

Description

UHF - Invented in the 1930's by an Amphenol engineer, E. Clark Quackenbush, for use in the radio industry.

UHF coaxial connectors are general purpose units developed for use in low frequency systems from 0.6 to 300 MHz.

UHF is an acronym for "Ultra High Frequency". When the UHF was introduced, 300 MHz was considered High Frequency.

The coupling on a UHF is threaded.

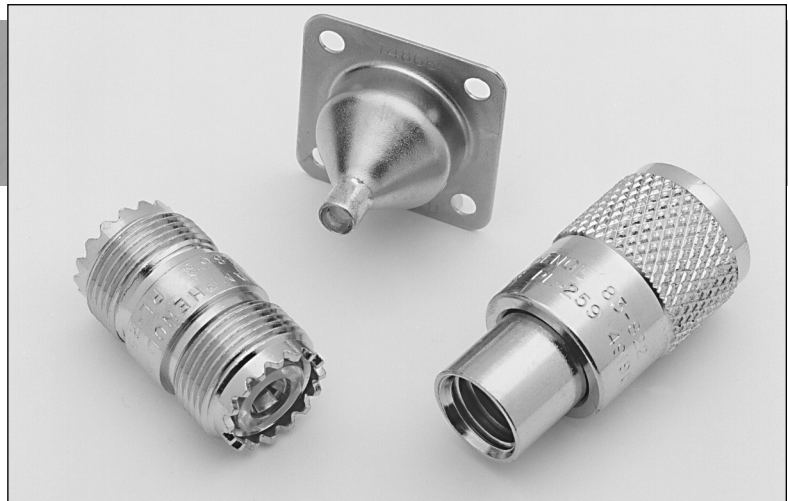
Since UHF connectors are low cost, the impedance is variable.

Features/Benefits

- Optional reducing adapters accommodates a wide range of popular coaxial cables.
- Solder termination types require no special assembly tools.
- Crimp termination type connector available provides a lower cost installation method.
- Large size threaded coupling - rugged design.
- Non-demanding specifications and low cost.

Applications

- Antennas
- Cable Assemblies
- CB Radios
- Low Frequency Applications
- Public Address Systems



UHF

| | |
|--------------------------|---------|
| Specifications | 186 |
| Plugs, Reducing Adapters | 187-188 |
| Receptacles | 189 |
| Adapters/Hoods | 190 |
| Cap & Chain | 191 |

ELECTRICAL

| | |
|-----------------|----------------|
| Impedance | Non-constant |
| Frequency range | 0-300MHz |
| Voltage rating | 500 volts peak |

MECHANICAL

| | |
|-----------------|--|
| Mating | 5/8-24 threaded coupling |
| Cable affixment | Braid solder, set screw, clamp and crimp |

ENVIRONMENTAL

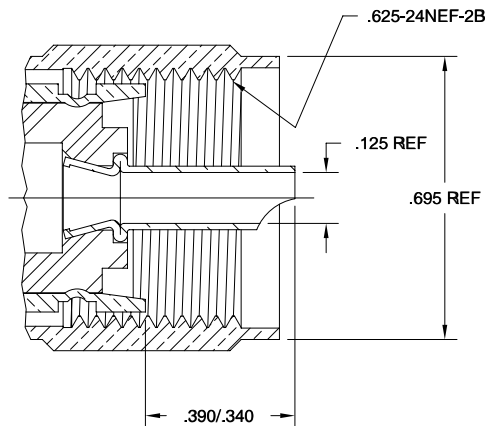
| | |
|-------------------|--|
| Temperature range | Mica-filled phenolic insulators: - 55°C to + 149°C Copolymer of styrene and polystyrene: - 55°C to + 85°C TFE insulators: - 65°C to + 165°C |
| Weatherproof | Except as noted, all series UHF are non-weatherproof |

MATERIAL

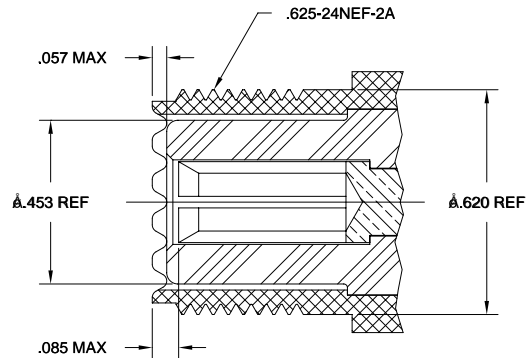
| | |
|-------------------|---|
| Contacts | Male: brass; silver plated Female: beryllium copper, silver plated |
| Bodies | Brass and die cast zinc |
| Other metal parts | Brass |
| Plating | Nickel and silver |
| Insulators | TFE, copolymer of styrene, polystyrene, mica-filled phenolic and PBT polyester or equal |

NOTE: These characteristics are typical and may not apply to all connectors.

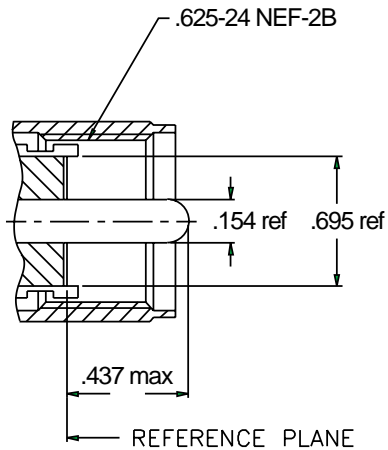
PLUG

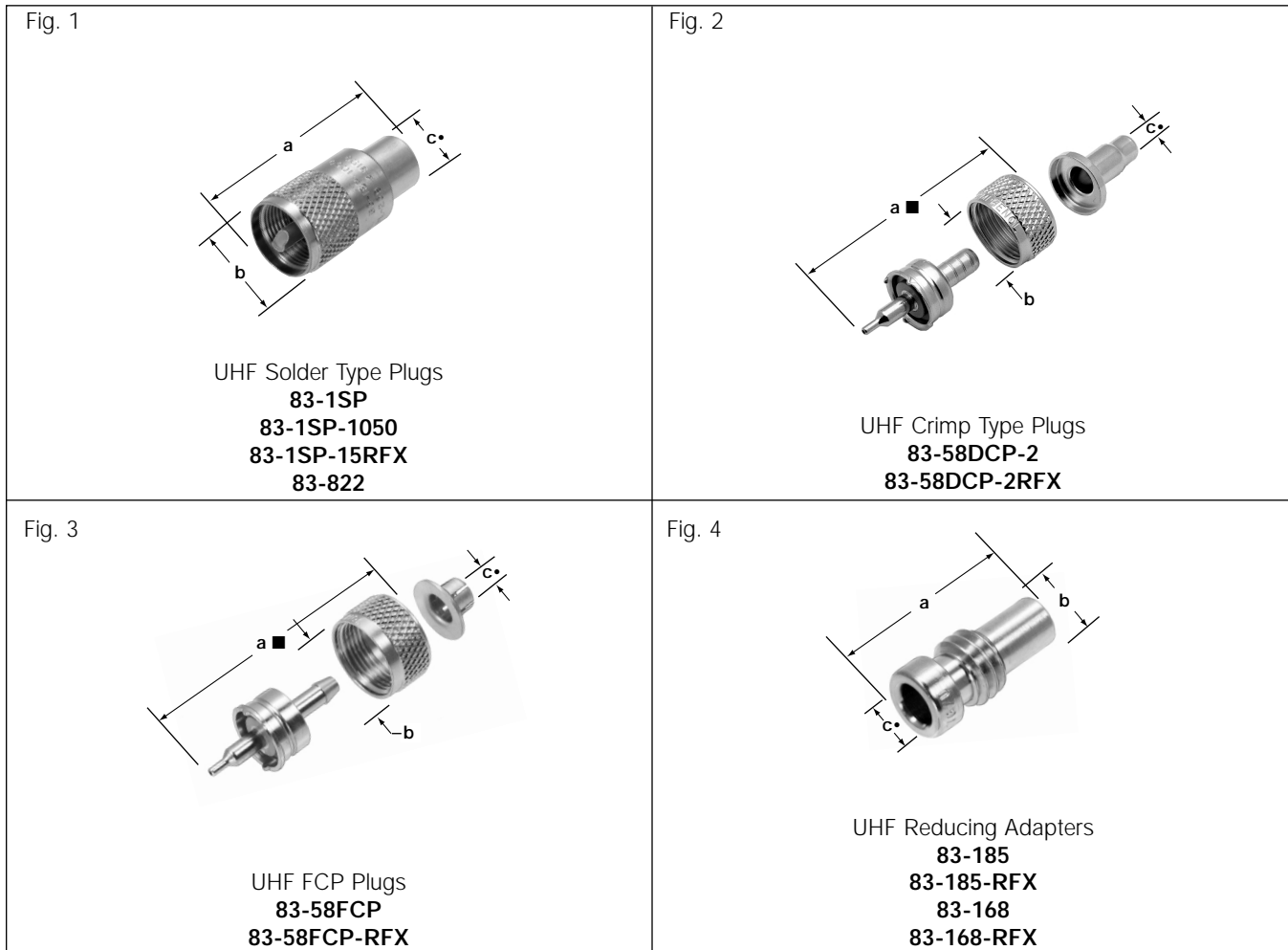


JACK



OR

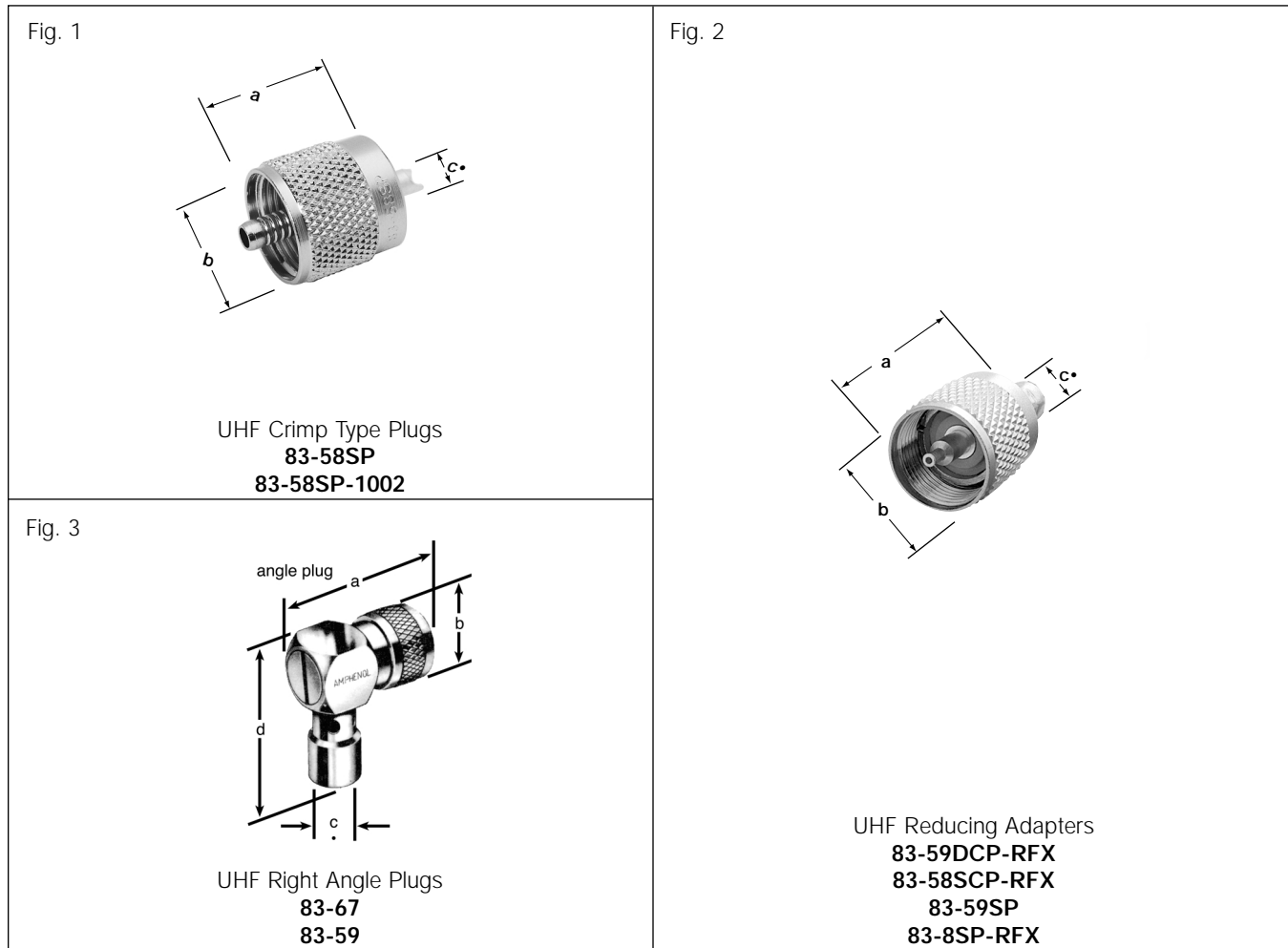




UHF CABLE PLUGS, REDUCING ADAPTERS

| Cable RG-/U | Conn Type | Cable Attachment | | Dimensions, inches (millimeters) | | | Construction Notes | | | | Military Number | Amphenol Number | Fig. |
|---|-----------|------------------|--------|----------------------------------|------------|------------|--------------------|------|------|----------------|-----------------|----------------------|------|
| | | Outer | Inner | a | b | c • | CAI | Pit. | Ins. | Other | | | |
| 8, 9, 11, 13, 63, 87A, 149, 213, 214, 216, 225 | Plug | Solder | Solder | 1.50(38.0) | .750(19.0) | .444(11.3) | C1, C2 | P4 | D3 | — | PL-259 | 83-1SP | 1 |
| | Plug | Solder | Solder | 1.50(38.0) | .750(19.0) | .444(11.3) | C1, C2 | P1 | D30 | IBM 460147 | PL-259 | 83-1SP-1050 | 1 |
| | Plug | Solder | Solder | 1.50(38.0) | .750(19.0) | .420(10.7) | C1, C2 | P1 | D24 | — | — | 83-1SP-15RFX | 1 |
| | Plug | Solder | Solder | 1.50(38.0) | .750(19.0) | .444(11.3) | C1, C2 | P1 | D1 | TFE Insulation | PL-259 | 83-822 | 1 |
| 58, 141 | Plug | Crimp | Crimp | 1.41(35.7)■ | .750(19.0) | .245(6.2) | C5 | P2 | D2 | — | — | 83-58DCP-2 | 2 |
| | Plug | Solder | Crimp | 1.38(35.1) | .716(18.2) | .212(5.4) | C5 | P1 | D24 | — | — | 83-58DCP-2RFX | 2 |
| | Plug | FCP | Pliers | 1.06(27.0)■ | .750(19.0) | .195(4.9) | C6 | P2 | D2 | No Soldering | — | 83-58FCP □ | 3 |
| | Plug | FCP | Pliers | 1.16(29.4)■ | .716(18.2) | .224(5.7) | C6 | P7 | D24 | No Soldering | — | 83-58FCP-RFX | 3 |
| 59, 62, 140, 210 | Plug | Solder | Solder | 1.68(42.9) | .781(19.8) | .257(6.6) | C2 | P1 | D30 | — | UG-111/U | 83-750 | 1 |
| | | | | 1.00(25.4) | .438(11.1) | .209(5.3) | C2 | P3 | — | — | UG-175/U | 83-185 | 4 |
| Reducing Adapter For use on RG-55, 58, 141, 142 Cable (Except 55A) | | | | 1.00(25.4) | .437(11.1) | .209(5.3) | C2 | P3 | — | — | — | 83-185-RFX | 4 |
| Reducing Adapter For use on RG-59, 62, 71, 140, 210 Cable | | | | 1.00(25.4) | .438(11.1) | .257(6.5) | C2 | P3 | — | — | UG-176/U | 83-168 | 4 |
| | | | | 1.00(25.4) | .437(11.1) | .257(6.5) | C2 | P3 | — | — | — | 83-168-RFX | 4 |

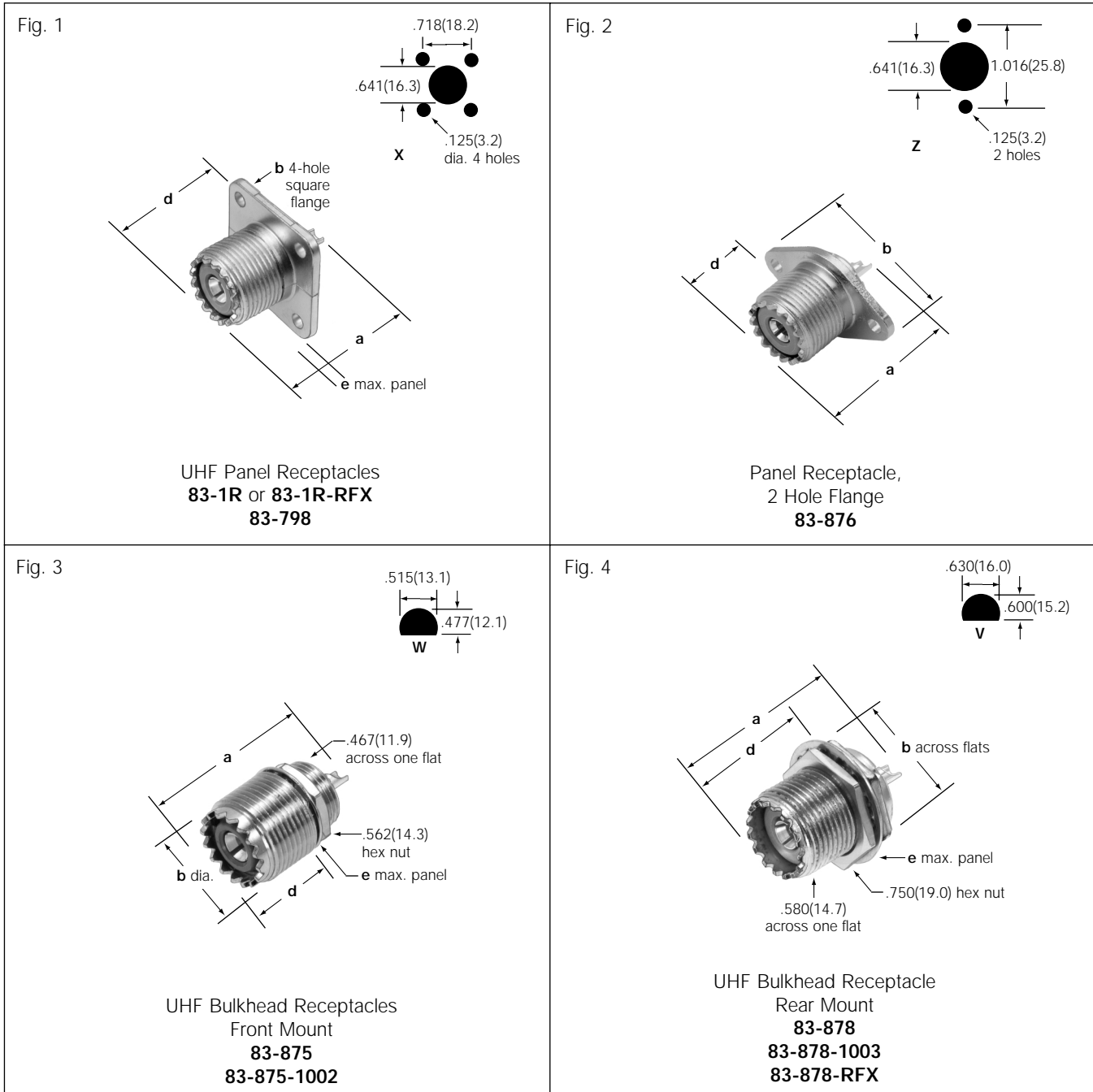
• accommodates cable diameter ▲ distributor stocked ■ includes outer ferrule □ US patent 4,053,200



UHF CABLE PLUGS, REDUCING ADAPTERS

| Cable RG-/U | Conn Type | Cable Attachment | | Dimensions, inches (millimeters) | | | Construction Notes | | | | Military Number | Amphenol Number | Fig. |
|--------------------------------|--------------|------------------|--------|----------------------------------|------------|------------|--------------------|------|------|-----------------------|--------------------|--------------------|------|
| | | Outer | Inner | a | b | c • | CAI | Pit. | Ins. | Other | | | |
| 58, 142 | Plug | Crimp | Solder | 1.31(33.3)■ | .750(19.0) | .206(5.3) | C4 | P1 | D30 | | — | 83-58SP | 1 |
| 400 | Plug | Crimp | Solder | 1.31(33.3) | .750(19.0) | .206(5.3) | C4 | P1 | D1 | Teflon Insulation | — | 83-58SP-1002 | 1 |
| 59 | Plug | Crimp | Solder | 1.39(35.4) | .716(18.2) | .257(6.6) | C4 | P1 | D24 | | — | 83-59DCP-RFX | 2 |
| 58 | Plug | Crimp | Solder | 1.39(35.4) | .716(18.2) | .206(5.3) | C4 | P1 | D24 | | — | 83-58SCP-RFX | 2 |
| 59 | Plug | Crimp | Solder | 1.39(35.4) | .716(18.2) | .257(6.6) | C4 | P1 | D3 | | — | 83-59SP | 2 |
| 8 | Plug | Crimp | Solder | 1.39(35.4) | .716(18.2) | .429(10.9) | C4 | P1 | D24 | | — | 83-8SP-RFX | 2 |
| 8, 9, 11, 13, 63, 87A, 149, | R/A Plug | Solder | Solder | 1.37(34.9) | .750(19.0) | .444(11.3) | C1 | P1 | D1 | Teflon Insulation | — | 83-67 | 3 |
| 213, 214, 216, 225 | R/A Plug | Solder | Solder | 1.37(34.9) | .750(19.0) | .444(11.3) | C1 | P1 | D6 | Styrene Insulation | — | 83-59 | 3 |

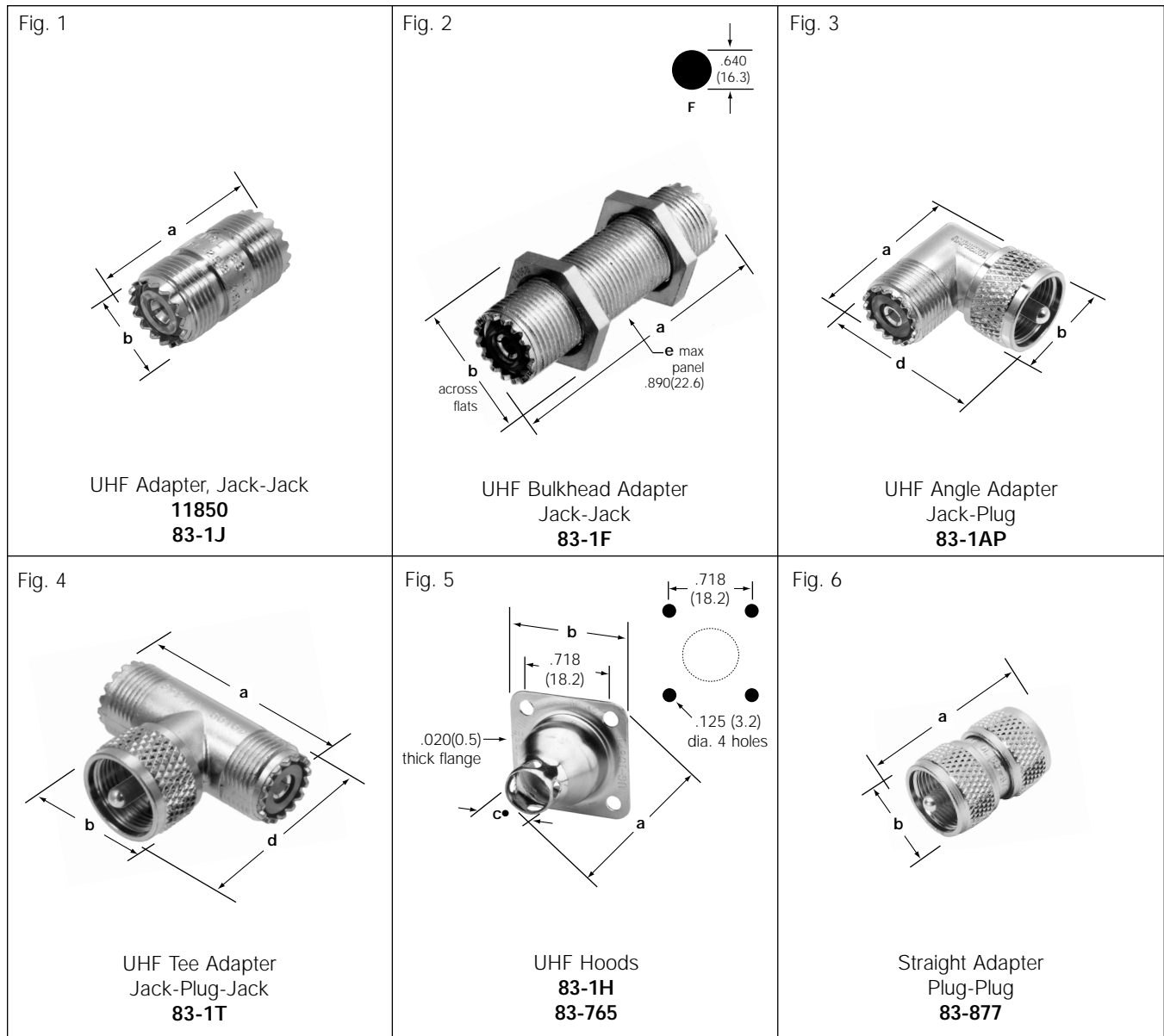
• accommodates cable diameter ▲ distributor stocked ■ includes outer ferrule □ US patent 4,053,200



UHF PANEL & BULKHEAD RECEPTACLES

| Description | Dimensions, inches (millimeters) | | | | Plt. | Ins. | Mtg. Hole | Military Number | Amphenol Number | Fig. |
|--|----------------------------------|------------|------------|-------------|------|-------|-----------|-----------------|--------------------|------|
| | a | b | d | e | | | | | | |
| Panel Receptacle, Solder Cup 4-hole Square Flange | 1.05(26.8) | 1.00(25.4) | .553(14.0) | .187(4.7) ▼ | P1 | D2 | X | SO-239 | 83-1R★ | 1 ▲ |
| Panel Receptacle, Solder Cup 4-hole Square Flange | 1.06(27.0) | 1.00(25.4) | .553(14.0) | .187(4.7) ▼ | P1 | D25 | X | — | 83-1R-RFX★ | 1 ▲ |
| Panel Receptacle | 1.05(26.8) | 1.00(25.4) | .553(14.0) | .187(4.7) ▼ | P1 | D1 | X | SO-239A | 83-798 | 1 ▲ |
| Panel Receptacle, Oval Flange | 1.05(26.8) | 1.30(32.9) | .553(14.0) | .187(4.7) ▼ | P1 | D2 | Z | — | 83-876 | 2 ▲ |
| Bulkhead Receptacle Front Mount | 1.09(27.8) | .563(14.3) | .500(12.7) | .156(4.0) | P1 | D1/D6 | W | — | 83-875 | 3 ▲ |
| Front Mount Bulkhead Type; Solder Cup Term. | 1.09(27.8) | .563(14.3) | .500(12.7) | .156(4.0) | P1 | D1 | W | — | 83-875-1002 | 3 ▲ |
| Rear Mount Bulkhead Type; Solder Cup Term. | 1.06(27.0) | .750(19.1) | .590(15.0) | .187(4.7) | P1 | D2 | V | — | 83-878 | 4 ▲ |
| Rear Mount Bulkhead Type; Solder Cup Term. | 1.06(27.0) | .750(19.1) | .590(15.0) | .187(4.7) | P1 | D1 | V | — | 83-878-1003 | 4 ▲ |
| Rear Mount Bulkhead Type; Solder Cup Term. | 1.06(27.0) | .750(19.1) | .590(15.0) | .187(4.7) | P1 | D1 | V | — | 83-878-RFX | 4 ▲ |

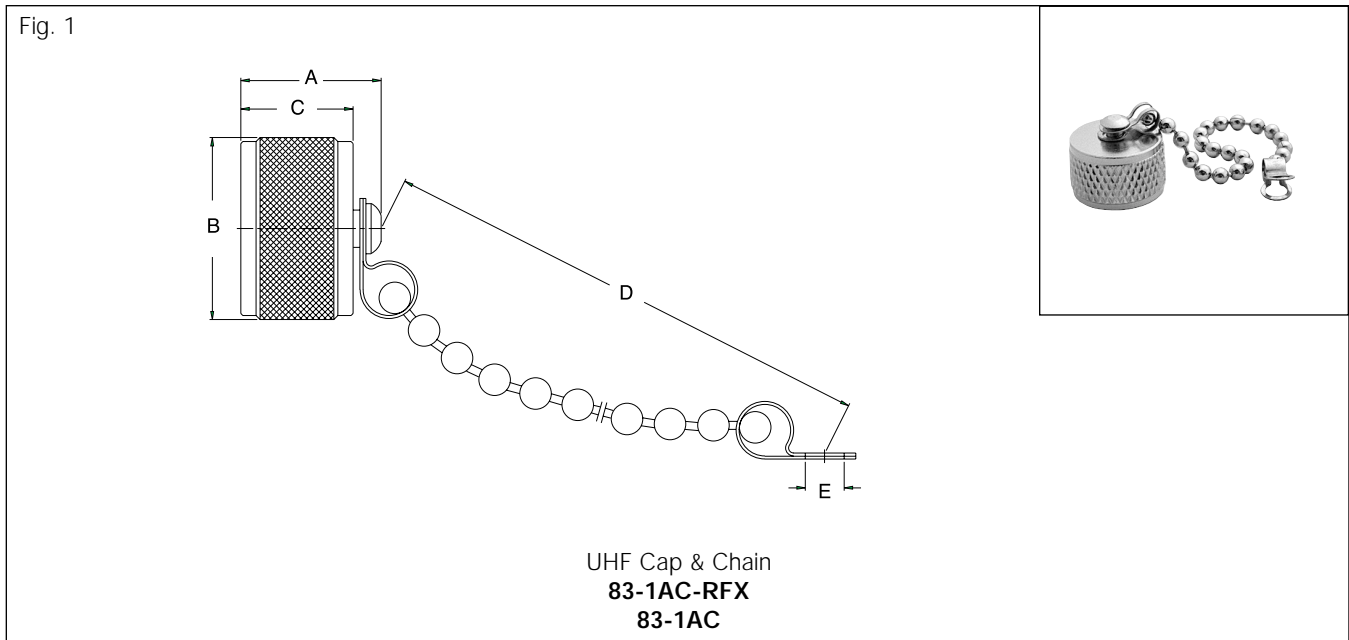
★ IBM 317228 ▼ max. panel when rear mounted thru panel ▲ Distributor stocked



UHF IN-SERIES ADAPTERS, HOODS

| Description | Dimensions, inches (millimeters) | | | | CAI | Plt. | Ins. | MTG Hole | Military Number | Amphenol Number | Fig. |
|---|----------------------------------|------------|-----------|------------|-----|------|------|----------|-----------------|-----------------|------|
| | a | b | c • | d | | | | | | | |
| Straight Adapter/Jack-Jack | 1.12(28.6) | .625(15.9) | — | — | — | P1 | D1 | — | PL-258 | 11850 | 1 |
| Straight Adapter/Jack-Jack | 1.12(28.6) | .625(15.9) | — | — | — | P1 | D5 | — | PL-258 | 83-1J | 1 ▲ |
| Bulkhead Adapter/Jack-Jack | 2.00(50.8) | .625(15.9) | — | — | — | P1 | D5 | F | UG-363/U | 83-1F | 2 ▲ |
| Angle Adapter/Jack-Plug | 1.28(32.5) | .750(19.1) | — | 1.19(30.2) | — | P1 | D5 | — | UG-646/U | 83-1AP | 3 ▲ |
| Tee Adapter/Jack-Plug-Jack | 1.63(41.3) | .750(19.1) | — | 1.20(30.6) | — | P1 | D5 | — | M-358 | 83-1T | 4 ▲ |
| Hood/4-hole flange mount/Adapts Panel Receptacle 83-1R to RG-8,10,11,12,63,79,115,149,213,215 | .750(19.1) | 1.00(25.4) | .345(8.8) | — | C7 | P3 | — | — | UG-106/U | 83-1H | 5 ▲ |
| Hood/4-hole flange mount/Adapts Panel Receptacle 83-1R to RG-58,141 cables | .750(19.1) | 1.00(25.4) | .155(3.9) | — | C7 | P3 | — | — | UG-177/U | 83-765 | 5 ▲ |
| Straight Adapter/Plug-Plug | 1.31(33.3) | .781(19.8) | — | — | — | P1 | D5 | — | PL-258 | 83-877 | 6 |

• accommodates cable diameter ▲ distributor stocked



UHF MALE CAP & CHAIN

| Description | Dimensions, inches (millimeters) | | | | | CAI | PLT | Ins. | Amphenol Number | Fig. |
|-----------------|----------------------------------|-------------|-------------|--------------|------------|-----|-----|------|-------------------|------|
| | a | b | c • | d | e | | | | | |
| UHF Cap & Chain | .551 (14) | .717 (18.2) | .441 (11.2) | 3.94 (10.0) | .154 (3.9) | — | P3 | — | 83-1AC-RFX | 1 |
| UHF Cap & Chain | .580 (14.7) | .750 (19.1) | .438 (11.1) | 4.56 (115.9) | .130 (3.3) | — | P3 | — | 83-1AC | 1 |