

# **R1/ R1 RACING RX / R1S / R0 T1/ T1S**



**MANUALE ISTRUZIONI  
OPERATING MANUAL  
MANUEL D'INSTRUCTIONS  
BETRIEBSANLEITUNG  
MANUAL DE INSTRUCCIONES**

- I** Scarica il manuale del prodotto direttamente dal web:
- GB** Pls. download the products' instruction manual from the website:
- F** Merci de bien vouloir telecharger le manuel d'instructions sur la page:
- D** Bitte entladen Sie die Betriesanleitung vom den folgenden website:
- E** Por favor, descárgate el manual de instrucciones de nuestros productos de la web:
- BG** Моля, изтеглете наръчника на потребителя от следния адрес:
- HR** Molimo download-ajte nstrukcijski priručnik sa internetske stranice:
- SLO** Prosimo, da si naložite navodila o uporabi na strani:
- CZ** Stáhněte si prosím návod k použití z této webové stránky:
- DK** Download venligst produktets betjeningsvejledning fra følgende hjemmeside:
- SF** Ole hyvä ja lataa tuotteen käyttöohje seuraavalta sivulta:
- LV** Lūdzu lejupielādējiet instrukciju brošūru no adreses:
- PL** Proszę pobrać instrukcję obsługi produktu ze strony:
- P** Por favor, descarga o manual de instroções dos nossos produtos na web:
- SK** Prosím stiahnite si manuál produktov a inštrukcie z web stránky:
- S** Download venligst produktets betjeningsvejledning fra følgende hjemmeside:
- H** Kérem, tölts le a termékek használati utasításait a website-ről:
- N** Last ned instruksjonsmanual for dette produktet på vår webside:
- NL** Aub. Download de product handleiding van de website:
- CN** 请到网页下载产品使用手册:

**<http://support.formula-brake.com>**

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**WARNING! BEFORE INSTALLING AND USING THIS NEW FORMULA SRL PRODUCT IT IS CRITICAL TO YOUR SAFETY THAT YOU READ AND STRICTLY ADHERE TO THE INSTRUCTIONS IN THIS MANUAL. FAILURE TO DO SO COULD CAUSE SERIOUS INJURY AND/OR INVALIDATE YOUR LEGAL RIGHTS.**


**KEEP THIS MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE AS IT CONTAINS INFORMATION CRITICAL TO YOUR SAFETY.**


**ATTENTION! DO NOT INSTALL OR DISASSEMBLE THIS FORMULA SRL PRODUCT ON YOUR OWN!**


**Always seek the help of a professional mechanic. If you decide to ignore this important message, keep in mind that you are doing so EXCLUSIVELY at your own risk.**

**Note: AS WITH ANY MANUAL, THIS ONE IS SUBJECT TO PERIODIC UPDATES. CONTACT YOUR MECHANIC, OR CHECK FOR UPDATES ON OUR WEB SITE, ([www.formula-italy.com](http://www.formula-italy.com)).**

This manual provides information for safe and proper mounting and use of the braking system; and for routine maintenance. By following the procedures contained in this manual you will ensure that the braking system has the best performance and operating life, along with avoiding the most common causes of accidents that may result from improper operation and maintenance.

 **ATTENTION:** Carefully follow SAFETY GUIDELINES for proper braking system function. This may affect the function of the brake.

 **CAUTION:** Directs your attention toward unsafe practices which could result in damage to the equipment or minor injury.

 **WARNING:** Directs your attention toward unsafe practices which could result in personal injury or damages to the equipment.

## **GENERAL SAFETY GUIDELINES**

- Never put your hands near or inside rotating parts. Protective five-finger gloves that do not reduce sensitivity or your ability to grip should be used during repair.
- Before starting any mounting operation, carefully check for dangerous conditions at the work site. If too dark, use all available light sources and make sure they work properly before beginning work.
- Always wear a properly fitted and fastened helmet while riding. Make sure the helmet is approved in the country of use.
- Wet weather impairs traction and braking, making it much more difficult to control the bike. More attention must be paid while riding in wet conditions in order to avoid accidents.
- Learn and comply with the local rules of the road and cycling regulations. Always ride carefully and responsibly.
- Wear close-fitting clothes that make you easy to see (fluorescent or bright colors).
- If you ride at night, use adequate lights and reflectors that are clean and fitted securely.
- FORMULA SRL braking devices are a high-performance product, offering a stopping power higher than normal brakes. As a result, fewer efforts or lesser effort is required to lock up the

wheel when braking. Be careful as a locked wheel can result in loss of control of the bicycle and can cause injuries.

- Brakes are essential for the safe use of a bicycle. The improper setup and use of the brakes can make you lose control and cause an accident, with unpredictable consequences and potentially serious injuries.
- Disc brakes get VERY hot when used. WARNING: NEVER touch the caliper or the rotor immediately after use. Make sure the brakes have cooled down before working on them.
- The brake rotors must be installed on wheels that are suitable for this type of brake system. A wheel with an insufficient spoke section or with a radial spoke lacing can break under normal use of the braking system and cause serious injury or an accident. Check with your wheel manufacturer BEFORE installation to ensure compatibility.
- Check the spoke tension and condition frequently. A damaged spoke may break suddenly and interfere with the braking system. This may result in serious personal injury or accidents. The bike frame or fork must be suitable for mounting the braking system.
- Only use products recommended in this manual, otherwise you can damage the system and the brakes will be unreliable and potentially dangerous.
- Before every ride, make sure there are no fluid leaks in the system by applying the lever and holding it down as far as it will go. Check the hose connections and the brake fluid reservoir for any leaks. Consult a professional mechanic if there are fluid leaks. A fluid leak can cause a serious accident!
- TO PROVIDE THE BEST PERFORMANCE, THE BRAKE REQUIRES A BREAK-IN PROCEDURE.
- Do NOT touch the surface of the disc rotors with your bare hands as the natural oils on your skin can compromise performance. Always wear clean latex gloves when handling the disc rotors.
- Test the brakes and your braking technique on flat and even ground before using the bike in more severe conditions.

## **BRAKING SYSTEM SAFETY RULES**

- All maintenance operations must be carried out solely by authorized FORMULA SRL personnel.
- FORMULA SRL braking devices have been designed for use on two-wheel vehicles with human propulsion only. Any other application is dangerous and may result in the failure of this product. FORMULA SRL declines any and all responsibility for the safety of this product if used for an application other than which it is intended.
- The user is responsible for learning and using the correct braking technique; consult the Owner's Manual of the bicycle, ask a professional bicycle dealer for advice, or contact FORMULA SRL for additional details and recommendations.
- Do not change or modify the parameters of the braking system to obtain other performances than those established by the manufacturer.
- Before use, check to ensure the front brake lever is on the side of the handlebars you are accustomed to having it on. If the lever is on the other side, sudden braking can cause you serious injury. Have a professional mechanic swap the position of the levers if they are incorrect.
- A high braking load (total weight over 100 Kg and an incline of over 15%) will mean a necessary reduction in your speed and the use of both brakes when braking.
- Before each use, check all fasteners for correct torque. Torque ratings are supplied in this manual and an appropriate torque wrench is required to perform this check (pp. 22-23-24-25-26-27-29-30).
- The frame and the fork of the bicycle must be suitable for this type of braking system. The sup-

port, size and position of the components will only function properly if the system is intended for use with disc brakes.

- It is important to cross-check your frame and fork manufacturers' manuals on all the parts critical to the braking system and verify that the torque ratings match the ratings found in this manual. In the case of inconsistency of the values, do NOT install the braking system.
- Make sure the bicycle is clean before doing any maintenance on the brakes.
- Never install the brakes using adapters or supports supplied by other manufacturers. Doing so will void the warranty and release FORMULA SRL of liability. Only use original FORMULA SRL products.
- Do NOT let brake fluid or other oils or grease used for lubricating the bicycle come into contact with the disc rotors. If this does happen, clean the discs using isopropyl alcohol ONLY.
- Do NOT let brake fluid or lubricants come into contact with the brake pads. If this does happen, the brake pads will be contaminated and must be replaced before the next use.
- Only use DOT 4 brake fluid from a new bottle. NEVER use old fluid, or fluid that has been bled out of the system. Old fluid can contain water and this will compromise the performance and function of the system.
- **WARNING: All FORMULA brake systems requires a break in (bedding in) period to obtain top performance. We recommend running the bike on a flat surface at a speed of 30 Km/h and braking it at least 50 times allowing it to come to a full stop (taking the required precautions) before considering the system broken in and fully efficient.**
- The efficiency of the brakes depends on many factors which FORMULA SRL has no control over. These include the speed of the bike, the wheel-terrain contact, the brake lever application force, the correct installation and maintenance of the brakes, the hydraulic brake fluid, the levers, the brake shoes or pads, the condition of the bike, the weight of the rider, the correct braking technique, the weather conditions, the type and conditions of the terrain, and many other factors.



## NOTE ON HEALTH AND ENVIRONMENT

FORMULA s.r.l. declares that the braking system and the spare parts it deals with are manufactured with asbestos-free friction material. They are also in compliance with regulations and laws in force concerning health and environmental protection.

Do not inhale the powder they produce and carefully wash your hands before eating and drinking.



## ENVIRONMENTAL NOTE

In order to safeguard the environment, please refer to these simple instructions for the correct disposal of FORMULA SRL products.

- 1) The packaging material does not require special disposal precautions because it is not considered dangerous; we urge you to recycle paper and plastic.
- 2) It is also recommended to recycle of the metal parts after use.
- 3) In regards to the brake liquid DOT4, it is recommended to follow the instructions in the safety sheet available from: <http://support.FORMULA-brake.com>.

In the case of all three items mentioned above, it is recommended to recycle of the waste following the national directives through specialized companies.

## FOREWORD

### Hydraulic brake fluid

Use only DOT 4 Super hydraulic brake fluid from sealed containers. Do NOT leave the bottles of DOT fluid open for a long time as this product absorbs moisture in the air and this will change its physical properties, seriously affecting the efficiency of the brakes. Change the oil in the system every year to maximize performance (see Draining in the instructions manual - <http://support.formula-brake.com>.)



**WARNING:** Besides damaging paint, the brake system's fluid is extremely hazardous if it comes in contact with the eyes or skin.

**Always wear latex gloves when handling.**

**In the event of eye contact flush with fresh water and seek medical assistance immediately. In the event of leakage or accidental contact with the DOT4 brake fluid, please refer to the safety sheet available on the internet at: <http://support.formula-brake.com>.**

### General lubricants

Use silicon grease for EPDM seals. FORMULA SRL recommends: UNISILKON TKN 1011 by KLUBER or KLUBER SYNTHESO GLEP 1.



**CAUTION:** Do not use any type of lubricants in the area of the piston operating pin (shown by the arrow in the figure) because it includes EPDM O-Rings.



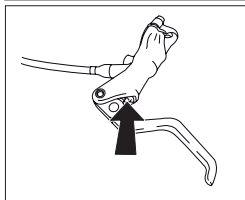
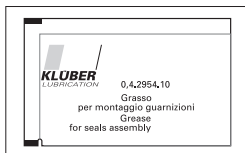
**CAUTION:** Use of inappropriate type of grease may compromise the integrity of the seals and cause damage to the system and therefore to the user.

### Loctite® for screw lock

We recommend using medium strength Loctite® (Loctite® 222 or 242) (where indicated) on all threaded fasteners. After applying Loctite® and fitting the fastener, clean any excess Loctite® with a cloth. Let the Loctite® dry for at least 24 hours BEFORE use.



**WARNING:** The Loctite® used in some parts found in this product can be dangerous if it comes into contact with your eyes or skin.



## 1 ASSEMBLY


### 1.1 Brake disc installation

#### **WARNING! DO NOT TRY TO DISASSEMBLE OR ATTEMPT TO MODIFY THIS NEW FORMULA SRL PRODUCT!**


Service on this product must be performed only by qualified professional mechanics who are familiar with and understand the technical details of how this product works.

If you decide to ignore this important safety warning, you are doing so at your own risk and at no legal liability to FORMULA SRL or its distributors.

 **WARNING:** Consult THE SAFETY REGULATIONS found in this manual (pp. 16-17-18).

 **CAUTION:** For disc installation, use a dynamometric (Torque) wrench suitable for the given tightening torque.

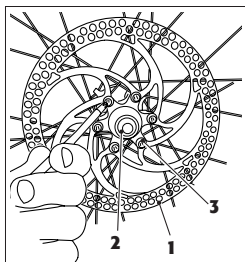
 **WARNING:** Ensure the disc rotor isn't hot before working on it by letting it sit for a minimum of 10-15 minutes. Let it cool if necessary.

 **CAUTION:** When removing the screws, always make sure to reapply medium strength Loctite® and ensure the torque settings are correct by using a torque wrench.

The range of FORMULA disc brakes includes the following models:

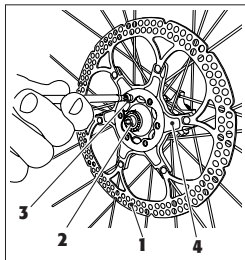
#### I.S. MONOLITHIC BRAKE DISC

Place brake disc **1** (with the markings facing outwards) on hub **2** of an assembled wheel. Make sure the arrow on the disc indicates the correct direction of rotation. Tighten the 6 screws supplied **3** with a TORX® T25 bit/tool. Tighten the 6 screws in a star pattern to a torque setting of **6 Nm±5%**. Carefully clean the disc with isopropyl alcohol to remove any traces of grease or oil. Mount the wheel and secure with the original fasteners.



#### I.S. TWO PIECE BRAKE DISC

Place brake disc **1** (with the markings facing outwards) on hub **2** of an assembled wheel. Make sure the arrow **4** on the disc flange indicates the correct direction of rotation. Tighten the 6 MS screws **3** supplied with a TORX® T25 bit/tool. Tighten the 6 screws in a star pattern to a torque setting of **6 Nm±5%**. Carefully clean the disc with isopropyl alcohol to remove any traces of grease or oil. Mount the wheel and secure with the original fasteners.



## TWO PIECE BRAKE DISC WITH CENTER LOCK ROTOR

Place the hole of the disc **1** in the splined hub **2** pushing it fully into place.

Place it with the markings facing the operator.

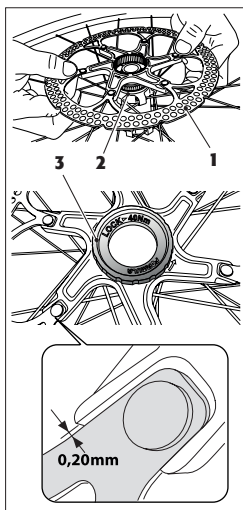
Fully tighten the ring nut **3** using the special wrench specified below.

Tighten the ring nut to **40 Nm $\pm$ 5%**.

In the split disc, check the play in the mating point between the brake disc rotor's arms and the seats inside the disc on a regular basis

Force the disc in one direction and insert graduated rods of a thickness gauge in the empty space on the opposite side. FORMULA SRL considers a play that is the sum of **0.20 mm** as shown in the figure as acceptable.

Replace the brake disc if this value is not present.



## MONOLITHIC BRAKE DISC WITH CENTER LOCK ADAPTER

Place the hole of the disc **1** in the splined hub **2** pushing it fully into place.

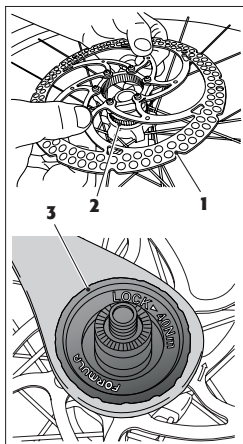
Place it with the markings facing the operator.

Fully tighten the ring nut **3** using the special wrench.

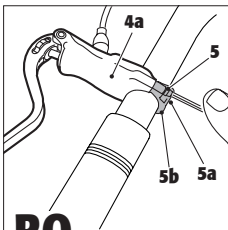
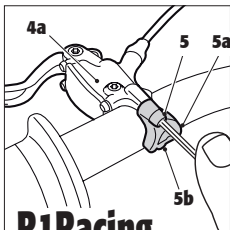
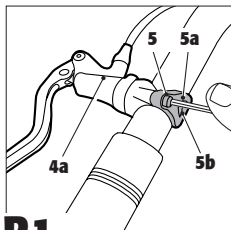
Tighten the ring nut to **40 Nm $\pm$ 5%**.

If the disc needs to be replaced, hold the adapter in place and tighten the six screws crosscrossing using a torque setting of **4,5 Nm $\pm$ 5%**.

Always use original screws with Loctite®.



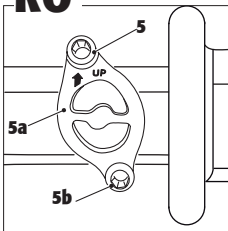
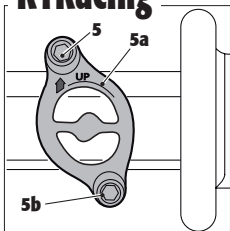
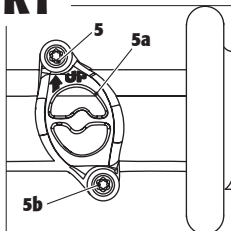




**R1**

**R1 Racing**

**R0**



## 1.2 Installing the pump

- The pump can be supplied in a right-hand (rh) or left-hand (lh) version for installation on both sides of the handlebar.

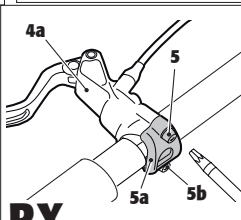
Models R1 – R0 – T1 – R1 RACING – R1S have just one collar that is interchangeable and used with the word **"UP"** facing up.

Model RX – T1S has a collar for the right-hand solution (rh) and one for the left-hand solution (lh).

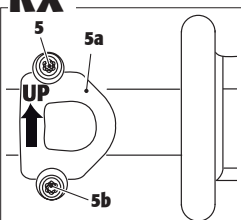
As a result, the side on which it will be used must be specified when placing the order.

The installation steps are similar for both models:

- Fit the pump body **4a** to the handle bar positioning it as shown in the figure and orientating it in the desired position.
- Fix the pump body **4a** by mounting the collar **5a** so that the indication **"UP"** faces the upper part (as shown in the figure). First tighten the upper screw **5** to a torque setting of **2.5/3 Nm±5%** and then screw **5b** to a torque setting of **2.5/3 Nm±5%** using 3 mm (R1/RO) and 4 mm (RX) hex. socket wrenches.



**RX**



If the hose length needs to be adjusted, contact the manufacturer, if not proceed with the positioning of the hose on the bicycle, carefully following the instructions given below:

- the hose needs to be attached to the fork or frame in a way that does not interfere with the free flow of fluid through the hose;
- the hose should not make curves smaller than a 20 mm radius and should not interfere with any moving part of the bicycle.

**⚠ WARNING:** An incorrectly mounted brake hose or a hose that is in contact with moving parts of the bicycle can compromise the braking action and cause serious accidents.

**⚠ CAUTION:** After the brake has been installed, make sure the handle bar turns freely; if the brake hose gets in the way, make the required adjustments so that it does not or contact the manufacturer.

### 1.3 Installing the caliper

**⚠ ATTENTION:** never install the FORMULA SRL calipers using adapters or supports made by other manufacturers. Failure to heed this precaution will void the warranty. Use only parts manufactured by FORMULA SRL mounted on forks or frames provided to avoid accidents and serious injury.

**⚠ CAUTION:** Only correct mounting of the system and it's various support elements will ensure the safety of the cyclist and the exceptional performance of FORMULA SRL disc brakes.

To adapt frames or forks to the various diameters of brake rotors available, FORMULA SRL supplies different adapters which can be mounted between the fork or frame and the brake caliper. Fit the caliper to the fork, proceeding as follows:

#### **INTERNATIONAL STANDARD MOUNT OR SIMILAR**

**⚠ WARNING! DO NOT DISASSEMBLE OR ATTEMPT MODIFY, THIS NEW FORMULA SRL PRODUCT!**

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**If you choose to ignore this important safety warning, you are doing so at your own risk and at no legal liability to FORMULA SRL or its distributors.**

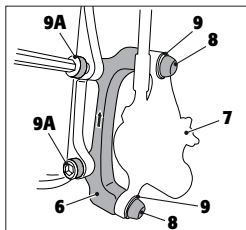
**⚠ CAUTION:** For disc installation, use a dynamometric (Torque) wrench suitable for the given tightening torque.

**⚠ CAUTION:** When removing the screws, always make sure that medium strength Loctite® is applied when reassembling, and that the correct torque wrench settings are used.

#### **R1 - RX - T1 - R1S - R0 - R1 RACING can be used**

**⚠ CAUTION:** Make sure the washers **9** and thread-blocker are present on screws **9a** and **8** before attempting to start assembly. Apply medium-strength threadblocker (if not present).

- Place the adapter **6** on the frame (or fork) with the arrow facing the direction in which the wheel turns.
- Insert the screws and washers **9a** tightening them with a 5mm hex. socket wrench to a torque setting of **9 Nm±5%**.



- Place the caliper on the adapter **6**, making sure the disk enters inside the pads without any interferences and that the caliper **7** is in place.
- Insert (making sure threadblocker is present) the screws **8** with the washers **9** and tighten them but not completely using a 5mm hex. socket wrench.
- Slightly loosen the screws **8** and center the caliper and pads.
- Pull the pump lever 2-3 so that the caliper can center itself with the disk.
- Keep the pump lever down and tighten the screws to a torque setting of **9 Nm $\pm$ 5%**.  
**Go to step 4).**

## FRONT POST MOUNT FORK



**WARNING! DO NOT DISASSEMBLE OR ATTEMPT TO MODIFY, THIS NEW FORMULA SRL PRODUCT!**

**Service on this product must be performed by qualified professional mechanics only who are familiar with and understand the technical details of how this product works.**

**If you decide to ignore this important safety warning, you are doing so at your own risk and at no legal liability to FORMULA SRL or its distributors.**

**CAUTION:** You must use a torque wrench to assemble the the fasteners.



**CAUTION:** When removing the screws, always make sure that medium strength Loctite® is applied when reassembling, and that the correct torque wrench settings are used.



**CAUTION:** Make sure the washers are installed before assembling the fasteners.



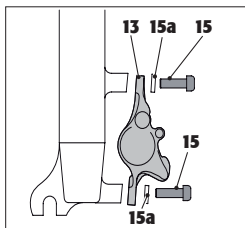
**CAUTION:** When mounting the caliper onto the fork, check that the caliper body is not in contact with the fork itself.

## IT CAN BE USED FOR ALL FORMULA BRAKE MODELS

This adapter can be used in various applications:

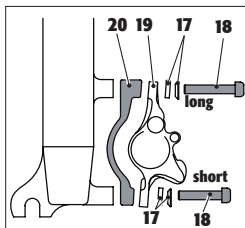
### 1) Installing directly onto a POST MOUNT fork

- Place the caliper **13** in the fork seat checking insertion without forcing or interference of the pads in the disc and caliper in the seat.
- Insert the screws **15** (apply medium-strength Loctite® if not present) with the relative washers **15a**.
- Pull the pump lever 2-3 times to center. Keep it pulled and tighten the screws with a 5mm hex. socket wrench.
- Tighten the screws to a torque setting of **9 Nm $\pm$ 5%**.  
**(Go to step 4).**



### 2) Assembly with POST MOUNT adapter FOR 180 Disc

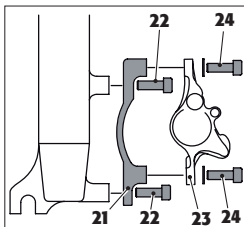
- Insert the special washers **17** on the screws **18** making sure the concave and convex profiles material.
- Make sure Loctite® is present on the screw (apply medium-strength Loctite® if not present).
- Put in all the parts, including the caliper **19** and adapter **20** on the screw following the order shown in the figure.



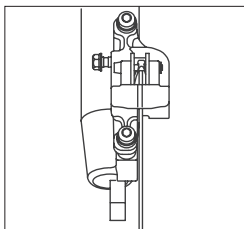
- Insert the screws, with the entire assembly, in the holes of the fork fitting making sure the arrow faces upwards.
- Make certain the pads are inserted inside the disc without force or any interference.
- Tighten the screws with a 5mm hex. socket wrench (do NOT over tighten).
- Pull the pump lever 2–3 times to center the caliper.
- Keep the pump lever pulled and tighten the screws **18** with a torque setting of **9 Nm $\pm$ 5%**.  
**Go to step 4).**

### 3) Installing with adaptor on POST MOUNT fork

- Place the adaptor **21** in the fork fitting, making sure the arrow faces upwards
- Insert the screws **22** and tighten with a 5mm hex. socket wrench.
- Tighten with a torque setting of **9 Nm $\pm$ 5%**.
- Place the caliper **23** on the adaptor making sure the disc is inserted inside the pads without force or any interference.
- Tighten the screws **24** with a 5mm hex. socket wrench
- Pull the pump lever 2–3 times to center the caliper.
- Keep the pump lever pulled and tighten the screws **24** with a torque setting of **9 Nm $\pm$ 5%**.  
**(Proceed to step 4).**



- 4)** Slowly turn the wheel and make sure the disc is straight and centered and does not rub against the pads.  
Brake 2–3 times to bring the pads in alignment with the rotor.



### BEDDING IN PROCEDURE:



**WARNING: All FORMULA brake systems require a break in (bedding in) period to obtain top performance. We recommend running the bike on a flat surface at a speed of 30 Km/h and braking it at least 50 times allowing it to come to a full a stop (taking the required precautions) before considering the system broken in and fully efficient.**

### REAR POST MOUNT FORK

- The rear post mount fork is supplied according to the user's requirements therefore it comes with a specific description.

## 2 SET UP

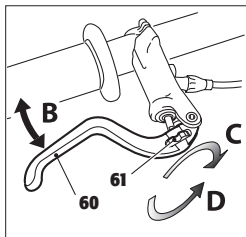
### 2.1 Positioning the R1 - RO - T1 T1 RACING - T1S - R1S

IT CAN BE USED FOR PUMPS WITH TFRA

Turn the knob **61** so as to adjust the position of the lever **60** (distance **B**) as required.

Turn the knob **61** in the direction **D** to increase the distance **B**.

Vice versa, turn the knob **61** in the direction **C** to decrease the distance **B**.



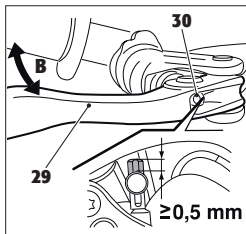
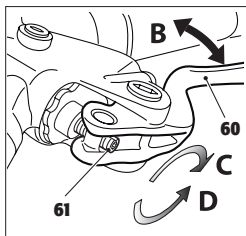
### 2.2 Positioning the RX - R1 RACING lever

IT CAN BE USED FOR PUMPS WITHOUT TFRA

To position lever **29** (distance **B**) to meet your needs, adjust screw **30** with a 2 mm Allen wrench.



**WARNING:** The head of adjuster screw **30** must protrude at least 0,5 mm from the threaded insert.



### 2.3 Braking feeling adjustment (Optional)

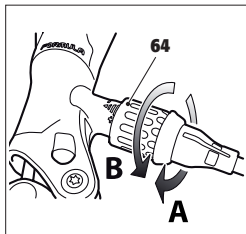
**FCS** (Feeling Control System) adjustment allows the change of the braking point in the braking device.

Turn the ring nut **64** in the direction **A** for an abrupt and immediate braking.

Turn the ring nut **64** in the direction **B** for a soft and progressive braking.



**WARNING:** The lever must be in idle position when adjusting the FCS.



### 3 PAD REPLACEMENT



#### **WARNING! DO NOT TRY TO DISASSEMBLE OR ATTEMPT TO MODIFY THIS NEW FORMULA SRL PRODUCT!**

**Service on this product must be performed by qualified professional mechanics only who are familiar with and understand the technical details of how this product works.**

**If you decide to ignore this important safety warning, you are doing so at your own risk and at no legal liability for FORMULA SRL or its distributors.**



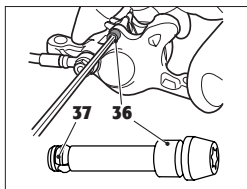
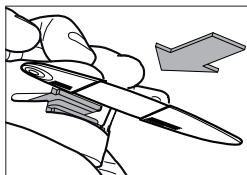
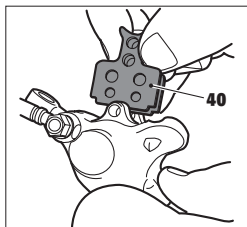
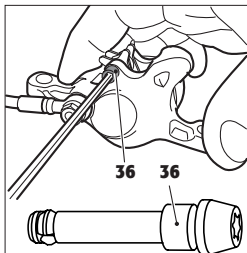
**WARNING:** Consult THE SAFETY REGULATIONS found in this manual (pp. 18-19-20).

#### **Version R1 - R1 RACING**

- Remove the ring that prevents unscrewing **37** from the end of the pin **36**.
- Loosen the fixing pin **36** of the pads, using a TORX® T15 spanner.
- Remove the pads **40** and the spring.
- Carefully clean the pistons inside the caliper, using a brush soaked in isopropyl alcohol.
- Carefully clean the disc using a cloth soaked in isopropyl alcohol.
- Temporarily put the WORN pads back in position and, using a flat blade screwdriver to push down between the pads, push the pistons fully back inside the caliper.
- Take the worn pads out again.
- Install the new pad kit, spring included.

**NOTE:** the pads are identical and can be placed on the left or right side.

- Check the integrity of the anti-loosening ring **37** placed on the fixing pin **36**.
- Tighten fixing pin **36** of the pads to a torque setting of **2 Nm $\pm$ 5%** with a TORX® T15 spanner.



### Version RX - T1S - T1 - R0 - R1S

- Remove snap ring **38** and loosen fixing pin **39** of the pads, using a 3 mm Allen wrench.
- Remove the pads **40** and the spring.
- Carefully clean the pistons inside the caliper, using a brush soaked in isopropyl alcohol.
- Carefully clean the disc using a cloth soaked in isopropyl alcohol.
- Temporarily put the WORN pads back in position and, using a flat blade screwdriver to push down between the pads, push the pistons fully back inside the caliper.
- Take the worn pads out again.
- Install the new pad kit, spring included.

**NOTE:** the pads are identical and can be placed on the left or right side.

- Tighten fixing pin **39** of the pads to a torque setting of **2 Nm $\pm$ 5%** with a 3 mm Allen wrench, then put snap ring **38** back in place.

### BEDDING IN PROCEDURE:



**WARNING:** All FORMULA brake systems require a break in (bedding in) period to obtain top performance. We recommend running the bike on a flat surface at a speed of 30 Km/h and braking it at least 50 times allowing it to come to a full a stop (taking the required precautions) before considering the system broken in and fully efficient.



**CAUTION:** When assembling the fasteners, always make sure they are torqued down to the correct torque setting.

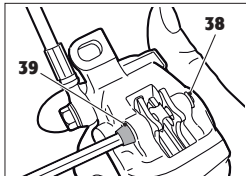
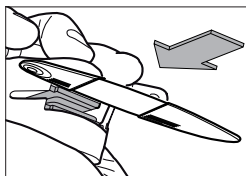
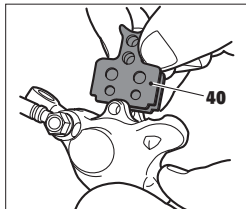
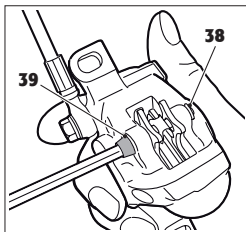


**CAUTION:** Use a dynamometric wrench provided with the required hexagon or TORX® inserts to install the screws.

**ATTENTION:** When transporting the bike with the wheels off, always fit the relevant spacer between the brake pads.



**CAUTION:** Never apply the lever without the pads in place or with the wheel removed. If this does happen you will have to press the brake pads back into the caliper with a clean flat-blade screwdriver.





**CAUTION:** When installing new brake pads, be very careful to avoid contamination with oil or grease.

**CAUTION:** Before each use make sure all the screws and bolts are tightened to the correct torque found in the present manual.



**CAUTION:** Do NOT worry if you hear the brake disc and pad rubbing lightly. This noise will dissipate as the brakes are used; new brake pads must bed in to find the correct position on the disc. A light friction may occur each time the pads are replaced or when the wheel is incorrectly installed or faulty.



**WARNING:** Do NOT use brake pads supplied by other manufacturers. This will void your warranty. Only use original FORMULA SRL products.

## 4 MAINTENANCE



**CAUTION:** Consult THE SAFETY REGULATIONS found in this manual (pp. 16-17-18).

The periodic cleaning of this braking system, using a suitable biodegradable degreasing product that doesn't damage the system, is necessary.



**WARNING:** ISOPROPYL ALCOHOL is recommended to clean the disc brake. The use of any other product may be hazardous to the user.



**WARNING:** Do not touch the rotor right after its use as it is not and might cause you severe injury.



**ATTENTION:** After carrying out this operation, perform 50 braking tests to make sure the brakes are working properly.

### READ CAREFULLY!

FORMULA SRL extends to the original purchaser of its brakes a limited warranty that the brakes are free of defects in material and/or workmanship for a period of two years from date of purchase.

### WHAT PROTECTION DO I RECEIVE FROM THE WARRANTY?

FORMULA SRL will, at its discretion, repair or replace the defective product under warranty.

### WARRANTY CONDITIONS AND LIMITATIONS

1. The manufacturer guarantees its products to be free from defects in materials or workmanship for 24 months from the date of purchase. You must establish proof of purchase with a mandatory document (sales receipt or invoice) showing the date and place of retail purchase of the product in order to obtain warranty service.



2. The validity of this warranty is subject to the following:
  - (a)- The claim must be initiated within eight (8) days of discovery of the potential defect;
  - (b)- Every claim must be submitted to the FORMULA SRL Dealer from which the product was purchased, with the understanding, however, that the discretion as to the acceptability of the claim is exclusively FORMULA's;
  - (c)- Only a FORMULA SRL Dealer can ship the allegedly defective product, with the accompanying documentation.

**Failure to comply with these procedures will invalidate the claim; in which case the product will be made available to the owner for thirty (30) days and then destroyed.**

3. This warranty does not cover damages resulting from:
  - a. **Incorrect transport and installation. Incorrect installation refers to failure to follow the safety guidelines and instructions outlined in the Instructions manual.**
  - b. **Unintended and inappropriate use of the product. Unintended and inappropriate use refers to use of the product for purposes different from those for which it was specifically designed and manufactured. Some unintended purposes include cross country and UCI sanctioned downhill races.**
  - c. **Use of materials or spare parts that do not carry the FORMULA trademark for braking systems. FORMULA SRL shall not guarantee conformity, safety, service life and performance of FORMULA braking systems if materials and spare parts that do not carry the FORMULA trademark and/or are non-compatible and/or are not suitable and/or are not expressly authorized are used.**
  - d. **Lack of appropriate or reasonable maintenance or storage, washing with harsh materials, use of corrosive agents, prolonged exposure to solvents.**
  - e. **Products on which the serial number and/or production code have been altered, damaged and/or removed.**
  - f. **Modifications made by persons not duly authorized by FORMULA without being approved by FORMULA.**
  - g. **Normal wear and tear or deterioration due to the use of the product.**
4. Retailers, wholesalers, importers or anyone else, apart from FORMULA SRL, may not modify this warranty in any way.
5. This warranty does not affect the statutory rights of the consumer or any rights the purchaser may have against the dealer pursuant to the sales contract.
6. The laws of Italy govern all matters arising out of, or relating to this warranty. Any disputes or legal actions by purchaser arising out of, or relating to, this warranty shall be brought before courts in Prato, IT.



[www.formula-italy.com](http://www.formula-italy.com)



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