ASSEMBLY INSTRUCTIONS

Type 874-C58A CABLE CONNECTOR

50 OHMS

APPLICABLE CABLE TYPES: General Radio 874-A3,RG-29/U,-55/U(series),-58/U(series), -141A/U,-142A/U,-159/U,-223/U.

(U. S. Patent No. 2,548,457)

FORM 0874-0393-C, MARCH 1966

GENERAL RADIO COMPANY
WEST CONCORD, MASSACHUSETTS, U.S.A.

PARTS LIST

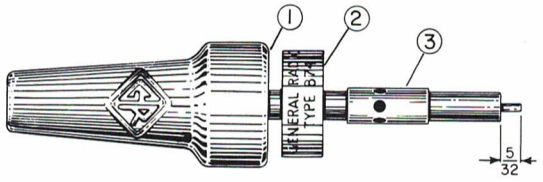
KEY	NAME OF PART	PART NUMBER
1	CABLE GUARD	0874-7641
2	COUPLING NUT	0874-0623
3	FERRULE (Perforated-Green)	5240-4024
3	FERRULE (Perforated)	5240-4023
4	OUTER TRANSITION PIECE	0874-6252
5	RETAINING RING	0874-0810
8	DISK	0874-7590
9	INNER TRANSITION PIECE	0874-6279
11	INSULATING BEAD	0874-0700
12	INNER CONDUCTOR	0874-0612
14	OUTER CONDUCTOR	0874-0603

SPECIFICATIONS

- FREQ RANGE: Dc to 7 Gc
- MAX POWER: 100 w avg @ 1 Gc*
- MAX VOLTAGE: 500 v (peak)
- CHAR IMPEDANCE: 50 ohms

*Varies in inverse proportion to square root of frequency.

ASSEMBLY



A. Slide cable guard (1) on cable, small end first; use talc if necessary.

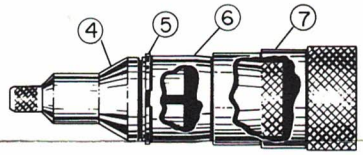
B. Slip coupling nut (2) on cable, shoulder end first.

C. Slide ferrule (3) on cable, perforated end first.

NOTE Green ferrule used for single-braid cable and plain ferrule for double-braid cable.

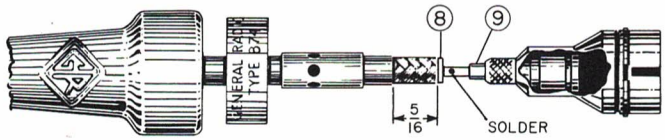
D. Carefully cut away cable jacket, braid, and dielectric to dimension shown. Do not sever any strands of center conductor.

E. Examine cut face of dielectric and remove any stray braid strands.



F. Install front-ring expander (6) (red) over large end of outer transition piece (4).

G. Slide phosphor-bronze retaining ring (5) on expander and push into first groove with ring pusher (7). Remove tools.



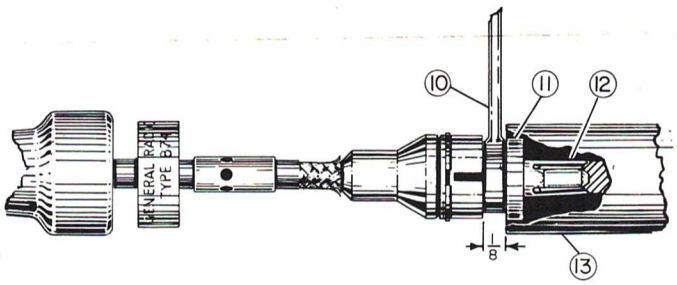
H. Slide white Teflon heat-insulator disk (8) over cable center conductor and push back flush with dielectric, taking care not to unravel center conductor.

I. Install inner transition piece (9) through large end of outer transition piece so that small end protrudes through knurled end of outer transition.

J. Push center conductor into inner transition piece until disk touches transition, and solder. Scrape off excess solder.

CAUTION Excessive heat will melt cable dielectric and affect VSWR characteristics.

K. Remove cable jacket to 5/16 inch and flare end of braid slightly.



L. Push small end of outer transition piece over dielectric, so that knurl slides under braid and jacket.

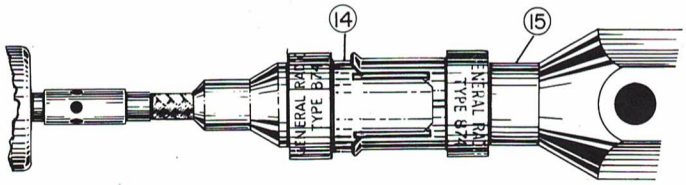
M. Force cable through outer transition piece until hexagonal end of inner transition piece protrudes about 1/8 inch.

N. Grip hexagonal end of inner transition with 1/4 inch open-end wrench (10) and hold stationary.

O. Insert inner conductor (12) in insulating bead (11) and thread into inner transition piece.

P. Insert inner conductor in slot of inner conductor wrench (13), so that slot in bead engages key in wrench, and tighten. Apply 4 to 6 inch-pounds torque.

NOTE: These instructions assume the user to have the full set of Type 874 tools (see over). While not indispensable, the tools assure ease of assembly, uniformity, and good appearance, as well as optimum electrical and mechanical characteristics. Ordinary pliers and wrenches may be substituted.



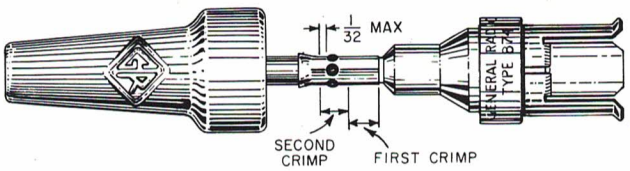
Q. Pull back cable to seat insulating bead against outer transition piece; align either key slot in bead with slot of outer transition piece by rotating transition.

R. Squeeze braid and jacket to restore fit about cable and transition.

S. Slide outer conductor (14) over insulating bead and outer transition piece; long key in conductor must engage slot in transition.

T. Bring coupling nut forward and thread on outer conductor.

U. Grip coupling nut with special wrench (0874-6801), insert outer-conductor wrench (15) in assembly and tighten firmly by rotating coupling nut. From 6 to 10 foot-pounds torque should be applied.

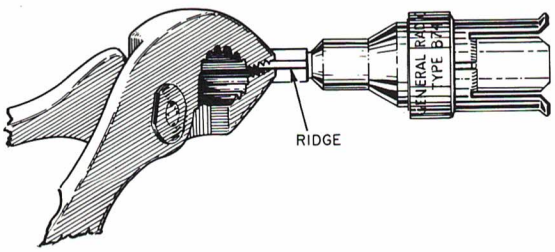


V. Slide ferrule forward over braid to within 1/64 inch of flare of outer transition piece; no braid should show through perforations.

W. Crimp ferrule as indicated using special tool (874-TO58). Crimps should overlap. To use, disengage ratchet lock by squeezing handles together, carefully position ferrule in 0.215-inch die with corners of hex centered over perforations, and squeeze handles together until ratchet lock releases.

X. Slide cable guard forward and seat snugly over coupling nut.

ALTERNATE CRIMPING PROCEDURE



If special tool not available:

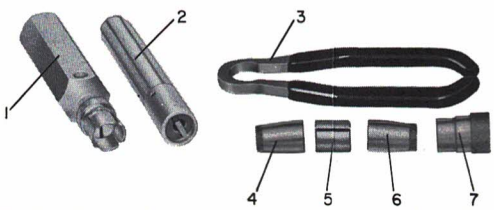
A. Substitute plain ferrule provided and perform steps A through U above. Slide ferrule over braid, to within 1/64 inch of flare of outer transition piece.

B. Press assembly against a fixed surface. Using pliers, pinch ridge of surplus metal longitudinally on ferrule, beginning at transition end, until tight crimp is accomplished.

C. Slide cable guard forward and seat snugly over coupling nut.

SPECIAL TOOLS

Type 874-TOK
TOOL KIT



1. Outer-conductor wrench ....(0874-2610)
2. Inner-conductor wrench ....(0874-2611)
3. Coupling-nut wrench .....(0874-6801)
4. Front-ring expander (red) ..(0874-6820)
5. Keeper for ring expanders (0874-6840)
6. Back-ring expander (green) (0874-6800)
7. Ring pusher .....(0874-6830)

Type 874-TO58
CRIMPING TOOL

GENERAL RADIO COMPANY • WEST CONCORD, MASSACHUSETTS 01781

• NEW ENGLAND: 22 Baker Avenue West Concord, Mass. 01781
• METROPOLITAN NEW YORK: 845 Broad Avenue Ridgefield, New Jersey 07657
• SYRACUSE: Pickard Building, East Molloy Road Syracuse, New York 13211
• PHILADELPHIA: Fort Washington Industrial Park Fort Washington, Pennsylvania 19034
• WASHINGTON and BALTIMORE: 11420 Rockville Pike Rockville, Maryland 20852
• CLEVELAND: 5579 Pearl Road Cleveland, Ohio 44129
• DALLAS: 2600 Stemmons Freeway, Suite 210 Dallas, Texas 75207
• ORLANDO: 113 East Colonial Drive Orlando, Florida 32801
• SAN FRANCISCO: 626 San Antonio Road Mountain View, California 94040
• LOS ANGELES: 1000 North Seward Street Los Angeles, California 90038
• CHICAGO: 9440 W. Foster Avenue Chicago, Illinois 60656
• TORONTO: 99 Floral Parkway Toronto 15, Ontario, Canada
• MONTREAL: Office 395 1255 Laird Boulevard Town of Mount Royal, Quebec, Canada