

# SWITCHCRAFT®

# C502h

## CONNECTORS:

Audio, DIN, General Purpose,  
AC Cords & Receptacles



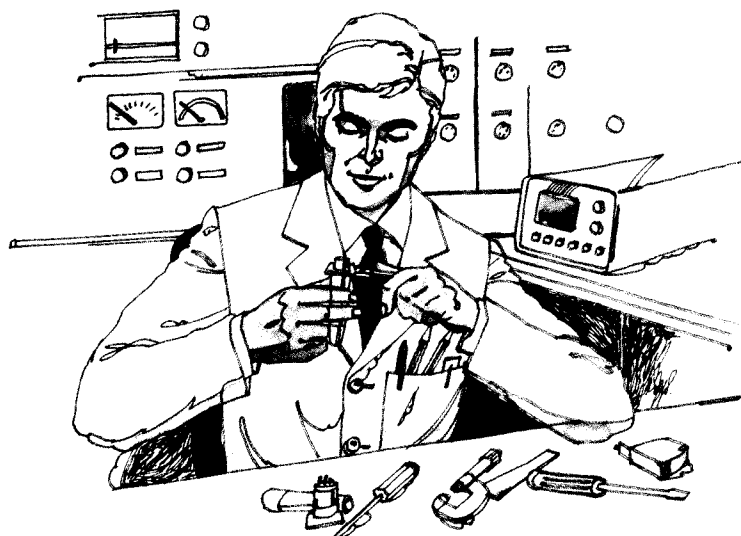
*for details, contact:*



SUPPLIED  
BY  
TURNBULL & JONES LTD.

## CONNECTORS:

Audio, DIN, General Purpose,  
AC Cords & Receptacles



® Registered tradename of Switchcraft, Inc.

**NOTE:** Contact your Switchcraft Representative for pricing.

## CONTENTS

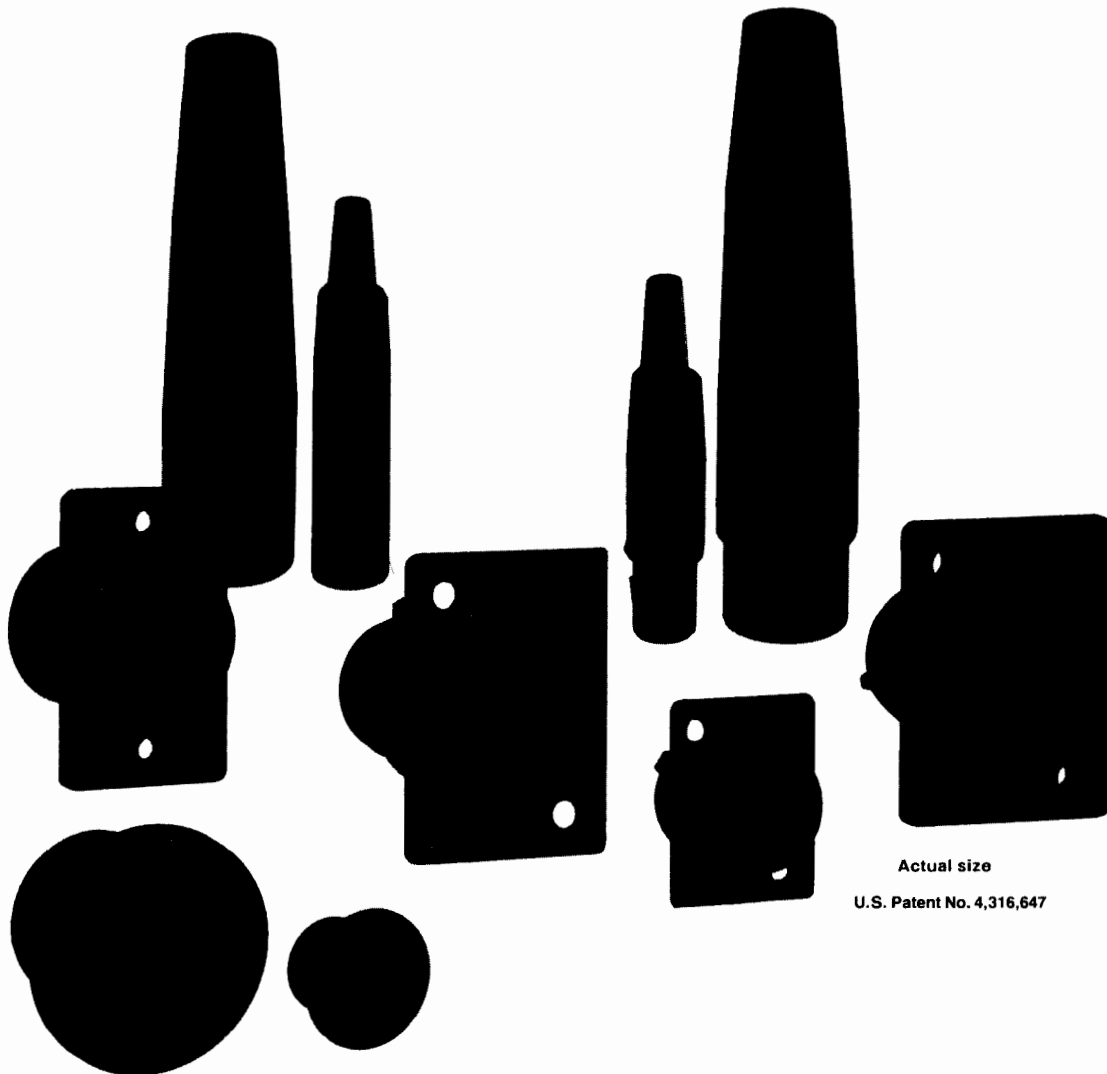
	PAGE
<b>Section 1—</b>	
Tini-QG Miniature Connectors & Adapters .....	3-6
Q-G Connectors & Adapters .....	7-20
<b>Section 2—</b>	
DIN Connectors .....	21-28
<b>Section 3—</b>	
Slim-Line Connectors .....	29-36
<b>Section 4—</b>	
General Purpose Connectors .....	37-42
<b>Section 5—</b>	
AC Cords & Receptacles .....	43-46

**NOTE:** To quickly locate part numbers, see page 47 for part number/  
page number cross-reference guide.



# TINI "QG" MINIATURE CONNECTORS & "QG" CONNECTORS

## SECTION 1



Actual size

U.S. Patent No. 4,316,647



	PAGE
Tini-QG Miniature Connectors .....	4-6
Q-G Connectors .....	7-12
Q-G Inserts, Accessories .....	13
Q-G Connector-Adapters .....	14-17
Q-G Cross Reference, Mating Information .....	18-19

# SWITCHCRAFT®

## Tini "Q-G" MINIATURE CONNECTORS

### MICROPHONES—

Ideal for "live" performances, recording sessions, and audio pickups. Nickel finish blends with all surroundings and minimizes reflected glare and "hot" spots under intense lighting. Disconnecting plugs from lavaliers or "clip-on" mikes is QUICK and EASY . . . press the release button and pull the plug free. Either shielded or unshielded cables can be used up to 0.115 in. (2.92 mm) in diameter (standard). Cable shield may either be connected to a pin/contact through circuit or may be connected to the cable clamp strain relief. This alternate connection permits using the metal housings of plugs to completely shield internal connections and pins/contacts.

**Series TA(\*)F & TA(\*)FL**—Straight female cord plug

**Series TA(\*)M & TA(\*)ML**—Straight male cord plug

**Series TB(\*)M**—Chassis/panel mount male receptacle

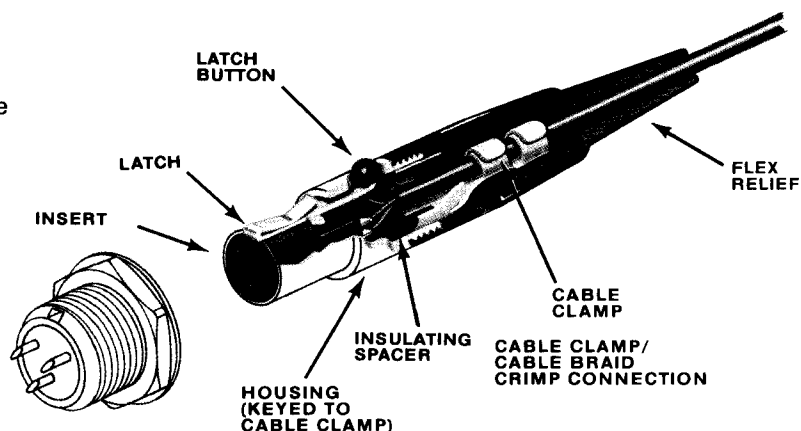
**Series TY(\*)F & TY(\*)FPC**—Chassis/panel, female receptacle, choice of solder lugs or P.C. terminations.

### INSTRUMENTATION—

Design trends move toward more compact instruments, even while circuit density increases dramatically. Smaller package sizes demand smaller connectors without sacrificing quality.

Tini "Q-G" plugs and receptacles have the quality and versatility of functions and features for the most demanding connections in industrial, R&D and production instrumentation of all kinds. The 4- and 5-pin/contact versions are especially suited to multi-circuit connections.

On special order, a maximum cable diameter of 0.170 in. (4.32 mm) is possible when flex relief bushing is not used.



## DESIGN FEATURES

**STYLE**—Streamlined, miniaturized with nickel plated metal and pleasantly contrasting black plastic parts. Designed for light weight and quiet unobtrusiveness . . . features desired by the most active performer or speaker.

**CONSTRUCTION**—Metal parts are rugged die cast or precision machined with nickel plating; Plastic parts are molded of high-dimensional-stability thermoplastic. Advanced design assures minimum weight consistent with strength and durability of cord plug housings of .413 in. (10.5 mm) dia. Weight: Series TA(\*)F plug = .25 oz. (7 g); Series TA(\*)M = .3 oz. (8.5 g).

**INSERTS**—Precision molded of thermoplastic for high mechanical and dielectric strength. Contacts and terminals are precision formed and silver plated for intimate contact and low resistance connections. Terminal numbers are molded on rear of male insert (and on face of female insert) for easy terminal identification.

### INSERT ARRANGEMENTS



### TERMINAL VIEWS OF PINS

Inserts can be supplied for OEM installation in microphones and instrumentation for optimum connecting reliability. For cord plugs, inserts can also be supplied for replacements.

**MOUNTING**—Recommended Mounting:

Receptacle Series	Panel Mounting Front	Panel Mounting Rear	Termination P.C.	Solder
TB(*)M	X		X*	X
TY(*)F	X	X	X	X
TY(*)FPC	X	X	X	

\*P.C. board termination is recommended alternate method.

**NOTE:** Refer to page 6 for complete mounting data.

Panel/Chassis Thickness:

Series TB(\*)M: .25 in. (6.35 mm) max.

Series TY(\*)F: Front—.375 in. (9.5 mm) max.

Rear—.093 in. (2.3 mm) max.

Series TY(\*)FPC:

Front—.312 in. (7.9 mm) max.

Rear—.093 in. (2.3 mm) max.

**LATCHLOCK**—Positive latch system assures high integrity, vibration-resistant mating and transfer of shielding connection between housing . . . combined with simple, easy fingertip release.

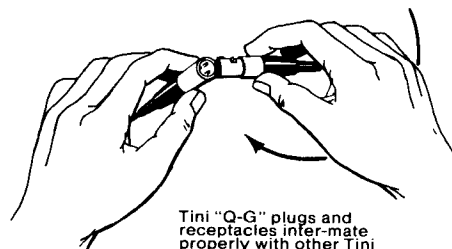
**STRAIN RELIEF**—Rugged internal clamp holds cable tightly, while making a secure, low resistance connection between cable shield and housing.

**FLEX RELIEF**—Protects by minimizing cable bending stress at point of cable entry. Maximum recommended cable dia. is .115 in. (2.92 mm) when bushing is used. By omitting bushing (Series T(\*)FL & T(\*)ML only), cable up to .170 in. (4.32 mm) dia. can be employed.

**ASSEMBLY**—Connector parts are mechanically keyed for simple, fool-proof assembly.

**POLARIZATION**—Mating male and female connectors are also mechanically keyed (latch and groove) so that it is impossible to mate them incorrectly.

**"SCOOP-PROOF" FEATURE**—Fully recessed pins on male plugs and receptacles cannot be "scooped", i.e., bent or damaged by accidental mismatching with mating connector (see illustration).



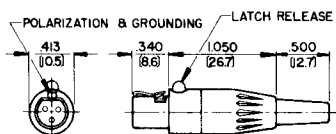
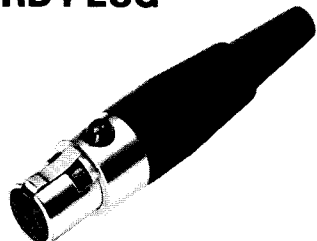
Tini "Q-G" plugs and receptacles inter-mate properly with other Tini "Q-G" connectors with same pin arrangements.

**COLOR ESCUTCHEONS**—Attractive color escutcheons, Series TYEF, are recommended for use with Series TY(\*)F and TY(\*)FPC receptacles (when rear mounted) for attractive panel trim, as well as color coding one or more connectors. Colors are: red, black, grey, green, blue, white and yellow.

**CUSTOM Tini "Q-G" CABLE ASSEMBLIES**—On special order where production quantities warrant, Switchcraft can supply assembled and tested Tini "Q-G" cables.

**NOTE:** Refer to page 6 for adapters to convert Tini "Q-G" to full size audio connections.

## TA(\*)F & TA(\*)FL CORD PLUG

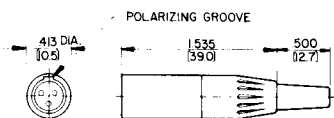
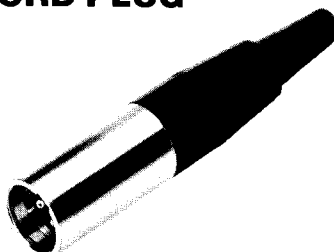


**STRAIGHT FEMALE CORD PLUG.**

Part No. (1)	Insert Contacts
TA3F	3
TA3FL	3
TA4F	4
TA4FL	4
TA5F	5
TA5FL	5

(1) Plugs normally shipped assembled. For large orders, plugs can be shipped disassembled for approx. 10% lower price (special order only).

## TA(\*)M & TA(\*)ML CORD PLUG

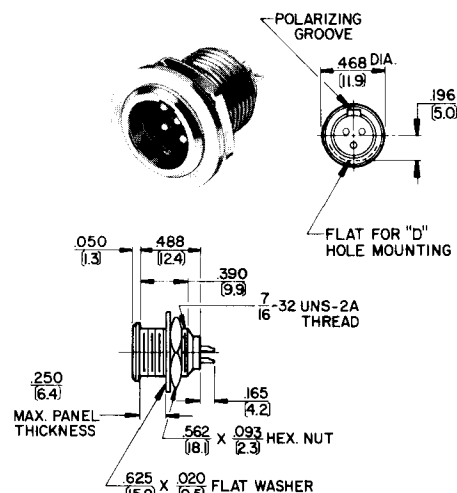


**STRAIGHT MALE CORD PLUG.**

Part No. (1)	Insert Pins
TA3M	3
TA3ML	3
TA4M	4
TA4ML	4
TA5M	5
TA5ML	5

(1) Plugs normally shipped assembled. For large orders, plugs can be shipped disassembled for approx. 10% lower price (special order only).

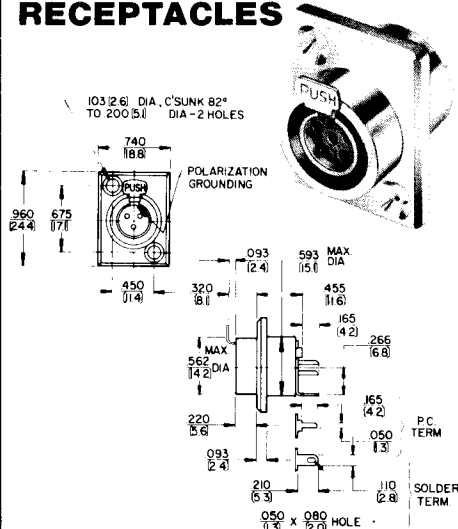
## TB(\*)M RECEPTACLE



Male receptacle for chassis/panel mounting. Specially designed flange permits close (front) mount on crowded panels. Recommended for either wire leads or P.C. termination. Mounting hardware supplied.

Part No.	Insert Pins
TB3M	3
TB4M	4
TB5M	5

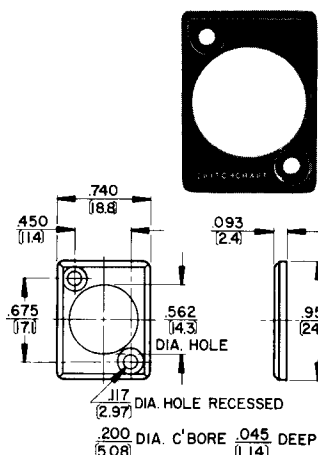
## TY(\*)F & TY(\*)FPC RECEPTACLES



Female receptacle mounts in minimum space from front or rear panel or chassis. Terminals are solder lugs, Series TY(\*)JF, or P.C., Series TY(\*)FPC. All receptacles have separate ground lug.

Part No.	Insert Contacts
TY3F	3
TY3FPC	3
TY4F	4
TY4FPC	4
TY5F	5
TY5FPC	5

## TYEF ESCUTCHEONS



Trim escutcheons in seven colors for use with Series TY(\*)F and TY(\*)FPC receptacles. Escutcheons recommended for rear mount receptacles. Escutcheons must be ordered separately.

Part No.	Color
@TYEF-01	Red
TYEF-02	Black
@TYEF-03	Green
TYEF-04	Blue
@TYEF-05	White
@TYEF-08	Yellow
@TYEF-11	Grey

## TQG(\*)F & TQG(\*)M CONNECTOR INSERTS



**TQG3M**



**TQG3F**

Male and female inserts with 3, 4 or 5 pins/contacts. For replacement (cord plugs only) or build-into equipment, such as microphones, transducers, instruments, etc.

## Male Inserts

Part No.	Insert Pins
TQG3M	3
TQG4M	4
TQG5M	5

## Female Inserts

Part No.	Insert Contacts
TQG3F	3
TQG4F	4
TQG5F	5

\*Number of insert contacts or pins must be specified to complete Part Number.

⊕Special order only; contact factory for price and delivery.

**NOTE:** Contact your Switchcraft Representative for pricing.

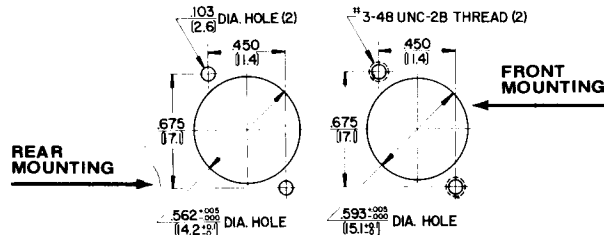
*We reserve the right to change the prices, specifications and/or part numbers contained herein when circumstances make it necessary.*

# SWITCHCRAFT®

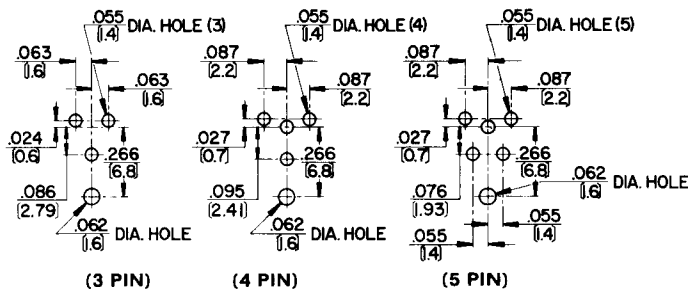
## Tini "Q-G" MINIATURE CONNECTORS

### MOUNTING HOLE DETAIL

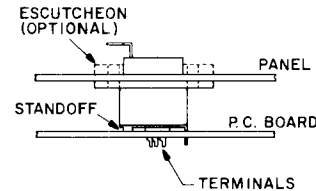
SERIES TY(\*)F, TY(\*)FPC



### RECOMMENDED P.C. BOARD LAYOUT



### COMBINED P.C./PANEL MOUNTING



### SPECIFICATIONS:

#### ELECTRICAL

Contact Resistance: .010 ohms max. after life (and after salt spray).

Current Rating: 4 A max. carry only, 125 V AC.

Insulation Resistance: 510,000 megohms min. @ 500 V DC (initial);

10,000 megohms min. (after humidity test).

Dielectric Strength: 1,000 V (rms).

#### MECHANICAL

Life: 5,000 operations.

Insertion/Withdrawal Forces: 6.1 lb./2.77 kgm. after life, insertion;

5.6 lb/2.54 kgm. after life, withdrawal.

Solderability Standard: Meets EIA 178/ANSI C-83.93-1973; superseded by EIA RS-186-9E.

Mechanical Shock: Meets MIL-STD-202E, method 213B.

Vibration: Meets MIL-STD-202E, method 201A.

#### ENVIRONMENTAL

Thermal Range: -55°C to +85°C.

Humidity: Meets MIL-STD-202E, method 106D.

Thermal Shock: Meets MIL-STD-202E, method 107D.

Salt Spray: Meets MIL-STD-202E, method 101.

#### MATERIAL

Housing: Plugs & Male Receptacles—Brass, nickel plated.

Female Receptacle—Die-cast zinc, nickel plated.

Pin & Socket Contacts: Copper alloy, silver plated.

Flex Relief: Molded black thermoplastic elastomer.

Latch Button: Molded black thermoplastic.

Release Lever & Mounting Washer: Steel, nickel plated.

Standoff/Ground Terminal & Cable Clamp: Steel, electroplated.

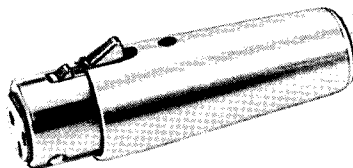
Inserts & Insulating Spacer: Molded, high strength thermoplastic.

Latch (Female): Beryllium copper, nickel plated.

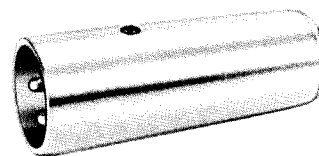
Mounting Nut: Brass, nickel plated.

## Tini "Q-G" AUDIO ADAPTERS, SERIES TA

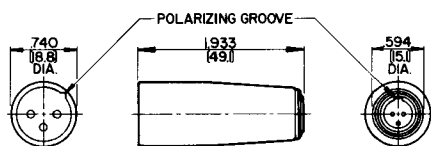
To adapt Tini "Q-G" connections to standard audio connectors, Series TA Tini "Q-G" audio adapters have been designed. Tini "Q-G" adapters convert to Switchcraft "Q-G" and QGP connectors and similar full size connectors.



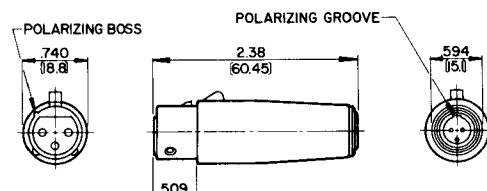
TA-01



TA-04



TA-01, TA-02, TA-03



TA-04, TA-05, TA-06

Part No.	Tini "Q-G" End	Mates With "Q-G" End <sup>1</sup>
TA-01	TA3F	A3M
TA-02	TA4F	A4M
TA-03	TA6F	A5M
TA-04	TA3F	A3F
TA-05	TA4F	A4F
TA-06	TA6F	A5F

1. Typical mating "Q-G" listed; see pp. 19-20 for mating information.

## "Q-G" CONNECTORS

Switchcraft "Quick-Ground"\* 3-, 4-, 5-, 6-, and 7-contact quality audio connectors with exclusive "Ground Terminal" and "Ground Contactors" are available in a wide range of plugs and receptacles—at competitive prices. "Q-G" connectors have been field proven in a wide variety of critical applications, including use with microphones, test equipment, instrumentation, computers, cameras, tape recorders, PA and sound-reinforcement systems, stereo and hi-fi equipment—and many more.

QGP series audio connectors are the result of years of research and development, designed to eliminate problems faced by professionals in all areas of sound... from studios to rock concerts. The QGP series connectors meet all connecting & mounting requirements... and mate with existing connectors such as Switchcraft "QG" and other similar connectors. QGP connectors are available with 3 pins/contacts only. Special features include Vel-Tone non-reflective finish, gray neoprene strain relief and gold plated pins/contacts.

### SPECIFICATIONS:

#### ELECTRICAL

(QG Connectors Only)

**Contact Resistance:** 50 milliohm max., per pole.

**Current Rating:** 3 pole—15 A; 4 pole—10 A, 5 & 6 pole—7.5 A; 7 pole—5 A.

**Insulation Resistance:** 1,000 megohms, min.

**Dielectric Withstanding Voltage:** 1,000 V (rms).

**Capacitance:** 2 Pf between pins and 4 Pf between pins and shell, max. (A3M & A3F).

#### MECHANICAL

(QG Connectors Only)

**Insertion/Withdrawal Forces:** 7 lb. max., 5 lb. nominal, insertion; 7 lb. max., 5 lb. nominal, withdrawal.

#### MATERIAL

QG Connectors

**Shell:** Die-cast zinc. Satin nickel finish on all shells, except a black, electrically conductive, chrome plate finish on "Black-Velvet" shells.

**Insert Insulation:** High-impact, molded thermo-setting plastic.

**Socket Contacts:** Phosphor bronze, silver plated, chromate dipped; bifurcated on 3-contact type.

**Pin Contacts:** Brass, silver plated, chromate dipped. Resists tarnishing, and provide excellent electrical conductivity.

**Latchlock:** High-strength die-cast zinc.

**Latch Release:** Steel, nickel plated.

**Latch Detent:** Formed stainless steel.

**Insert Screw:** Stainless steel.

**Cable Relief Bushing:** Neoprene.

**Mounting Nut and Washer:** Brass, nickel plated. (Black, electrically conductive chrome plate finish for "Black Velvet" receptacles).

**Mounting Wall Plates:** Cold-rolled steel, with stainless steel finish.

QGP Connectors

**Shell:** Die-cast zinc, non-reflective Vel-Tone finish.

**Insert Insulation:** High strength, reinforced thermoset plastic.

**Socket Contacts:** Phosphor bronze, 50 microinch gold (over 50 microinch nickel) plated.

**Pin Contact:** Brass, 50 microinch gold (over 50 microinch nickel) plated.

**Latchlock:** Die-cast zinc, non-reflective nickel finish.

**Latch Release:** Steel, nickel plated.

**Cable Relief Bushing:** Flexible gray neoprene.

**Barrel:** (Female connectors only) Stainless steel.

**Mounting Screws:** Stainless steel, passivated, non-reflective finish.

**Spanner Nut:** (QGP-3-28) Die-cast zinc, nickel plated.

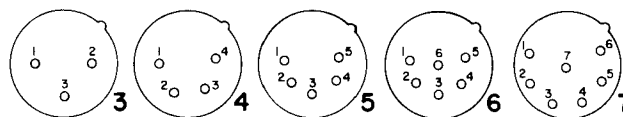
**Nut:** (QGP-3-29) Brass, nickel plated.

**Washer:** (QGP-3-29) Steel, nickel plated.

### EXCLUSIVE SWITCHCRAFT GROUNDING AND SHIELDING:

In many applications, grounding of connector shells is desirable for shielding. Switchcraft "Q-G" connectors provide firm and constant electrical ground continuity between mating connector shells through use of an exclusive "Ground Terminal" and "Ground Contactors." An insert mounting screw, when tightened against the connector shell, establishes electrical continuity between "Ground Terminal", "Ground Contactors", and the connector housing. Upon engagement with a mating connector or receptacle, the ground circuit is automatically connected to the mating shell through the Switchcraft "Ground Contactor".

FACE VIEW OF PIN (MALE) INSERTS



INSERT CONFIGURATIONS

Any selected pin/contact can be grounded to the shell readily by "jumping" it to the "Ground Terminal". Contact No. 1 engages before all other contacts and disengages after all other contacts. With Switchcraft "Q-G" you receive full contact versatility—plus the exclusive shell "ground" provision.

### DESIGN FEATURES:

**STYLE:** Fresh, streamlined design to enhance the appearance of the most modern equipment.

**CONSTRUCTION:** Sturdy, die-cast zinc with satin nickel finish or "Black-Velvet" finish to withstand hard use—even abuse. Vel-Tone non-reflective finish on QGP connectors only.

**INSERT INSULATION:** New, exclusive high-impact, molded thermosetting plastic provides high dielectric strength, superior insulation resistance.

**LOCKING:** Latchlock on female plugs and receptacles locks into groove in mating male connector to prevent accidental disconnect. Manual release of latchlock is required to separate connectors. "Q-G" connectors are also available with FAS-DISCONNECT detent in place of latchlock. QGP has die-cast latchlock.

**FAS-DISCONNECT:** FAS-DISCONNECT detent permits immediate disconnect of locked connectors with a 4-lb. (1.8 kg) force. See pages 8 thru 11. NOTE: FAS-DISCONNECT connectors are not recommended for use in situation where strong or violent pulls on cable may occur that might cause accidental disconnect. Available on "QG" connectors only.

**DUAL PRESSURE PLATES:** Provides secure cable lock and strain relief for all standard size cables.

**BUSHINGS:** Neoprene cable strain relief bushing on cord plugs is keyed to shell. Standard bushing opening accepts cables up to .25-in. (6.25 mm) dia. Gray neoprene strain relief on QGP connectors only.

Bushings for multiple cond. cables can be supplied to accept cables up to .328-in. (8.33 mm) dia. Code letter "L" in last or next-to-last character in part number indicates a cord plug with large bushing opening.

**CONTACTS:** QG female contacts are phosphor bronze, silver plated, chromate dipped; male contacts are brass, silver plated, chromate dipped. QGP female contacts are phosphor bronze, 50 microinch gold (over 50 microinch nickel) plated; male contacts are brass, 50 microinch gold (over 50 microinch nickel) plated.

**WIRING:** Large, unique design solder cups make wiring fast and easy. Certain receptacles are also available with PC terminals for use with printed circuit boards.

# SWITCHCRAFT®

## "Q-G" CONNECTORS

### DESIGN FEATURES (Cont'd.)



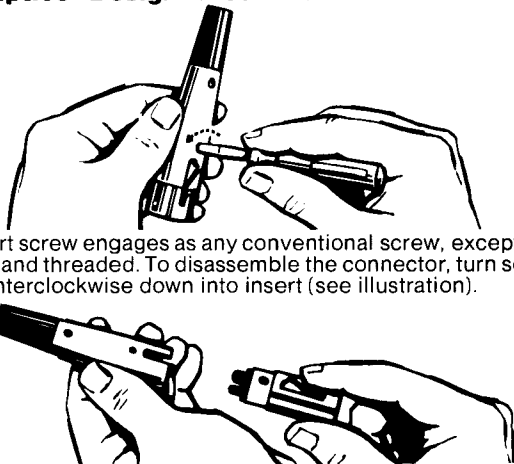
**BIFURCATED CONTACT**

**BIFURCATED CONTACTS** (3-contact connectors): Extra positive grip on mating pins, even under conditions of severe shock and vibration.

**POLARIZATION:** Connectors are designed so that it is virtually impossible to mate them incorrectly. Polarization is accomplished both by means of contact configuration and polarizing boss (female connectors) and groove (on male connectors).

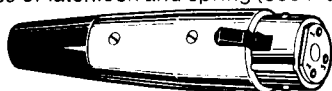
**MATING:** "Q-G" connectors mate with other connectors that have a similar insert configuration and identical number of pins/contacts. (See cross reference guide and mating chart —pages 19-20.)

### "Captive" Design" Insert Screws



Insert screw engages as any conventional screw, except it is lefthand threaded. To disassemble the connector, turn screw counterclockwise down into insert (see illustration).

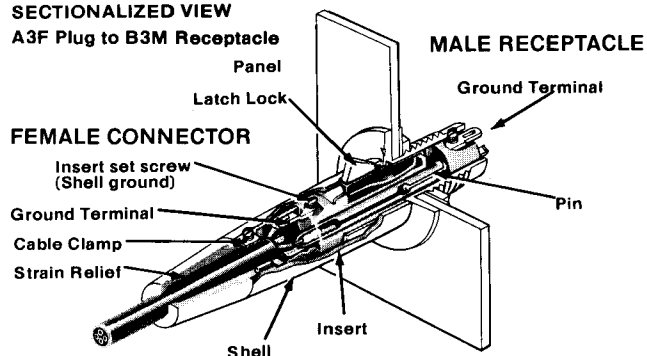
Insert assembly is now readily removed from shell. Note "Ground Terminal" area—large soldering cups make cable installation fast and easy. Unitized 1-piece insert eliminates possible loss of latchlock and spring (see illustration).



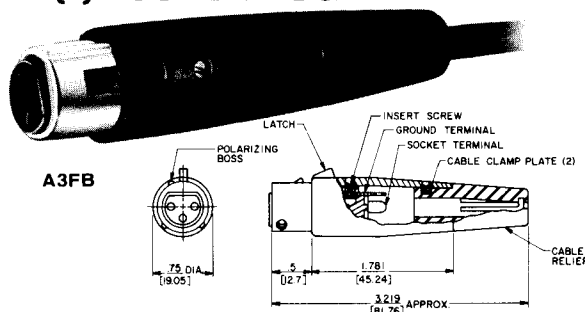
To reassemble, replace insert assembly into shell, align insert screw under hole in shell and secure insert by turning insert screw clockwise. This "wedges" insert against interior of shell providing a rigid connector assembly and positive electrical continuity between "Ground Terminal" and shell (see illustration).

### SECTIONALIZED VIEW

#### A3F Plug to B3M Receptacle



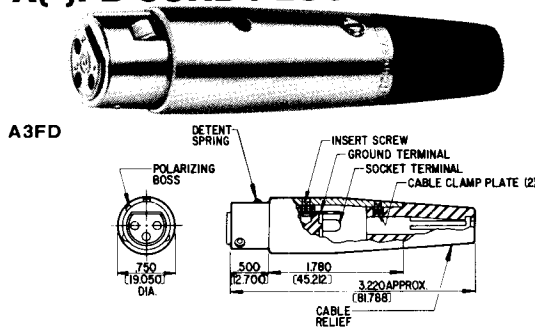
## A(\*)F CORD PLUG



Straight female cord plug with standard latchlock. Satin nickel finish, except "Black-Velvet" type (Series A\*FB).

Part No.	Part No.	Part No.	Part No.	Insert Contacts
A3F	A3FB	A3FL	QGP-3-22	3
A4F	—	A4FL	—	4
A5F	—	A5FL	—	5
A6F	—	⊕A6FL	—	6
A7F	—	—	—	7

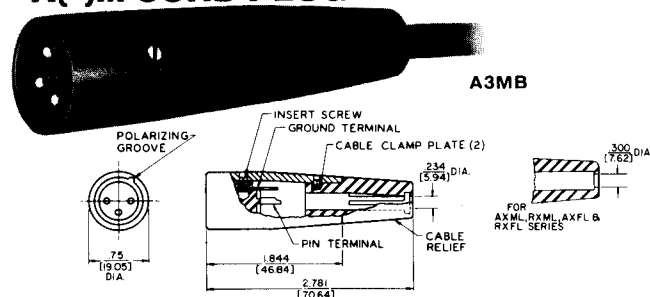
## A(\*)FD CORD PLUG



Straight female cord plug with FAS-DISCONNECT detent.

Part No.	Part No.	Insert Contacts
A3FD	A3FD	3
A4FD	—	4
A5FD	—	5
A6FD	—	6
A7FD	—	7

## A(\*)M CORD PLUG



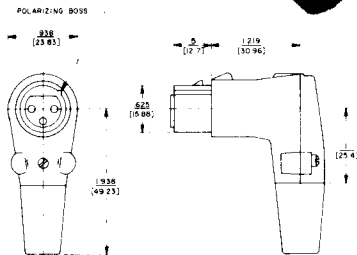
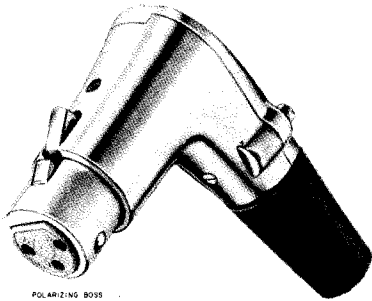
Straight male cord plug. Satin nickel finish, except "Black-Velvet" type (Series A\*MB).

Part No.	Part No.	Part No.	Part No.	Insert Contacts
A3M	A3MB	A3ML	QGP-3-23	3
A4M	—	A4ML	—	4
A5M	—	A5ML	—	5
A6M	—	⊕A6ML	—	6
A7M	—	⊕A7ML	—	7



## "Q-G" CONNECTORS

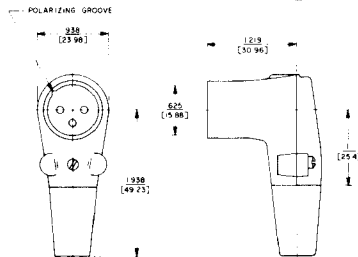
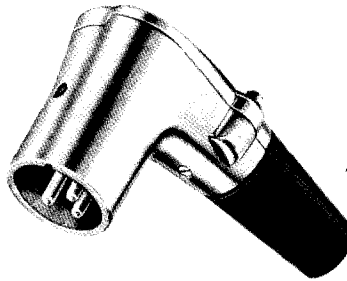
### R(\*)F CORD PLUG



Right angle female cord plug with standard latchlock.

Part No.	Part No. <sup>1</sup>	Insert Contacts
R3F	R3FL	3
R4F	R4FL	4
R5F	R5FL	5
R6F	—	6
R7F	—	7

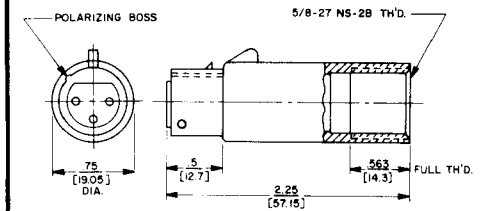
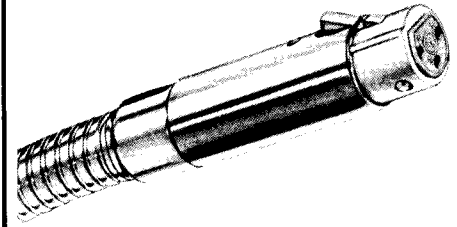
### R(\*)M CORD PLUG



Right angle male cord plug.

Part No.	Part No. <sup>1</sup>	Insert Pins
R3M	R3ML	3
R4M	R4ML	4
R5M	R5ML	5
⊕R6M	—	6
R7M	—	7

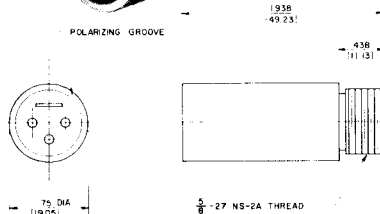
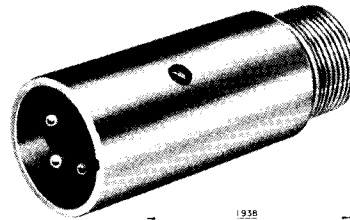
### P(\*)F MICROPHONE PLUG



Female microphone plug for gooseneck mount. Fits standard gooseneck with external 5/8-27 thread. Microphone plugs directly into connector. (Gooseneck not supplied.)

Part No.	Insert Contacts
P3F	3
⊕P4F	4
⊕P5F	5

### P(\*)M GOOSENECK PLUG



Male plug for gooseneck mount. Fits standard gooseneck with internal 5/8-27 thread. Use on gooseneck with microphone plug on opposite end. Plugs directly into female receptacle. (Gooseneck not supplied.)

Part No.	Insert Pins
P3M	3
⊕P4M	4
⊕P5M	5

⊕ Available on special order only; contact Switchcraft for price and delivery.

\*Number of insert contacts or pins must be specified to complete part number.

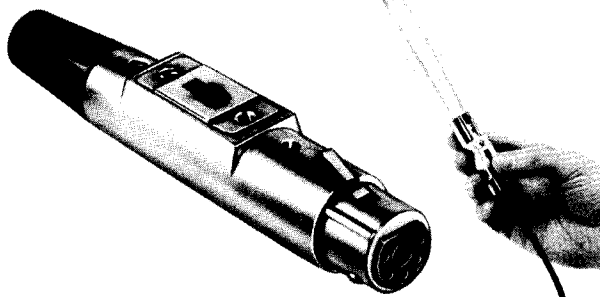
NOTE: Contact your Switchcraft Representative for pricing.

1. Large cable relief bushing; see page 13 for details.

# SWITCHCRAFT®

## "Q-G" CONNECTORS, PLUGS, RECEPTACLES

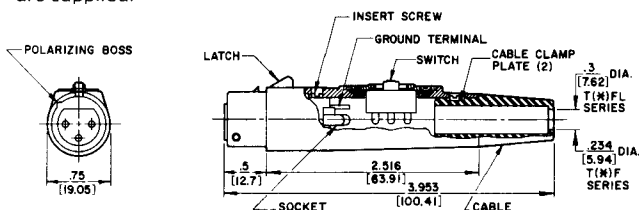
### T(\*)F and T(\*)FM CORD PLUG WITH ON-OFF SWITCH



**T(\*)F.** Straight female cord plug with DPDT (2-C) locking on-off switch; standard latchlock.

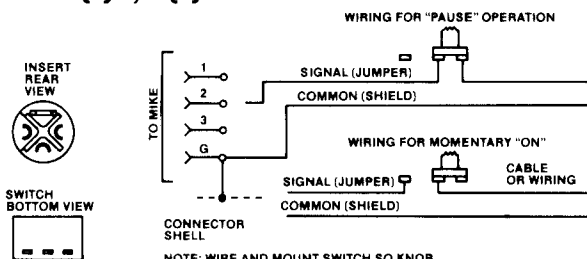
**T(\*)FM.** Straight female cord plug with SPDT (1-C) momentary on-off switch; standard latchlock.

Slide switches rated 500 mA, 125V (AC or DC). Mounting screws are supplied.

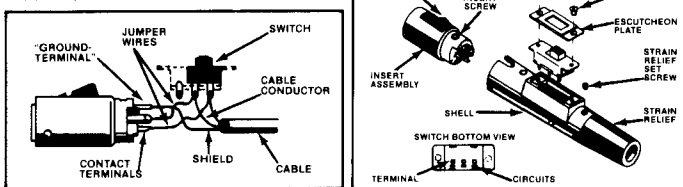


Part No.	Part No. <sup>1</sup>	Insert Contacts
T3F	⊕T3FL	3
T3FM	⊕T3FLM	3
⊕T4F	⊕T4FL	4
⊕T4FM	⊕T4FLM	4
⊕T5F	⊕T5FL	5
⊕T5FM	⊕T5FLM	5
⊕T6F	⊕T6FL	6
⊕T6FM	⊕T6FLM	6
⊕T7F	—	7
⊕T7FM	—	7

### T(\*)F, T(\*)FL WIRING DIAGRAM



### T(\*)FM, T(\*)FLM WIRING DIAGRAM



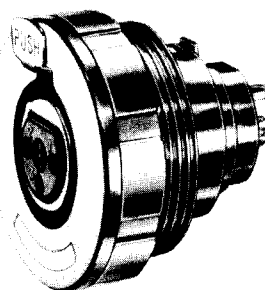
\*Number of insert contacts or pins must be specified to complete Part Number.

1. Large cable relief bushing; see page 13 for details.

⊕ Available on special order only; contact Switchcraft for price and delivery.

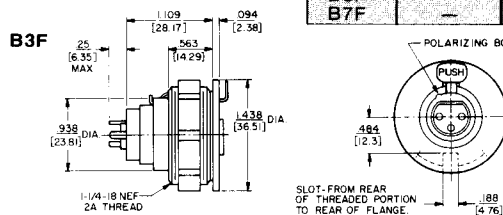
NOTE: Contact your Switchcraft Representative for pricing.

### B(\*)F RECEPTACLE

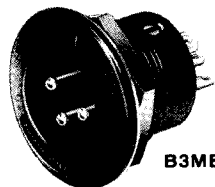


Panel mount female receptacle. Mounts with spanner nut from front of panels up to .4375-in. (11.11 mm) thick. Slot in threaded part of housing permits non-turn mounting. Requires 1.25-in. (31.75 mm) dia. min. mounting hole. Spanner nut is die-cast zinc with satin nickel finish (Series B\*F) or "Black-Velvet" finish (Series B\*FB).

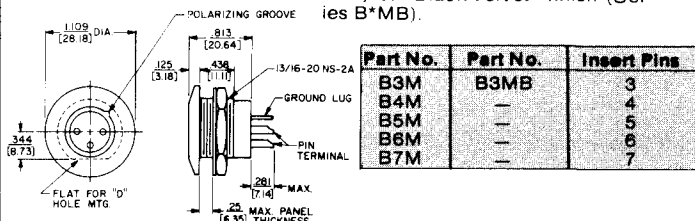
Part No.	Part No.	Insert Contacts
B3F	B3FB	3
B4F	—	4
B5F	—	5
B6F	—	6
B7F	—	7



### B(\*)M RECEPTACLE

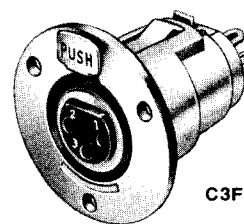


Panel mount male receptacle. Mounts with locknut from front of panels up to .25-in. (6.35 mm) thick. Requires .812-in. (20.64 mm) dia. mounting hole. For non-turning mounting, can be keyed to "D"-shaped panel hole, or S-3519 mounting adapter can be used (see page 13). Satin nickel finish (Series B\*M) or "Black-Velvet" finish (Series B\*MB).



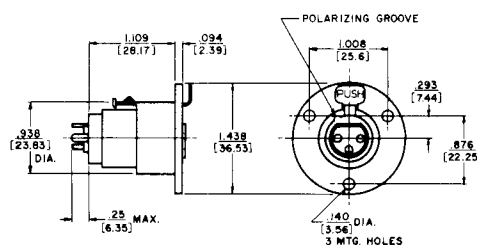
Part No.	Part No.	Insert Pins
B3M	B3MB	3
B4M	—	4
B5M	—	5
B6M	—	6
B7M	—	7

### C(\*)F RECEPTACLE



Female receptacle for panel or chassis mounting. Flange has three .14-in. (3.57 mm) dia. holes for #5-40 mounting screws (not supplied). Mounts from front of panel or chassis in 0.953-in. (24.21 mm) dia. hole.

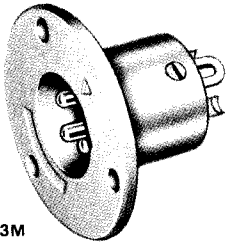
Part No.	Part No.	Insert Contacts
C3F	C3FB	3
C4F	—	4
C5F	—	5
C6F	—	6
C7F	—	7





## Q-G RECEPTACLES

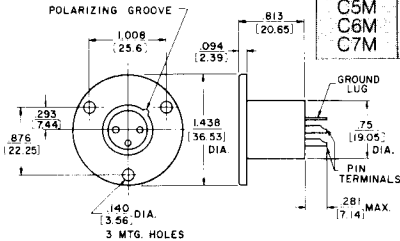
## C(\*)M RECEPTACLE



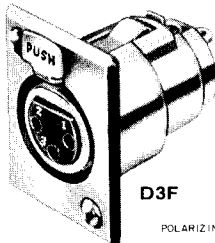
C3M

Male receptacle for panel or chassis mounting. Flange has three .14-in. (3.57 mm) dia. holes for #4 mounting screws (not supplied). Mounts from front of panel or chassis in .766-in. (19.45 mm) dia. hole.

Part No.	Part No.	Insert Pins
C3M	QGP-3-27	3
C4M	—	4
C5M	—	5
C6M	—	6
C7M	—	7

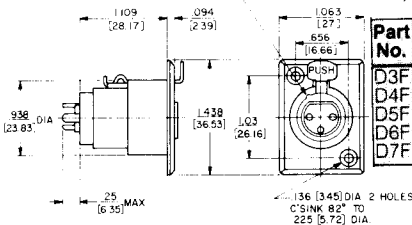


## D(\*)F and D(\*)FD RECEPTACLES



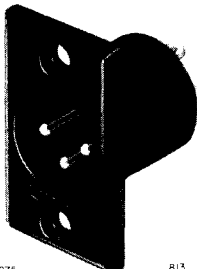
D3F

Female receptacle for panel or chassis mounting. Flange has two .136-in. (3.45 mm) dia. countersunk holes for #5-40 flat head mounting screws (not supplied). Mounts from front of panel or chassis in .953-in. (24.21 mm) dia. hole. Series D(\*)F has standard latchlock. Series D(\*)FD has FAS-DISCONNECT detent. Satin nickel finish (Series D\*F & D\*FD) and "Black-Velvet" finish (Series D\*FB).



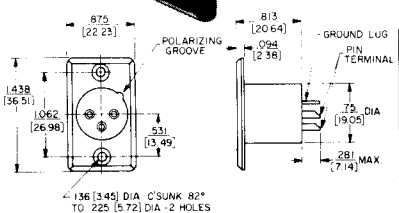
Part No.	Part No.	Part No.	Part No.	Insert Contacts
D3F	D3FB	D3FD	QGP-3-62	3
D4F	—	—	—	4
D5F	—	—	—	5
D6F	—	—	—	6
D7F	—	—	—	7

## D(\*)M RECEPTACLE



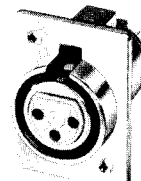
D3MB

Male receptacle for panel or chassis mounting. Special rectangular flange permits close spacing on crowded panels. Flange has two .136-in. (3.45 mm) dia. countersunk holes for #5-40 flat head mounting screws (not supplied). Mounts from front of panel or chassis in .766-in. (19.45 mm) dia. hole. Satin nickel finish (Series D\*M) or "Black-Velvet" finish (Series D\*MB).

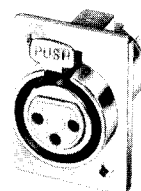


Part No.	Part No.	Part No.	Insert Pins
D3M	D3MB	QGP-3-63	3
D4M	—	—	4
D5M	—	—	5
D6M	—	—	6
D7M	—	—	7

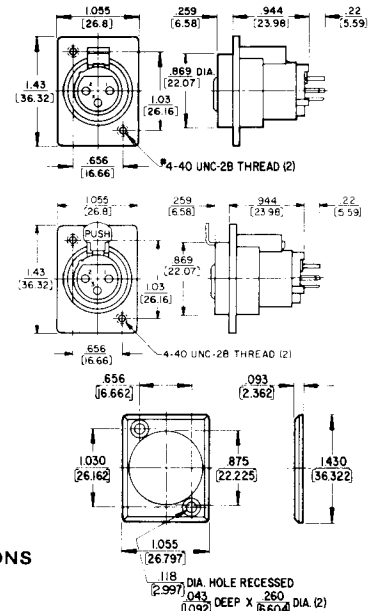
## SERIES Y(\*)F, Y(\*)FPC, Y(\*)FD, and Y(\*)FDPC RECEPTACLES



No. Y3FDPC



No. Y3FPC

No. YEF-02  
ESCUTCHEONS

**Series Y(\*)F, Y(\*)FPC.** Female Receptacles with standard latchlock, for panel or chassis mounting. Y(\*)F—standard solder terminals; Y(\*)FPC—PC terminals and standoffs. Rear of panel mount in .875-in. (22.22 mm) dia. hole. Max. panel thickness—.25-in. (6.35 mm); .156-in. (3.96 mm) if YEF Escutcheon is used.

**Series Y(\*)FD, Y(\*)FDPC.** Female receptacles. Same as Y(\*)F and Y(\*)FPC, respectively, except with FAS-DISCONNECT detent.

**Series YEF Escutcheons.** Trim escutcheons provide distinctive panel appearance, can also color code connections. Available in black (std.), red, green, white, and yellow. Other colors possible on special order where production quantities warrant.

## ASSEMBLY/MOUNTING

All receptacles are rear-of-panel mount (units with PC terminals also mount terminate to PC board). Flange fastens to chassis/panel with two #4-40 machine screws (not supplied). Use of escutcheons is optional.

Install latch release lever (Series Y(\*)F and Y(\*)FPC) after receptacle is fastened to chassis/panel. Insert lever in slot from front and press inward until it locks ("snaps") into place. To remove lever, depress rear of lever (with screwdriver) through opening at top rear of housing and pull lever straight out.

## RECEPTACLES

Part Numbers		Insert Contacts	Part No. Male†	Insert Pins
Female Latchlock†	Female Detent†			
ⓈY3F	Y3FD	3	Y3MPC	3
Y3FPC	Y3FDPC	3		

†Suffix letters "PC" indicate PC terminals; all others have solder lugs.

## ESCUTCHEONS

Part No.	Color	Part No.	Color
YEF-01	Red	YEF-04	Blue
YEF-02	Black	YEF-05	White
YEF-03	Green	YEF-06	Yellow

\*Number of insert contacts or pins must be specified to complete part number.

†Available on special order only, contact Switchcraft for price and delivery.

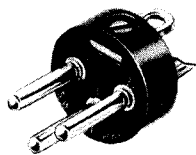
NOTE: Contact your Switchcraft Representative for pricing.



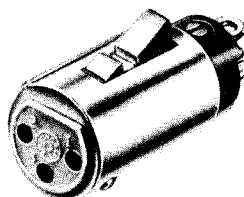


## "Q-G" ADAPTERS, INSERTS, ACCESSORIES

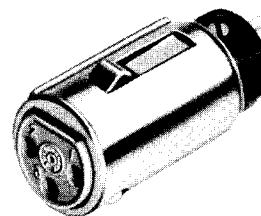
### "Q-G" CONNECTOR INSERTS



QG3M



QG3F



QG3FDPC

Male and female "Q-G" inserts with 3 thru 7 pins/contacts, fit appropriate plug and receptacle housings. Female inserts available with standard latchlock or FAS-DISCONNECT detent mating, and with solder or PC terminals. Intended for replacement, or building into equipment such as microphones, transducers, etc.

Part Numbers  
Female Inserts\*

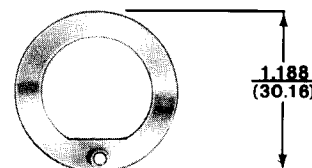
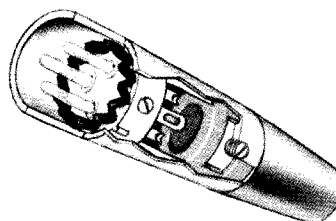
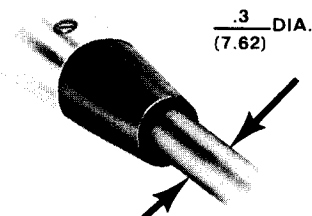
Standard Latchlock	FAS-DISCONNECT	Male Inserts	Insert Pins/Contacts
QG3FPC	QG3FDPC	—	3
QG3F	QG3FD	QG3M	3
QG4F	QG4FD	QG4M	4
QG4F	QG4FD	QG4M	4
QG5F	QG5FD	QG5M	5
QG6F	QG6FD	QG6M	6
QG7F	QG7FD	QG7M	7

\*Suffix letters "PC" indicate PC terminals; all others have solder lugs.

### "Q-G" ACCESSORIES

Part No. M-1437

Part No. S-3519



.05  
thick

#### "Q-G" LARGE CABLE RELIEF BUSHING

Cable relief bushing with larger opening accommodates cables from .25-in. (6.35 mm) to .328-in. (8.33 mm); larger cables are often needed for multiple-conductor instrumentation. Code letter "L" in last or second to last digit in part no. indicates plug with large bushing.

#### "Q-G" NOISE SUPPRESSION RING

"Sawtooth" shape applies pressure to both halves of mated "Q-G" connectors, thereby effectively suppressing noise pickup due to mechanical vibration. Designed particularly for hi-Z pickups and environments with undesirable vibration. Molded black thermoplastic.

#### "Q-G" MOUNTING ADAPTER

Use with B(\*)M and chassis receptacles to prevent turning of receptacle. Eliminates need for providing a flattened, "D" shaped hole.

NOTE: Contact your Switchcraft Representative for pricing.

# SWITCHCRAFT®

## "Q-G" CONNECTOR-ADAPTERS

Switchcraft "Q-G" Connector-Adapters, designed to solve common interconnection problems, are ideally suited to the interconnection of microphones, mixers, amplifiers, public address and sound reinforcement equipment, broadcast equipment, and any other component that does not have an appropriate mating connector. All are completely shielded, and incorporate the high quality and outstanding design features of the Switchcraft line of "Q-G" Audio Connectors, including:

1. Separate "Ground Terminal".
2. Ground Contactors.
3. "Captive Design" Insert Screw
4. High impact Thermosetting plastic Insulation.

See pages 7 & 8.

## MATERIAL SPECIFICATIONS:

(for Items on pages 14 through 17)

### Phone Jack & Plus Terminations:

**Shell:** Brass, nickel plated.

**Insulation:** Paper-base phenolic.

**Plug Tip & Sleeve:** Brass, bright nickel plated.

### BNC Terminations:

**Connector Housing & Contact Pin:** Brass, silver plated.

**Insulation:** Teflon.

**Phone Pin & Plug Housing:** Brass, nickel plated.

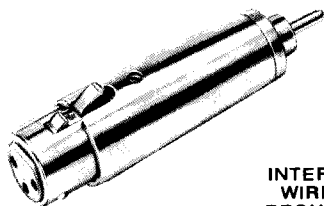
**Phono Plug Insulation:** Phenolic.

**Phono Jack Housing:** Steel, cadmium plated & chromate dipped.

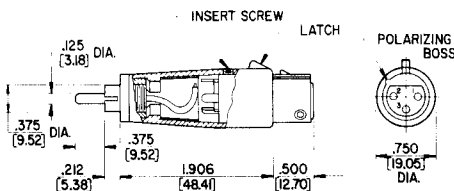
**Phono Jack Pin Receptacle:** Brass, silver plated, chromate dipped.

**Phono Jack Insulation:** Nylatron.

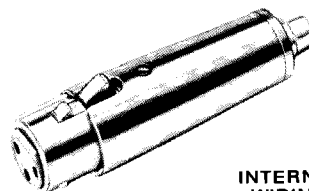
"QG" Specifications: See page 7.



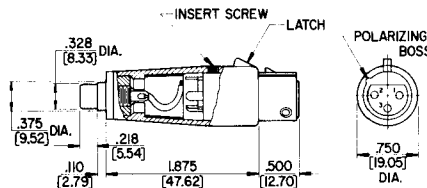
INTERNAL  
WIRING  
REQUIRED



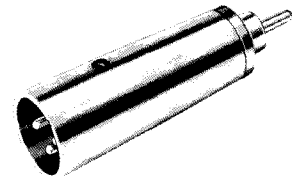
**Part No. 321.** Phono plug to 3-contact female audio connector (Switchcraft A3F).



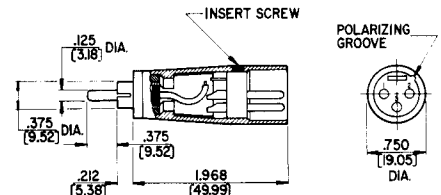
INTERNAL  
WIRING  
REQUIRED



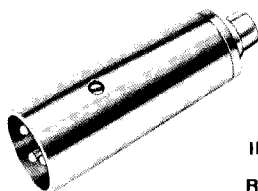
**Part No. 322.** Phone jack to 3-contact female audio connector (Switchcraft A3F).



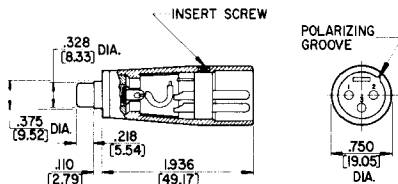
INTERNAL  
WIRING  
REQUIRED



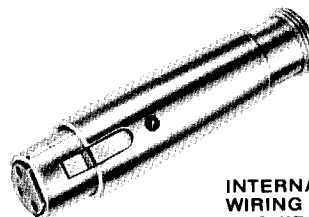
**Part No. 323.** Phono plug to 3-pin male audio connector (Switchcraft A3M).



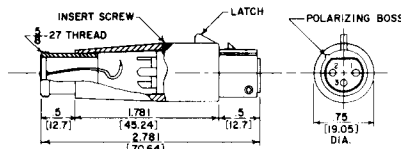
INTERNAL  
WIRING  
REQUIRED



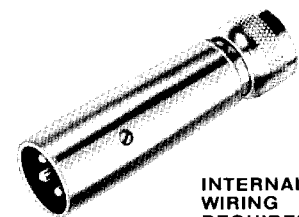
**Part No. 324.** Phono jack to 3-pin male audio connector (Switchcraft A3M).



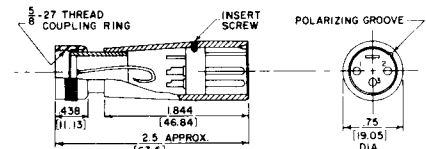
INTERNAL  
WIRING  
REQUIRED



**Part No. 335A.** Single-contact male microphone connector (Switchcraft 2501M) to 3-contact female audio connector (Switchcraft A3F).



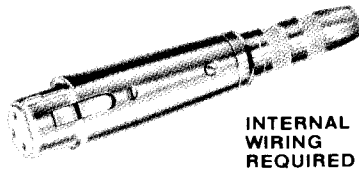
INTERNAL  
WIRING  
REQUIRED



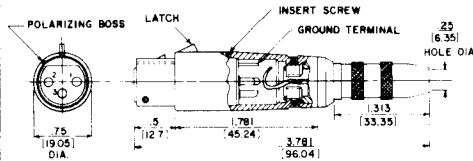
**Part No. 339A.** Single-contact female microphone connector (Switchcraft 2501F) to 3-pin male audio connector (Switchcraft A3M).

**NOTE:** Contact your Switchcraft Representative for pricing.

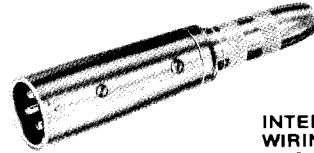
# "Q-G" CONNECTOR-ADAPTERS



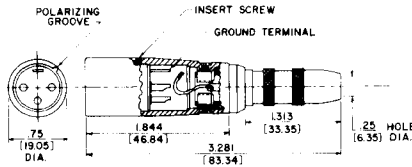
INTERNAL  
WIRING  
REQUIRED



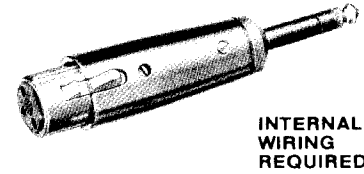
**Part No. 383A.** Three-contact female audio connector (Switchcraft A3F) to standard .25-in. (6.35 mm) dia. 3-cond. extension phone jack.



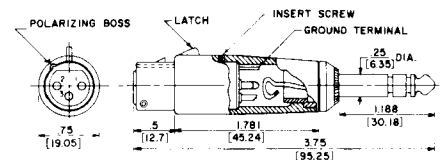
INTERNAL  
WIRING  
REQUIRED



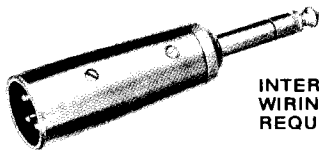
**Part No. 384A.** Three-pin male audio connector Switchcraft A3M) to standard .25-in. (6.35 mm) dia. 3-cond. extension phone jack.



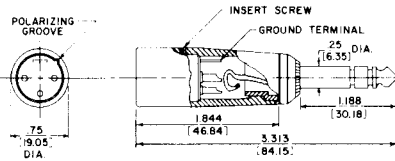
INTERNAL  
WIRING  
REQUIRED



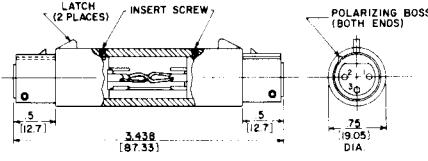
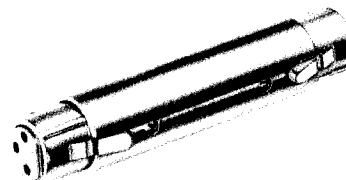
**Part No. 386A.** Three-contact female audio connector (Switchcraft A3F) to standard .25-in. (6.35 mm) dia. 3-cond. phone plug.



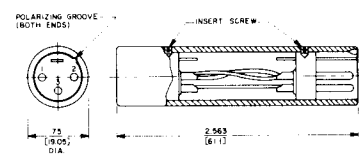
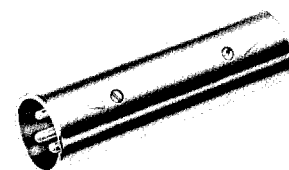
INTERNAL  
WIRING  
REQUIRED



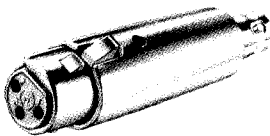
**Part No. 387A.** Three-pin male audio connector (Switchcraft A3M) to standard .25-in. (6.35 mm) dia. 3-cond. phone plug.



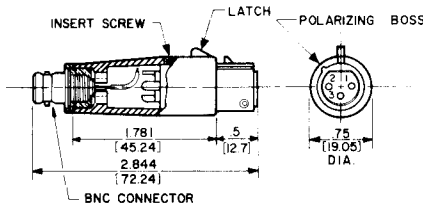
**Part No. 389.** Three-contact female audio connector (Switchcraft A3F) at both ends. Pre-wired contacts: 1 to 1, 2 to 2, 3 to 3.



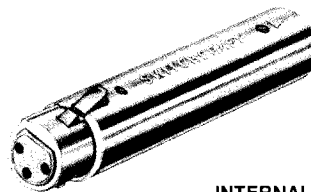
**Part No. 390.** Three-pin male audio connector (Switchcraft A3M) at both ends. Pre-wired pins: 1 to 1, 2 to 2, 3 to 3.



INTERNAL  
WIRING  
REQUIRED



**Part No. 398.** Three-contact female audio connector (Switchcraft A3F) to standard BNC connector.



INTERNAL  
WIRING  
REQUIRED

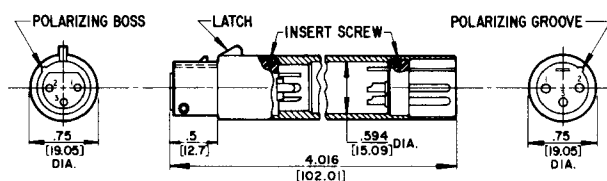
## S\*FM AUDIO CONNECTOR-ADAPTER

Male-female connector conversion has male "QG" insert at one end and corresponding female "Q-G" insert at the other. Designed to accept internally connected transformer, attenuator, or other circuitry inline with microphone input. Includes 1.5 in. (38.1 mm) long x .594 in. (15.08 mm) dia. of usable internal volume.

Part No.	Female Insert	Male Insert	Insert Pins/Contacts
S3FM	A3F	A3M	3
S4FM	A4F	A4M	4
⊕S5FM	A5F	A5M	5

\*Number of insert pins/contacts must be specified to complete part number.

⊕ Available on special order only; contact Switchcraft for price and delivery.



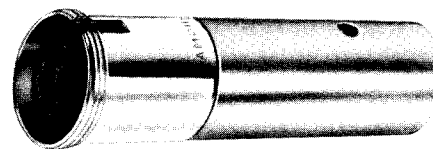
**NOTE:** Contact your Switchcraft Representative for pricing.

# SWITCHCRAFT®

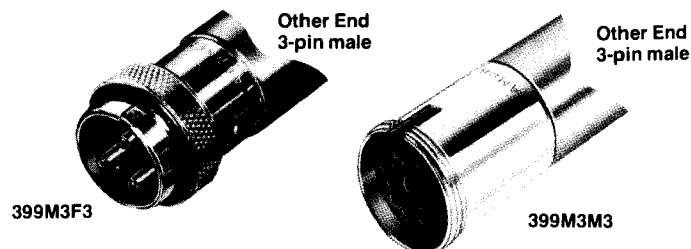
## SERIES 399M AUDIO ADAPTERS

Adapters connect microphones and other audio equipment with threaded-coupling microphone connectors to equipment with Switchcraft 3-pin/contact male or female "Q-G" and QGP audio connectors and other 3-pin/contact male or female connectors with similar insert configurations. Adapters have a Switchcraft A(\*)M insert at one end, and one of four Amphenol inserts (that mate with Amphenol Series 91-MCXX, 91-PCXX, and similar 3- or 4-pin/ contact male or female threaded-coupling microphone connectors) at the other end.

Nos. 399M3F3 and 399M3M3 are factory wired: pins/contacts 1 to 1, 2 to 2, 3 to 3. Nos. 399M3F4 and 399M3M4 have 4 leads attached only to Amphenol end terminals, and are to be terminated to "Q-G" insert terminals, as desired. See WIRING DIAGRAM.



399M3F3  
(typical)



Part No.*	Switchcraft End	Threaded-Coupling End Figure	Description
399M3F3	3-pin	1	3-contact female
399M3M3	3-pin	2	3-pin male
399M3F4	4-pin	3	4-contact female
399M3M4	4-pin	4	4-pin male

\*Internal connection required on Nos. 399M3F4 & 399M3M4.

**NOTE:** Series 399F Audio Adapters are available on special order.

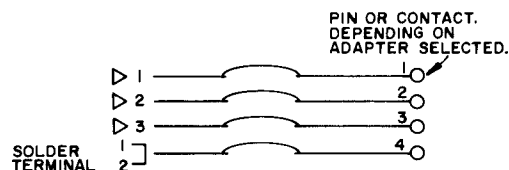
Part No.	Switchcraft Output Mates With **	Amphenol Input Mates With **
399M3F3	Q-G, A3P, S3P, Q3P	91-MC3M, 91-MC3F
399M3M3	Q3P, A3P, S3P, S3F, T3P, Y3P	91-MC3F, 91-PC3F
399M3F4	Q3P, Q3P-S3P, Q3P-S3F, Q3P-S3F	91-MC4F, 91-PC4F

\*Also mates with other connectors with similar insert arrangements and identical number of circuits. Refer to other "Q-G" listings for extensive cross-reference and mating guide information on "Q-G," QGP, and other audio connectors.

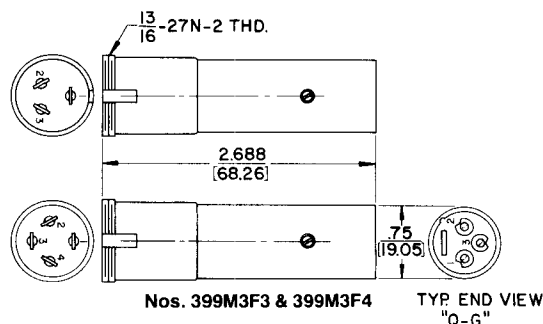
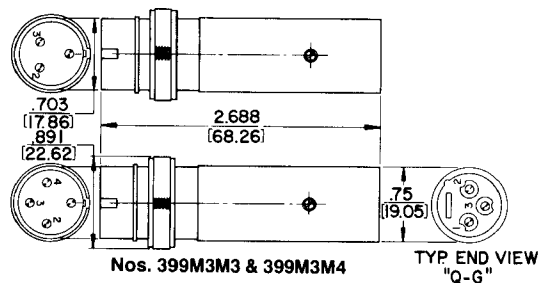
\*\*Also mates with other audio connectors with similar insert arrangements and identical number of circuits.

### PIN AND CONTACT ARRANGEMENT (viewed from face of insert)

SWITCHCRAFT "Q-G"	AMPHENOL 91MCXX SERIES AND INSERTS WITH SIMILAR CONFIGURATIONS			
<p>3-CONTACT FEMALE</p>	<p>Fig. 1 3-CONTACT FEMALE</p>	<p>Fig. 2 3-PIN MALE</p>	<p>Fig. 3 4-CONTACT FEMALE</p>	<p>Fig. 4 4-PIN MALE</p>



### WIRING DIAGRAM NOS. 399M3F4 & 399M3M4



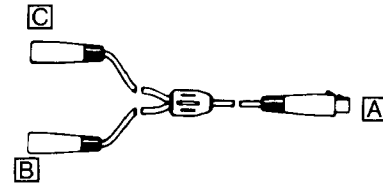
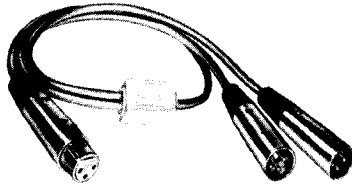
**NOTE:** Contact your Switchcraft Representative for pricing.





## SERIES 391Q AUDIO "Y" ADAPTERS

Series 391Q Y-Adapters can combine or split typical audio signals using a combination of Switchcraft "QG" A3F and A3M cord plugs. Outputs of two microphones can conveniently be connected in parallel and connected to a single input using a No. 391Q23 Y-Adapter. Cabling is 2-cond. shielded, 2 foot long grey jacket with molded Y-junction at center point. Mates with Switchcraft "QG" and QGP connectors.

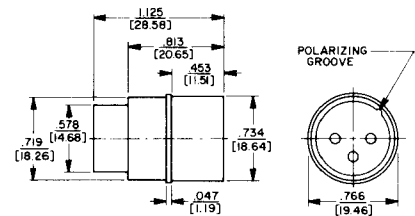
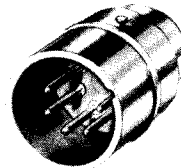


Part No.	"QG" Cord Plug Part Nos.		
	Plug A	Plug B	Plug C
391Q13	A3F	A3M	A3M
391Q23	A3F	A3M	A3F
391Q33	A3F	A3F	A3F
391Q43	A3M	A3F	A3F
391Q53	A3M	A3F	A3M
391Q63	A3M	A3M	A3M

## "Q-G" CONNECTOR ADAPTER RECEPTACLES

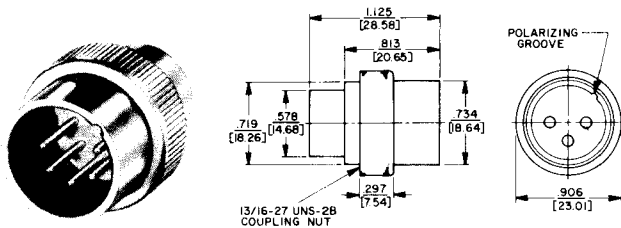
Adapter receptacles mount directly to microphones or similar equipment to provide highly reliable 3-, 4- and 5-pin Switchcraft "Q-G" connections. Adapter shell and coupling nut are brass, satin nickel finish. Other materials are same as on page 7.

Part Numbers			
Series L(*)M	Series L(*)MN	Series M(*)M	Insert Pins
⊕L3M	L3MN	M3M	3
⊕L4M	⊕L4MN	⊕M4M	4
⊕L5M	⊕L5MN	⊕M5M	5



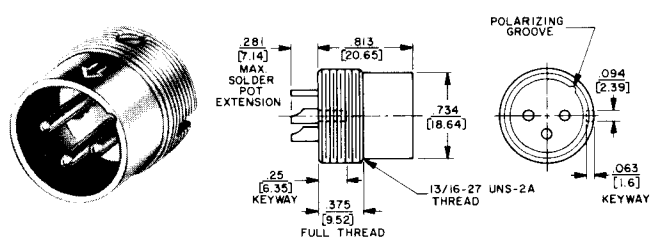
### SERIES L(\*)M

Male with plain cylindrical shell for mounting on microphones or similar equipment.



### SERIES L(\*)MN

Male with plain cylindrical shell with knurled, internally threaded collar engages external 13/16-27 threads on microphone body.



### SERIES M(\*)M

Male with shell having 13/16-27 external threads to engage equipment with internally threaded body. Terminals extend out rear (threaded end) to permit wiring without disassembly.

⊕ Available on special order only; contact Switchcraft for prices and delivery.

NOTE: Contact your Switchcraft Representative for pricing







\*QUICK-GROUND

## AUDIO CONNECTOR CROSS REFERENCE GUIDE ‡

This Audio Connector Cross Reference Guide provides you with the correct Switchcraft Audio Connector part numbers for an equivalent to Cannon part numbers. These items are considered electrically equivalent and mechanically similar.

Manufacturer's design and specifications change from time to time, therefore, we suggest a careful check of respective specifications before a substitute is made. Because of this fact, we cannot accept responsibility if products are not always interchangeable.

Cannon to Switchcraft			
XLR(*)-11C	A(*)F	XLR(*)36-2G	H(*)MS
XLR(*)-12C	A(*)M	XLR(*)-35	J(*)FS
XLR(*)-13	C(*)F	XLR(*)-35-2G	K(*)FS
XLR(*)-13N	B(*)F	XLR(*)-50	L(*)M
XLR(*)-14N	B(*)M	XLR(*)-50N	L(*)MN
XLR(*)-15	R(*)F	XLR(*)-50T	M(*)M
XLR(*)-31	D(*)F	XLR(*)-11+12	S(*)FM
XLR(*)-32	D(*)M	-2-A114	W(*)M
XLR(*)-36	G(*)MS	XLR(*)-42	

†Connectors interchangeable, but Switchcraft wall plates are smaller.

‡7 pin/contact "Q-G" connectors mate with Cannon 7-pin/contact connectors listed above.

\*Number of insert contacts or pins must be specified to complete part number.

## QG CONNECTORS MATING CHART

This mating chart shows connecting compatibility of Switchcraft "Q-G" and similar Cannon connectors. Manufacturer's design and specifications change from time to time; therefore, we suggest a careful check of respective specifications to assure proper mating. Because of this fact, we cannot accept responsibility if products are not always interchangeable.

PIN CONTACTS	SOCKET CONTACTS												
	XLR(*)-11C	XLR(*)-13	XLR(*)-13N	XLR(*)-15	XLR(*)-31	A(*)F, A(*)FB, A(*)FD, A(*)FL, A(*)FLD	B(*)F, B(*)FB	C(*)F, C(*)FD	D(*)F, D(*)FB, D(*)FD	J(*)FS	K(*)FS	P(*)F	R(*)F, R(*)FL
XLR(*)-12C	•	•	•	•	•	•	•	•	•	•	•	•	•
XLR(*)-14	•			•		•						•	•
XLR(*)-14N	•			•		•						•	•
XLR(*)-32	•			•		•						•	•
XLR(*)-42	•			•		•						•	•
A(*)M, A(*)MB, A(*)ML	•	•	•	•	•	•	•	•	•	•	•	•	•
B(*)M, B(*)MB	•			•		•						•	•
C(*)M	•			•		•						•	•
D(*)M, D(*)MB	•			•		•						•	•
G(*)MS	•			•		•						•	•
H(*)MS	•			•		•						•	•
N(*)MS	•	•	•	•	•	•						•	•
P(*)M	•	•	•	•	•	•						•	•
R(*)M, R(*)ML	•	•	•	•	•	•	•	•	•	•	•	•	•
W(*)M	•			•		•						•	•
Y(*)M, Y(*)MPC	•			•		•						•	•
QGP(*)23 [A(*)M]	•	•	•	•	•	•	•	•	•	•	•	•	•
QGP(*)27 [C(*)M]	•			•		•						•	•
QGP(*)63 [D(*)M]	•			•		•						•	•

# SWITCHCRAFT®



\*QUICK-GROUND  
ADAPTERS

## QG ADAPTERS MATING CHART

This mating chart shows connecting compatability of Switchcraft "Q-G" Adapters and Cannon connectors. Manufacturer's design and specifications change from time to time; therefore we suggest a careful check of respective specifications to assure proper mating. Because of this fact, we cannot accept responsibility if products are not always interchangeable.

OPPOSITE END → **ADAPTER** → SWITCHCRAFT END

ADAPTER PART NO.

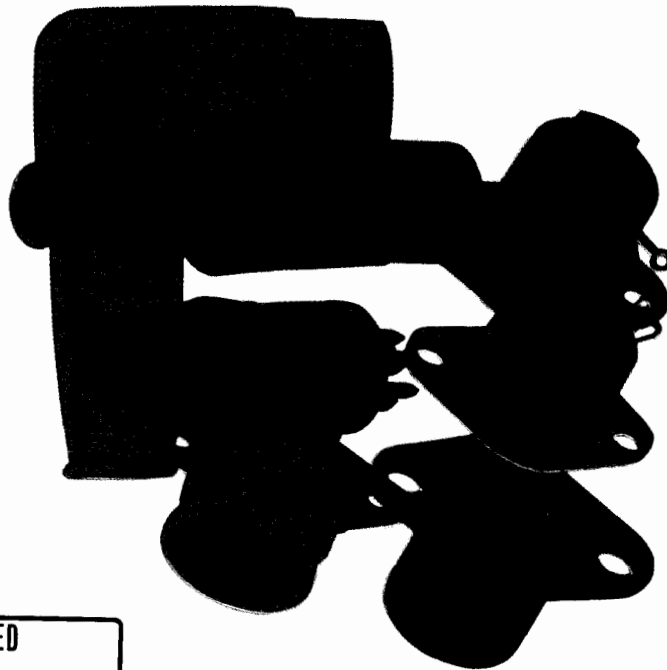
			SWITCHCRAFT "QG" END*					
			A3F	A3M	A4F	A4M	A5F	A5M
PHONO	PLUG		321	323				
	JACK		322	324				
MICROPHONE CONNECTOR SINGLE CONTACT	MALE		335A					
	FEMALE			339A				
PHONE .25 in. (6.35 mm) 3-cond.	EXT. JACK		383A	384A				
	PLUG		386A	387A				
SWITCHCRAFT	A3F		389	S3FM				
	A4F					S4FM		
	A5F							S5FM
	A3M		S3FM	390				
	BNC		398					
AMPHENOL	91-MC3F			399M3F3				
	91-MC4F			399M3F4				
	91-MC3M			399M3M3				
	91-MC4M			399M3M4				
DIRECT WIRING	PLAIN SHELL	3 WIRES		L3M				
		4 WIRES				L4M		
		5 WIRES						L5M
	THREADED COLLAR	3 WIRES		L3MN				
		4 WIRES				L4MN		
		5 WIRES						L5MN
	EXTERNAL THREAD	3 WIRES		M3M				
		4 WIRES				M4M		
		5 WIRES						M5M
TINI "QG"	TA3F		TA-01	TA-04				
	TA4F				TA-02	TA-05		
	TA5F						TA-03	TA-06

\*See QG Connectors Mating Chart for cross-reference to other Switchcraft "QG" and Cannon connectors.



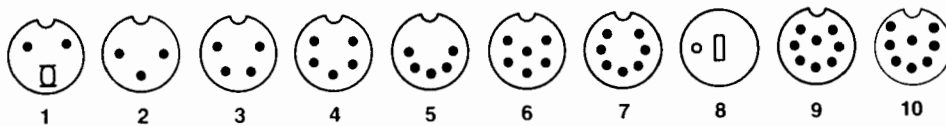
# DIN CONNECTORS

## SECTION 2

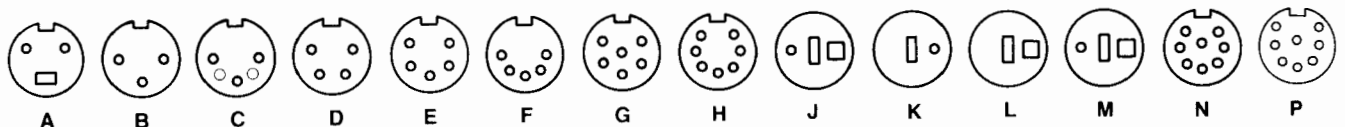


	PAGE
DIN Plugs .....	22-24
DIN Receptacles .....	24-26
Control and Switching Receptacles .....	26
DIN Mating Information .....	27

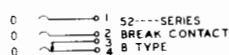
### PIN ARRANGEMENTS



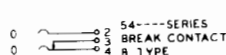
### CONTACT ARRANGEMENTS



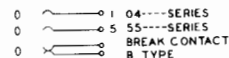
### SCHEMATIC CIRCUITS



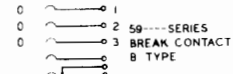
2



3



4



5

# SWITCHCRAFT®

## DIN CONNECTORS

DIN is the name given to this high-quality family of versatile miniature audio connectors. The family includes male and female plugs and receptacles with 2 to 8 circuits. Important receptacle variations include solder lug or PC terminations, as well as right angle PC mounting. Other features available are bright nickel-plated or colorful plastic snap-on shells. All are precision manufactured.

The DIN family of plugs and receptacles are unique among fine audio connectors for their internal switching. In all, there are six different receptacles that provide some form of switching.

### DESIGN FEATURES



### GROUNDING/SHIELDING

A "Ground Key-Rib" or "Ground Contact" provided in each plug and receptacle (except those with plastic shells or housings) ground or shield to connector shell. Ground/shield circuit automatically engage upon connector mating. Contacts can be "jumper-wired" between contact and "Ground Key-Rib" and/or "Ground Contact" terminal for grounding.

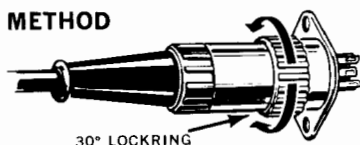
### BUILT-IN SWITCHING:

Many connectors include built-in switches with up to double break circuitry.

### CONTROL SWITCHING CONNECTORS:

Choose from a complete line of monaural and/or stereo speaker switching. Certain plugs can change from mono to stereo connections.

### COUPLING METHOD



### 30° TWIST COUPLING

On locking types, locking couples mating plugs and receptacles securely, even under shock and vibration conditions.

### CONTACT PINS & SPRINGS

- All male plugs have tin plated pins.
- All control and switching receptacles have silver plated "fork-shape" contact springs.
- All metal flange receptacles have tin plated "fork-shape" contact springs and "Ground Contact" with solder terminal riveted to flange or center terminal of plug.
- Metal shell plugs have tin plated "Ground Contact", as metal flange receptacles, above.

"Ground Contact" spring makes contact with "Ground Key-Rib" barrel of mating plug.

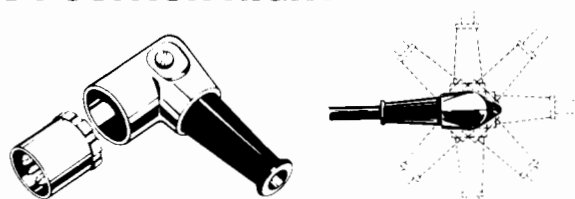
### CABLE ENTRIES

Flexible black plastic bushings provide a strong strain relief. Standard cable entry is .219 in. (5.56 mm) dia. .094 in. (2.39 mm) dia. available on special order. Other bushing colors available on special order. Heavy duty cable clamp accommodates most standard size cables.

Designed for audio circuitry, they are also ideal for use in test equipment, instruments, computers, cameras, control devices and many other types of low level circuits.

DIN connectors have been field tested and proved over many years in a wide variety of critical applications; they are, in fact, among the best selling, high quality, low-cost connectors in many areas of the world.

### 8-POSITION RIGHT ANGLE PLUG



Unique 8-position barrel enables you to position cable entry at any of eight angles and is ideal for cramped area mounting.

### SNAP-LOCK PLASTIC SHELLS



"Snap-Lock" holds plastic shell to metal plug barrel securely and provides fast, simple disassembly/reassembly. 3 to 7 contacts.

### POLARIZATION

Polarization by contact arrangement and a "Ground Key-Rib" virtually eliminates possibility of incorrect mating.

### SPECIFICATIONS

#### ELECTRICAL

**Contact Resistance:** Cord Plugs and Receptacles - .010 ohms, contact spring/pin; .030 ohms, ground clip/shell. Control and Switching Receptacles - .015 ohms, contact spring/pin; .020 ohms, switch contacts.

**Dielectric Withstanding Voltage:** 500 V (rms).

**Leaking Resistance:**  $10^5$  megohms.

#### MECHANICAL

**Life:** 500 cycles.

**Insertion/Withdrawal Forces:**

No. of Contacts	Insertion Force lb./N	Withdrawal Force lb./N
2	3.6/ (16)	.45 - 2.7/ (2 - 12)
3	5.4/ (24)	.67 - 4.1/ (3 - 18)
4	7.2/ (32)	.90 - 5.4/ (4 - 24)
5	9.0/ (40)	1.24 - 6.8/ (5.5 - 30)
6	10.8/ (48)	1.46 - 8.1/ (6.5 - 36)
7	12.6/ (56)	1.68 - 9.5/ (7.5 - 42)
8	14.4/ (64)	1.90 - 10.8/ (8.5 - 48)

#### MATERIAL

**Shell:** Die-cast zinc alloy, bright nickel plated finish.

**Receptacle Mounting Flange:** Steel.

**Receptacle Body:** Molded phenolic.

**Insert Material:** Molded phenolic.

**Socket Contacts:** Silver plated.

**Pin Contacts:** Tin plated.

**Switching Contacts:** Silver plated.

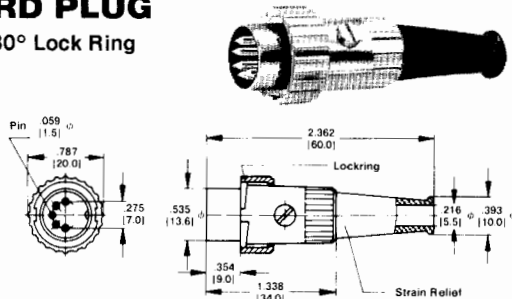
**Cable Relief Bushing:** Soft plastic.

**NOTE:** All connectors meet DIN specifications. Din specification numbers (except for 4-pin, 5-pin @ 240°, and 8-pin @ 262°, which are not available at this time) will be furnished on request.

## DIN PLUGS

### STRAIGHT CORD PLUG

with 30° Lock Ring



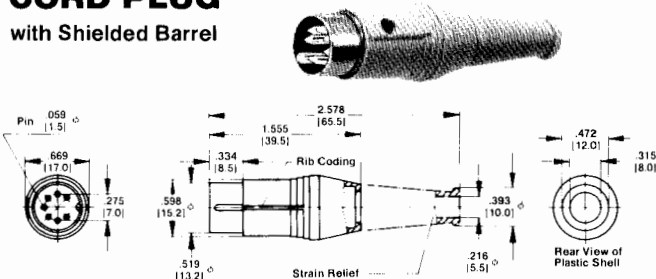
#### Type 05CL5M—typical

Miniature, male plug with "Ground Key-Rib". Unique 30° turn locking securely fastens two halves of connector. Mates with lock flange female connectors and receptacles. Insert screw holds insert assembly in shell and also retains locking on shell. Flexible black strain relief with  $\frac{7}{32}$ " diameter cable entry. Heavy duty clamp.

Part No.	Description	Pin Arrangement
03CL2M	2 pins with insulated switch actuator.	1
05CL3M	3 pins at 180°	2
05CL5M	5 pins at 180°	5
09CL4M	4 pins at 210°	3
12CL5M	5 pins at 240°	4

### STRAIGHT CORD PLUG

with Shielded Barrel



#### Type 15GM7M—typical

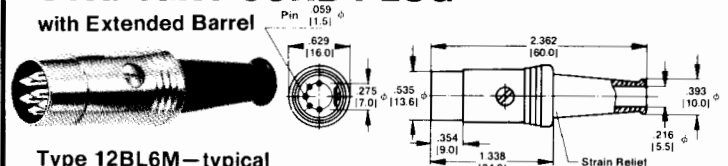
Miniature, male cord plug with shielded barrel and insulated snap-lock plastic shell. Two place metal barrel surrounds pin insert to form an electrical shield. The entire insert assembly is held together by snapping the insulated plastic shell over the assembly. The barrel's special metal tab locks the shell in place. Standard color of plastic shell is gray; other colors such as beige are available on special order. All-purpose cable clamp.

Part No.	Description	Pin Arrangement
05GM3M	3 pins at 180° Gray shell and strain relief.	2
05GM5M	5 pins at 180° Gray shell and strain relief.	5
09GM4M	4 pins at 210° Gray shell and strain relief.	3
12GM5M	5 pins at 240° Gray shell and strain relief.	4
12GM6M	6 pins at 240° Gray shell and strain relief.	6
15GM7M	7 pins at 270° Gray shell and strain relief.	7
15GM8M	8 pins at 270° Gray shell and strain relief.	9

<sup>†</sup> Special order only; contact factory for price and delivery.

### STRAIGHT CORD PLUG

with Extended Barrel



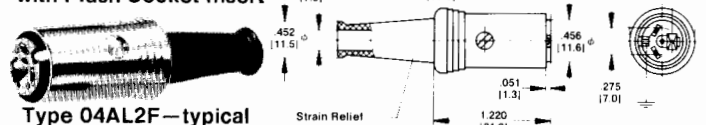
#### Type 12BL6M—typical

Miniature, male plug with "Ground Key-Rib". Nickel plated diecast handle. Contact friction coupling. Flexible black strain relief. Heavy duty cable clamp.

Part No.	Description	Pin Arrangement
03BL2M	2 pins with insulated switch actuator	1
05BL3M	3 pins at 180°	2
05BL5M	5 pins at 180°	5
09BL4M	4 pins at 210°	3
12BL5M	5 pins at 240°	4
12BL6M	6 pins at 240°	6
15BL7M	7 pins at 270°	7
15BL8M	8 pins at 270°	9
20BL8M	8 pins at 262°	10

### STRAIGHT CORD PLUG

with Flush Socket Insert



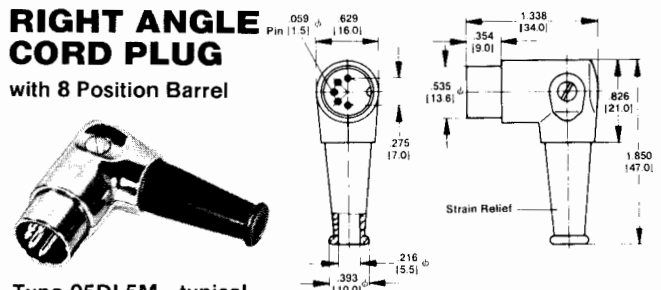
#### Type 04AL2F—typical

Miniature female plug with "Ground Contact". Diecast metal shell, nickel plated. Two contact plug, Part No. 04AL2F includes a break circuit switch (1-B) which is opened by engaging the insulated switch actuator of the mating plug or receptacle. Flexible black strain relief.

Part No.	Description	Contact Arrangement
04AL2F	2 contacts with closed-circuit switch. (Schematic #4)	A
06AL3F	3 contacts at 180°	B
06AL5F	5 contacts at 180°	F
10AL4F	4 contacts at 210°	D
13AL5F	5 contacts at 240°	E
13AL6F	6 contacts at 240°	G
15AL7F	7 contacts at 270°	H

### RIGHT ANGLE CORD PLUG

with 8 Position Barrel



#### Type 05DL5M—typical

Miniature right angle chassis hugging, male plug with flexible black rubber strain relief. Unique 8-position barrel gives you a choice of any one of eight different cable entree angles. Ideal for use with miniaturized electronic equipment.

Part No.	Description	Pin Arrangement
03DL2M	2 pins with insulated switch actuator.	1
05DL3M	3 pins at 180°	2
05DL5M	5 pins at 180°	5
09DL4M	4 pins at 210°	3
12DL5M	5 pins at 240°	4
15DL8M	8 pins at 270°	9

NOTE: Contact your Switchcraft Representative for pricing.

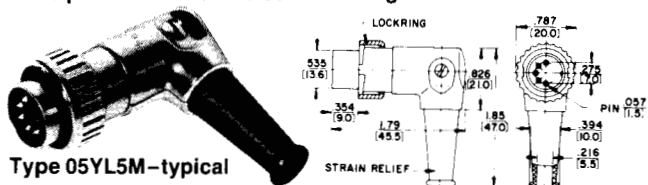


# SWITCHCRAFT®

## DIN PLUGS & RECEPTACLES

### RIGHT ANGLE CORD PLUG

with 8 position Barrel and 30° Lock Ring



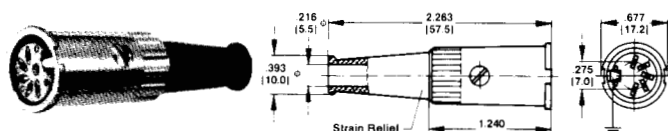
Type 05YL5M—typical

Miniature right angle chassis hugging, male plug with flexible strain relief. Unique 8-position barrel gives you a choice of any one of eight different cable entry angles. "Ground Key Rib" 30° turn lock ring securely fastens two halves of connector.

Part No.	Description	Pin Arrangement
05YL5M	5 pins at 180°	5
09YL4M	4 pins at 210°	3
12YL5M	5 pins at 240°	4

### STRAIGHT CORD PLUG

with Lock Flange



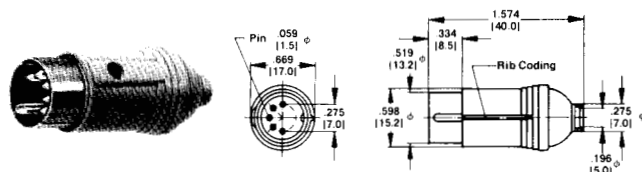
Type 06EL5F—typical

Miniature, female plug with "Ground Contact". Lock flange designed to accept 30° locking. Insert screw firmly holds insert assembly in shell. Flexible black strain relief with 1/32" diameter cable entry. Heavy duty cable clamp

Part No.	Description	Contact Arrangement
06EL5F	2 contacts at 180°	2
06EL5F	3 contacts at 180°	3
10EL4F	4 contacts at 210°	3
12EL5F	5 contacts at 240°	4

### STRAIGHT CORD PLUG

with Snap-Lock Plastic Shell



Type 05LK5M—typical

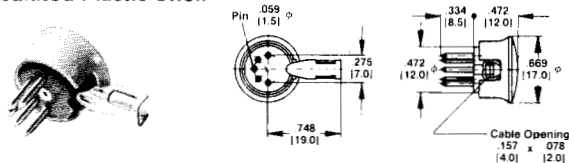
Miniature male plug with short snap-lock plastic shell and shielded barrel. Can be used in place of die cast metal plugs in less critical applications. The two piece metal barrel which surrounds the pin insert provides an electrical shield. The short plastic shell snaps over and locks on the barrel's metal lock-tab. Provides a rugged assembly. All purpose cable clamp. Standard color is gray, other colors available on special order only.

Part No.	Description	Pin Arrangement
05LK3M	3 pins at 180°	3
05LK5M	5 pins at 180°	5
05LK4M	4 pins at 210°	3
12LK5M	5 pins at 240°	4

⊕ Special order only; contact factory for price and delivery.

### RIGHT ANGLE CORD PLUG

with Insulated Plastic Shell



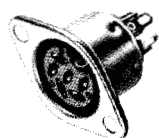
Type 05UK5M—typical

Subminiature right angle plug with integral cable clamp and insulated plastic shell. Shell easily snaps-on for quick disassembly and assembly of plug. Normally used for internal circuit connectors. Recommended for use in applications requiring infrequent disconnections. Standard color gray, other colors available on special order.

Part No.	Description	Pin Arrangement
05UK3M	3 pins at 180°	2
05UK5M	5 pins at 180°	5

### RECEPTACLE

for Chassis or Panel Mounting



For shielded and extended barrel plugs

Fig. 1  
Type 61GA6F—typical  
straight solder terminals.

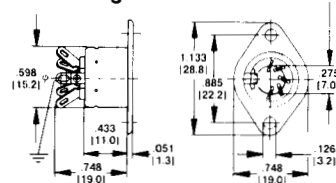


Fig. 2  
Type 57GB5F—typical  
Flared solder terminals.

Drawn metal recessed shell with mounting flange and "Ground Contact". Available with straight or flared solder terminals. See drawings above. Part No. 55GA2F includes a break contact switch circuit (1-B), which is actuated by an insulated pin of the mating plug, such as Part No. 03BL2M. Part No. 58GB3F features two extra blanks in insert for proper mating (5 pins at 180°) plug where applications may require greater connector flexibility. Flared solder terminals available.

Part No.	Fig. No.	Descriptions	Contact Arrangement
55GA2F	I	2 contacts plus closed-circuit switch. (Schematic #4)	A
⊕ 57GA3F	I	3 contacts at 180°	B
57GB3F	II	3 contacts at 180°	B
57GB5F	II	5 contacts at 180°	F
⊕ 60GA4F	I	4 contacts at 210°	D
60GB4F	II	4 contacts at 210°	D
61GA5F	I	5 contacts at 240°	E
⊕ 61GA6F	I	6 contacts at 240°	G
61GB6F	II	6 contacts at 240°	G
62GB7F	II	7 contacts at 270°	H
62GB8F	II	8 contacts at 270°	N

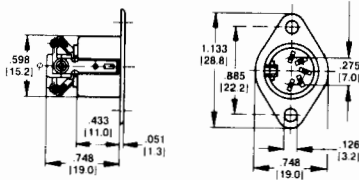
NOTE: Contact your Switchcraft Representative for pricing.





## DIN RECEPTACLES

## RECEPTACLE

with Closed  
Circuit Switch

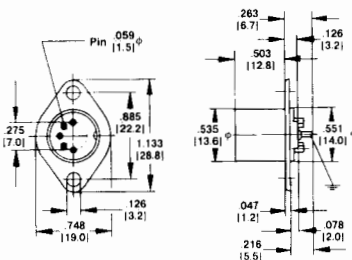
## Type 59GB5F—typical

Unique 3 and 5 contact receptacles include a 1-B (closed-circuit) switch which is mounted to drawn metal shell. Switch is actuated by the shell of the mating plug. Receptacles also provide complete shielding through the "Ground Contact". Flared solder terminals.

Part No.	Description	Contact Arrangement
59GB3F	3 contacts at 180° plus closed-circuit switch. (Schematic #5)	B
59GB5F	5 contacts at 180° plus closed-circuit switch. (Schematic #5)	F

## RECEPTACLE

with Extended Shell



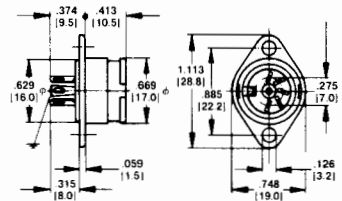
## Type 61KD5M—typical

Male receptacle, 2 to 5 pins, with "Ground Key-Rib". Diecast extended shell and flange for chassis or panel mounting. Turret terminals.

Part No.	Description	Pin Arrangement
⊕57KD3M	3 pins at 180°	2
⊕57KD5M	5 pins at 180°	5
⊕60KD4M	4 pins at 210°	3
⊕61KD5M	5 pins at 240°	4

## RECEPTACLE

for Lockring Plug

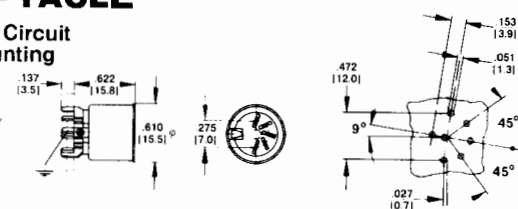
Flared solder terminals  
on part No. 57HB5F.

## Type 61HA5F—typical

Female receptacle with "Ground Contact". Chassis or panel mount. Diecast bayonet extension shell with mounting flange. Mates with all locking plugs, such as Part No. 12CL5M. Part No. 55HA2F includes closed-circuit switch (1-B). All receptacles have straight solder terminals. Flared solder terminals available on part number 57HB5F.

Part No.	Description	Contact Arrangement
55HA2F	2 contacts with closed-circuit switch. (Schematic #4)	A
57HA3F	3 contacts at 180°	B
⊕57HA5F	5 contacts at 180°	F
57HB5F	5 contacts at 180°	F
60HA4F	4 contacts at 210°	D
61HA5F	5 contacts at 240°	E

## RECEPTACLE

for Printed Circuit  
Board Mounting

## Type 57NC5F—typical P.C. Board Cutout

Mounts direct to printed circuit boards. Special P.C. type terminals "snap-in" precut boards. See drawing. Tubular metal shell with "Ground Contact". Part No. 58NC3F mates with either 3 pin or 5 pin (at 180°) plugs because of its 2 extra blanks in the contact insert.

Part No.	Description	Contact Arrangement
57NC5F	5 contacts at 180°	F
⊕58NC3F	3 contacts at 180°	C
⊕61NC5F	5 contacts at 240°	E

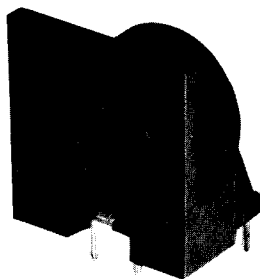


SUPPLIED  
BY  
**TURNBULL & JONES**

# SWITCHCRAFT®

## DIN RECEPTACLES & CONTROL and SWITCHING RECEPTACLES

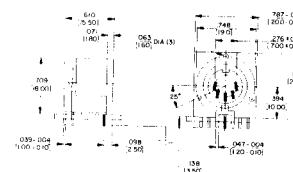
### RIGHT ANGLE RECEPTACLE for printed Circuit Board Mounting



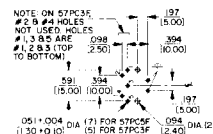
Type 57PC5F—typical

Mounts directly to P.C. boards. Plugs connect at right angle to mounting surface. Part No. 57PC3F mates with either 3 or 5-pin (at 180°) plugs because of two extra blanks in contact insert. "Ground Contact" provides complete shielding through receptacles.

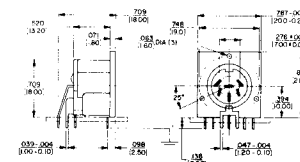
Part No.	Description	Contact Arrangement
57PC3F	3 contacts at 180°	B
57PC5F	5 contacts at 180°	F
60PC4F	4 contacts at 210°	D
61PC5F	5 contacts at 240°	E
61PC6F	6 contacts at 240°	G
62PC7F	7 contacts at 270°	H
62PC8F	8 contacts at 270°	N
70PC8F	8 contacts at 262°	P



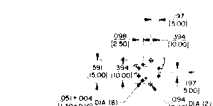
57PC3F, 57PC5F, 60PC4F—typical



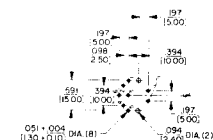
57PC3F, 57PC5F



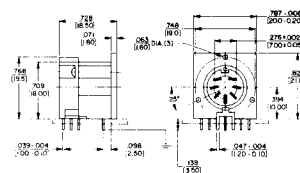
61PC5F, 61PC6F—typical



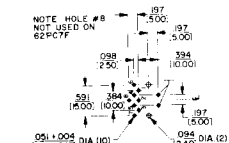
60PC4F



61PC5F, 61PC6F  
Hole for pin 6 not used on 61PC5F



62PC7F, 62PC8F, 70PC8F—typical



62PC7F, 62PC8F, 70PC8F

## CONTROL and SWITCHING RECEPTACLES

Originally designed for connecting a remote speaker to existing equipment, or for stereo applications, these singular receptacles are also ideal for use in many types of electronic test and measurement equipment.

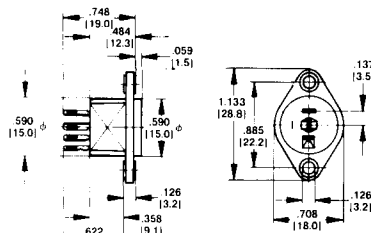
When inserting mating plug, Part No. 01QK2M contact is made to terminal Nos. 1 and 2. The receptacle's built-in closed-circuit switch is not actuated. Plug can then be turned 180°, without a polarity change, and re-inserted in receptacle to open switch and make contact to terminal No. 2.

### RECEPTACLE with Insulated Plastic Body



Type 52CA2F—typical

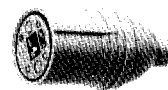
Completely molded female receptacle. Contacts insulated from mounting panel. No "Ground Contact". Part No. 52CA2F includes convertible feature.



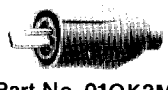
Part No.	Description	Contact Arrangement
52CA2F	2 contacts (Schematic #2) with closed-circuit switch Convertible	J
53CA2F	2 contacts	K
54CA2F	2 contacts (Schematic #3) with closed-circuit switch Not convertible.	L

⊕ Available on special order only; contact Switchcraft for price and delivery.

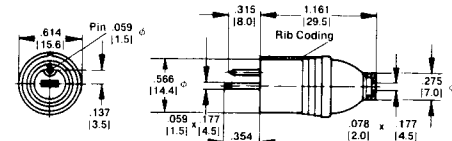
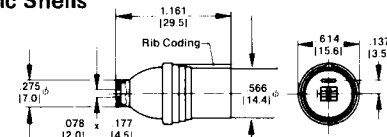
### RECEPTACLE CONTROL and SWITCHING PLUGS with Snap-On Plastic Shells



Part No. 02QK2F



Part No. 01QK2M



Miniature plugs with short insulated plastic shell. No ground connection. Insert snaps in shell for quick assembly and disassembly. Cable is fed through plastic shell and cable clamp ring. After soldering, crimp ring around cable and retract cable. Snap insert assembly in shell. Part No. 01QK2M male plug mates with all control and switching receptacles and No. 02QK2F, female cord plug. Use these straight cord plugs for interconnecting audio cable. Standard color is gray, other colors available on special order.

Part No.	Description	Pin/Contact Arrangement
01QK2M	Male plug, 2 contacts	8
02QK2F	Female plug, 2 contacts	K

NOTE: Contact your Switchcraft Representative for pricing.



# SWITCHCRAFT DIN CONNECTOR MATING CHART

This Switchcraft DIN mating chart gives you the recommended plug and receptacle mating part numbers. To assure proper selection of connectors always refer to this chart.

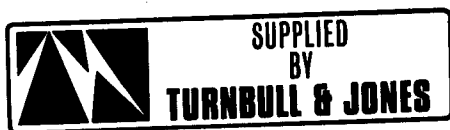
## SPECIFYING NOTE

Alternate mating selections are possible and are indicated by numbers (1 & 2) in the chart. All 1 & 2 items are fully interchangeable, but functions may not be fully utilized, as follows:

KEY	DESCRIPTION
1	Locking function not completely used.
2	No "Through-Grounding" function.

		FEMALE PLUGS																									FEMALE RECEPTACLES																											
		02QK2F	04AL2F	06AL3F	06AL5F	06EL3F	06EL5F	10AL4F	10EL4F	13AL5F	13AL6F	13EL5F	15AL7F	52CA2F	53CA2F	54CA2F	55GA2F	55HA2F	57GA3F	57GB3F	57GB5F	57HA3F	57HA5F	57HB5F	57NC5F	57PC3F	57PC5F	58NC3F	59GB3F	59GB5F	60GA4F	60GB4F	60HA4F	60PC4F	61GA5F	61GA6F	61GB6F	61HA5F	61NC5F	61PC5F	61PC6F	62GB7F	62GB8F	62PC7F	62PC8F	70GB8F	70PC8F							
MALE PLUGS	01QK2M	•												•	•	•																																						
	03BL2M		•														•																																					
	03CL2M																	•																																				
	03DL2M		•																																																			
	05BL3M			•		1														•	•		1				•		•	•																								
	05BL5M			•			1														•					•		•		•		•																						
	05CL3M		1		•															1		•		1			1																											
	05CL5M			1		•															1		•	•	1		1																											
	05DL3M		•		1															•	•		1			•		•		•																								
	05DL5M		•			1														•		•		1		•		•		•																								
	05GM3M		•		1															•	•		1			•		•		•																								
	05GM5M			•		1														•		•		1		•		•		•																								
	05LK3M		1		1															•	•		1			•		•		•																								
	05LK5M			•		1														•	•			1		•		•		•																								
	05UK3M		•		1,2															•	•			•		•		•		2																								
	05UK5M			•																	•				•		•				2																							
	05YL5M					•																		•	•											1																		
	09BL4M						•	1																										•	•	1	•																	
	09CL4M						1	•																										1																				
	09DL4M						•	1																										•	•	1	•																	
	09GM4M						•	1																										•	•	1	•																	
	09LK4M						•	1																										•	•	1	•																	
	09YL4M						1	•																										1	1	•																		
12BL5M							•					1																								•																		
12BL6M												•																																										
12CL5M								1				•																										1																
12DL5M							•					1																									•																	
12GM5M							•					1																								•																		
12GM6M												•																									•																	
12LK5M							•					1																								•																		
12YL5M								1				•																									1																	
15BL7M													•																																									
15BL8M																																																						
15DL8M																																																						
15GM7M													•																																									
15GM8M																																																						
20BL8M																																																						
57KD3M			•		1																																																	
57KD5M				•		1																																																
60KD4M							•	1																																														
61KD5M									•		1																																											

# SWITCHCRAFT®

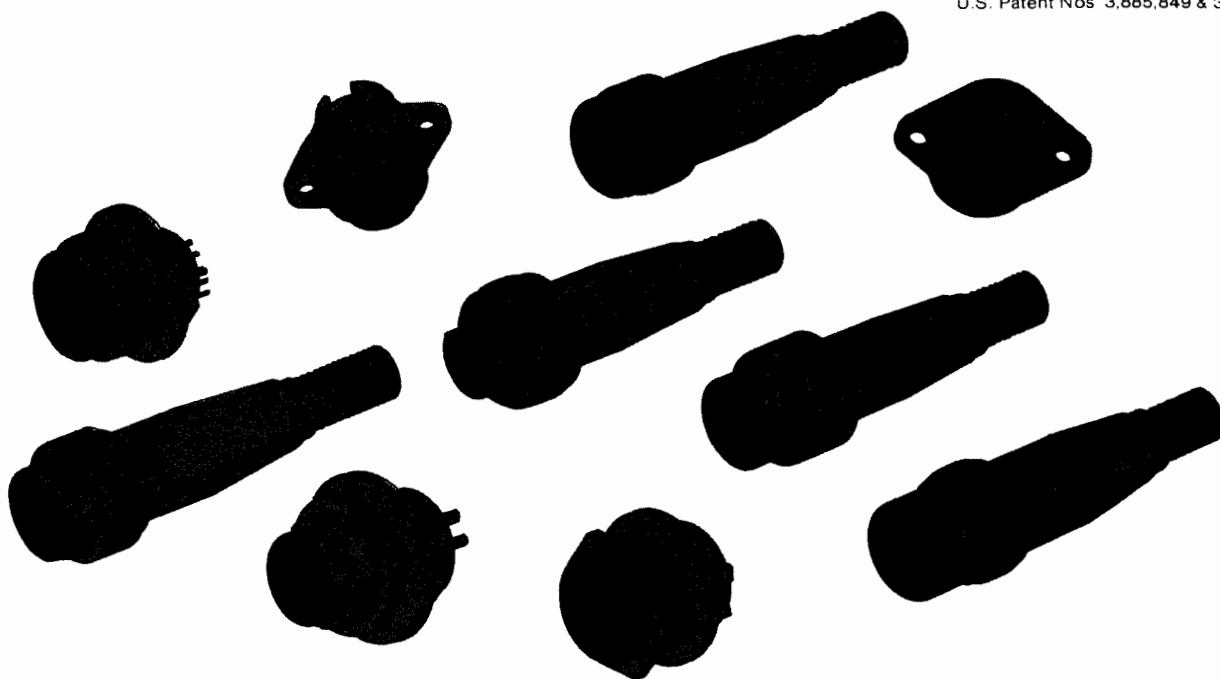




## SLIM-LINE CONNECTORS

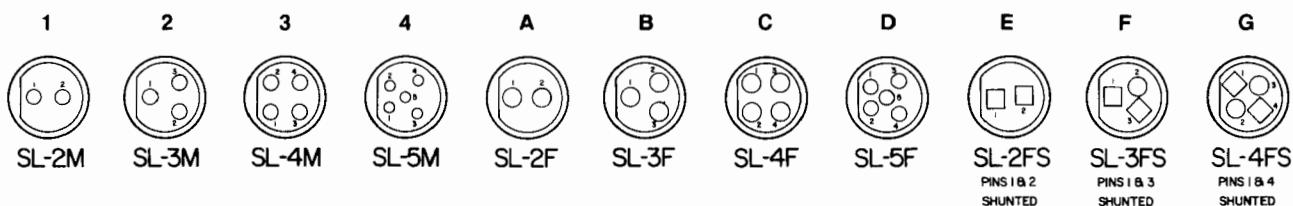
## SECTION 3

U.S. Patent Nos. 3,885,849 &amp; 3,926,499

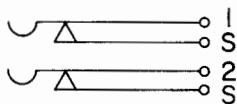


Slim-Line Connectors .....	PAGE 30-34
Slim-Line Mating Information .....	34
CB Microphone Connectors .....	35
Series 2504 Slim-Line Connectors .....	36

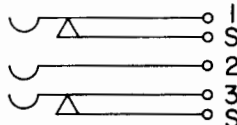
## PIN AND CONTACT ARRANGEMENTS



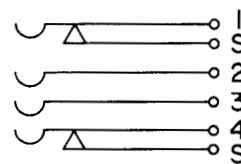
## SCHEMATIC CIRCUITS



I



II



III

# SWITCHCRAFT®

## SLIM-LINE AUDIO CONNECTORS

Precision design and construction of Slim-Line makes wiring and assembly a simple, easy task. Positive, snap-together assembly. Male and female inserts (2 through 5 pin/contacts) are interchangeable between plugs and receptacles for maximum versatility.

### CORD PLUGS

Miniature Cord Plugs feature nickel plated brass housings with matte finish on exterior parts. Plugs may be specified with inserts having 2-, 3-, 4- and 5-pins (male) or contacts (female), or 2-, 3-, or 4-contact receptacles having shunts (N.C.) on two contacts. Extra large cable clamp protects against pulling and twisting strains on terminations. Strain relief spring protects against excess cable wear at entry point at rear of housing. Cord plugs accept cables up to .281 in. (7.14 mm) diameter. Captive coupler ring feature (**Series SL-40**) provides secure mechanical connection and protection against shock and vibration between cord plugs and mating plug (**Series SL-41**) or receptacle.

### DESIGN FEATURES

"Slim Line" Audio Connectors are a unique series of premium quality connectors featuring interchangeable inserts which allow any plug or receptacle to be male or female. This versatility will prove its value in a wide variety of applications. Some obvious uses are in microphones, public address, 2-way radio, CB, ham, marine radio, audio-visual systems, industrial control and instrumentation, broadcast, security and medical electronics.

### INSERTS

Inserts are molded of high strength plastic, and are completely interchangeable between plug and receptacle housings at any time. Inserts are keyed to housings, and male and female inserts are polarized to prevent mismatching.

#### Pin/Contact Configurations:

Pins	Contacts	Contacts (Shunts)
2	2	2 (N.C. shunt on each contact)
3	3	3 (N.C. shunts on contacts 1 and 3)
4	4	4 (N.C. shunts on contacts 1 and 4)
5	5	—

Insert is installed from front, and the captive latch spring locks insert to housing. To remove insert from receptacle, depress latch spring and apply pressure to rear of insert (**DO NOT APPLY PRESSURE TO TERMINALS**). On cord plugs, depress latch spring and press in on strain relief to free the insert.

### RECEPTACLES

Three types of receptacles can be specified:

1. Flange mount (**Series SL-10**)
2. Rear of panel mount (**Series SL-17**)
3. Front of panel mount (**Series SL-18**)

Receptacles can be specified with same male and female insert combinations as cord plugs. For rear and front of panel mounting types, hex nuts, lock washers, and flat washers are supplied. For flange mount receptacles, mounting holes in flange accept #4 machine screw or .125 in. (3.18 mm) diameter rivet.

### GROUNDING/SHIELDING

Housings shield internal connections and provide ground (common) connections without using a pin/contact. On cord plugs, ground lead (or shield) is connected to cable clamp. For receptacles Cable Clamp, **Part No. SL-04** is ordered separately and installed. If desired, ground/shield connection may then be made to clamp. When mated, a continuous, shielded, low resistance path is made through the connector.

### MOUNTING

**Cord Plugs:** Plugs accept cables up to .281 in. (7.14 mm) diameter.

**Receptacles:** Flange mount type mounts in panels or chassis up to .188 in. (4.78 mm) thick. .125 in. (3.18 mm) diameter holes accept #4 machine screws or .125 in. (3.18 mm) diameter rivets. Rear and front of panel types mount in "D-shaped" hole in panels or chassis up to .219 in. (5.56 mm) thick. Hex nut (**Part No. SL-01**), lock washer (**Part No. SL-02**), and flat washer (**Part No. SL-03**) are supplied for mounting.

### CABLE CLAMP AND STRAIN RELIEF

**Cord Plugs:** Plugs are supplied with rugged cable clamps and strain relief springs. Cable clamp serves two valuable functions: 1, firmly holds cable to prevent pulling or twisting strains on soldered terminations, and 2, connecting point for ground (common) or shield when grounding/shielding through the connector is required.

**Receptacles:** Receptacles are not supplied standard with cable clamp for strain relief. If grounding/shielding feature is desired, separate Cable Clamp, **Part No. SL-04**, is installed on receptacle insert.

### APPLICATIONS

**Retrofit/Replacement:** "Slim Line" Cord Plug (SL-40-5M) and Receptacle (SL-10-5F) are recommended as a possible choice to replace Switchcraft/DIN plug (12CL5M) and receptacle (55HA5F). Receptacle SL-10-5F fits the same mounting holes as the Switchcraft/DIN receptacle.

Four pin/contact "Slim-Line" plugs and receptacles are recommended as direct replacements for the original "Slim-Line" connectors, Series 2504, and for the molded version of the "Slim-Line" connector, Style ST-34 (See Catalog M-701c).

### MATERIAL SPECIFICATIONS

**Receptacle Housings**—Die-cast zinc, nickel plated.

**Cord Plug Housings**—Brass, nickel plated.

**Inserts**—High strength black molded plastic. UL 94-VC.

**Female Contacts**—Phosphor bronze, silver plated, solder lug type.

**Pins**—Brass, silver plated, solder cup type.

**Cable Clamp, Strain Relief, and Mounting Hardware**—Steel, cadmium plated.

**Latch**—Steel, nickel plated.

### MOUNTING HARDWARE

(supplied with Series SL-17 and SL-18 receptacles)

Part No.	Item
SL-01	Hex Nut
SL-02	Lockwasher
SL-03	Flat Washer

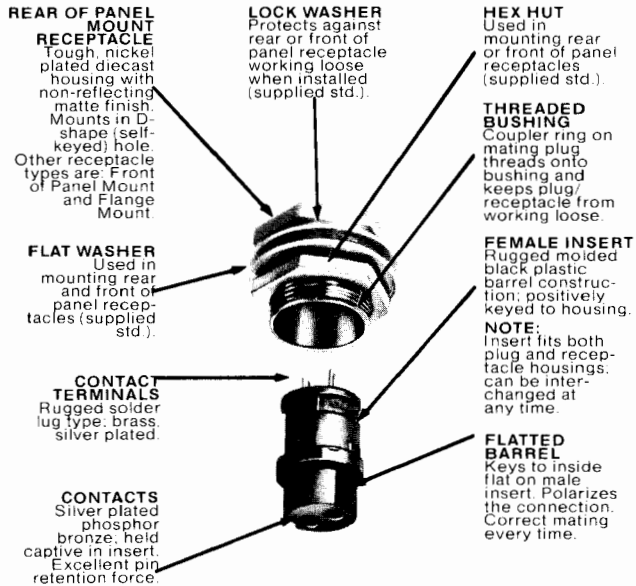
### CB CONNECTORS

Refer to page 35 for complete specifications on CB connectors.

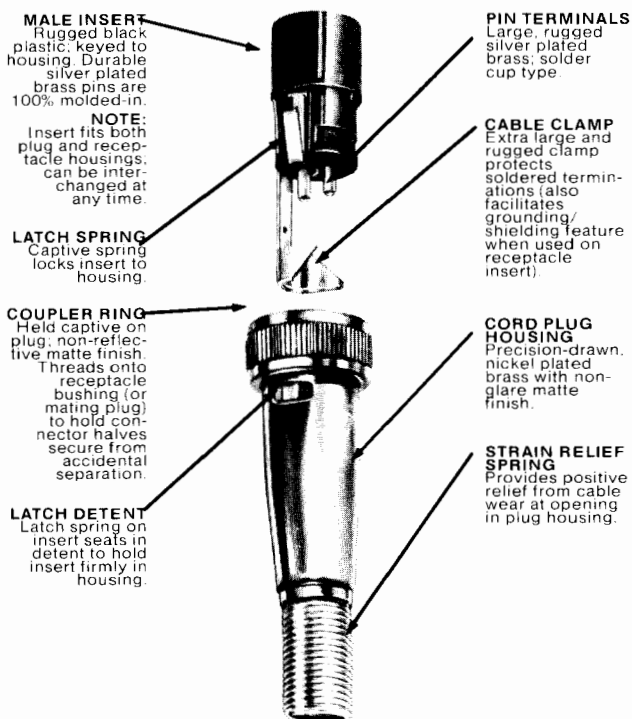


## SLIM-LINE CONNECTORS

TYPICAL PART NO. SL-17-2F REAR MOUNT RECEPTACLE

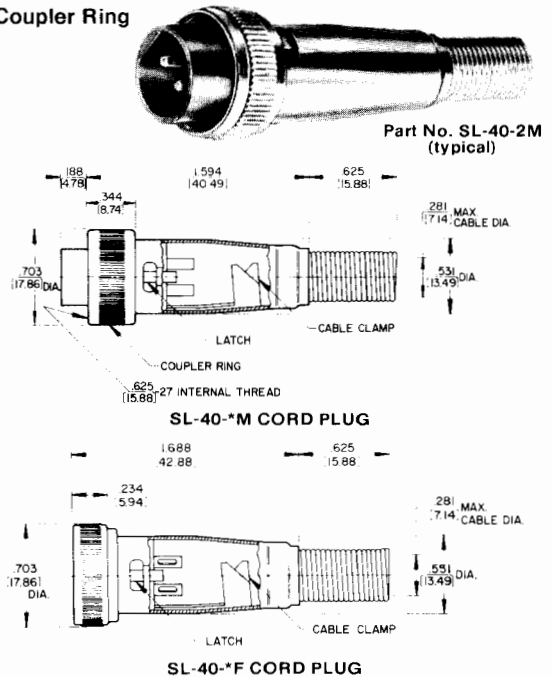


TYPICAL PART NO. SL-40-2M CORD PLUG



## SL-40 CORD PLUG

with Coupler Ring



Non-reflective metal shell; coupling ring; 2 thru 5 pins (male) or 2 thru 5 contacts (female). Also 2-, 3- and 4-contact inserts with 2 shunted (N.C.) contacts. Efficient cable clamp and strain relief.

## "SL" MALE CORD PLUGS

Part No.	Pins	Pin Arrangements
SL-40-2M	2	1
SL-40-3M	3	2
SL-40-4M	4	3
SL-40-5M	5	4

## "SL" FEMALE CORD PLUGS

Part No.	Contacts	Contact Arrangements
SL-40-2F	2	A
SL-40-3F	3	B
SL-40-4F	4	C
SL-40-5F	5	D
⊕ SL-40-2FS	2 (1 & 2 shunted) Schematic I	E
⊕ SL-40-3FS	3 (1 & 3 shunted) Schematic II	F
⊕ SL-40-4FS	4 (1 & 4 shunted) Schematic III	G

## STRAIN RELIEF SPRING

Strain Relief Spring  
Part No. SL-05



⊕ Special order only; contact factory for price and delivery.

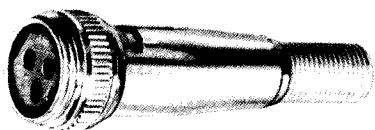
**NOTE:** Contact your Switchcraft Representative for pricing.

# SWITCHCRAFT®

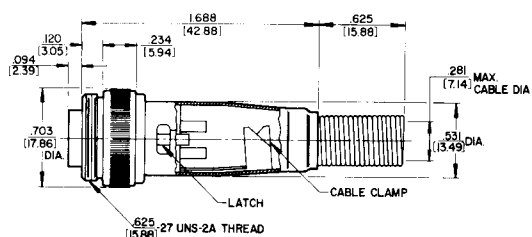
## SLIM-LINE CONNECTORS

## SL-41 CORD PLUG

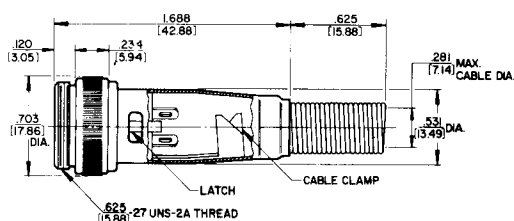
**without Coupler Ring**



**Part No. SL-41-3F**  
(typical)



SL-41-\*F CORD PLUG



SL-41-\*M CORD PLUG

Non-reflective metal shell; 2 thru 5 pins (male) or 2 thru 5 contacts (female). Also 2-, 3- and 4-contact inserts with 2 shunted (N.C.) contacts. Efficient cable clamp and strain relief.

## “SL” MALE CORD PLUGS

Part No.	Pins	Pin Arrangements
⊕ SL-41-2M	2	1
⊕ SL-41-3M	3	2
⊕ SL-41-4M	4	3
⊕ SL-41-5M	5	4

## "SL" FEMALE CORD PLUGS

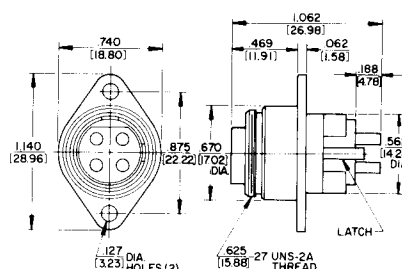
Part No.	Contacts	Contact Arrangements
SL-41-2F	2	A
SL-41-3F	3	B
SL-41-4F	4	C
SL-41-5F	5	D
⊕ SL-41-2FS	2 (1 & 2 shunted) Schematic I	E
⊕ SL-41-3FS	3 (1 & 3 shunted) Schematic II	F
⊕ SL-41-4FS	4 (1 & 4 shunted) Schematic III	G

## SL-10 RECEPTACLES

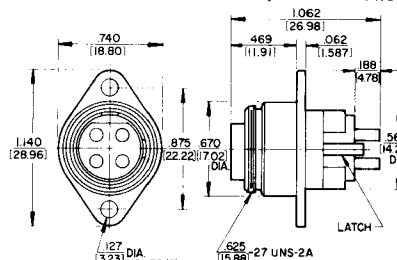
### Flange Mount



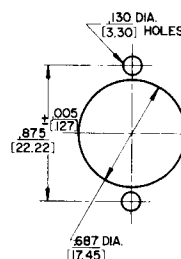
**Part No. SL-10-4M**  
(typical)



**SL-10-★ RECEPTACLE**  
(SL-10-4M Shown)



**SL-10-\*F RECEPTACLE**



**SL-10-\*\* RECEPTACLE  
PANEL CUT-OUT**

Flange mounted; 2 thru 5 pins (male) or 2 thru 5 contacts (female). Also 2-, 3- and 4-contact inserts with 2 shunted (N.C.) contacts.

## “SL” MALE RECEPTACLES

Part No.	Pins	Pin Arrangements
SL-10-2M	2	1
SL-10-3M	3	2
SL-10-4M	4	3
SL-10-5M	5	4

## "SL" FEMALE RECEPTACLES

Part No.	Contacts	Contact Arrangements
SL-10-2F	2	A
SL-10-3F	3	B
SL-10-4F	4	C
SL-10-5F	5	D
⊕ SL-10-2FS	2 (1 & 2 shunted) Schematic I	E
⊕ SL-10-3FS	3 (1 & 3 shunted) Schematic II	F
⊕ SL-10-4FS	4 (1 & 4 shunted) Schematic III	G

⊕Special order only; contact factory for price and delivery.

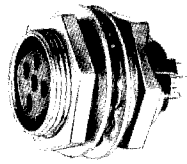
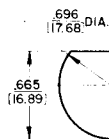
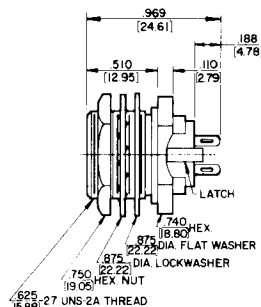
**NOTE:** Contact your Switchcraft Representative for pricing.



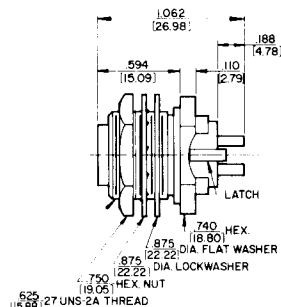
## SLIM-LINE CONNECTORS

**SL-17 RECEPTACLES**

Rear of Panel Mount

Part No. SL-17-5F  
(typical)SL-17-\*\* & SL-18-\*\* RECEPTACLES  
NON-TURN PANEL CUT-OUT

SL-17-F RECEPTACLE



SL-17-M RECEPTACLE

Rear of panel mount; 2 thru 5 pins (male) or 2 thru 5 contacts (female). Also 2-, 3- and 4-contact inserts with 2 shunted (N.C.) contacts. Mounting locknut (part no. SL-01), lock washer (part no. SL-02), and flat washer (part no. SL-03) supplied.

**"SL" MALE RECEPTACLES**

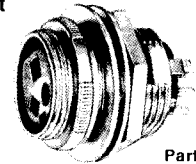
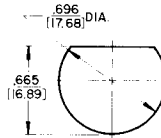
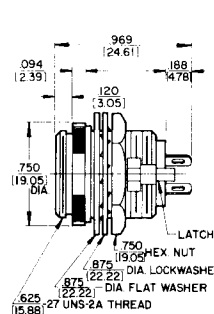
Part No.	Pins	Pin Arrangements
⊕ SL-17-2M	2	1
SL-17-3M	3	2
SL-17-4M	4	3
SL-17-5M	5	4

**"SL" FEMALE RECEPTACLES**

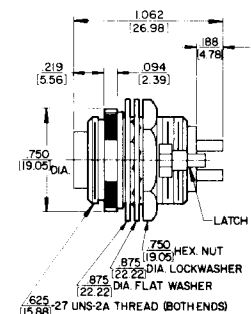
Part No.	Contacts	Contact Arrangements
SL-17-2F	2	A
SL-17-3F	3	B
SL-17-4F	4	C
SL-17-5F	5	D
⊕ SL-17-2FS	2 (1 & 2 shunted) Schematic I	E
⊕ SL-17-3FS	3 (1 & 3 shunted) Schematic II	F
⊕ SL-17-4FS	4 (1 & 4 shunted) Schematic III	G

**SL-18 RECEPTACLES**

Front of Panel Mount

Part No. SL-18-3FS  
(typical)SL-17-\*\* & SL-18-\*\* RECEPTACLES  
NON-TURN PANEL CUT-OUT

SL-18-F RECEPTACLE



SL-18-M RECEPTACLE

Front of panel mount; 2 thru 5 pins (male) or 2 thru 5 contacts (female). Also 2-, 3- and 4-contact insert with 3 shunted (N.C.) contacts. Mounting locknut (part no. SL-01), lockwasher (part no. SL-02), and flat washer (part no. SL-03) supplied.

**"SL" MALE RECEPTACLES**

Part No.	Pins	Pin Arrangements
⊕ SL-18-2M	2	1
SL-18-3M	3	2
SL-18-4M	4	3
SL-18-5M	5	4

**"SL" FEMALE RECEPTACLES**

Part No.	Contacts	Contact Arrangements
SL-18-2F	2	A
SL-18-3F	3	B
SL-18-4F	4	C
SL-18-5F	5	D
⊕ SL-18-2FS	2 (1 & 2 shunted) Schematic I	E
⊕ SL-18-3FS	3 (1 & 3 shunted) Schematic II	F
⊕ SL-18-4FS	4 (1 & 4 shunted) Schematic III	G

⊕ Special order only; contact factory for price and delivery.

**NOTE:** Contact your Switchcraft Representative for pricing.

# SWITCHCRAFT®

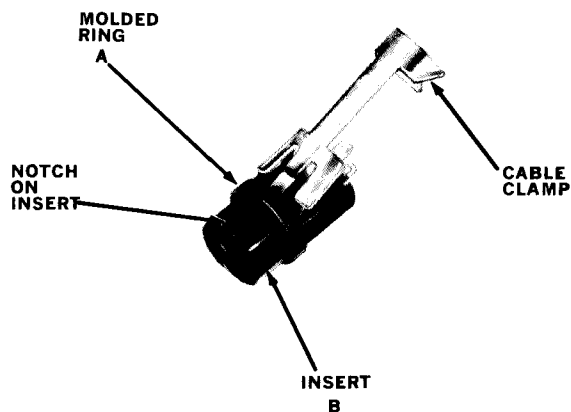
## SLIM-LINE CONNECTORS

### INSTALLING CABLE CLAMP ON INSERT

To install cable clamp on any insert, proceed as follows:

1. Position insert approximately as shown in the diagram.
2. Hold clamp at approx. 30° angle (as shown). Place tip of clamp center finger into slot under molded ring A. Note position of notch on insert in relation to slot.
3. Press center finger forward into slot and reduce angle of clamp until clamp shoulders seat just ahead of molded barrier on rear of insert B.

Cable Clamp Part No. SL-04.



**NOTE:** Slim-Line inserts are available for custom designs. Contact Switchcraft for price and delivery.

### SLIM-LINE MATING CHART

"SLIM-LINE" "SLIM-LINE" CORD PLUGS  
with Coupler Rings

	ST-34 (2)	2504M (1)	SL-40-4FS	SL-40-3FS	SL-40-2FS	SL-40-5F	SL-40-4F	SL-40-3F	SL-40-2F	SL-40-5M	SL-40-3M	SL-40-2M
<b>Male Cord Plugs Without Coupler Ring</b>												
SL-41-2M												
SL-41-3M												
SL-41-4M												
SL-41-5M												
SL-41-2F												
SL-41-3F												
SL-41-4F												
SL-41-5F												
SL-41-2FS												
SL-41-3FS												
SL-41-4FS												
<b>Male Receptacles Flange Mounted</b>												
SL-10-2M												
SL-10-3M												
SL-10-4M												
SL-10-5M												
SL-10-2F												
SL-10-3F												
SL-10-4F												
SL-10-5F												
SL-10-2FS												
SL-10-3FS												
SL-10-4FS												
<b>Female Receptacles Flange Mounted</b>												
SL-17-2M												
SL-17-3M												
SL-17-4M												
SL-17-5M												
SL-17-2F												
SL-17-3F												
SL-17-4F												
SL-17-5F												
SL-17-2FS												
SL-17-3FS												
SL-17-4FS												
<b>Male Receptacles Rear of Panel Mount</b>												
SL-18-2M												
SL-18-3M												
SL-18-4M												
SL-18-5M												
SL-18-2F												
SL-18-3F												
SL-18-4F												
SL-18-5F												
SL-18-2FS												
SL-18-3FS												
SL-18-4FS												
<b>Female Receptacles Rear of Panel Mount</b>												
*2504FP												
*2504FR												

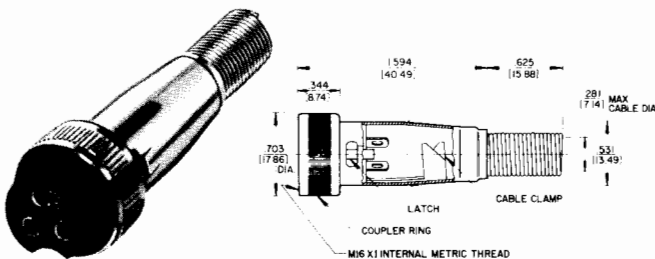
NOTES: 1. Part No. 2504M is original "Slim-Line" Cord Plug. See Page 36.  
2. Part No. ST-34 is molded cable version of No. 2504M. See Catalog M-701c.  
\* "Slim-Line" Receptacle. See page 36.

**NOTE:** Contact your Switchcraft Representative for pricing.

## "CB" MICROPHONE CONNECTORS

"CB" connectors are miniature 3- and 4-circuit, high performance audio connectors intended for CB radios and similar mobile radio/communications equipment. "CB" connectors mate directly with connectors on most popular CB units, and provide direct pin-compatible replacement/retrofit for many units currently in service. Small size accommodates limited space needs of mobile radios, and robust design withstands rough handling/abuse. Large cable clamp on plugs protects terminations, while strain relief spring avoids cable damage by prohibiting sharp bends and kinks. Pin/contact numbers are permanently molded into inserts.

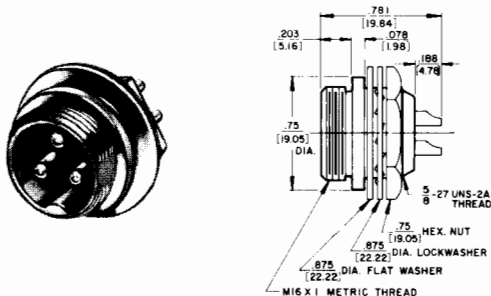
### CORD PLUGS



**Part No. CB-3F** 3-contact female cord plug. Knurled coupling ring has internal metric M16x1 thread (fits most CB microphone receptacles). Solder lug terminals accept wires up to #18 AWG. Accommodates cables up to .281-in. (7.14 mm) dia.

⊕ **Part No. CB-4F** Same as CB-3F, except 4 contacts.

### RECEPTACLES



**Part No. CB-3M** 3-pin male receptacle. Housing keys insert of mating plug; bushing with external M16x1 metric thread mates with coupling ring on plug. Cup-type terminals accept wires up to #16 AWG. Mounts in .64-in. (16.26 mm) dia. hole from front of panels up to .125-in. (3.18 mm) thick, using washer and locknut supplied. Can also be "D"-hole mounted for non-turn mounting (see drawing).

⊕ **Part No. CB-4M** Same as CB-3M, except 4 pin.

**IMPORTANT NOTE:** "CB" connectors are available in blister packaged cards. Cross-reference replacement data is supplied with each connector.

⊕ Available on special order only; contact Switchcraft for price and delivery.

### MATERIAL SPECIFICATIONS

**Receptacle Housing:** Die-cast zinc, nickel plated.

**Plug Housing:** Brass, nickel plated.

**Inserts:** High strength molded plastic.

**Contacts:** Phosphor bronze, silver plated.

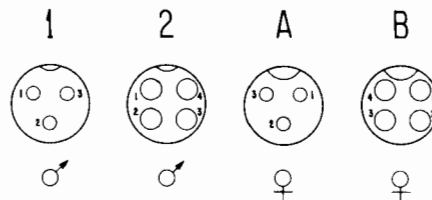
**Pins:** Brass, silver plated.

**Latch:** Steel, nickel plated.

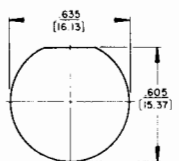
**Cable Clamp, Strain Relief Spring & Mounting**

**Hardware:** Steel, cadmium plated.

### PIN ARRANGEMENTS



### MOUNTING HOLE DETAIL



### CORD PLUG ASSEMBLY

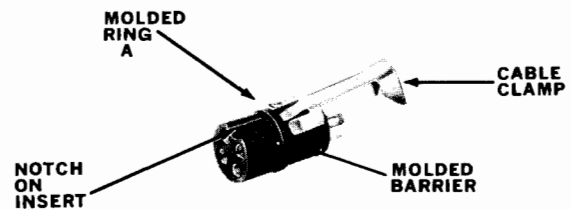


Fig. 1

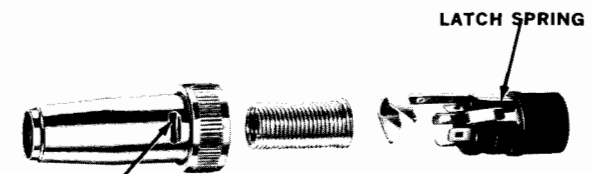


Fig. 2

### To wire:

1. Disassemble plug by depressing latch spring through latch detent opening.
2. Push cord protector spring into housing, forcing insert out opposite end.
3. Thread housing and cord protector spring onto cable.
4. Solder leads to terminals.
5. Install cable clamp by positioning insert as shown. Hold clamp at approximately 30° angle (Fig. 1) and insert tip of clamp center finger into slot under molded ring A.  
(Note position of keying notch on insert with respect to slot.)
6. Press center finger forward into slot and reduce angle of clamp until shoulders seat just ahead of molded barrier on rear of insert.
7. Crimp cable clamp around cable.
8. Slide housing along cable toward insert, aligning latch spring with latch detent opening (Fig. 2). (Cable clamp forces protector spring into position through rear of housing.)
9. Press insert into housing until latch spring snaps into place in latch detent opening.

**NOTE:** Contact your Switchcraft Representative for pricing.

# SWITCHCRAFT®

## SERIES 2504 "Slim-Line" CONNECTORS

"Slim-Line" connectors enhance appearance of equipment in applications where space is limited. Polarized "D"-shaped inserts in plugs and receptacles assure proper mating.

**NOTE:** Switchcraft also offers No. 2504M plug molded directly to a choice of cables. Refer to Switchcraft Catalog No. M-701c.

**NOTE:** Refer to pages 30-34 for Slim-Line connectors (available in 2-thru 5-pin/contact configurations and shunted versions).

### MATERIAL SPECIFICATIONS

**Shell & Coupling Ring:** H.H. brass, bright nickel plated.

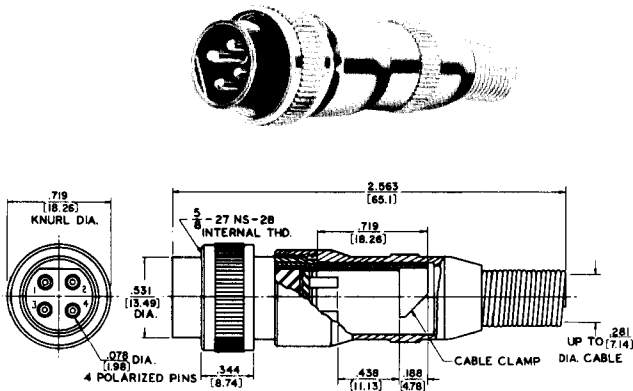
**Barrel & Insert Assembly:** High impact thermoplastic.

**Pin Contacts:** Brass, silver plated.

**Socket Contacts:** Phosphor bronze, silver plated.

**Cord Protector Spring, Cable Clamp & Mounting Hardware:** Steel, cadmium plated.

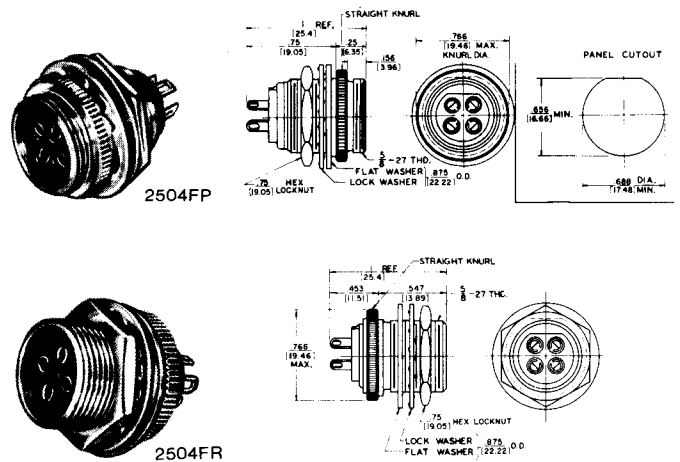
### CORD PLUG



**Part No. 2504M** Shielded, 4-pin male cord plug. Handle removes readily for quick, easy cable installation. Large solder cups facilitate wiring; built-in cable clamp provides superior strain relief. Cord protector spring eliminates cable bending and kinking at point of entry. Mates with 2504FP and 2404FR receptacles.

**NOTE:** Contact your Switchcraft Representative for pricing.

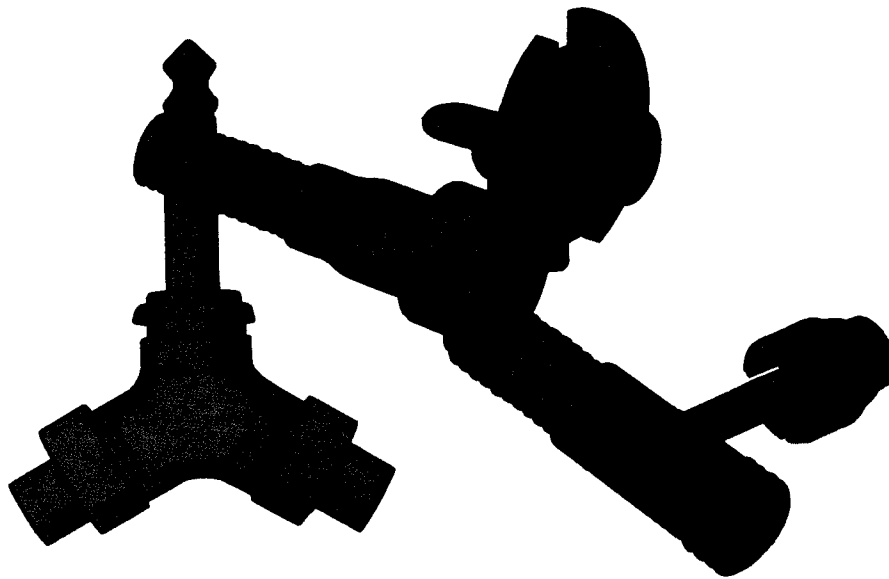
### RECEPTACLES



Shielded receptacles mount in panels from .062 to .218-in. (1.58 to 5.55 mm) thick in .688-in. (17.46 mm) dia. hole, using flat washer, lock-washer, and .75-in. (19.05 mm) hex nut (supplied). Can also use .688 x .656-in. (17.46 x 16.67 mm) hole for non-turn "D"-hole mount.

**Part No. 2504FP** 4-contact female receptacle. Mounts from front of panel or chassis with hex nut and washer (supplied).

**Part No. 2504FR** 4-contact female receptacle. Mounts from rear of panel or chassis with hex nut and washer (supplied).

**GENERAL PURPOSE CONNECTORS****SECTION 4**

Switchcraft offers a wide range of standard and miniature microphone connectors, phono jacks and plugs, RF-jacks, RF plugs and Y-connectors for a variety of general purpose connections.

	<b>PAGE</b>
<b>Series 2500 Microphone Connectors</b> .....	<b>38</b>
<b>Series 5500 "Mini-Con" Connectors</b> .....	<b>39</b>
<b>Series 3500 Phono Jacks and Plugs</b> .....	<b>40</b>
<b>Phono Jacks, RF-Jacks, RF Plugs</b> .....	<b>41</b>
<b>Y-Connectors &amp; Phono Jack-To-BNC Adapter</b> .....	<b>42</b>

# SWITCHCRAFT®

## SERIES 2500—MICROPHONE CONNECTORS

Switchcraft microphone connectors, intended for use with single-conductor shielded microphone cable, are widely used with microphones, amplifiers, transmitters, tape recorders, and headphones, and with public address, sound reinforcement, and industrial communication equipment. Shield braid can be bent back over protector spring and soldered to provide ground termination and strain relief. Spring is then clamped into connector shell, with set screw.

### MATERIAL SPECIFICATIONS

**Shell & Coupling Ring:** Brass, machined, bright nickel plated.

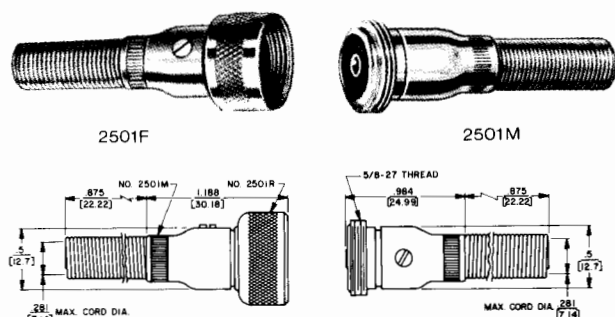
**Cord Protector Spring:** Spring steel wire, cadmium plated.

**Insulation:** XXXP paper base phenolic.

**Eyelet:** Brass, hot tinned.

NOTE: Switchcraft also offers Series 2500 connectors molded directly to cables. See Catalog M-701c.

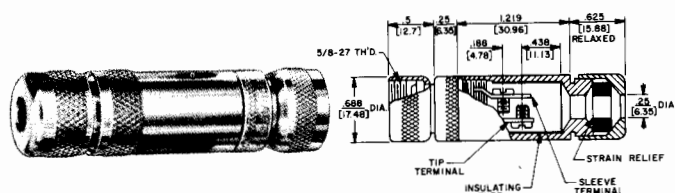
### CORD PLUGS



**Part No. 2501F** Straight female cord plug with single contact. Coupling ring engages threaded end of male cord plug or receptacle. No. 2501F can be used as male connector by unscrewing coupling ring and slipping it back over connector shell and cable.

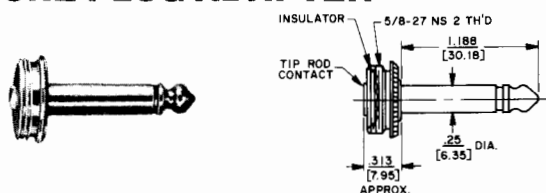
**Part No. 2501M** Straight male cord plug with single contact. Threaded end engages coupling ring of female cord plug.

### CORD PLUG with Screw Terminals



⊕ **Part No. 2501FL** Straight female cord plug with screw terminals. Easily removed 2-piece shielded handle exposes terminals. Built-in clamp provides strain relief. SPECIAL ORDER ONLY.

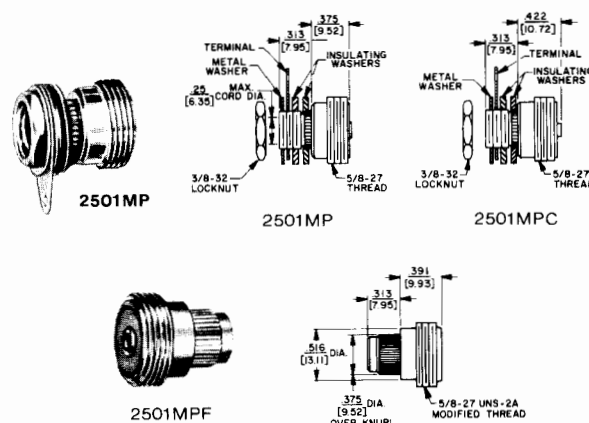
### PHONE PLUG ADAPTER



**Part No. 44** Two-conductor phone plug adapter adapts 2501F or similar female microphone connectors to fit standard 2-cond. phone jacks.

NOTE: Contact your Switchcraft Representative for pricing.

### RECEPTACLES

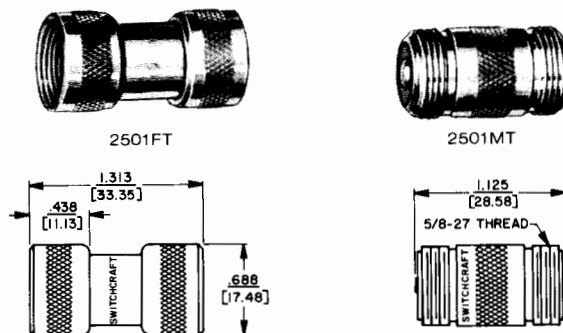


**Part No. 2501MP** Single-contact male panel receptacle. Mounts in .39-in. (9.92 mm) dia. hole in panel or chassis. For insulated mount, use washers (furnished) in .5-in. (12.7 mm) dia. hole. Use .38-in. (9.65 mm) dia. hole for "press fit" mount.

⊕ **Part No. 2501MPC** Single-contact male panel receptacle. Same as 2501MP except closed-circuit type.

⊕ **Part No. 2501MPF** Single-contact male panel receptacle for press fit mounting in chassis or panel. No mounting hardware needed. Mounts in .38-in. (9.65 mm) dia. hole, on .875-in. (22.22 mm) centers. SPECIAL ORDER ONLY.

### COUPLERS



⊕ **Part No. 2501FT** Shielded double female coupler connects two cables with male cord plugs (2501M or similar).

⊕ **Part No. 2501MT** Shielded double male coupler connects two cables with female cord plugs (2501F or similar). SPECIAL ORDER ONLY.

⊕ Available on special order only; contact Switchcraft for price and delivery.

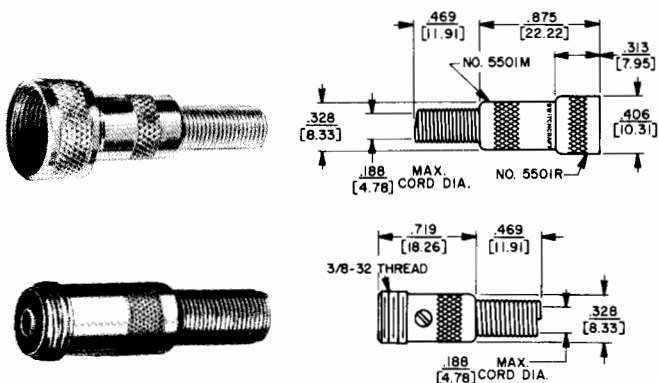


## SERIES 5500—"Mini-Con" CONNECTORS

Approximately one-half the size of Switchcraft Series 2500 microphone connectors; average net weight is .5 oz. (14.9 g). Ideal for miniature lapel microphones, musical instruments, etc.—wherever small

cable is used. Accepts single-conductor shielded cable up to .187-in. (4.76 mm) dia. Cable braid can be soldered to cable protector spring, which is clamped into shell by hollow point screw.

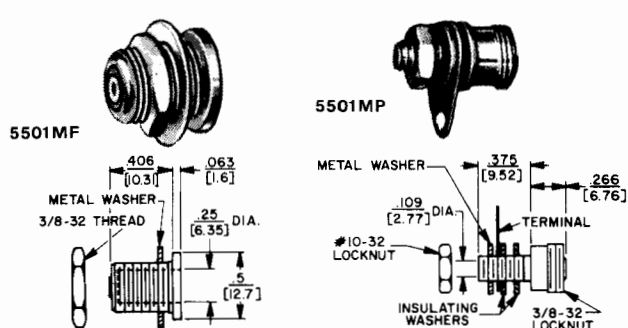
### CORD PLUGS



**Part No. 5501F** Single-contact female cord plug. Coupling ring is removable for quick change from female to male connector.

**Part No. 5501M** Single-contact male cord plug.

### RECEPTACLES



**Part No. 5501MF** Single-contact male panel receptacle. Mounts with locknut from rear of panel in .375-in. (9.52 mm) dia. hole. INSULATED MTG.: Use Nos. S-1028 and S-1029 insulating washers (not furnished) with .875-in. (22.22 mm) dia. hole.

**Part No. 5501MP** Single-contact male panel receptacle. Mounts with locknut from front of panel in .187-in. (4.76 mm) dia. hole. INSULATED MTG.: Use insulating washers (furnished) with .25-in. (6.35 mm) dia. mounting hole.

⊕ **Part No. 5501MPC** Same as 5501MP, except shorting type. SPECIAL ORDER ONLY.

### MATERIAL SPECIFICATIONS

**Shell & Coupling Ring:** Machined brass, bright nickel plated.

**Cord Protector Spring:** Spring steel wire, cadmium plated.

**Insulation:** XXXP paper base phenolic.

**Eyelet:** Brass, hot tinned.

**Washer:** Steel cadmium plated.

**Locknut:** Brass, nickel plated

**Insulating Washers:** Flat—bakelite; shoulder—swaged fiber.

**NOTE:** Contact your Switchcraft Representative for pricing

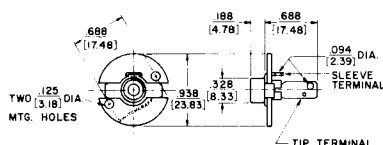
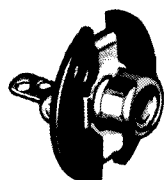
⊕ Available on special order only; contact Switchcraft for price and delivery.

# SWITCHCRAFT®

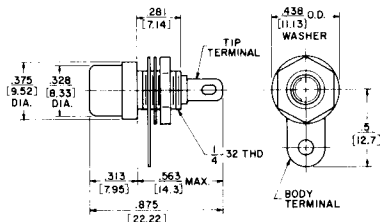
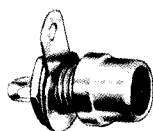
## SERIES 3500—PHONO JACKS AND PLUGS

Switchcraft phono jacks and plugs are recommended for semi-permanent connections in audio and electronic applications.

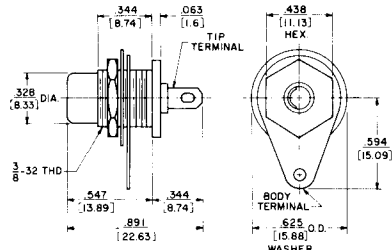
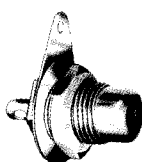
### PHONO JACKS



**Part No. 3501F** 2-cond. phono jack with phenolic mounting flange. Mounts from rear of panel through .406-in. (10.32 mm) dia. hole, plus 2, .125-in. (3.18 mm) dia. mounting holes.

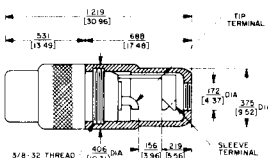


**Part No. 3501FP** 2-cond. phono jack for front-of-panel mount, using hex nut (supplied). Only .438-in. (11.12 mm) O.D., can be mounted on .5-in. (12.7 mm) centers. Has 1/8-32 bushing, mounts in .281-in. (7.14 mm) dia. hole in panels up to .25-in. (6.35 mm) thick. **INSULATED MOUNT:** Use Nos. S-2207 and S-1564 insulating washers (not supplied) with .313-in. (7.92 mm) dia. mounting hole. Order washers separately from Switchcraft Catalog No. H-602c.



**Part No. 3501FR** 2-cond. phono jack for rear-of-panel mount, using 3/8-32 locknut (supplied). Locknut can be tightened conveniently by holding .438-in. (11.12 mm) hex body with Spintite wrench from rear. Can be mounted on .688 in. (17.48 mm) centers through .391 in. (9.93 mm) dia. hole in panels up to .203-in. (5.16 mm) thick. **INSULATED MOUNT:** Use Nos. S-1028 flat washer and S-1029 extruded fiber washer (not furnished), with .438-in. (11.13 mm) dia. mounting hole. (Order washers separately from Switchcraft Catalog No. H-602c.)

### PHONO EXTENSION JACK



**Part No. 3503** 2-cond. shielded extension phono jack. Use on end of cable. Large, heavy duty cable clamp, removable handle and durable bright nickel plate on body and handle.

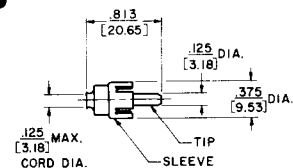
® Registered trademark of Switchcraft, Inc.

**NOTE:** Contact your Switchcraft Representative for pricing.

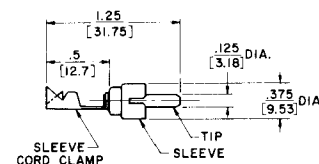
**NOTE:** Where frequent connect/disconnect is anticipated, Switchcraft Littel-Jax® phone jacks and Littel-Plug® phone plugs are suggested.

**NOTE:** Series 3500 Phono Plugs molded directly to cables are available. Refer to Switchcraft Catalog No. M-701c

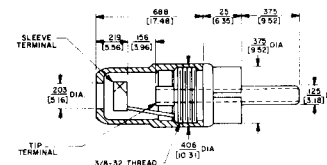
### PHONO PLUGS



**Part No. 3501M** 2-cond. phono plug accepts cable up to .125-in. (3.18 mm) dia.



**Part No. 3501MC** 2-cond. phono plug with cable clamp.



**Part No. 3502** Handy Grip Phono Plug, 2-cond. shielded. Heavy duty cable clamp and removable handle; accepts cables up to .203-in. (5.16 mm) dia. Terminals may be crimped with pliers (temporary connections) or soldered (permanent connections). Plus accommodates multiple jacks spaced on .438-in. (11.13 mm) centers. Bright nickel plated brass body and handle.



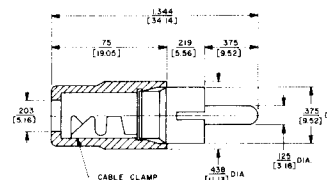
3558-1



3558-2



3558-5



**Part No. 3558-1** 2-cond. phono plug with red plastic snap-on handle for color coding. Has cable clamp and accepts cables up to .203-in. (5.16 mm) dia.

**Part No. 3558-2** Same as 3558-1 above, except black handle.

**Part No. 3558-5** Same as 3558-1 above, except white handle.



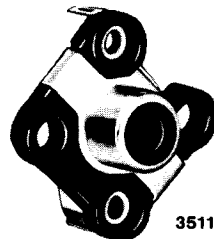


## PHONO JACKS, RF-JACKS, RF PLUGS

**4-LEAF CLOVER JAX — PHONO JACKS**

4-Leaf Clover Jax are available in four models and feature dual contact surfaces for minimum contact resistance and high reliability. Ideal for use on all types of phonographs, tape recorders, radios, TV's broadcast and sound recording equipment, etc.

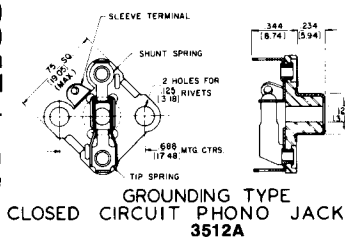
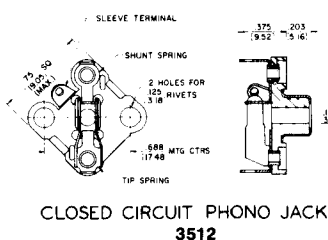
4-Leaf Clover Jax mate with Switchcraft phono plugs, Nos. 3501M, 3501MC, 3502, and 3558-1, -2 and -5, and with any phono plug that has a .125-in. (3.18 mm) dia. pin. Can be mounted on .75-in. (19.05 mm) centers through a .406-in. (10.31 mm) dia. hole in panels up to .203-in. (5.16 mm) thick, and fastened with .125-in. (3.18 mm) dia. rivets or No. 5 screws. Requires only .375-in. (9.52 mm) depth behind panel. Body keys all springs, mechanically locking them in place to prevent shifting of parts and possible shorting.



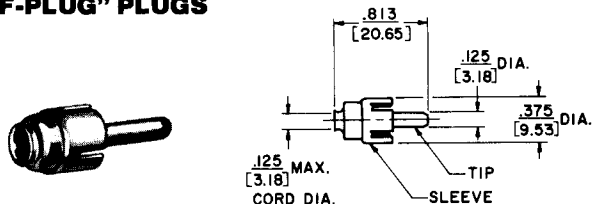
3511

- Part No. 3511.** Open circuit phono jack with insulated shell.  
**Part No. 3511A.** Open-circuit phono jack with grounded shell.  
**Part No. 3512.** Closed-circuit phono jack with tip shunt. Insulated shell.  
**Part No. 3512A.** Closed-circuit jack with tip shunt. Grounded shell.

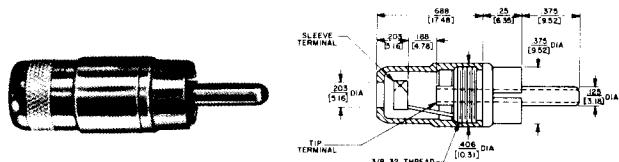
U.S. Patent No. 3,356,800  
 Canadian Patent No. 795,953  
 (Oct. 1, 1968)

GROUNDING TYPE  
CLOSED CIRCUIT PHONO JACK  
3512ACLOSED CIRCUIT PHONO JACK  
3512**"RF-PLUG" RF PHONO PLUGS**

Coaxial phono connectors employ low-loss nylon insulation and are ideally suited to rf applications where semi-permanent connection of moderate power handling capability is required. Perfect for applications where space is at a premium and cost is important. "RF-Jax" jacks and "RF-Plug" plugs have been used successfully to 1 kW at 30 MHz.

**"RF-PLUG" PLUGS**

3504M 2-cond. phono plug. Mates with No. 2505F jack.

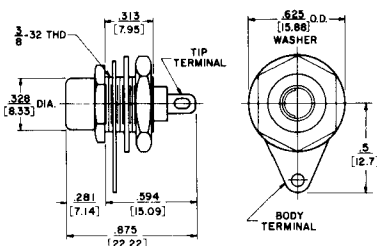
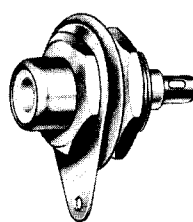


3507 2-cond. phono plug with bright nickel-plated brass body and screw-on handle. Mates with No. 3505F jack.

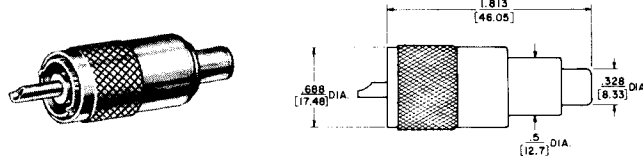
**SPECIFYING NOTE: OEM ACCOUNTS!**—Switchcraft can mold the No. 3507 "RF-Plug" to RG-type cable. Your inquiries are invited.

⊕ Available on special order only; contact Switchcraft for price and delivery.

**NOTE:** Contact your Switchcraft Representative for pricing.

**"RF-JAX" RF PHONO JACKS**

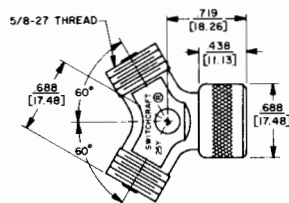
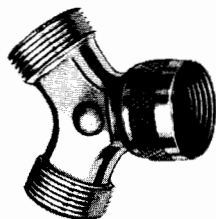
**3505F** 2-cond. phono jack for front-of-panel mounting. Fastens with 3/8-32 hex nut (supplied) to minimize tampering. Body has .438-in. (11.11 mm) hex shape on front, can be held conveniently with Spintite wrench while tightening locknut. Can be mounted on .688 in. (17.48 mm) centers, through a .391 in. (9.93 mm) dia. hole in panels up to .172-in. (4.37 mm) thick. Mates with Nos. 3504M and 3507 "RF-Plug" plugs.

**RF-ADAPTER CONNECTOR**

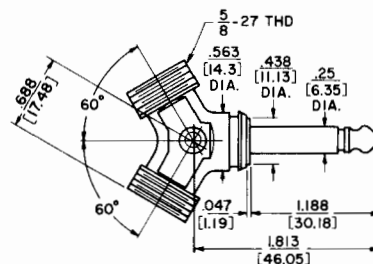
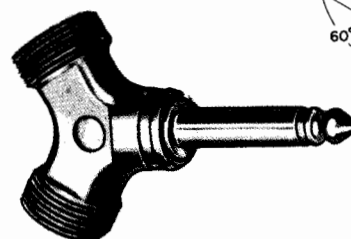
⊕ **3506** Connector has coaxial connector (similar to Amphenol No. 83-1SP) on one end and a Switchcraft No. 3505F "RF-Jax" jack on the other. No. 3506 adapter is designed to interconnect many amateur and commercial transmitters using standard rf connectors and antenna accessories using plugs that mate with No. 3505F "RF-Jax" jack. **SPECIAL ORDER ONLY.**

## Y-CONNECTORS

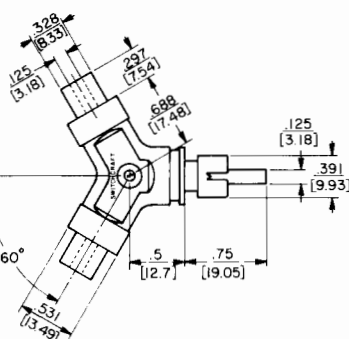
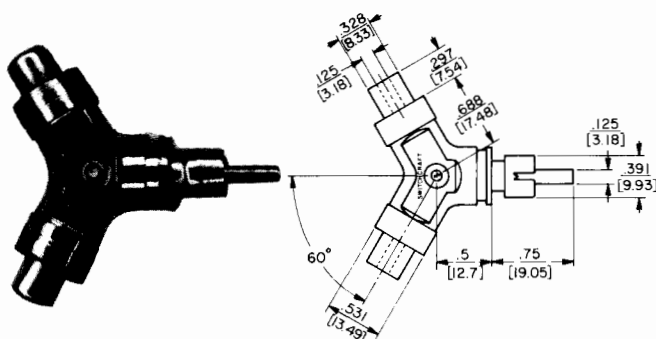
Fully shielded connectors make it possible to connect two cables (with standard microphone or phono connectors) in parallel to a single connector. Two inputs can be combined into a single output, or a single input can be split into two outputs.



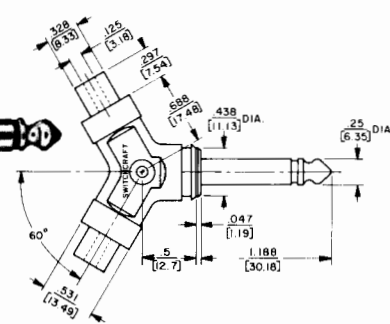
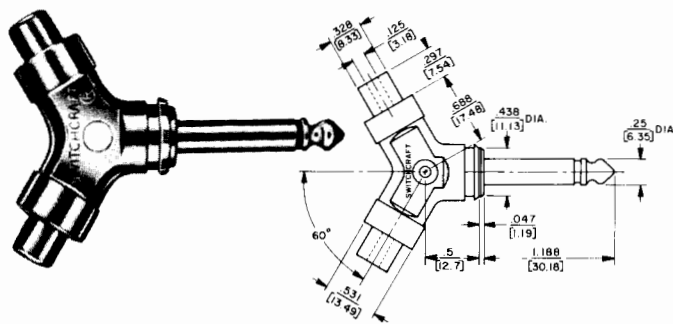
**Part No. 25Y** Connects two cables with standard female microphone connectors (such as Switchcraft No. 2501F) in parallel to a single female microphone cord plug or receptacle output.



⊕ **Part No. 330M** Connects two cables with standard female microphone connectors (such as Switchcraft No. 2501M) in parallel to standard .25-in. (6.35 mm) phone plug output.



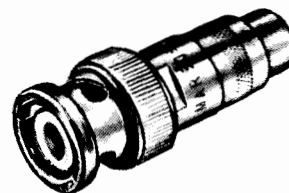
**Part No. 330F** Connects two cables with standard phono plugs (such as Switchcraft No. 3501M) in parallel to standard phono plug output.



**Part No. 330PJ** Connects two cables with standard phono plugs (such as Switchcraft No. 3501) in parallel to standard phone plug output.

## PHONO JACK-TO-BNC CONNECTOR ADAPTER

Connector-Adapter has phono jack input and BNC coaxial connector output for connections to test equipment and instrumentation, such as oscilloscopes, meters, bridges, etc., and hi-fi audio applications and circuit tracing. Recommended for use up to 30 MHz. Housing is nickel plated brass, and jack contact is cadmium plated brass. BNC housing and contact pin are silver plated brass.



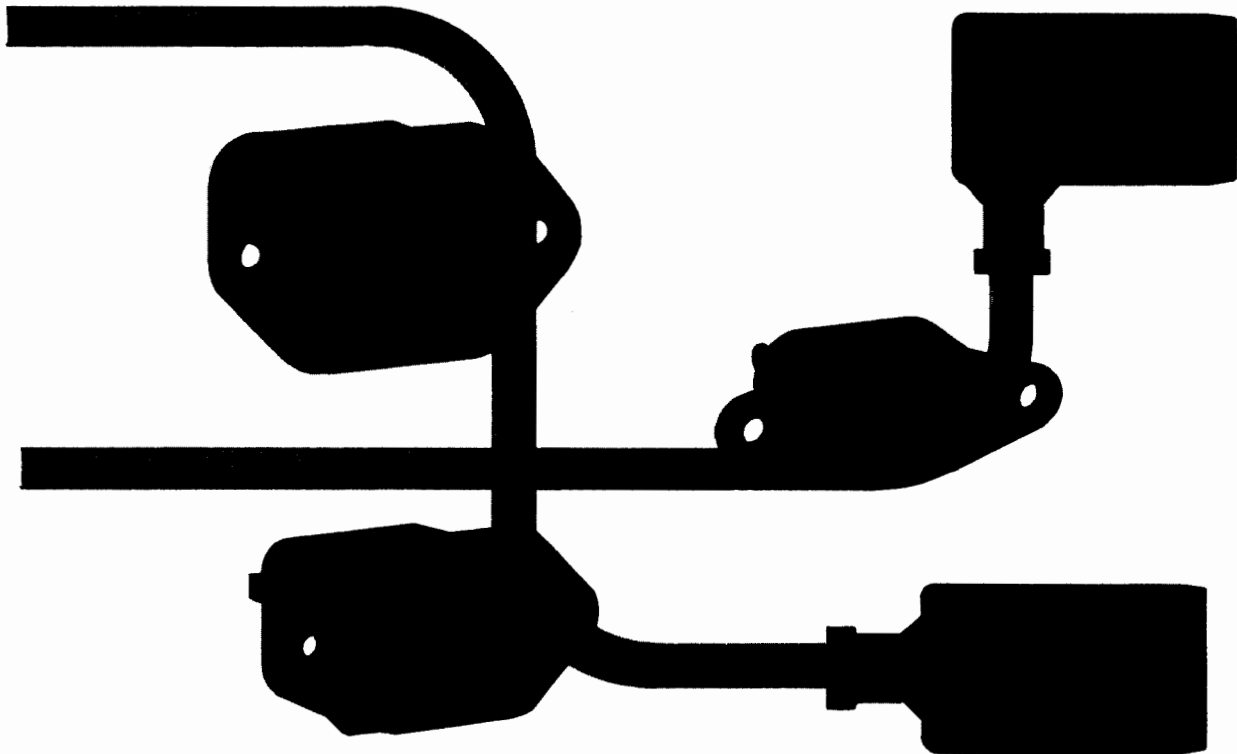
**Part No. 3513**

⊕ Special order only; contact Switchcraft for price and delivery.

**NOTE:** Contact your Switchcraft Representative for pricing.

AC CORDS & RECEPTACLES

SECTION 5



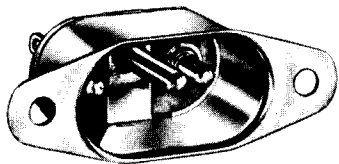
AC Receptacles .....	PAGE 44-45
AC Cords .....	46

# SWITCHCRAFT®

## AC RECEPTACLES

### TYPES AC AND LAC

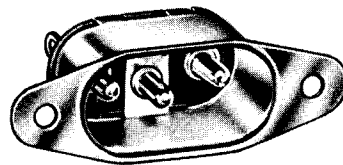
AC and LAC receptacles are intended for safe use in all critical electrical/electronic applications. "Chassis-hugging" recessed mounting is suited to all types of equipment. Receptacles have self-aligning feature that permits movement of pins Nos. 1 and 3 within the shell to compensate for any slight off-centering of mating plug contacts. Center pin, No. 2, is stationary and acts as a guide.



AC3G

#### LISTINGS

Part No.	LISTING UL	C.S.A.*
AC3	7A, 115V	—
AC3G	7A, 115V	—
LAC3	7A, 115V	—
LAC3G	7A, 115V	—
LAC3GD	7A, 115V	7A, 115V



LAC3GD



\*U.L. No. E38829

\*\*C.S.A. Guide 365-E-1, Class 6233, File Card No. 27474

#### MATING INFORMATION

Part No.	Gender	Wt.
AC3	Pin-243	—
AC3G	Pin-243	—
LAC3	Pin-24, Pin-25, Pin-101	—
LAC3G	Pin-24, Pin-25, Pin-101	—
LAC3GD	Pin-24 & 17208 (unclad)	380-1, 380-2

Part No. AC3 3-pin, ungrounded.

Part No. AC3G 3-pin; center pin grounded to case.

⊕ Part No. LAC3 3-pin, ungrounded.

Part No. LAC3G 3-pin; center pin grounded to case.

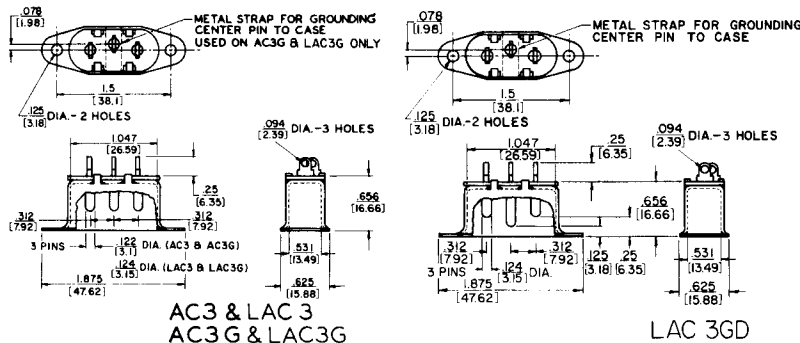
Part No. LAC3GD 3-pin; center pin grounded to case. Center pin is .125-in. (3.18 mm) longer. Ground circuit is established before power circuits "make", and is maintained until after power circuits "break".

#### MATERIAL SPECIFICATIONS

**Shell:** Steel, cadmium plated, chromate dipped.

**Pins and Terminals:** Brass, silver plated and chromate dipped.

**Insulation:** Epoxy paper No. 492, 94V O thermoplastic.



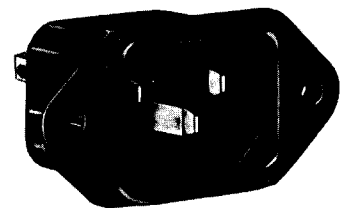
AC3 & LAC3  
AC3G & LAC3G

LAC3GD

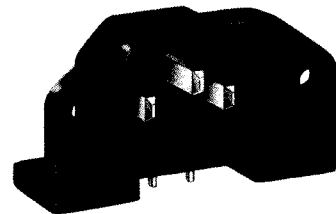
⊕ Available on special order only; contact Switchcraft for price and delivery.

**NOTE:** Contact your Switchcraft Representative for pricing.

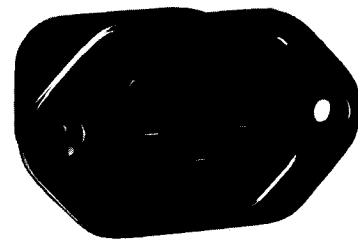
### SERIES EAC



EAC-301



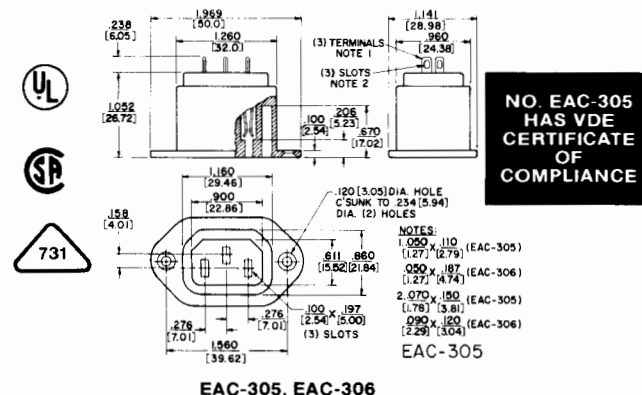
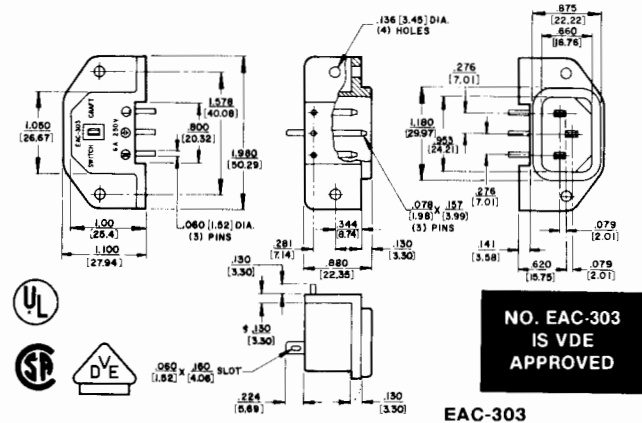
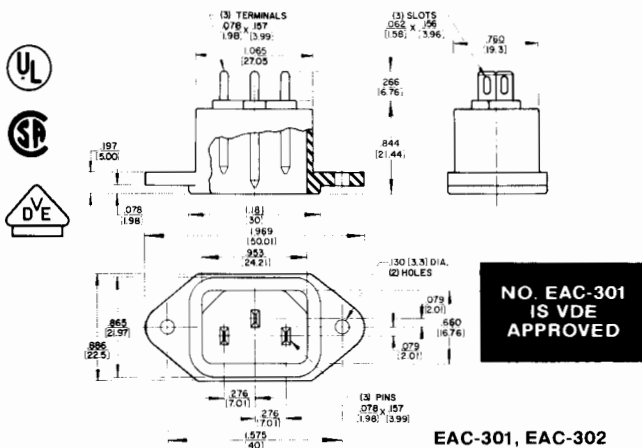
EAC-303



EAC-305



Three-pin/contact grounding type primary power receptacles are for use in European and domestic instruments, test equipment and appliances. Male receptacles have center (ground) pin .125-in. (3.18 mm) longer. Ground circuit is established before power circuits "make", and is maintained until after power circuits "break".



NOTE: Contact your Switchcraft Representative for pricing.

## LISTINGS

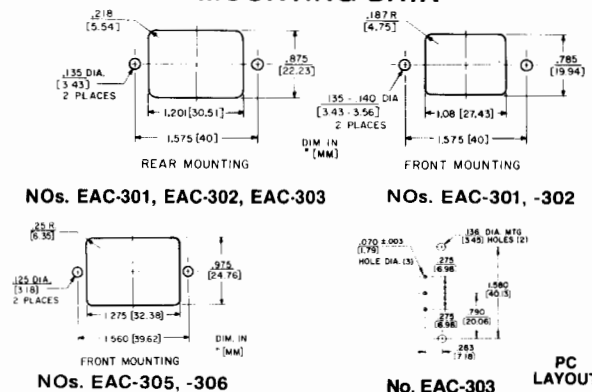
LISTING			
Part No.	U.L.	C.S.A.	VDE
EAC-301	6 A, 250 V AC	6 A, 250 V	6 A, 250 V AC
EAC-302	15 A, 250 V AC	15 A, 250 V	—
EAC-303	6 A, 250 V AC	6 A, 250 V	6 A, 250 V AC
EAC-305	6 A, 250 V AC	6 A, 250 V	—
EAC-306	15 A, 250 V AC	15 A, 250 V	—

\*Certificate of Compliance EAC-301, EAC-302, EAC-303-UL No. E38829  
EAC-305, EAC-306-UL No. E65081  
C.S.A. Guide 365-E-1, Class 6233, File Card No. 27474

## MATING/MOUNTING INFORMATION

Part No.	Switchcraft	Belden	Mounting (Fig.)
EAC-301	P-2392, P-2720, P-2721,	SPH-386	1, 2
EAC-303	P-2722, P-2725, P-2727, P-2728	—	2
EAC-302	P-2723, P-2724	SPH-386	1, 2
EAC-305	P-2721, P-2725	SPH-388	3
EAC-306	—	—	3

## MOUNTING DATA



**Part No. EAC-301** 3-pin male receptacle. Solder lug terminals. Mounts from front or rear of panel with 2, #5 screws or .125-in. (3.18 mm) dia. rivets (not supplied).

**Part No. EAC-302** 3-pin male receptacle. Similar to EAC-301 except higher rating.

**Part No. EAC-303** 3-pin male receptacle. Right-angle housing for PC board mount. PC pin terminals project .125-in. (3.18 mm) to extend through PC board. Rear of panel mount. Two, .136-in. (3.45 mm) dia. holes permit fastening to PC board; two additional .136-in. dia. holes for fastening to panel or chassis, if required. Ground pin connects to ground solder lug on rear of receptacle.

**Part No. EAC-305** 3-contact female receptacle. Front mount with 2, #4 screws or .094 in. (2.38 mm) dia. rivets (not supplied).

**Part No. EAC-306** 3-contact female receptacle. Similar to EAC-305, except higher rating.

## SPECIFICATIONS

### ELECTRICAL

**Current Rating:** EAC-301, EAC-303, EAC-305—6 A, 250 V AC. EAC-302, EAC-306—15 A, 250 V AC.  
**Insulation Resistance:** 2 million+ megohms min. @ 500 V DC.  
**Dielectric Strength:** 1500 V (rms).  
**Arcing Test:** Meets U.L. 498 Std. (except EAC-303).

### MECHANICAL

**Solderability Standard:** Meets MIL-STD-202, method 208, EIA 178/ANSI C-83.93-1973; superseded by EIA RS-186-9E.

### ENVIRONMENTAL

**Thermal Range:** -55°C to +85°C.  
**Salt Spray:** Meets MIL-STD-202, method 101; EIA-186, method 5.

### MATERIAL

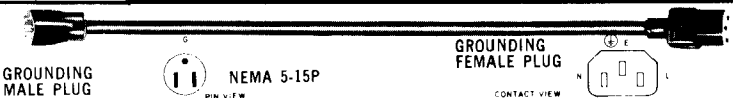

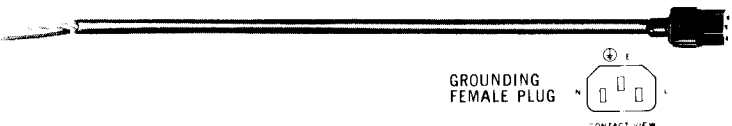

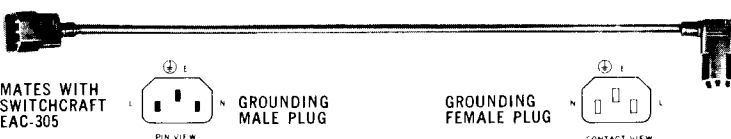
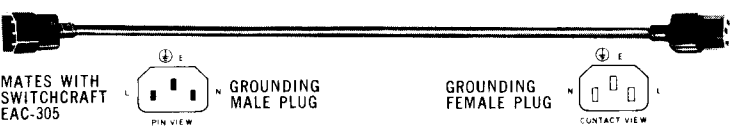
**Shell:** Black, glass-filled thermoplastic, U.L. 94 flammability rating of 94V-0.  
**Pins and Terminals:** Brass, silver plated (EAC-301, EAC-302, EAC-303).  
**Contacts and Terminals:** Bright dipped brass (EAC-305, EAC-306).

# SWITCHCRAFT®

## AC LINE CORDS and AC JUMPER CORDS

Designed for primary power and jumper connections in U.S., Canadian and European Electrical/Electronic Equipment (test equipment, business machines, electronic instruments, computers and appliances).

**NOTE:** All Cords are U.L. listing No. E81919 except P-2722, P-2724 & P-2728 are U.L. No. E50647. All Cords are C.S.A. listed No. LR29309 except P-2722 is C.S.A. No. LR49109 and P-2724, P-2728 are C.S.A. No. LL37250.

DESCRIPTION	Part No.	Cord Lgth. ft.   m	AWG (Stranding) (Dia. in mm)	Nominal O.D. in.   mm	Rating W	Cordage & Color	
<b>AC LINE CORDS</b> —for use with U.S.A. electronic instruments, business machines, test equipment, appliances.							MATES WITH SWITCHCRAFT EAC-301, EAC-302, EAC-303
U.L. & C.S.A. listed; National Stock No. 6150-00-351-3405.	P-2392	7.5   2.29	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	
U.L. listed, blue flag label. European color coding (Brown, Light Blue, Green with Yellow stripe).	P-2727	7.5   2.29	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	
European color coding (Brown, Light Blue, Green with Yellow stripe).	P-2723	7.5   2.29	14 (41 x 30) (1.91)	.385   9.78	1875 (15A, 125V)	SJT Vinyl Black	
European color coding (Brown, Light Blue, Green with Yellow stripe).							MATES WITH SWITCHCRAFT EAC-301, EAC-302, EAC-303
	P-2720	7.5   2.29	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	
<b>AC LINE CORDS</b> for primary power connections to instruments and machines for the European market. Outer jacket on one end stripped 2" to accommodate power plugs of various European countries. European color coding (Brown, Light Blue, Green with Yellow stripe).							MATES WITH SWITCHCRAFT EAC-301, EAC-302, EAC-303
	P-2728	7.5   2.29	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	
Each lead stripped 5/8" and conductors twisted.	P-2724	7.5   2.29	14 (41 x 30) (1.91)	.385   9.78	1875 (15A, 125V)	SJT Vinyl Black	
<b>AC LINE CORD</b> for primary power connections to instruments and machines for European market. Outer jacket on one end stripped 2" (each lead stripped 5/8" and conductors twisted) to accommodate power plugs of various European countries. European color coding (Brown, Light Blue, Green with Yellow stripe).							MATES WITH SWITCHCRAFT EAC-301, EAC-302, EAC-303
	P-2722	7.5   2.29	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	
<b>AC JUMPER CORD</b> for primary power connections between equipment and cabinets of instruments and machines for the European market. European color coding (Brown, Light Blue, Green with Yellow stripe).							MATES WITH SWITCHCRAFT EAC-301, EAC-302, EAC-303
	P-2721	3.38   1	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	
<b>AC JUMPER CORD</b> for primary power connections between equipment and cabinets of instruments and machines for the European market. European color coding (Brown, Light Blue, Green with Yellow stripe).							MATES WITH SWITCHCRAFT EAC-301, EAC-302, EAC-303
	P-2725	3.38   1	18 (41 x 34) (1.19)	.253   6.43	1250 (10A, 125V)	SVT Vinyl Black	

**NOTE:** Contact your Switchcraft Representative for pricing.



# CROSS REFERENCE CHART

Part Number vs. Page Number

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
A3F	8	D4F	11	QG5M	13	SL-18-2F	33	TA3ML	5	05GM5M	23	60KD4M	25
A3FB	8	D4M	11	QG6F	13	SL-18-2FS	33	TA4F	5	05LK3M	24	60PC4F	26
A3FD	8	D5F	11	QG6FD	13	SL-18-2M	33	TA4FL	5	05LK5M	24	61GA5F	24
A3FL	8	D5M	11	QG6M	13	SL-18-3F	33	TA4M	5	05UK3M	24	61GA6F	24
A3FLD	8	D6F	11	QG7F	13	SL-18-3FS	33	TA4ML	5	05UK5M	24	61GB6F	24
												3511	41
A3M	8	D6M	11	QG7FD	13	SL-18-3M	33	TA5F	5	05YL5M	24	61HA5F	25
A3MB	8	D7F	11	QG7M	13	SL-18-4F	33	TA5FL	5	06AL3F	23	61KD5M	25
A3ML	8	D7M	11	QGP-3-22	8	SL-18-4FS	33	TA5M	5	06AL5F	23	61NC5F	25
A4F	8	EAC-301	45	QGP-3-23	8	SL-18-4M	33	TA5ML	5	06EL3F	24	61PC5F	26
A4FD	8	EAC-302	45	QGP-3-26	10	SL-18-5F	33	TB3M	5	06EL5F	24	61PC6F	26
												5501F	39
A4FL	8	EAC-303	45	QGP-3-27	11	SL-18-5M	33	TB4M	5	09BL4M	23	62GB7F	24
A4M	8	EAC-305	45	QGP-3-62	11	SL-40-2F	31	TB5M	5	09CL4M	23	62GB8F	24
A4ML	8	EAC-306	45	QGP-3-63	11	SL-40-2FS	31	TQG3F	5	09DL4M	23	62PC7F	26
A5F	8	G3MS	12	R3F	9	SL-40-2M	31	TQG3M	5	09GM4M	23	62PC8F	26
A5FD	8	G4MS	12	R3FL	9	SL-40-3F	31	TQG4F	5	09LK4M	24	70GB8F	24
												9115	18
A5FL	8	H3MS	12	R3M	9	SL-40-3FS	31	TQG4M	5	09YL4M	24	70PC8F	26
A5M	8	H4MS	12	R3ML	9	SL-40-3M	31	TQG5F	5	10AL4F	23	321	14
A5ML	8	J3FS	12	R4F	9	SL-40-4F	31	TQG5M	5	10EL4F	24	322	14
A6F	8	J4FS	12	R4FL	9	SL-40-4FS	31	TY3F	5	12BL5M	23	323	14
A6FD	8	K3FS	12	R4M	9	SL-40-4M	31	TY3FPC	5	12BL6M	23	324	14
												9182	18
A6FL	8	K4FS	12	R4ML	9	SL-40-5F	31	TY4F	5	12CL5M	23	330F	42
A6M	8	L3M	17	R5F	9	SL-40-5M	31	TY4FPC	5	12DL5M	23	330M	42
A6ML	8	L3MN	17	R5FL	9	SL-41-2F	32	TY5F	5	12GM5M	23	330PJ	42
A7F	8	L4M	17	R5M	9	SL-41-2FS	32	TY5FPC	5	12GM6M	23	335A	14
A7FD	8	L4MN	17	R5ML	9	SL-41-2M	32	TYEF-01	5	12LK5M	24	339A	14
												9251	18
A7M	8	L5M	17	R6F	9	SL-41-3F	32	TYEF-02	5	12YL5M	24	383A	14
A7ML	8	L5MN	17	R6M	9	SL-41-3FS	32	TYEF-03	5	13AL5F	23	384A	14
AC3	44	LAC3	44	R7F	9	SL-41-3M	32	TYEF-04	5	13AL6F	23	386A	14
AC3G	44	LAC3G	44	R7M	9	SL-41-4F	32	TYEF-05	5	13EL5F	24	387A	14
B3F	10	LAC3GD	44	S3FM	15	SL-41-4FS	32	TYEF-08	5	15AL7F	23	389	14
												3558-2	40
B3FB	10	M3M	17	S4FM	15	SL-41-4M	32	TYEF-11	5	15BL7M	23	390	14
B3M	10	M4M	17	S5FM	15	SL-41-5F	32	W3M	12	15BL8M	23	398	14
B3MB	10	M5M	17	S-3519	13	SL-41-5M	32	W4M	12	15DL8M	23	391Q13	17
B4F	10	M-1437	13	SL-01	30	T3F	10	W5M	12	15GM7M	23	391Q23	17
B4M	10	N3MS	12	SL-02	30	T3FL	10	W6M	12	15GM8M	23	391Q33	17
B5F	10	P3F	9	SL-03	30	T3FLM	10	W7M	12	20BL8M	23	391Q43	17
B5M	10	P3M	9	SL-04	30	T3FM	10	Y3F	11	25Y	42	391Q53	17
B6F	10	P4F	9	SL-05	31	T4F	10	Y3FD	11	44	38	391Q63	17
B6M	10	P4M	9	SL-10-2F	32	T4FL	10	Y3FDPC	11	52CA2F	26	399M3F3	16
B7F	10	P5F	9	SL-10-2FS	32	T4FLM	10	Y3FPC	11	53CA2F	26	399M3F4	16
B7M	10	P5M	9	SL-10-2M	32	T4FM	10	Y3MPC	11	54CA2F	26	399M3M3	16
C3F	10	P-2392	46	SL-10-3F	32	T5F	10	YEF-01	11	55GA2F	24	399M3M4	16
C3M	11	P-2720	46	SL-10-3FS	32	T5FL	10	YEF-02	11	55HA2F	25	2501F	38
C4F	10	P-2721	46	SL-10-3M	32	T5FLM	10	YEF-03	11	57GA3F	24	2501FL	38
C4M11	11	P-2722	46	SL-10-4F	32	T5FM	10	YEF-04	11	57GB3F	24	2501FT	38
C5F	10	P-2723	46	SL-10-4FS	32	T6F	10	YEF-05	11	57GB5F	24	2501M	38
C5M	11	P-2724	46	SL-10-4M	32	T6FL	10	YEF-08	11	57HA3F	25	2501MP	38
C6F	10	P-2725	46	SL-10-5F	32	T6FLM	10	01QK2M	26	57HA5F	25	2501MPC	38
C6M	11	P-2727	46	SL-10-5M	32	T6FM	10	02QK2F	26	57HB5F	25	2501MPF	38
C7F	10	P-2728	46	SL-17-2F	33	T7F	10	03BL2M	23	57KD3M	25	2501MT	38
C7M	11	QG3F	13	SL-17-2FS	33	T7FM	10	03CL2M	23	57KD5M	25	2504FP	36
CB-3F	35	QG3FD	13	SL-17-2M	33	TA-01	6	03DL2M	23	57NC5F	25	2504FR	36
CB-3M	35	QG3FDPC	13	SL-17-3F	33	TA-02	6	04AL2F	23	57PC3F	26	2504M	36
CB-4F	35	QG3FPC	13	SL-17-3FS	33	TA-03	6	05BL3M	23	57PC5F	26	3501F	40
CB-4M	35	QG3M	13	SL-17-3M	33	TA-04	6	05BL5M	23	58NC3F	25	3501FP	40
D3F	11	QG4F	13	SL-17-4F	33	TA-05	6	05CL3M	23	59GB3F	25	2501FR	40
D3FB	11	QG4FD	13	SL-17-4FS	33	TA-06	6	05CL5M	23	59GB5F	25	3501M	40
D3FD	11	QG4M	13	SL-17-4M	33	TA3F	5	05DL3M	23	60GA4F	24	3501MC	40
D3M	11	QG5F	13	SL-17-5F	33	TA3FL	5	05DL5M	23	60GB4F	24	3502	40
D3MB	11	QG5FD	13	SL-17-5M	33	TA3M	5	05GM3M	23	60HA4F	25	3503	40



SUPPLIED  
BY  
TURNBULL & JONES LTD.

# SWITCHCRAFT<sup>®</sup> INC.

A Raytheon Company

General Offices & Plant  
5555 N. Elston Ave.  
Chicago, IL 60630  
(312) 792-2700; TWX: 910-221-5199

® Registered tradename of Switchcraft, Inc.

Form No. GL-455R7 1182

©Switchcraft, Inc. 1982

Printed in U.S.A.