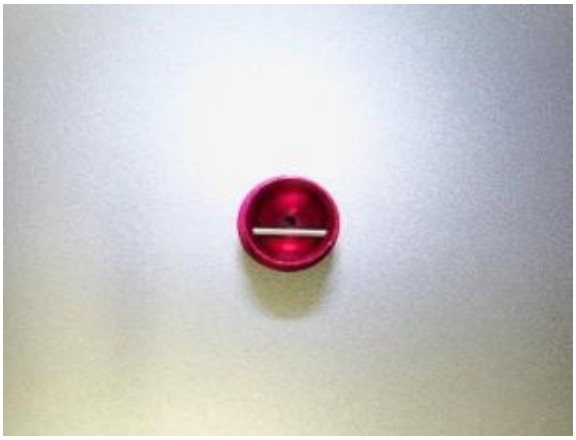
Installing the Multiplex tow release in your EZ Pro

Both the Multiplex Easy Glider Pro and the Multiplex Cularis sailplanes come with a pre-drilled nose cone to facilitate the installation of the Multiplex Aero-Tow Coupling part # 72-3470. (This coupling is not provided in either kit and must be purchased separately.

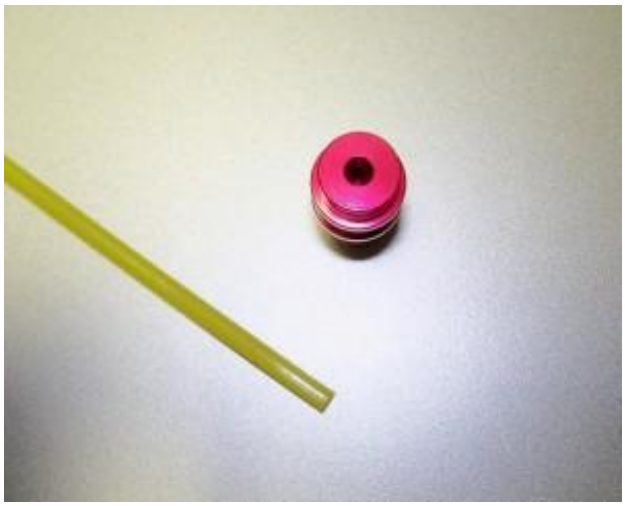
The front of the coupling is concave with a small hole in the center and a cross bar (capture bar) just off center. Multiplex recommends that you install the coupling so that the cross bar is oriented horizontally with the center hole (through which the pushrod extends to capture the towline) located above the bar. We have seen installations where this bar was oriented every which way but horizontally and the coupling still worked fine. The point is, standardizing this installation will be very helpful when you have multiple Easy Gliders and are trying to hook up and tow with maximum efficiency.



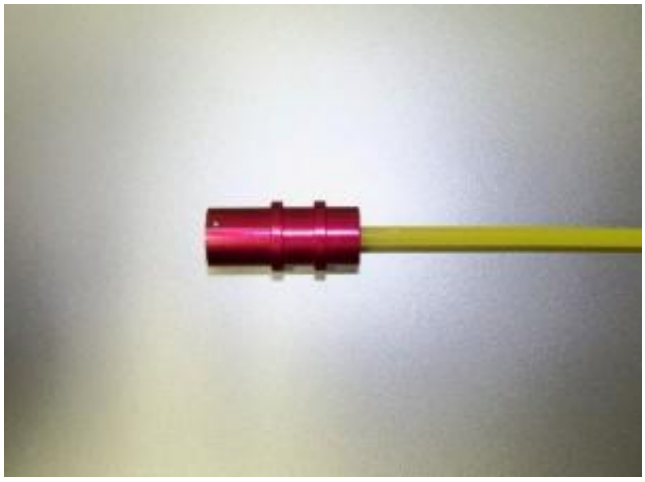
Note center hole and capture bar

The back of the coupling has a 3.0mm hole into which you can insert a nylon

guide tube. An inner piece of pushrod tubing can be used for this and we have found that the inner tube from Sullivan Gold-N-Rod pushes into the coupling with just the right amount of detent. We have also used the inner tube from DuBro Lazer Pushrod, but it is slightly oversize and must be sanded or trimmed down somehow so that it will fit into the coupling.



insert nylon guide tube in this 3.0mm hole



side view with tube inserted

Since the battery pack for the Easy Glider Pro must be located in the nose, the pushrod for the tow release coupling must pass through the center of this battery pack. The nylon guide tube will shield the metal pushrod from the battery cells. When selecting a battery pack, find one that has the wires routed out the side of the pack and not down through the center of the pack.

Select an appropriate size battery pack

We like the 4.8volt 2,000mAh NiMH packs that are now readily available. They have a much greater capacity than NiCd packs of the same size and weight and therefore offer more hours of operation between charges. On a good soaring day or fun aerotowing day, who wants to stop in the middle of the action to recharge!

Prepare pack so tube can pass through the center

Carefully make a small hole in each end of the battery pack and slide the nylon tube through the center of the pack.

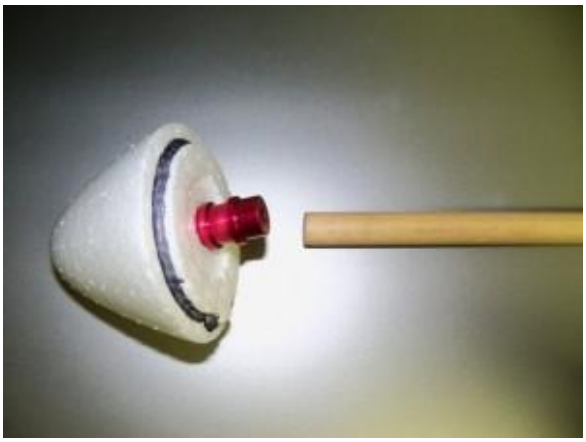
The pushrod will need to be a piece of 0.047″ wire (the small hole in the coupling is metric and 1/16″ music wire [0.062"] is too large in diameter to pass through). The DuBro Micro Pushrod Set uses this 0.047″ size wire, so check around your workshop to see if you may have a short piece of wire left from another project. We always keep the excess pieces of wire from our projects for this very kind of reason.

Back Side of Easy Glider Nose Cone

The nose cone of the Multiplex Easy Glider, and the Multiplex Cularis, have a notch on the bottom back side to assist in properly orienting the piece. Note this notch when installing the tow coupling into the hole in the center of the nose cone. When you instert the coupling into the hole in the nose cone, it is a very snug fit and you will not be able to readily rotate the coupling once it is pushed into place.

Front of Easy Glider Nose Cone

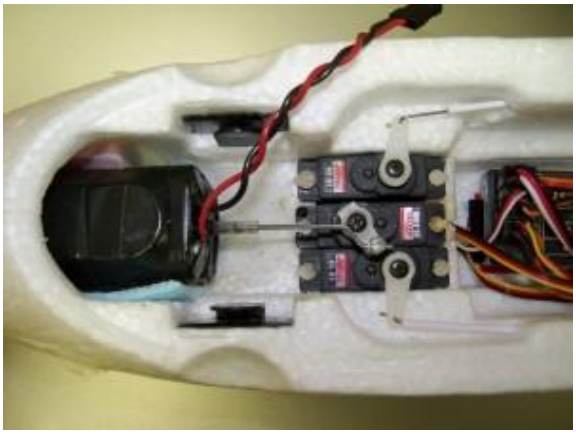
We like to use a Shaffer Sharpie marker pen to make a dot on the front side of the nose cone to assist in the proper orientation of the coupling within the nose cone. A piece of wooden dowel rod makes a nice tool to push the coupling into the nose cone. It will take some force to do this, so be careful as you proceed. once you have pushed the coupling forward enough that it is flush with the front of the cone, lock it in place with some thin CA and a spritz of CA kicker.



Inserting Coupling into Nose Cone

Our first Easy Glider had an HS-55 servo to drive the tow release pushrod. The inevitable nose “doink” landing stripped the little gears in the HS-55 and taught us a lesson, metal gear servos are better for this application than ones with plastic gears. The Easy Glider Pro uses HS-81 servos for the rudder and elevator and there is a perfect size space between them to install another HS-81MG servo (or HS-82MG) to drive the tow release pushrod. DuBro makes a Mini EZ connector that is perfectly sized to attach the 0.047″ music wire pushrod. We made a small Z bend in the 0.047″ pushrod to help line it up with the Mini EZ Connector on the servo arm. Once the servo connection is

completed, foam rubber can be used to support the battery pack and let it “float” slightly as the servo actuates the release pushrod.



A completed installation

Typically, the retract gear switch on the transmitter is used to operate the tow release coupling.