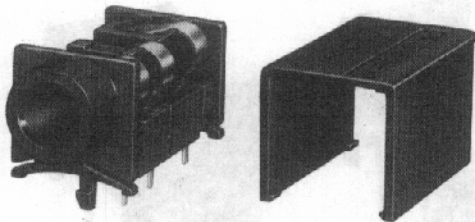
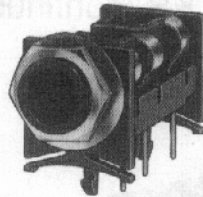


1/4" RIGHT-ANGLE PHONE JACKS

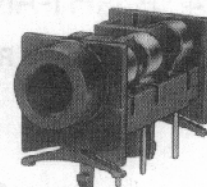
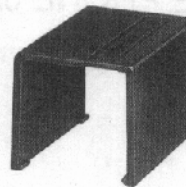
SERIES SN37, SN49 AND SN70



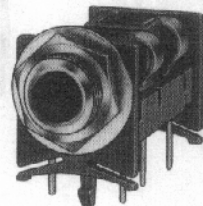
SN37A14B with cover Number P2993



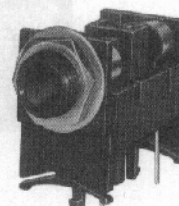
SN49B12B with cover Number P2994



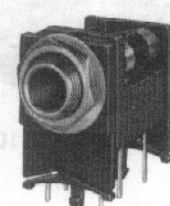
SN49A12B



SN49C12B



SN70B12A



SN70C14B

These low-profile phone jacks have "snap-in" PC mounting, right-angle plug insertion and available with 2- and 3-conductor circuits and plastic or metal bushings. Ideal for telecommunications, data processing and other high quality audio connecting applications.

**SERIES SN37A** - Right-angle PC mount phone jack with molded plastic housing. Only .375" high, this jack features a plain (non-threaded) bushing and accepts commercial standard phone plugs with .25" diameter finger.

**Jack circuit selection:**

- 2-conductor • Single open circuit • Shunted tip
- 3-conductor • Double open circuit • Shunted tip and ring

Jack housing snaps into PC boards (.062" thick) and features molded tension fingers to provide stable mount. Location pin polarizes mounting for correct insertion every time. Clearance between housing facilitates board cleaning without disturbing internal springs. SN37 without tension fingers available on special order.

Molded housing protects internal parts and allows high density packaging. Supplied with "Snap-On" cover.

**SERIES SN49A** - Similar to Series SN37A, except .492" high and insulated/plain (non-threaded) bushing. "Snap-On" cover available on special order only.

**SERIES SN49B** - Similar to Series SN37A, except .492" high and insulated threaded bushing. Washer and hex nut for bushing mount supplied. "Snap-On" cover available on special order only.

**SERIES SN49C** - Similar to Series SN37A, except .492" high and threaded metal bushing. Washer and hex nut for bushing mount supplied. "Snap-On" cover available on special order only.

**SERIES SN70B** - This series features threaded/insulated bushing and .708" in height. Circuit selection and housing features are same as Series SN49B. "Snap-On" cover not available.

**SERIES SN70C** - Same as Series SN70B, except bushing is threaded metal type.

**SPECIFICATIONS**

**MECHANICAL**

**Shock:** Per MIL-STD-202, method 213.

**Vibration:** Per MIL-STD-202, method 201.

**Insertion Force:** 8 pounds maximum.  
**Withdrawal Force:** 1.5 pounds minimum.  
**Life:** 10,000 cycles minimum.

**ELECTRICAL**

**Insulation Resistance:** 2 x 10<sup>6</sup> MΩ at 500 V DC per MIL-STD-202, method 302 (initial).

**Dielectric Withstanding Voltage:** 500 V AC.

**ENVIRONMENTAL**

**Thermal Range:** -55°C (-67°F) to +85°C (+185°F) Non operating. -20°C to +65°C Operating.

**Thermal Shock:** Per MIL-STD-202d, method 107.

**Humidity:** Per MIL-STD-202, method 106, less steps 7A and 7B.

**Salt Spray:** Per MIL-STD-202, method 101.

**MATERIAL**

**Housing and Cover:** Black thermoplastic, UL 94V-O.

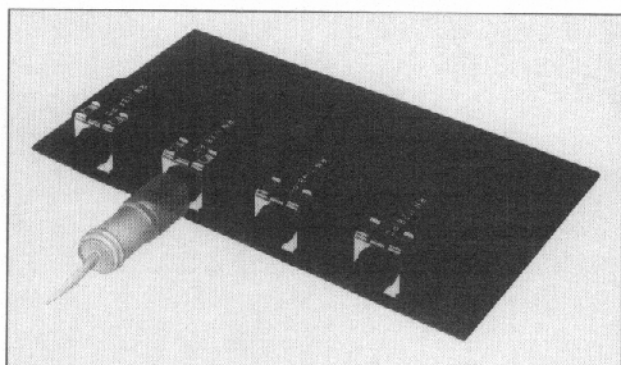
**Contact Springs:** Copper alloy with tin-plated terminals.

**Hardware:** Nickel-plated copper alloy.

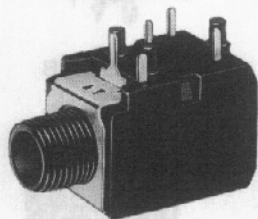
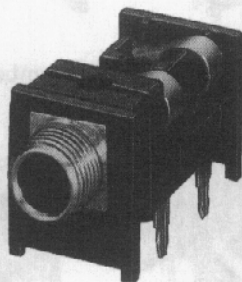
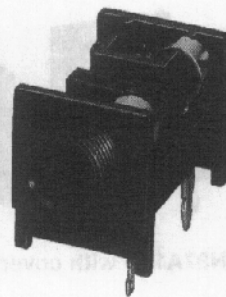
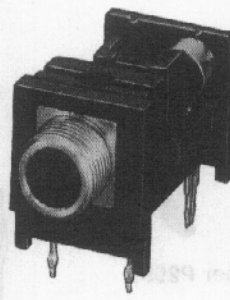
**Metal Bushing:** Nickel-plated copper alloy.

**ORDERING**

1. Order jacks from tables on page 103.
2. For all special order items, contact Switchcraft.



DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

**1/4" RIGHT-ANGLE PHONE JACKS (continued)**
**SERIES - RA and RN**

**Series RN110**

**Series RA**


**SERIES RA** - 2- and 3-conductor RA Jax® are designed with split terminals which provide two distinct advantages over contemporary jacks:

1. Positive retention of jack in PC board during wave soldering.
2. Split terminal permits additional solder flow paths up the terminal for better mechanical/electrical connection

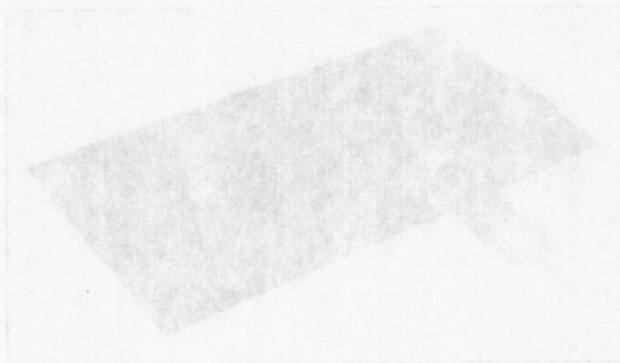
Tip spring design facilitates positive retention of differing mating plug tip shapes (industry standard and others).

**SERIES RN** - Right-angle Hi-D Jax® permits space-saving mounting on PC boards. Available in 2- and 3-conductor types with or without shunt circuits, which can mate with .25" diameter COMMERCIAL or TELEPHONE/MIL plug fingers. Right-angle jack permits tip of mating plug to be inserted parallel with PC board. Can be mounted on PC boards or combined PC board and panel/chassis.

Mounted through .375" diameter holes (locknut and washer supplied) in panels and chassis up to .141" thick. Minimum mounting centers are .625". If insulated mount is desired, mounting with flat, non-conductive washer (not supplied) is recommended.

PC terminals mount on boards up to .125" thick, and hand dip or wave soldering, is recommended. Three separate standoffs fit through board to provide stable mounting. Threaded bushing permits optional fastening to panel or chassis.

**SERIES RN110** - 2- and 3-conductor right-angle types mount in PC boards or panel/chassis. Bushing is .278" long.



DIMENSIONS ARE FOR REFERENCE ONLY

 Inch  
(mm)

**SPECIFICATIONS**

**Housing:** Thermoplastic.

**Bushing:** Integral with housing.

**Springs:** Copper alloy, silver-plated (also available with selectively gold-plated contact points and selectively tin-plated terminals).

**Contacts:** Integral, part of shunt springs.

**NOTE:** Specifications for Mechanical, Electrical and Environmental are the same for Hi-D® Jax. (page 98)

1/4" RIGHT-ANGLE PHONE JACKS (continued)

ORDERING INFORMATION

SERIES SN Part Numbers	Description	Jack <sup>2</sup> Schematic	Typical Mating Plug <sup>3</sup>
SN37A11 <sup>1</sup>	2-cond., open circuit	I	250
SN37A12A <sup>1</sup>	2-cond., single closed circuit	III	
SN37A12B <sup>1</sup>	3-cond., double open circuit	IV	267
SN37A14B <sup>1</sup>	3-cond., double closed circuit	XII	
SN49A11 <sup>1</sup>	2-cond., open circuit	I	250
SN49A12A <sup>1</sup>	2-cond., single closed circuit	III	
SN49A12B <sup>1</sup>	3-cond., double open circuit	IV	267
SN49A14B <sup>1</sup>	3-cond., double closed circuit	XII	
SN49B11 <sup>1</sup>	2-cond., open circuit	I	250
SN49B12A <sup>1</sup>	2-cond., single closed circuit	III	
SN49B12B <sup>1</sup>	3-cond., double open circuit	IV	267
SN49B14B <sup>1</sup>	3-cond., double closed circuit	XII	
SN49C11	2-cond., open circuit	I	250
SN49C12A	2-cond., single closed circuit	III	
SN49C12B	3-cond., double open circuit	IV	267
SN49C14B	3-cond., double closed circuit	XII	
SN70B11	2-cond., open circuit	I	250
SN70B12A	2-cond., single closed circuit	III	
SN70B12B	3-cond., double open circuit	IV	267
SN70B14B	3-cond., double closed circuit	XII	
SN70C11	2-cond., open circuit	I	250
SN70C12A	2-cond., single closed circuit	III	
SN70C12B	3-cond., double open circuit	IV	267
SN70C14B	3-cond., double closed circuit	XII	

<sup>1</sup> Series SN37A supplied with Part Number P2993 cover. Series SN49A and SN49B can be supplied with Part Number P2994 cover on special order. Contact Switchcraft.

ORDERING INFORMATION

SERIES RA Part Numbers	Description	Jack <sup>2</sup> Schematic	Typical Mating Plug <sup>3</sup>
RA49B11	2-cond., open circuit	I	250
RA49B12A	2-cond., single closed circuit	III	
RA49B12B	3-cond., double open circuit	IV	267
RA49B14B	3-cond., double closed circuit	XII	
RA49C11	2-cond., open circuit	I	250
RA49C12A	2-cond., single closed circuit	III	
RA49C12B	3-cond., double open circuit	IV	267
RA49C14B	3-cond., double closed circuit	XII	
RA70B11	2-cond., open circuit	I	250
RA70B12A	2-cond., single closed circuit	III	
RA70B12B	3-cond., double open circuit	IV	267
RA70B14B	3-cond., double closed circuit	XII	
RA70C11	2-cond., open circuit	I	250
RA70C12A	2-cond., single closed circuit	III	
RA70C12B	3-cond., double open circuit	IV	267
RA70C14B	3-cond., double closed circuit	XII	
<b>SERIES RN Part Numbers</b>			
RN111PC	2-cond., single open circuit	I	250
RN112APC	2-cond., single closed circuit	III	250
RN112BPC	3-cond., double open circuit	IV	267
RN113BPC	3-cond., tip closed, ring open	VII	267
◇RN113FPC	3-cond., tip open, ring closed	XXVIII	267
RN114BPC	3-cond., double closed circuit	XII	267

<sup>2</sup> See pages 79 and 80.

<sup>3</sup> Other mating plugs are available.

◇ Special order only. Contact Switchcraft.

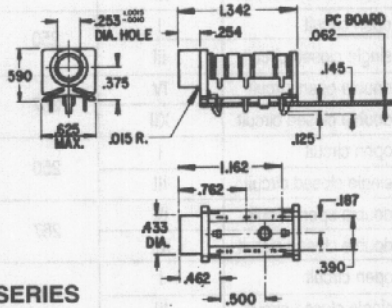
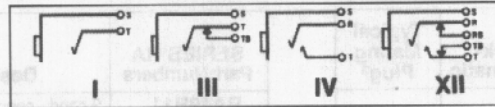
JACKS AND PLUGS Switchcraft®

DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{\text{(mm)}}$

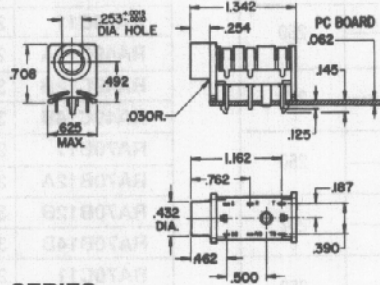
1/4" RIGHT-ANGLE PHONE JACKS (continued)

SERIES SN

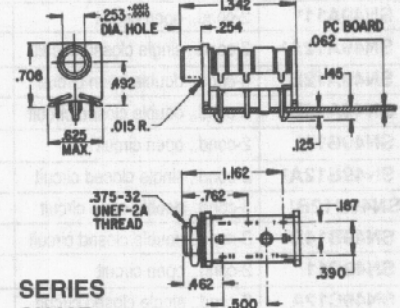
JACK SCHEMATICS



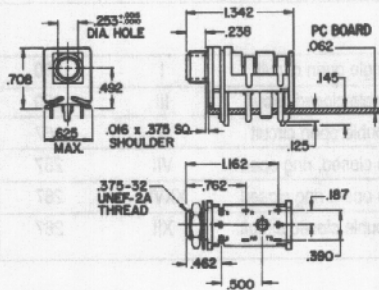
SERIES SN37A



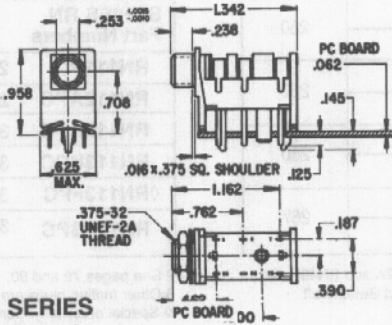
SERIES SN49A



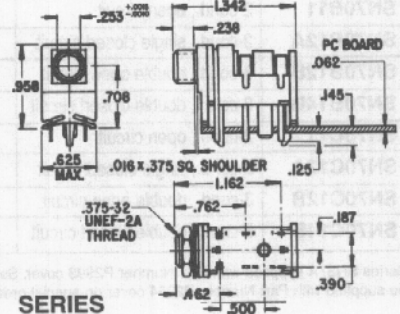
SERIES SN49B



SERIES SN49C



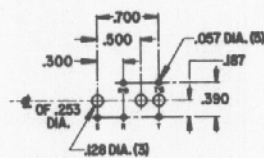
SERIES SN70B



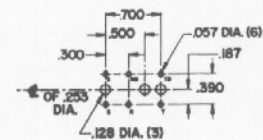
SERIES SN70C



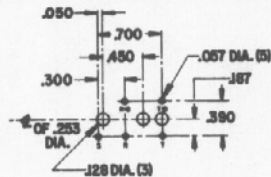
COVERS, PART NO. P-293 & P-2994  
(No. P-2994, special order only)



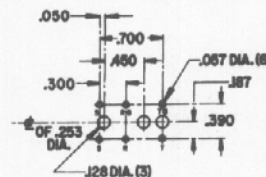
RECOMMENDED PC BOARD LAYOUT  
SERIES SN37A, SN49A & SN49B  
(Component Side)



RECOMMENDED PC BOARD LAYOUT  
SERIES SN49C  
(Component Side)



RECOMMENDED PC BOARD LAYOUT  
SERIES SN70B  
(Component Side)

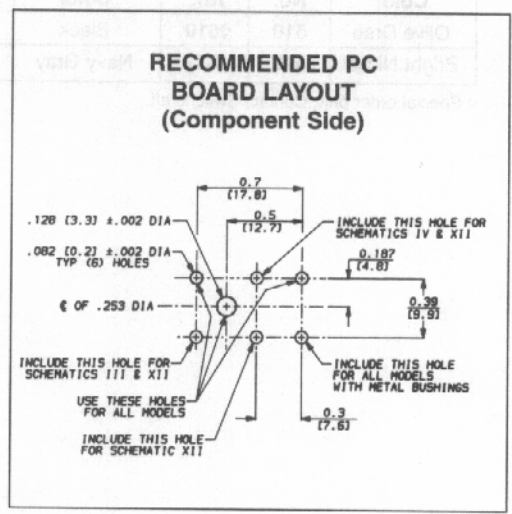
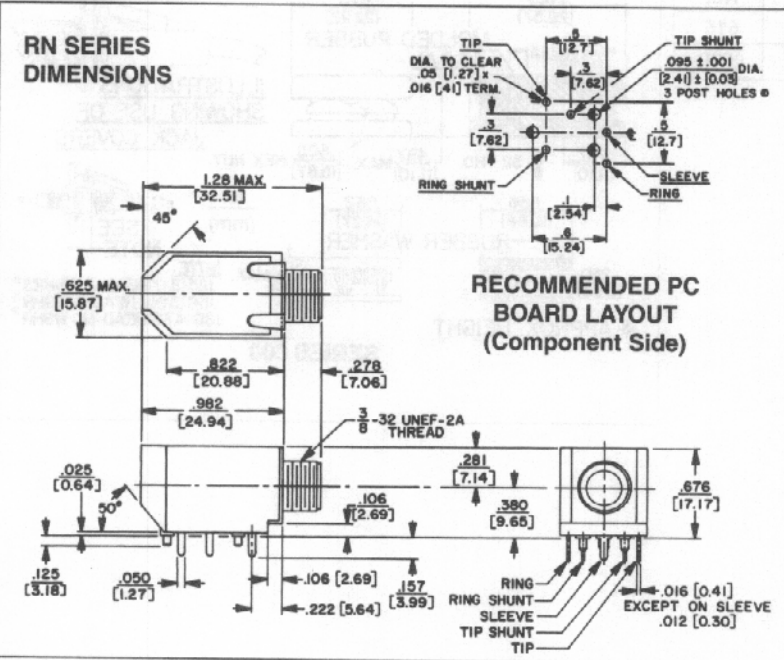
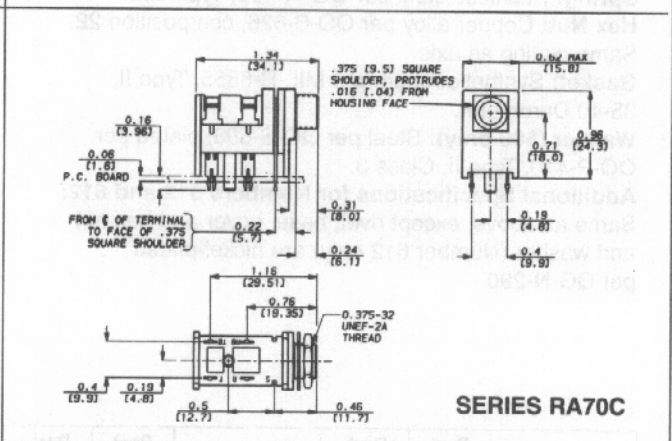
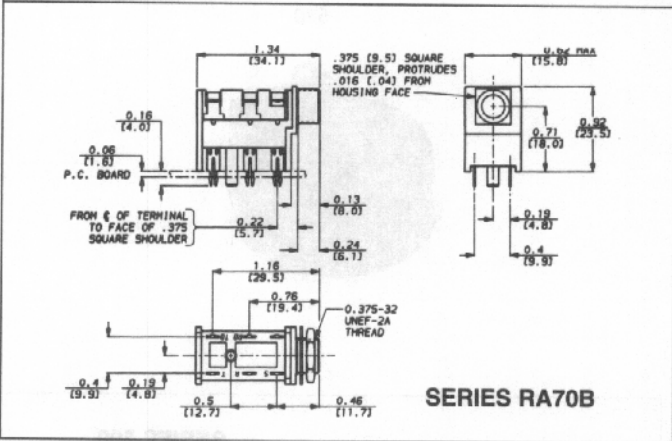
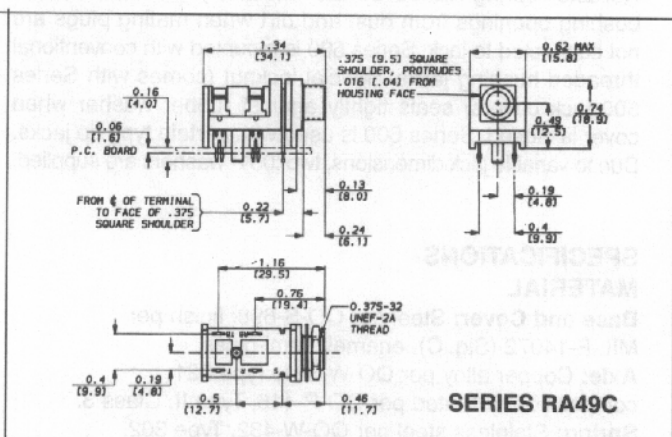
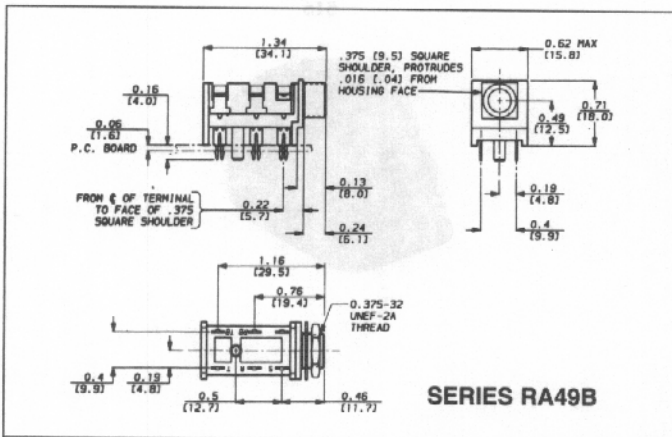


RECOMMENDED PC BOARD LAYOUT  
SERIES SN70C  
(Component Side)

DIMENSIONS ARE FOR REFERENCE ONLY  
Inch (mm)

1/4" RIGHT-ANGLE PHONE JACKS (continued)

SERIES RA and RN



DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

JACKS AND PLUGS SWITCHCRAFT