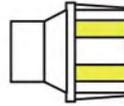


telecom & security

CaP®



the new coaxial connector

www.telecomsecurity.it

In times when everybody is going digital, it is still extremely important to be able to make a proper coaxial cable termination, since majority of DVRs are taking analogue video signals. This innovative coaxial termination is coming from Italy's "Telecom & Security" and it could bring the simplicity and quality of installation to one level higher

The Telecom&Security's CaP connector is at first sight just a very simple way to connect a coaxial cable to any F female connector. This is certainly true but any skilled installer will soon realise that the connection made with the CaP, if it has been made in the proper way following our suggestions and drawings, will outperform any connection made with the great majority of standard F metallic male connectors. This is because by using the CaP there is no metallic interface between the cable and the female connector. Therefore, there is an optimal matching between the two parts of the connection. In all other cases the F metallic male connector, no matter how good it can be, is always present in the connection and can add impedance mismatching and/or losses.

The CaP is a mechanical mean to keep the cable firmly attached to the F female (or to any similar coaxial) connector.

The important point is that, when using the CaP, the cable will remain, in the course of time, firmly attached to the female connector. We can assure this thanks to the very special material which we have chosen to manufacture the CaP. We want to underline this by enclosing in our technical leaflet also all initial material properties and all sorts of ageing tests made to this material, which is normally used in avionic and in automobile industries.

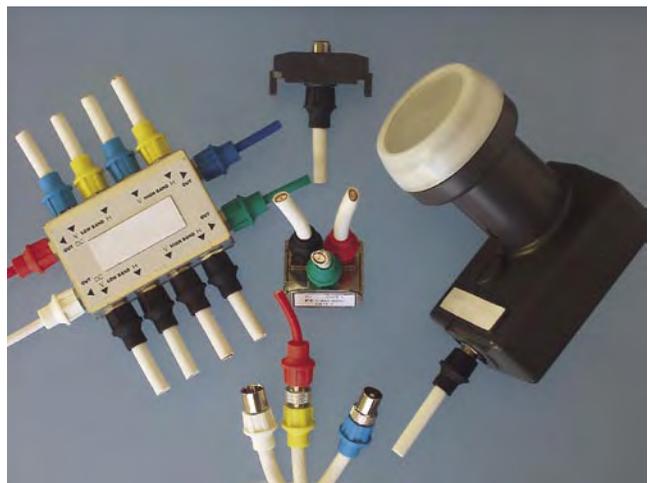
Here is some more information for better understanding of the "CaP System".

When and how the CaP should be used

The CaP can be used to connect any coaxial cables having an external diameter up to 7 mm to any F-type female connector. BNC for CCTV can be added via BNC to F converter.

The CaP can be connected as shown in all our drawings (we will now call it "normal way") in the great majority of cases, when the coaxial cable has a good percentage of braid coverage. This is the type of cable similar to RG-59/U used in CCTV.

There are some cases where a stronger retaining force is needed in the coaxial connection, like for instance when using coaxial cables with low braid coverage (<40%). In such cases we advise the use of the CaP in an "alternative way" as described further.

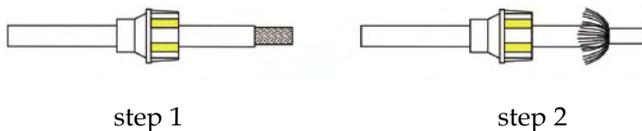
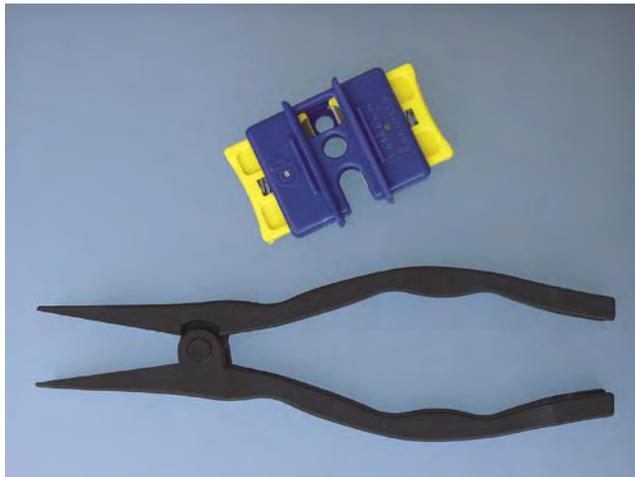


Use of the CaP in the "normal way"

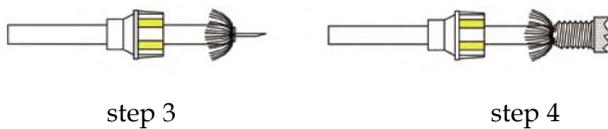
How to prepare the cable and connect the CaP

Follow strictly the instructions and drawings written in our leaflets when making a connection.

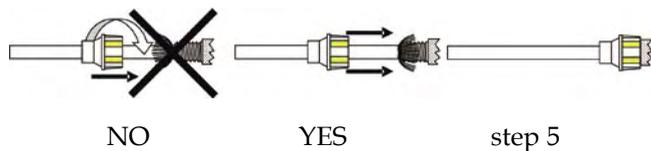
The coaxial cable can be prepared with normal cutters. A better and quicker way to prepare the cable can be obtained by using our cable cutting tool (our code SPC1) enclosed with the samples.



Take particular care in the next step 3: cut the dielectric as near as possible to the braid so that the same braid, in step 4, will get in contact with the mouth of the F female immediately after having left the external sheath of the coax cable.



In step 5 insert the CaP over the F female ONLY BY PUSHING IT OVER THE F FEMALE AND NOT BY ROTATING THE CaP WHILE PUSHING IT (the rotation could damage the braid).

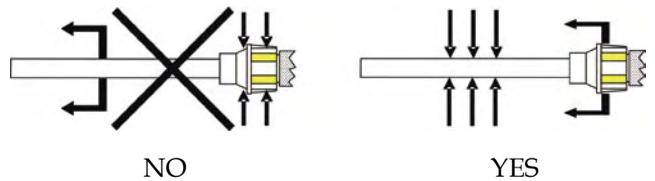


Enclosed you can find three samples with cables prepared in the normal way for connection with the CaP: sample 1a is a cable Ø7mm. + 40% braid coverage; samples 2a and 6a are cables Ø7mm. + 80% braid coverage.

How to disconnect the CaP

DO NOT DISCONNECT THE CaP BY PULLING THE CABLE AWAY FROM THE F FEMALE (this action would normally damage part of the braid).

The right way to disconnect the CaP is by firmly holding the cable near the connection zone with one hand while pulling the CaP away from the F female with the other hand. Following this method you can find that the braid will suffer no damage and therefore the cable and the CaP are ready to be used for another connection.



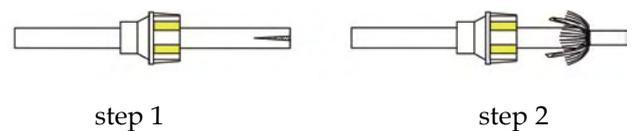
This way of using the CaP is very simple, quick and easy to understand by both technical and non-technical users.

How to prepare the cable and connect the CaP

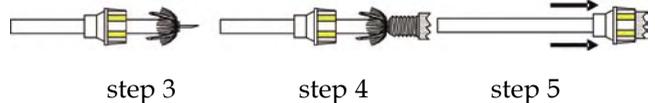
When a stronger retaining force between the cable and the F female connector is needed, follow the instructions below.

In step 1 insert the CaP onto the cable and cut the external sheath longitudinally in two parts without removing it, for a length of approximately 10 mm. The preparation of the cable in step 1 can be easily obtained by using the lateral cable input of our cable cutter tool enclosed with the samples.

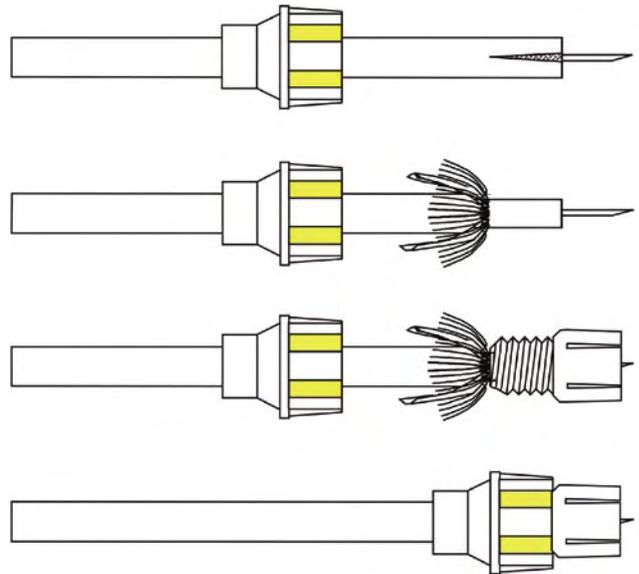
In step 2 widen the sheath and the braid and bend both of them backwards.



Repeat step 3, 4 and 5: in the last step a greater force has to be used to slide the CaP over both braid and sheath. As in the normal way, when pushing the CaP over the F female **DO NOT ROTATE THE CaP**.



Enclosed in the kit we provide are a few samples with different cable sizes prepared in the alternative way for connection with the CaP. Samples 1b, 3 and 4 are cables Ø7mm. + 40% braid coverage; sample 2b is a cable Ø7mm. + 80% braid coverage, samples 5 and 6b are cables Ø5mm. + 40% braid coverage.

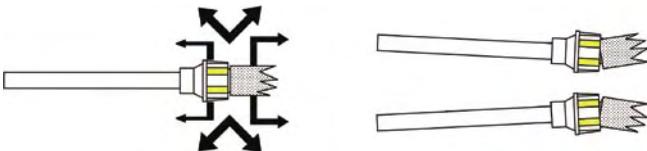


How to disconnect the CaP

DO NOT DISCONNECT THE CAP BY PULLING THE CABLE AWAY FROM THE F FEMALE (this action would damage the cable).

The correct way to disconnect the CaP is by holding the CaP firmly with one hand and the device attached to the F female connector with the other hand. Then, pull the CaP away from the F female while bending and forcing up and down the two parts of the coaxial connection. The resulting lever effect will greatly help in widening the CaP and opening the connection.

If this operation is correctly performed the external sheath and the braid of the coaxial cable will suffer no damage at all. More importantly, both the cable and the CaP are ready to be reused for another connection.



When and how the CaP&Push should be used

The CaP is meant to be used as a direct replacement of the F-type male metallic connector, either crimp or twist-on type. These include all coaxial connections which are not supposed to be often disconnected and connected again (typical example are CCTV systems).

In cases where coaxial cable is meant to be frequently connected and disconnected, such as in domestic and office systems with satellite receivers, we strongly suggest the use of the CaP&Push. This includes a quick metallic F male connector fixed to the head of the coaxial cable by means of the CaP. The CaP&Push should normally remain permanently mounted on the head of the coaxial cable, so we strongly suggest to mount the CaP&Push in the "alternative way" with the external sheath and the braid of the cable pressed between the CaP and the rear part of the CaP&Push, as shown in the following drawings and in the supplied sample cable N° 3.

A cable headed in such a way can be connected and disconnected by any user in a much easier and faster way than conventional F male connectors which need to be screwed/unscrewed to the F female.

A well assembled coaxial joint using 80% braid coverage connected in the normal way can be put into boiling water or ice and still performing well.

The CaP and the CaP&Push connectors have been designed specifically for the F female connector (the patent however applies to a generic concept and therefore covers any coaxial standard; new versions of the CaP for different connection standard are under design; see the chapters below).

The CaP can still be used to connect coaxial cables to any female or male coaxial connector belonging to any standard different from the F-type, simply by using the proper adapter from the F female standard to the requested male or female new standard.

The connection can be made to any coaxial standard (BNC, RCA, N, SMA, SMB, TNC,). Since the CaP is entirely made of a special non-conductive plastic and therefore does not modify the impedance of the connection.

Our aim is to continuously enlarge the CaP System with new products; examples of products which are under constant development.

The CaP is patent pending (International Patent Application N° PCT/IT96/00236).

We have passed patent examinations made by the European Patent Office and we are waiting to receive the European patent. We have also started the procedures to request the patent outside the EC in all other states. [•]

For all further information please contact:

Telecom&Security

Tel: (+39).0871.404448

e-mail: info@telecomsecurity.it

Web: www.telecomsecurity.it