

Crimp Connectors



A simple approach to consistency

Paul B. Peters, VE7BZ

Disclaimer

This presentation is not intended to suggest any one method of making coax connectors is significantly better or technically superior to another method.

It will however showcase an industry standard method used for coaxial termination on RG-213 cable.

One thing in common



Require termination of coax cable



OH8X

Traditional methods used

- **Solder**
- **Crimp**
- Hydraulic press
- Off-shore cables with connectors

Solder process connectors

- Process has tremendous history
- Endless list of best methods
- Some good methods do exist
- Heat can be the enemy
- Poor quality connectors and coax
- Repeatable quality is questionable
- Production time is dependent on method

Your results may vary



What happens inside

- Heat applied during a manual (solder style) production process can cause problems and change electrical properties within the coax



Commercial grade connectors

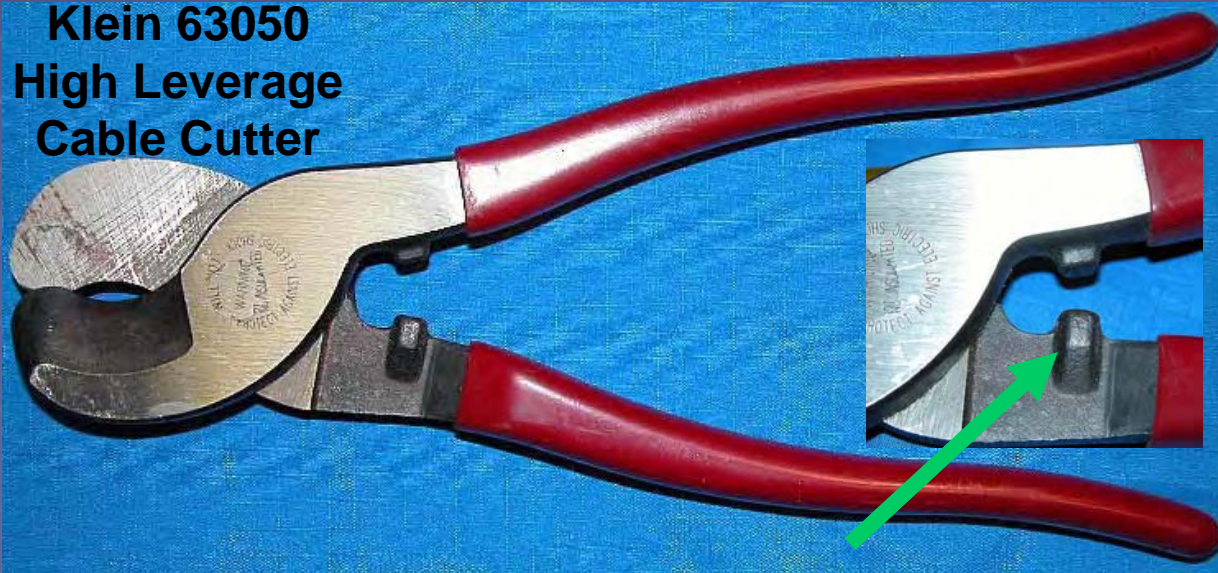
- Crimp connectors are industry standard
- Repeatable process with quality results
- Connectors for all cable types
- Tools are inexpensive and easy to use
- Production time is dramatically reduced
- Consistently good end product
- Mechanically very strong
- Clean up RFI issues in your station

Are you ready for a change?

Basic tools for the job

- Get the right tools for the job
- Buy quality crimping & stripping tools
- Investment for the long-term

**Klein 63050
High Leverage
Cable Cutter**



Crimping Tools



RF Industries
RFA-4005



LMR-400

Stripping Tools

LMR-400



DXE-UT8008



DXE-UT8000



RG-213 & RG-8



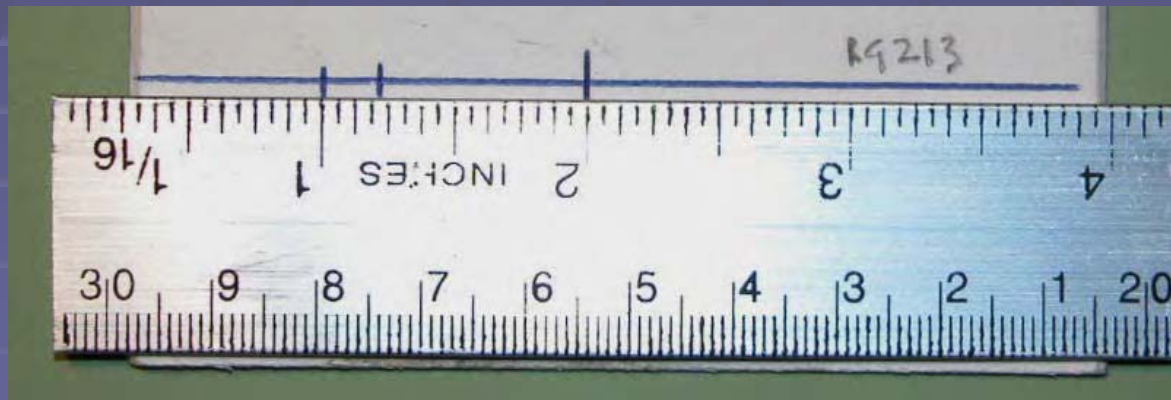
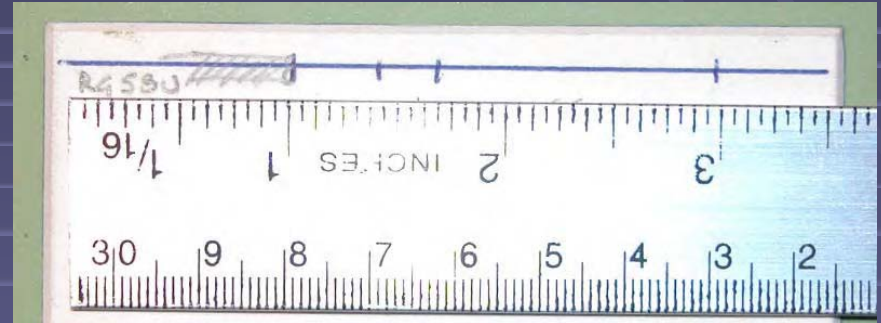
The Cablematic DXE-UT8000

- DX Engineering tool
- RG-213 and RG-8
- Needs to be modified
- Stock strip is too short
- Blind centre plug must be drilled out
- Blade quality great



Develop cut lengths

- Practice the process
- Develop trim charts
- Use the trim charts



Good quality coax and crimps

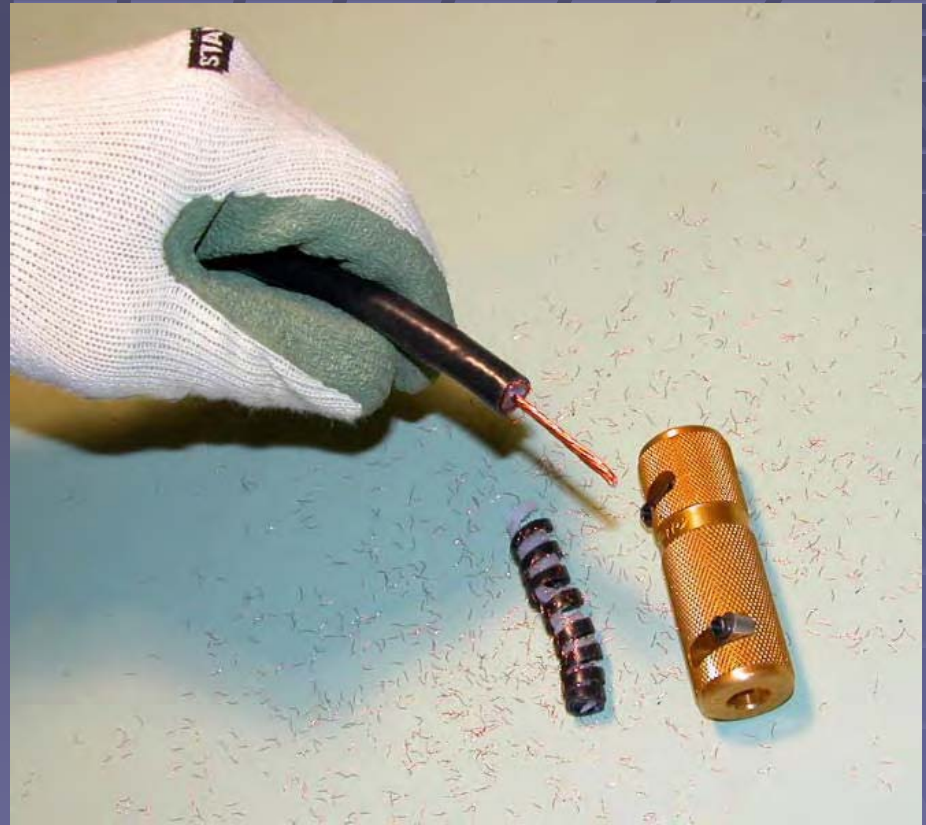


Connectors are: SST (silver body, silver barrel with a Teflon centre)

Start the process – Step 1



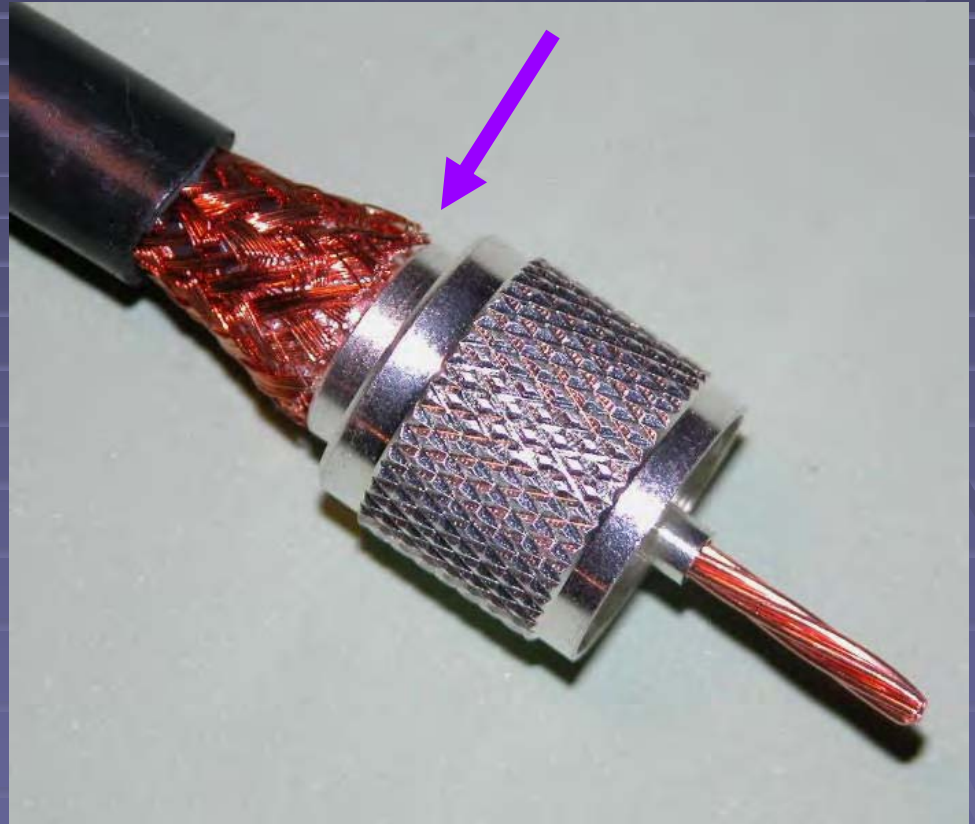
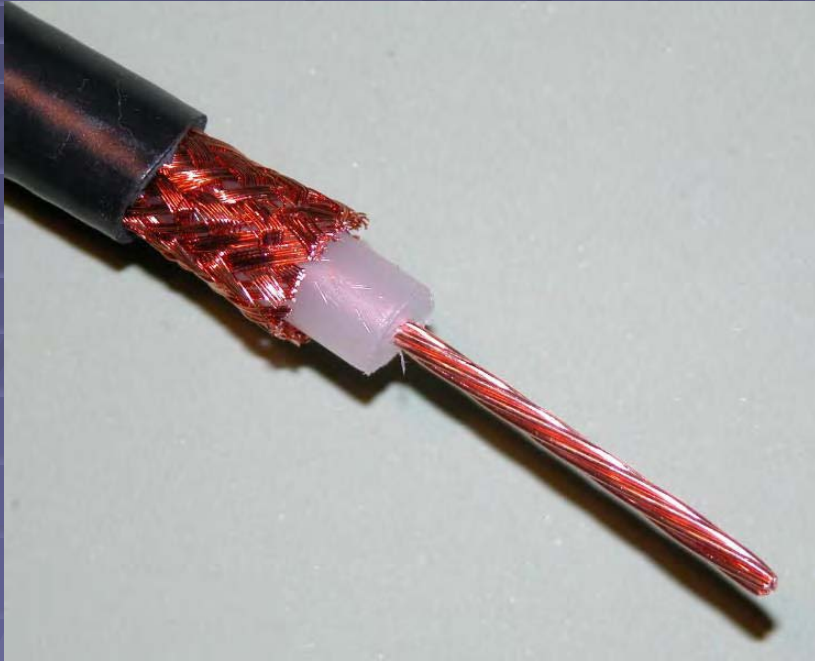
Step 2



Step 3



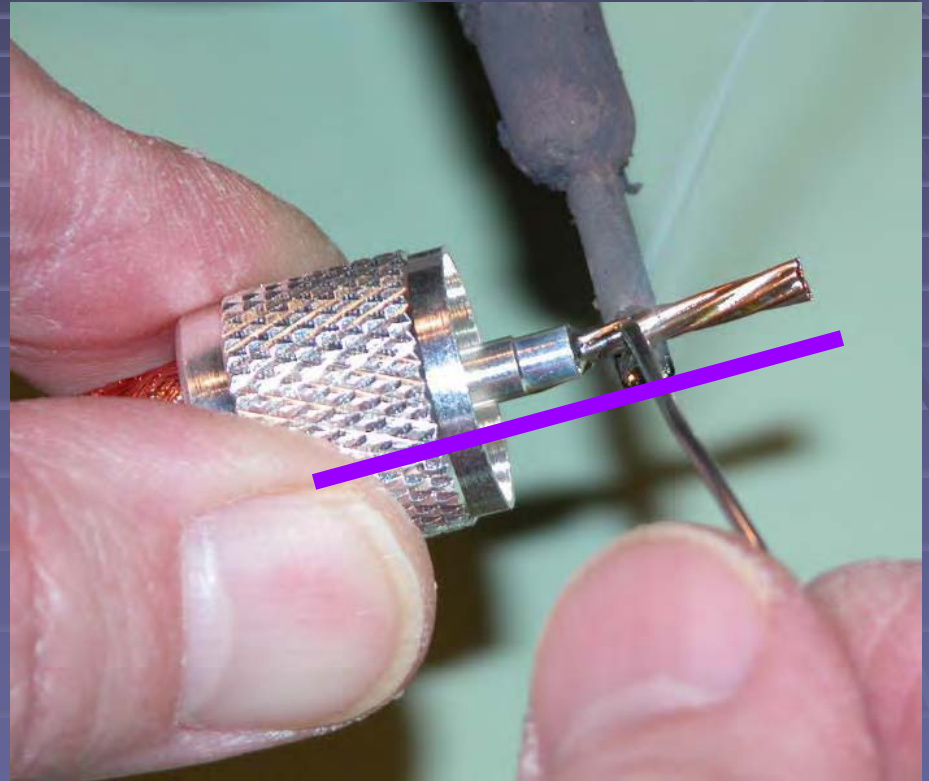
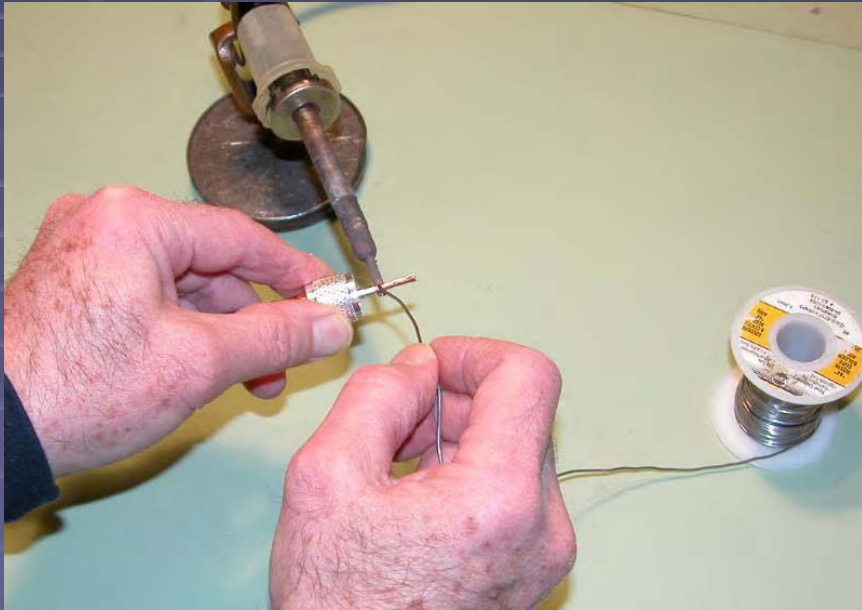
Step 4



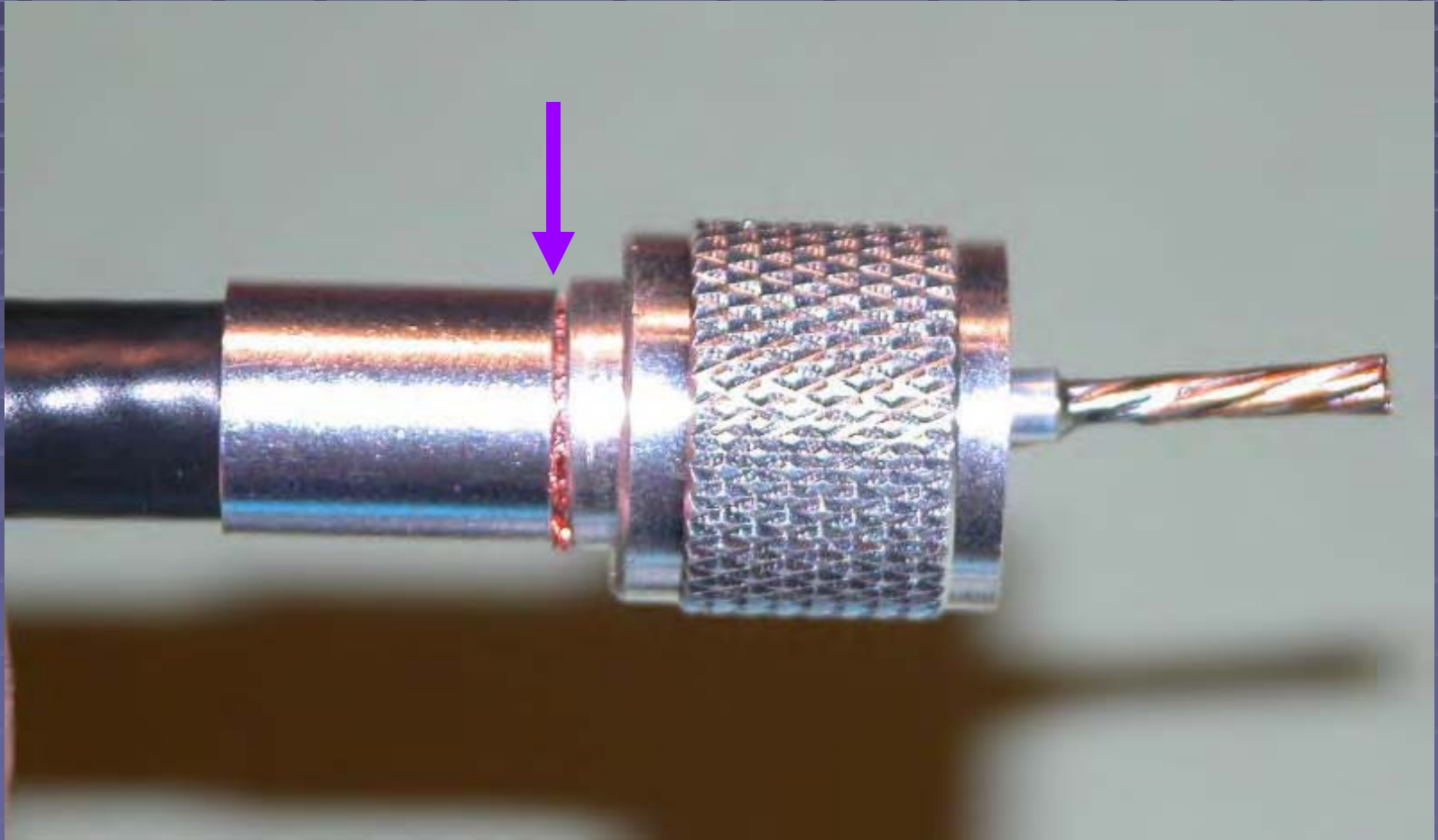
Extra hands help



Step 5 – applying even heat

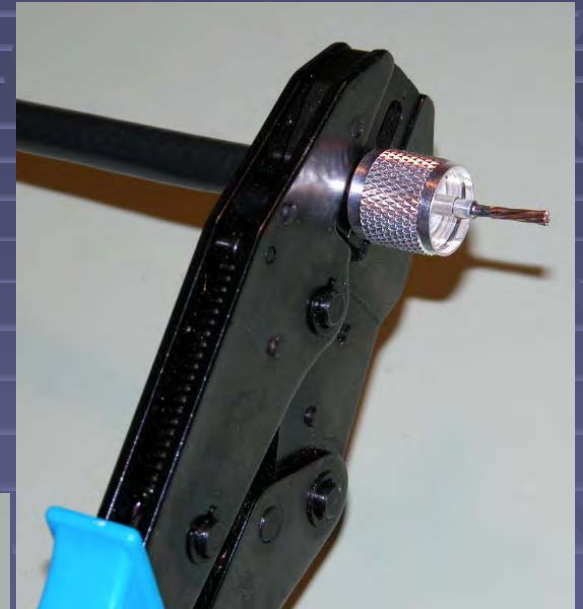
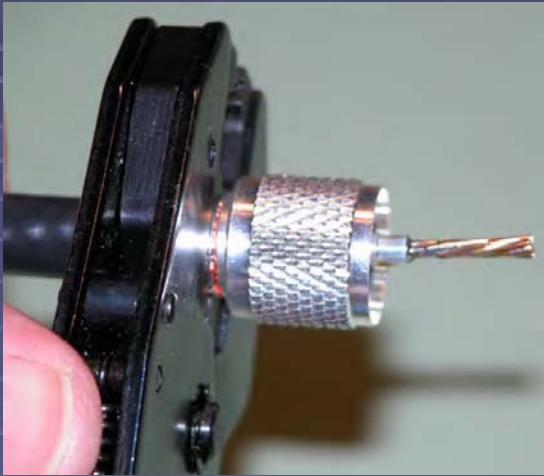


The half-way point

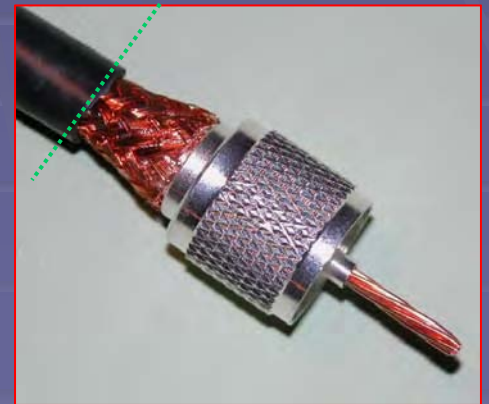


Step 6

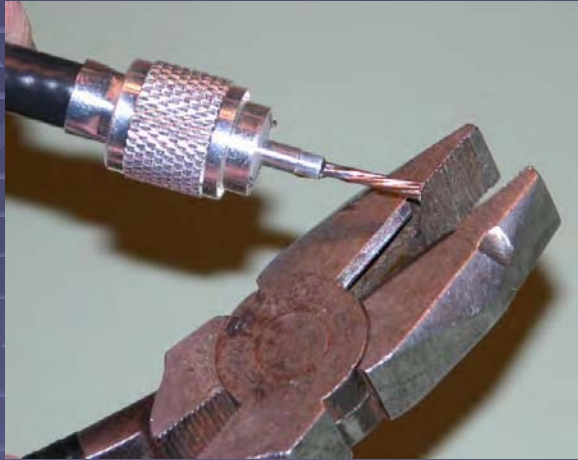
Only crimp once!



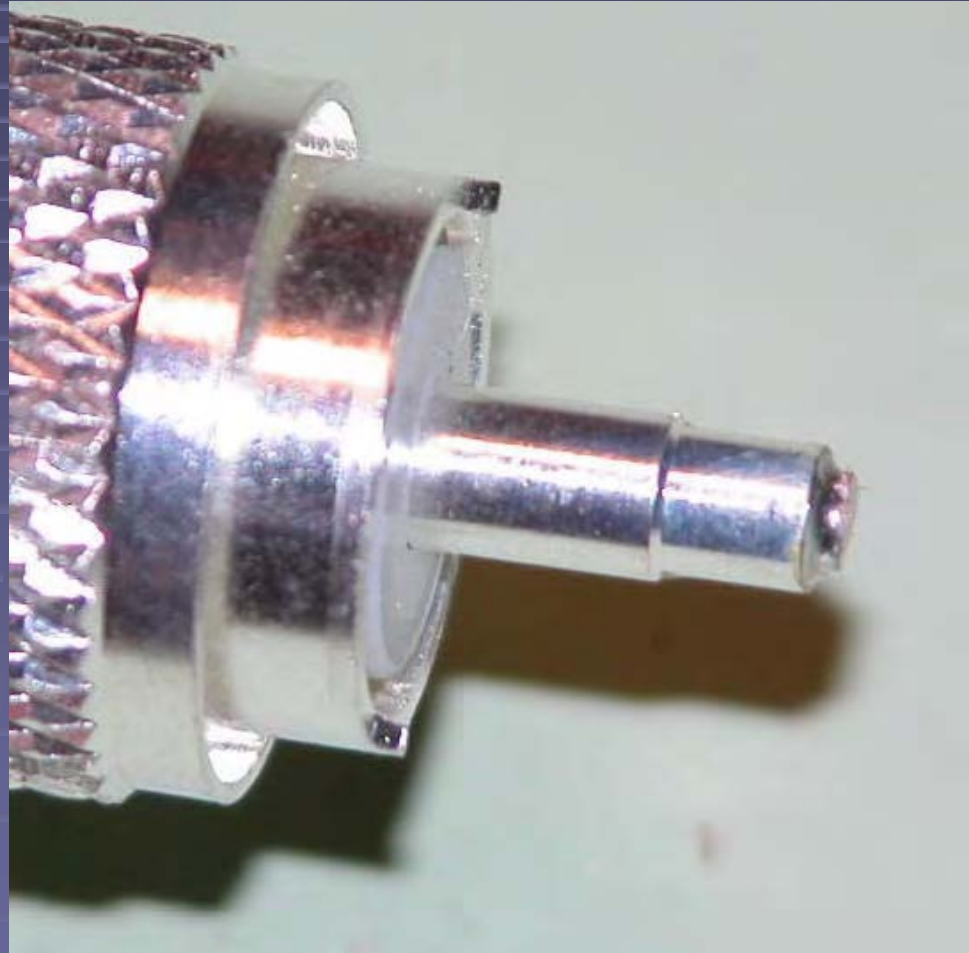
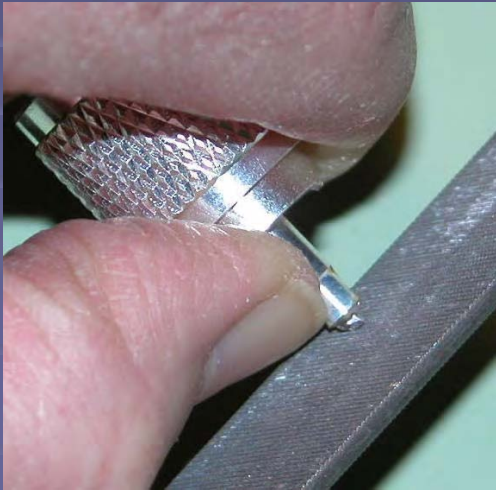
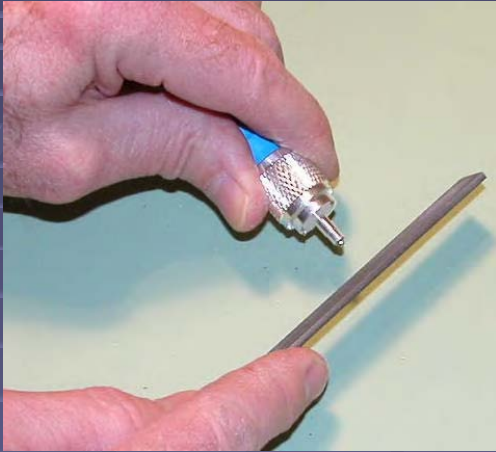
Do not crimp the small raised tail portion



Step 7



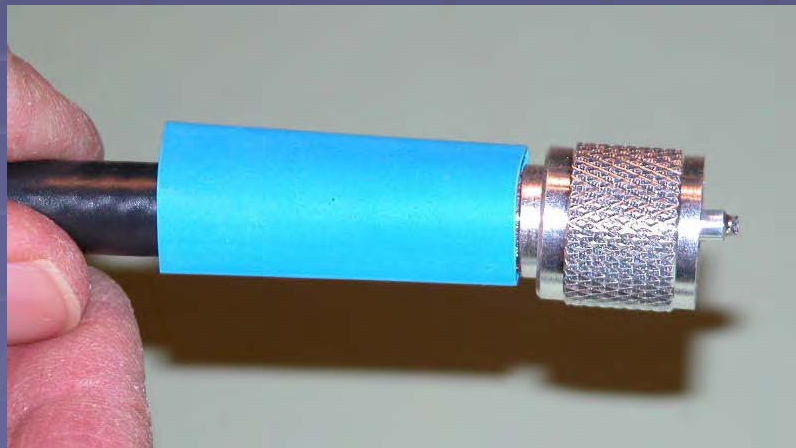
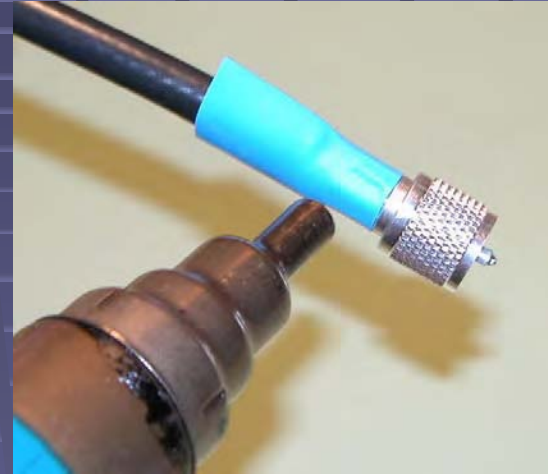
Finishing touch



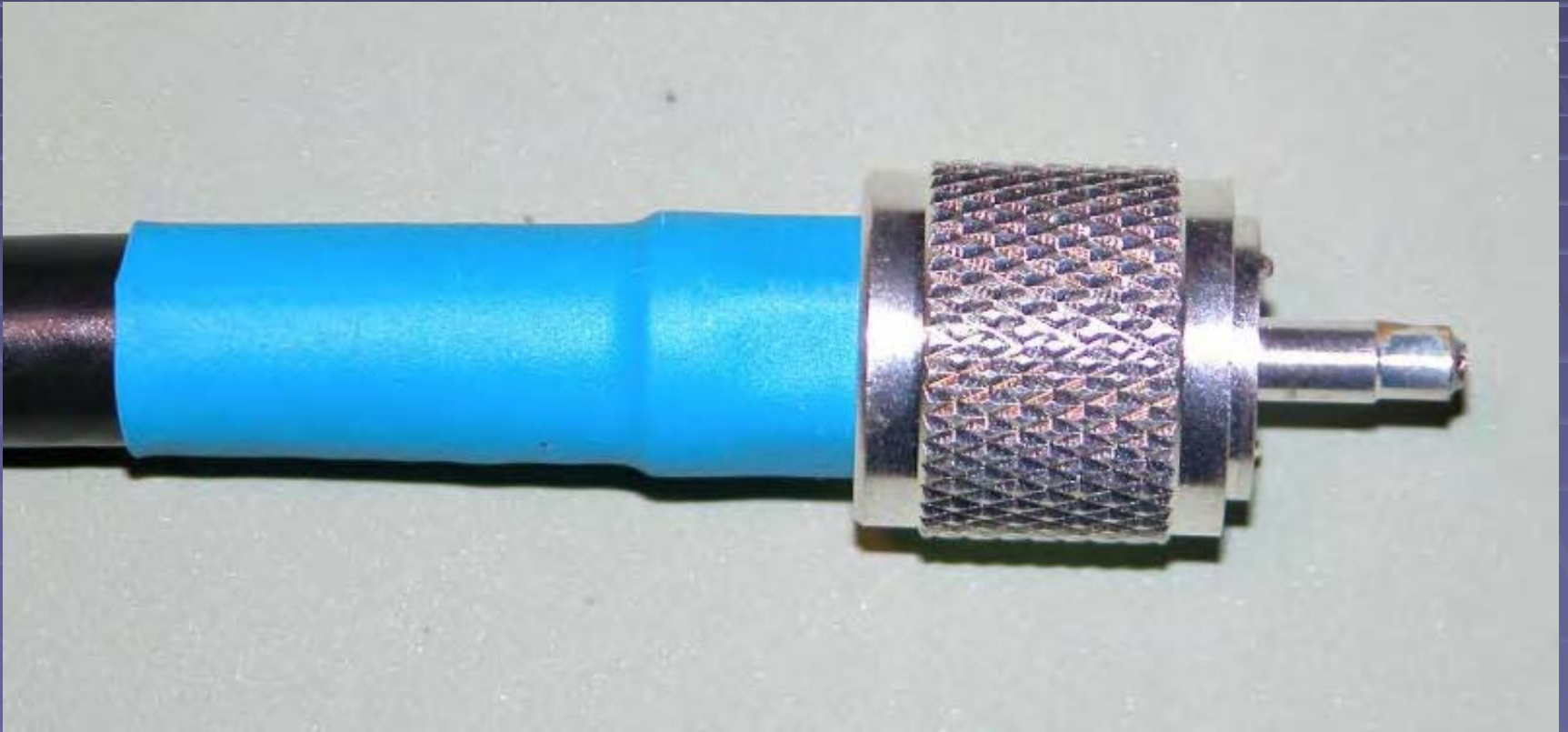
Cosmetic final step



Makita HG1100



Finished product RFU-507ST on RG-213



Connector wisdom

- Keep the connector assembly process clean
- Remove tiny fragments of braid laying on the dielectric or touching the centre conductor
- Only crimp once
- Do not crimp down the raised tail portion
- Short jumpers are built with first connector still on the cable roll – then cut to length
- Use the best crimp connector you can purchase
- Label your crimp connector inventory
- Make notes so you can repeat your success

Final comments

- Process takes practice to make perfect
- Cablematic tool can be frustrating at first
- Crimp connectors are a very reliable alternative to any solder-on connector process
- RF Industries is the connector line of choice
- These connectors easily take legal limit+ power
- Use the '3-layer approach' for closure on all weatherproof joints with 3M vulcanizing tape as the middle layer

The End