**PCL Reconstruction Set (AR-1818S) includes:**

- PCL Suture Pusher
- PCL Rasp
- PCL Popliteal Protector Cap
- "Worn" Curving Suture Passer
- PCL Reconstruction System Sterilization Case
- PCL Femoral Target Marking Hook, right
- PCL Femoral Target Marking Hook, left
- Adapteur Drill Guide C-Ring
- Calibrated Guide Pin Sleeve for 2.4 mm Pins
- Drill Stop for Adapteur Drill Guide
- PCL Tibial Adapteur Guide Marking Hook
- PCL Femoral Adapteur Guide Marking Hook
- Suture Retriever
- PCL Curved Curette, closed end
- PCL Straight Curette, closed end

**Accessories:**

- Cannulated Bio-Interference Screwdriver Shaft
- Cannulated Screwdriver Shaft for Delta Bio-Interference Screw
- Ratcheting Screwdriver Handle
- Non-Ratcheting Screwdriver Handle
- Suture Retriever, 3.4 mm, straight
- Reusable Obturator for AR-1802D

**Implants and Disposables:**

**Proximal Tibial Tunnel Screws:**

- Bio-Cortical Interference Screw, 8 mm x 20 mm
- Bio-Cortical Interference Screw, 9 mm x 20 mm
- Bio-Cortical Interference Screw, 10 mm x 20 mm

**Distal Tibial Tunnel Screws:**

- Bio-Cortical Interference Screw, angled, 8 mm x 17 mm
- Bio-Cortical Interference Screw, angled, 9 mm x 17 mm
- Bio-Cortical Interference Screw, angled, 10 mm x 17 mm
- Bio-Cortical Interference Screw, angled, 11 mm x 17 mm
- Delta Tapered Bio-Interference Screw, 7.5 mm - 9 mm
- Delta Tapered Bio-Interference Screw, 8.5 mm - 10 mm
- Delta Tapered Bio-Interference Screw, 9.5 mm - 11 mm
- Delta Tapered Bio-Interference Screw, 10.5 mm - 12 mm
- Sheathed Bio-Interference Screw, 7 mm x 23 mm
- Sheathed Bio-Interference Screw, 8 mm x 23 mm
- Sheathed Bio-Interference Screw, 9 mm x 23 mm
- Sheathed Bio-Interference Screw, 10 mm x 23 mm
- Nitinol Guide Pin for Bio-Interference Screw, 1.1 mm
- Guide Wire Introducer, 1.1 mm
- Tibial Tunnel Cannula
- Drill Tip Guide Pin, 2.4 mm
- Transtibial ACL Disposables Kit without Saw Blade

All implants & disposables come sterile and are single use.

**References**

The Arthrex Trabibial PCL Reconstruction System includes unique safety features for protecting posterior neurovascular structures during tibial tunnel drilling.

Tunnel placement can be accurately positioned using instrumentation that references distances from anatomical constants on the tibia and femur.

Graft passing has been simplified by using curving suture passers to bring the graft passing sutures into the joint when introducing the graft through the tibial tunnel.

Recent literature describes a significant interaction between the posterior cruciate ligament (PCL) and the posterolateral corner (PLC). It is important to note that a significant number of PCL injuries involve combined injuries to the PLC.\(^2\,^3\)

This PCL reconstruction technique relates to the correct usage of the specific PCL instrumentation presented and does not attempt to provide the entire medical indications or surgical criteria for performing this procedure.

In preparation for tibial tunnel guide pin placement, adequate visualization of the posterior aspect of the tibial plateau with a 30° or 70° arthroscope down to the insertion of the PCL should be performed.

A posteromedial portal may be used to improve visualization. A Curved PCL Rasp or Curved PCL Curette is inserted through the notch to remove the PCL remnant from the posterior slope of the tibial spine.

A power drill is tightened on the Drill Tip Guide Pin at a length of 22.5 cm from the guide pin tip. Inserting the guide pin into the assembled Adapteur Drill Guide prior to joint insertion can predetermine a safe guide pin drilling depth. The drill chuck should contact the end of the Drill Stop when the guide pin tip reaches the marking hook tip, preventing the guide pin tip from advancing past the marking hook.

When placing the pin, visualize it penetrating the posterior aspect of the tibia through a posteromedial or anterior portal.

The PCL Tibial Adapteur Guide Marking Hook is attached to the Adapteur Drill Guide C-Ring, inserted through the anteromedial portal and used to appropriately locate the tibial tunnel exit point.

The distal end of the marking hook is placed in the trough on the back of the tibia, approximately 10 mm distal to the posterior tibial articular cartilage.

Anterior tibial tunnel entry is approximately 5 cm distal to the joint line.
The black cap of the Calibrated Guide Pin Sleeve is removed to accommodate insertion of the drill stop over the guide pin sleeve. The Drill Stop for Adapteur Drill Guide is advanced over the guide pin sleeve and connected to the drill guide by aligning the flat surface of the sleeve with that of the drill guide. The drill stop is locked into place with the set screw.

The drill stop establishes a constant distance to avoid potential damage of posterior neurovascular structures during guide pin drilling.

The Popliteal Protector Cap is inserted through the anteromedial portal and placed over the end of the guide pin tip to protect against pin advancement during overdrilling.

The appropriately sized Cannulated Drill is selected and the tibial tunnel is drilled until physical contact of the protector cap is confirmed.

After guide pin and drill removal, a Tibial Tunnel Cannula is inserted into the tibial tunnel to prevent excessive fluid loss.

The PCL Femoral Adapteur Guide Marking Hook is attached to the drill guide and inserted through the anteromedial portal.

Markings on the femoral hook determine the femoral tunnel distance from the articular cartilage margin. The surgeon determines selection of the femoral tunnel distance from the articular cartilage margin and directs the tunnel posteriorly.

Use of the tapered Tibial Tunnel Cannula to plug the tibial and femoral tunnels allows insertion of instruments or an arthroscope through the tibial or femoral tunnel as an alternative portal to the joint, without loss of fluid distention.

Use of the Notchplasty/Tunnel Rasp to round off the proximal tibial tunnel exit is important to eliminate sharp bone tunnel edges that may impinge on the graft or restrict smooth passing of the graft.
The "Worm" Curving Suture Passer wire loop end is preloaded with the ends of the graft passing suture and pulled back into the insertion tube and is inserted into the tibial tunnel. The curving wire loop with suture is pushed out of the insertion tube. The "Worm" memory wire curves up the back of the tibia into the intercondylar notch. The direction of curve is indicated by the flat edge of the "Worm" handle. A Suture Retriever is inserted through the anteromedial portal to retrieve the suture.

The "Worm" is removed and the suture passed on to a grasper inserted through the femoral tunnel. The graft is pulled through the tibial tunnel, into the intercondylar notch and into the femoral tunnel. Graft passing may be assisted by utilizing instruments inserted through a posteromedial portal.

Femoral fixation is performed with a bioabsorbable interference screw equal in diameter to the graft and tunnel. The screw is placed in the distal end of the tunnel to ensure joint line fixation. The knee is cycled repeatedly through range of motion prior to tibial graft fixation. With the knee in 90° of flexion and an anterior drawer force placed on the knee, a Delta Tapered Bio-Interference Screw 1 mm larger in diameter than the graft and tunnel size is used for tibial fixation.

Alternatively, Bio-Cortical Screws may be used to secure the graft in the tibial tunnel. A 28 mm long screw equal to or 1 mm larger in diameter than the graft diameter is placed proximally in the tunnel to obtain joint line fixation. An 18 mm long distal screw with angled back 1 mm larger in diameter than the proximal screw is inserted until flush with the anterior aspect of the tibia.