



**General:**

Installing .025-inch centers probes is a delicate process. Three areas require special attention:

1. Drilling straight holes of precise diameter and location to optimize probe registration and targeting.
2. Fixturing such that the sockets do not touch each other (the gap between socket bodies is .005 nominal).
3. Installing probes and sockets in a controlled manner to minimize the possibility of damage to the delicate components.

**Drilling:**

The finished mounting hole diameter is .0205/.0215 inches (0.521/0.546 mm). Use a #75 or .55mm drill, depending on the material, drill feeds and speeds, and drilling technique.

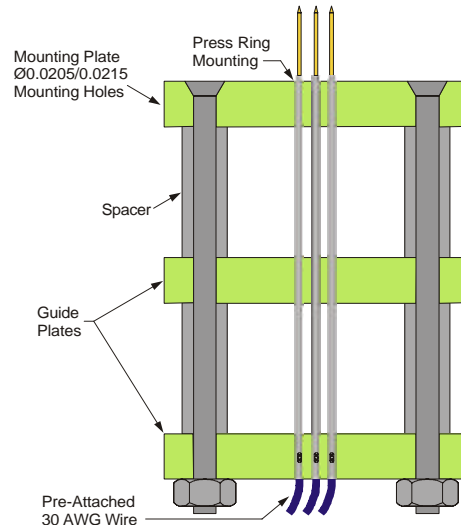
Homogeneous plate materials such as Lucite, Nylon and Delrin are recommended. It is difficult to drill straight holes of this diameter in fibrous materials such as G-10 and phenolic.

For best registration, first center-drill the mounting holes. For the finished hole, use a drill with the shortest flutes that will clear the material thickness. Solid carbide, PC-board drills with 1/8" dia. shanks are recommended.

Chip removal is important and can be easily done by peck drilling while a small air stream clears chips at the top of the hole. Check the finished hole diameter from both sides with gage pins or part number PG25 Go/No-Go Tool

**Fixturing:**

A chief concern in the design of small-probe fixtures has been eliminated since the sockets are retained by interference fit instead of by epoxy mounting. The major difference between fixturing methods for these probes and most larger center spacing probes is that extra consideration must be given to preventing adjacent sockets from shorting. Three drilled plates, properly registered, will provide this protection as shown in the sketch.



025-16 Series Suggested Fixturing Method

**Installation:**

Slide the socket into the fixture assembly carefully by hand until the press ring portion rests against the top edge of the mounting hole.

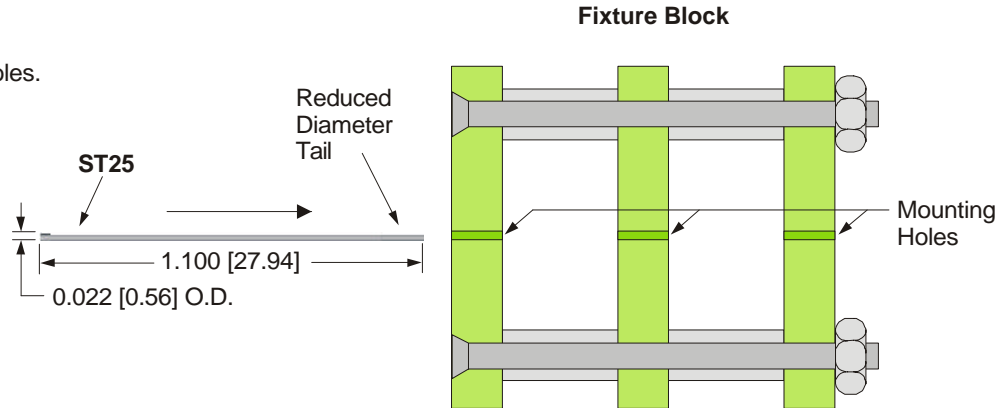
If using sockets with pre-attached wire in multi-plate fixtures, use the ST25 socket-threading tool to facilitate feeding the wire through the plates. Slide the tool (reduced end first) into the plates until it is flush with the top plate. Then feed the 1.5" long stripped end of the wire into the tool until it protrudes from the reduced end. Pull the wire through with the tool and slide the socket in as described above. (Refer also to the illustrated instructions for using ST25).

Install the sockets by pushing them flush with a small press or other controlled method of applying force perpendicular to the mounting plate. A hard, flat pusher (the end of a gage pin, for example) should be used for socket installation. Install lone sockets one at a time. Install groups of sockets on .025-inch grid together to avoid reducing the diameter of adjacent mounting holes. Insert the probes into the sockets and push gently with a flat, non-metallic object to seat them fully.

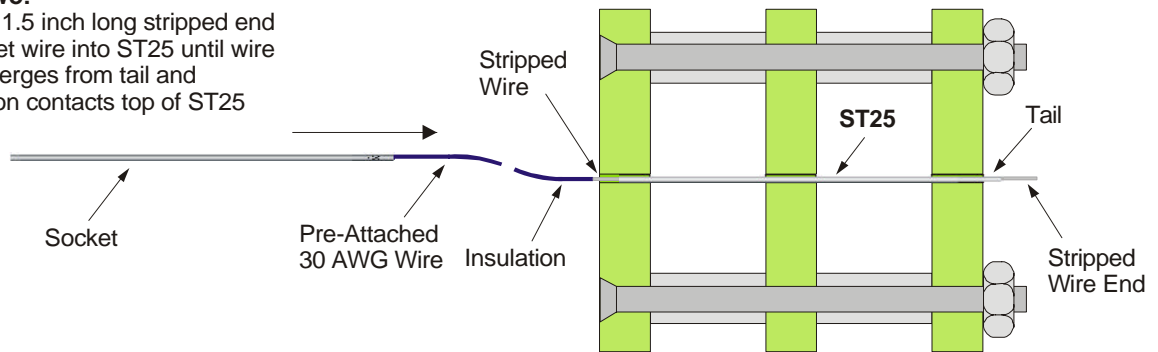
# Steps for installing 025-16 series sockets using ST25 tool

The ST25 helps thread the pre-attached wire of 025-16 series sockets through the holes in multi-plate fixtures. Here's how to use it.

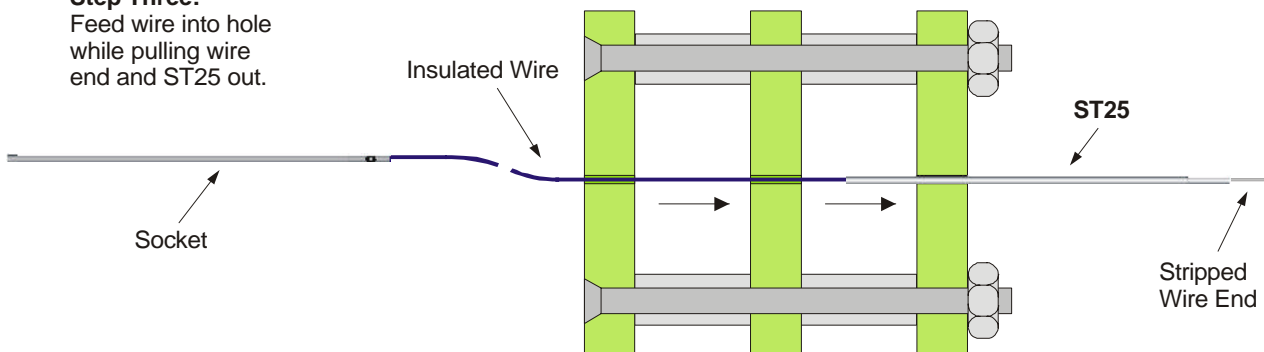
**Step One:**  
Slide ST25 fully in to socket mounting holes.



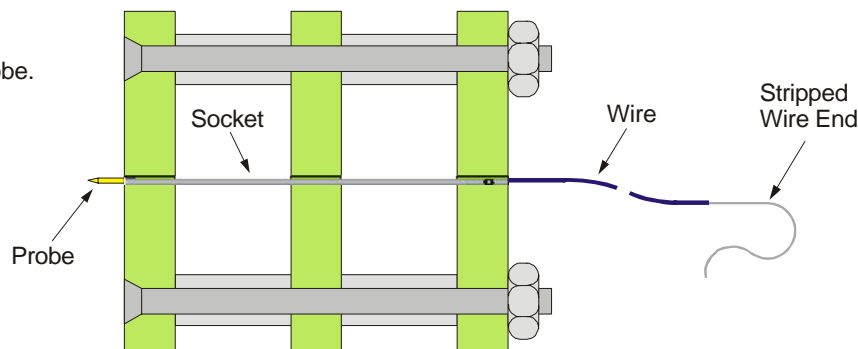
**Step Two:**  
Thread 1.5 inch long stripped end of socket wire into ST25 until wire end emerges from tail and insulation contacts top of ST25



**Step Three:**  
Feed wire into hole while pulling wire end and ST25 out.



**Step Four:**  
Slide ST25 off wire, Install socket and probe.





## Socket Removal:

A 025-16 Series socket can be removed a number of different ways. Note that it does not take a lot of force to remove these sockets.

The socket is designed to mount flush with the top of the socket mounting plate because the press ring is at the top of the socket.

- 1) If mounting in acrylic or similar plastics, the socket can be pulled through the mounting plate by gently pulling on the pre-attached wire or body of the socket with needle nose pliers. (It is often better to leave the probe in the socket if pulling on the socket with needle nose pliers as the probe helps the socket to resist crushing).
- 3) If the wire is missing you can push straight down on the back of the socket with a flat pusher forcing the socket up through the mounting plate.
- 4) You can also take a .021" diameter gage pin, place it on top of the socket and gently push or tap the socket out.
- 5) Another method is to put a small drop of "super glue" on the end of a probe and install it into the socket and once hardened, pull both out together.