



**THUASNE**

**Rebel**



**TOWNSEND**

THUASNE USA

## Medical Professional Instruction Guide

Photos for how to fit Rebel Series braces are included on the patient instruction form that was shipped with this brace. Please review these instructions with the patient as part of the initial fitting procedure to ensure the patient understands how to put on the brace. The patient instruction form also describes brace maintenance and warranty information.

### Indications:

- Anterior Cruciate ligament instability, posterior cruciate ligament instability, medial collateral ligament injury, lateral collateral ligament injury.
- Low contact/impact activities

### Contraindications:

- To limit rotational control in ACL-deficient knees
- Unstable knees requiring operative therapy
- Complicated multi-directional knee injuries such as postero lateral corner injuries
- Knee disorders related to the patello femoral joint
- Ambulatory patients with severe genu recurvatum
- Fixed genu varum or valgum deformities greater than 10 degrees
- Open Ulcerations
- Severe fluctuating edema

### Contouring the Brace

The bands and side bars should be contoured to the patient's limb, and the condyle pads should fit snugly against the sides of the knee. The condylar pads are for proprioception, not functional control. The use of thicker condylar pads, provided with the brace, may enhance the fit and provide more proprioceptive pressure to the sides of the knee

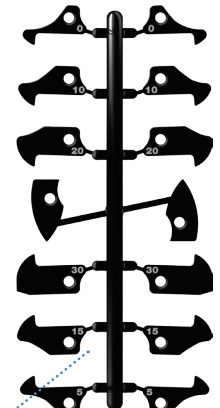
### Adjusting strap Length

We recommend that you leave the straps as long as possible so the Velcro hook tab overlaps more of the strap. This will extend the life of the strap. If the strap needs to be shortened initially, the straps are laminated so they can be cut to any length without separating. To shorten the straps, remove the Velcro hook tab attached to the end of the strap, cut the strap, and reapply the hook tab. Please be careful not to cut the strap too short. You also need to reduce the length of the comfort pad that is on the inside of any strap you shorten. If a pad is left too long, it may prevent the patient from completely tightening the strap.

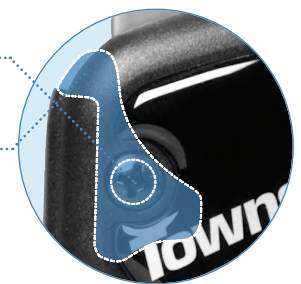
### Extension Stop Instructions

Removable 0 degree extension stops were installed during fabrication. A kit provided with the brace includes: 0, 5, 10, 15, 20 & 30 degree extension stops and an Allen wrench. Follow the instructions if you need to reduce extension. If the optional flexion stop kit was ordered, instructions for adjusting flexion stops are also provided. At the time of fabrication, a zero degree extension stop has been installed in the TM5+ Hinge. To install a different extension stop, follow these instructions:

- 1) Twist off the desired stop from the nylon stop tree.
- 2) Remove the screw located on the side of the hinge.
- 3) After removing the screw, flex the brace and remove the zero degree stop from the hinge. Note the direction the stop is facing.
- 4) Insert the desired replacement stop, hole end first, with the hook end at the top and facing forward. Straighten the brace to full extension to push the stop down into position. The small hole in the stop must be aligned and visible through the screw hole so the screw will thread into the stop.
- 5) Reinsert and tighten the screw. Flex and extend the brace several times to ensure the stop is locked into position and functioning properly.



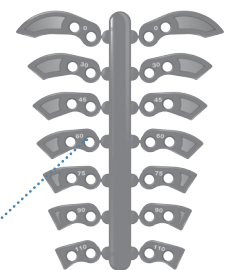
Extension Stop Kit



### Flexion Stop Instructions

(Flexion stops are an optional accessory item.)

- 1) To limit the degree of flexion, detach the desired stop from the metal tree. Each stop has the degree etched into the surface.
- 2) If you are installing the 0, 30, 45, 60, 75, 90 or 110 degree flexion stop, remove both screws from the posterior aspect of the hinge cap and take out the spacer that was installed at the factory. Insert the stop with the flat end facing up and position it so that both holes in the stop are visible through the screw holes in the cap. Thread and tighten the screws through the cap and into both holes in the stop.
- 3) Flex the brace until the upright contacts the stop to ensure it is functioning properly.



Flexion Stop Kit





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## Patient Instruction Guide

Whether you are a professional athlete, or primarily need support for activities of daily living, Townsend's Rebel knee braces are designed to perform. Townsend Rebel braces set the industry standard for control, comfort and patient convenience. This type of brace is generally prescribed for patients who have knee instabilities or who have surgery to repair knee injuries. The medical professional fitting your brace is responsible for assessing the initial fit and function of your brace, and will make or facilitate any necessary adjustments. If you experience any skin reactions, loss of circulation, unusual knee pain or any other complication you think may be associated with the use of this product, stop wearing the brace and call the medical professional who prescribed and/or fit your brace.

### Care & Maintenance

**Hinge** – The hinges on your brace are pre-lubricated. If sand, dirt or water get inside the hinges, they may require periodic lubrication. If you notice the hinges not gliding smoothly, a few drops of a synthetic lubricant can be applied. You can purchase this type of lubricant at a hardware store.

**Straps** – The straps on your brace are nonelastic for maximum control. After considerable use, if the fibers on your strap do not adhere as well to the Velcro "hook" tab, if possible, cut the strap shorter so the Velcro hook tab adheres to a section of the strap that has fresher fibers. Otherwise the straps may need to be replaced.

**Cleaning Brace Pads** – Your brace is lined with padding that provides a comfortable interface between your leg and the shells. The straps also have pads. Do not remove the pads from the brace or straps. Wipe the pads after each use to remove any moisture and let the pads air dry. You can also clean the pads with a mild anti-bacteria soap and rinse them off with fresh water. DO NOT wash pads in a machine or dry them with a blow dryer.

### Parts & Service

Comfort pads, condylar pads, hinge covers, straps and other parts on your brace may need to be repaired or replaced due to normal wear and tear. If your brace requires repairs or replacement parts, you should contact the professional who assisted you in ordering and fitting your brace. Certain parts are covered by a limited warranty.

### Undersleeves & Protective Covers

This brace has a soft liner and is designed to be worn directly against the skin. Neoprene or cotton undersleeves may be ordered if you prefer to wear a sleeve under your brace. Wearing an undersleeve may enhance comfort, however, a sleeve can potentially cause the brace to slip down your leg. If you intend to wear your brace for high intensity sports (football, soccer, baseball, etc.) Or activities that may expose the brace to objects that could damage the painted shells, we strongly recommend that you speak with the medical professional who fit your brace about ordering a protective cover. A cover is also often required for team sports.

### Warranty Information

Under normal use and conditions, the shells and hinges on your brace are covered by a one year warranty against defects or breaking. Straps, hinge covers, and other replaceable parts are covered for six months. If you experience a problem with the fit or function of the brace, please call the medical provider who fit your brace.

### Product Disclaimer

This brace should be used in accordance with the directives of your physician as part of a treatment plan for managing your total health. While this type of brace has proven beneficial to many patients, outcomes will vary based on factors including patient age, general health, and/or lack of compliance with instructions for how to put on and use the product. Because of variations in the health and condition of each patient, Townsend Design also does not make any specific recommendations regarding appropriate activities for the user of this brace. While a Townsend functional knee brace may aid in decreasing the risk or degree of injury, Townsend Design cannot and does not guarantee that the brace will restrict all instabilities or prevent injuries – especially as the intensity of physical activity increases. Contact and high velocity sports are inherently dangerous and create a higher risk for injury.





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### Fitting Instructions



**1)** To apply your Townsend Rebel brace, sit down with your leg slightly bent at approximately 45 degrees of flexion. Before you tighten any straps, it is always important for you to properly position the brace on the leg. Because Townsend's patented hinges mirror the anatomical motion of the knee, the brace will function best when the hinges are properly aligned at knee center (SEE IMAGE #1). Make sure each of the four straps that go across the back of your leg are open. Slide the frame of the brace onto your leg. The condyle pads attached to the inside of the hinges should press against the sides of your knee. If you have positioned the brace and hinges at the correct height on your leg, the middle of the condyle pads should line up with the upper third of your knee cap. NOTE: It is always better to put your brace on a little too high than too low. Unfasten the four straps on the brace and slide the brace onto your leg.



**2)** Tighten the upper calf strap (patented Synergistic Suspension Strap) that is just below the back of your knee. This strap should be tightened in the flexion fold behind your knee. This is the most important strap for keeping the brace secure on your leg and preventing it from slipping down. (SEE ILLUSTRATION in the circle at the bottom of this page).



**3)** Step 3: Next, tighten the anterior (front) shin strap. There is an important relationship between this front strap and the Synergistic Suspension Strap behind your knee. The front strap should be tight, but not so tight that it pulls the hinges too far forward on your leg. If the hinges are in the proper alignment, the hinge pads that touch the side of your knee should be just posterior (back) of midline on the side of your leg. NOTE: Because this strap fits across the front of your leg, you do not have to open this strap each time you put on or take off the brace. Following the initial application, it should be left closed. Tighten the lowest strap on the brace. Shorten the straps or strap pads if necessary.



**4)** Tighten the distal (bottom) calf strap to secure the lower tibial band to your leg. You will see that the medial (inner) side of the lower band of the brace is contoured to fit the flat portion of your shin for maximum rotary control.



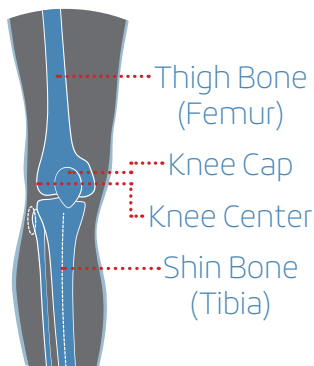
**5)** Next, tighten the two upper straps to secure the thigh section of the brace to your leg. The chafes that you feed the strap through can be angled to ensure the straps fit flat against the back of your leg.



**6)** Next, tighten the two upper straps to secure the thigh section of the brace to your leg. The chafes that you feed the strap through can be angled to ensure the straps fit flat against the back of your leg.

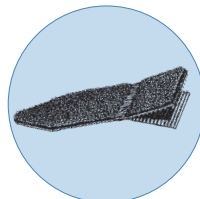
### Knee Center

When you begin to put on your brace, it is important for the hinges to be aligned with knee center. This means the center of the hinges should press against the side of your knee in a position that corresponds with the upper third of your knee cap. Additionally, tightening the Synergistic Suspension Strap in the flexion fold behind your knee will help to ensure the hinges are at the correct height on your leg.



### Suspension

The Synergistic Suspension Strap is attached to the outside of the frame and is designed to wrap inside between the brace's lower shell and your leg. The strap is also angled to match the natural contour of the top of your calf muscle. This strap should be tightened in the flexion fold in the back of your knee.



### Shortening Straps

The straps on your brace can be cut to any length. Simply remove the alligator closure from the end of the strap, cut the strap to the desired length, and reposition the closure onto the end of the strap. Be very careful not to cut any strap too short! Additionally, any comfort pad that is attached to the inside of a strap must be removed and cut shorter if the pad interferes with your ability to completely tighten the strap. You can cut the pad and re-center it on the strap.