

COMPONENTS REQUIRED

The listed components are products that we carry. Other coax cables and RCA plugs will work just as well. Visit [John Risch's](http://JohnRisch.com) web site for technical information, design and cable recommendations.

DESCRIPTION	QUANTITY FOR ONE PAIR
● Belden 89259 Coax Cable	2 (Equal Finished Lengths)
● Cardas SLVR RCA Plugs	4
● Ø1/4" TechFlex	2 (1" Shorter than Coax Cable Length)
● Ø1/2" 3:1 Ratio Adhesive Heatshrink	4 (2.5" Long)
● Cardas Quadeutectic Solder	As required



89259 Coax



SLVR Plug



1/4" TechFlex



1/2" Heatshrink



Cardas Quadeutectic Solder

TOOLS REQUIRED

The below list are suggested tools that can be used to build these cables. Through trial and error we found that the **optional tools** worked well with our method of assembly.



Coax Stripper



Soldering Iron



Stripper/ Cutter



Heat Gun



Multimeter

(Optional Tools):



X-Acto Knife

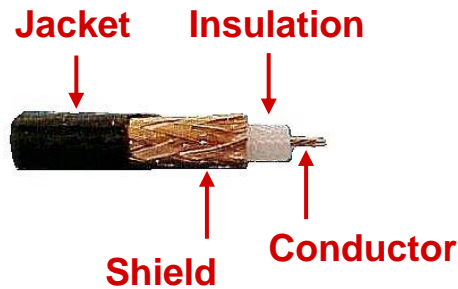


Philips Screw Drive



Vise

PREPARING BELDEN 89259 COAX CABLE



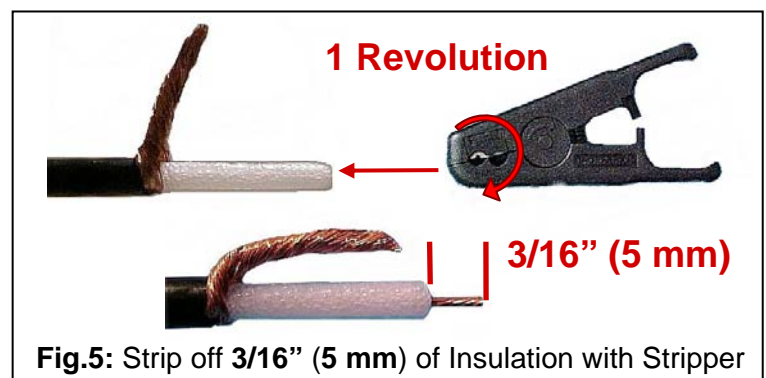
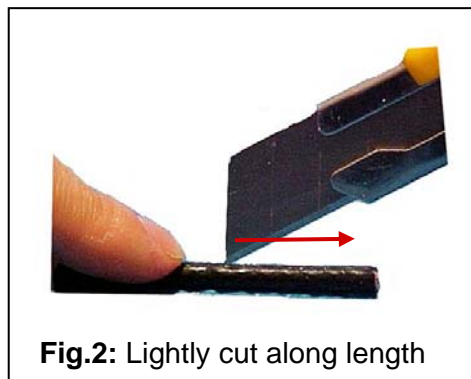
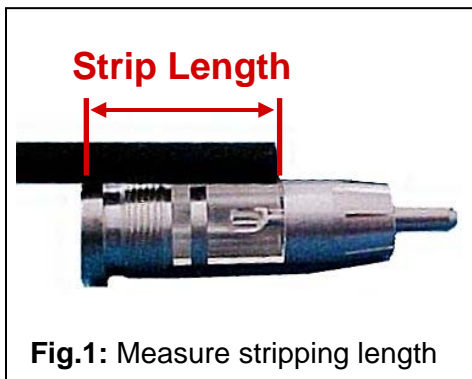
1. Using a cable stripper/cutter, cut 2 equal lengths of Coax cable to your preference
2. Measure approximate stripping length of coax against SLVR RCA barrel (**Fig. 1**)
3. Using an X-Acto knife, lightly cut Jacket along measured length of coax (**Fig. 2**)

NOTE: The X-Acto knife was used because the coaxial stripper tends to strip away the shield.

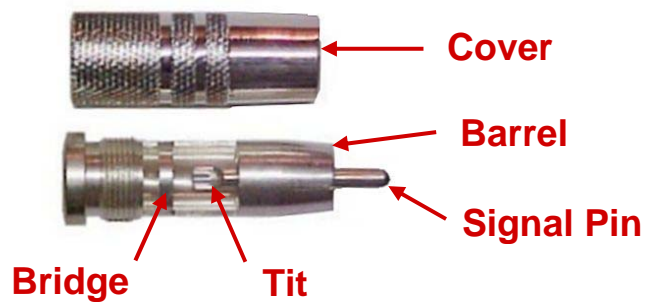
4. Pull back slit Jacket and trim away excess (**Fig. 3**)
5. Comb back shield and then twist together (**Fig.4**)

NOTE: When using coaxial stripper to remove the insulation, turn one revolution only. Any more than one revolution may cut into the conductor. Practice using coaxial stripper on a test piece before using it on your good cables. The stripper/cutter may be used in place of the coaxial stripper.

6. Strip away approximately 3/16" (5 mm) of Insulation with Coaxial Stripper (**Fig. 5**)



PREPARING CARDAS SLVR RCA PLUG



7. Bend the bridge to accept twisted shield by placing Phillips screw driver on mid-point of Bridge (**Fig. 6**)
8. While holding both in place, take Pliers and carefully tap onto Phillips screw driver to bend Bridge (**Fig. 7**)

NOTE: Do not over bend the Bridge. Doing so will cause interference with coax insulation. Center of the Bridge may crack while bending. This is normal due to brittleness of the material.

9. Bend Bridge until gap is just large enough to fit twisted shield (**Fig. 8**)

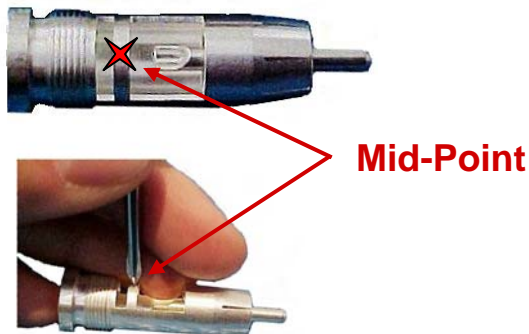


Fig.6: Place Phillips Screw Driver on mid-point of Bridge

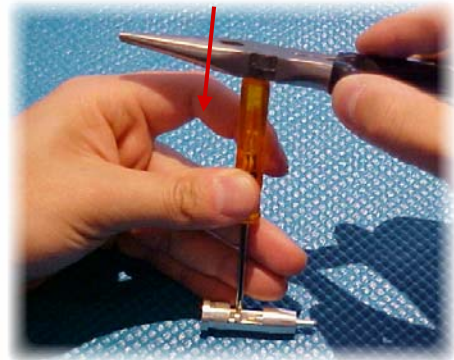
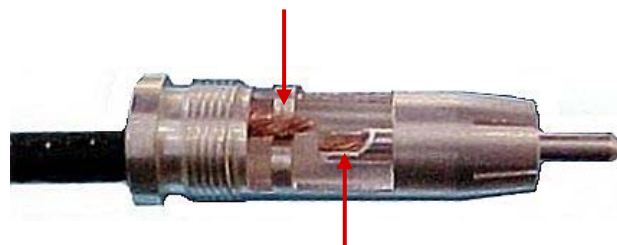


Fig.7: Tap until Bridge is bent



Fig.8: Bent Bridge for Copper Shield

Twisted Shield (Ground Wire) Connection



Conductor (Signal Wire) Connection

SOLDERING AND DRESSING THE CABLE



10. Place soldering iron tip on both the Conductor and Tit to preheat for solder (Fig. 9)
11. While keeping soldering iron tip in place, apply solder sparingly to both the Conductor and Tit (Fig. 9)
12. Solder Twisted Shield to Bridge using the same method as steps 9 and 10

NOTE: Before connecting the RCA plug at the other end, we must first insert TechFlex and Heatshrinks

13. Using the non terminated end, slide Techflex and the two $\text{Ø}1/2" \times 2.5"$ long heatshrink over cable (Fig. 10)
14. Repeat steps 9, 10, and 11 to terminate the other end
15. Using a Multimeter, test for cable short by placing one lead on signal pin at one end and the other lead on Barrel or Cover at the other end (Fig. 11)

NOTE: An Infinite or NO Value indicates that the cable connection is good and not shorted.

16. Screw RCA covers back on...then place heatshrink about 1/2" over RCA plug and shrink entire length to size using Heat Gun. Finished product shown above.

