



## Specifications for "F" Connectors

F style connectors are the least expensive, general purpose connectors with non-constant impedance for use at 500 volts or less, and for use with low frequencies to 500Mhz. These coaxial connectors are widely used in Cable TV, MATV, CCTV, and related consumer television products. They are available in a limited selection to fit various cable sizes. **NOTE: See V-Bite 861V509ER6 -40dB @ 2.3GHz**

### MATERIALS

| Connector Parts          | Material        |
|--------------------------|-----------------|
| Connector Body and Parts | Brass           |
| Male Contact Pin         | Brass           |
| Insulators               | Polypropylene   |
| Plating                  | Nickel          |
| Ferrule                  | Annealed Copper |

### ELECTRICAL

| Requirement                    | Performance                             |
|--------------------------------|---|
| Impedance                      | Non Constant                            |
| Frequency Range                | 0-500MHz (see below 861V509ER6 to 3GHz) |
| VSWR                           | 1.5 Max.                                |
| Working Voltage (At Sea level) | 500V rms                                |
| Insulation Resistance          | 5000 Megohm Min.                        |
| Contact Resistance             | 3 mW Max.                               |
| Test Voltage                   | 1000V r.m.s                             |

### MECHANICAL & ENVIRONMENTAL

| Requirement       | Performance     |
|-------------------|-----------------|
| Durability        | 500 Matings     |
| Shock             | 30 G            |
| Cable Retention   | 40 Lbs. Min.    |
| Temperature Range | -40 to +65°C.   |
| Moisture Range    | Continuous Test |

## Plugs, Jacks, Adapters

F type plugs are available in three different crimp styles: two piece with separate ferrules, one piece crimp with a short crimp body and a one piece crimp with a long body. Also, a twist-on type for tool-less installations. Jacks for bulkhead, inline, or PC board, and a variety of adapters are all machined brass construction.

| Part Number | ROHS | Description                               | RG/<br>U<br>Cable | Fig.<br>No. |
|-------------|------|---|-------------------|-------------|
| 810A209A    | ✓    | 2 Piece Crimp Plug, Short Ferrule         | 6                 | 117         |
| 810A209D    | ✓    | 2 Piece Crimp Plug, Short Ferrule         | 11                | 117         |
| 810A209G    | ✓    | 2 Piece Crimp Plug, Short Ferrule         | 59                | 117         |
| 810B209G    | ✓    | 2 Piece Crimp Plug, Long Ferrule          | 59                | 118         |
| 810D209A    | ✓    | 2 Piece Crimp Plug, Short Ferrule         | 6                 | 117         |
| 810A209MV   | ✓    | 4 Pc Crimp Mini Coax. Uses BD11007 Tool   | 174               | 117A        |
| 810D209D    | ✓    | 1 Piece Crimp Plug, Short Ferrule         | 11                | 119         |
| 810D209G    | ✓    | 1 Piece Crimp Plug, Short Ferrule         | 59                | 119         |
| 810E209A    | ✓    | 1 Piece Crimp Plug, Long Ferrule          | 6                 | 120         |
| 810E209D    | ✓    | 1 Piece Crimp Plug, Long Ferrule          | 11                | 120         |
| 810E209G    | ✓    | 1 Piece Crimp Plug, Long Ferrule          | 59                | 120         |
| 810A409A    | ✓    | Twist-On                                  | 6                 | 121         |
| 810A409G    | ✓    | Twist-On                                  | 59                | 121         |
| 810P209A    | ✓    | Push-On                                   | 6                 | 122         |
| 810P209G    | ✓    | Push-On                                   | 59                | 122         |
| 816B519     | ✓    | Male Bulkhead Receptacle. 3/8-32 THD 1.D. | Any               | 130A        |

This recessed male acts as a jack & allows for a replaceable female end by using a 832A519 adapter. Also, this can be used to accommodate any adapter with a female F interface

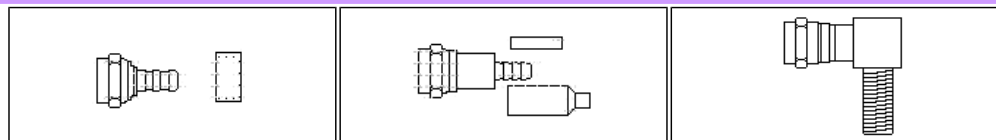


Fig. 117

Fig. 117A

Fig. 118



Fig. 119

Fig. 120

Fig. 121

Also See Push-EZ™ Next Page

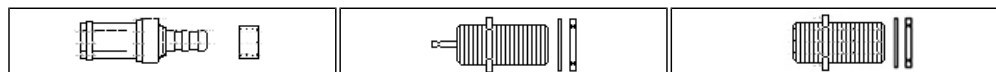


Fig. 122

Fig. 123

Fig. 124

### Adapters & Terminators

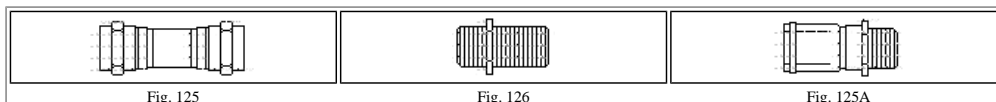


Fig. 125

Fig. 126

Fig. 125A

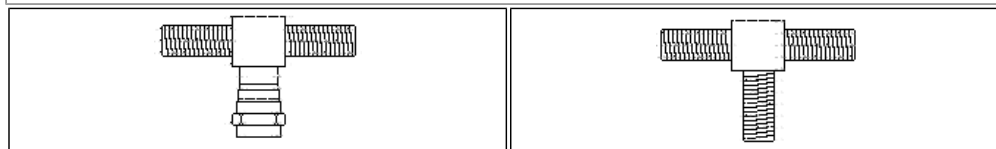


Fig. 127

Fig. 128

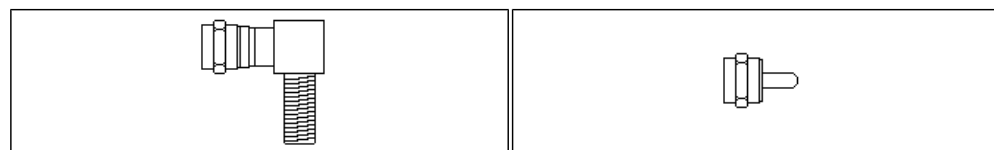
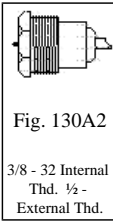


Fig. 129

Fig. 130

|  |                                     |                                      |     |      |
|--|-------------------------------------|--------------------------------------|-----|------|
| 826B519  | <input checked="" type="checkbox"/> | Bulkhead Jack, Solder Tab            | Any | 123  |
| 832A519N   | <input checked="" type="checkbox"/> | Inline Female/Female W/ Nut & Washer | N/A | 124  |
| 830A509  | <input checked="" type="checkbox"/> | Inline, Male/Male                    | N/A | 125  |
| 831B509  | <input checked="" type="checkbox"/> | Inline Female/Male Push-On           | N/A | 125A |
| 832A519  | <input checked="" type="checkbox"/> | Inline Female/Female                 | N/A | 126  |
| 843A509  | <input checked="" type="checkbox"/> | Adapter, Female/Male/Female          | N/A | 127  |
| 845A509  | <input checked="" type="checkbox"/> | Adapter, Female/Female/Female        | N/A | 128  |
| 851A509  | <input checked="" type="checkbox"/> | Right Angle Adapter, Male/Female     | N/A | 129  |
| F0884  | <input checked="" type="checkbox"/> | 75 Ohm Male Terminator               | N/A | 130  |
| <input checked="" type="checkbox"/> RoHS compliant |                                     |                                      |     |      |

on one side. The other end can be BNC, TNC, or any style available. (See adapter pages)



FOR TECHNICAL SUPPORT: PHONE 973-347-4040 / FAX 973-347-2111

## Push EZ™ “F” Plugs With LIFT™

Bomar's exclusive LIFT® Technology (Low Insertion Force Termination) is used in the patented Push-EZ™ connector. It installs by simply stripping the cable and inserting it into the connector. That's it. And it will not pull out. **No crimp tooling**



| Part Number | RoHS                                | Description                         | RG/U Cable | Body Plating |
|-------------|-------------------------------------|-------------------------------------|------------|--------------|
| 810PE209A   | <input checked="" type="checkbox"/> | Push-EZ™ Plug with LIFT® Technology | 6          | Nickel       |
| 810PE209G   | <input checked="" type="checkbox"/> | Push-EZ™ Plug with LIFT® Technology | 59         | Nickel       |

required.

|           |   |                                     |    |      |
|-----------|---|-------------------------------------|----|------|
| 810PE205A | ✓ | Push-EZ™ Plug with LIFT® Technology | 6  | Gold |
| 810PE205G | ✓ | Push-EZ™ Plug with LIFT® Technology | 59 | Gold |
| ✓         |   | RoHS compliant                      |    |      |

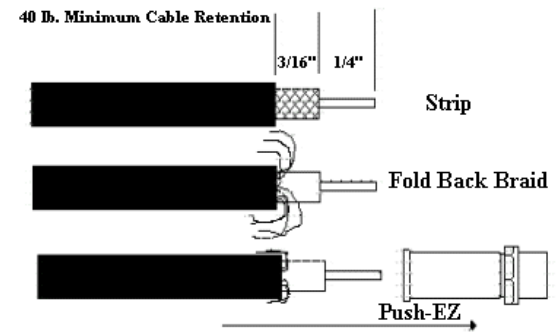


Fig. 135F

## PC Board Connectors

| Part Number | RoHS | Description  | RG/U Cable | Fig. No. |
|-------------|------|--|------------|----------|
| 861A509     | ✓    | PC Board Jack, Vertical                            | N/A        | 131      |
| 861V509E    | ✓    | V-Bite™ Edge Mount PC Jack                         | N/A        | 131V     |
| 861V509ER   | ✓    | V-Bite™ Reflow Type w/ TFE Insulator RG59          | N/A        | 131V     |
| 861V509ER6  | ✓    | V-Bite™ Reflow Type w/ TFE Insulator RG6/59 (3GHz) | N/A        | 131V     |
| 864B509     | ✓    | PC Board Jack, Right Angle, Long                   | N/A        | 132      |
| 864B509HF   | ✓    | PC Board Jack, Right Angle, Long (3GHz)            | N/A        | 132      |
| 864B509S    | ✓    | PC Board Jack, Right Angle, Short                  | N/A        | 133      |
| 866B509     | ✓    | PC Board Male, Right Angle The Eliminator™         | N/A        | 136B     |
| ✓           |      | RoHS compliant reflow or wave solder               |            |          |
| ✓           |      | RoHS compliant wave solder only                    |            |          |



Fig. 131



Fig. 132



Fig. 133



Fig. 135B

### The V-Bite™



Fig. 131V

V-Bite™ Mounts on the PC board edge and is extremely anti-rotational. It locks into the board for soldering. Available in reflow soldering version.

V-Bite™ Mounts on the PC board edge and is extremely anti-rotational. It locks into the board for soldering. Available in reflow soldering version.

