Shively Labs®

Fine-matching transformer for extended FM

Fine-tune your antenna for optimal performance!

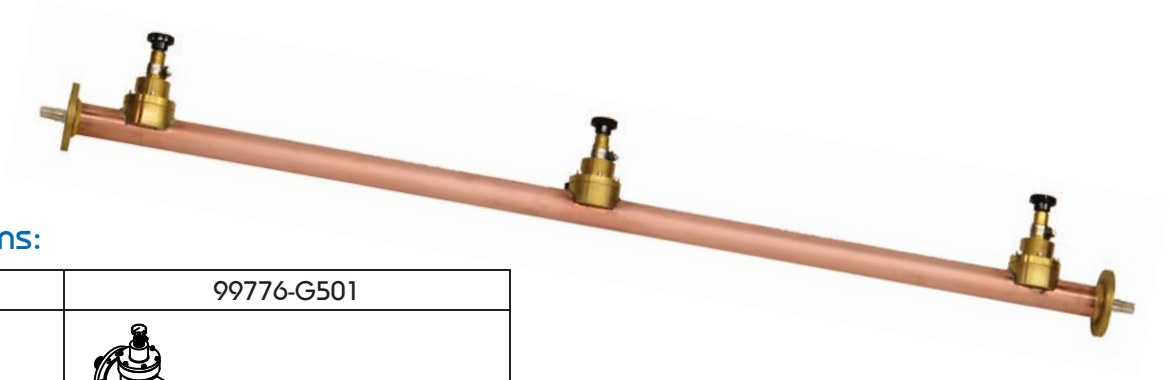
The Shively fine-matching transformer is designed to compensate for VSWRs as high as 1.35:1.

The Shively fine-matcher is a triple-stub matched Pi network and uses three simple push-pull plungers for tuning. It is designed to be tuned under pressure. This allows the final tuning of the antenna system to be done after the system is cleaned, closed, purged and pressure-tight, to prevent contamination of the antenna or transmission line during final tuning.

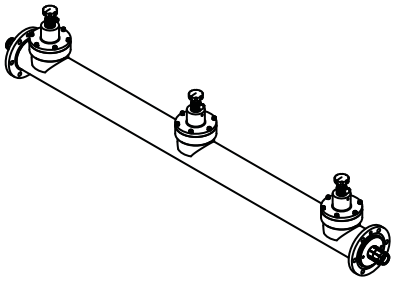
Transformers can also be used at other points in the transmission chain to trim VSWR that cannot easily be matched out by other methods.

NOTE

Shively fine-matching transformers must be pressurized when used outdoors and in environments that are not climate-controlled. Unpressurized operation is permitted when used in clean, dry environments.



Specifications:

Part No.	99776-G501
	
Coax size	1-5/8"
Input	1-5/8" EIA female
Output	1-5/8" EIA male
Weight	15 lb (11.8 kg)
Average power rating	15 kW @ 98 MHz 16.5 kW @ 82 MHz
Overall length, flange-to-flange	54 in (137.2 cm)

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Transformer adjustment procedure

The transformer is matched at all frequencies when the control shafts are all the way out.

Adjust the transformer as follows:

a. Loosen the hose clamps on the control rods enough to allow the rods to move.

b. Grasp one of the control rods and slide it in or out about 1/4 inch or 6 millimeters. It will move stiffly because of O-ring friction.

c. Read the VSWR. If the reading went down, move the control rod again in the same direction. If the VSWR went up, move the same rod in the opposite direction. Repeat until no further improvement is seen.

d. Adjust the second and third rods in the same manner.

NOTE

If you get "lost," return all three rods to the factory setting (all the way out) and start over.

e. Return to the first rod, and so forth, until you have the lowest possible VSWR or return power reading. This is the optimal transformer setting at this frequency.

f. When you have set the transformer, use a sharp point to scribe the shaft of each control rod where it leaves the flange collar. Record the settings of the control rods and file this information with this manual for future reference.

g. Tighten the hose clamps. If the clamps are left loose, vibration may change the adjustments.