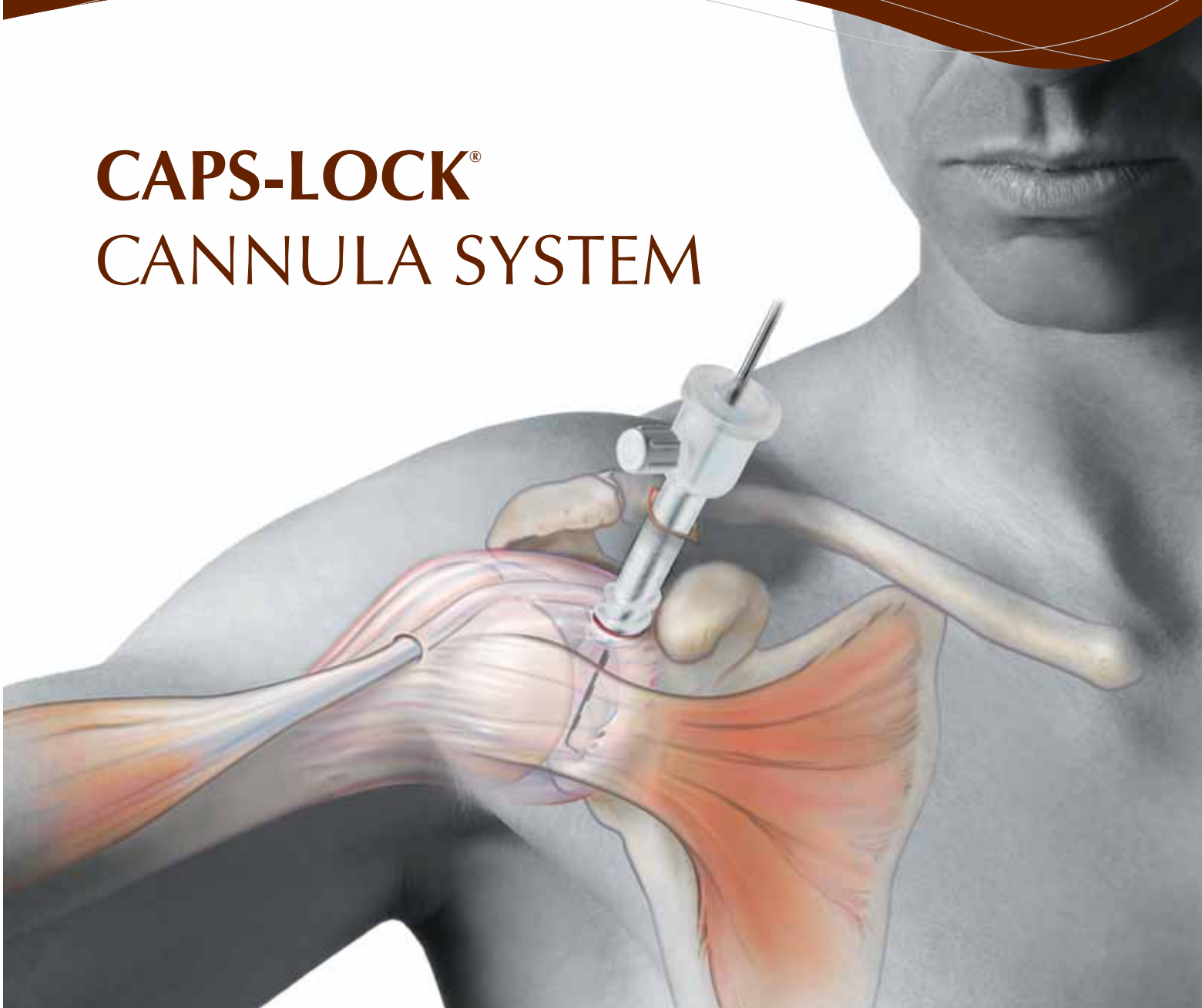
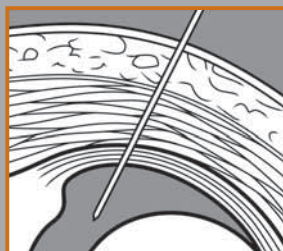


CAPS-LOCK® CANNULA SYSTEM



THE ATLANTECH® COLLECTION

- Guidewire control ensures accurate placement
- Unique cannula/driver thread design minimizes fluid extravasation
- Thread design ensures cannula stays locked in place



Introduction

The Caps-Lock cannula (abbreviated from “Capsular Locking”) has a proprietary threaded profile of cannula and obturator. It is designed to achieve maximum security in the joint capsule, coupled with minimal fluid extravasation and avoidance of swelling in the surrounding tissues. Guidewire control ensures accurate placement and the cannula driver provides a simple and effective method of insertion. The Caps-Lock cannula is adaptable to almost all arthroscopic surgical demands for cannula placement.



Assembly

Cannula assembly is facilitated by first wetting the obturator and cannula seal with sterile saline solution. Next, push the cannula and appropriately sized driver together linearly, ensuring that the luer cap on the cannula is engaged into the U-shaped locating groove on the front of the driver handle. The cannula must be fully seated on the driver with the seal flat against the face of the driver handle. Correct assembly should be confirmed by examining the screw thread at the front of the combined cannula/driver assembly for continuity.



“Outside-In” Technique

Step 1



The Caps-Lock system enables the surgeon to accurately place the cannula as desired. Under arthroscopic control, a guidewire (Ref 22-1020) is inserted into the joint at the appropriate location as dictated by adequate surgical experience, knowledge and avoidance of the anatomical structures of the joint.

Step 2



At this point the puncture is extended with a skin incision that penetrates down to, but not through, the joint capsule.

INSERTION OF THE CANNULA SHOULD NOT BE ATTEMPTED WITHOUT THE GUIDEWIRE FIRST BEING CORRECTLY POSITIONED IN THE JOINT.

Step 3



The cannula/driver assembly is advanced over the guidewire into the soft tissues using a clockwise rotary action and gentle forward pressure.

Step 4a



Pictured above is an arthroscopic view of the thread of the driver emerging into the joint space. Correct insertion has been achieved when the first thread of the cannula itself is visible just inside the capsule. At this point, the guidewire and then the driver are removed from the operative site with a direct, retrograde pull. It is helpful to support the cannula by holding its seal firmly between finger and thumb during removal of the metal driver.

Step 4b



The capsule can be seen captured in the front threads of the cannula, providing secure positioning and resistance to inadvertent pull-out. Also the "stretch-fit" of the tissues prevents leakage of fluid from within the joint into the surrounding tissues, minimizing problems associated with swelling of tissues intra and post-operatively. Removal of the cannula is achieved by rotating it with a counter-clockwise action and the application of minimal backwards pressure.

Step 5



Outflow from the cannula can now be connected and instruments passed easily in and out of the cannula. The cannula remains in place and the leakage of fluids into the soft tissue is minimized.

Alternative Technique 1: “Inside-Out” Guidewire Placement

It is often preferred in shoulder surgery that the cannula is inserted in the anterior aspect of the shoulder over a switching stick placed through the Arthroscope sheath. In order to retain the capsular locking action of Caps-Lock, (the stretching action on the capsular tissue), the system incorporates an optional cannulated switching stick. (Ref 22-1030) The cannula guidewire is then passed through the switching stick to exit anteriorly. This avoids making a large hole in the anterior capsule while enabling the surgeon to continue with the switching stick method if desired.

Step 1



The cannulated switching stick is inserted through the scope sheath and advanced up to the anterior capsule of the shoulder. The device should “tent”, but not penetrate, the anterior capsule.

Step 2



Pass guidewire through cannulated switching stick and out through anterior capsule and soft tissues, taking care to avoid the sharp point as it emerges.

Step 3



Proceed with cannula insertion as usual (follow Steps 1–5 for “Outside-In” technique) remembering to make a stab incision in the skin and overlying soft tissues, but NOT THE CAPSULE.

Alternative Technique 2: Railroading the Cannula

The system optionally includes a wide bore cannula driver which accommodates a switching stick or a Wissinger rod.

As in Step 1 above, for “Inside-Out” technique, a Wissinger rod/switching stick is inserted through the



Wide bore driver and cannula assembly with switching stick.

scope sheath and advanced up to the anterior capsule of the shoulder. An incision is made anteriorly through the skin and capsule to allow the Wissinger rod/ switching stick to penetrate the skin. The appropriate wide bore cannula driver (pre-assembled with the Caps-Lock cannula) is advanced over the rod, known as “railroading”.

While this method may be preferred by some surgeons, it should be noted that the pre-insertion of a 4mm rod through the capsular tissue inevitably reduces the stretch effect of the cannula and subsequent tightness of capsular locking in the tissue.

Ordering Information



Caps-Lock Cannula

Ref	Description	Working Length	Cannula Internal Diameter	Pack Contents
Caps-Lock Cannula				
22-1000	Caps-Lock Cannula	55mm	8.2mm	10
22-1001	Caps-Lock Cannula	35mm	8.2mm	10
22-1006	Caps-Lock Cannula	70mm	8.6mm	10
22-1008	Caps-Lock Cannula	55mm	6.0mm	10
22-1010	Caps-Lock Cannula	70mm	6.0mm	10



Caps-Lock Cannula Drivers

Caps-Lock Cannula Drivers				
22-1002	Caps-Lock Cannula Driver	55mm	8.2mm	1
22-1003	Caps-Lock Cannula Driver	35mm	8.2mm	1
22-1007	Caps-Lock Cannula Driver	70mm	8.6mm	1
22-1009	Caps-Lock Cannula Driver	55mm	6.0mm	1
22-1011	Caps-Lock Cannula Driver	70mm	6.0mm	1



Caps-Lock Wide-Bore Cannula Drivers

Caps-Lock Wide Bore Cannula Driver				
22-1012	Caps-Lock Wide Bore Cannula Driver	55mm	8.2mm	1
22-1013	Caps-Lock Wide Bore Cannula Driver	70mm	8.6mm	1



Cannula Guidewire

Cannula Guidewire				
22-1020	Cannula Guidewire	1.2mm	300mm	10



Cannulated Switching Stick

Cannulated Switching Stick				
22-1030	Cannulated Switching Stick	4mm	270mm	1



Wissinger Rod

Wissinger Rod				
22-1040	Wissinger Rod	4mm	350mm	1

NOTE: The cannulas are driver specific. Ensure the correct driver (length and diameter) is used with the cannula you require.



Caps-Lock Cannula Drivers

Driver Coding:	For Use With:
Handles Color: Blue Driver	35mm Caps-Lock Cannula
Magenta Driver	55mm Caps-Lock Cannula
Yellow Driver	70mm Caps-Lock Cannula



Caps-Lock (Wide-Bore) Cannula Driver

Shaft Indications:
Laser Dot on shaft indicates wide bore driver.



Caps-Lock 6mm Cannula Driver

"6" on shaft Indicates driver is for use with 6mm internal diameter Caps-Lock Cannula. Gold shaft also distinguishes the 6mm drivers from the larger diameter drivers.

Extract translated from K. Golser, AGA Congress 1995*

The clinical use of this new cannula demonstrated the following relevant advantages:

- Exact introduction of the working cannula is made possible by using a central guidewire under arthroscopic control.
- The special design of the thread allows both atraumatic introduction of the cannula as well as excellent retention in the soft tissue, so that inadvertent retraction of the cannula is not possible.
- The thread design allows a good capsular seal of the working cannula permitting the use of high intra-articular pressures. Furthermore, this prevents the strong swelling of the peri-articular soft tissues through the egress of irrigation fluid.



The Atlantech Caps-Lock cannula system has been developed in conjunction with G. Sperner M.D and K. Golser M.D, University Hospital, Innsbruck, Austria.

References:

*Golser, K., A New Universal Working cannula for Arthroscopic Operations on Large Joints. AGA Congress 1995

Summary and Conclusions

This newly developed universal cannula gives many advantages during the performance of arthroscopic operations. Almost all arthroscopic instruments on the market, with the exception of aimers for ACL reconstruction, can be introduced through this device into the joint thereby protecting the soft tissue.

The device presented has performed very well in the following arthroscopic operations in over 200 procedures: Arthroscopic ACL/PCL reconstructions, arthroscopic meniscal fixation, arthroscopic operations on the ankle and elbow joint, arthroscopic subacromial decompression and all arthroscopic operations on the glenohumeral joint.



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CAUTION: Federal (USA) law restricts this device to sale by or on the order of a physician.

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