

## Spinner® Bike

## **Service Manual**



NXT 7000



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#### 1. Installation Instructions

#### SPIN BIKE ASSEMBLY AND SETUP

Use the following procedures to unpack and assemble your STAR TRAC SPINNER ® BIKE.

Prepare the area that you will be unpacking and assembling the bike to be free from debris that may cause damage. Observe all safety precautions and care while unpacking and assembling the bike.

#### UNPACKING

Open the shipping carton, carefully remove all parts from the shipping carton and foam inserts, inspect all packaging material for parts or screws and verify that the following parts are included in your shipment:

NXT Parts List			
Description	Qty.	Description	Qty.
Handlebar Post	1	M10x1.5, 55mm Button Head Screw	4
Handlebar	1	M10x1.5, 65mm Button Head Screw	4
M8x1.25, 16mm Flat Head Screw	2	M10x1.5 Nyloc Hex Nut	8
M8x1.25, 16mm Socket Set Screw	1	10mm Washer, Flat	16
Seat Post	1	Wrench Hex, 5mm	1
Seat Slider Assy, with Saddle	1	Wrench Hex, 4mm	1
Pedal set	1 set	Multi Wrench	1
Front Leg Assy. With Transport Wheels	1	Spare Parts Kit (USA Only)	1 Kit
Rear Leg Assy.	1	· · · · · · · · · · · · · · · · · · ·	

Pro/Elite Parts List			
Description	Qty.	Description	Qty.
Handlebar Assy.	1	M10x1.5, 55mm Flat Head Screw	4
Seat Post	1	M10x1.5 Nut	4
Seat Slider Assy, with Saddle	1	10mm Washer, Flat	4
Pedal Set	1 set	Wrench Hex, 5mm	1
Front Leg Assy. With Transport Wheels	1	Wrench Hex, 4mm	1
Rear Leg Assy.	1	Multi Wrench	1
		Spare Parts Kit (USA Only)	1 Kit

**Spare Parts Kit-** Save the box of spare parts in a safe place so you have service parts when needed in the future. The spare parts kit contains a spare saddle, brake pad and pedals straps. These items are not included in the parts warranty.

**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® 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

Following these steps in order will minimize the build time and ensure proper assembly.

Note: Not all of the following procedures are performed on all models; Spinner ® Pro, Elite and NXT.

If the procedure is particular to that model only it will be noted as follows. (NXT Only) or (Pro/Elite Only) or (NXT/Elite Only)



## Position the bike on a flat surface and adjust the leveling feet so the bike is stable.

## Installation of the Front Leg Assembly

**NOTE:** The front foot assembly has wheels attached to the front edge. Be sure the wheels face forward when installing the front leg assembly.

Stand the bike frame upright and gently tip the front of the bike up and position the front foot under the frame, with the wheels facing forward.

Attach the front foot assembly to the frame, aligning the holes in the foot with the holes in the frame.

#### NXT Only



Pro & Elite Only



- 1. Position the leg so the thicker end faces toward the front of the bike
- Using the 5mm hex wrench and a 13mm combination wrench insert 2- M10X55mm (rearmost holes) and 2-M10X65mm (front-most holes) button head screws, nuts and washers (under bolt head and nut), to secure the rear leg assembly to the frame. The nut should be on the bottom of the bike and the head of the screw on the top of the bike.
- 3. Tighten all hardware securely using a torque wrench to 85 Inch Pounds
- Using the 5mm hex wrench and a 13mm combination wrench insert 2- M10X55mm flat head screws, nuts and washers to secure the rear leg assembly to the frame. The nut should be on the bottom of the bike and the head of the screw on the top of the bike.
- 2) Tighten all screws/nuts securely using a torque wrench to 85 Inch Pounds

## Position the bike on a flat surface and adjust the leveling feet so the bike is stable.

## Installation of the Saddle and Seat Slider

- 1. Install the seat post into the frame and lower it to the lowest position and tighten the pop pin securely.
- 2. Slide the seat slide into the top of the seat post with the saddle pointed towards the front of the bike.

		NXT Only
	1.	Rotate the seat slider lock knob as needed so that the slider clamp is in alignment with the guide rail
NXT	2.	There is a locking pin under the saddle that has to be pulled up as you move the slider into position. Release the pin when the indicator is within the 0 to 9 range.
Ganna	3.	Test the seat slide for proper operation and full travel.
		Pro & Elite Only
Pro/Elite	1.	Unscrew the seat slider pin far enough to allow the slider to pass over the pin.
FIO/Einte	2.	Tighten screw with the slider within the usable range.
	3.	Test the seat slide for proper operation and full travel.

#### Installation of the Pedals

**NOTE:** The pedal shafts are marked "R" and "L". Trying to install the pedals on the wrong side may damage the pedal and the crank arm. Take caution to attach the pedals to the correct side of the bike (picture shown is for Elite/NXT).



Assembly and Installation of the Handlebar and Post



#### NXT Only

- Positioning the handlebar post with the numbers 1 on top and insert the handlebar into the handlebar sleeve locking it at number 4.
- 2) Slide the handlebar onto the handlebar post insert with the water bottle holders facing forward and align the three screw holes.
- 3) Insert the socket head set screw into the handlebar but do not tighten at this time.
- 4) Insert the 2 flat head screws into the handlebar but do not tighten at this time.
- 5) Check for proper alignment then tighten the 2 flat head screws using a 5mm hex wrench to 60 inch pounds.
- 6) Tighten the set screw to 60 inch pounds using a 4mm hex wrench.
- 7) Slide the handlebar post into the frame making sure the holes face the front of the bike.
- Allow the post to go into the frame all the way in to level 1 and align the pop pin so it snaps into the hole then tighten the pop pin and test for steadiness.
- 9) Loosen the pop pin and raise the handlebar to its highest position number 10 and tighten the pop pin and test for steadiness.



#### Pro & Elite Only

- 1) Slide the handlebar post into the frame making sure the holes face the front of the bike.
- Allow the post to go into the frame all the way in to level 1 and align the pop pin so it snaps into the hole then tighten the pop pin and test for steadiness.
- 3) Loosen the pop pin and raise the handlebar to its highest position and tighten the pop pin and test for steadiness.

Т	Testing the bike					
Us	e this checklist to perform the bike test procedure to ensure the bike is operating properly.					
	Recheck all bolts to make sure they are all tightened to the proper torque specification and no parts were left off the bike or 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 forward or backward. Tighten and adjust as needed.					
	Test the seat slide for easy movement front to rear and the ability to adjust it to different settings.					
	<b>Testing the flywheel and brake mechanism.</b> <b>CAUTION</b> : The flywheel will continue to spin after you pedal and the crank arms and pedals will rotate with the flywheel. Brake tension is adjustable by turning the red resistance knob in the front of the bike, clockwise to tighten the brake and counterclockwise to loosen the brake. Pressing down on the knob will apply the brake momentarily if you need to stop quickly.					
	Adjust seat post and handlebar post to your comfort. Ride / test the bike for proper operation according to the 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. Check and adjust the leveling feet so the bike is stable.					

#### Service tool kit

Startrac recommends the Minimum following tools to be used when servicing the bikes.

4mm Allen Wrench 5mm Allen Wrench 7mm Allen Wrench Pedal Wrench (15mm) Crank Arm Puller 10, and 13mm Combination Wrench 10, 13 and 14mm Socket Wrench Torque Wrench in inch pounds 29MM Deep Socket

**Park tool company** sells tools for bikes and these tools are compatible for spin bikes, check your local bike shop or <u>http://www.parktool.com/</u>



#### Spinner Pro / Elite and NXT bikes Maintenance Checklist

With durable, high performance components, *STAR TRAC BIKES* are designed for heavy usage with minimal maintenance required. To keep your bike in top condition, Star Trac strongly recommends performing the regular daily, weekly and monthly preventive maintenance routines outlined below. Any unusual symptoms, such as a loud continuous noise during operation, should be reported to **STAR TRAC PRODUCT SUPPORT DEPARTMENT** at (800) 503-1221, or USA 1-714-669-1660.

## D= Daily W= Weekly M=Monthly (depending on the amount of use, some procedures may need to be performed more frequently)

#### **Preventative Maintenance**

W	Μ	Procedure
		<ul> <li>The daily maintenance of the bike will determine the life of the bike by how consistently it is performed.</li> <li>Wiping down the bike at the end of each class will prevent rust and other forms of</li> </ul>
		corrosion to build-up. Never use abrasive cleaning liquids or oil base when wiping down the bike.
X		• <b>The Weekly maintenance</b> should focus on the overall performance of the bike. During this portion of the maintenance look for vibration and possible loose assemblies. This check will require an experienced rider to help.
X		<ul> <li>Bottom Bracket Assembly (BBA) will come loose periodically and require tightening. Loose play (left and right motion) will determine if the BBA needs adjusting.</li> <li>Inspect each bike for loose parts, bolts and nuts.</li> </ul>
Χ		
	X	• <b>The monthly maintenance</b> check should be a comprehensive inspection of the overall frame and main assembly components of the bike.
	X X	<ul> <li>Inspect all wear items for adjustments or possible part replacement.</li> <li>The drive chain will require lubrication once a month or after every 100 hours of use. The chain should be lubricated with a light oil (preferably lubrication that comes with a spray hose that fits in front of the lubrication can) and a dry clean towel.</li> </ul>
	x x	x x x x x x

## Cleaning

#### 1 General

- Wipe the bike down after each use with a clean soft towel.
- ✓ Keep the area well ventilated.
- 2 Daily
  - Cleaning the bike after each use with a non corrosive all purpose cleaner such as diluted Simple Green<sup>®</sup>
- 3 Bi-Weekly
  - ✓ Applying a rust inhibitor such as LPS 1 will greatly inhibit the formation of rust.
  - $\checkmark$  Apply a small amount to a rag and wipe the bike down.
  - ✓ Concentrate on areas where rust forms
    - Welded Frame Corners (Pro & Elite)
    - Frame Edges (Pro & Elite)
    - Inside rim of flywheel (All Spinners)
  - ✓ On steel bikes (Pro and Elite), remove handle bar and seat posts. Remove plastic sleeves and thoroughly clean it and the inside of the frame (Stiff brush and cleaner works well). Wipe down plastic with a rust inhibitor, as well as the inside of the tube.
  - ✓ Thoroughly clean the handlebar and seat posts, reassembly, and check for proper fit and operation.

## **Torque Spec's**

Tighten the pedals and crank arms weekly using the proper pedal wrench.

Weekly inspect all screws for proper tension using a torque wrench. Refer to the TORQUE spec table below. Product Torque Specifications (Ref: 12 Inch pounds =1 foot pound)

NXT	Elite	PRO	Description	Part	Torque (kgf∘cm)	Torque (ft∘lbs)	Torque (in∘lbs)
Х	Х	Х	Brake Spring Block Bolt	M6x1.0*30L	20.0	-	17.0
Х	Х	Х	Back Chain Guard Bolt	M5x0.8*16L	15.0	-	13.0
Х	Х	Х	Chain Guard Bolt	M5x0.8*50L	15.0	-	13.0
Х	Х	Х	Back Chain Guard Bolt	M4x0.7*12L	10.0	-	9.0
Х	Х	Х	Chain Tensioner Bolt	M6x1.0*16L	25.0	-	22.0
Х	Х	Х	Back Chain Guard Mounting Bracket Bolt	M5x0.8*16L	25.0	-	22.0
Х	Х	Х	Chain Guard Bolt	M5x0.8*30L	25.0	-	22.0
Х	Х	Х	Chain Guard Bolt	M5x0.8*16L	15.0	-	13.0
Х	-	-	Handlebar Sleeve bolt	M4x0.7*12L	5.00	-	4.0
Х	1	-	Handlebar bolt	M8x1.25*16L	70.0	-	60.0
Х	-	-	Handlebar bolt	M8x1.25*16L	70.0	-	60.0
Х	-	-	Seat Post Sleeve Bolt	M4x0.7*12L	5.00	-	40
Х	Х	Х	Crank Bolt	M8x1.0*22L	414.0	30.0	-
Х	Х	Х	BB Axle Nut	M20x1.0*6L	140.0	10.0	-
Х	Х	Х	Leg to Frame	M10x1.5*55L	96.0	7.0	-
Х	-	-	Leg to Frame	M10x1.5*65L	96.0	7.0	-

#### Adjustments

#### Flywheel /Chain Adjustment

Adjustment to the chain should only be made if the chain is too loose or too tight. Over tightening the chain will result in chain breakage or reduction in life of the chain, leaving the chain too loose will result in the chain coming off the sprocket.

Loosen the nuts on the sides of the flywheel. Loosen the lock nuts on the chain adjust screws. Tighten or loosen both chain adjust screws equally. Slowly turn the crank while keeping your fingers away from the chain.

Adjust the chain tension so the chain falls smoothly onto the sprockets and does not pop. Too tight or too loose will make the chain pop or jump as it goes over the teeth of the sprockets. Align the chain to the sprockets by adjusting the angle of the flywheel so the chain runs smoothly over the teeth of the sprockets.



#### **Clutch Test Procedure (Elite Only)**

The clutch may need adjusting if the flywheel does not break free when the pedals are stopped or if the flywheel slips excessively while pedaling.

- 1. Remove the left crank arm (the one without the sprocket and chain). Remove the plastic dust cover by popping it off with a small screwdriver to expose the 14 mm bolt. Remove the 14 mm bolt by turning it counter-clockwise.
- 2. Remove the crank arm using a crank-extraction tool.

#### Crank Arm Puller CCP-2

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Be sure to sufficiently thread the crank extraction tool before turning the crank extraction arm. Failure to do so can result in stripped threads.

- 3. Tighten the brake knob as tight as possible BY HAND ONLY.
- 4. DO NOT check the torque by applying the torque wrench to the 14 mm bolt. 45 ~ 50 ft-lbs. exceeds the recommended maximum tightening torque of 30 ft-lbs. and WILL BREAK THE BOLT, REQUIRING REPLACEMENT OF THE BOTTOM BRACKET.

5. Set the torque setting of the torque wrench to 45 ~ 50 ft-lbs.

- 6. Using a torque wrench and a 29 mm deep socket on the bearing retaining nut.(RED ARROW) Turn the retaining nut in a clockwise direction so that the bottom bracket axle rotates backwards.
- If the torque is not 45 ~ 50 ft-lbs. Use the following Clutch adjustment procedure to adjust the torque



## **Clutch Adjustment Procedure**

- 1. Remove the chain guard by removing the four screws.
- If the torque is not 45 ~ 50 ft-lbs. using a 5 mm allen wrench, give each of the set screws a little clockwise turn. A "little turn" is about 10 degrees. Be sure and turn all 5 set screws so they have equal pressure to obtain the proper adjustment. Recheck the torque for different positions around the clutch. If it is still not 45 ~ 50 ft-lbs. repeat the procedure.

**NOTE**: The goal is to make all the set screws have the same pressure on the clutch.

3. Install the chain guard with the 4 screws.

Reattach the crank arm, and tighten the 14 mm bolt to 30 ft-lbs. Pop the plastic dust cover back on. Test the clutch system for proper operation for normal riding use. Observe all safety practices.

#### **Parts Replacement**

## **Bottom bracket**

- 1. Cranks must be removed from the spindle to service the bottom bracket bearings.
- 2. Remove the cranks arm bolts using the 14 MM socket
- 3. Remove the crank arms using a crank removal tool CCP-2
- 4. Remove the 29MM nut from the right side of the bottom bracket
- 5. Using a rubber coated mallet carefully knock out the bearing by hitting the bottom bracket spindle on the right side. It will take some force to release the bearings from the frame, follow safe working practices.
- 6. Note: If you will be using the spindle again, take care not to damage it.
- 7. Once the bearing and spindle are out of one side of the frame use a punch and mallet to remove the bearing and nut off the spindle and use the spindle to knock out the remaining bearing. Discard the bearings, they re not reusable and if the spindle is damaged discard it.
- 8. Clean the inside of the bearing housing and remove any remaining Loctite.
- 9. Apply some Green # 680 Loctite to the new bearing and align it with the frame and using the rubber coated mallet, tap the bearing into the frame. NOTE do not hit the inner race of the bearing.
- 10. Insert the bottom bracket spindle into the bearing from the other side of the frame.
- 11. Apply some Green # 680 Loctite to the second bearing and install it into the frame and onto the spindle.
- 12. Apply some Loctite **#242** and attach the nuts to the spindle and using two 29MM open end wrenches tighten the nuts to press the bearing into the housing.
- 13. Tighten the nuts until the bearings are both firmly seated into the housing then back off both nuts just until there is smooth rotation of the bottom bracket spindle. Test the nuts to make sure they are at 10 foot pounds.
- 14. Check for side to side play or looseness before re-installing the cranks and chain guard.
- 15. Remember to torque the crank arm bolts to 30 foot pounds.
- 16. Check the pedals for looseness and tighten if needed,
- 17. Observe proper safety precautions while testing the bike for proper smoothness while pedaling.







## **Crank installation**

Cranks are pressed tight onto the tapered square spindle. The square spindle is made with a slight upward sloping taper. The crank square fitting also has a slight taper. The crank bolt acts as the pressing tool and forces the arm up the slope of the spindle. The bolt or must be tight enough to keep from loosening, use a torque wrench and tighten to 30 foot pounds.

Crank Bolt Wrench CCW-14R

## **Crank Set Testing**

- Cranks connect the pedals to the bottom bracket spindle. The arms are pressed tightly to the bottom bracket spindle. Cranks must be removed from the spindle to service the bottom bracket bearings.
- 2. If the crank arm is allowed to be used while it is loose it may damage the crank arm and the bottom bracket spindle. Check the crank arms for looseness and proper fit on the square end of the spindle if the crank is still wobbly after the crank bolt is properly tightened using the crank bolt wrench or a socket to 30 foot pounds it will need replacement.



- 1. Remove the chain cover, loosen the flywheel axle bolt and loosen the chain tension screws. Take the chain off the right side crank.
- 2. Remove the crank bolts.
- 3. Use a crank arm puller such as the Park tool number CCP-2 to remove the crank arms.
- 4. Look for bolt or nut at end of crank in line with bottom bracket spindle. If no bolt is visible, remove dust caps.



- 5. Before installing crank puller into crank, turn puller nut away from internal driver as much as possible. If puller nut happens to unthread from internal driver, thread it back on only 3-4 turns.
- 6. Thread large external thread of puller (nut) into arm, taking care not to cross thread. Tighten puller nut into crank using wrench.
- 7. Thread internal driver into puller nut. Using handle or adjustable wrench, tighten driver until crank is loose on spindle. Pull arm from spindle and unthread both parts of tool from arm. Use care not to skin knuckles when removing tool. Repeat process on other crank.



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#### Brake Tension Knob

- 1. Remove the acorn nut and locknut from the bottom of the brake knob assy.
- 2. Unscrew the brake knob all the way and the large brass nut, spring and alignment wedge will fall out.
- 3. Pull the brake knob assy up and out of the bike.



# 1. To remove the brake pad for replacement, first remove the 2 bolts that hold the brake block on the frame. The spring and brake pad will come off.

- 2. Unscrew the brake pad from the spring and install a new brake pad assy.
- 3. Attach the spring/brake assy to the brake block.
- 4. Tighten the bolts to 1.45 foot pounds US or 20 kgf/cm Metric.
- 5. Test the brake for proper operation.



#### Seat

**Brake Pad** 

- 1. Loosen the seat adaptor using two 14MM open end wrenches.
- 2. Lift the seat and adaptor off the seat post.
- Loosen the seat adaptor enough to take the adaptor off the rails if the new seat does not have an adaptor and transfer the adaptor to the new seat.
- 4. Hand tighten the adaptor on the rails

## Handlebar / Seatpost sleeve

- (NXT Only)Using a small Allen wrench, unscrew the small screws at the top of the plastic insert.
- 2. Unscrew and pull out the pop pin while pulling up on the handlebar or seatpost.
- 3. Pull up the insert while pulling out the pop pin.
- 4. Reverse the steps to install. And tighten the screws to



## Pop Pin

- 1. Pull the pop pin out and lift the seatpost or handlebar post out of the bike.
- 2. Using a 20MM open end wrench, unscrew the nut holding the pop pin and it will unscrew out of the frame.

#### Adjustable foot

- 1. Using a number 3/4" open end wrench, unscrew the foot.
- 2. Insert the new foot and screw it in by hand until it is all the way in.
- 3. Stand the bike upright and level all four feet.
- 4. Tighten the lock nut on each foot.



- 1. Using a number 4 allen wrench, loosen the bolt and remove the wheel assy.
- 2. Insert the new bolt and wheel and thread by hand into the other side and tighten.





NOTES:



#### Startrac Product Maintenance Log

Model		Serial Number	Serial Number Mfg Date				
Date	Cleaning	Problem/Adjustment	Part Replaced	Service performed by			
0							

Comments:

## WEB SITE

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