

SPINNER[®] BLADE ION
MANUFACTURED BY STAR TRAC

INSTALLATION & OWNER'S MANUAL



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Introduction

This manual will acquaint you with the assembly, operation and maintenance of your Spinner® indoor cycling bike. This manual provides information and instructions for the following Spinner indoor cycling bike models:

- 7220 Series - **Spinner® Blade ION manufactured by STAR TRAC®**

Be sure to read and follow the information and instructions for your specific model before assembly, using or servicing your indoor cycling bike.

Manufacturer

STAR TRAC
4400 NE 77th Avenue, Suite 300
Vancouver, WA 98662
Telephone: (800) 228-6635, (714) 669-1660
Fax: (714) 508-3303
<http://www.startrac.com>

Warranty

Frame is covered for ten (10) years from the date of purchase for structural failure. Additionally, the Spinner® Blade ION Frame is warranted for five (5) years from the date of purchase against build up and propagation of rust. Flywheel Assembly, Brake Knob Assembly, Handlebar Assembly, Seat Post, and Foot Adjustments are covered for three (3) years from the date of purchase. Handle Bar Post Plastic Sleeve, Seat Post Plastic Sleeve, Bottom Bracket Assembly, Seat Saddle Assembly, and Pop-Pin Assembly, are covered for two (2) years for the date of purchase. Pedals, Chain, Brake Pad Assembly, Rubber Frame Guard, Brass Brake Nut and remaining parts are covered for one (1) year from the date of purchase. An advance warranty replacement kit of wear items is included, consisting of: one (1) Brake Pad and two (2) Pedal Straps.

Customer Support

If any items need replacement contact the Star Trac Customer Support Department at 800-503-1221 or 714-669-1660.

Safety Instructions

This chapter includes precautions and fitness safeguards for the installation and use of the **SPINNER Blade ION manufactured by STAR TRAC**. Please read this chapter carefully before installing or using your equipment.

Safety instructions are provided in the following languages (in the order shown):

- English
- Dutch
- French
- Italian
- Portuguese
- Spanish
- Swedish
- Chinese
- Japanese

Precautions

These safety notes are directed to you as the owner of the Spinner® Blade ION manufactured by Star Trac. Please train all your users and fitness staff to follow these safety instructions.

DO

- Do encourage each of your users to discuss their health program or fitness regimen with a healthcare professional.
- Do stop operating your bike if you feel dizzy or faint.
- Do perform regular preventative maintenance.
- Do exercise slowly until you reach a level of comfort.
- Do use the bike only for its intended use, as described in this manual.

DO NOT

- Do not let unsupervised children operate the bike
- Do not use without proper athletic shoes or cycling shoes.
- Do not use in rainy weather outdoors, or in an enclosed pool environment.
- Do not drop or insert any object, hands, or feet into any opening or within the area of the flywheel.
- Do not attempt to remove any shrouds or modify the bike.

WARNING

Your Star Trac Spinner Blade ION is designed for aerobic exercise in a commercial or consumer environment.

Please check with your physician prior to beginning any exercise program.

Do not push yourself to excess. Stop if you are feeling faint, dizzy, or exhausted. Use common sense when biking.

Read the owner's manual in its entirety before operating the bike.

Failure to obey this warning can result in injury or death.

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Smart Release™ is a registered trademark of Nautilus, Inc.

SPD is a registered trademark of Shimano American Corporation

VOORZORGSMAATREGELEN

Deze veiligheidsaantekeningen zijn aan u gericht als eigenaar van de Spinner® Blade ION manufactured by Star Trac. Gelieve uw gebruikers en uw personeel voor conditietraining volledig bekend te maken met deze veiligheidsinstructies.

Doe het volgende:

- Moedig elk van uw gebruikers aan hun gezondheidsprogramma of conditietherapie met een professioneel uit de gezondheidszorg te bespreken.
- Stop het gebruik van uw bike als u zich duizelig of een flauwte voelt.
- Voer regelmatig preventief onderhoud uit.
- Oefen langzaam totdat u een comfortniveau heeft bereikt.
- Gebruik de bike alleen voor zijn bedoelde gebruik, zoals in deze handleiding staat beschreven.

Doe het volgende NIET:

- Laat kinderen zonder toezicht de bike niet bedienen.
- Niet zonder gymschoenen gebruiken.
- Niet buiten bij regenachtig weer gebruiken, of in dichte ruimte met een zwembad.
- Laat geen enkel voorwerp in de bike vallen en steek uw handen of voeten in geen enkele opening van of onder uw Bike.
- Probeer geen omhulsels te verwijderen of uw bike te wijzigen.

WAARSCHUWING

Uw Spinner Blade ION manufactured by Star Trac is ontworpen voor aërobische oefeningen in een commerciële of gebruiker- omgeving.

Zie uw arts vóór het beginnen van een oefenprogramma.

Dwing uzelf niet tot buitensporige oefeningen. Stop als u zich duizelig, uitgeput of een flauwte voelt.

Lees de gebruikershandleiding helemaal en aandachtig door alvorens uw bike te bedienen. Nalaten deze waarschuwing op te volgen kan letsel of overlijden tot gevolg hebben.

PRÉCAUTIONS

Ces consignes de sécurité s'adressent aux propriétaires du Spinner® Blade ION manufactured by Star Trac. Veuillez instruire tous vos utilisateurs et instructeurs à suivre ces consignes.

À Faire

- Encouragez tous les utilisateurs à consulter un médecin au sujet de leur programme de fitness ou régime d'exercice.
- Cessez d'utiliser le bike en cas d'étourdissement ou de faiblesse.
- Exécutez régulièrement la maintenance préventive.
- Commencez l'exercice lentement jusqu'à ce que vous atteignez un niveau confortable.
- Utilisez le bike uniquement de la manière prévue, telle que décrite dans ce manuel.

À éviter

- Ne laissez pas des enfants utiliser le bike sans surveillance.
- Ne l'utilisez pas sans porter de chaussures d'athlétisme.
- Ne l'utilisez pas en extérieur lors de temps pluvieux, ni en intérieur dans une salle de piscine.
- Évitez de laisser tomber tout objet ou d'introduire les mains ou pieds dans toute ouverture ou en-dessous du Bike.
- Ne tentez pas de retirer tout carter de protection ni de modifier le bike.

AVERTISSEMENT

Le Spinner Blade ION manufactured by Star Trac est conçu pour l'exercice aérobique dans un environnement commercial ou privé.

Veuillez consulter un médecin avant de commencer tout programme d'exercice.

Ne vous poussez pas au-delà de vos limites. Arrêtez-vous si vous vous sentez faible, étourdi ou épuisé. Faites preuve de bon sens lorsque vous vous entraînez.

Lisez le guide de l'utilisateur en entier avant d'utiliser le bike.

Le non-respect de ces avertissements peut se traduire par des blessures, voire la mort.

VORSICHTSMASSNAHMEN

Die folgenden Vorsichtsmaßnahmen richten sich an Sie als Besitzer des Spinner® Blade ION manufactured by Star Trac. Bitte schulen Sie alle Ihre Benutzer und Ihr Fitness-Personal in der Beachtung dieser Sicherheitsvorschriften.

Gebote

- Legen Sie jedem Ihrer Benutzer nahe, sein Gesundheits- oder Fitnessprogramm mit einem medizinischen Fachmann zu besprechen.
- Beenden Sie den Betrieb Ihres bike, wenn Sie sich schwindelig oder schwach fühlen.
- Führen Sie regelmäßige vorbeugende Wartungsmaßnahmen durch.
- Trainieren Sie langsam, bis Sie eine gewisse Komfortzone erreichen.
- Verwenden Sie den bike nur zum vorgesehenen, in dieser Anleitung beschriebenen Zweck.

Verbote

- Lassen Sie den bike nicht von unbeaufsichtigten Kindern in Betrieb nehmen.
- Benutzen Sie das Gerät nicht ohne Sportschuhe.
- Benutzen Sie das Gerät bei regnerischen Witterungsbedingungen nicht im Freien und nicht in einer geschlossenen Schwimmbadumgebung.
- Lassen Sie keine Gegenstände in irgendwelche Öffnungen oder unter den Bike fallen und halten Sie Hände und Füße von diesen Bereichen fern.
- Unternehmen Sie keinen Versuch, irgendwelche Abdeckungen zu entfernen oder den bike zu modifizieren.

ACHTUNG

Der Spinner Blade ION manufactured by Star Trac ist für aerobische Übungen in einer kommerziellen oder Verbrauchenumgebung vorgesehen.

Bitte holen Sie vor Aufnahme eines jeden Trainingsprogramms den Rat Ihres Arztes ein.

Trainieren Sie nicht übertrieben hart. Hören Sie auf, wenn Sie ein Schwäche-, Schwindel- oder Erschöpfungsgefühl verspüren. Lassen Sie sich beim Schrittraining von Ihrer Vernunft leiten.

Lesen Sie vor Inbetriebnahme Ihres bike die Bedienungsanleitung vollständig durch.

Ein Missachten dieses Achtungshinweises kann Verletzungen oder den Tod zur Folge haben.

PRECAUZIONI

Queste note precauzionali sono dirette a voi, come proprietario dello Spinner® Blade ION manufactured by Star Trac. Siete pregati di istruire i vostri utenti e il vostro personale all'osservanza di queste precauzioni.

Da Fare

- Incoraggiate i vostri utenti a discutere il loro programma di salute o di fitness con uno specialista dell'healthcare.
- Interrompete l'uso dello bike se avete giramenti di testa o se vi sentite mancare.
- Eseguite periodicamente servizi di manutenzione.
- Utilizzate lo bike soltanto per l'uso a cui è destinato, come descritto nel manuale.

Da Non Fare

- Non consentite a bambini di usare lo bike senza la supervisione di un adulto.
- Non utilizzate lo Bike senza scarpe atletiche.
- Non utilizzate lo Bike all'esterno in condizioni piovose o in un ambiente con piscina interna.
- Non lasciate cadere oggetti sullo bike e non inserite oggetti, mani o piedi in qualsiasi apertura esterna o sotto lo Bike.
- Non cercate di rimuovere le coperture o di modificare lo Bike.

AVVERTENZE

Lo Spinner Blade ION manufactured by Star Trac è stato realizzato per esercizi di aerobica in un ambiente pubblico privato adeguato.

Prima di iniziare un programma di esercizio fisico, consultate il vostro medico.

Non eccedete i vostri limiti. Fermatevi se vi sentite mancare, se avete giramenti di testa o se vi sentite esausti. Usate buon senso nell'utilizzo dell'attrezzatura.

Leggete il Manuale dell'utente interamente prima di utilizzare lo bike.

La mancata osservanza di queste avvertenze può comportare lesioni gravi o morte.

PRECAUÇÕES

Estas notas de segurança destinam-se a você, proprietário do Spinner® Blade ION manufactured by Star Trac. Treine todos os usuários e o pessoal da academia para que sigam estas instruções de segurança.

O que fazer

- Incentive todos os usuários a discutirem seu programa de saúde ou sistema de condicionamento físico com um profissional da área de saúde.
- Pare o funcionamento do bike se sentir tontura ou vertigem.
- Efetue a manutenção preventiva regular.
- Faça exercícios lentamente até atingir um grau de conforto.
- Use o bike apenas de acordo com a finalidade para que se destina, conforme descrito neste manual.

O que não fazer

- Não deixe crianças sem supervisão operarem o bike.
- Não use sem os sapatos esportivos apropriados.
- Não utilize em ambientes externos quando o tempo estiver chuvoso, nem em um ambiente fechado de piscina interna.
- Não deixe cair nem insira nenhum objeto, mãos ou pés em qualquer abertura ou sob o bike.
- Não tente remover nenhum degrau nem modificar seu Bike.

ADVERTÊNCIA

Seu Spinner Blade ION manufactured by Star Trac foi projetado para exercícios aeróbicos em um ambiente comercial ou próprio do consumidor.

Consulte seu médico antes de começar qualquer programa de exercícios.

Não se esforce demais. Pare se sentir tontura, vertigem ou exaustão. Tenha bom senso ao fazer o exercício.

Leia todo o Manual do Proprietário antes de operar o seu bike.

Deixar de observar esta advertência pode resultar em ferimentos ou morte.

PRECAUCIONES

Estas notas de seguridad están dirigidas a usted como el dueño de Spinner® Blade ION manufactured by Star Trac. Por favor instruya a todos sus usuarios y personal de entrenamiento para que sigan estas instrucciones de seguridad.

Lo que se debe hacer

- Dígale a cada uno de sus usuarios que discuta su programa de salud o régimen de ejercicio con un profesional de la salud.
- Deje de operar su bike si se siente mareado o como que va a desmayarse.
- Lleve a cabo mantenimiento preventivo a intervalos regulares.
- Haga ejercicio lentamente hasta que alcance un nivel en el que se sienta cómodo.
- Utilice el bike solamente para lo que fue diseñado, como se describe en este manual.

Lo que no se debe hacer

- No permita que los niños operen su bike sin supervisión.
- No lo use sin zapatos atléticos.
- No lo utilice afuera en la lluvia ni en un ambiente cerrado donde haya una piscina.
- No lo deje caer ni inserte objetos, manos o pies en ninguna apertura de su Bike ni debajo de él.
- No intente quitar ninguna cubierta o recubrimiento ni modificar su bike.

ADVERTENCIA

Su Spinner Blade ION manufactured by Star Trac está diseñado para el ejercicio aerobico en un ambiente comercial o de consume.

Por favor consulte con su médico antes de iniciar cualquier programma de ejercicio.

No haga un esfuerzo excesivo. Deténgase si se sienta mareado, exhaust o como si fuera a desmayarse. Use su sentido común al hacer ejercicio.

Lea completamente el Manual del dueño antes de operar su bike.

El no cumplir con esta advertencia puede resultar en una lesión o en la muerte.

FÖRSIKTIGHETSÅTGÄRDER

Dessa säkerhetsanmärkingar är riktade till dig i egenskap av ägare av Spinner® Blade ION manufactured by Star Trac. Var god utbilda alla användare och all personal att följa dessa säkerhetsanvisningar.

Man ska

- uppmuntra alla användare att konsultera sitt hälso-program eller sin träningsregim med en läkare.
- sluta använda bike om man känner sig yr eller svimfärdig.
- utföra regelbundet underhåll i förebyggande syfte.
- motionera långsamt tills man når en komfortnivå.
- endast använda bike för dess avsedda användning, enligt beskrivning i denna handbok.

Man ska inte

- låta barn använda bike utan uppsikt.
- använda bike utan sportskor.
- använda bike utomhus i fuktigt väder eller i ett inneslutet bassängområde.
- tappa in eller föra in något föremål, händer eller fötter i någon öppning, eller under bike.
- försöka att avlägsna några skyddskåpor eller att modifiera Bike.

VARNINGAR

Spinner Blade ION manufactured by Star Trac är avsedd för aerobisk träning i kommersiella eller konsumentinriktade miljöer.

Konsultera din läkare innan du inleder något träningsprogram.

Driv inte dig själv för hårt. Sluta om du känner dig yr, svimfärdig eller utmattad. Använd bike med sunt förnuft.

Läs igenom hela handboken innan du använder bike.

Underlåtelse att iaktta dessa varningar kan medföra skada eller dödsfall.

注意事项

以下安全注意事项是专门为 Spinner® Blade ION manufactured by Star Trac 的拥有人而制订的。请务必训练所有设备使用者和健身房工作人员遵守这些安全注意事项。

要：

- 鼓励所有使用者与专业医疗保健人员商讨他们的医疗保健方案或健身进程。
- 使用 bike 时若感觉到晕眩或虚弱，请立即停止使用。
- 定期维护设备。
- 锻炼要慢慢开始直至达到一个自如的程度。
- 仅将 bike 用作本使用手册所列的用途。

不要

- 不要让无人看管的儿童使用您的 Spinner。
- 没穿运动鞋时不要使用。
- 下雨时不要在室外使用，也不要室内游泳池附近使用。
- bike 的敞开部位或底下不要掉落或塞进任何物件、包括手或脚。
- 不要尝试拆除任何覆盖物或改装您的 bike。

警告

Spinner Blade ION manufactured by Star Trac

是专门设计用于商业或消费用途的健身锻炼设备。

开始任何锻炼计划之前，请先与您的医生进行商讨。

不要过于勉强自己。如果感觉到虚弱、晕眩或疲倦就应停止运动。运用常识正确举步。

使用stepper前请先完整阅读使用手册。

如不遵从以上警告有可能导致受伤或死亡。

注意事項

以下の安全に対する注意事項は、Spinner® Blade ION manufactured by Star Trac
のオーナーに対するものです。オーナーは、すべてのユーザーおよびフィットネススタッフ全員が以下の安全に対する注意
事項に従うよう指導してください。

実施すべきこと

- ユーザーには、ヘルスケア専門家と各自のヘルスプログラムまたはフィットネス管理法について話し合うよう奨励する。
- 目まいを感じたり気が遠くなった時は、s bike の使用を中止する。
- 定期的に予防メンテナンスを実施する。
- 快適なレベルに達するまではゆっくりと運動する。
- 本マニュアルに従って、意図された目的のみのために s bike を使用する。

すべきでないこと

- 大人の監督下でない子供に s bike を使用させる。
- 運動靴の着用なしに使用する。
- 雨天時の屋外における使用、閉ざされた屋内プール環境での使用。
- s bike を落下させる、あるいは使用中の s bike または s bike の下に異物、手、足を入れる。
- 保護カバーをはずそうと試みる、または bike を改造する。

警告

Spinner Blade ION manufactured by Star Trac

は、商業環境および消費者環境でエアロビクス（有酸素）運動を行うために設計されています。

エクササイズプログラムを始める前に、必ず医師に健康状態を確認してください。

無理な運動は避けてください。気が遠くなったり、目まいを感じたり、ひどく疲れた場合は、すぐに運動を中止してください。使用に際しては常識的な判断を下してください。

s bike を使い始める前に、オーナーズ・マニュアルを最後まで読んでください。

以上の警告に従わない場合には、負傷あるいは死亡などの結果を招く可能性があります。

Safeguards

The following fitness safeguards and operating precautions are directed to purchasers and users of Spinner® indoor cycling bikes. Club Managers should ensure that members and fitness staff are trained to follow these same instructions. Failure to follow these safeguards may result in injury or serious health risk.

- Ensure that adjustment knobs (seat height, seat fore-and-aft, and handlebar) are properly secured and do not interfere with range of motion during exercise.
- Children under the age of 16 should not ride the Spinner bike. The bike mechanism and ergonomics are designed for adult use only.
- Do not insert any object, hands or feet into any openings, or expose hands, arms or feet to the drive mechanism or other potentially moving part of the bike.
- The maximum weight for individuals riding the Spinner bike should not exceed 350 pounds (159 kilograms).
- Spinner bikes have a weighted flywheel and a fixed gear. This means that in order to stop, you must gradually slow your pedal strokes rather than stopping abruptly. If you do need to stop immediately, push down on the resistance knob. Do not dismount the bike or remove your feet from the pedals until both the pedals and the flywheel have stopped completely. Failure to comply may lead to loss of control and serious injury.
- After exercising, turn the resistance knob to increase resistance so the pedals will not rotate freely and potentially injure someone.
- If at any time you feel dizzy or have difficulty breathing, gradually stop pedaling and carefully dismount the bike.
- Listen to your body, ride at your own pace and set your bike's resistance at the level that feels right for you.
- Keep children and pets away from the bike whenever it's in use.
- Never turn the pedal crank arms by hand.
- Stay hydrated. Drink water throughout your ride as needed.
- Always keep some resistance on the flywheel.
- Stay in control by executing all core movements and hand positions at a slow pace before attempting to increase your speed. Do not attempt to ride the bike in a standing position at a high RPM until you have practiced at slower speeds.
- Focus on form, posture and making smooth transitions between movements.
- Do not use the bike without proper footwear. Never operate the bike with bare feet.
- Never remove your feet from the pedals while still in motion. Prevent your feet from coming out of the toe clip or shoe cage by keeping shoe laces tucked in and foot straps pulled snug around your shoe. If your foot does become disengaged, push down on the resistance knob to stop the flywheel's motion.

Assembly & Setup

Use the following procedures to unpack and assemble your **SPINNER® Blade ION** manufactured by Star Trac.

UNPACKING AND PARTS LIST

Position the shipping carton so the “Heavy End” logo is located at the bottom. Open the top of the carton and fold back all four flaps. Carefully tilt the box forward so that the box may be lifted to expose the bike. Remove all parts from the shipping carton and foam inserts, and verify that the following parts are included in your shipment:

Spinner Blade ION Parts List			
Description	Qty.	Description	Qty.
Main Frame Assembly	1	M8x1.25x30mm Hex Head Bolt	2
Handlebar	1	8mm Split Lock Washer	2
Seat and Slider Assembly	1	8mm Plain Washer	2
Handlebar Post	1	Threaded Foot Plate	2
Lower Seat Post	1	Seat Adjustment Pop-Pin	1
Front Foot Strut	1	“Pull Prevent” Plastic Oval Cap	1
Pedals and Bolts (set of two; R and L)	2	Metal Oval Mounting Plate	1
Spinner Blade ION Console	1	M5x0.8x25mm Button Head Bolt	1
Load Sensor Plastic Block Covers Kit	1	M5x0.8x12mm Button Head Bolt	1
Tool Kit	1	Multi-Sized Open Wrench	1

Take time now to enter your Spinner Blade ION serial number in the space below (serial number is located on the bottom cross member).

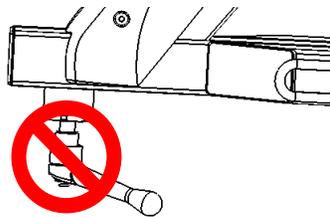
If parts are missing, or if you have any operational questions, please call Star Trac’s Service department at (800) 503-1221. Have your serial number ready.

Serial No. _____

NOTE: If you are missing any of the parts listed above, inspect the packing material and the box for items that may have been overlooked.

If parts are missing, or if you have any product questions, please call Star Trac’s Service Department at (800) 503-1221, please have your Spinner’s serial number ready.

CAUTION: Damage to the bike during assembly is not covered as part of the limited Star Trac warranty. Take care not to drop or lean the bike on the handle bar pop-pin. Carefully stand the bike up in the normal upright position on a stable surface so it will not tip over during assembly.



ASSEMBLY INSTRUCTIONS

1. Unboxing the unit requires turning the sealed box upside down to open the bottom flaps (Fig. 1).



Fig. 1

2. Return the opened box back to the upright position (Fig. 2).

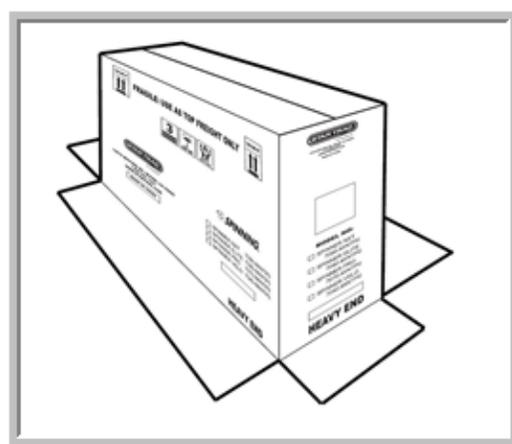


Fig. 2

3. Expose the packaged bike by pulling the box up (Fig. 3).

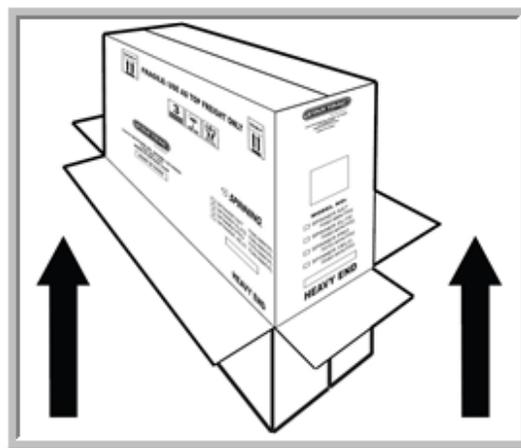


Fig. 3

4. Remove handlebar & packaging (Fig. 4) from its center location.



Fig 4.

5. Remove the hardware pack and seat from the foam covering the front section of the bike frame (Fig. 5).



Fig. 5

6. Tilt the packaged bike frame towards the heavy flywheel and stand on its end (Fig. 6).

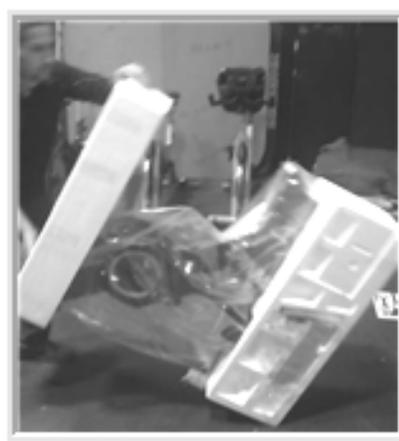


Fig 6.

7. Remove the foam packaging from the rear section of the bike frame (Fig. 7).



Fig. 7

8. Locate the rear foot strut along with the corresponding hardware that secures it to the bike frame (Fig. 8).

Hardware:

- M8 x 1.25 x 30mm Hex Head Bolt
- 8mm Split Lock Washer
- 8mm Plain Washer
- Threaded Foot Plate



Fig. 8

9. Insert the threaded plate (Fig. 9) into the bottom section of the rear foot bracket.



Fig. 9

10. Install the rear foot strut (Fig. 10) and tighten hardware using the supplied multi sized open wrench.



Fig. 10

11. Stand the bike frame on the opposite end and place a piece of foam or rag under the seat post frame section (Fig. 11).



Fig. 11

12. Remove the foam covering the front of the bike frame (Fig. 12).

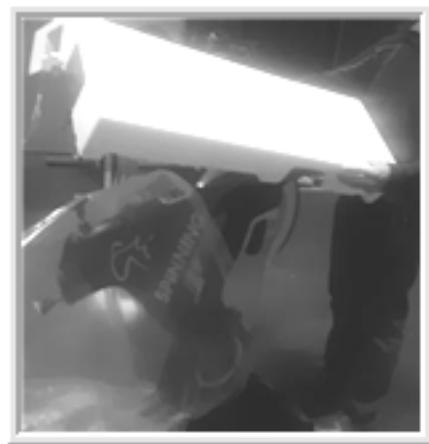


Fig. 12

13. Locate the front foot strut along with the corresponding hardware that secures it to the bike frame (Fig. 13).

Hardware:

- M8x1.25x30mm Hex Head Bolt
- 8mm Split Lock Washer
- 8mm Plain Washer
- Threaded Foot Plate

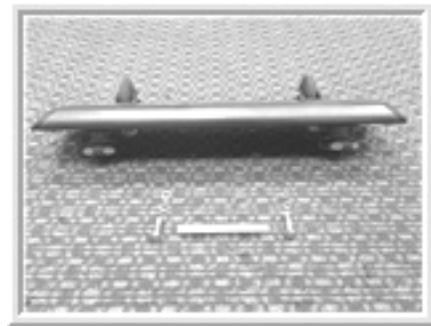


Fig. 13

14. Insert the threaded plate (Fig. 14) into the bottom section of the front foot bracket.



Fig. 14

15. Install the front foot strut (Fig. 15) and tighten hardware using the supplied multi sized open wrench.



Fig. 15

16. Return the bike to the upright position (Fig.16).



Fig. 16

17. Locate adjustable seat post and insert into the seat tube on the bike frame (Fig. 17).



Fig. 17

18. Locate and install the seat height adjustment pop pin onto the bike frame (Fig. 19). Use the multi sized open wrench to tighten.



Fig. 19

19. Attach the seat slider assembly onto the seat post by pulling the small pull pin located at the underside of the seat post and sliding into position (Fig. 18).



Fig. 18

20. Locate the Spin® badge (Fig. 20) at the front of the bike frame.



Fig. 20

21. Using a 2mm hex key, loosen the two button head cap screws (Fig. 21) to expose the internal wiring and open connections.



Fig. 21

22. Locate the handlebar height adjustment post with the pre-inserted wire harness and socket head cap screw at the lower section of the post (Fig. 22).

NOTE: Remove the socket head cap screw from the lower section using a 4mm hex key.

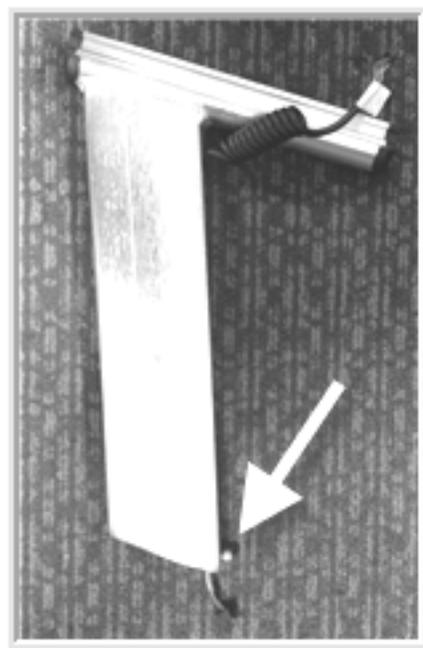


Fig. 22

23. Insert the handlebar post into the front frame tube on the bike (Fig. 23).

NOTE: Push the post down towards the lowest possible position.



Fig. 23.

24. Connect the wire extension harness coming from the handlebar post to the corresponding 10 pin open connection available inside the bike frame (Fig. 24).



Fig. 24

25. Thread the socket head cap stop bolt back into the lower section of the handlebar post (Fig. 25).

NOTE: Insert the socket head cap screw to the lower section using a 4mm hex key.



Fig. 25

26. Locate the handlebar assembly and remove the button head stop bolt that is pre-inserted into the slider section (Fig. 26).

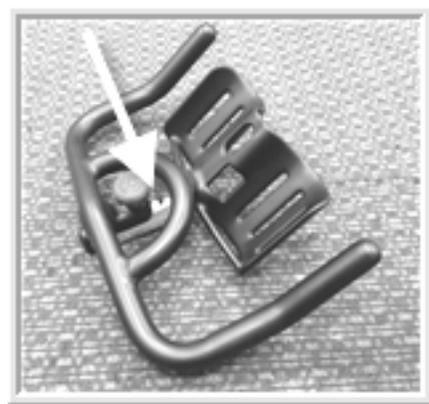


Fig. 26

27. Slide the handlebar onto the height adjustment post (Fig. 27).



Fig. 27

28. Reinstall the stop bolt into the handlebar slider (Fig. 28) using a 4mm hex key.



Fig. 28

29. Locate the ION console, plastic cable “Pull Prevent” clip, and corresponding hardware (Fig. 29).

Hardware:

- M5x0.8x25mm Button Head Bolt
- M5x0.8x12mm Button Head Bolt
- Plastic Oval Cap
- Metal Oval Mount Plate



Fig. 29

30. Mount the rear oval shaped plastic cover and metal plate over the wire harness protruding from the handlebar post (Fig. 30). Insert the plastic cover first followed by the metal plate.



Fig. 30

31. Position the ION console on the top of the handlebar assembly in-between the water bottle holders. Route the wire harness (Fig. 31) thru the small oval opening in the handlebars and plug into the underside of the ION console.



Fig. 31

32. Seat the ION console (Fig. 32) onto the handlebar and secure the lower metal plate and plastic covers using a 3mm hex key to tighten the two M5 button head screws.

NOTE: The long 25mm button head screw is used on the lower section of the console and the short 12mm button head screw is used on the upper section of the console.

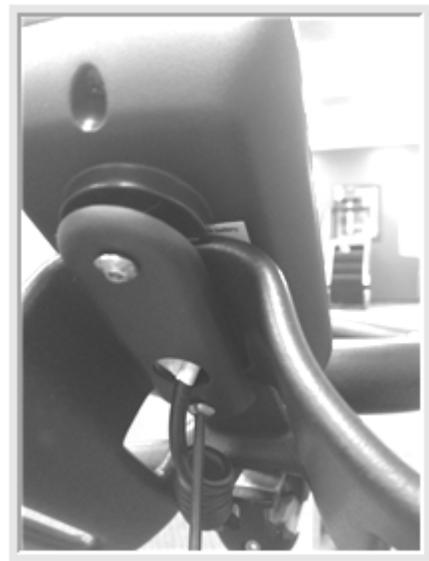


Fig. 32

33. Insert the “Pull Out Prevent” clip into the oval plastic cover (Fig. 33).

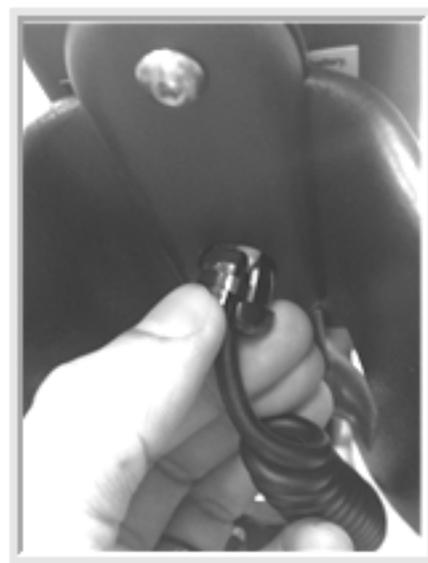


Fig. 33

34. Locate the set of pedals along with the corresponding hardware (Fig. 34).



Fig. 34

35. Insert each pedal into their corresponding crank (Fig. 35 A).

NOTE: Each pedal is marked with an indentation of the letters “L” (LEFT) or “R” (RIGHT) towards the corner of the surface where the SPD clips are located (Fig. 35 B).



Fig. 35A



Fig. 35B

36. Using a rubber mallet; tap the center of each pedal with medium force to lock the pedals in place (Fig. 36).



Fig. 36

37. Install the pedal securing bolts (Fig. 37) into each pedal thru the back of each crank arm using an 8mm hex key.

NOTE: Torque settings for each bolt should be between 33-37 lb-ft.



Fig. 37

38. Locate the load sensor blocks seated at the center of the bike frame near the flywheel (Fig. 38). Remove the shim between both blocks.



Fig. 38

39. Locate the plastic block covers (Fig. 39) and secure them in place over the load sensor, using a 3mm hex key to tighten the two flat head screws.



Fig. 39

40. Using a 2mm hex key; tighten the two button head cap screws that secure the Spin® badge located at the front of the bike Fig. 40).



Fig. 40

Testing Bike

Use this checklist to perform the bike test procedure.

- Recheck all the bolts and make sure they are all tightened to the proper torque specification and no parts are missing.
- Test the handlebar and seat post to make sure they move freely and you are able to lock in at different positions.
- Check the seat to make sure it is level and tight and does not rotate around or tilt. Tighten and adjust as needed.
- Test the seat slide for movement front to rear and check it by settings it at different settings.

CAUTION: The flywheel will continue to rotate after you pedal and the crank arms and pedals will rotate with the flywheel.

Brake tension is adjustable using the red resistance knob in the front of the bike. Pressing down on the knob will apply the brake if you need to stop quickly.

- Adjust seat post and handlebar post to your needs (Refer to page 27-28). Ride / test the bike for proper operation according to this owner's manual.
- Pedal the bike at a moderate pace and test for proper and smooth resistance changes while varying the amount of turns on the resistance knob.
- When the testing is complete tip the bike forward using the handlebars and roll it on a smooth surface to the final location and adjust the leveling feet so the bike is stable.

Instructions

Your Spinner® indoor cycling bike is easy to use. The bike allows the user full control over resistance by simply adjusting the brake pad. Typically, lower resistance levels enable you to pedal at a faster pace, placing increased demand on the cardiovascular system. Higher resistance levels will typically deliver a greater muscle/endurance workout at lower RPMs. RPM parameters in the Spinning program range from 60 to 110 RPM.

Additionally, the bike offers seat and handlebar adjustments, allowing the bike to be configured to each users comfort zone.

This section provides the instructions for making seat adjustments, handlebar adjustments, pedal strap adjustments, and for controlling resistance.

PLEASE NOTE: In a club setting, we recommend each user to initially be properly fitted on the bike by a certified Spinning instructor.

Seat Adjustments

Proper seat height helps ensure maximum exercise efficiency and comfort, while reducing the risk of injury. Adjust the seat height so that the knee joint is slightly flexed when the extended leg is at the bottom of the pedal stroke. Once the proper height has been achieved, adjust the seat forward or back so that when the feet are in the 3 o'clock and 9 o'clock positions, the forward knee is directly over the pedal axle. Recheck the seat height again after making the fore/aft adjustment, as moving the seat forward and backward can have the same effect as moving it higher or lower

Spinner Blade ION
Seat Pop-Pin



To adjust the seat height:

Dismount the bike. Turn the seat height pop-pin counterclockwise and pull out on the pin to release it from its current preset location. Raise or lower the seat to the desired height, then gently release the pop-pin. Raise or lower the seat slightly, if necessary, until the pop-pin engages a preset hole, Turn the pop-pin clockwise to secure. Be sure to tighten firmly.

Spinner Blade ION
Fore/Aft Pop-Pin



To adjust the seat horizontal position:

Dismount the bike. Loosen the seat fore-and-aft tension knob by turning the knob counterclockwise. Move the seat forward or back to the desired position and then tighten the tension knob by turning clockwise.

Handlebar Adjustments

Position the handlebar at the same height as your seat, or higher if you feel any discomfort in your back. All Spinner® indoor cycling bikes allow for adjustment of handlebar height. Additionally, the Spinner Blade ION allows for fore and aft adjustment of the handlebar.

To adjust the handlebar height:

Loosen the handlebar height tension handle by turning the handle counterclockwise. Raise or lower the handlebar to the desired height, then tighten the tension handle by turning clockwise. Be sure to tighten firmly.



Spinner Blade ION
Height Pop-Pin

To adjust the handlebar fore / aft:

Loosen the handlebar fore-and-aft tension handle by turning the handle counterclockwise. Move the handlebar forward or back to the desired position, then tighten the tension handle by turning clockwise. Be sure to tighten the handle firmly.



Spinner Blade ION
Fore / Aft Tension
Handle

Pedal Strap Adjustment

To adjust the pedal straps:

Place the balls of your feet securely in the toe cages, with the ball of the foot (or the widest part of your shoe) over the center of the pedals. As you pedal, concentrate on keeping feet flat, which enables a more powerful pedal stroke. The front of the shoe may not completely fill the toe cage.

Note: The pedal straps should be adjusted to hold the foot snugly in the pedal.

Pedal Tightening
Clip



Resistance Control

Pedaling resistance is controlled by the resistance knob. Resistance adjustments can be made while riding to vary the intensity of your workout. To increase resistance, turn the Push Brake System knob clockwise (+); to decrease resistance, turn the knob counter-clockwise (-).

NOTE: In case of emergency, you may press directly down on the Push Brake System knob to bring the flywheel to an abrupt stop.

Spinner® Blade ION
Resistance Knob



User Information

Bike Setup

Proper bike setup gives you a more comfortable ride and reduces your risk of injury.

Fore/Aft Pop-Pin

Seat Height Pop-Pin



SEAT HEIGHT

At the proper height, there should be a slight bend in your knee when you're at the bottom of a pedal stroke.



FORE/AFT POSITION

Once the proper height has been achieved, adjust the seat forward or back so that when the feet are in the 3 o'clock and 9 o'clock positions, the forward knee is directly over the pedal axle. Recheck the seat height again after making the fore/aft adjustment, as moving the seat forward and backward can have the same effect as moving it higher or lower.

HANDLEBAR HEIGHT

Position the handlebar at the same height as your seat, or higher if you feel any discomfort in your back.

FOOT POSITION

Place the balls of your feet securely in the toe cages, with the ball of the foot (or the widest part of your shoe) over the center of the pedals. As you pedal, concentrate on keeping feet flat, which enables a more powerful pedal stroke. The front of the shoe may not completely fill the toe cage.

RESISTANCE CONTROL

Pedaling resistance is controlled by the Push Brake System knob located below the handlebar. Resistance adjustments can be made while riding to vary the intensity of your workout. To increase resistance, turn the Push Brake System knob clockwise (+); to decrease resistance, turn the knob counterclockwise (-).

Make sure that all pop pins are engaged and secure after adjusting your bike.

WARNING

IN CASE OF EMERGENCY, YOU MAY PRESS DIRECTLY DOWN ON THE PUSH BRAKE SYSTEM KNOB TO BRING THE FLYWHEEL TO AN ABRUPT STOP.



TRAINING INFORMATION

This section will provide very basic information regarding the structure of a Spinning® workout. For compressive information, refer to the Spinning website and their Enthusiasts section at: <http://www.spinning.com/en/enthusiasts>

IMPORTANT: User should be aware of the features, functions and proper operation of the bike **before** using the bike for the first time. Users can refer to the Spinning website and their Enthusiasts section at: <http://www.spinning.com/en/enthusiasts> to learn about getting started, training tips, articles and research and more.

Before Beginning

Be sure the seat, handlebar and pedal straps are properly adjusted for your body size and comfort before beginning your workout. Consult your physician before beginning this or any other exercise routine. Discontinue any exercise that causes you discomfort and consult a medical expert.

Warm-Up

Once you are in position and sitting on the bike with your hands in a comfortable position on the handlebar, slowly begin pedaling. A gradual warm-up prepares the muscles and cardiovascular system for a more intense workout, and helps prevent potential injuries from occurring. Your warm-up should be sufficient once your breathing rate begins to increase and you begin to perspire lightly. The warm-up period should last about five minutes.

Work Out

A brisk and rhythmic workout will train the muscles and cardiovascular system to perform at a higher efficiency. The key is to exercise aerobically; typically at 60% – 75% of your maximum heart rate.

Cool-Down

Slow and relaxed activity after a workout allows the muscles and cardiovascular system to gradually return to an inactive state.

Dismounting Bike

WARNING: The flywheel momentum of the bike will keep the pedals turning even after the user stops pedaling, or in the event the user's feet slip off the pedals. **DO NOT DISMOUNT THE BIKE OR REMOVE YOUR FEET FROM THE PEDALS UNTIL BOTH THE PEDALS AND THE FLYWHEEL HAVE STOPPED COMPLETELY.** Failure to comply may lead to loss of control and serious personal injury.

You may stop the bike using any of the following methods:

- Pedal more slowly until the pedals come to a complete stop.
- Increase the resistance by turning the Push Brake System knob clockwise (+) until the pedals come to a complete stop.
- Push down on the Push Brake System knob until the pedals come to a complete stop.

Spinner® Blade ION Computer

The Spinner® Blade IONs onboard computer is the first indoor cycle to be powered by a generator. The ION computer has an internal back-up battery to provide power when the rider is pedaling below 55 RPM or stops completely. As the rider starts to pedal the bike, blue LED lights illuminate on the left side of the flywheel. Not only is this a stunning visual it is an indicator that the generator is providing power to the computer.

The ION computer provides the rider with power data (displayed in watts), cadence (measured in RPMs), heart rate (when paired with an Ant+ compatible device), kilocalories (KCAL), distance (miles or kilometers), average power, peak power, and total ride time or interval time. When paired with a compatible device, the ION computer will broadcast a data file to the device that will record the ride data, including ride time, power, and kilojoules. This data can be uploaded to power analysis software that is capable of receiving data files with the device used to measure ride data.

Power generated by the rider is measured via a load cell sensor that is attached to the brake pad assembly, which provides resistance to the flywheel. As pedal resistance is increased by manually turning the red resistance knob clockwise, the frictional load between brake pad and flywheel increases, thus putting greater load on the load cell sensor. The result for the rider is a true measurement of energy and power at the flywheel.

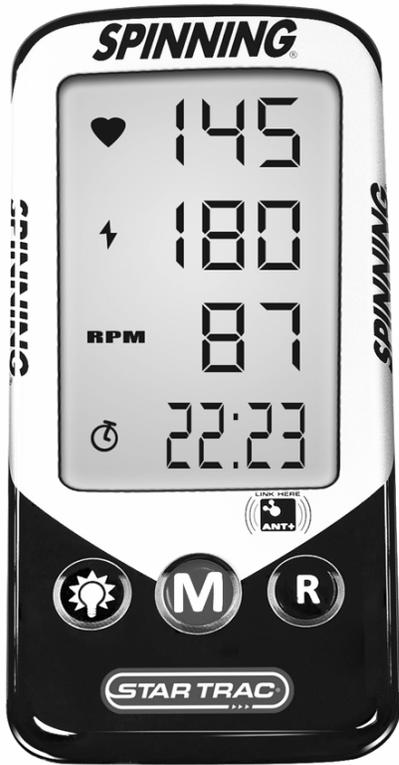


Orientation

Control Buttons

The Spinner® Blade ION Computer has three buttons as shown from which to navigate through the four display screens. These buttons are:

1. BACKLIGHT
2. MODE
3. RESET



BACKLIGHT

The backlight button is used to illuminate the display screen for the default time of 30 seconds. The length of time can be configured for: 30, 60, 90 or 120 seconds in the maintenance mode. To illuminate the display constantly, hold down the backlight button for 2 seconds. To turn the backlight off, press the backlight button again.

MODE

The mode button is used to change from the main display screen to the secondary display screens. Each of the secondary display screens various types of ride data.

RESET

The reset button is used to mark and measure timed stages (intervals) and to stop timed stages on the ION computer.



Generator

A unique feature to the Spinner Blade ION is an on-board generator which powers the computer, eliminating the need to replace batteries as part of the bi-annual maintenance routine.

When the bike is not in use the computer is powered off. As the rider begins to pedal, blue LED lights illuminate providing positive feedback that the generator is powering the computer.

The computer does contain an internal lithium ion battery to provide summary information once the ride is over and the flywheel is no longer in motion or when the computer is in maintenance mode. This rechargeable battery is designed for a 3+ year life on the product. If a battery replacement is required, they are off the shelf and available through on-line battery stores or through startrac.com. In a club facility, the bikes frequent use will regularly recharge the internal battery. Regular use of the Spinner Blade ION is ideal to maintain a charge to the internal battery and maximize its life.

Getting Started

Screen Displays

Main Screen

Once the bike adjustments are complete, begin riding and the display on the Spinner® Blade ION computer will illuminate as the generator is powering the computer. There are a total of four data display screens, including the main screen. Each screen has four lines of display. The Main screen displays data on these lines as follows:



- Line 1
- Line 2
- Line 3
- Line 4

LINE 1: Heart rate (displays only when paired to a compatible Ant+ device)

LINE 2: Cadence in revolutions per minute (RPM)

LINE 3: Power (Watts). The display will show power to three digits, up to 999. Once the rider reaches 1000 watts, the computer display for power will flash. The amount of watts shown as a flashing number indicates the number of watts in excess of 1000 that the rider is generating. For example, the number 200 flashing on the power display line indicates that the rider is generating 1,200 watts.

LINE 4: Total calories burned (KCAL). This value is also equivalent to the amount of kilojoules of energy generated at the flywheel.

Second Screen

To advance from the main screen to the second display screen, press and release the MODE button. The four lines of data on the second screen are as follows:



- Line 1
- Line 2
- Line 3
- Line 4

LINE 1: Heart Rate (displays only when paired to a compatible Ant+ device)

LINE 2: Average Cadence for the stage (RPM)

LINE 3: Average Power for the stage (Watts)

LINE 4: Ride / Stage Time

Third Screen

To advance from the second screen to the third display screen, press and release the MODE button. The four lines of data on the second screen are as follows:



LINE 1: Heart Rate (displays only when paired to a compatible Ant+ device)

LINE 2: Current Cadence (RPM)

LINE 3: Current Power (Watts)

LINE 4: Ride / Stage Time

Fourth Screen

To advance from the third screen to the fourth display screen, press and release the MODE button. The four lines of data on the second screen are as follows:



LINE 1: Heart rate (displays only when paired to a compatible Ant+ device)

LINE 2: Current Cadence (RPM)

LINE 3: Current Power (Watts)

LINE 4: Ride distance (miles)

TO RETURN TO THE MAIN SCREEN, PRESS AND RELEASE THE MODE BUTTON FROM THE FOURTH SCREEN.

Stage Function



The Spinner® Blade ION computer Stage Function allows the rider to mark and measure data for timed intervals.

START a new timed interval by pressing and holding the RESET button for two seconds.

- The ride/stage timer on LINE 4 in the second screen and third screen will reset to 0.
- Below the reset time an “s” will flash, indicating that the computer is timing an interval.

STOP the timed interval by, pressing and holding the RESET button again for two seconds.

- The timer will stop timing, and the “s” at the bottom of the display will stop flashing.
- To reset back to 0, press and hold the RESET button again for two seconds.

NOTE: Resetting the stage timer will also reset the data displayed on the averages screen, i.e. average power and average cadence shown will be averages for the stage, not the entire ride.

Summary Screen



Upon completion of the ride or when the rider stops pedaling, the ION computer will remain powered for its default time of 30 seconds, unless this time has been adjusted in the maintenance mode. If the backlight was illuminated, it will turn off. The power for this time is being supplied by the computer's internal rechargeable battery

During this time, the computer will show a Summary Screen. The Summary Screens display is as follows:

LINE 2: Average cadence for the ride in RPM

LINE 3: Flashes between average power and peak power (or maximum power in watts) for the ride / stage.

LINE 4: Total ride / stage time

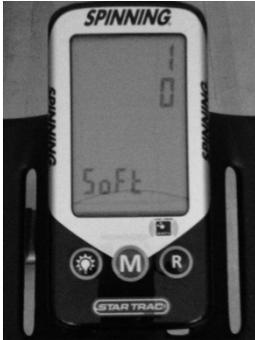
NOTE: If the rider resumes pedaling while the computer is still on and in Summary mode, the computer will resume timing the ride / stage where it was left off and will continue recording data.

Maintenance Mode

In Maintenance mode, a number of computer settings can be changed from their default setting as well as providing a summary of the computers usage. Entrance into Maintenance Mode requires a magnet be waved next to the upper right side of the computer as shown. A magnet is supplied with the bikes computer and if that magnet is unavailable, then most any magnet will work.

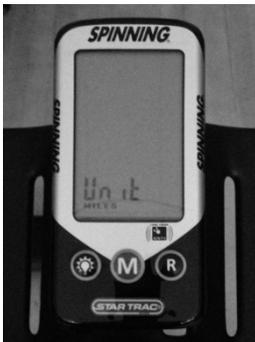
Within Maintenance mode, there are a total of 8 screens. Navigation from one screen to the next is done by pressing and release the MODE button. These screens and the functions available in these screens are as follows:

Screen 1



Screen 1 displays the current software version loaded into the computer and is for information only.

Screen 2



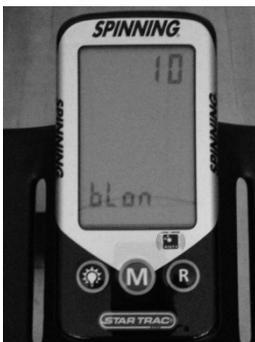
Screen 2 is the Distance units' screen.

The default setting for distance is MILES.

To change to KILOMETERS, press and release the RESET button. The units will change from miles to kilometers.

Pressing and releasing the RESET button will toggle between miles and kilometers

Screen 3



Screen 3 is the backlight On (bLon) screen.

In this screen, the time that the backlight is illuminated can be changed.

The default setting for bLon is 30 seconds. The time can be changed between 30, 60, 90 and 120 seconds.

To change the time, press and release the RESET button. The time will change between 30, 60, 90 and 120 seconds.

Screen 4



Screen 4 is the backlight usage screen.

This is an information only screen that gives the total amount of time that the backlight has been used on the bike.

Screen 5



Screen 5 is the Battery (bAt USE) screen.

This is an information only screen that gives the total amount of time that the battery has provided power to the computer.

Screen 6

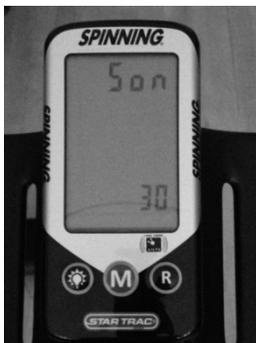


Screen 6 is the Total Distance (tot dSt) screen.

This is an information only screen that gives the total distance accumulated on the bike.

This is the bikes odometer.

Screen 7



Screen 7 is the Summary (Son) screen.

This screen allows the user to set the amount of time the summary screen will stay on after the rider stops pedaling. The default time is set at 30 seconds.

The time can be adjusted by pressing and releasing the RESET button. The minimum amount of time is 30 seconds. The maximum amount of time is 120 seconds. The time is adjustable in 5 second increments.

Screen 8



Screen 8 is the debug (dEbUg) screen.

This is a maintenance function screen for use by maintenance personnel and not covered in this owner's manual.

Pairing ANT+ Devices



Heart Rate Icon

Ant+ Graphic

The Spinner® Blade ION computer is equipped with an Ant+ chip that allows it to broadcast ride data-such as power and cadence to an Ant+ compatible device.

To pair a device to the ION computer, the heart rate icon must be flashing in the upper left hand corner of the screen.

When the ION computer is first powered up, the heart rate icon will flash for 30 seconds and then shut off. If a device was not successfully paired with the computer in the first 30 seconds, press and hold the MODE button for two seconds to make the flashing heart rate icon reappear.

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

Some compatible devices such as a sport watch or heart rate strap, may necessitate the user hovering themselves near the device and be over the Ant+ graphic on the computer face while the heart rate icon is flashing. The personal device settings must be set to pair with the ION computer. Follow the instructions for the compatible device when pairing with the ION computer.

Why Maintenance

A regular preventative maintenance schedule with all fitness equipment ensures that products are working at an optimal condition without affecting the end user experience. To assist in the maintenance regimen; it is recommended to break service into: daily, weekly, & monthly intervals. Details on each interval can be found in the “Maintenance Intervals” section of this document.

Tools

Working on this product will require basic and/or sometimes specialty tools based on the type of service that will be performed at any time. To assist, Star Trac recommends having the tools listed (Fig. 1) available when performing maintenance.

Tool	Purpose
Crank Puller	Removing cranks & pedals
Metric Allen (Hex Key) Wrench Set	Tightening or removing various allen head screws throughout the product.
Metric Sockets Set	Tightening or removing various hex nuts used throughout the product.
Metric Open Wrench Set	Tightening or removing various hex nuts used throughout the product.
Square Drive Ratchet Wrenches	To use in conjunction with allen head and or hex socket sets.
Torque Wrench	Tightening various critical bolts throughout the product to specific torque specifications.
Phillips Head Screwdriver Set	Tightening or removing various phillips head screws used throughout the product.
Flat Head Screwdriver Set	Prying off specific shrouds from wedged locations.

Fig. 1

Maintenance

This section provides the procedures to maintain the Spinner® indoor cycling bikes in serviceable condition.

Moving & Leveling

To move the bike to a new location:

Lift the bike from the rear and use the front wheels (located on the front leg, below the handlebar) to roll the bike from one location to another.

To level the bike:

Use the four leveling adjusters (located on the underside of the front and rear legs) to compensate for uneven floor surfaces.

Preventive Maintenance

Perform regular scheduled preventive maintenance procedures to maintain your Spinner indoor cycling bike in serviceable condition.

Note: *Star Trac strongly recommends replacing the pedals after two years of use.*

Daily Maintenance

The life of your bike will be determined by how consistently you perform the daily maintenance procedures. Dry the bike after each use to remove sweat and moisture. It is best to use a liquid non-abrasive cleaner diluted with water.

Wipe Down / Cleaning

To prevent the build-up of rust and other forms of corrosion, wipe down the bike at the end of each day (or preferably at the end of each class). Raise all posts to the highest setting to expose moisture. Using an absorbent cloth, focus on all areas that perspiration can settle. Give particular attention to the following areas:

- Handlebar
- Seat / adjustable slide for the seat
- Flywheel
- Back leg assembly
- Chain guard
- Brake knob and bolt assembly
- Pop-pins
- Leveling feet

NOTE: Never use abrasive cleaning liquids or petroleum-based solvents when wiping down the bike.

NOTE: Release all tension from the resistance knob after each use to allow for perspiration to evaporate. If bikes are used in a class setting, the instructor should direct class participants to release all tension for the resistance knob after each use.

Inspection / Adjustment

Inspect major moving parts that require constant proper torque. Loose or misadjusted parts can result in personal injury or damage to the bike. Check the following parts for security and/or proper torque.

Inspect all major moving parts that require constant proper torque. Loose or misadjusted parts can result in personal injury or damage to the bike. Check the following parts for security and/or proper torque.

Pedals

Verify that the pedals are re-torqued after the first 10 hours of use and every 100 hours of operation, thereafter. Use a torque wrench if components are loose.

NOTE: The pedal to the crank arm bolt torque is: 33-37 lb-ft.

IMPORTANT: If your facility allows members to interchange pedals, it is critical that the pedals are checked after each class to prevent damage, which may lead to injuries if ignored.

Weekly Maintenance

Weekly maintenance should focus on the overall performance of the Spinner® indoor cycling bike. During these inspections, look for vibration and possible loose assemblies.

Have an experienced rider ride each bike to identify and help diagnose any vibration, noises, and any "unusual" feeling from the drive chain. Either faulty flywheel alignment or a loose chain can cause vibration.

- Check for proper flywheel alignment. Torque flywheel nuts as necessary.
- Remove chain guard and check for loose chain. Adjust chain as necessary.

Inspect each bike for loose assemblies, parts, bolts and nuts. Give particular attention to the following:

- Tighten all frame base hardware.
- Tighten all pull pin handles.
- Tighten seat hardware.
- Tighten pedal toe clip / toe straps.
- Inspect and tighten tension knob assembly.

Monthly Maintenance

The monthly maintenance check should be a comprehensive inspection of the overall frame and main assembly components of the Spinner indoor cycling bike in addition to the Weekly Maintenance.

Inspection and Adjustment

Inspect the frame and main assembly components for rust or corrosion. Tilt the bike or place in an upside down position to locate areas where rust and corrosion may develop. Use a small, wire brush to remove rust build-up in small crevasses, such as leveling feet, pop pin handles and other bolt assemblies. Give particular attention to the following areas:

- Leveling feet
- Pop pin handles

Inspect all wear items for adjustments or possible part replacement. Give particular attention to the following:

- Inspect brake pad for wear. Excessive wear, such as glazing or leather separation, indicates replacement is required.
- Inspect seat pad for wear. Rips, tears or excessive movement indicates replacement is required.
- Inspect pedals for play. Excessive movement of pedals indicates replacement is required.
- Tighten seat hardware.
- Tighten pedal toe clip / toe straps.
- Inspect and tighten tension knob assembly.
- Leveling feet.

Frame Care

It is recommended that the frame on the each bike is sealed from sweat impurities that may speed the corrosion process at least once a month.

Cleaning

Using a clean terry cloth that is dampened in 30 parts water to 1 part non-abrasive detergent or car wash soap rub over the frame of the product.

Wash/Dry

Dampen a clean terry cloth in an **only** water solution to wipe away any soap residue. Using a second clean and dry terry cloth; dry off any liquid residue.

Sealing

The frame can be sealed by applying a wax or polishing coat that can help repel away liquids like human perspiration. Apply the wax or polish per the manufacturer's instructions for best results.

Parts Replacement

Depending on the use and maintenance of the product; certain items can be replaced on a scheduled timeframe. The list (Fig. 2) below shows the components that can be replaced on a scheduled date to maximize the end user experience.

Component	Time Frame
Brake Pad Assembly	12 Months
Chain	24 Months
ION Computer Internal Recharging Battery	36-48 Months OR As Needed Based on Lack of Use
NOTE: Battery life is dependent on the use of the product and the trickle charge that is created by the generator flywheel when in use. A bike that is not in use for extended periods of time will not charge batteries and shorten the lifespan of such component.	

Fig. 2

Adjustments

Chain Tension & Adjustment

The chain on your bike has been factory set and lubricated. It should not require adjustment initially. Over time, however, you may need to adjust the tension.

CAUTION: Improper chain adjustment will cause premature wear and may void the warranty.

To adjust chain on Spinner® Blade ION:

1. Using a 3mm Allen Wrench, remove the three screws supporting the plastic chain guard shroud. (Figures 4)
2. Using a 16mm or 5/8" socket and socket wrench, loosen the axle nuts on both sides of the flywheel.
3. Using a 10mm open end wrench, loosen the lock nuts on the chain adjustment screws.
4. To tighten the chain, turn the adjustment screw in a clockwise rotation equally on both sides using the 10mm open end wrench. (Figure 2A & 2B).
5. To loosen the chain, turn the adjustment screws on both sides counter-clockwise using a 10mm open end wrench.
6. While adjusting the chain tension, work on both sides of the flywheel. Adjust the angle of the flywheel so it is straight front to rear and evenly spaced within the frame side to side. (Figure 2A & 2B).
7. Align the chain so it runs straight on both of the sprockets.
8. Adjust the angle of the flywheel by adjusting the adjustment screws on both sides of the flywheel. Test by slowly rotating the pedals.

Note:

- If the chain is stretched beyond adjustment, the replacement of the chain is recommended.
 - When alignment is at the optimal adjustment, the chain will run smoother and quieter.
9. Tighten the adjustment lock nuts and axle nuts on both sides.
 10. Install the chain guard shroud and re-test the bike.

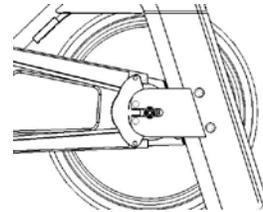


Figure 1. Spinner Blade ION

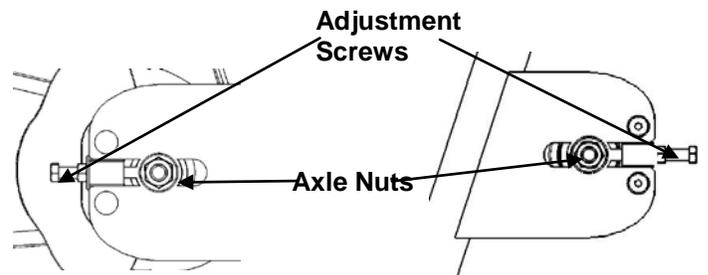


Figure 2A.
Spinner Blade ION
Chain Guard Side

Figure 2B.
Spinner Blade ION
Opposite Side of Chain
Guard Side

Frequently Asked Questions

Technical Section

How is the user's power measured by the Spinner Blade ION?

The system measures the tangential (cross directional) force the brake pad applies to the Spinner Blade ION flywheel through a load cell. Knowing the tangential force component, the resulting restive torque, and the rider's cadence, allows the computer to provide an accurate rider power output. Watts is a measure of the rider's force sustained over a set distance and time. The Spinner Blade ION determines the rider's Watts, by measuring the force at the flywheel with a load sensor. By monitoring the rider's cadence at these loads, the computer can determine the rider's power. Unlike a geared road bike where measurement at the crank is the optimal location, measurement on a fixed gear group cycle is best measured exactly where the work is being applied. As our riders become stronger, they will find they are able to sustain higher average watts through their ride, as well as higher interval watts during sprints.

How does this compare to actual road bike power measurement from companies like SRM and Power Tap?

The best cycling power measurement systems use strain gauges to measure the reciprocating crank load cycles at a measurement point on the bike; the predominate measurement points are located at the crank, the cassette or the pedal. The computer then takes these reciprocating loads and their angular speeds, and calculates / averages the power output with mathematical formulas.

How do we validate the accuracy of the Spinner Blade ION strain gauge technology?

We validate the accuracy through a comparison test, by measuring the difference between the input power to drive the bike compared to the resulting power output measured by the computer. We apply input power through a motor coupled to the crank, with a measurement device called a Dynamometer. The Dynamometer offers measurements with 99.5% accuracy (0.5% error). We compare this power input to the computer's measured power output. By knowing the difference between the dynamometer power input and watts computer power output we can validate the accuracy of the system. The Spinner Blade ION is generally better than 5% of true watts values measured at the Dynamometer, and in off nominal cases within 10% of true watts values measured. When we get more bikes in we likely will want to conduct a study, and come up with our claims that are backed by a larger data set.

With no visible cadences sensor on the flywheel or crank arm, how is cadence measured and how does this correlate to distance?

The Spinner Blade ION develops its own electric power through a generator. The computer monitors the generated power, and can determine the precise speed of the system based on the electrical pulses generated in the system. These pulses correlate to the rider's cadence. The computer looks at the flywheel RPM and does two conversions – one conversion converts RPM into crank cadence and the other into rolling distance. The net result is a precise measurement of pedal cadence and the other is the rolling total distance of the flywheel calculated.

Does the Spinner Blade ION require calibration at install or after use as part of preventative maintenance?

The Spinner Blade ION bike does not require calibration at install or as part of a preventative maintenance cycle. The load cell has a predictable load curve that is set during manufacturing, and does not drift or migrate to require recalibration. The Spinner Blade ION sensor is calibrated at the factory to deliver specific electrical output at given load points during the manufacture process. These points do not drift or change over time, resulting in consistent readings through the life of the sensor.

The system incorporates a permanent magnet generator system. As the rider inputs mechanical energy into the pedals, the flywheel and a set of magnets rotate in close proximity to a stator filled with copper windings. The magnetic flux of the rotating magnets about the stator causes electromagnetic induction, creating a low power energy source to operate the computer and load cell.

What are the advantages of the Spinner Blade ION self generating power system over the competitive products?

As an owner, you will not be plagued with battery replacements every 6 months. Each rider will produce their own power required to operate their watts computer. Second, our riders will have unlimited access to a lighted display while they are riding their bike if they choose.

The marketing story is obvious, less battery usage, less battery disposal and the associated reduce carbon foot print based on a more efficient rider powered system.

Will I ever need to replace the batteries in my Spinner Blade ION computer, and if so what do I replace them with?

The computer uses a lithium ion rechargeable battery that is designed for a 3+ year life on the product. If a battery replacement is required, they are off the shelf and available through on-line battery stores or at Star Trac.

Why is the Spinner Blade ION an integrated power system vs. a bolt-on backwards compatible computer like the competition?

We wanted to provide a complete solution, where we measured true power output, and we set a goal to resolve the environmental waste associated with constant battery replacement. We solved this problem by taking a holistic approach to the design, and incorporated the generator as part of the flywheel, and interconnecting this power to the components. It was not realistic to deploy a kit that would fit onto already built bikes because it would mean replacing the flywheel and externally wiring the unit.

What other tracking or monitoring devices will the Spinner Blade ION power computer talk to, how can I track and monitor my work?

The system is Ant+ compatible and will communicate power, heart rate, distance and calories to a paired Ant+ device. Pairing an Ant+ device is as simple as starting your ride, and bringing your Ant+ device in close proximity to the Ant+ badge, and allowing the computer and the user's device (watch, phone...) to couple. Once coupled the devices hold a digital connection and data is transferred from the computer to the user's device through the workout.

Is there Spinning® Education and programming specifically for the Spinner Blade ION and how do instructors get educated?

Spinning continues to be at the forefront of education with the introduction of the Spinpower™ Program which will be a comprehensive overview and guide into the benefits of power based training. Understanding what power is and how it is measured will help you to understand the overall principles of power and science-based training. Knowledge is power and power is the science of performance. For a complete overview of the Spinpower™ Program and becoming Spinpower certified log on to <http://www.spinning.com/en/spinpower>



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