ASSEMBLY INSTRUCTIONS

Type 874-PB58A FLANGED PANEL 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 0874-0328-C, MAY 1965

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

PARTS LIST

KEY	NAME OF PART	PART NUMBER
1	RING CLAMP	0874-6224
2	LOCKWASHER (Large)	0874-8390
3	COUPLING NUT	0874-0623
4	FERRULE (Perforated-Green)	5240-4024
4	FERRULE (Perforated)	5240-4023
5	OUTER TRANSITION PIECE	0874-6252
6	RETAINING RING	0874-0810
9	DISK	0874-7590
10	INNER TRANSITION PIECE	0874-6279
12	INSULATING BEAD	0874-0700
13	INNER CONDUCTOR	0874-0612
15	OUTER CONDUCTOR	0874-0603
17	PANEL ADAPTOR	0874-6500
—	MOUNTING SCREWS (4)	7060-1800
—	MOUNTING NUTS (4)	5810-2100
—	MOUNTING LOCKWASHERS (4)	8040-1400

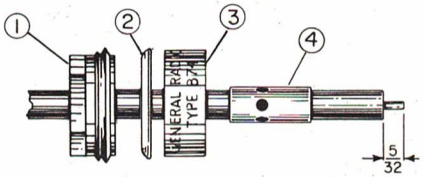
COMPLETE

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. Slip ring clamp (1) on cable, wrench-flat end first, followed by large lockwasher (2), convex surface first.

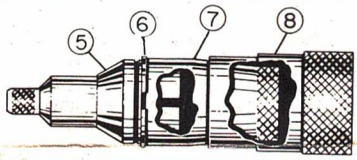
B. Slip coupling nut (3) on cable, shoulder end first.

C. Slide ferrule (4) on cable, perforated end first.

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

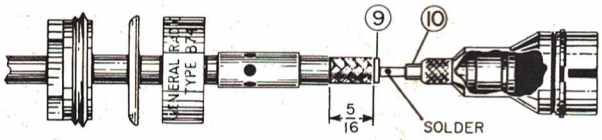
D. Carefully cut away cable jacket, braid, and dielectric to dimension shown. Do not sever any strands of center conductor.

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



F. Install front-ring expander (7) (red) over large end of outer transition piece (5).

G. Slide phosphor-bronze retaining ring (6) on expander and push into first groove with ring pusher (8). Remove tools.



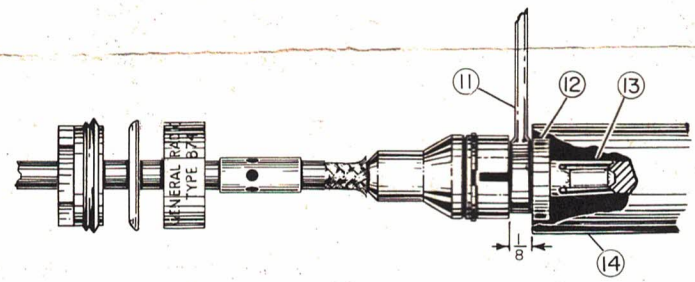
H. Install inner transition piece (10) through large end of outer transition piece so that small end protrudes through knurled end of outer transition.

I. Slide white Teflon heat-insulator disk (9) over cable center conductor and push back flush with dielectric, taking care not to unravel center conductor.

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 cable 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 (11) and hold stationary.

O. Insert inner conductor (13) in insulating bead (12) and thread into inner transition piece.

P. Insert inner conductor in slot of inner-conductor wrench (14) 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.

ASSEMBLY INSTRUCTIONS

Type 874-PB58A FLANGED PANEL 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 0874-0328-C, MAY 1965

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

PARTS LIST

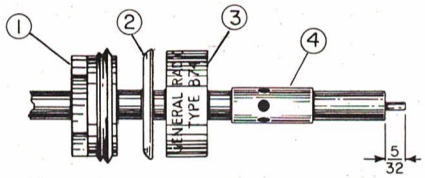
KEY	NAME OF PART	PART NUMBER
1	RING CLAMP	0874-6224
2	LOCKWASHER (Large)	0874-8390
3	COUPLING NUT	0874-0623
4	FERRULE (Perforated-Green)	5240-4024
4	FERRULE (Perforated)	5240-4023
5	OUTER TRANSITION PIECE	0874-6252
6	RETAINING RING	0874-0810
9	DISK	0874-7590
10	INNER TRANSITION PIECE	0874-6279
12	INSULATING BEAD	0874-0700
13	INNER CONDUCTOR	0874-0612
15	OUTER CONDUCTOR	0874-0603
17	PANEL ADAPTOR	0874-6500
—	MOUNTING SCREWS (4)	7060-1800
—	MOUNTING NUTS (4)	5810-2100
—	MOUNTING LOCKWASHERS (4)	8040-1400

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. Slip ring clamp (1) on cable wrench-flat end first, followed by large loc

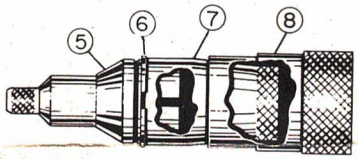
B. Slip cou

C. Slide fer

NOTE

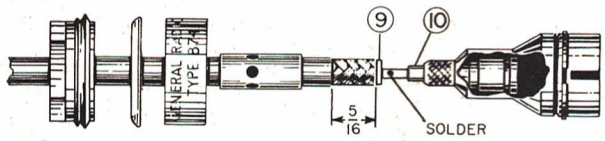
D. Carefully shown. Do r

E. Examine



F. Install fro transition pie

G. Slide pho into first groc



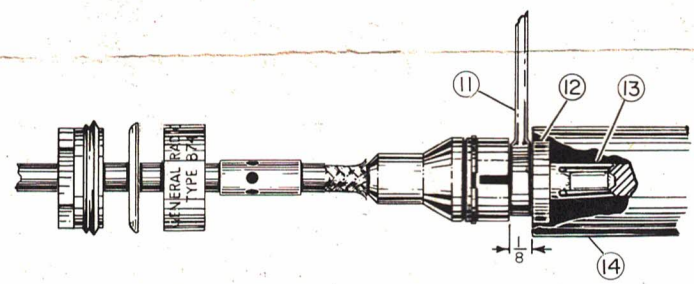
H. Install in transition pie of outer trans

I. Slide white ductor and pu center conduc

J. Push center transition, and

CAUTIC

K. Remove ca



L. Push small that knurl slic

M. Force cab of inner trans

N. Grip hexa wrench (11)

O. Insert inn into inner tra

P. Insert inne so that slot in 6 inch-pound

5810-2100
4-40 nut
3/16" A.F.

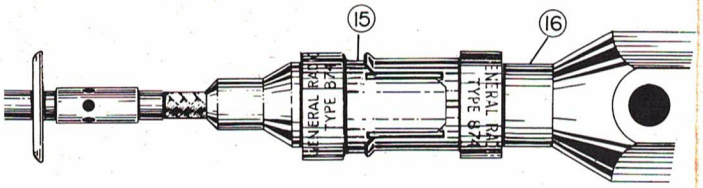
7060-1800
screw 4-40 x 1/2"
(BH)

8040-1400
#4 split L.W., S.S.

((4)) 5240-4024 Ferrule - Perf. - Gn

(10) 0874-6279 Inner Transition Piece.

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.



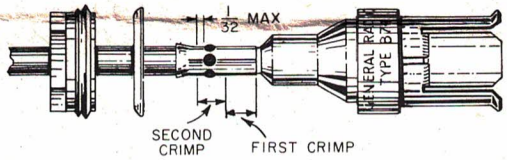
Q. Pull back cable to seat insulating bead against outer transition piece; align either key slot in bead with slot of outer transition piece by rotating transition.

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

S. Slide outer conductor (15) 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.

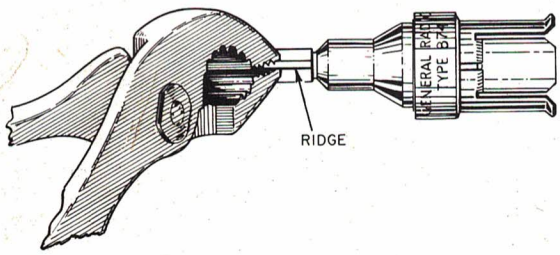
U. Grip coupling nut with special wrench (0874-6801), insert outer-conductor wrench (16) in assembly, and tighten firmly by rotating coupling nut. From 6 to 10 foot-pounds torque should be applied.



V. Slide ferrule forward 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.

ALTERNATE CRIMPING PROCEDURE



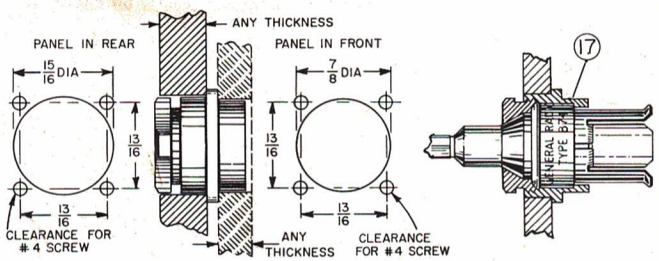
If special tool not available:

A. Substitute plain ferrule provided and perform steps A through U above.

B. Slide ferrule over braid to within 1/64 inch of flare of outer transition piece.

C. 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.

MOUNTING



MINIMUM SPACING 1 1/8 INCHES ON CENTERS FOR MULTIPLE MOUNTING

A. Prepare panel as shown. Mount panel adaptor (17) in 15/16 inch (panel in rear) or 7/8 inch (panel in front) hole using four 4-40 screws, nuts, and lockwashers provided. Threaded end should be at rear of panel.

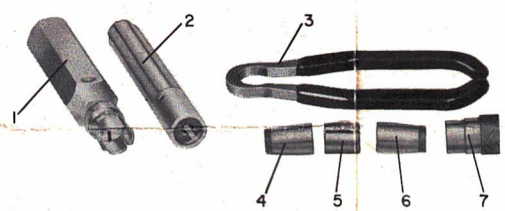
B. Insert connector assembly in adaptor, so that key on front shoulder of adaptor enters keyway in side of outer conductor.

C. Slide lockwasher and ring clamp up to connector, thread ring clamp into panel adaptor, and tighten.

CAUTION Use outer-conductor wrench to prevent connector assembly from rotating when tightening, or key may shear.

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

- METROPOLITAN NEW YORK: Broad Avenue at Linden, Ridgefield, New Jersey 07657
- SYRACUSE: Pickard Building, East Molloy Road, Syracuse, New York 13211
- CLEVELAND: 5579 Pearl Road, Cleveland, Ohio 44129
- WASHINGTON and BALTIMORE: Rockville Pike at Wall Lane, Rockville, Maryland 20852
- PHILADELPHIA: Fort Washington Industrial Park, Fort Washington, Pennsylvania 19034
- ORLANDO: 113 East Colonial Drive, Orlando, Florida 32801
- DALLAS: 2501-A West Mockingbird Lane, Dallas, Texas 75235
- SAN FRANCISCO: 1186 Los Altos Avenue, Los Altos, California 94022
- LOS ANGELES: 1000 North Seward Street, Los Angeles, California 90038
- CHICAGO: 6605 West North Avenue, Oak Park, Illinois 60302
- MONTREAL: Office 395 1255 Laird Boulevard, Town of Mount Royal, Quebec, Canada
- TORONTO: 99 Floral Parkway, Toronto 15, Ontario, Canada

Printed in U.S.A.