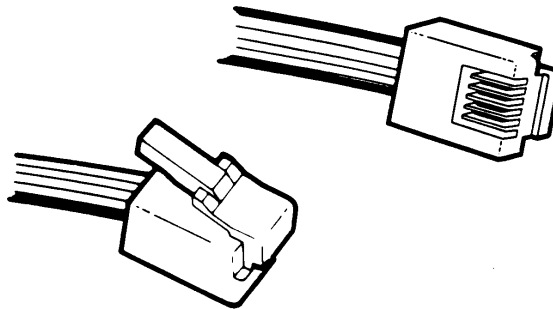


ANNEX C (Informative)

Six-Position UI connector – SP UI Cable device end Connector

This Annex contains the dimensional drawings for the six-position western style plug.

Figure 1 Six-Position Plug Pictorial



(Note: This plug is depicted equipped with 4 contacts; it may be fabricated with its full 6 contact capability.)

Figure 2 Six-Position Plug Mechanical Specification (a)

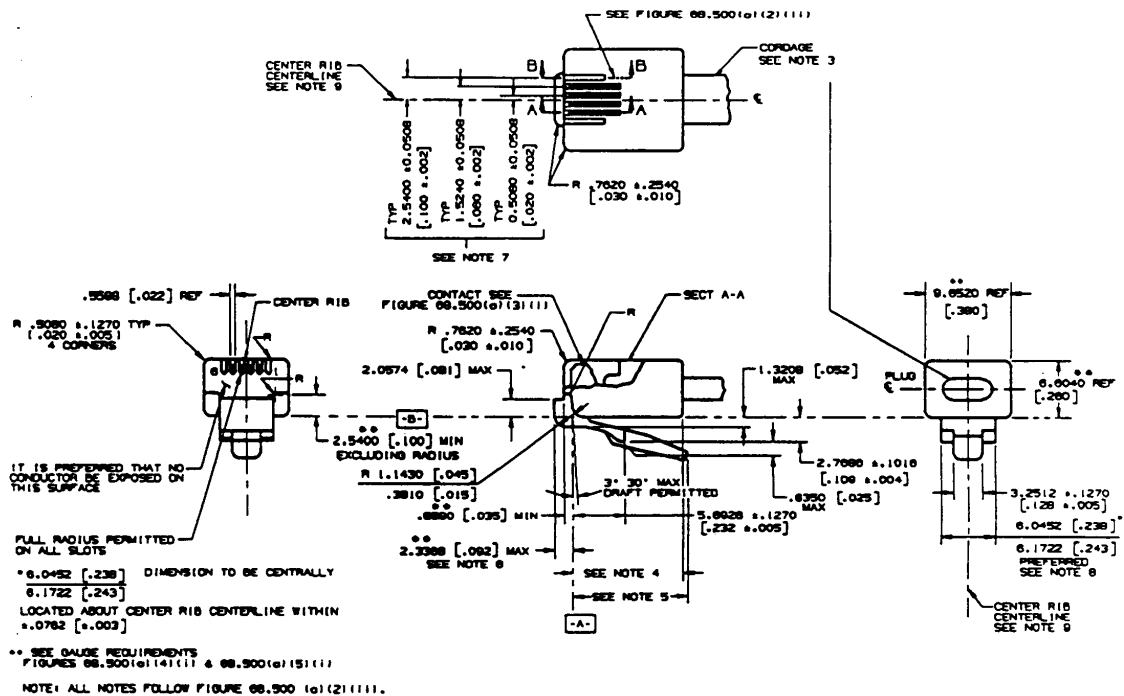
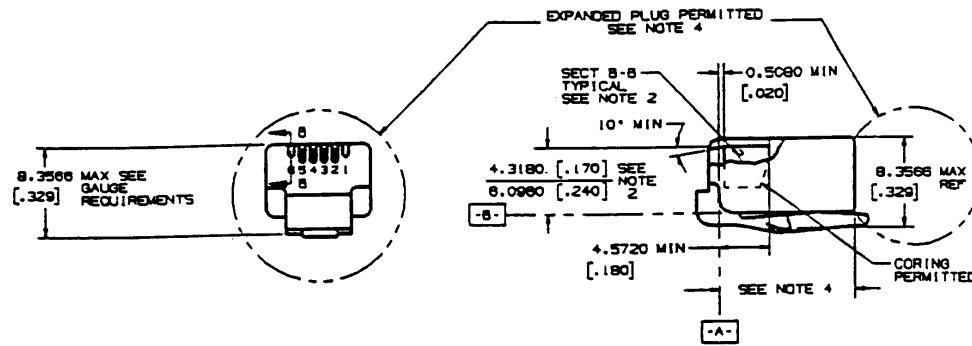


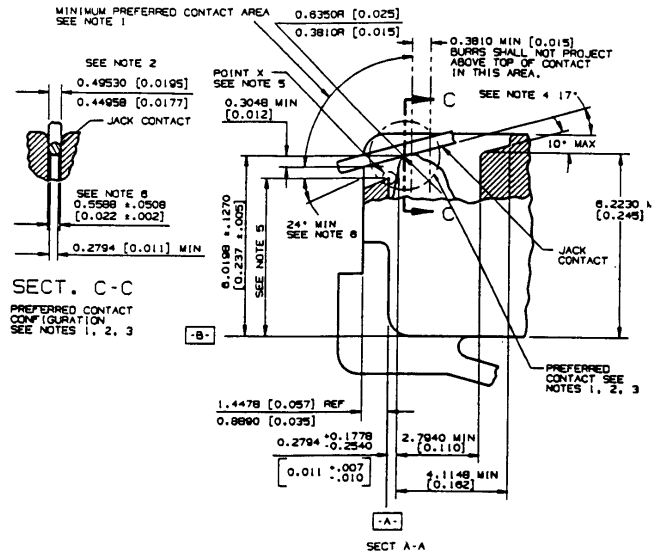
Figure 3 Six-Position Plug Mechanical Specification (b)



Notes: (Notes apply to Figures 2 and 3)

1. All plugs must be capable of meeting the requirements of the plugs go and no-go gauges.
2. Section BB applies to any Jack contact receiving slot which does not contain a plug contact.
3. The preferred major cordage cross section is 2.5400 mm (.100 Inch) max. thick by 5.0800 mm (.200 inch) max. wide, with rounded corners. It should exit the plug on the plug centerline. Other cordage configurations are permitted but may inhibit the special features of some network Jack enclosures.
4. The standard plug length is 11.6840 mm (.460 inch) max. Plugs may be made longer than standard or adapted for direct use on special cords, adapters with out cordage, and on apparatus or equipment subject to the limitations described in the Section 68.500 Introductory paragraphs. Plugs longer than standard may inhibit the special features of some network Jack enclosures.
5. A 12.0396 mm (.474 inch) minimum tab length is required. It is preferred that a maximum tab length be no longer than 13.2080 mm (.520 inch). Longer tabs may be used with the same limitations as described in Note 4.
6. To obtain maximum plug guidance when 6-position plugs are inserted in 8-position jacks, it is desirable to extend the front plug nose to the 2.3368 mm (.092 inch) maximum.
7. These dimensions apply to the location of Jack contact receiving slots. It is desirable that plug contacts be centered axially In these slots, but centering is not required.
8. The 6.0452/6.1722 mm (.238/.243 inch) dimension is preferred to obtain maximum plug guidance In jacks with more than 6 conductors. A tolerance range of 5.9182/6.1722 mm (.233/.243 inch) is permitted, but may create targeting problems in 8-position jacks.
9. The center rib centerline shall be coincident with the plug width 9.6520 mm (.380 inch) ref. centerline within +/- .0762mm (+/- .003 inch).

Figure 4 Six-Position Plug Plug/Jack Contact Specification



Notes: (Notes apply to Figure 4)

1. The plug/Jack contact Interface should be hard gold to hard gold and should have a minimum gold thickness of .0012700 mm (0.000050 inch) on each side of the interface. The minimum contact force should be .98N (100 grams). Any non-gold contact material must be compatible with gold and provide equivalent contact performance. A smooth, burr-free surface is required at the interface in the area shown.
2. The Jack contact design is based upon .4572 mm (.018 inch) spring temper phosphor bronze round wire in the modular plug blade and Jack contact interface. Other contact configurations that provide contact performance equal to or better than the preferred configurations and do not cause damage to the plug or Jack are permitted. The preferred Jack contact width is .44958/.49530 mm (.0177/.0195 inches). Deviations from the preferred Jack contact width are permitted for round contacts as well as noncircular cross sectional shapes but they must be compatible with existing plug configurations. The requirements of Note 1 apply to all possible contact areas.
3. The configuration of the Plug contact and the front plastic of the plug should prevent Jack contacts from

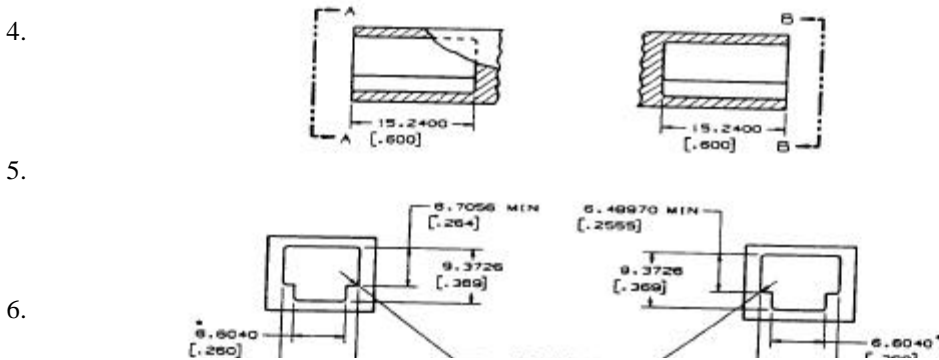


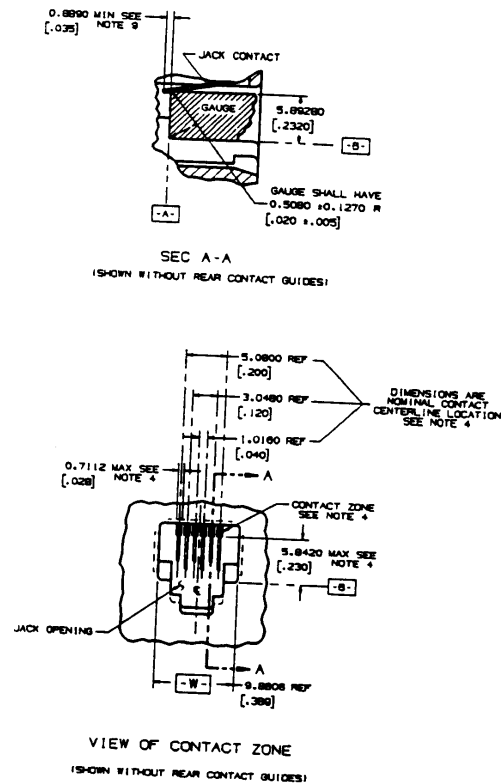
Figure 5 Six-Position Plug Minimum Plug Size

NO-GO GAUGE

NOTES:

1. THE PLUG SHALL NOT BE CAPABLE OF ENTERING THE GAUGE MORE THAN 1.7780mm [.070] BEYOND DATUM-A* (SEE FIGURE 68.500(121111)) WITH 9.80 newtons [2.0 POUNDS] INSERTION FORCE.
2. NON-TOLERANCED DIMENSIONS GIVEN TO FOUR PLACES SHALL BE WITHIN ±0.0508mm [.002].
3. *8.6040mm [.280] DIMENSION TO BE CENTRALLY LOCATED WITH RESPECT TO 8.7435mm [0.344]

Figure 8 Six-Position Jack Mechanical Specifications (b)



Notes: (Notes apply to Figures 7 and 8)

1. Front surface projections beyond the 1.2700 mm (.050 Inch) min. shall be configured so as not to prevent finger access to the plug release catch (Reference Figure 2, 6-Position Plug. Mechanical Specifications). A catch length greater than 1.2700 mm (.050 Inch) is beneficial in providing greater breakout strength.
2. Surface Z need not be planar or coincident with the surface under the plug release catch. Surface Z projections must not prevent insertion, latching, and unlatching of the standard 6-position plug described in Figure 2.
3. The preferred plug stop surface is indicated. If some other internal feature is used as a plug stop, it must be located so that the axial movement of a latched plug is no greater than 1.1430 mm (0.045 inch).
4. To prevent mistargeting between the plug and jack contacts, the jack contacts should be completely contained in their individual contact zones, .7112 mm (.028 inch) max. wide, where they extend into the Jack openings. There is no location requirement for Jack contacts below these zones 5.8420 mm (.230 Inch) max., but adequate contact separation must be maintained to prevent electrical breakdown. These shaded contact zones should be centrally located, (included all locating tolerances), about the Jack opening width 9.8806 mm (.389 Inch) Ref. (Datum -W-). Contacts located outside of these zones may result in mistargeting between the Jack and plug contacts.
5. All inside and outside corners in the plug cavity to be .3810 mm (.015 Inch) radius max. unless specified.
6. These surfaces shall have 01151 maximum draft.

7. Relief inside the dotted areas on 3 sides of the Jack opening is permitted. The 6.8326 mm (.269 inch) Ref and 9.8806 mm (.389 inch) Ref Gauge Requirements must be maintained in each corner, (ref. 1.0160 mm (0.040 inch) min), to assure proper plug/Jack interface guidance. A .8128 mm \pm .1270 mm (.032 inch \pm .005 inch) relief on the top side. (opposite plug catch), is required on jacks in connecting blocks which mount and connect portable wall telephones so as to assure interface with the special purpose sliding modular plug used on many wall telephone sets.
 8. 4.0640 mm (.160 inch) and 6.5278/6.8580 mm (.257/.270 inch) dimensions to be centrally located to Jack opening width -W- within \pm .1778 mm (0.007 inch).
 9. Minimum acceptable Jack contact length. When contact guide slots are used, the contacts must always be contained inside the guide slots and the contacts must move freely in the slots so as not to restrain plug insertion or damage Jack contacts.
 10. Gauge Requirements:
 - GO: The Jack shall be capable of accepting 9.7536 x 6.7056 mm (0.3840 x 0.2640 inch) gauge and the gauge shall be capable of being removed with a maximum force of 8.9 newtons (2 pounds).
 - NO GO: The Jack shall not accept either a 10.00760 x 6.45160 mm (0.3940 x 0.254 inch) horizontal width of opening gauge or a 6.95960 x 9.5504 mm (.2740 ~x .376 inch) vertical height of opening gauge. However, if either gauge is accepted the force necessary to remove the gauge shall be minimum.83 newtons (3.0 ounces).
- Removal forces do not include forces contributed by contact springs nor shall external forces be applied to the jack that will affect these removal forces.
- Gauges shall have a .7620 mm (.030 inch) radius on the nose and a .3810 mm (0.015 inch) radius on all edges with clearance provided for contacts.