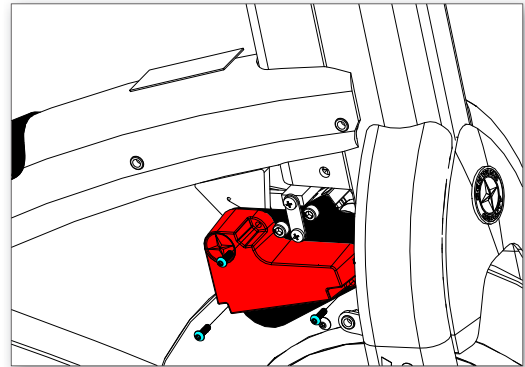
10. Plug console cable (blue) into the RJ45 connector at the front of the sensor, and the RPM cable (2-PIN SHORT SPEED SENSOR CABLE) (red) into the 2-pin connector on the underside of the power sensor. Slide each cable's grommet into their respective slots in the power sensor case. (See inside view below)



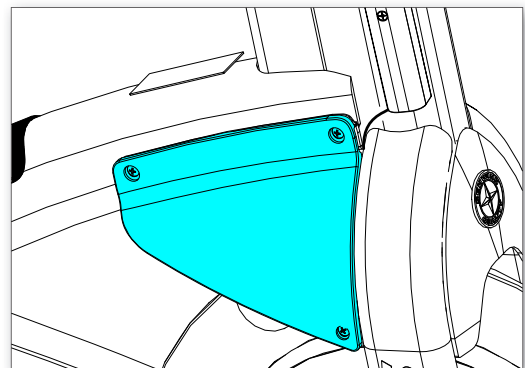
11. Attach sensor case to the resistance mechanism using the M4 x 6mm button head screws. Use blue thread lock on the screws to ensure the sensor mounts fully.



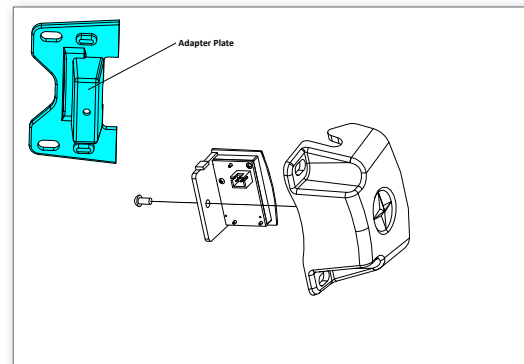
Caution: Be sure that sensor case sits tight against the black plate of the resistance mechanism. All wires must be contained within the sensor cover and not protrude from the sensor cover, which will prevent the cover from being completely seated.



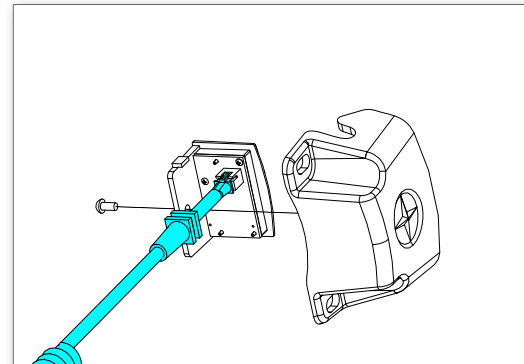
12. Re-mount the sweat guard



13. Remove the RPM sensor from the box and disassemble. Discard the adapter plate (blue) which is not used on this model bike.



14. Plug the RPM sensor cable 2-pin connector into the RPM sensor connector

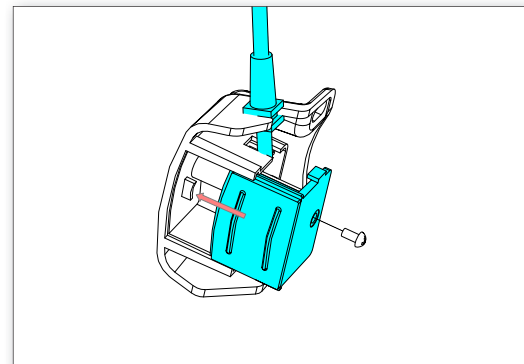


15. Slide the cable grommet into the slot in the RPM sensor housing.

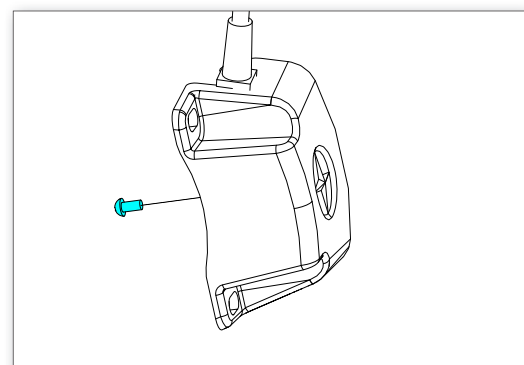


Caution: Make sure the internal wires are coiled so that the screws don't cut or compress the wire.

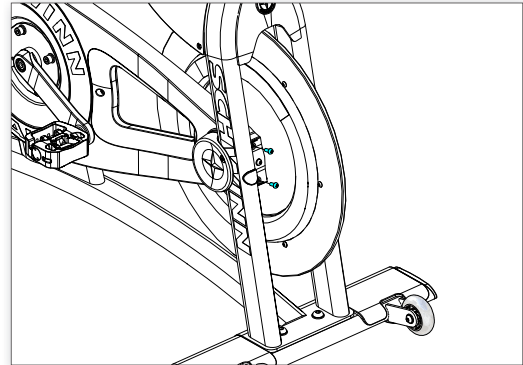
16. Reinstall the RPM sensor cover into the housing



17. Reinstall the M3 x 6mm Phillips Pan Head screw

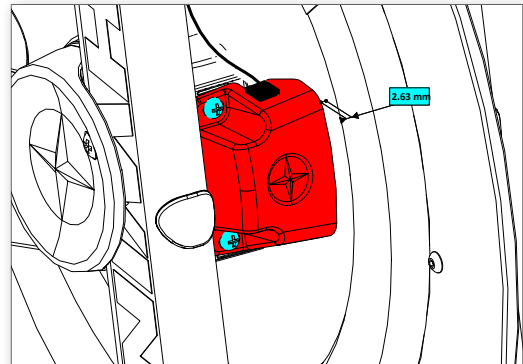


18. Remove the top and bottom screw from the front of the chain guard

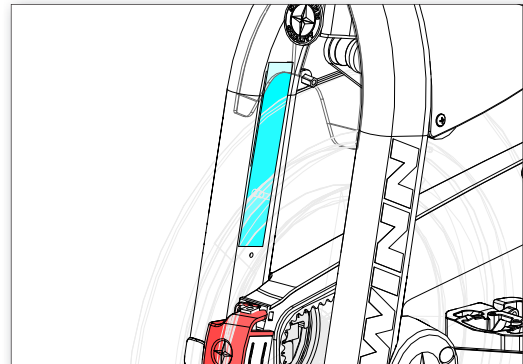


19. Position the RPM sensor as shown and reinstall the two chain guard screws. The RPM sensor should be approx. 2-3mm away from the flywheel, or about the width of a credit card.

If the RPM sensor is too close, it will rub against the sensor magnet that is embedded in the flywheel. If the RPM sensor is too far away, the sensor will intermittently pick up a signal from the magnet or will not pick up any signal at all; this will cause an erratic RPM display, or no RPM display

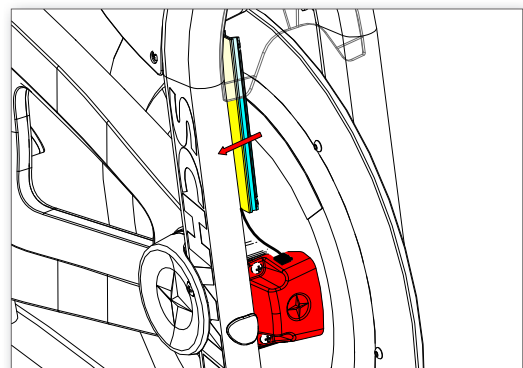


20. Prior to applying the lower conduit, clean the surface of the inner right fork with isopropyl alcohol and allow to air dry.

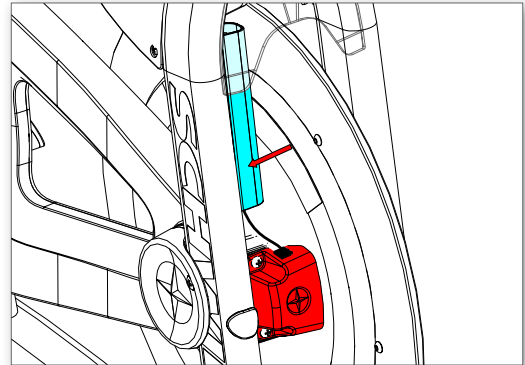


21. Peel the non-stick strip off the plastic conduit base (yellow).
22. Attach the base (blue) firmly on the inside of the right hand fork. There should be about one inch gap between chain guard/rpm sensor bracket and the wire conduit.

The top of the conduit should be as high as the beginning bend in the fork



23. Route the wire inside the conduit and snap the conduit outer cover on to the base

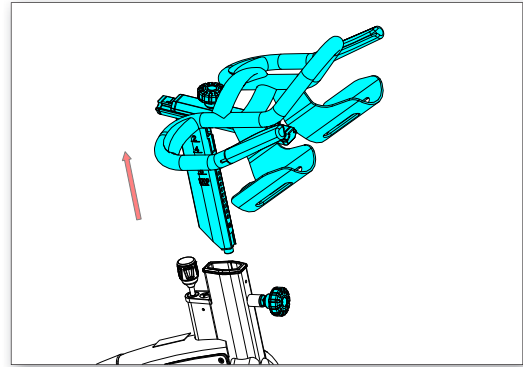


24. Installation complete, proceed to Page 28, Step 1 to calibrate the console.



Internal routing for AC™ PERFORMANCE (SKU 9-7320) & AC™ PERFORMANCE PLUS (ALL SKUs)

1. Remove the handlebar from the bike



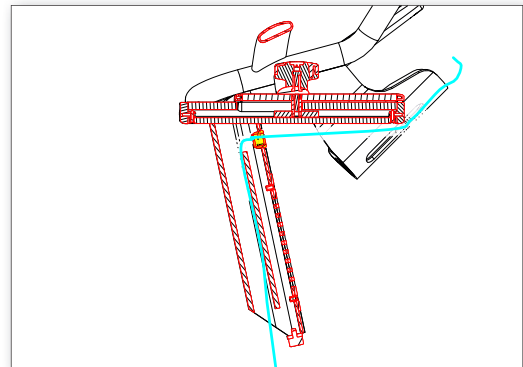
2. Route the Power Upgrade Cable 740-8931 (blue) through the rear part of the handlebar using the grommet 740-8822 (yellow) in the front of the post



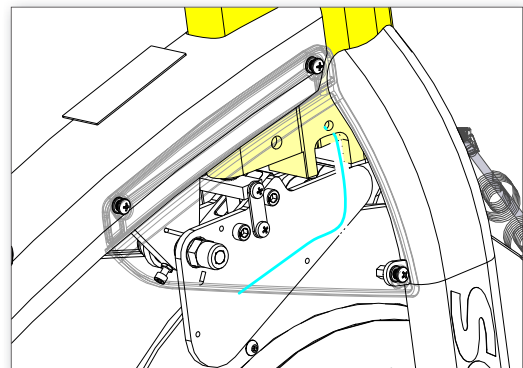
Caution: do not route the wire through the front gap in the handlebar



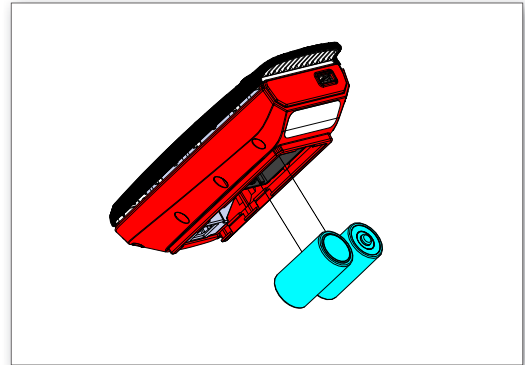
Caution: The console-to-power cable has different lengths of unshielded wires at each end. The end with the shorter length of unshielded wires plugs into the console. The end with the longer length of unshielded wires should be routed out the bottom of the post.



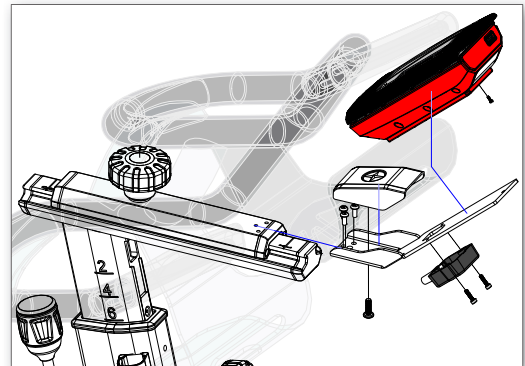
3. Return the handlebar to the bike. Cable should exit the frame (yellow) as shown with wire to the right of the brake carriage plate.



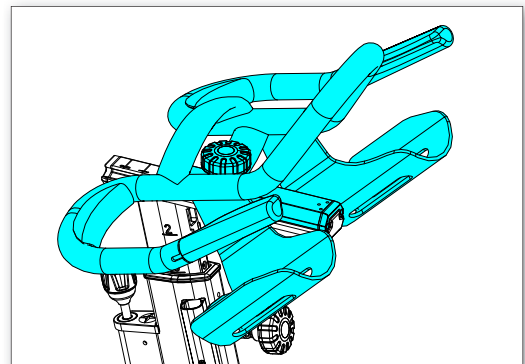
4. Insert batteries into console following the pattern in the case.



5. Mount the console



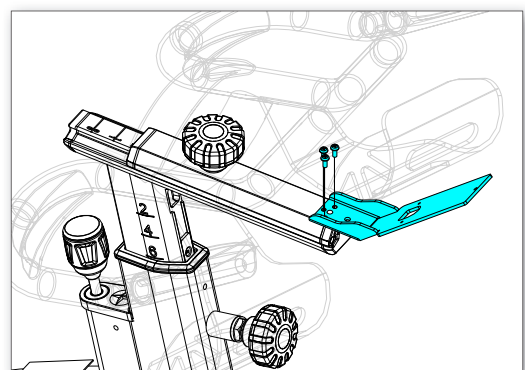
- a. Loosen pop pin
- b. Push handlebar slider forward to the limit
- c. Tighten pop pin



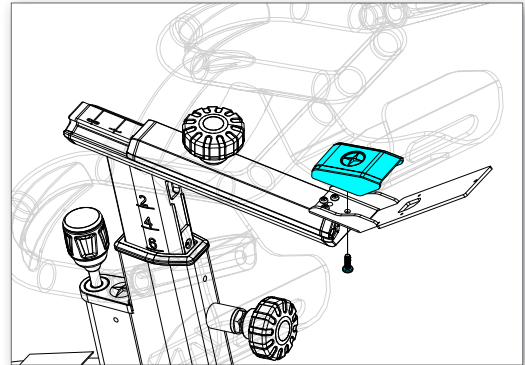
- d. Mount the console bracket using three M5 x 14mm button head screws.



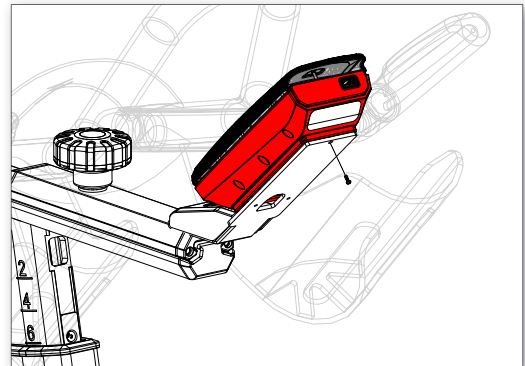
Caution: over-tightening screws by using an impact, screw gun, etc. will damage the handlebar



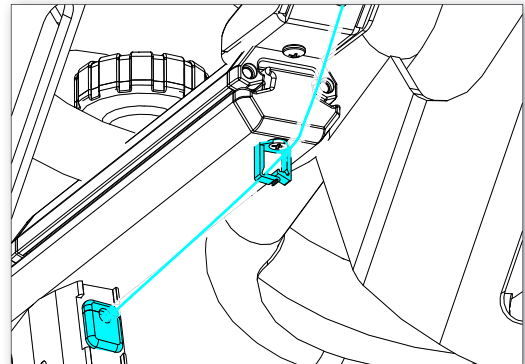
e. Secure the cosmetic cover with the M5 x 16mm screw



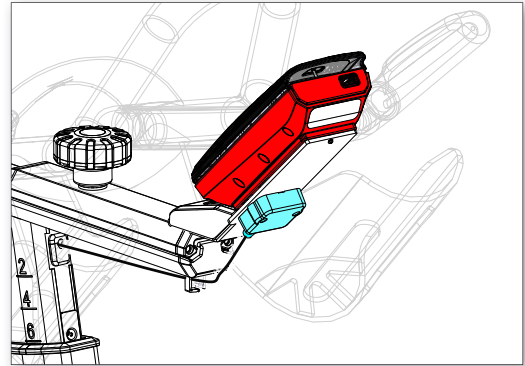
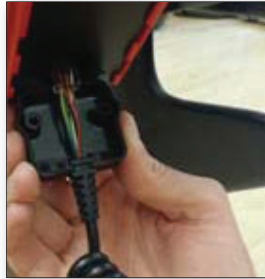
f. Slide the console onto the bracket. Insert the M3 x 6mm pan head screw and tighten with the screw driver



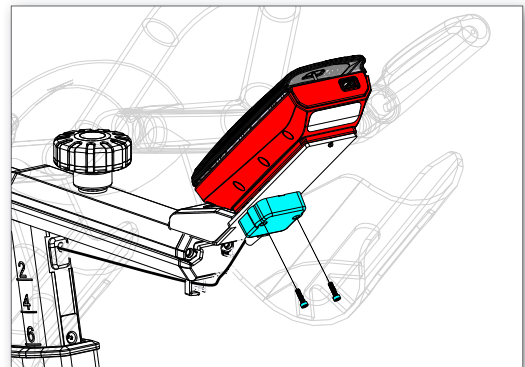
6. Remove the screw from under the handlebar, install one of the wire clips, and secure with the same screw.
7. Route the wire from the grommet through the wire clip towards the console



8. Plug the console cable (740-8931 "POWER UPGRADE CABLE, RJ45) RJ45 connector into the console then slide the grommet of the cable into the slot on the connector protective cap as shown.



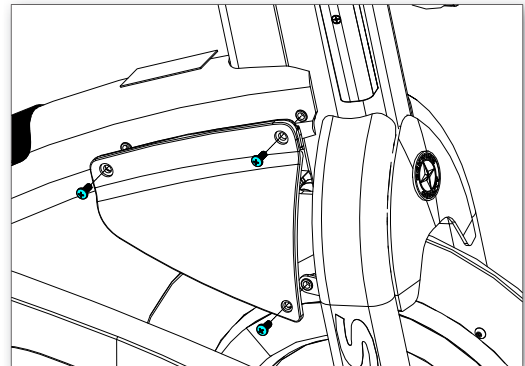
9. Attach the protective cap to the bracket using the two M3 x 12mm socket head cap screws, and tighten with the 2.5mm hex key



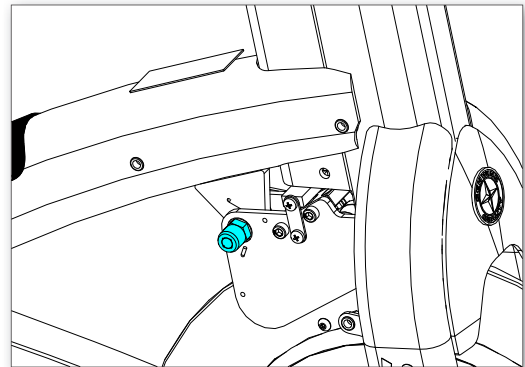
10. Using a Phillips screw driver, remove the sweat guard



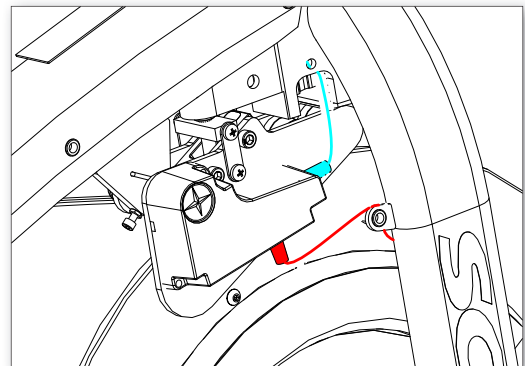
Caution: Do not use a power drill in removing and re-installing; over-tightening screws will damage the frame




11. Verify the updated bolt & magnet are installed on the bike as shown below. (Serials after XXXXXXDAY1642XXXX)

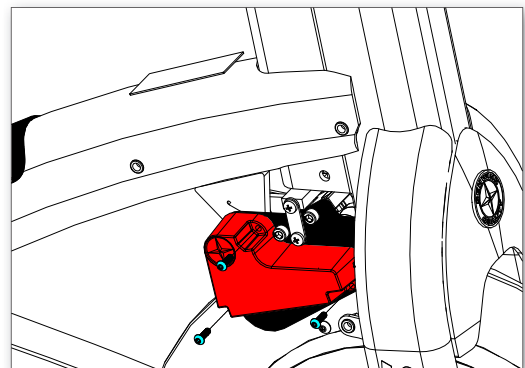


12. Plug console cable (blue) into the RJ45 connector at the front of the sensor, and the RPM cable (2-PIN SHORT SPEED SENSOR CABLE) (red) into the 2-pin connector on the underside of the power sensor. Slide each cable's grommet into their respective slots in the power sensor case. (See inside view below)

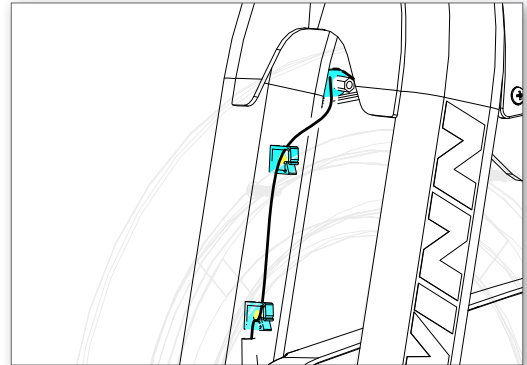


13. Attach sensor case to the resistance mechanism using the M4 x 6mm button head screws. Use blue thread lock on the screws to ensure the sensor mounts fully.

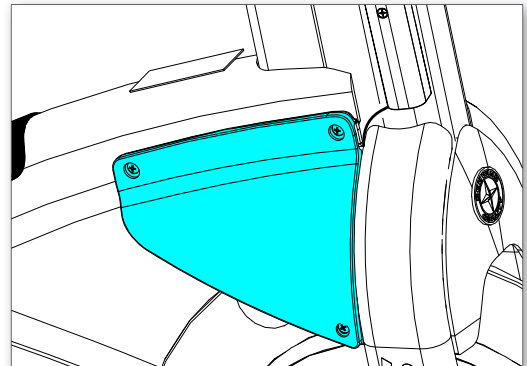
 **Caution:** Be sure that sensor case sits tight against the black plate of the resistance mechanism. All wires must be contained within the sensor cover and not protrude from the sensor cover, which will prevent the cover from being completely seated.



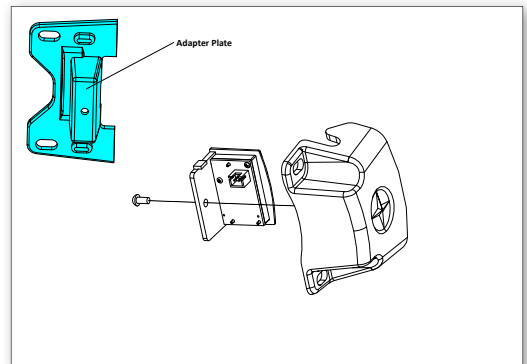
14. Route the wire around the frame point under the upper right sweat guard, then through cable clips secured by snap rivets (yellow)



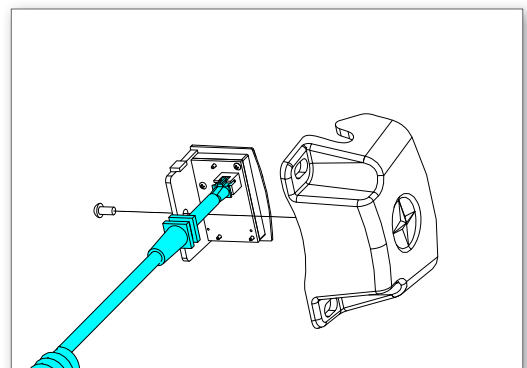
15. Re-mount the sweat guard



16. Remove the RPM sensor from the box and disassemble. Discard the adapter plate (blue) which is not used on this model bike.



17. Plug the RPM sensor cable 2-pin connector into the RPM sensor connector

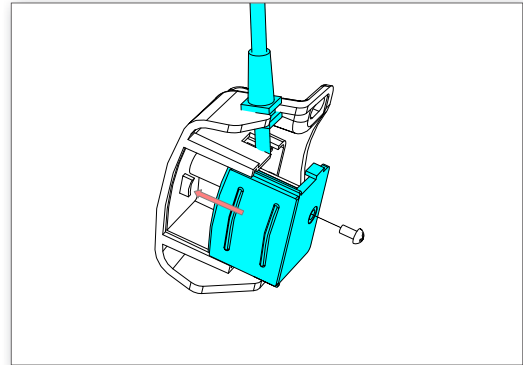


18. Slide the cable grommet into the slot in the RPM sensor housing.

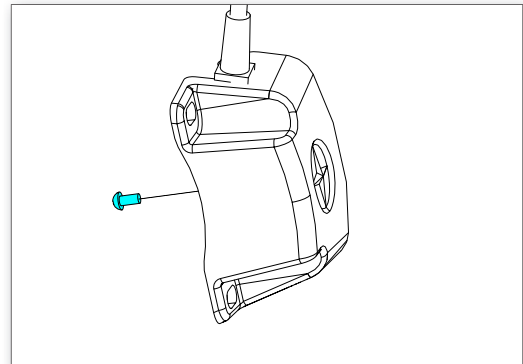


Caution: Make sure the internal wires are coiled so that the screws don't cut or compress the wire.

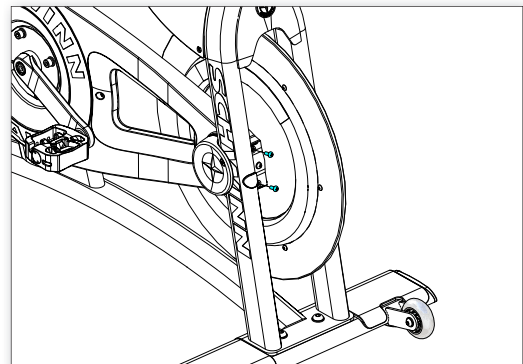
19. Reinstall the RPM sensor cover into the housing



20. Reinstall the M3 x 6mm Phillips Pan Head screw

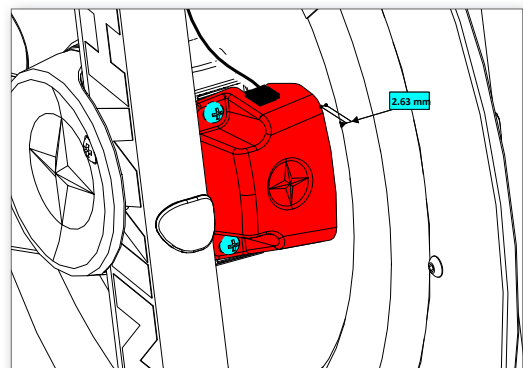


21. Remove the top and bottom screw from the front of the chain guard



22. Position the RPM sensor as shown and reinstall the two chain guard screws. The RPM sensor should be approx. 2-3mm away from the flywheel, or about the width of a credit card.

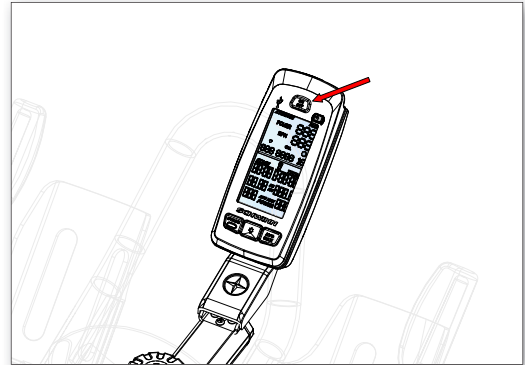
If the RPM sensor is too close, it will rub against the sensor magnet that is embedded in the flywheel. If the RPM sensor is too far away, the sensor will intermittently pick up a signal from the magnet or will not pick up any signal at all; this will cause an erratic RPM display, or no RPM display




23. Installation complete, proceed to Page 28, Step 1 to calibrate the console.

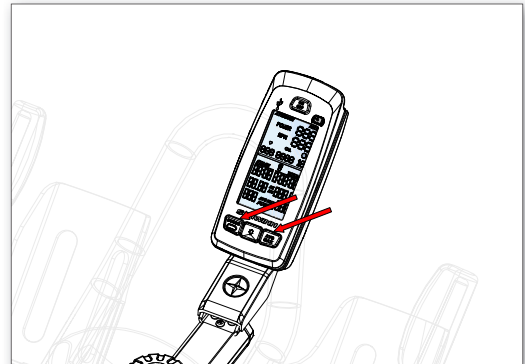


1. Turn on console.



2. Press and hold STAGE  and "AVG/MAX" for 3-5 seconds to access the service menu.

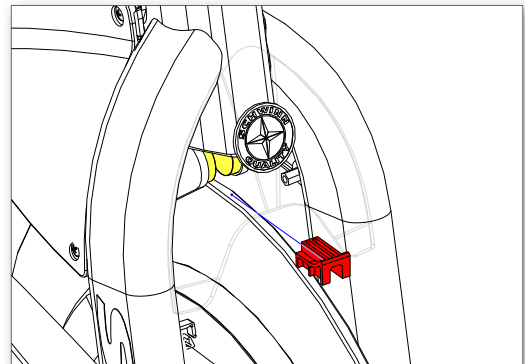
3. Once in the service menu, use the AVG/MAX button to scroll to the CALIBRATE menu. Press and release the LIGHT button to enter the menu.



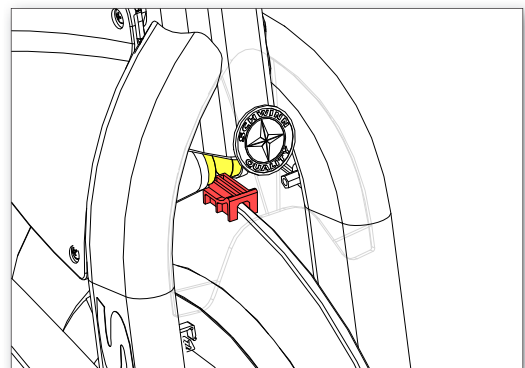
4. Scroll to CALIBRATE ZEROPOINT option and press the LIGHT button.

5. Follow the on-screen instructions

a. Place the calibration tool on the flywheel



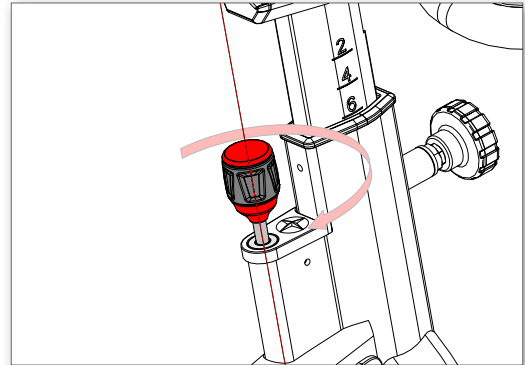
b. Rotate back until the tool fits between the magnets of the brake assembly (yellow), and then press the LIGHT button.



6. Turn the brake knob clockwise until the brake mechanism makes contact with the calibration tool and press the LIGHT button.

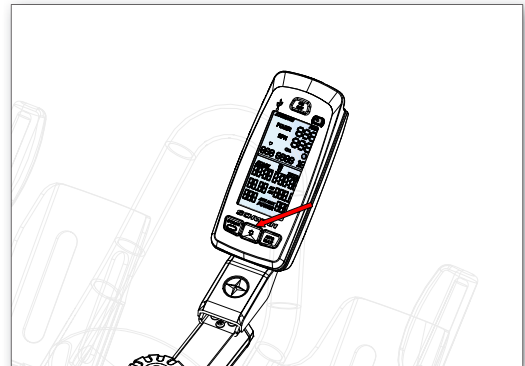


Caution: Do not over-tighten.

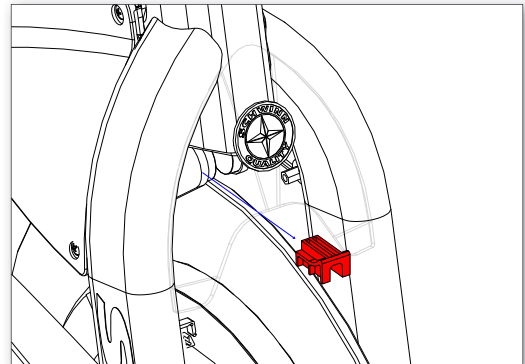


7. The console will display that the Zeropoint is now set. Press the LIGHT button to exit CALIBRATE ZEROPOINT.
8. Once the calibration passes, go to CALIBRATE CURRENT ANGLE and verify the angle is 0.0 (+/- 0.1 degrees). Occasionally, the calibration process does not correctly set the angle on the first try. If the angle reads anything other than 0.0 (+/- 0.1 degrees), perform the calibration again until the CURRENT ANGLE reads 0.0 (+/- 0.1 degrees).

Note: The sensor measures in degrees, so $0.0 - 0.1 = 359.9$.



9. Exit the service menu and remove the tool from the fly-wheel..










In the Service menu, the following actions can be performed:

- The following system settings can be changed:
 - CARBON BLUE¹: ON/OFF
 - UNITS: MI/KM
 - GEAR: ON/OFF
 - OPEN ANT: ON/OFF²
 - BACKLIGHT: Multiple options
 - CALORIES: ON/OFF
 - PASSCODE: ON/OFF
 - SENSOR TYPE: 4 IIII/Echelon2
- Power sensor can be calibrated
- Power levels can be adjusted up or down
- External battery level can be checked
- New firmware can be loaded
- Console ID can be checked or changed
- Console can be reset

NOTE: Only club maintenance staff and other club staff that are properly trained on how to navigate the Service menu, change settings, and calibrate the sensor should ever be allowed to enter the Service Menu and make any changes.

Detailed instructions on changing settings and performing actions in the Service menu appear below.

To access and navigate the Service menu:

1. The console must be in either power up mode (just after power up and before pedaling) or Pause mode in order to enter the service menu.
2. In power up or Pause mode, press and hold the  and AVG/MAX buttons together for 3 to 5 seconds.
3. If the passcode is set, enter the passcode to access. The passcode is a 3-digit number assigned by Schwinn and cannot be changed. Contact Schwinn support to obtain the passcode. To enter the passcode, use the  or AVG/MAX buttons to scroll to the desired number, then press the  button to accept the number and advance to the next number. After the third number has been entered the service menu will open.
4. The first menu option that will appear is CARBON BLUE. See the diagram below for all top-level menus options.
5. To scroll through the menus, use the AVG/MAX button to scroll forward and the  button to scroll backwards.
6. To select a menu option press the  button to enter the menu. For system settings, use the AVG/MAX or  buttons to select the desired option and exit the menu. Diagrams for each menu are illustrated below.
7. To exit the Service menu, get to the top menu level, scroll to EXIT and press the  button.

The menu maps shown below apply to firmware version 1.7 or later. If your console has an older version of firmware, Schwinn recommends upgrading to the latest version of firmware.

The latest version can be downloaded from the Schwinn Support website at

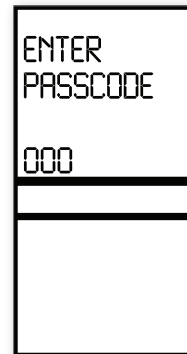
<https://support.corehandf.com/Software/>

Instructions for updating firmware are shown below or can be viewed on Schwinn's YouTube video at <https://www.youtube.com/watch?v=7w2LlexQgAQ>.

Top Level Service Menu

Default values are **bold**:

- Carbon Blue: **ON** / OFF
- Units: **MI** / KM
- Gear: ON / **OFF**
- Open ANT: ON / **OFF**
- Backlight *(See menu below)*
- Calories: **ON** / OFF
- Passcode: ON / **OFF**
Select to set
- Sensor Type **Echelon2** / 4iiii
(see Pairing, p. 33)
- Calibrate *(see menus below)*
- Batteries
- System *(see menus below)*
- Exit



Passcode Screen if Set



Backlight Menu

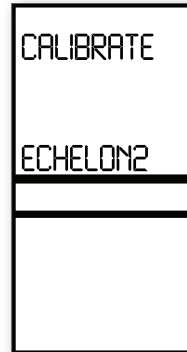
Default values are **bold**:

- Timer Set: 10 / 15 / 20
- Backlight Hold: ON / **OFF**





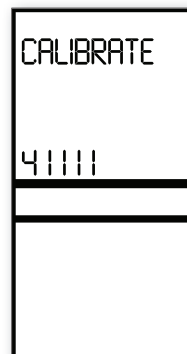
Calibration Menu - Echelon2

- Set Zero Point: 1.0
 - Set tool on wheel then push 
 - Knob right to stop
 - Push  to set
- Power Adjust: 0%



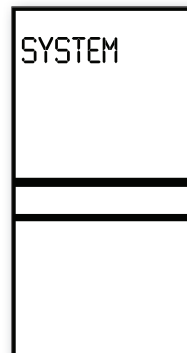
Calibration Menu - 4iiii

- Zero Reset: 1.0
 - Spin crank then push 
 - Left crank to 6 O'Clock
 - Push  to set
- Power Adjust: 0%












System Menu

- System Summary
 - Software Revision
 - Hours
- System Reset
- System Load FW
- System Serial Number



Pairing and Calibrating the 4iiii Powermeter:

1. Press and hold STAGE  and "AVG/MAX" for 3-5 seconds to access the service menu.
2. Use AVG/MAX to scroll until SENSOR TYPE is displayed then push the back-light button  to access the sensor menu. Ensure that "4iiii" is displayed as the sensor type.
3. If the sensor type is set to "Echelon 2" press the back-light button  to select the sensor type, use the AVG/MAX button to select "4iiii" then press the back-light button  again.
4. Once "4iiii" is selected the console will enter the pairing process, check the side of the power sensor for a 4 OR³ 5-digit ANT+ ID code. Enter this code on the "ENTER ANT ID" screen using AVG/MAX to scroll and the back-light button  to enter the ANT+ ID.
5. Once the ANT+ ID has been entered, pedal the bike, then select "PAIRING SPIN CRANK" but pushing the back-light button . If pairing does not pass, check to ensure the ANT+ ID is correct and try the pairing process again. It may take 2-3 attempts to pair successfully.
6. After successfully pairing the 4iiii crank, the power sensor must be calibrated BEFORE riding the bike. Press and hold STAGE  and AVG/MAX for 3-5 seconds to access the service menu then use AVG/MAX to scroll until "CALIBRATE" is displayed and push the back-light button . "ZERO RESET" will be displayed, press the back-light button  once more and ensure that the left crank arm is in the 6 o'clock position, follow the on-screen directions to calibrate the sensor.

