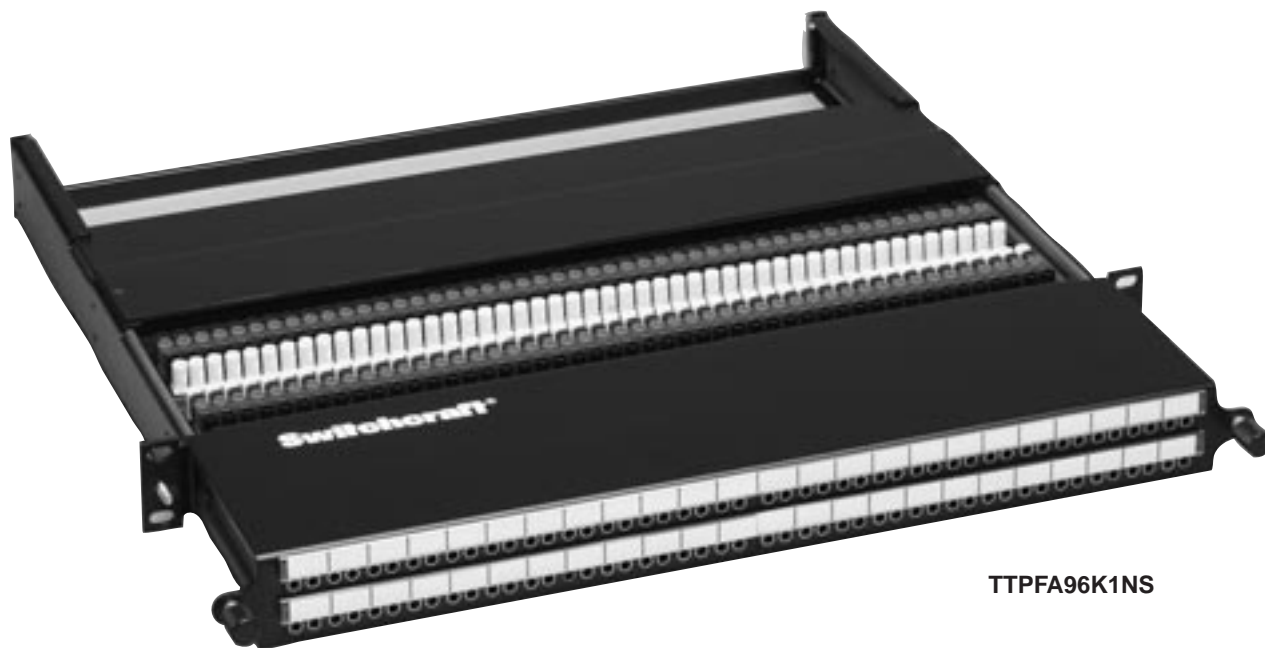


**FRONT ACCESS MTPFA/TTPFA SERIES**

**TTPFA96K1NS**

The Front Access Series offers the end user the ease of re-terminating patchpoints from the front of the rack as opposed to the back. A slide out tray allows the user to slide out the punchdown terminals, and reconfigure the unit. An easy release mechanism on either side of the unit allows it to be pushed back into place and easy to grip locking nuts tighten the unit in place.

**FEATURES AND BENEFITS**

- Easy slide-out tray slides forward for easy re-termination from the front of the rack
- Available with either 48 MT style or 96 TT style jacks in a 1RU space
- Attractive, corrosion resistant nickel-plated, steel frame jacks
- Gold-plated switching contacts reduce contact resistance, improves reliability
- Extra wide designation strips for easy channel identification
- Rugged, attractive black epoxy-finished steel chassis
- Configurations available include normals strapped and normals brought out

**SPECIFICATIONS**
**MATERIALS (JACKS)**

**Frame:** Nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:** Nickel silver with welded contacts

**Assembly Screws:** Nickel-plated steel

**Welded Contacts:** Gold alloy

**PANEL**

**Frame:** C.R.S. black epoxy painted

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:** Clear polycarbonate

**Jack Inserts:** Thermoplastic 94V-0

**MECHANICAL**

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Operating:** -20°C to +65°C

**ELECTRICAL**

**Jack Contact Resistance:** 30 milliohms initial maximum; 50 milliohms after life

**Jack Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500V at 60 Hz AC

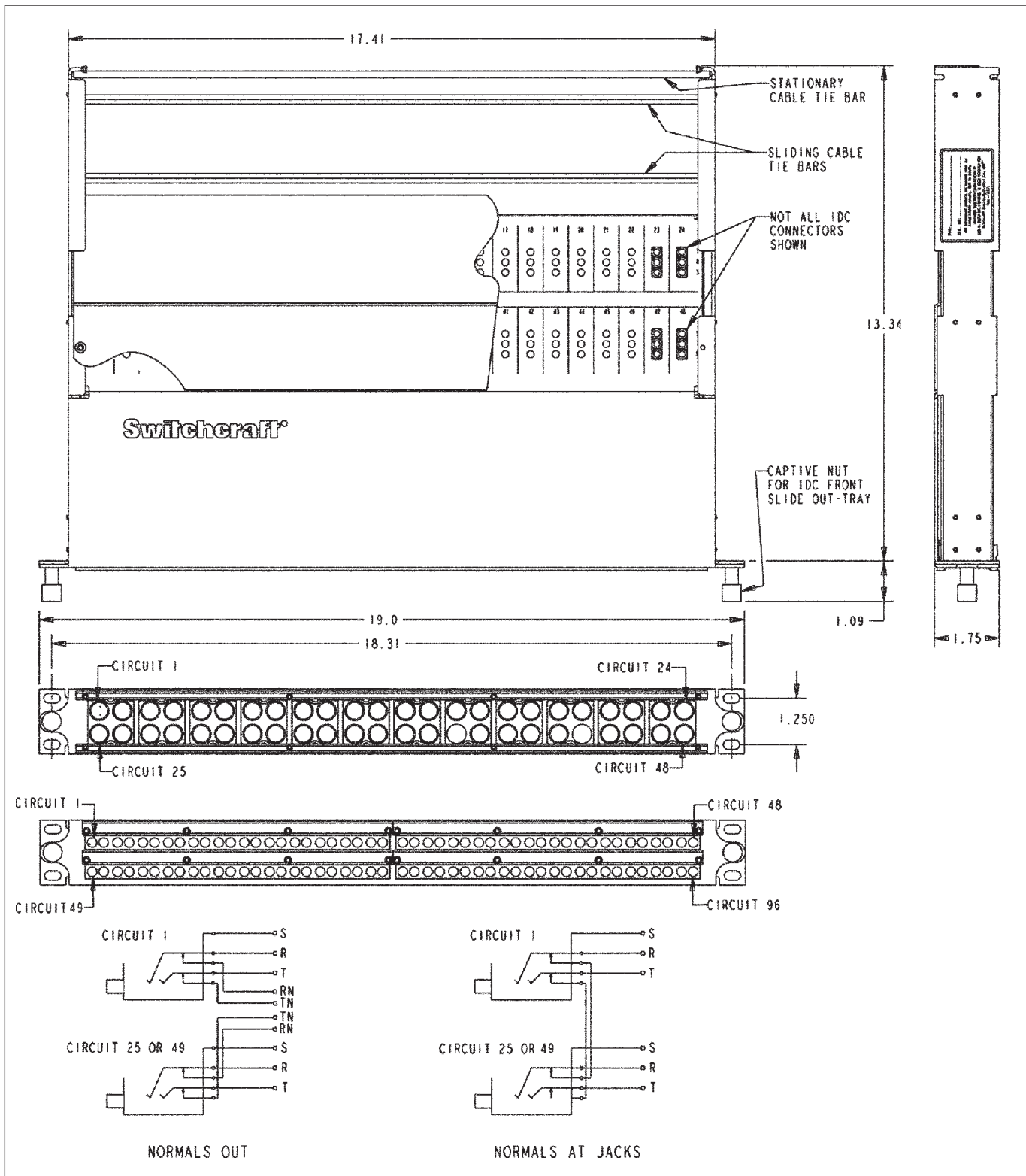
**Working Voltage:** 100 milliamps or less; maximum 56.5 VDC

**Ordering Information**

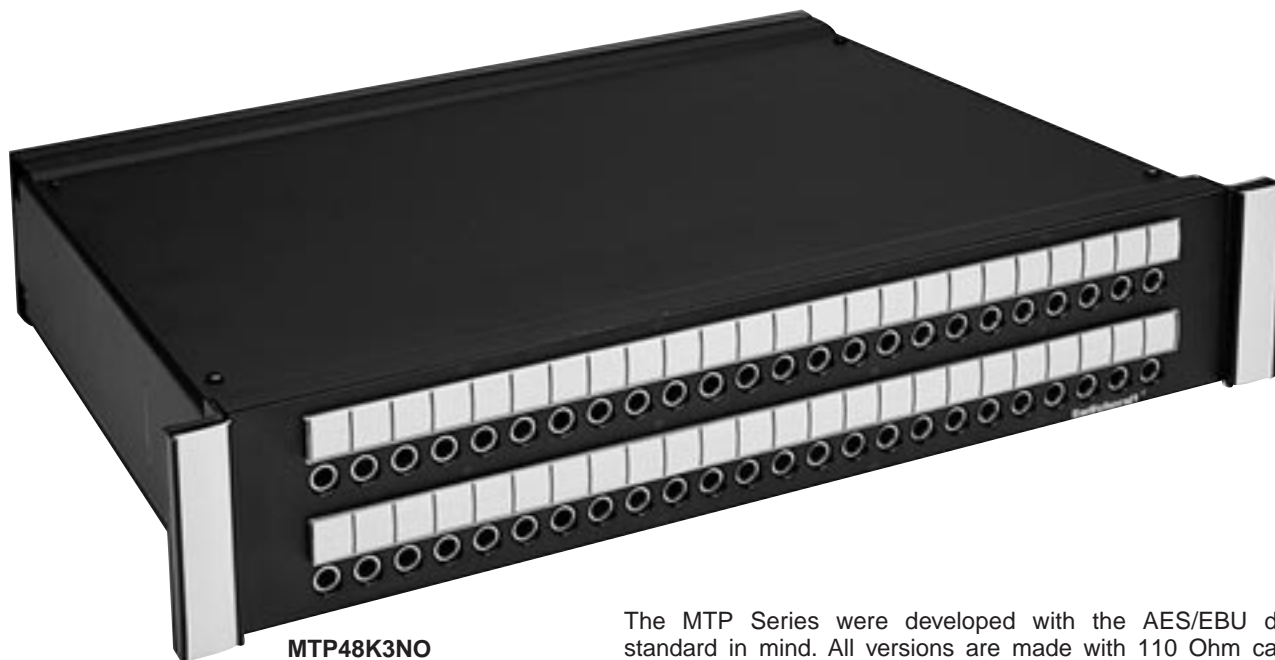
Part Number	Type of Jack	No. of Jacks	Description
TTPFA96K1NS	TT	96	1.75" High, normals strapped
TTPFA96K1NO	TT	96	1.75" High, normals brought out
MTPFA48K1NS	MT	48	1.75" High, normals strapped
MTPFA48K1NO	MT	48	1.75" High, normals brought out

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

FRONT ACCESS MTPFA/TTPFA SERIES (continued)



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

**MTP48K WIRED AUDIO SERIES**

**MTP48K3NO**

The MTP Series were developed with the AES/EBU digital standard in mind. All versions are made with 110 Ohm cabling inside as a standard. Available in a wide variety of configurations.

**FEATURES AND BENEFITS**

- Unit features 48 MT style jacks in either 1RU (1.75"H) or 2RU (3.5"H) spaces
- All versions utilize AES/EBU wiring for complete digital compatibility
- Attractive, corrosion resistant nickel-plated, steel frame jacks
- Gold-plated switching contacts reduce contact resistance, improve reliability
- Rugged, attractive black epoxy-finished steel chassis
- Extra wide designation strips for easy channel identification
- 1RU version configurations include normals strapped and normals brought out
- 2RU version configurations include normals strapped, normals brought out, and sleeve normals brought out

**SPECIFICATIONS**
**MATERIALS**
**JACKS**

**Frame:** Nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:** Nickel silver with welded contacts

**Assembly Screws:** Zinc-plated steel

**Welded Contacts:** Gold alloy

**PANEL**

**Front Channel:** Black anodized aluminum

**Frame:** C.R.S. black epoxy painted

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:** Clear polycarbonate

**Jack Inserts:** Thermoplastic polyester

**MECHANICAL**

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Environmental:** 0°C to +50°C

**ELECTRICAL**

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500 VAC at 60 Hz

**Working Voltage:** 140 VDC maximum

**Current Rating:** 100 milliamps

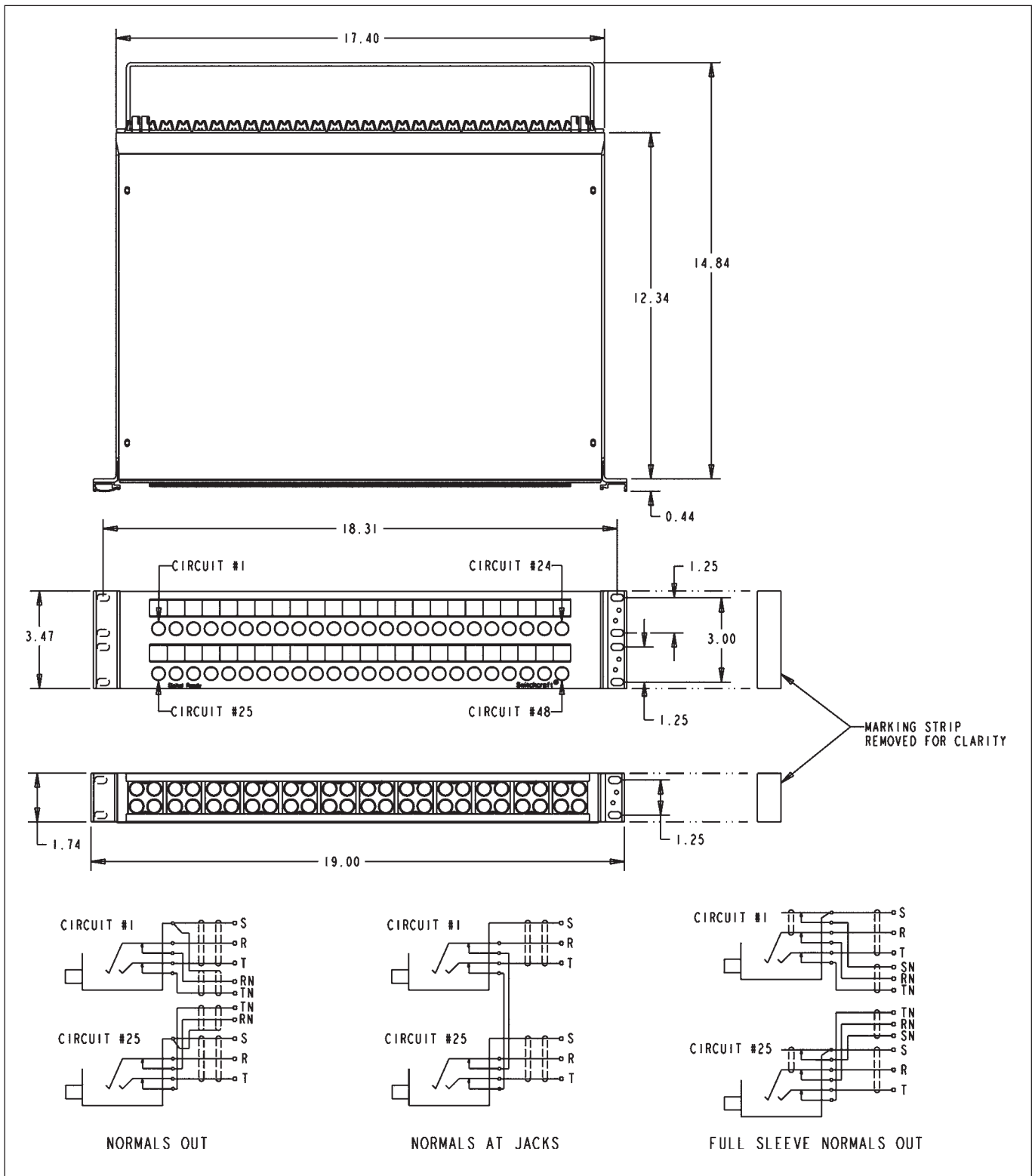
**Ordering Information**

Part Number	Type of Jack	No. of Jacks	Description
MTP48K1NS	MT	48	1.75" High, normals strapped
MTP48K3NS	MT	48	3.5" High, normals strapped
MTP48K1NO	MT	48	1.75" High, normals brought out
MTP48K3NO	MT	48	3.5" High, normals brought out
MTP48K3SNO	MT	48	3.5" High, sleeve normals out

DIMENSIONS ARE FOR REFERENCE ONLY

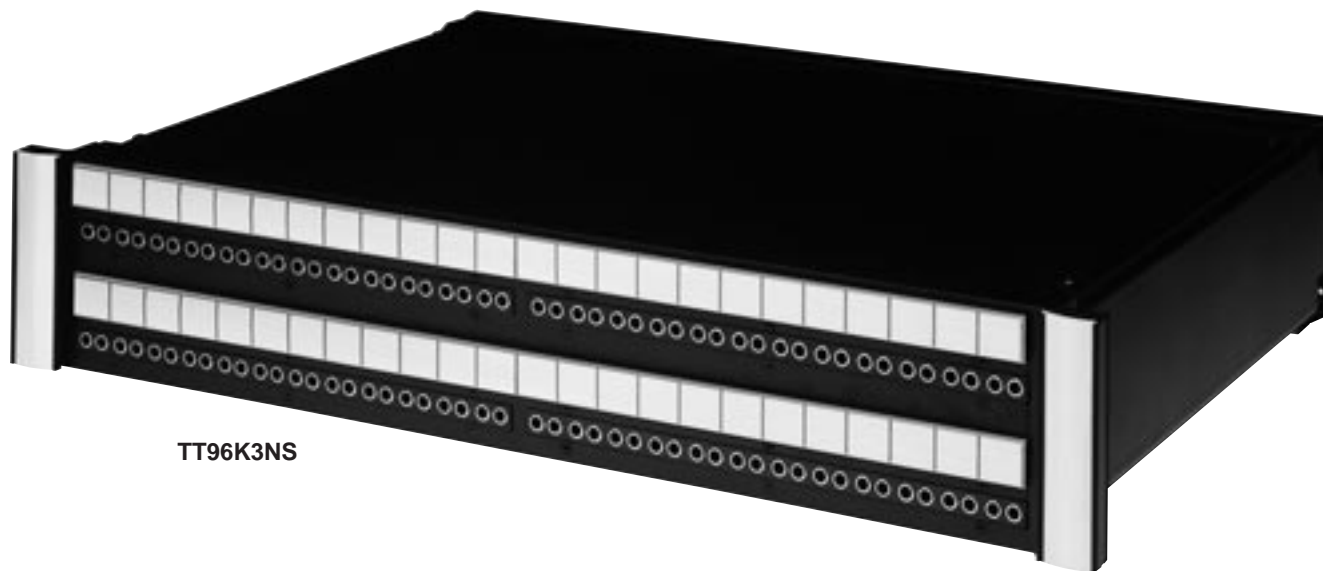
Inch  
(mm)

MTP48K WIRED AUDIO SERIES (continued)



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

## TTP96K WIRED AUDIO SERIES



TTP96K3NS

The TTP96K Series was developed with the AES/EBU digital standard in mind. As a standard the TTP96K utilizes 110 Ohm cabling inside.

## FEATURES AND BENEFITS

- Unit features 96 TT style jacks in 2RU (3.5"H) space
- Utilizes AES/EBU wiring for complete digital compatibility
- Attractive, corrosion resistant nickel-plated, steel frame jacks
- Gold-plated switching contacts reduce contact resistance, improve reliability
- Rugged, attractive black epoxy-finished steel chassis
- Extra wide designation strips for easy channel identification

## SPECIFICATIONS

## MATERIALS

## JACKS

**Frame:** Nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:** Nickel silver with welded contacts

**Assembly Screws:** Zinc-plated steel

**Welded Contacts:** Gold alloy

## PANEL

**Front Channel:** Black anodized aluminum

**Frame:** C.R.S. black epoxy painted

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:** Clear polycarbonate

**Jack Inserts:** Thermoplastic polyester

## MECHANICAL

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Environmental:** 0°C to +50°C

## ELECTRICAL

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500 VAC at 60 Hz

**Working Voltage:** 140 VDC maximum

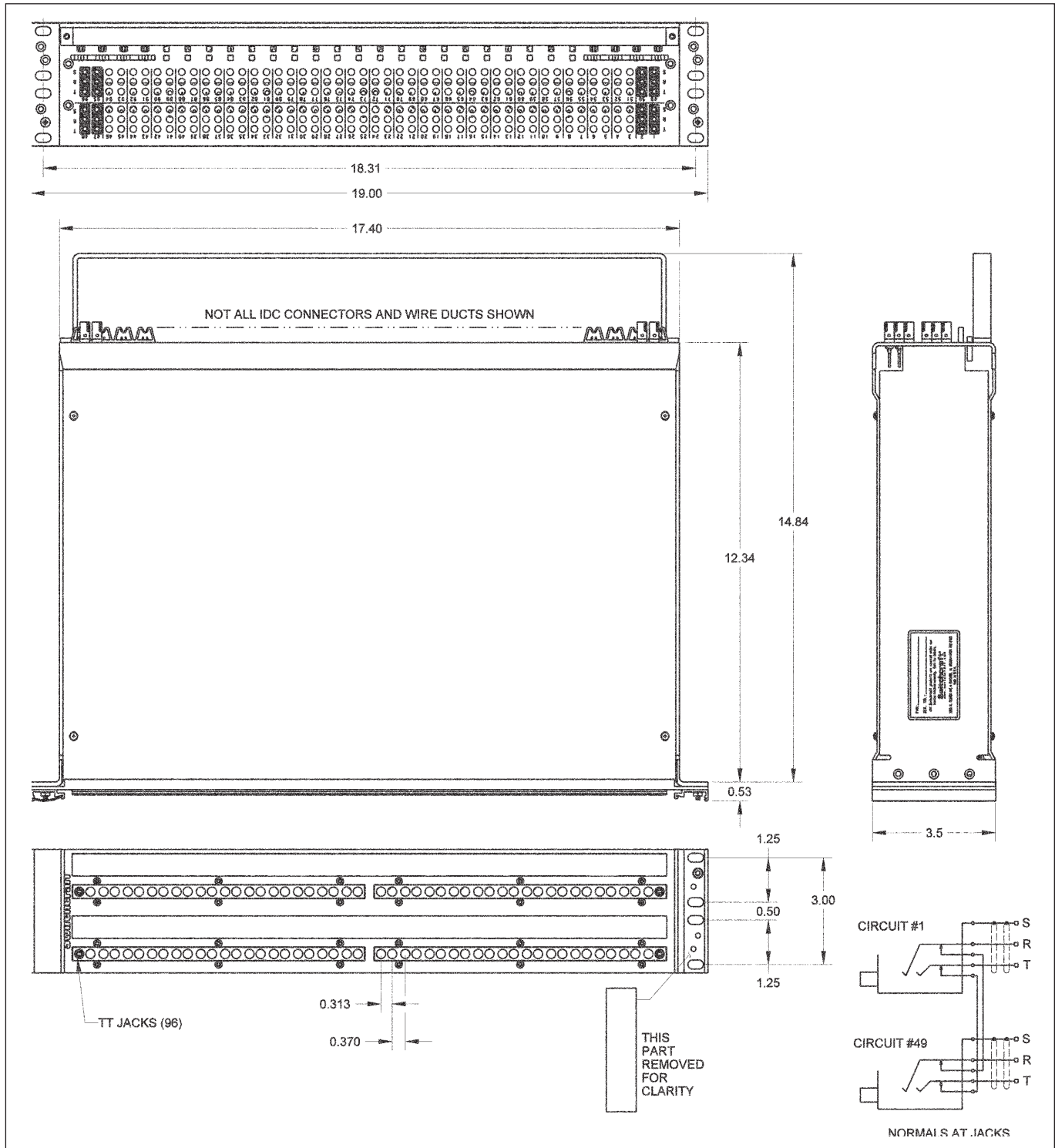
**Current Rating:** 100 milliamps

## Ordering Information

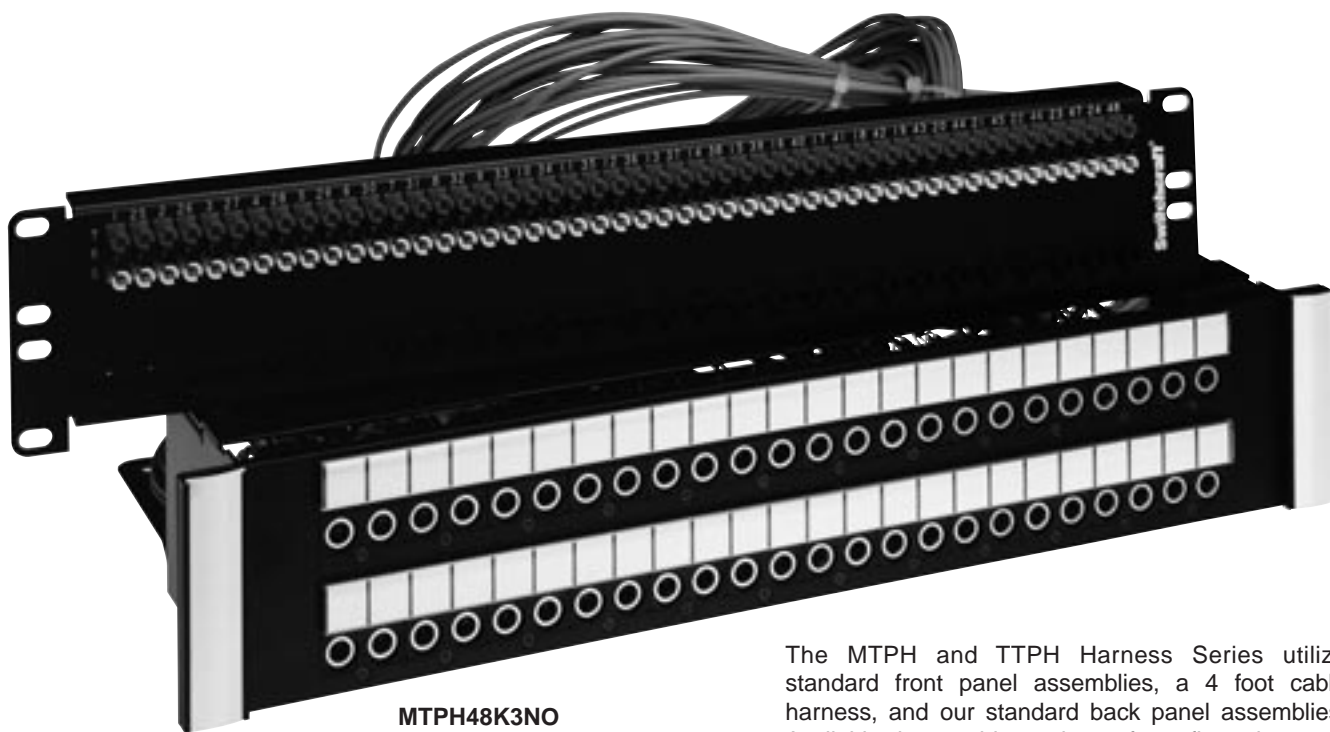
Part Number	Type of Jack	No. of Jacks	Description
TTP96K3NS	TT	96	3.5" High, normals strapped

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

TTP96K WIRED AUDIO SERIES (continued)



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

**MTPH/TTPH HARNESS AUDIO SERIES**

**MTPH48K3NO**

The MTPH and TTPH Harness Series utilize standard front panel assemblies, a 4 foot cable harness, and our standard back panel assemblies. Available in a wide variety of configurations, all are terminated to our PPT's on the back panel. Primarily used where the back panels must either be mounted into a rack, or brought back to the front for easier access. Custom cable lengths can also be supplied. Contact the factory for details.

**FEATURES AND BENEFITS**

- Units feature either 48 MT style jacks or 96 TT style jacks on the front panels, to a 4 foot harness, out to a backpanel with PPT's
- All versions utilize AES/EBU wiring for complete digital compatibility
- Attractive, corrosion resistant nickel-plated, steel frame jacks
- Gold-plated switching contacts reduce contact resistance, improve reliability
- Rugged, attractive black epoxy-finished steel frame chassis
- Extra wide designation strips for easy channel identification

**SPECIFICATIONS**
**MATERIALS**
**JACKS**

**Frame:** Nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:** Nickel silver with welded contacts

**Assembly Screws:** Zinc-plated steel

**Welded Contacts:** Gold alloy

**PANEL**

**Front Channel:** Black anodized aluminum

**Frame:** C.R.S. black epoxy painted

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:** Clear polycarbonate

**Jack Inserts:** Thermoplastic polyester

**MECHANICAL**

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Environmental:** 0°C to +50°C

**ELECTRICAL**

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500 VAC at 60 Hz

**Working Voltage:** 140 VDC maximum

**Current Rating:** 100 milliamps

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

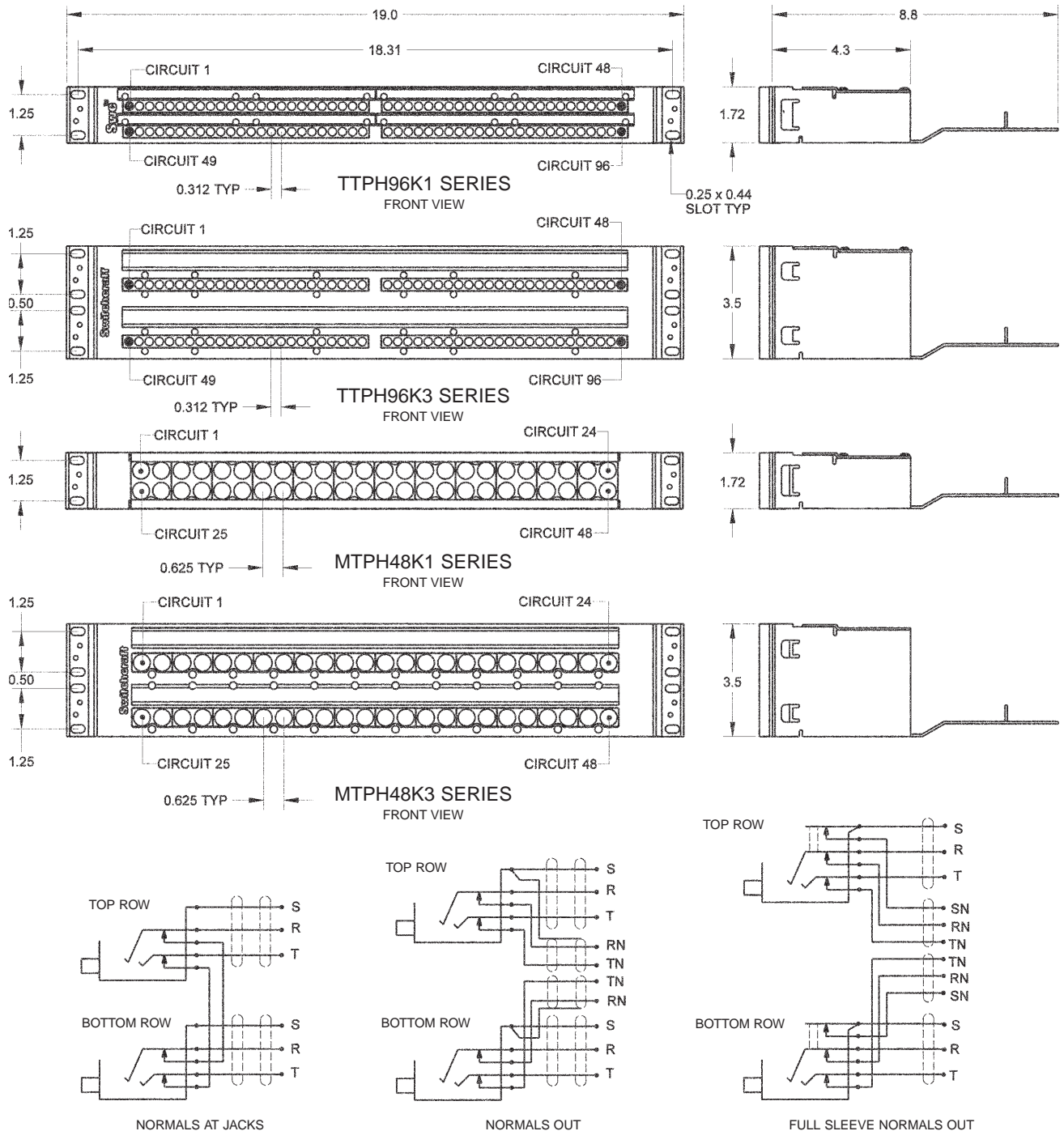
## MTPH/TTPH HARNESS AUDIO SERIES (continued)

Ordering Information			
Part Number	Type of Jack	No. of Jacks	Description
MTPH48K1NS	MT	48	1.75" High front panel, 4' Harness, 3.5" High back panel, normals strapped
MTPH48K1NO	MT	48	1.75" High front panel, 4' Harness, 3.5" High back panel, normals brought out
MTPH48K3NS	MT	48	3.5" High front panel, 4' Harness, 3.5" High back panel, normals strapped
MTPH48K3NO	MT	48	3.5" High front panel, 4' Harness, 3.5" High back panel, normals brought out
MTPH48K3SNO	MT	48	3.5" High front panel, 4' Harness, 3.5" High back panel, sleeve normals brought out
TTPH96K1NS	TT	96	1.75" High front panel, 4' Harness, 3.5" High back panel, normals strapped
TTPH96K1NO	TT	96	1.75" High front panel, 4' Harness, 5.25" High back panel, normals brought out
TTPH96K3NS	TT	96	3.5" High front panel, 4' Harness, 3.5" High back panel, normals strapped
TTPH96K3NO	TT	96	3.5" High front panel, 4' Harness, 5.25" High back panel, normals brought out

See Page 172 for Mechanical Drawings

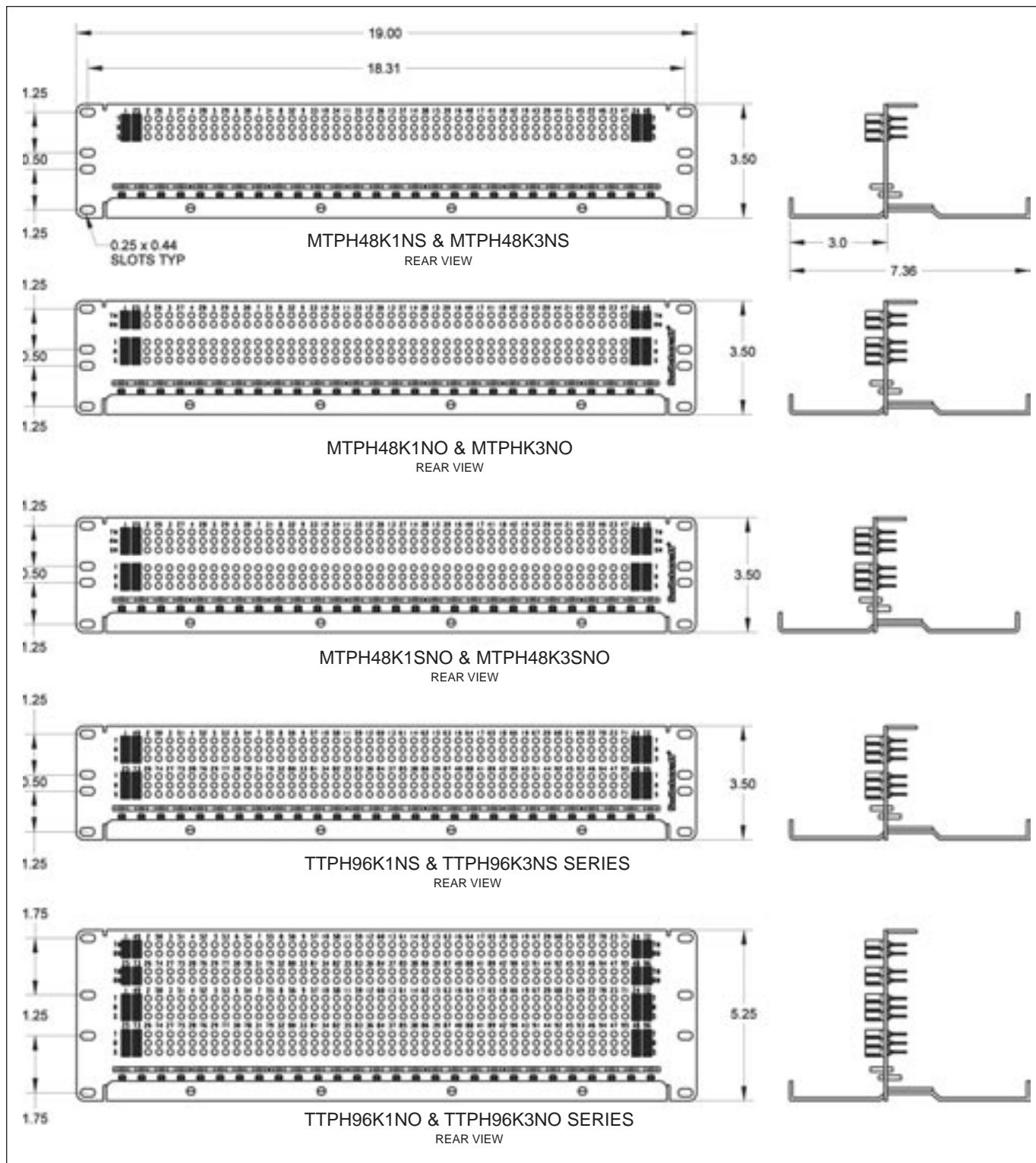
DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

## MTPH/TTPH HARNESS AUDIO SERIES (continued)

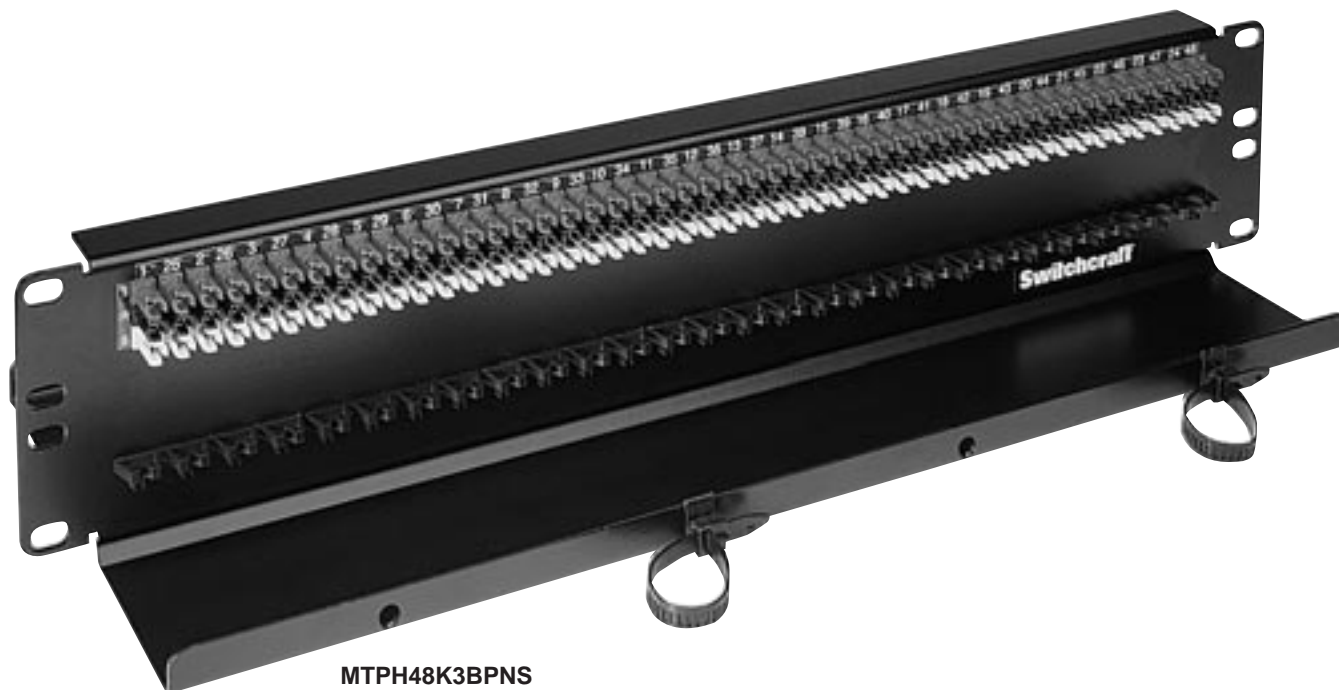


DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

MTPH/TPH HARNESS AUDIO SERIES (continued)



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

**MTPBP/TTPBP BACKPANEL SERIES**

**MTP48K3BPNS**

The Backpanel Series offers the end user the flexibility of configuring their own patchbay, or to use as a central patchpoint location. The backpanels utilize the PPT punchdown and come with a rugged cable tray.

**FEATURES AND BENEFITS**

- Allows for custom patchbay configurations or central patching points
- PPTs have IDCs on both sides for easy installation
- Rugged, attractive black epoxy-finished steel chassis
- Cable trays allow for mounting and securing terminated cable

**SPECIFICATIONS**

**Panel thickness:** .093"

**Mounting hole diameter:** .187"

**Mounting hole spacing (48 IDCs/row):**  
.340" (Horizontal) x .275" (Vertical)

**Mounting hole spacing (52 IDCs/row):**  
.320" (Horizontal) x .275" (Vertical)

**Wire size:** #22, 24, 26 AWG Stranded or Solid (IDC termination)

**MATERIALS**

**Housing:** Thermoplastic (UL 94V-0)

**Contacts:** High strength copper alloy

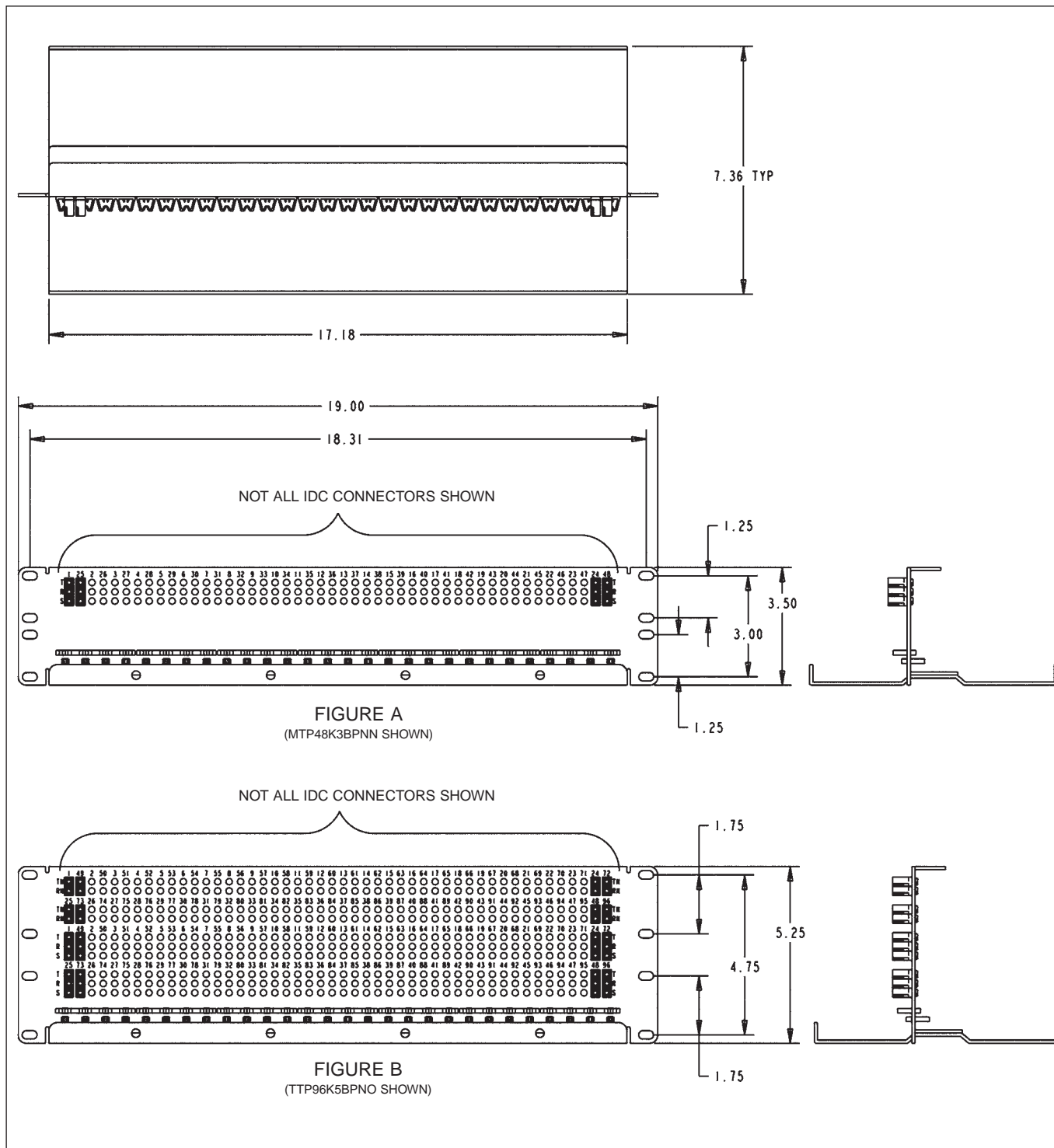
**Backpanels:** Black Epoxy coated C.R.S.

**Cable Tray:** Black Epoxy coated C.R.S.

Ordering Information			
Part Number	Sets of PPT Terminals	Height	Description
MTP48K3BPNS	48	3.5"	T, R, S
MTP48K3PBNO	48	3.5"	T, R, S, TN, RN
MTP52K3BPNO	52	3.5"	T, R, S, TN, RN
MTP24K7	24 x 2	7.0"	+, -, S
TTP96K3BPNS	96	3.5"	T, R, S
TTP96K5BPNS	96 x 2	5.25"	T, R, S, TN, RN

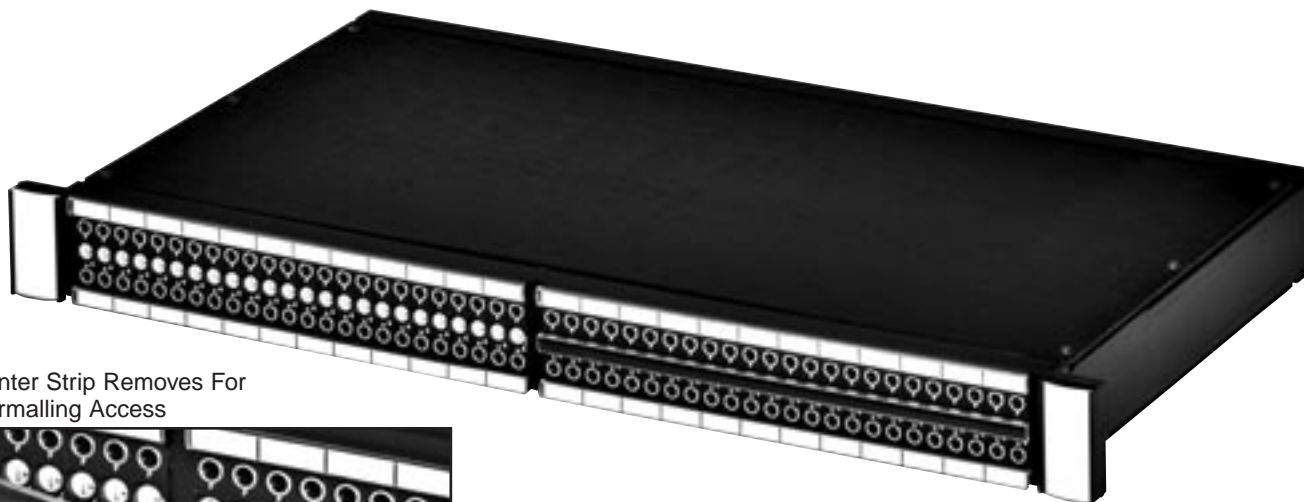
DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

MTPBP/TTPBP BACKPANEL SERIES (continued)



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

## EZ NORM PATCHBAY SERIES



Center Strip Removes For  
Normalling Access



Easily Normal The  
Jacks By Rotating To  
"Full", "Non", Or "Half"  
Positions

The EZ Norm offers a simplified method for setting up and changing normals to a Bantam/TT patchbay. Simply remove the middle designation strip, and rotate the center cam, using a standard screwdriver. An audible "click" can be heard as you rotate from full normals to no normals to half normals. An opaque marking strip is included to conceal the normal position, if needed.

### EZ NORM JACK SPECIFICATIONS

#### MATERIALS:

**Housing & Cover:** 94V-0 rated thermoplastic

**Sleeve Collar:** Nickel plated copper alloy

**Tip, Ring, Shunt, & Sleeve Springs:** Nickel Silver with welded contacts

**Welded Contacts:** Gold

**Cam Switching Springs:** Silver plated copper alloy

**Cam Switching Contacts:** Silver plated copper alloy

#### MECHANICAL

**Jack Mechanical Life:** 30,000 cycles

**Cam Contact Mechanical Life:** 30,000 cycles

**Insertion - Withdrawal Forces:** 1 - 4 lbs.

**Moisture resistance:** MIL-STD 202 Method 106

**Thermal shock:** MIL-STD 202 Method 107

**Salt spray:** MIL-STD Method 101 (48 hrs.)

**Vibration:** MIL-STD 202 Method 213

### ELECTRICAL:

**Jack Spring Contact Resistance:** 30 milliohm Maximum

**Cam Switch Contact Resistance:** 30 milliohm Maximum

**Insulation Resistance:** 10,000 Megaohms

**Dielectric Withstanding Voltage:**

500 VAC (rms) at 60 Hz

**Insertion Loss:** -0.5dB up to 10 MHz

### EZ NORM PATCHBAY OPTIONS

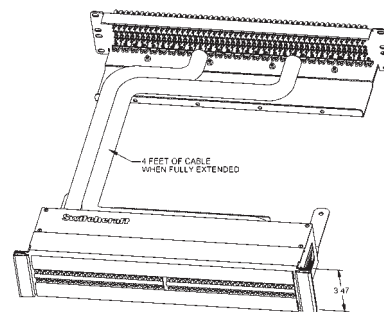
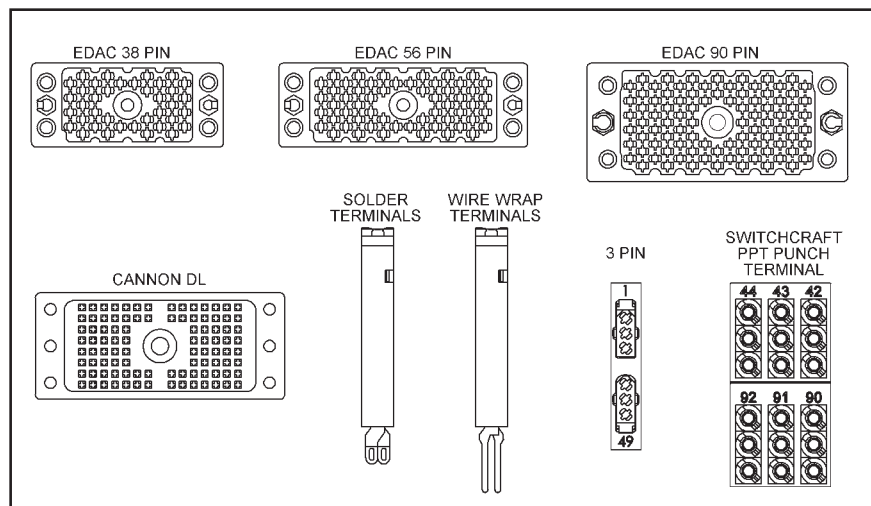
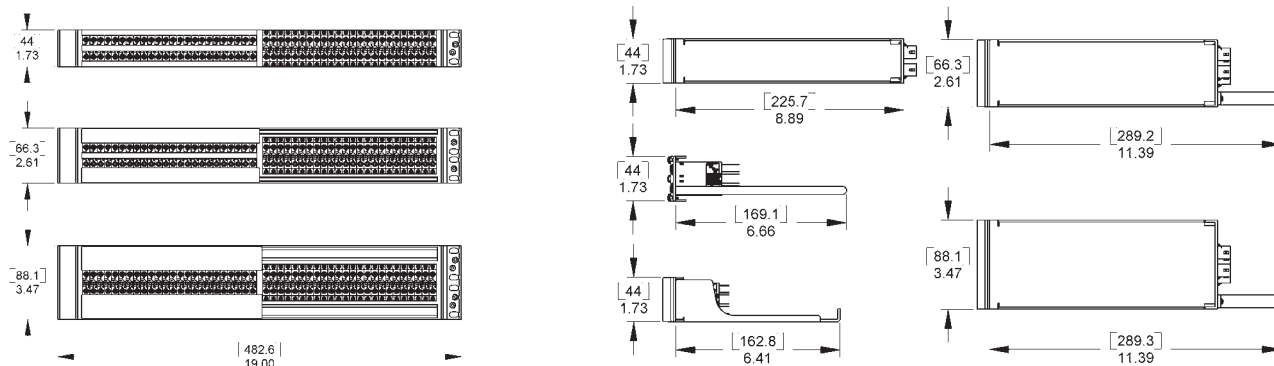
- 1RU can be terminated to EDAC or Cannon DL, solder terminals, or wire-wrap terminals
- 1.5RU can be terminated to EDAC/Cannon DL, solder terminals, wire-wrap terminals, plus 3 pin connectors, or our own PPT Professional Punchdown Terminal
- 2RU Same as above
- All units will be offered with or w/o docking connector
- Unwired units will be offered with either cable tie bar or cable tray

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

## EZ NORM PATCHBAY SERIES (continued)

### Racks

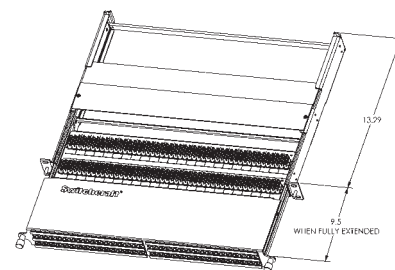
The EZ Norm comes in 3 different rack heights, 1RU, 1.5RU, and 2 RU.



### Harness Assembly

The EZ Norm is also offered as a harness assembly, with a standard harness of 4 ft. Custom lengths are available, call Switchcraft® for details.

TT	EZN	H	10 15 20	P	D	E90 E56 E38	IDC 3PIN WW	SL CDL FA	T B
TT SIZE JACKS	EZ-NORM CAM JACKS	REGULAR UNIT HARNESS UNIT (UMBILICAL)	1 RACK UNIT HEIGHT 1.5 RACK UNIT HEIGHT 2 RACK UNIT HEIGHT	UNWIRED PRE WIRED	NO DOCKING DOCKING CONNECTOR	EDAC/ELCO 90 PIN CONNECTOR EDAC/ELCO 56 PIN CONNECTOR EDAC/ELCO 38 PIN CONNECTOR	IDC PPT TERMINALS 3 PIN CONNECTORS WIRE WRAP PINS	SOLDER LUGS CANNON DL 96 PIN CONNECTORS FRONT ACCESS WITH PPT	UNWIRED ONLY CABLE TRAY CABLE BAR
TT	EZN	H	10 15 20	P	D	E90 E56 E38	IDC 3PIN WW	SL CDL FA	T B



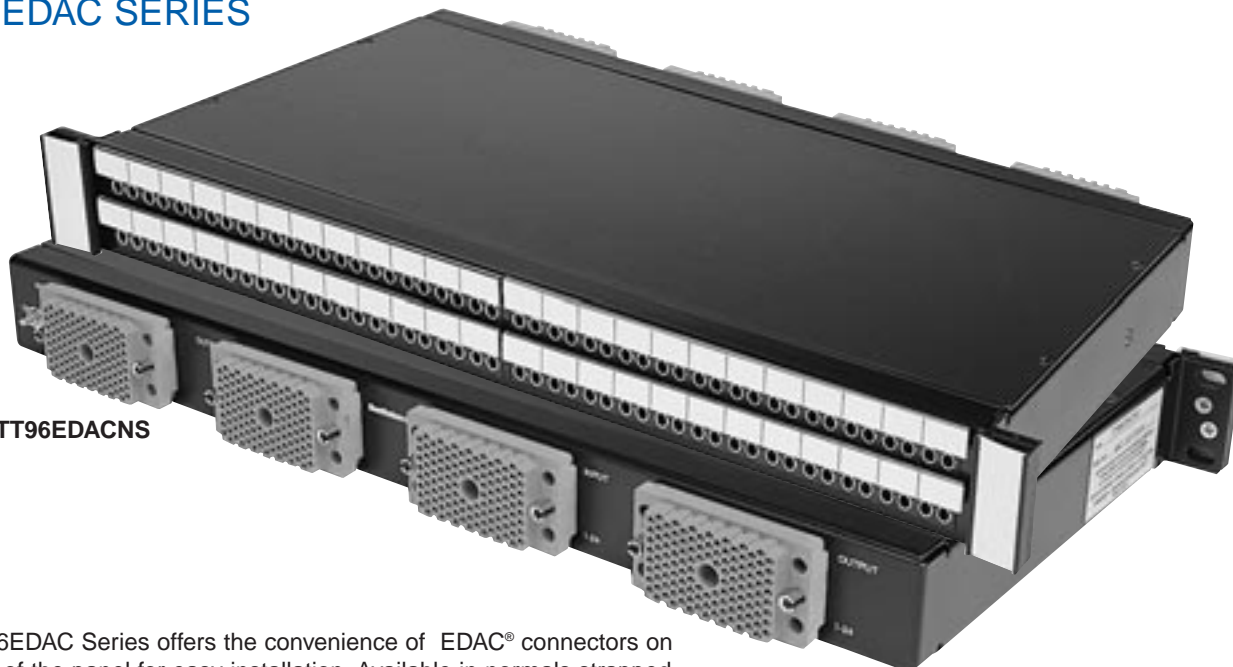
### Front Access

The Front Access option offers a slide-out tray, allowing the end user to re-terminate the patchbay from the front of the rack.

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

## TT96 EDAC SERIES

TT96EDACNS



The TT96EDAC Series offers the convenience of EDAC® connectors on the back of the panel for easy installation. Available in normals strapped and normals brought out, both wired to the SAC code of wiring. We also offer custom wiring configurations. Contact the factory for details.

## FEATURES AND BENEFITS

- Attractive, corrosion-resistant, nickel-plated jacks
- Steel frame jacks for superior jack life
- Extra wide labeling strips provide maximum space and two vertical strips, one at each side
- Rugged, attractive black anodized aluminum face will not break
- Two configurations available:
  - Normals brought out
  - Normalled at jacks
- Gold switching contacts for long-term reliability
- Jacks paired for easy identification of left and right channels
- Connectorized by EDAC® connectors for ease of termination by customer

## SPECIFICATIONS

## MATERIALS

## JACKS

**Frame:** Nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:**

Nickel silver with welded contacts

**Assembly Screws:** Zinc-plated steel

**Welded Contacts:** Gold alloy

## PANEL

**Front Channel:** Black anodized aluminum

**Frame & Cover:** C.R.S. black epoxy painted

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:** Clear polycarbonate

**Jack Inserts:** Polyester

## EDAC CONNECTOR

**Housing:** Thermoplastic, UL94V-0

**Contacts:** Gold plated phosphor bronze

## MECHANICAL

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Operating:** -20°C to +65°C

## ELECTRICAL

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms

**Dielectric Withstanding Voltage:** 500VAC at 60 Hz

**Working Voltage:** 140VDC

**Current Rating:** 100 milliamps

EDAC Mating Plugs	
Part Number	Description
516-090-000-301	90 Pin male w/screw
516-090-000-302	90 Pin male w/nut
516-120-000-101	120 Pin male w/screw
516-120-000-102	120 Pin male w/nut
516-290-500	Terminal solder-style
516-290-590	Terminal crimp-style

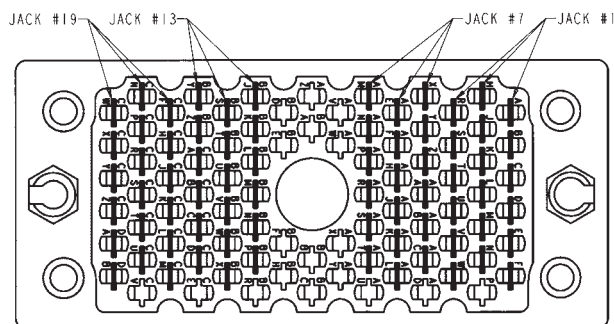
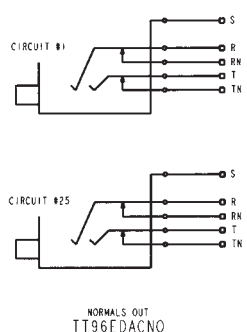
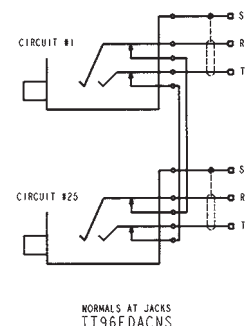
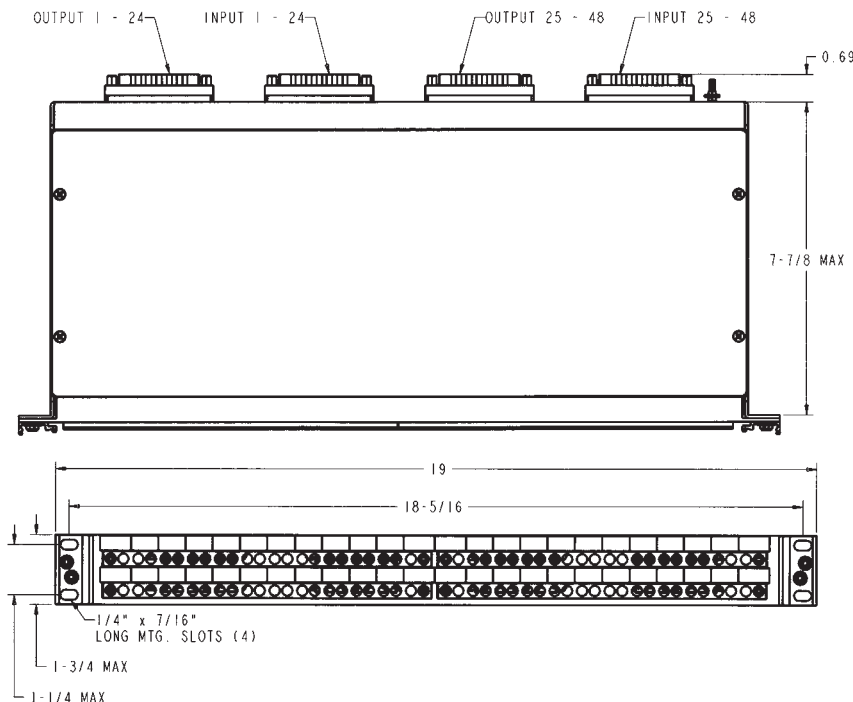
## Ordering Information

Part Number	Type of Jack	No. of Jacks	Description
TT96EDACNO	TT	96	Normals Brought Out (120 pin EDAC)
TT96EDACNS	TT	96	Normals Strapped (90 pin EDAC)

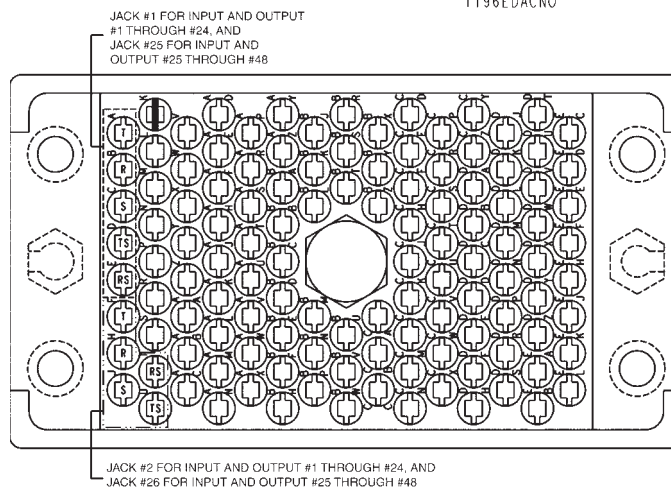
DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

## TT96 EDAC SERIES (continued)



Standard Audio Configuration Wiring (S.A.C.)  
90 Pin Plug Connector  
(Normals at jacks)



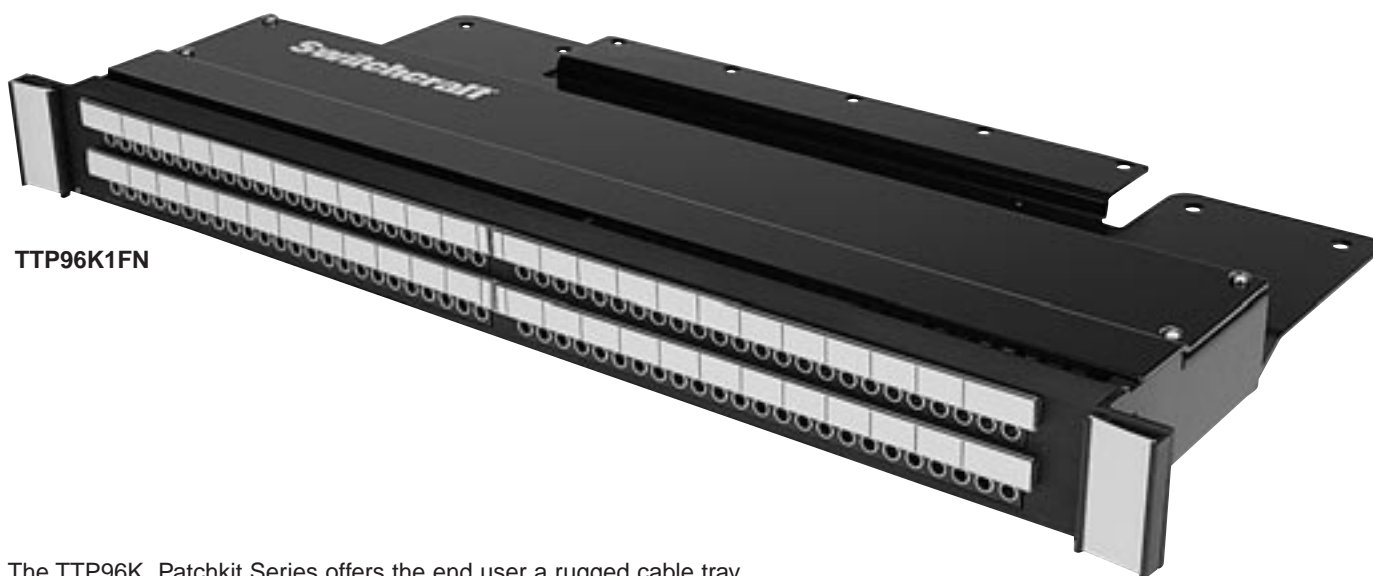
Standard Audio Configuration Wiring (S.A.C.)  
120 Pin Plug Connector  
(Normals brought out)

90 PIN CONNECTOR PIN-OUT			
JACK No.	TIP	RING	SLEEVE
1	A	H	R
JACKS #2 THRU #6 PATTERN CONTINUES TO F, N, W			
7	X	AE	AM
JACKS #8 THRU #12 PATTERN CONTINUES TO AC, AL, AT			
13	BJ	BS	BY
JACKS #14 THRU #18 PATTERN CONTINUES TO BP, BX, CD			
19	CF	CN	CW
JACKS #20 THRU #24 PATTERN CONTINUES TO CM, CU, DB			

120 PIN CONNECTOR PIN-OUT					
JACK No.	TIP	RING	SLEEVE	TIP SHUNT	RING SHUNT
1	A	B	C	D	E
JACKS #2 THRU #6 PATTERN CONTINUES TO AN, AM, AL, AK, AJ					
7	AH	AF	AE	AD	AP
JACKS #8 THRU #12 PATTERN CONTINUES TO BN, BP, BW, BV, BU					
13	BT	BS	BR	BX	BY
JACKS #14 THRU #18 PATTERN CONTINUES TO CX, DH, DF, DE, DD					
19	DC	DB	DA	CZ	CY
JACKS #20 THRU #24 PATTERN CONTINUES TO EF, EH, EJ, EK, EL					

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

## TTP96K PATCHKIT SERIES



TTP96K1FN

The TTP96K Patchkit Series offers the end user a rugged cable tray to support rear cabling. Heavy duty construction takes weight off the back of the jacks for increased reliability. Available in 1.75" or 3.5" height versions.

## FEATURES AND BENEFITS

- Kit features 96 TT jacks in one rack space (1.75" high) or two rack spaces (3.5" high)
- Jack blocks can be removed from the front for easy soldering
- Dust tray limits dirt, dust and contamination of jack terminals
- Wire management straps are adjustable and reusable
- Attractive, corrosion resistant nickel-plated jacks
- Steel frame jack for superior jack life
- Extra wide labeling strips provide maximum space
- Rugged, attractive black anodized aluminum face will not break or rust
- Three jack configurations available for the exact switching arrangement you need: full normal, half normal, and non-normal (open circuit)
- Fanned solder terminals for easier solder connections
- Gold switching contacts for long-term reliability in normal-through connections

## SPECIFICATIONS

## MATERIALS

## JACKS

**Frame:** Nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:** Nickel silver with welded contacts

**Assembly Screws:** Nickel-plated steel

**Welded Contacts:** Gold alloy

## PANEL

**Front Channel:** Black anodized aluminum

**Frame:** C.R.S. black epoxy painted

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:** Clear polycarbonate

**Jack Inserts:** Thermoplastic polyester

## MECHANICAL

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Environmental:** 0°C to +50°C

## ELECTRICAL

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500VAC at 60 Hz

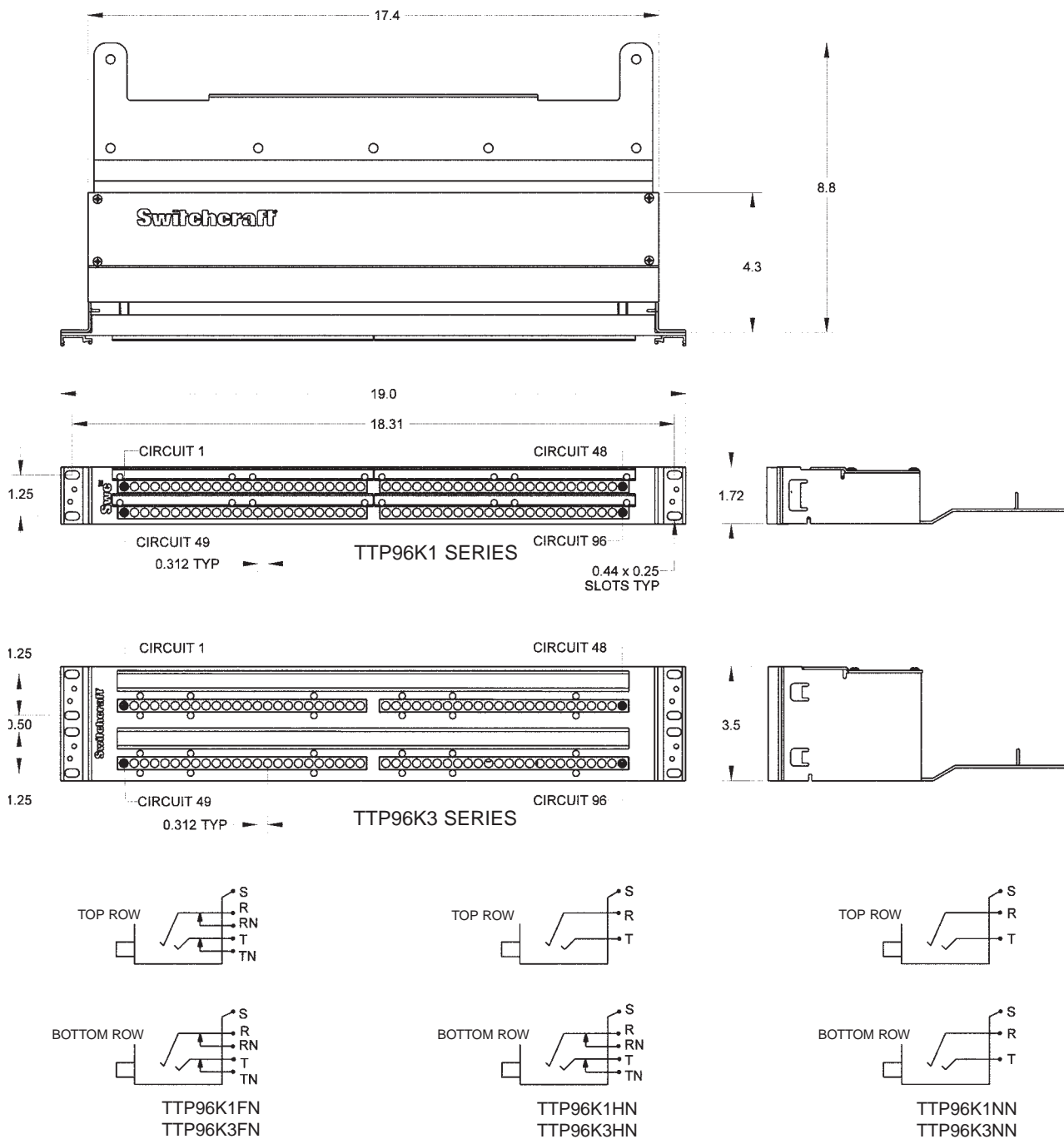
**Working Voltage:** 140VDC maximum

**Current Rating:** 100 milliamps

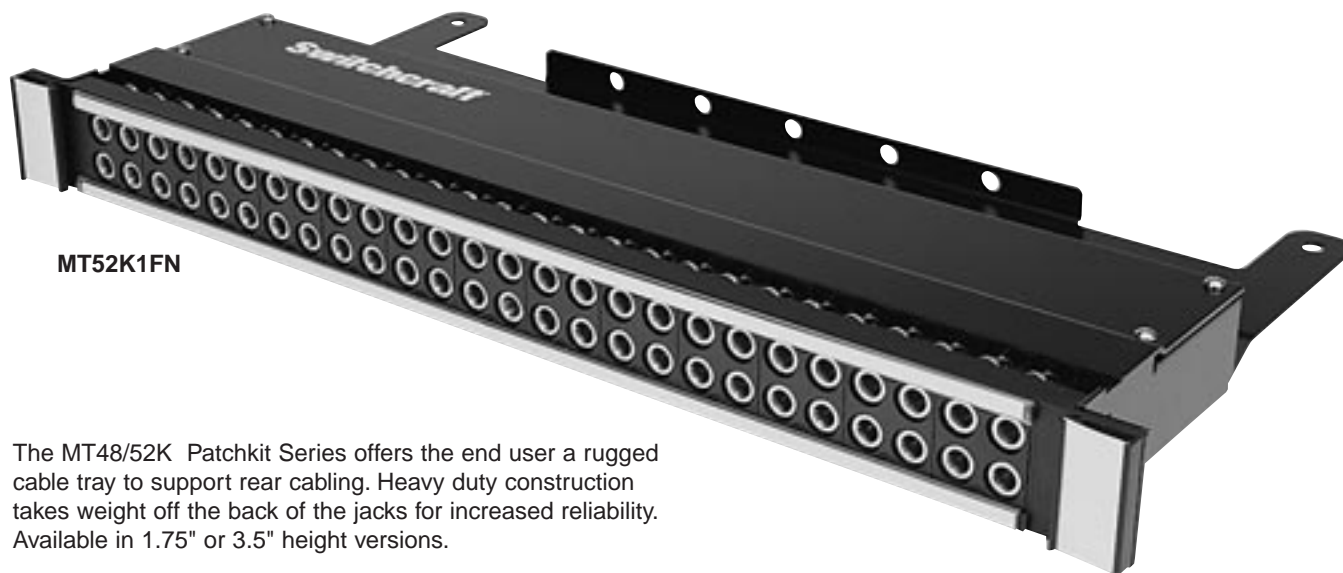
Ordering Information			
Part Number	Type of Jack	No. of Jacks	Description
TTP96K1FN	TT	96	1.75" High, full normals
TTP96K1HN	TT	96	1.75" High, half normal
TTP96K1NN	TT	96	1.75" High, no normals
TTP96K3FN	TT	96	3.5" High, full normals
TTP96K3HN	TT	96	3.5" High, half normals
TTP96K3NN	TT	96	3.5" High, no normals

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

TTP96K PATCHKIT SERIES (continued)



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

**MT48K/MT52K PATCHKIT SERIES**

**MT52K1FN**

The MT48/52K Patchkit Series offers the end user a rugged cable tray to support rear cabling. Heavy duty construction takes weight off the back of the jacks for increased reliability. Available in 1.75" or 3.5" height versions.

**FEATURES AND BENEFITS**

- Kit features 48 1/4" longframe jacks in one rack space (1.75" high) or in two rack spaces (3.5" high) or 52 1/4" longframe jacks in one rack space (1.75" high)
- Allows user to add cable and termination panel
- Removable jack panel from the front allows easy soldering of wire connections
- Jacks have gold switching contacts
- Fanned solder terminals for easier soldering
- Offset ground lugs allow easy bussing of ground with one wire
- Jacks have a nickel-plated frame and assembly screws
- Wire management straps are reusable and adjustable

**SPECIFICATIONS**
**MATERIALS**
**JACKS**

**Frame:** Stamped nickel-plated steel

**Bushing:** Nickel-plated brass

**Tip, Ring and Shunt Springs:**

Nickel silver with welded contacts

**Assembly Screws:** Nickel-plated steel

**Welded Contacts:** Gold alloy

**PANEL**

**Front Panel:** Thermoplastic

**Frame:** C.R.S. black epoxy paint

**Designation Strips:** Black polycarbonate 94V-0

**Designation Strip Covers:**

Clear polycarbonate

**MECHANICAL**

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Operating:** 0°C to +50°C

**ELECTRICAL**

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500VAC at 60 Hz

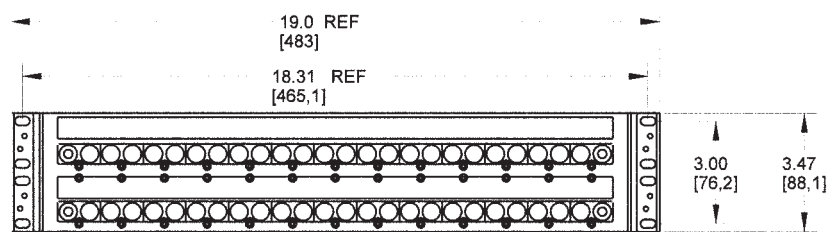
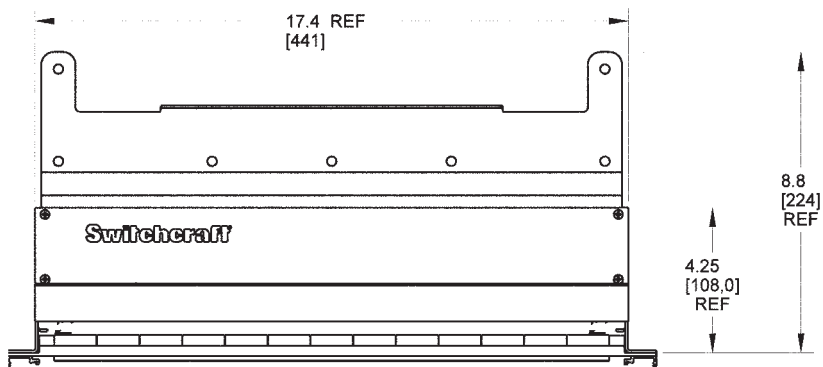
**Working Voltage:** 140VDC maximum

**Current Rating:** 100 milliamps

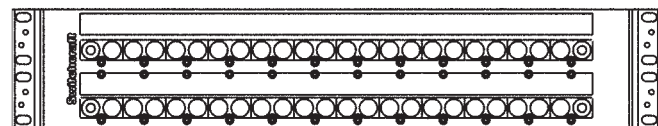
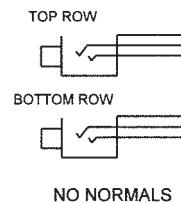
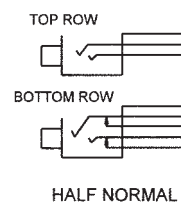
Ordering Information				
Part Number	Type of Jack	No. of Jacks	Height	Description
MT48K1NS	MT	48	1.75"	Normals strapped
MT48K1FN	MT	48	1.75"	Full normals
MT48K1HN	MT	48	1.75"	Half normals
MT48K1NN	MT	48	1.75"	No normals
MT52K1NS	MT	52	1.75"	Normals strapped
MT52K1FN	MT	52	1.75"	Full normals
MT52K1HN	MT	52	1.75"	Half normals
MT52K1NN	MT	52	1.75"	No normals
MT48K3FN	MT	48	3.5"	Full normals
MT48K3HN	MT	48	3.5"	Half normals
MT48K3NN	MT	48	3.5"	No normals
MT52K3FN	MT	52	3.5"	Full normals
MT52K3HN	MT	52	3.5"	Half normals
MT52K3NN	MT	52	3.5"	No normals

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

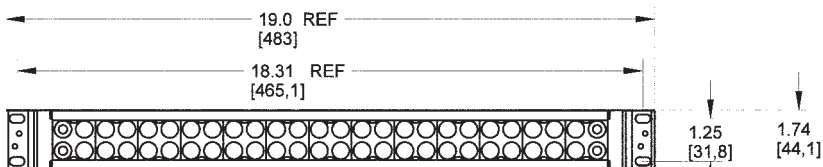
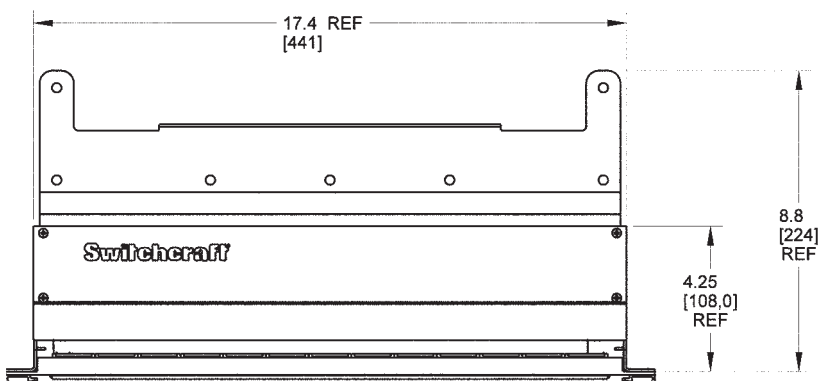
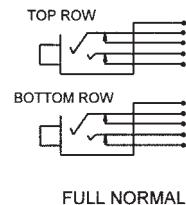
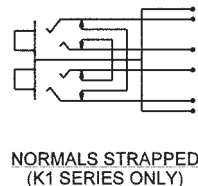
MT48K/MT52K PATCHKIT SERIES (continued)



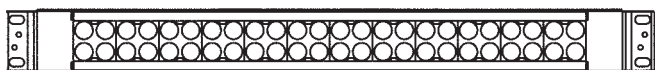
MT52K3 SERIES



MT48K3 SERIES

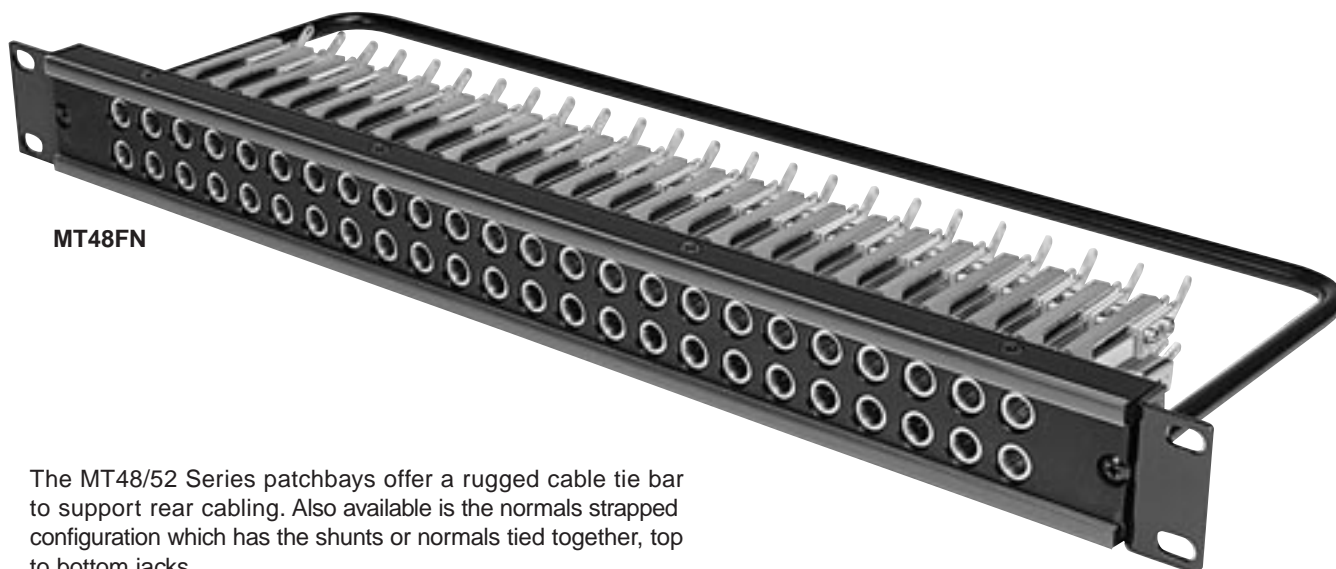


MT52K1 SERIES



MT48K1 SERIES

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

**MT48/MT52 PATCHBAY SERIES**

**MT48FN**

The MT48/52 Series patchbays offer a rugged cable tie bar to support rear cabling. Also available is the normals strapped configuration which has the shunts or normals tied together, top to bottom jacks.

**FEATURES AND BENEFITS**

- Units feature either 48 or 52 MT Jax®
- Steel frame jacks for superior jack life
- Attractive, corrosion resistant nickel-plated jacks
- Gold switching contacts for long-term reliability in normal-through connections
- Offset ground terminal for ease in making common ground buss connections
- Fanned solder terminals for easier solder connections
- Cable tie bar takes the weight of cables off the jacks
- Four jack configurations available for the exact switching arrangement: full normal, half normal, non-normal, and normals strapped

**SPECIFICATIONS**
**MATERIALS**
**JACKS**

**Frame:** Steel, nickel-plated

**Bushing:** Brass, nickel-plated

**Springs:** Nickel silver, solder lugs

**Ground Terminal:** Nickel silver, solder lugs

**Switching Contacts:** Welded, gold alloy

**Insulation:** Phenolic spacers, rigid PVC tubing through stack

**Screws:** Steel, nickel-plated

**PANEL**

**Jack Panel:** Thermoplastic

**Cable Support Bracket:** 5/16" diameter black epoxy painted steel rod

**Screws (designation strip):** Steel, black zinc-plated

**Screws (mounting jack):** Steel, nickel plated

**Kwik-change® Designation Strip:** Extruded aluminum, black anodized

**Marking Strip:**

White plastic, matte finish

**Marking Strip Cover:**

Clear, extruded plastic

**MECHANICAL**

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lb. minimum

**Operating:** 0°C to +50°C

**ELECTRICAL**

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500VAC at 60 Hz

**Working Voltage:** 140VDC maximum

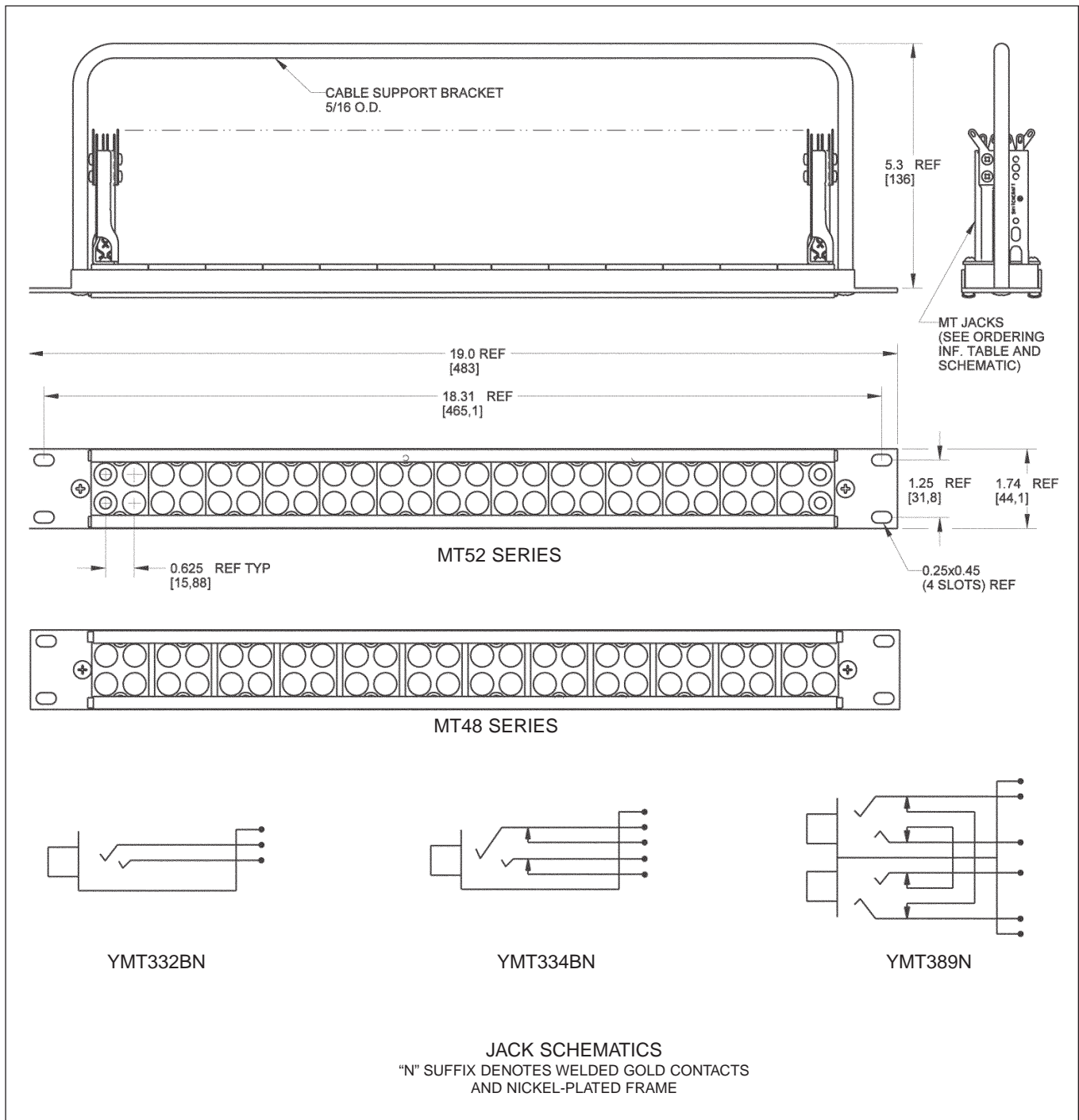
**Current Rating:** 100 milliamps

**Ordering Information**

Part Number	Type of Jack	No. of Jacks	Description
MT48FN	MT	48	Full normals
MT48HN	MT	48	Half normals
MT48NN	MT	48	No normals
MT48NS	MT	48	Normals strapped
MT52FN	MT	52	Full normals
MT52HN	MT	52	Half normals
MT52NN	MT	52	No normals
MT52NS	MT	52	Normals strapped

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

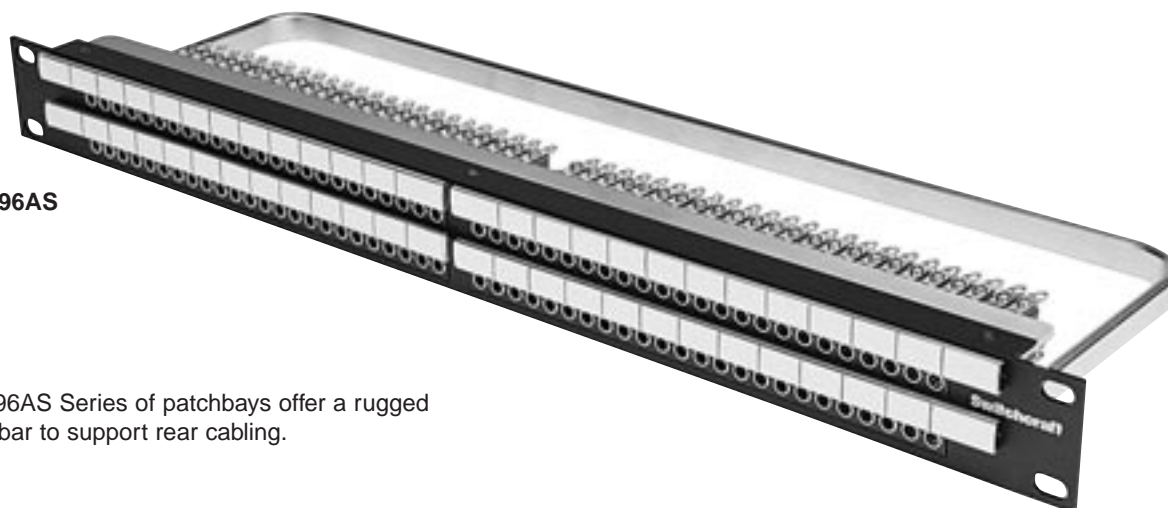
MT48/MT52 PATCHBAY SERIES (continued)



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

## TTP96AS PATCHBAY SERIES

TTP96AS



The TTP96AS Series of patchbays offer a rugged cable tie bar to support rear cabling.

### FEATURES AND BENEFITS

- Unit features 96 TT jacks
- Attractive, corrosion resistant nickel-plated jacks
- Steel frame jack for superior jack life
- Extra wide labeling strips provide maximum space
- Rugged cable tie bar takes the weight of cables off the jacks
- Rugged, attractive black anodized aluminum face will not break
- Three jack configurations available for the exact switching arrangement you need: full normal, half normal, and open circuit panel
- Fanned solder terminals for easier solder connections
- Offset ground terminal for ease in making common ground buss connections
- Gold switching contacts for long-term reliability in normal-through connections

### SPECIFICATIONS

#### MATERIALS

##### JACKS

**Frame:** Steel, nickel-plated

**Bushing:** Nickel-plated copper alloy

**Springs:** Copper alloy solder lugs

**Ground Terminal:** Steel, tin electrodeposited

**Switching Contacts:** Welded, gold alloy inlay over palladium base

**Insulation:** Rigid plastic spacers, rigid PVC tubing through stack

**Screws:** Steel, plated

### PANEL

**Frame:** Black anodized aluminum

**Inserts:** Polyester, glass filled, 94V-0

**Cable Support Bar:** Cold rolled steel, nickel-plated

**Designation Strips:** Thermoplastic, 94V-0

**Designation Strip Covers:**

Clear thermoplastic, SE-1

**Marking Strip:** Rigid vinylite

**Jack Mounting Screws:** Steel, plated

**Screws:** Steel, black plated

### MECHANICAL

**Life:** 30,000 cycles

**Insertion Force:** 7 lbs. maximum

**Withdrawal Force:** 1 lbs. minimum

**Environmental:** 0°C to +50°C

### ELECTRICAL

**Contact Resistance:** 30 milliohms maximum initial

**Insulation Resistance:** 10,000 megohms maximum

**Dielectric Withstanding Voltage:** 500VAC at 60 Hz

**Working Voltage:** 140VDC maximum

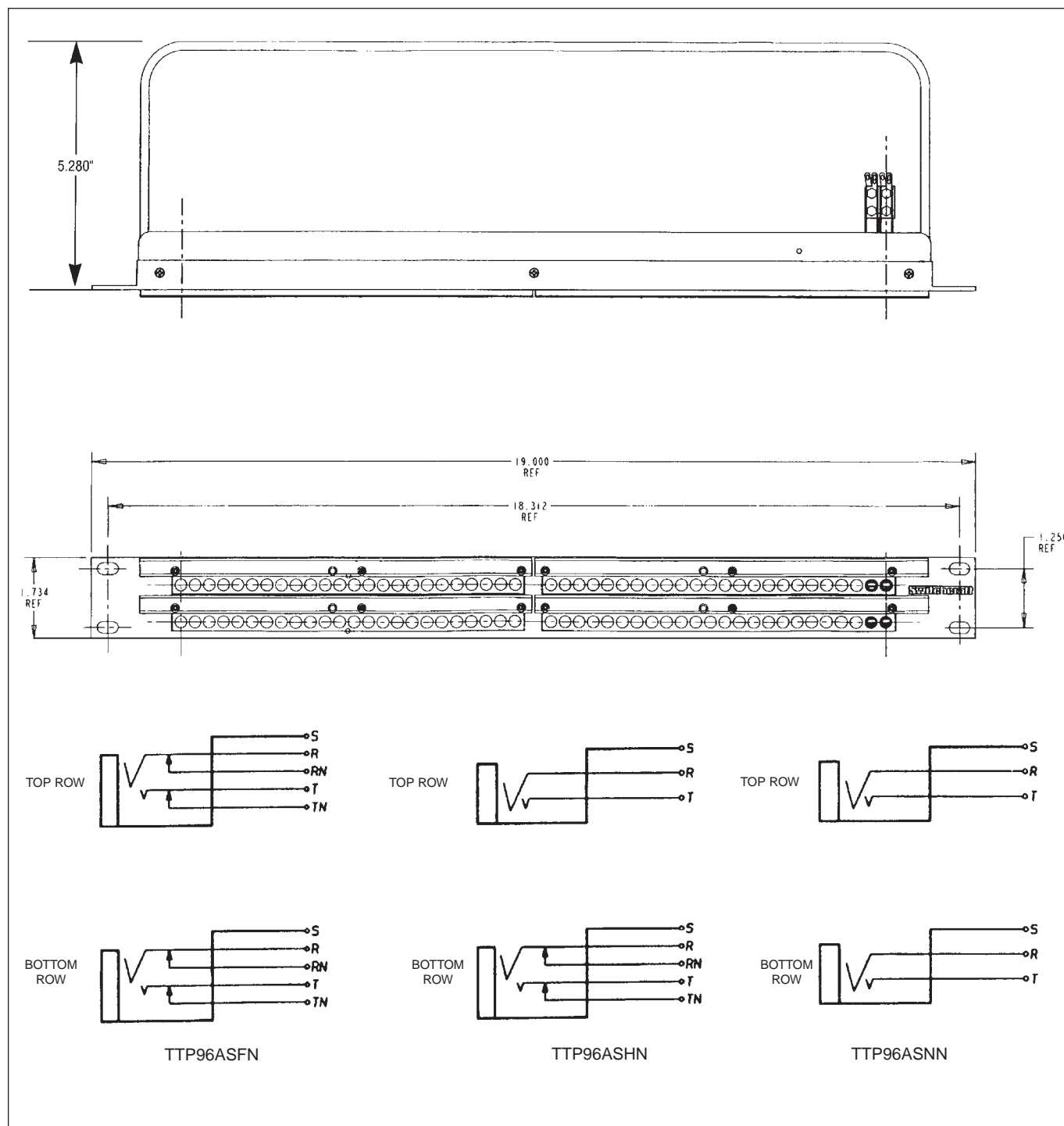
**Current Rating:** 100 milliamps

### Ordering Information

Part Number	Type of Jack	No. of Jacks	Description
TTP96ASFN	TT	96	Full normals
TTP96ASHN	TT	96	Half normals
TTP96ASNN	TT	96	No normals

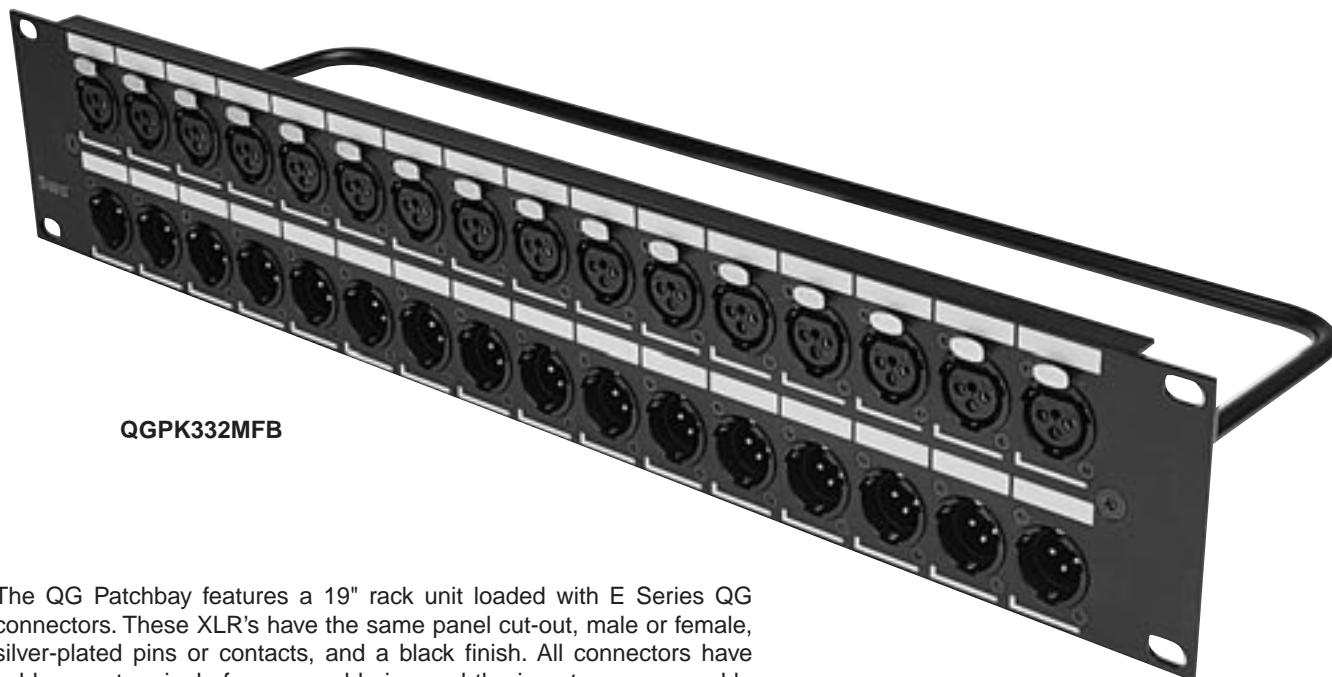
DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

TTP96AS PATCHBAY SERIES (continued)



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

## Q-G® PATCHBAY SERIES



**QGPK332MFB**

The QG Patchbay features a 19" rack unit loaded with E Series QG connectors. These XLR's have the same panel cut-out, male or female, silver-plated pins or contacts, and a black finish. All connectors have solder cup terminals for easy soldering and the inserts are removable from the back, allowing for easy changes. The one rack unit height version comes with 16 male, or 16 female, or 8 male and 8 female connectors. The two rack unit version comes with 16 male and 16 female connectors. We also offer the unit without connectors, but with the panel cut-outs already punched out. All versions have a rugged cable tie bar, which takes the weight of the cabling away from the solder connections.

### FEATURES AND BENEFITS

- Available in 1RU or 2RU versions
- Available with or without the connectors
- E Series connectors are silver-plated, 3 pins/contacts with black finish
- Cable tie bar takes the weight of the cables off the solder terminations
- Rugged aluminum channel increases durability
- Silk-screen designation area makes it easy to re-label channels

### SPECIFICATIONS

#### MATERIALS

#### CONNECTORS

**Housing:** Die-cast, black velvet finish

**Inserts:** Glass-filled thermoplastic

**Pin/Contacts:** Copper alloy, silver-plated

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

**Insert Locking Cam:** Die-cast zinc

#### FRAME

Aluminum, black anodized

#### CABLE TIE BAR

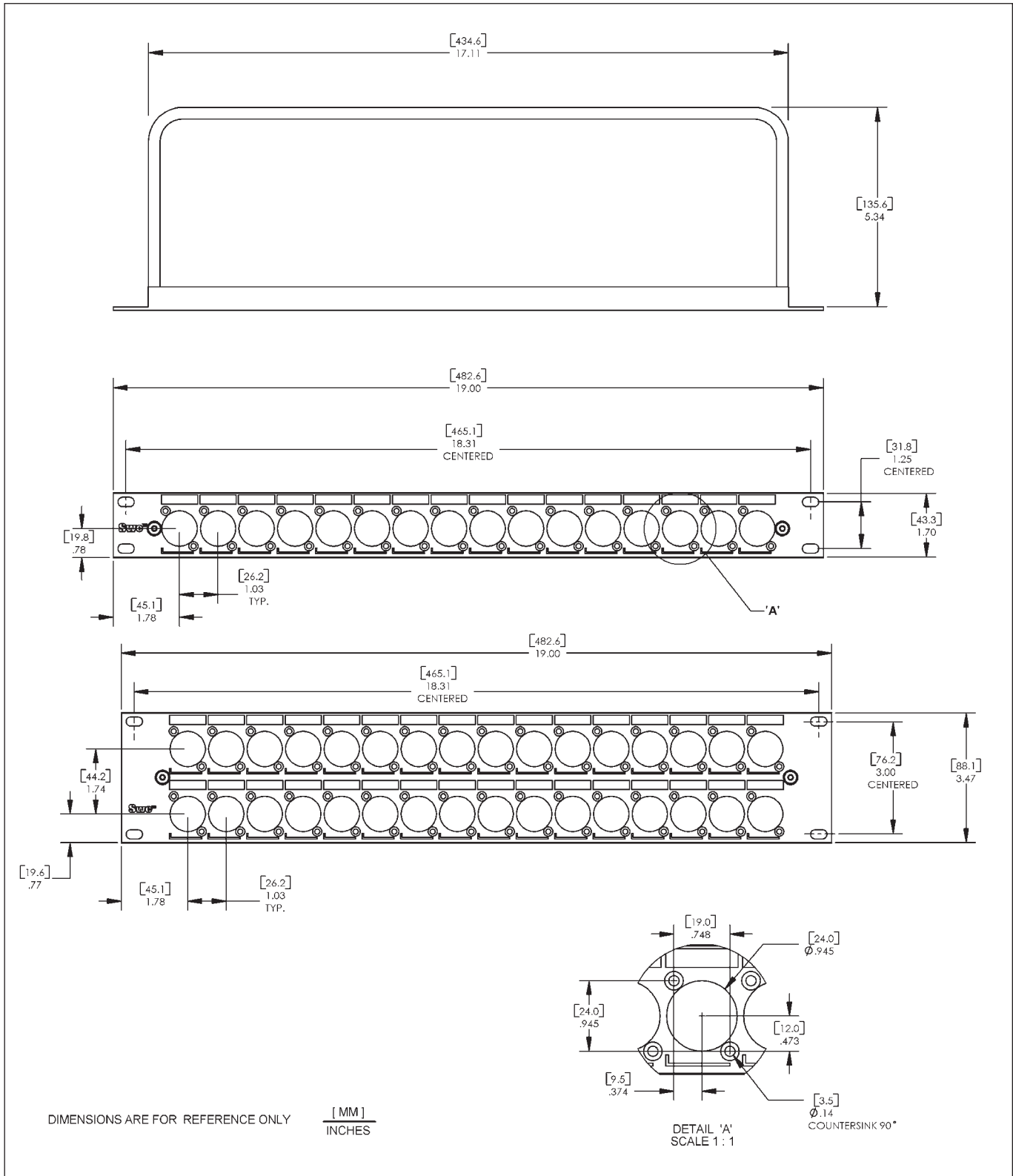
Steel, black epoxy

#### Ordering Information

Part Number	Height	Description
<b>QGPK116FB</b>	1.75"	16 female
<b>QGPK116MB</b>	1.75"	16 male
<b>QGPK18M8FB</b>	1.75"	8 male, 8 female
<b>QGPK332MFB</b>	3.5"	16 female( top), 16 male (bottom)
<b>QGPK1B</b>	1.75"	Blank panel
<b>QGPK3B</b>	3.5"	Blank panel

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

Q-G® PATCHBAY SERIES (continued)



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

## HPC PATCHBAY SERIES

The HPC Patchbay features a 19" rack unit loaded with HPC Series connectors. Available with either 0.250" Faston terminals or 0.187" Faston terminals. One rack unit height versions come with 12 HPC connectors, two rack unit height versions come with 24 HPC connectors. All versions have a rugged cable tie bar, which takes the weight of the cabling away from the connections.

### FEATURES AND BENEFITS

- Available in 1RU or 2RU versions
- Available with or without connectors
- HPC Series connectors are compatible with Neutrik Speakon® connectors
- Cable tie bar takes weight of the cables off the terminations
- Rugged aluminum channel
- Silk-screen designation area makes it easy to re-label channels

### HP CONNECTOR SPECIFICATIONS

See page 38 for details

### MATERIALS

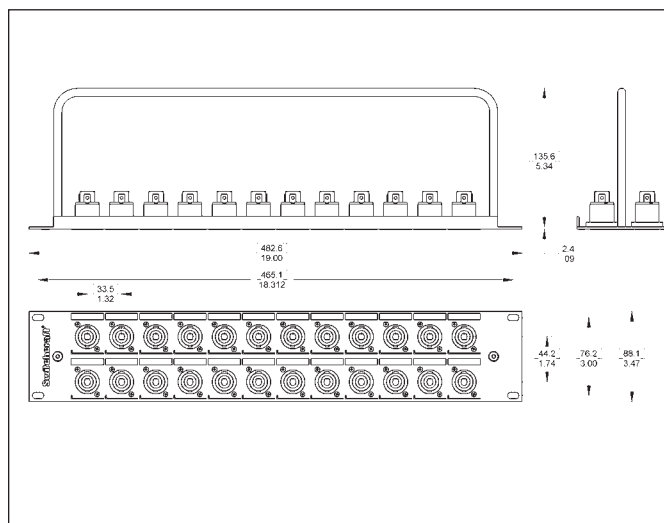
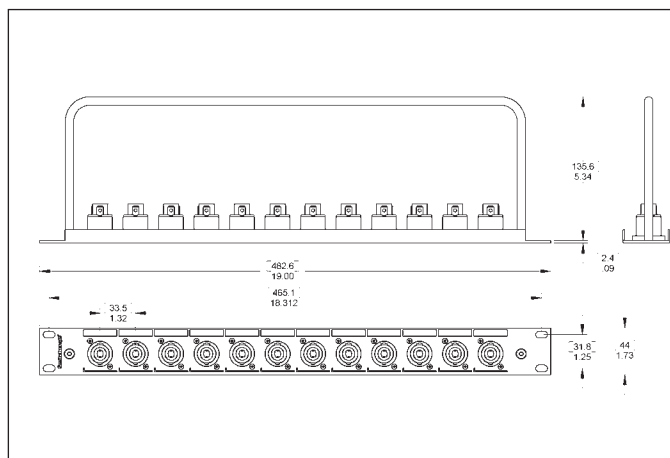
Housing: Thermoplastic UL 94V-O rated  
 Contacts: Silver-plated over copper alloy

### FRAME

Aluminum, black anodized

### CABLE TIE BAR

Steel, black epoxy

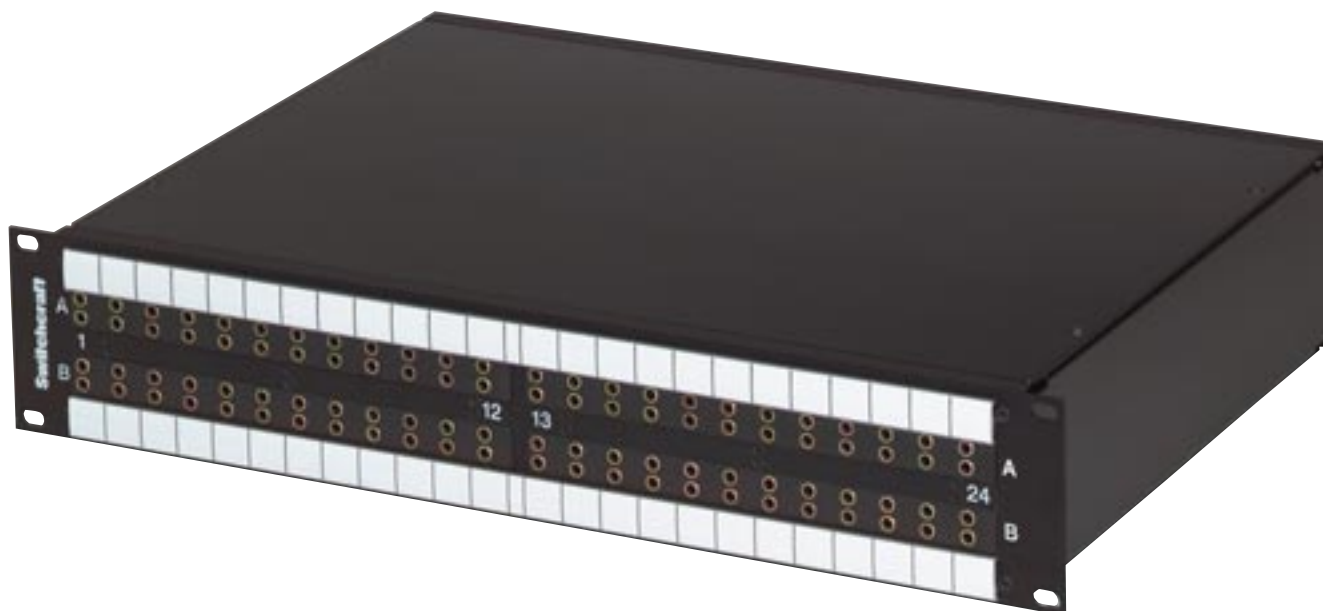


Part Number	Height	Description
HPCPK112F	1.75"	12 connectors, 0.250" Fastons
HPCPK112F1	1.75"	12 connectors, 0.187" Fastons
HPCPK1B	1.75"	Blank panel
HPCPK324F	3.50"	24 connectors, 0.250" Fastons
HPCPK324F1	3.50"	24 connectors, 0.187" Fastons
HPCPK3B	3.50"	Blank panel

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

## RS 422 DATA PATCHBAY SERIES



## RS422 Ordering Information

Part Number*	No. of Jacks	Front Panel Layout	Back Plane	Rack Height
RS422H48N081	2 x 8	Horizontal	9 Pin D-Sub	1
RS422V4N081	2 x 8	Vertical	9 Pin D-Sub	1
RS422H4N161	2 x 16	Horizontal	9 Pin D-Sub	1
RS422H4N162	2 x 16	Horizontal	9 Pin D-Sub	2
RS422V4N161	2 x 16	Vertical	9 Pin D-Sub	1
RS422V4N162	2 x 16	Vertical	9 Pin D-Sub	2
RS422H4N242	2 x 24	Horizontal	9 Pin D-Sub	2
RS422V4N242	2 x 24	Vertical	9 Pin D-Sub	2
RS422V4N322	2 x 32	Vertical	9 Pin D-Sub	2
RS422PH4N081	2 x 8	Horizontal	PPT Punchdown	1
RS422PV4N081	2 x 8	Vertical	PPT Punchdown	1
RS422PH4N161	2 x 16	Horizontal	PPT Punchdown	1
RS422PH4N162	2 x 16	Horizontal	PPT Punchdown	2
RS422PV4N161	2 x 16	Vertical	PPT Punchdown	1
RS422PV4N162	2 x 16	Vertical	PPT Punchdown	2
RS422PH4N242	2 x 24	Horizontal	PPT Punchdown	2
RS422PV4N242	2 x 24	Vertical	PPT Punchdown	2
RS422PV4N322	2 x 32	Vertical	PPT Punchdown	2

\*Add "N" for non-normalled version

See Page 267 for Patchcord Information

## FEATURES AND BENEFITS

- Unit Features either 8,16, 24, or 32 TT style jacks on the front Panels, to a 9 pin D-Sub or PPT back Plane.
- All version utilize low capacitance internal wiring for maximum performance of transferring data
- All standard units are available 1 or 2 rack units high (1.5 RU available by request)
- Rugged, attractive black epoxyfinished steel frame chassis

Our standard RS data jackfield series offer a multiple combination of ports, rack heights, and back panel terminations which will easily fit into any television broadcast or video production where custom data patching is required. Custom ports and rack height combinations can be supplied. Contact the factory for details.

## SPECIFICATIONS

## ELECTRICAL

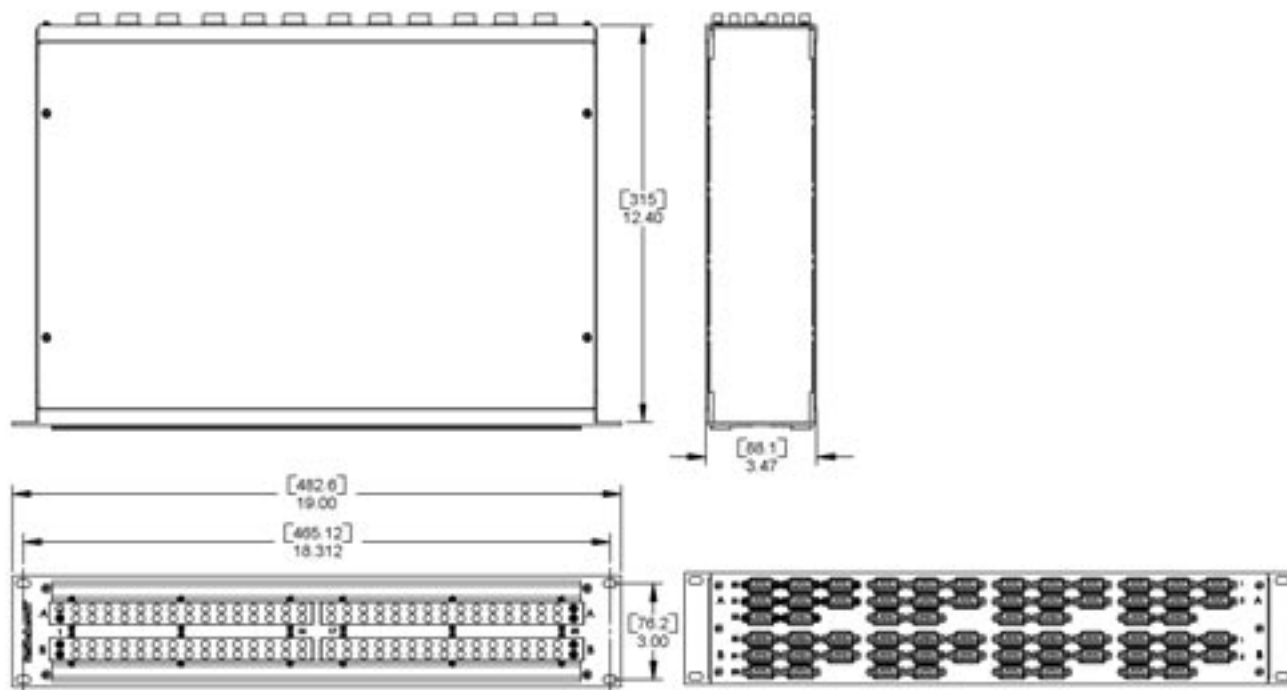
## Internal Wiring:

24 AWG Solid TC, foils shield

**Nom Capacitance:** 11.5 pF/ft between conductors  
21.3 pF/ft between one conductor and conductor connected to the shield

**Nom. Impedance:** 110 Ohms

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

**RS 422 DATA PATCHBAY SERIES**


**RS422V4N322**  
**32 Vertical Paired Jacks**  
**Front and Back Views**



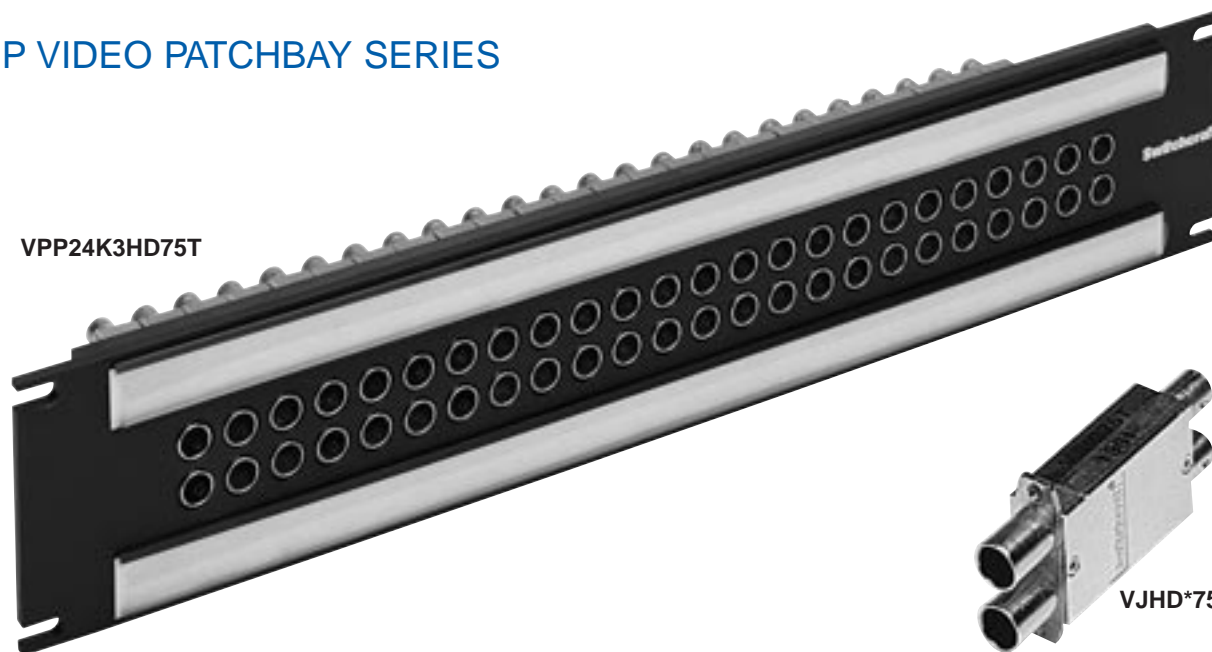
**RS422H4N242**  
**24 Horizontal Paired Jacks**  
**Front and Back Views**

Ordering Information				
Part Number	No. of Jacks	Front Panel Layout	Back Plane	Rack Height
RS422H4N081	2 x 8	Horizontal	9 Pin D-Sub	1
RS422V4N081	2 x 8	Vertical	9 Pin D-Sub	1
RS422H4N162	2 x 16	Horizontal	9 Pin D-Sub	1, 2
RS422V4N162	2 x 16	Vertical	9 Pin D-Sub	1, 2
RS422H4N242	2 x 24	Horizontal	9 Pin D-Sub	2
RS422V4N242	2 x 24	Vertical	9 Pin D-Sub	2
RS422V4N322	2 x 32	Vertical	9 Pin D-Sub	2
RS422PH4N081	2 x 8	Horizontal	PPT Punchdown	1
RS422PV4N081	2 x 8	Vertical	PPT Punchdown	1
RS422PH4N162	2 x 16	Horizontal	PPT Punchdown	1, 2
RS422PV4N162	2 x 16	Vertical	PPT Punchdown	1, 2
RS422PH4N242	2 x 24	Horizontal	PPT Punchdown	2
RS422PV4N242	2 x 24	Vertical	PPT Punchdown	2
RS422PV4N322	2 x 32	Vertical	PPT Punchdown	2

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

## VPP VIDEO PATCHBAY SERIES

VPP24K3HD75T



VJHD\*75TX

The VPP Series video patchbays offer a wide variety of options for video patching. The HD Series meets SMPTE 292M specifications for high definition video signaling, covering a bandwidth range from DC to 2.4GHz. The SD Series is perfect for serial digital, with a bandwidth from DC to 1.75GHz. Both come in either terminated or non-terminated, 24 or 26 jacks, 1.75" or 3.5" heights.

**FEATURES AND BENEFITS**

- HD Series meets SMPTE 292M Specifications
- SD Series has a bandwidth from DC to 1.75GHz
- Black thermoplastic modules insulate jacks from chassis
- Jacks feature rugged heavy duty housings

**VIDEO JACK SPECIFICATIONS**  
**ELECTRICAL**

**Rated Bandwidth:** 2.4 GHz (HD), 1.75 GHz (SD)

**Characteristic Impedance:** 75 ohms

**Return Loss:** Better than -15 dB

**Insertion Loss:** Better than -.5 dB

**Contact Resistance:** Less than 20 milliohms

**Termination Resistance:** 75 W,  $\pm 1\%$

**Center Conductor:** Accepts .090 pin diameter

**MECHANICAL**

**Mechanical Shock:** Per MIL-STD-202, Method 213, Test condition I

**Vibration:** Per MIL-STD-202, Method 201

**Insertion Force:** 12 lbs. maximum

**Withdrawal Force:** 3 lbs. minimum

**Life Cycle:** 30,000

**MATERIAL**

**Housing:** Zinc alloy, nickel plated

**Center Contacts:** Copper alloy, gold plated

**Switching Springs:** Copper alloy, gold plated

**Grounding Contacts:**

HD Series - Copper alloy, gold plated

SD Series - Copper alloy, nickel plated

**Insulators:** Thermoplastic, UL 94V-0 rated

**ENVIRONMENTAL**

**Operating Temperature:** -40°C to 65°C

**Storage Temperature:** -55°C to 85°C

**Thermal Shock:** Per MIL-STD-202, Method 107

**Moisture and Humidity:**

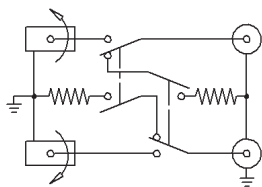
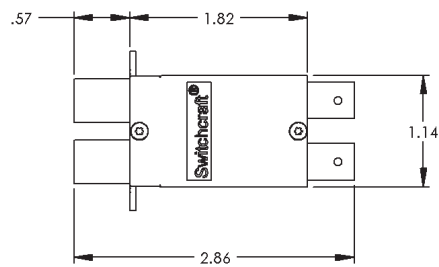
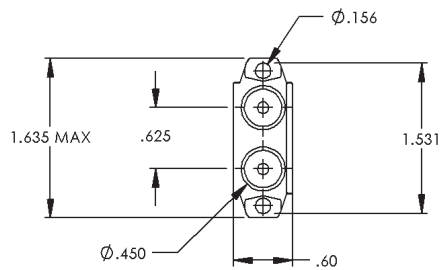
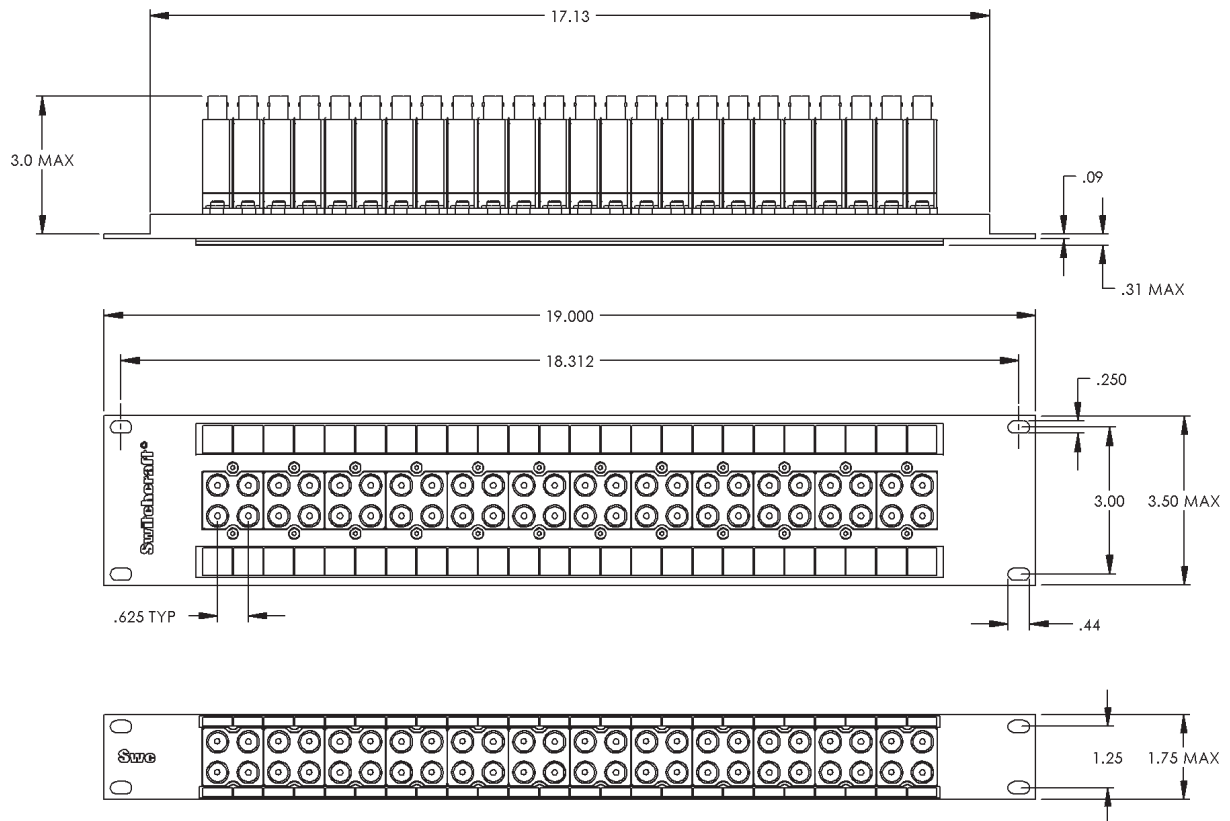
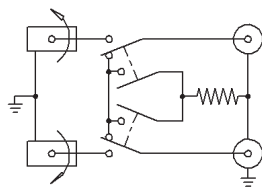
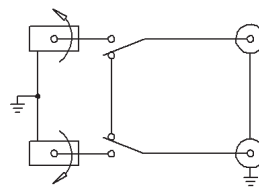
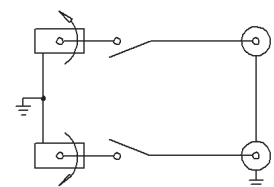
Per MIL-STD-202, Method 106

**Ordering Information**

Part Number	Type of Jack	No. of Jacks	Height	Description
VPP24K1HD*75T	HD	24	1.75"	Terminated
VPP24K1HD*NT	HD	24	1.75"	Non-term
VPP24K1SD*75T	SD	24	1.75"	Terminated
VPP24K1SD*NT	SD	24	1.75"	Non-term
VPP26K1HD*75T	HD	26	1.75"	Terminated
VPP26K1HD*NT	HD	26	1.75"	Non-term
VPP26K1SD*75T	SD	26	1.75"	Terminated
VPP26K1SD*NT	SD	26	1.75"	Non-term
VPP24K3HD*75T	HD	24	3.5"	Terminated
VPP24K3HD*NT	HD	24	3.5"	Non-term
VPP24K3SD*75T	SD	24	3.5"	Terminated
VPP24K3SD*NT	SD	24	3.5"	Non-term
VPP26K3HD*75T	HD	26	3.5"	Terminated
VPP26K3HD*NT	HD	26	3.5"	Non-term
VPP26K3SD*75T	SD	26	3.5"	Terminated
VPP26K3SD*NT	SD	26	3.5"	Non-term

\*Add "N" for non-normalled version

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

**VPP VIDEO PATCHBAY SERIES (continued)**

**NON-NORMALLED  
TERMINATED**

**NORMALLED  
TERMINATED**

**NORMALLED  
NON-TERMINATED**

**NON-NORMALLED  
NON-TERMINATED**

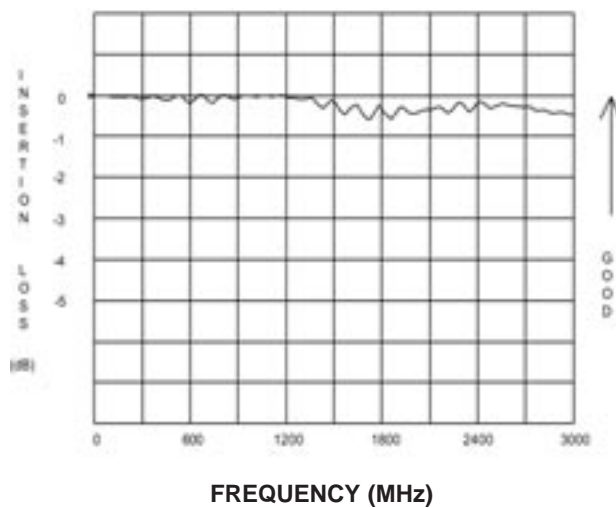
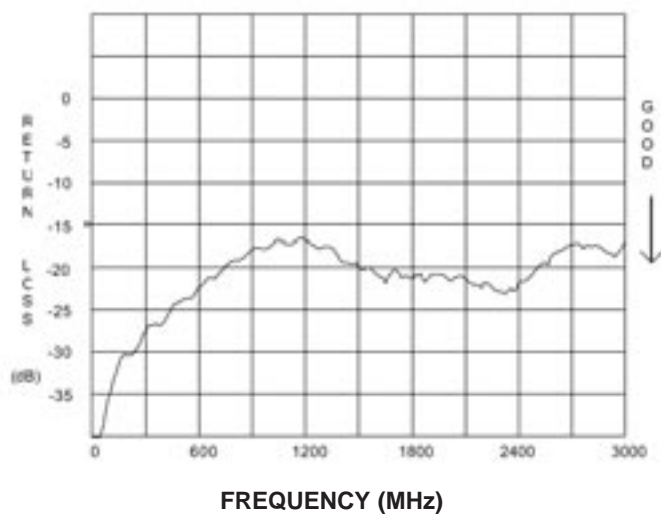
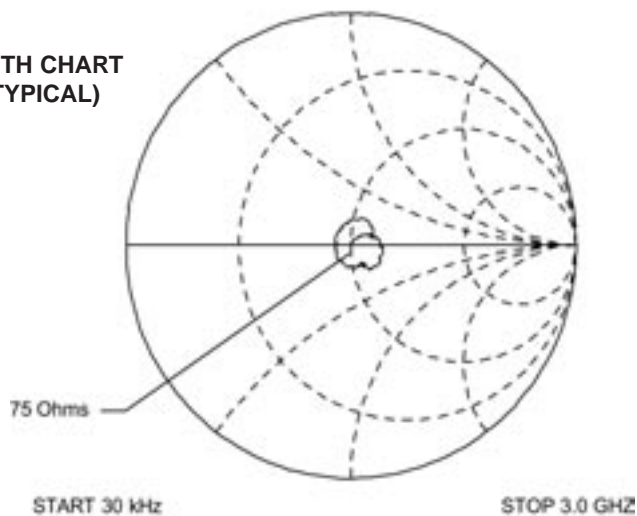
DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

## VPP VIDEO PATCHBAY SERIES (continued)

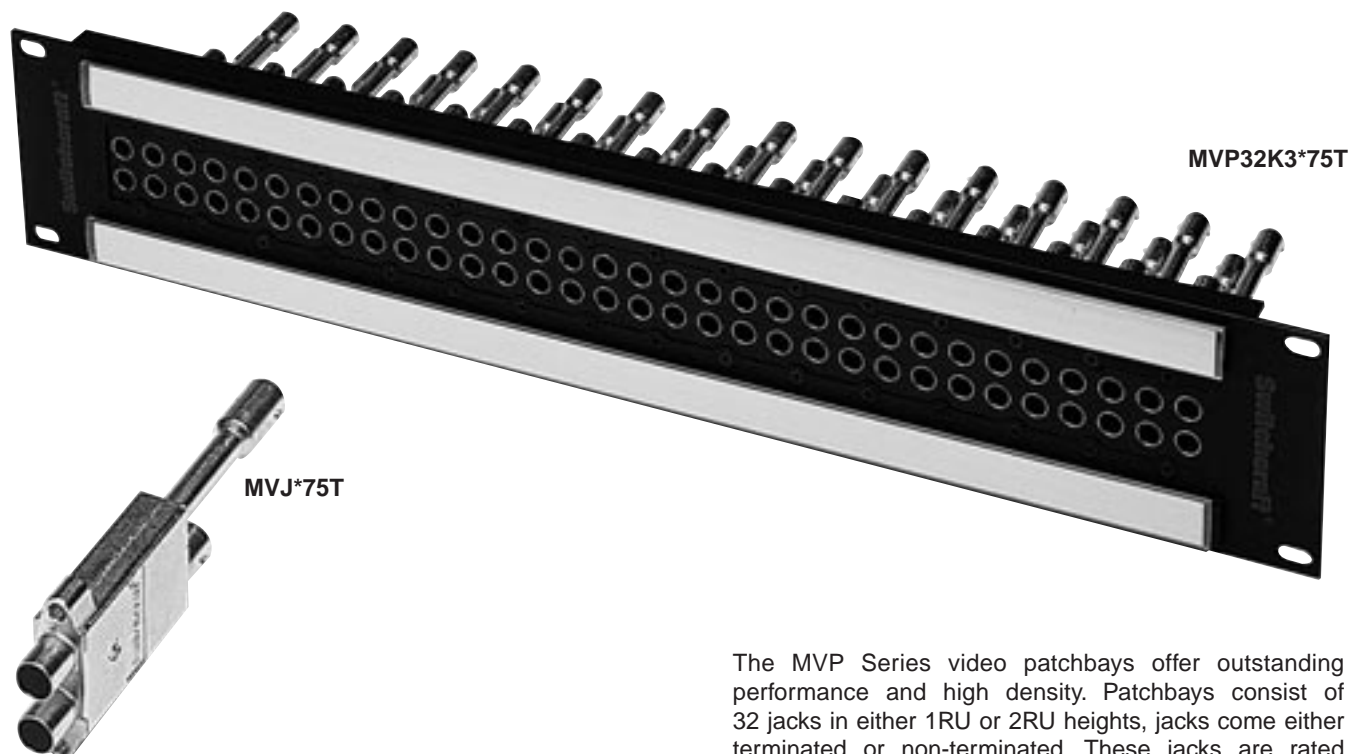
## Ordering—Individual Jacks

Part Number	Type	Description
VJHD*75TX	HD	Terminated
VJHD*NTX	HD	Non-terminated
VJSD*75TX	SD	Terminated
VJSD*NTX	SD	Non-terminated

\*Add "N" for non-normalled version

SMITH CHART  
(TYPICAL)

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

**MVP MIDSIZE VIDEO PATCHBAY SERIES**

**MVP32K3\*75T**
**MVJ\*75T**

The MVP Series video patchbays offer outstanding performance and high density. Patchbays consist of 32 jacks in either 1RU or 2RU heights, jacks come either terminated or non-terminated. These jacks are rated from DC to 3 GHz, and are rated at 30,000 lifecycles.

**FEATURES AND BENEFITS**

- Midsize video jacks rated from DC to 3 GHz
- 32 midsize jacks mounted either 1RU, 1.5RU or 2RU panel
- Available in terminated or non-terminated configurations

**SPECIFICATIONS**
**MATERIAL**

**Frame:** Aluminum, black anodized

**Designation Strips:** Vinylite, white

**Designation Strip Covers:** Lexan, transparent

**Jack Inserts:** Thermoplastic, UL 94V-0 rated

**MIDSIZE VIDEO JACK SPECIFICATIONS**  
**ELECTRICAL**

**Rated Bandwidth:** 3.0 GHz

**Characteristic Impedance:** 75 ohms

**Return Loss:** See Typical Return Loss Chart

**Insertion Loss:** See Typical Insertion Loss Chart

**Contact Resistance:** Less than 20 milliohms

**Termination Resistance:** 75 W,  $\pm 1\%$

**Center Conductor:** Accepts .048 pin diameter

**MECHANICAL**

**Mechanical Shock:** Per MIL-STD-202, Method 213, Test condition I

**Vibration:** Per MIL-STD-202, Method 201

**Insertion Force:** 12 lbs. maximum

**Withdrawal Force:** 3 lbs. minimum

**Life Cycle:** 30,000

**MATERIAL**

**Housing:** Zinc alloy, nickel plated

**Center Contacts:** Copper alloy, gold plated

**Switching Springs:** Copper alloy, gold plated

**Grounding Contacts:** Copper alloy, gold plated

**BNC Insulators:** Teflon

**Actuators:** Thermoplastic, UL94V-0 rated

**ENVIRONMENTAL**

**Operating Temperature:**  $-40^{\circ}\text{C}$  to  $65^{\circ}\text{C}$

**Storage Temperature:**  $-55^{\circ}\text{C}$  to  $85^{\circ}\text{C}$

**Thermal Shock:** Per MIL-STD-202, Method 107

**Moisture and Humidity:** Per MIL-STD-202, Method 106

Ordering Information			
Part Number	Type of Jack	Height	Description
MVP32K1*75T	Midsize	1.75"	Terminated
MVP32K1*NT	Midsize	1.75"	Non-terminated
MVP32K3*75T	Midsize	3.5"	Terminated
MVP32K3*NT	Midsize	3.5"	Non-terminated

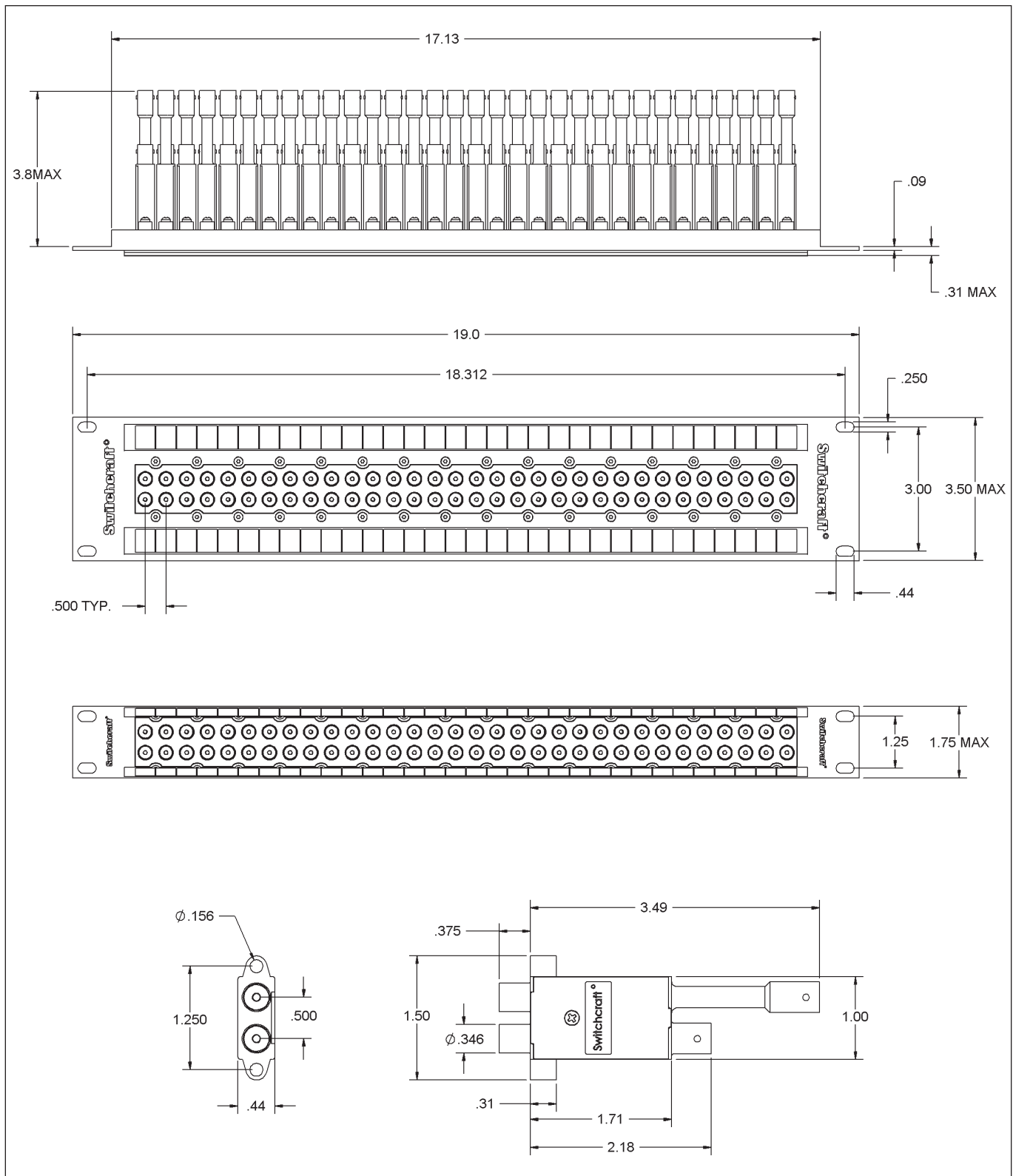
\* Add "N" for non-normalled version

Note: For 1.5RU (2.62" height), use K2

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

MVP MIDSIZE VIDEO PATCHBAY SERIES (continued)

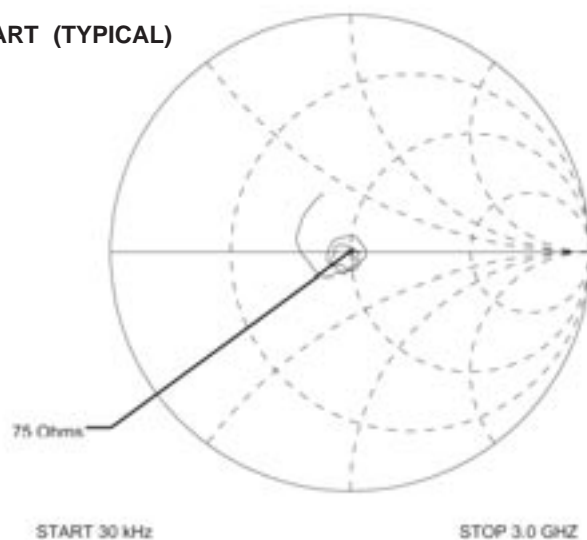


DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

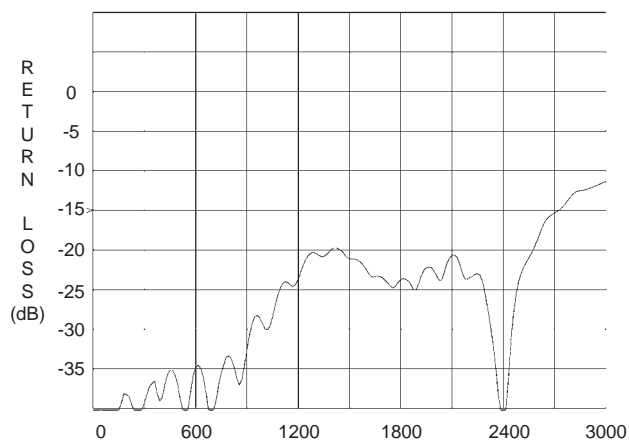
**MVP MIDSIZE VIDEO PATCHBAY SERIES (continued)**

Ordering Information	
Part Number	Description
<b>MVJ*75TX</b>	Terminated
<b>MVJ*NTX</b>	Non-terminated
*Add "N" for non-normalled version	

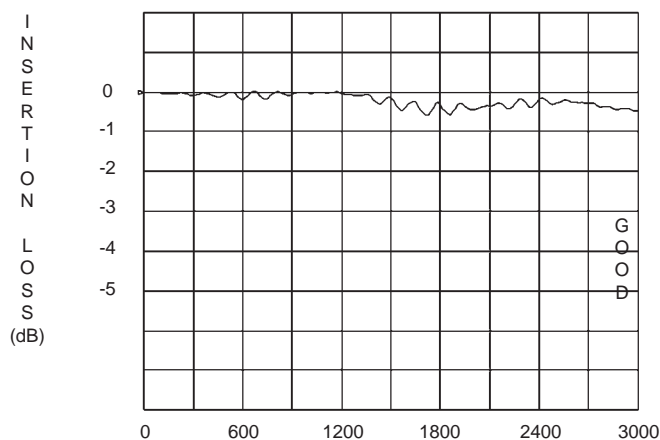
**SMITH CHART (TYPICAL)**



**RETURN LOSS (TYPICAL)**

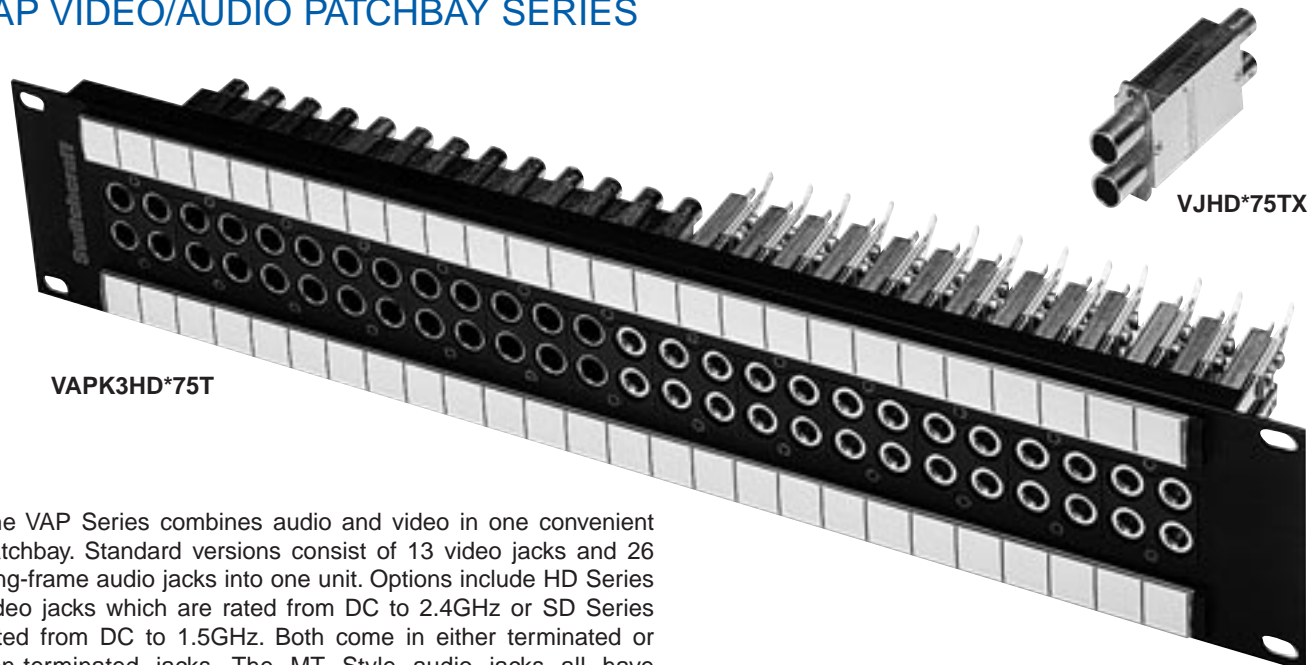


**RETURN LOSS (TYPICAL)**



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

## VAP VIDEO/AUDIO PATCHBAY SERIES



VAPK3HD\*75T

VJHD\*75TX

The VAP Series combines audio and video in one convenient patchbay. Standard versions consist of 13 video jacks and 26 long-frame audio jacks into one unit. Options include HD Series video jacks which are rated from DC to 2.4GHz or SD Series rated from DC to 1.5GHz. Both come in either terminated or non-terminated jacks. The MT Style audio jacks all have nickel-plated steel frames and gold-plated switching contacts. Flared terminals make soldering easier. All audio jacks are T,R,S, TN, and RN. Individual modules are useful for custom configurations.

**FEATURES AND BENEFITS**

- Combines 13 video jacks and 26 long-frame audio jacks into one patchbay
- Available with either HD Series or SD Series video jacks
- All audio jacks are nickel-plated with steel frames and gold-plated switching contacts
- Audio modules consist of 4 YMT334BN jacks, video modules consist of 2 dual video jacks

**VIDEO JACK SPECIFICATIONS****ELECTRICAL**

**Rated Bandwidth:** 2.4 GHz (HD), 1.75 GHz (SD)

**Characteristic Impedance:** 75 ohms

**Return Loss:** Better than -15 dB

**Insertion Loss:** Better than -.5 dB

**Contact Resistance:** Less than 20 milliohms

**Termination Resistance:** 75 W,  $\pm 1\%$

**Center Conductor:** Accepts .090 pin diameter

**MECHANICAL**

**Mechanical Shock:** Per MIL-STD-202, Method 213, Test condition I

**Vibration:** Per MIL-STD-202, Method 201

**Insertion Force:** 12 lbs. maximum

**Withdrawal Force:** 3 lbs. minimum

**Life Cycle:** 30,000

**MATERIAL**

**Housing:** Zinc alloy, nickel plated

**Center Contacts:** Copper alloy, gold plated

**Switching Springs:** Copper alloy, gold plated

**Grounding Contacts:**

HD Series - Copper alloy, gold plated

SD Series - Copper alloy, nickel plated

**Insulators:** Thermoplastic, UL 94V-0 rated

**ENVIRONMENTAL**

**Operating Temperature:** - 40°C to 65°C

**Storage Temperature:** - 55°C to 85°C

**Thermal Shock:** Per MIL-STD-202, Method 107

**Moisture and Humidity:** Per MIL-STD-202, Method 106

**Ordering Information**

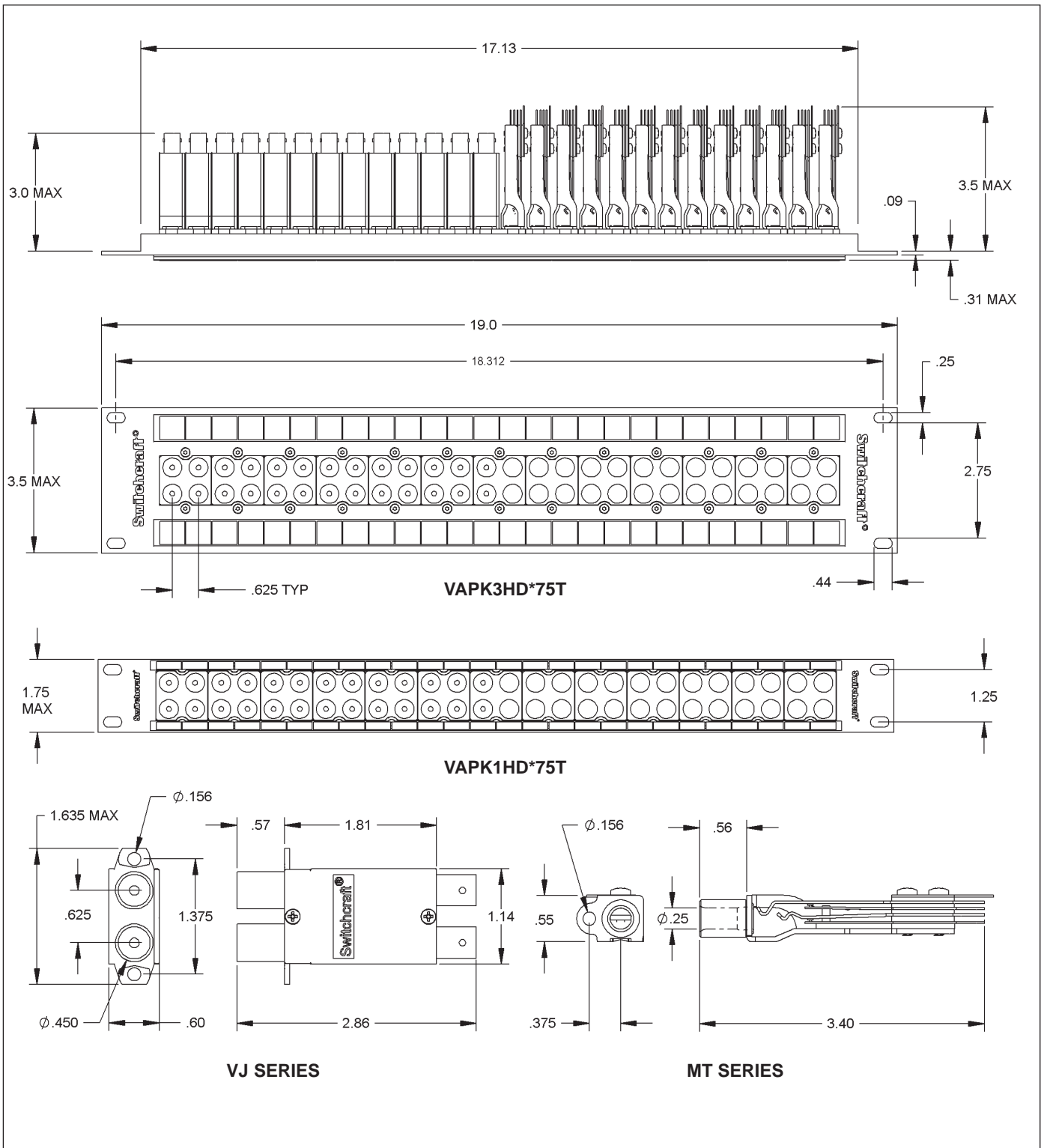
Part Number	Type of Jack	Height	Description
VAPK1HD*75T	HD	1.75"	Terminated
VAPK1HD*NT	HD	1.75"	Non-terminated
VAPK1SD*75T	SD	1.75"	Terminated
VAPK1SD*NT	SD	1.75"	Non-terminated
VAPK3HD*75T	HD	3.5"	Terminated
VAPK3HD*NT	HD	3.5"	Non-terminated
VAPK3SD*75T	SD	3.5"	Terminated
VAPK3SD*NT	SD	3.5"	Non-terminated

**Modules**

VMAFN	MT	4- YMT334BN jacks
VMVHD*75T	HD	2- HD terminated jacks
VMVHD*NT	HD	2- HD non-terminated jacks
VMVSD*75T	SD	2- SD terminated jacks
VMVSD*NT	SD	2-SD non-terminated jacks

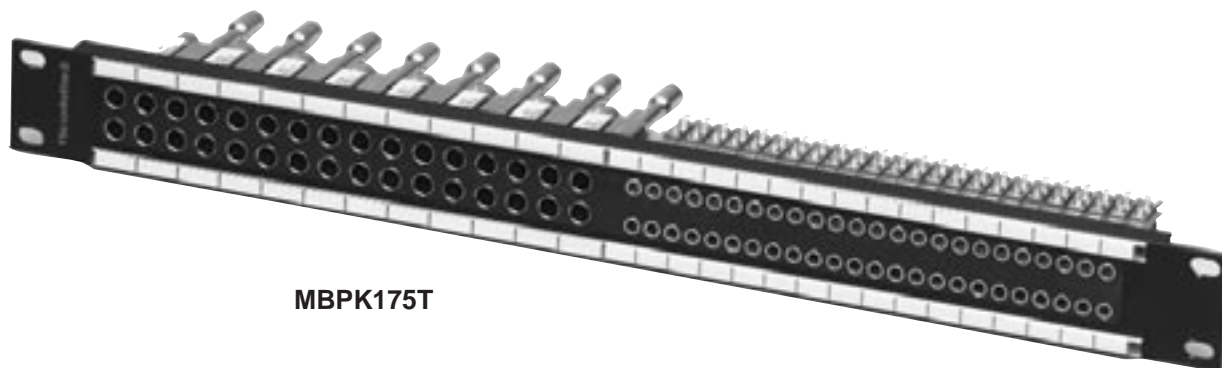
\*Add "N" for non-normalled version

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

**VAP VIDEO/AUDIO PATCHBAY SERIES (continued)**


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

## MBPK VIDEO/AUDIO PATCHBAY SERIES

**MBPK175T**

The MBPK Series combines audio and video in one convenient patchbay. The patchbay consists of 16 midsize video jacks and 48 TT bantam jacks. Options include 75 Ohm terminated or non-terminated video jacks. All TT bantam jacks have T, R, S, TN and RN solder terminals. Audio jacks have nickel-plated steel frames, gold-plated crossbar switching contacts and flared terminals for easier soldering.

**VIDEO JACK SPECIFICATIONS**

See page 196 for details

**AUDIO JACK SPECIFICATIONS**

See page 164 for details

**FEATURES AND BENEFITS**

Combines 16 midsize video jacks and 48 TT bantam audio jacks

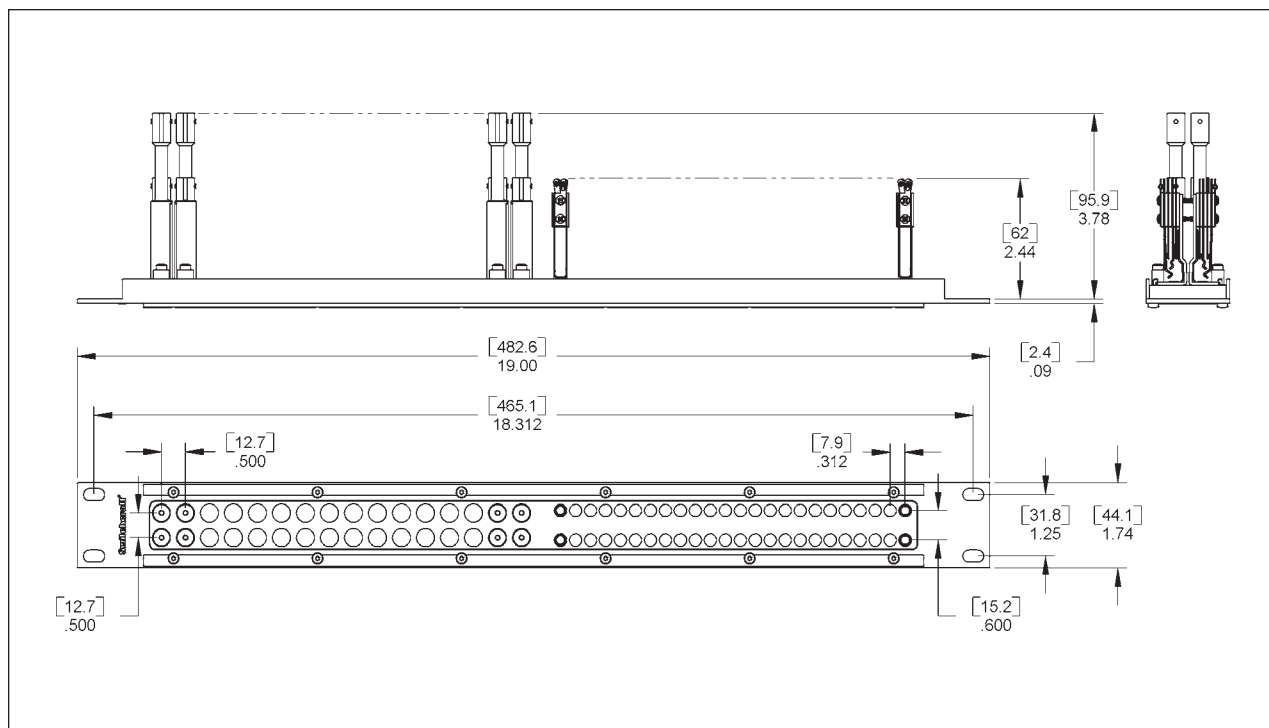
Video jacks are rated from DC to 3.0 GHZ

All audio jacks are nickel-plated with steel frames and gold-plated crossbar switching contacts

For non-terminated version, use part no. MBPK1NT

**MATERIALS****FRAME**

Aluminum, black anodized



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

### LONG FRAME (1/4") TELEPHONE JACK PANELS



#### STANDARD SINGLE ROW JACK PANELS

##### SERIES 1200 AND 1400

##### SERIES 1200

Panels accommodate 24 T-Jax® jacks in standard 1.75 inch x 19 inch racks. Jack openings are on alternate .625 inch and .750 inch spacing; twin plugs cannot be cross-connected between adjacent jack pairs. Includes designation strips (marking strips and transparent plastic covers).

##### SERIES 1300

Same as Series 1200, except MT-Jax® are used in panel assemblies.

##### SERIES 1400

Mounts 26 T-Jax®. Openings are on continuous .625 inch centers. Twin plug can be used on any two adjacent jacks. Single designation strip (marking strip, and plastic cover). WEco equivalent is 230B.

##### SERIES 1400300

Same as Series 1400, except designation strip is Kwik-Change® type which is easier to install and remove and provides larger vertical designation marking area. Strip holder is recessed into top of panel for additional panel strength. 1400301 has single height Kwik-Change® designation strip. 1400315 has a single height Kwik-Change® designation strip along bottom of panel and double height strips above jacks. Top designation strip has .188 inch overhang above 1.75 inch panel height, to help seal small opening between adjacent panels. CAUTION: Because of this overhang, 1400315 cannot be mounted one above another in a rack.

##### SERIES 1500

Same as Series 1400 except MT-Jax® are used in panel assemblies.

#### SPECIFICATIONS

**Jack Panel:** General purpose black phenolic resin

**Frame (except 1400300):** Plated, steel

**End Bracket and Side Strip (1400300 only):** Cold rolled plated steel

**Designation Strip (except 1400300):** Clear plastic.

**"Kwik-Change" Designation Strip (1400300):** Extruded aluminum, black anodized and black thermoplastic UL 94V-0.

**Marking Strip:** White plastic, matte finish.

**Marking Strip Cover:** Clear extruded plastic.

**Screws:** #6-32 x .25 inch phillips RHMS (for mounting jacks).

#### ORDERING

Part number table lists blank panels and popular jack panel assemblies. If you wish to mount components on basic panels, order jacks, lamp jacks, and switches separately. (See appropriate section in this catalog.) For other panel assemblies, provide complete details with your inquiry or order. Switchcraft can build special assemblies to your requirements in small or large quantities. See wire wrapping data. Series 1200 and 1400 are available with holes pre-drilled for vertical designation strips (Series DS320). Add prefix "D" to part numbers for pre-drilled panels: D1200, D1400301, etc.



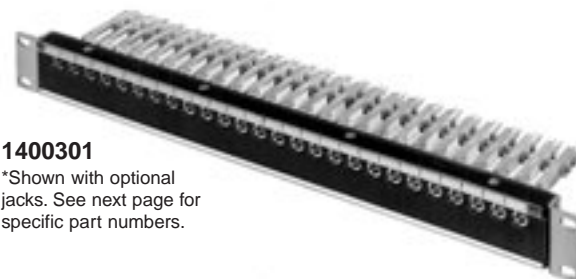
**Series 1200**

\*Shown with optional jacks. See next page for specific part numbers.



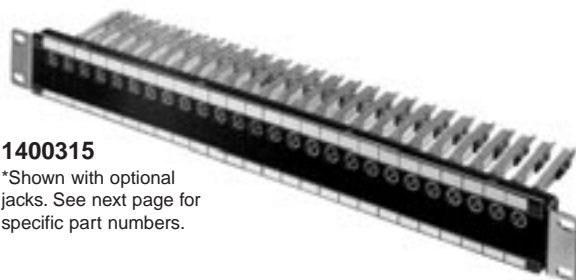
**Series 1400**

\*Shown with optional jacks. See next page for specific part numbers.



**1400301**

\*Shown with optional jacks. See next page for specific part numbers.



**1400315**

\*Shown with optional jacks. See next page for specific part numbers.

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

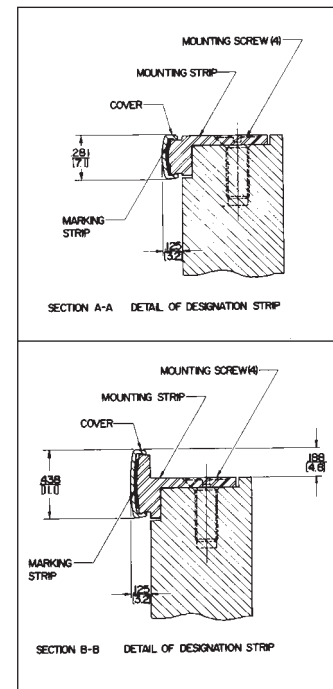
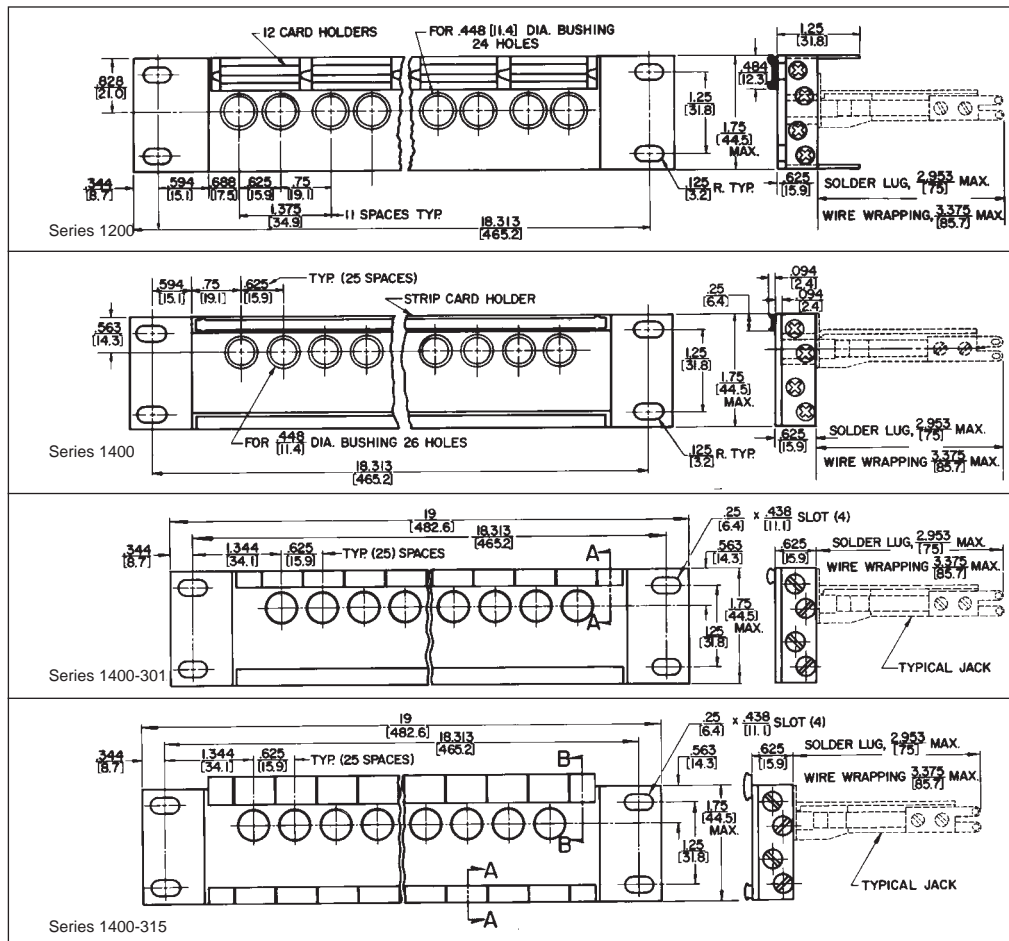
LONG FRAME (1/4") TELEPHONE JACK PANELS (continued)



Part Numbers			Part Numbers	Description	
Panel Only	Assembly with Jacks With Solder Lugs		Assembly with Jacks With Wire-Wrapping Terminals	Number of Jacks	Type of Jacks Installed
	Straight	Offset			
1200	-	-	-	None	
-	1332A	◇X1332A	◇W1332A	24	MT332A , XMT332A or WMT332A MT-Jax®
-	◇1332B	◇X1332B	-	24	MT332B or XMT332B MT-Jax®
-	◇1334B	◇X1334B	◇W1334B	24	MT334B,XMT334B or WMT334B MT-Jax®
1400	-	-	-	None	
1400301	-	-	-	None	
◇1400315	-	-	-	None	
-	1532A	X1532A	-	26	MT332A or XMT332A MT-Jax®
-	◇1532A301	-	◇W1532A301	26	MT332A or WMT332A MT-Jax®
-	◇1532B	-	-	26	MT332B MT-Jax®
-	◇1532B301	◇X1532B301	◇W1532B301	26	MT332B, XMT332B or WMT332B MT-Jax®
-	◇1534B	◇X1534B	◇W1534B	26	MT334B, XMT334B or WMT334B MT-Jax®
-	-	-	◇W1534B301	26	WMT334B MT-Jax®
-	-	◇X1542B315	-	26	XMT342B MT-Jax®

◇ Special order only; contact factory for price and delivery.  
1. Prefix "X" denotes offset lugs for buss wiring.

Jack Mounting Screws: #6-32, P10725, can be ordered separately.  
Contact Switchcraft.  
Legend Cards (Series 1200, 1300) - A1029  
Legend Windows (Series 1200, 1300) - A1030



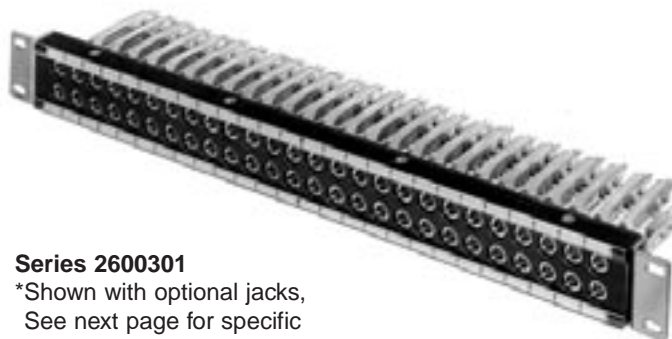
DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

### LONG FRAME (1/4") TWIN ROW JACK PANELS



#### Series 2400

\*Shown with optional jacks,  
See next page for specific  
part numbers.



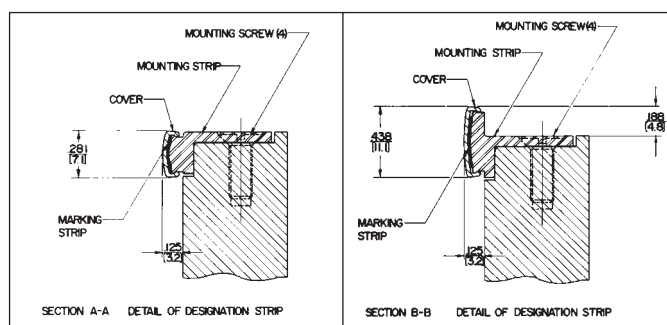
#### Series 2600301

\*Shown with optional jacks,  
See next page for specific  
part numbers.



#### Series 2600

\*Shown with optional jacks,  
See next page for specific  
part numbers.



### STANDARD TWIN ROW JACK PANELS

#### SERIES 2400, 2600, 2600300, 2700300 – PHENOLIC

Twin row jack panels offer greater jack density - up to 52 jacks per panel. All panels fit standard 19" wide racks. Blank panels or standard assemblies can be ordered from Switchcraft. Series 2600 panels are direct equivalent to WEco #230A.

#### SERIES 2400

Twin row panel accommodates 48 T-Jax®. Openings are on alternate .625" and .75" centers. Panel is 2.125" high and fits standard 19" racks. Twin plug cannot be cross-connected between jacks in adjacent quads, but may be connected either horizontally or vertically in the same quad. Single designation strip.

#### SERIES 2500

Same as Series 2400 except MT-Jax® are used.

#### SERIES 2600

Twin row panel accommodates 52 T-Jax® in standard 1.75" x 19" racks. Jack openings are on continuous centers. Twin plug can be connected to any two adjacent jacks, either horizontally or vertically. Two designation strips. WEco equivalent is #230A.

#### SERIES 2600300

Same as Series 2600, except designation strips are Kwik-Change® type, providing larger vertical marking area. Top strip holder is recessed into top of panel to provide additional

strength. 2600301 has single height designation strips (one above and below each row of jacks).

#### 2600310

Has a double height strip above top row and a steel reinforcing strip below bottom row. Top strip has .188" overhang above 1.75" panel height, helping seal the small opening between adjacent panels. Note: overhang prevents mounting panel one above another in a rack.

#### SERIES 2700

Same as Series 2600 except MT-Jax® are used in panel assemblies. The series is available with cable tie bar.

#### ORDERING

1. Order basic panels and popular assemblies by part number from table.
2. For special panels provide complete details with your inquiry or order.
3. Series 2600 is available with hole pre-drilled for vertical designation strips, Series DS320. Add prefix "D" to part number (D2600301, etc.).
4. Jack Mounting Screws: #6-32, P10725, can be ordered separately. Contact Switchcraft.

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

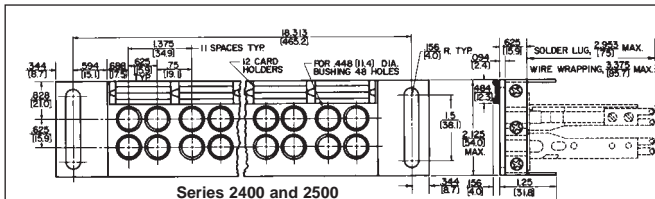
## LONG FRAME (1/4") TWIN ROW JACK PANELS (continued)



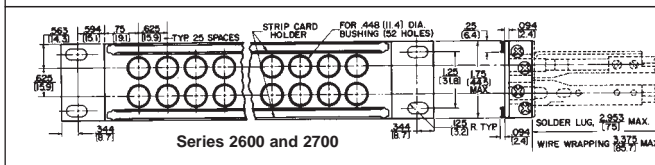
Panel Only	Part Numbers		Part Numbers	Number of Jacks	Description
	Assembly with Jacks Having Solder Lugs	Offset <sup>1</sup>	Assembly with Jacks Having Wire-Wrapping Terminals		
	Straight				Type of Jack Installed
2400	-	-	-	None	
-	◇2432A	◇X2432A	-	48	T332A
-	◇2432B	◇X2432B	-	48	T332B
-	◇2434B	◇X2434B	-	48	T334B or XMT334B T-Jax®
-	2532A	◇X2532A	◇W2532A	48	MT332A, XMT332A or WMT332A MT-Jax®
-	◇2532B	◇X2532B	-	48	MT332B or XMT332B MT-Jax®
-	◇2533	-	-	48	MT333 MT-Jax®
-	◇2533B	-	◇W2533B	48	MT333B or WMT333B MT-Jax®
-	◇2534B	X2534B	-	48	MT334B or XMT334B MT-Jax®
-	◇2542B	-	-	48	MT342B MT-Jax®
-	◇2544B	-	-	48	MT344B, MT-Jax®
-	◇2588	-	-	24	MT388, Twin MT-Jax®
-	◇2589	-	-	24	MT389 Twin MT-Jax®
2600	-	-	-	None	
2600301	-	-	-	None	(WEco equivalent #230A)
2600310	-	-	-	None	
-	◇2732A	◇X2732A	-	52	MT332A or XMT332A MT-Jax®
-	◇2732A301	◇X2732A301	◇W2732A301	52	MT332A, XMT332A or WMT332A MT-Jax®
-	◇2732B	◇X2732B	◇W2732B	52	MT332B, XMT332B or WMT332B MT-Jax®
-	◇2732B301	◇X2732B301	◇W2732B301	52	MT332B, XMT332B or WMT332B MT-Jax®
-	◇2733B	-	-	52	MT333B, MT-Jax®
-	◇2734B	◇X2734B	-	52	MT334B or XMT334B MT-Jax®
-	◇2734B301	◇X2734B301	◇W2734B301	52	MT334B, XMT334B or WMT334B MT-Jax®
-	◇2789	-	◇W2789	26	MT389 or WMT389 Twin MT-Jax®
-	-	◇X2832A	-	48	XT332A
-	-	◇X2932A	-	48	XMT332A

1. Prefix "X" denotes offset lugs for buss wiring.

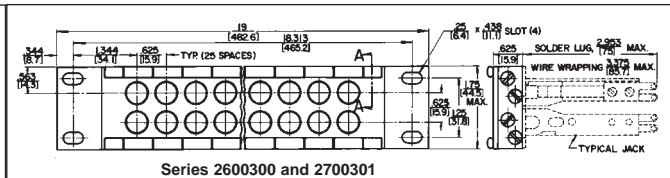
◇ Special order only; contact factory for price and delivery.



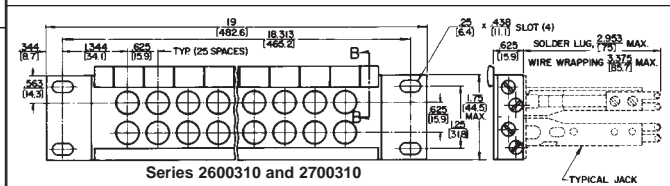
Series 2400 and 2500



Series 2600 and 2700



Series 2600300 and 2700301



Series 2600310 and 2700310

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

### LONG FRAME (1/4") MODULAR TWIN ROW JACK PANELS



#### SERIES JP122S34B

\*Shown with optional jacks, See next page for specific part numbers.



#### SERIES JP072S32A

\*Shown with optional jacks, See next page for specific part numbers.



#### SERIES JP032S32B

\*Shown with optional jacks, See next page for specific part numbers.

### SERIES JP012000 THROUGH JP122000

Series JP® Modular Jack Panels feature a modular packaging concept. Jacks are mounted on inserts then complete modular insert assemblies are mounted to the panel from the rear. Mounting and wiring are quick and easy. Individual jacks or complete inserts can be removed from the panel with minimum disturbance to wiring and adjacent jacks. JP panels offer three mounting styles (standard rack mount, flush mount, and extension mount), staggered or continuous-center panel openings, two panel lengths (19" and 23"), WEco equivalents, Kwik-Change® designation strips, precision manufactured modular parts, rugged black anodized aluminum frames and quick and easy module or jack removal/installation.

Each module insert has four holes which mount four MT-Jax® or two Twin-Jax®. Each modular jack panel is supplied with two Kwik-Change® designation strips. Mounting strips are integral with panel, and marking strips and clear covers snap into place quickly and easily.

#### SERIES JP012000

Standard 1.75" x 19" size for console, rack or control panel mounting. Mounts 48 MT-Jax®. Openings are on alternate .625" and .75" centers in each row. A twin plug fits jacks horizontally or vertically in the same quad, but cross-connecting between quads is not possible. Includes 12 black module inserts, insert mounting screws and two Kwik-Change® designation strips.

#### SERIES JP022000

Same as JP012000, except 23" wide (includes 14 inserts which accommodate 56 MT-Jax®).

#### SERIES JP032000

Same as JP012000, except with 5.375" extension brackets which permit access to rear of jacks from front of panel. Brackets are supplied mounted to panel.

#### SERIES JP042000

Same as JP032000, except 23" wide (includes 14 inserts which accommodate 56 MT-Jax®).

#### SERIES JP052000

Same as JP012000, except designed for flush mounting or standoff mounting. Switchcraft Bracket Kit K107; Contact Switchcraft.

#### SERIES JP062000

Same as JP052000, except 23" wide (includes 14 inserts which accommodate 56 MT-Jax®).

#### SERIES JP072000

Same as JP012000, except mounts 52 MT-Jax® and includes 13 black module inserts. Modular equivalent of WEco #230A.

#### SERIES JP082000

Same as JP072000, except 23" wide (includes 16 inserts which accommodate 64 MT-Jax®). Modular equivalent to WEco #231A.

#### SERIES JP092000

Same as JP072000, except with 5.375" extension brackets which permit access to rear of jacks from front of panel. Brackets are supplied mounted to panel.

#### SERIES JP102000

Same as JP092000, except 23" wide (includes 16 inserts which accommodate 64 MT-Jax®).

#### SERIES JP112000

Same as JP072000, except designed for flush mounting or standoff mounting. Switchcraft Bracket Kit K107; Contact Switchcraft.

#### SERIES JP122000

Same as JP112000, except 23" wide (includes 16 inserts which accommodate 64 MT-Jax®).

### SPECIFICATIONS

#### Panel and Integral Designation Mounting Strips:

Aluminum alloy, extruded. Black anodized per MIL-A-8625

**Module Insert:** Molded plastic, matte finish. Black standard; white, red, green, blue or yellow available on special order

**Marking Strip:** White matte finish plastic

**Designation Strip Cover:** Extruded clear plastic

**Screws:** #6-32 x 5/15", PHMS, for jack mounting;

#4-40 x 1/2" phillips PHMS, for module insert mounting

**Brackets:** 5.375", aluminum alloy black anodized finish (JP032000, JP042000, JP092000, JP102000)

**Screws, Mounting Bracket:** #6-32, self-tapping supplied.

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

## LONG FRAME (1/4") MODULAR TWIN ROW JACK PANELS (continued)



## ORDERING

Order popular assemblies by part number from table. If you wish to mount components on the panels, order blank panels and refer to MODULE INSERTS below. On special order, various combinations of colored inserts mounted in basic panels, as well as many different types of complete assemblies are possible. Provide complete details with your

inquiry or order. Standard mount panels are available with holes pre-drilled for vertical designation strips, Series DS320. Add prefix "D" to part number (JPD012000, JPD022000, JPD072000, JPD082000, etc.).

Part Numbers*		# of Jacks	MT-Jax® Installed
Panel Only	Assembly with Jacks Having Solder Lugs		
JP012000	-	None	
-	◇JP012S32A	48	MT332A
-	◇JP012S32B <sup>1</sup>	48	MT332B
-	JP012S34B <sup>1</sup>	48	MT334B
◇JP022000	-	None	
-	◇JP022S32A	56	MT332A
-	◇JP022S32B	56	MT332B
-	◇JP022S34B	56	MT334B
◇JP032000	-	None	
-	◇JP032S32A	48	MT332A
-	◇JP032S32B	48	MT332B
-	◇JP032S34B	48	MT334B
◇JP042000	-	None	
-	◇JP042S32A	56	MT332A
-	◇JP042S32B	56	MT332B
-	◇JP042S34B	56	MT334B
JP052000	-	None	
-	◇JP052S32A	48	MT332A
-	◇JP052S32B	48	MT332B
-	◇JP052S34B	48	MT334B
◇JP062000	-	None	
-	◇JP062S32A	56	MT332A
-	◇JP062S32B	56	MT332B
-	◇JP062S34B	56	MT334B

1. Add a "1" to the part number to specify a cable tie bar.

**Mounting Screws:** #6-32, P10725 for jack mounting and #4-40, P2435 for insert mounting, can be ordered separately.

◇ Special order only; contact Switchcraft.

## MODULE INSERTS

JP9942



JP9922



JP9902



Standard color is black, matte finish plastic. Contact Switchcraft. Inserts are ideal for mounting directly in control panels and chassis where convenient jack connections are required. Applications include test outlets, remote equipment connections and headsets such as those used in telephone and telecommunications equipment.

Part Numbers*		# of Jacks	MT-Jax® Installed
Panel Only	Assembly with Jacks Having Solder Lugs		
JP072000	-	None <sup>1</sup>	
-	◇JP072S32A	52	MT332A
-	◇JP072S32B	52	MT332B
-	JP072S34B	52	MT334B
◇JP082000	-	None <sup>2</sup>	
-	◇JP082S32A	64	MT332A
-	◇JP082S32B	64	MT332B
-	◇JP082S34B	64	MT334B
◇JP092000	-	None	
-	◇JP092S32A	52	MT332A
-	◇JP092S32B	52	MT332B
-	◇JP092S34B	52	MT334B
◇JP102000	-	None	
-	◇JP102S32A	64	MT332A
-	◇JP102S32B	64	MT332B
-	◇JP102S34B	64	MT334B
◇JP112000	-	None	
-	◇JP112S32A	52	MT332A
-	◇JP112S32B	52	MT332B
-	◇JP112S34B	52	MT334B
◇JP122000	-	None	
-	◇JP122S32A	64	MT332A
-	◇JP122S32B	64	MT332B
-	◇JP122S34B	64	MT334B

\* Panels with jacks having wire-wrapping terminals are approximately 10% higher in price. Contact Switchcraft.

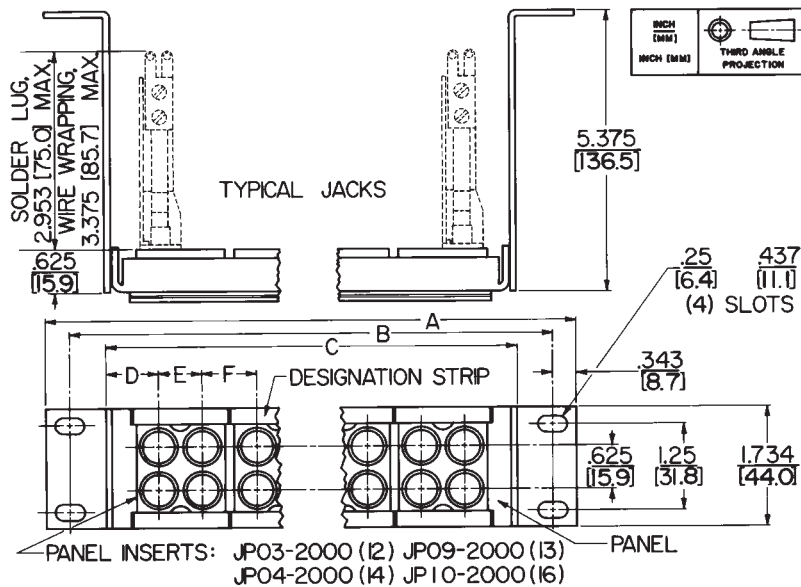
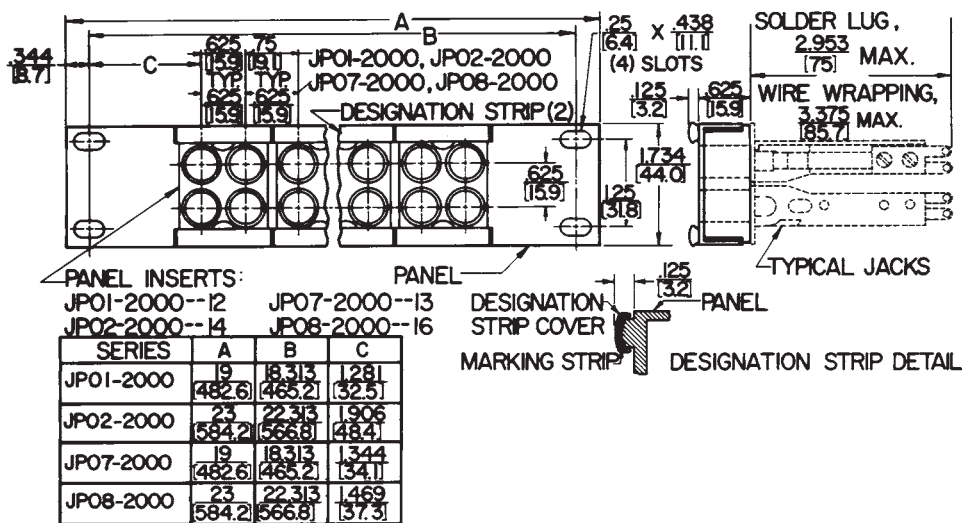
1. Non-modularized equivalent is WEco #230A.

2. Non-modularized equivalent is WEco #231A.

Part Number	Description
JP9942	Black module insert with four jack openings (less jacks). Includes two, #4-40 machine screws for mounting.
JP9922	Black module insert with two jack openings (less jacks). Includes two, #4-40 machine screws for mounting.
JP9902	Black module insert without holes. Includes two, #4-40 machine screws for mounting. Used where no jacks are needed.

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

## LONG FRAME (1/4") MODULAR TWIN ROW JACK PANELS (continued)



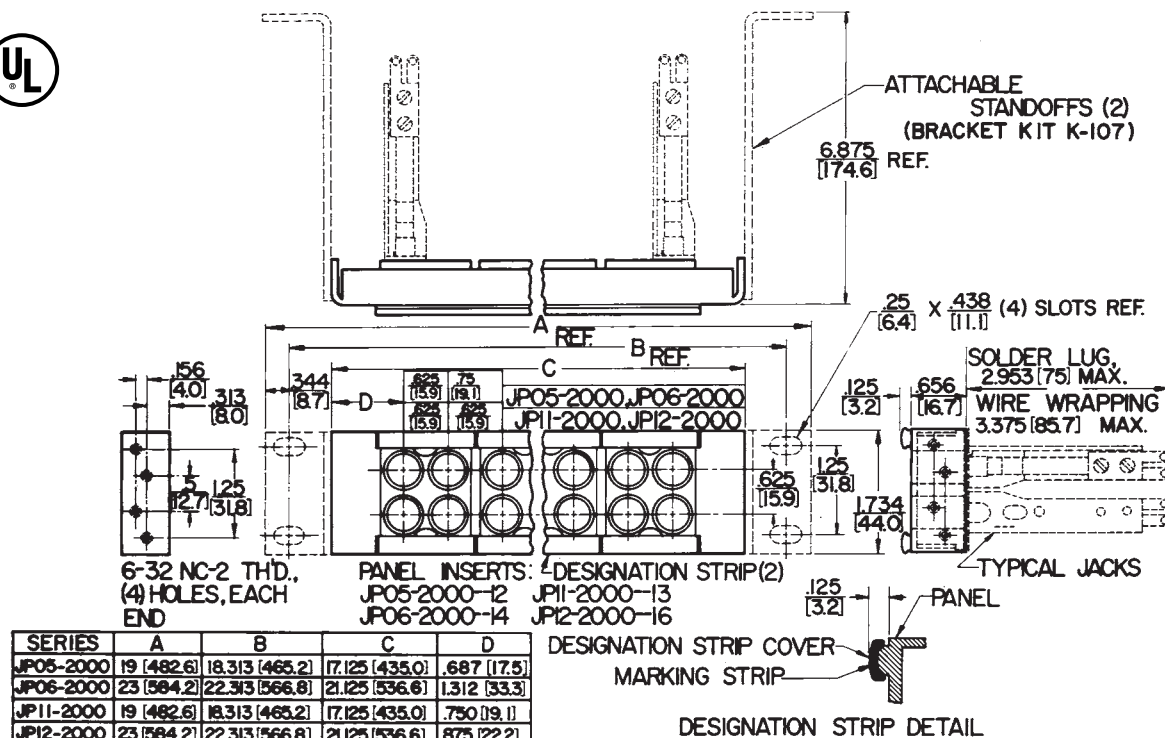
SERIES	A	B	C	D	E	F
JP03-2000	19.0 [482.6]	18.312 [465.1]	17.305 [439.6]	.778 [19.8]	.625 [15.9]	.75 [19.1]
JP04-2000	23.0 [584.2]	22.312 [566.7]	21.305 [541.2]	1.403 [35.6]	.625 [15.9]	.75 [19.1]
JP09-2000	19.0 [482.6]	18.312 [465.1]	17.305 [439.6]	.84 [21.3]	.625 [15.9]	.625 [15.9]
JP10-2000	23.0 [584.2]	22.312 [566.7]	21.305 [541.2]	.965 [24.5]	.625 [15.9]	.625 [15.9]

Series JP03-2000, JP04-2000, JP09-2000, JP10-2000

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

## LONG FRAME (1/4") MODULAR TWIN ROW JACK PANELS (continued)



Series JP052000, JP062000, JP112000, JP122000

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

## LONG FRAME (1/4") MODULAR 3 ROW JACK PANELS

Four series of cross-connect jack panels are available in 19" and 23" widths. Individual modules are easily dismantled from the front. On special order, panels can be supplied with a variety of standard telephone jacks.

### SERIES JP312000 AND JPD312000

2.655" x 19" size for console, rack or control panel mounting. Mounts 24 twin jacks and 24 single jacks. Openings are on .625" centers in each row. A twin plug fits jacks horizontally or vertically in same quad. Bottom row has 24 single jacks. Two Kwik®-Change designation strips are supplied. Series JPD31 has pre-drilled and countersunk holes for mounting vertical designation strips. See "ORDERING".

### SERIES JP322000 AND JPD322000

Same as JP312000 and JPD312000, except 23" wide (includes 14 inserts which accommodate 28 twin jacks and 28 single jacks).

### MODULE INSERTS

Available with 6 holes or blank faces. See "ORDERING" for colored modules.

### ORDERING

Order basic assemblies by part number from table. On special order, various combinations of colored inserts mounted in basic panels, as well as many types of complete assemblies are possible. Provide complete details with your inquiry or order.

Standard mount panels are available with holes pre-drilled for vertical designation strips, Series DS320. Add prefix "D" to part number (JPD312000, JPD322000, etc.). Refer to "DESIGNATION STRIPS".

**Mounting Screws:** #6-32 P10725 for jack mounting and #4-40 P2435 for insert mounting can also be ordered separately. Contact Switchcraft.



### SPECIFICATIONS

**Panel and Designation Strips:** Aluminum alloy, extruded. Black anodized per MIL-A-8625.

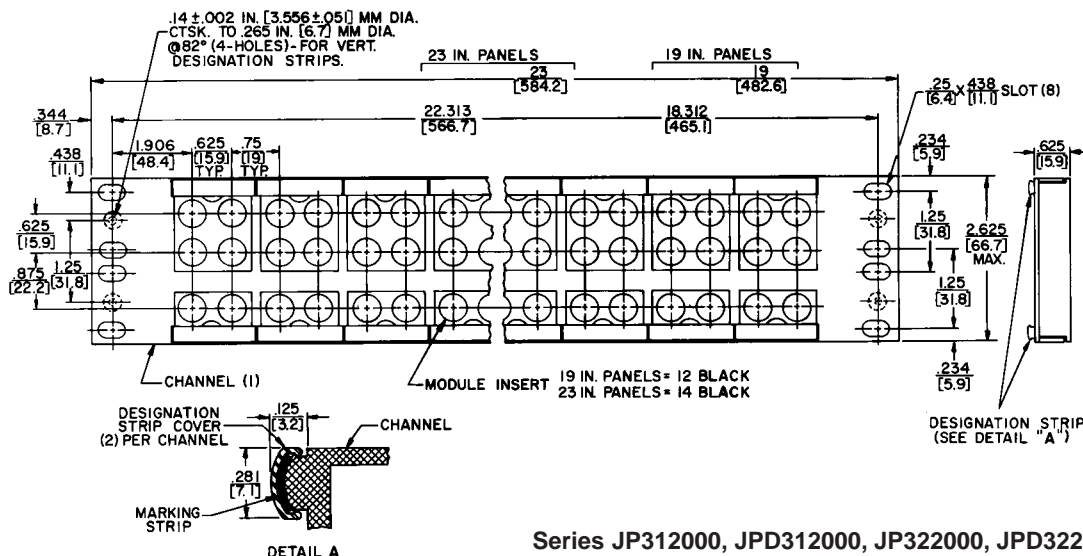
**Module Insert:** Molded plastic, matte finish. Black standard; white, red, green, blue or yellow available on special order.

**Marking Strip:** White matte finish plastic.

**Designation Strip Cover:** Extruded clear plastic.

**Screws:** #6-32 x 5/16" PHMS, for jack mounting; #4-40 x 1/2" phillips FHMS, for module insert mounting.

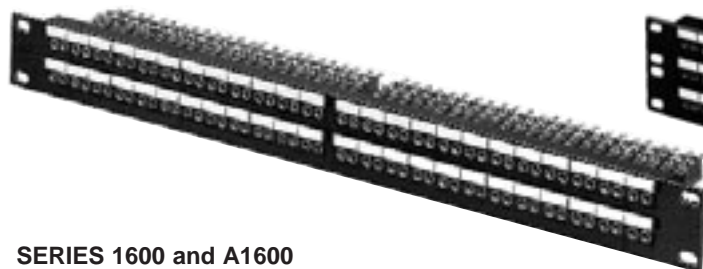
Part Number	Description
JP312000	19" wide x 2.625" high panel with 12 black modules installed. Two, full width Kwik® -Change designation strips are included.
JPD312000	Same as JP312000, except holes pre-drilled for mounting vertical designation strips at each side.
JP322000	23" wide x 2.625" high panel with 14 black modules installed. Two, full width Kwik® -Change designation strips are included.
JPD322000	Same as JP322000, except holes pre-drilled for mounting vertical designation strips at each side.



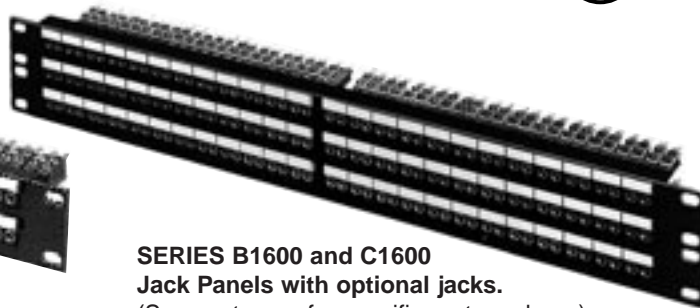
Series JP312000, JPD312000, JP322000, JPD322000

DIMENSIONS ARE FOR REFERENCE ONLY  
Inch  
(mm)

## TT-JAX® (.173") JACK PANELS SERIES 1600, A1600, B1600, C1600



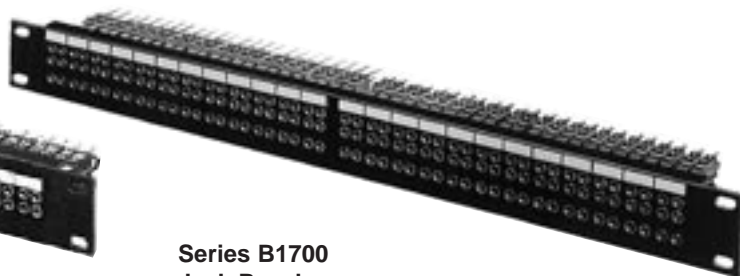
**SERIES 1600 and A1600**  
Jack Panels with optional jacks.  
(See next page for specific part numbers.)



**SERIES B1600 and C1600**  
Jack Panels with optional jacks.  
(See next page for specific part numbers.)



**SERIES 1700**  
Jack Panel  
with optional jacks.  
(See next page for specific part numbers.)



**Series B1700**  
Jack Panel  
with optional jacks.  
(See next page for specific part numbers.)

**SERIES 1600 DOUBLE ROW JACK PANELS**

Black anodized panel has four inserts (24 single jacks). Double row configuration accommodates 96 total jacks (48 pairs). Jack spacing eliminates cross-patching of adjacent circuits when twin plugs are used. Panel size: 1.75" x 19". Four, Kwik-Change® designation strips for circuit identification supplied.

**SERIES A1600 DOUBLE ROW JACK PANELS**

Similar to Series 1600, except mounts 104 jacks. Jacks are spaced on .312" centers for maximum jack density. Four, Kwik-Change® designation strips supplied.

**SERIES B1600 THREE ROW JACK PANELS**

2.625" x 19" panel size yields high density (144 jacks). Jacks are paired for single or twin plugs without cross-patching. Six, Kwik-Change® designation strips supplied.

**SERIES C1600 THREE ROW JACK PANELS**

Similar to B1600, except maximum jack density (156 jacks). Six, Kwik-Change® designation strips supplied.

**SERIES 1700 TWIN ROW JACK PANELS**

Standard 1.75" x 19" panel accepts 48 TT-Twin-Jax® jacks. Two, Kwik-Change® designation strips supplied.

**SERIES B1700 THREE ROW JACK PANELS**

Accepts 48 Tri-Jax® with alternate mounting centers to eliminate cross-patching between adjacent circuits. Panel size: 1.75" x 19". Two, Kwik-Change® designation strips supplied.

**SPECIFICATIONS****SERIES 1600, A1600, B1600, 1700, B1700**

**Panel and Designation Strip:** Aluminum alloy, extruded. Per QQ-A-200/8. Black anodized per MIL-A-8625C.

Black thermoplastic UL 94V-0.

**Panel Insert:** Thermoplastic polyester, UL 94V-0.

**Marking Strip:** White matte finish plastic.

**Designation Strip Cover:** Extruded clear plastic.

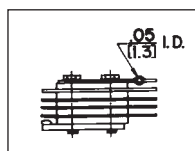
**ORDERING**

1. Part number tables list jack panels with the most commonly used jack circuits. Custom jack panels can be built on special order to OEM requirements. Typical special order features are:
  - Lamp jack with incandescent or LED lamps.
  - Solder lug or wire-wrapping terminals.
  - Pre-printed designation strips.
  - TT-Switch® switches with wide switching selection.
2. Contact Switchcraft for all special order items.

**SPECIFYING NOTE:**

Prefix letter "D" on part number indicates panels are drilled for mounting vertical designation strips on both ends. EXAMPLE - D1600, AD1632B, WCD1634B (vertical designation strips not included). Order DS321 for 1.734" high panels; DS350 for 2.069" high panels. See "Designation Strips" section.

The most commonly-used combinations of panels and jacks are listed on following page. 1600, A1600, B1600, C1600 panels can be assembled with many different "bantam type" jacks.



**Bussing type terminals which allow you to buss jacks quickly and easily are available on special order.**

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

**TT-JAX® (.173") JACK PANELS – SERIES 1600, A1600, B1600, C1600**  
 (continued)

Jack Data <sup>1</sup>	Panel Data
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**SERIES 1600 AND A1600**

Part Number	Part Number	Quantity	Dimensions	Mount
1600	w/o Jacks <sup>1</sup>	96	19" x 1.734"	Standard
D1600	w/o Jacks <sup>1</sup>			
1632A	TT32A			
D1632A	TT32A			
1632B	TT32B			
D1632B	TT32B			
W1632B	WTT32B			
WD1632B	WTT32B			
1634B	TT34B			
D1634B	TT34B			
W1634B	WTT34B	104		
WD1634B	WTT34B			
A1600	w/o Jacks <sup>1</sup>			
AD1600	w/o Jacks <sup>1</sup>			
A1632B	TT32B			
AD1632B	TT32B			
A1634B	TT34B			
AD1634B	TT34B			
WA1634B	WTT34B			
WAD1634B	WTT34B			

**SERIES B1600**

Part Number	Part Number	Quantity	Dimensions	Mount
B1600	w/o Jacks <sup>1</sup>	144	19" x 2.609"	Standard
BD1600	w/o Jacks <sup>1</sup>			
B1632B	TT32B			
BD1632B	TT32B			
B1634B	TT34B			
BD1634B	TT34B			
WBD1634B	WTT34B			
B1650	Note 2			
BD1650	Note 2			
WB1650	Note 3			
WBD1650	Note 3			

1. Accepts indicated number of single TT-Jax®, TT-Switches®, TT-Lamp-Jax® or any combination.
  2. Three-row panel assembly with 96 TT34B Jax (top 2 rows); and 48 TT32B Jax (bottom row).
  3. Same as Note 2 above, except jacks have wire-wrapping terminals.
  4. Accepts 48 TT Twin-Jax®.
  5. Accepts 48 TT Tri-Jax®.
- ◇ Special order only; contact Switchcraft.

Jack Data	Panel Data
-----------	------------

**SERIES C1600**

Part Number	Part Number	Quantity	Dimensions	Mount
C1600	w/o Jacks <sup>1</sup>	156	19" x 2.609"	Standard
CD1600	w/o Jacks <sup>1</sup>			
C1634B	TT34B			
CD1634B	TT34B			
WC1634B	WTT34B			
WCD1634B	WTT34B			

**SERIES 1700**

Part Number	Part Number	Quantity	Dimensions	Mount
1700	w/o Jacks <sup>4</sup>	48 Twin-Jax®	19" x 1.734"	Standard
D1700	w/o Jacks <sup>4</sup>			
1789	TT89			
D1789	TT89			
W1789	WTT89			
WD1789	WTT89			

**SERIES B1700**

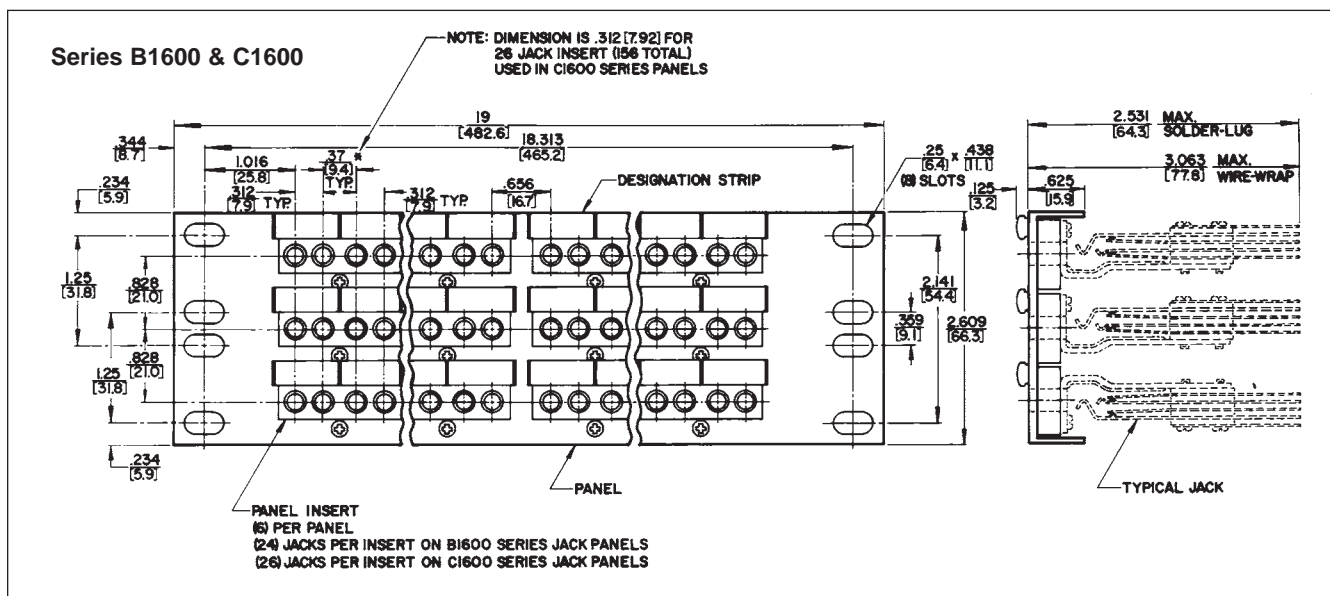
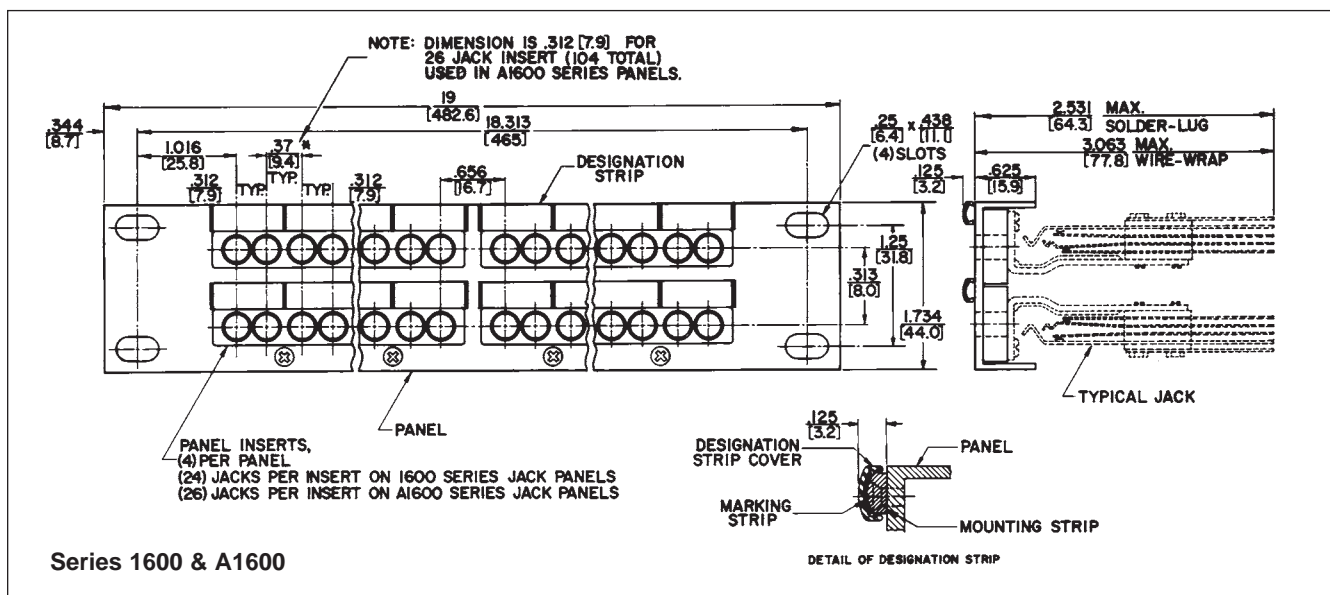
Part Number	Part Number	Quantity	Dimensions	Mount
B1700	w/o Jacks <sup>5</sup>	48 Tri-Jax®	19" x 1.734"	Standard
BD1700	w/o Jacks <sup>5</sup>			
B1795	TT95			
BD1795	TT95			
WB1795	WTT95			
WBD1795	WTT95			
B1796	TT96			
BD1796	TT96			
WB1796	WTT96			
WBD1796	WTT96			

**PANEL INSERTS**

Part Number	Insert Description	For Panels
TT505	Without jacks, 24 holes	A1600, B1600
◇TT506	Blank	1600, B1600, C1600
◇TT507	Without jacks, 48 holes	1700
◇TT508	Blank	1700
◇TT509	Without jacks, 26 holes	A1600, C1600
◇TT511	Without jacks, 72 holes	B1700

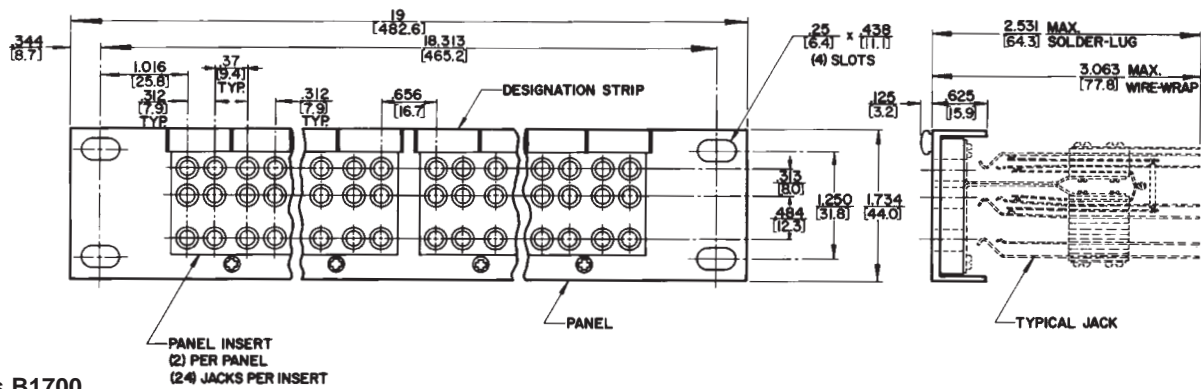
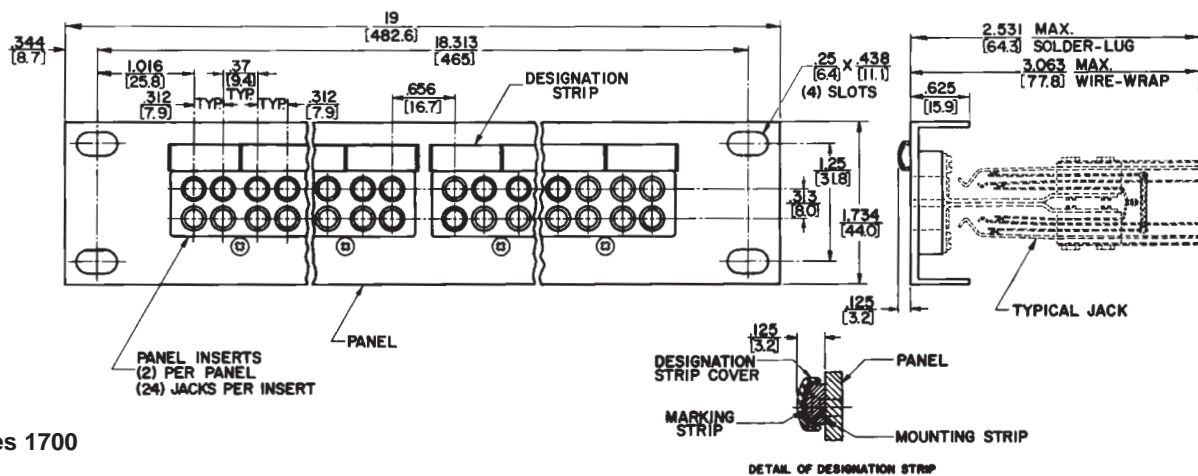
 DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

TT-JAX<sup>®</sup> (.173") JACK PANELS –SERIES 1600, A1600, B1600, C1600 (continued)



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

### TT-JAX® (.173") JACK PANELS – SERIES 1600, A1600, B1600, C1600 (continued)



DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

## MODULAR TT-JAX® (.173") PANELS - BLANK SERIES TT51, TT53, TT56, TT59



SERIES TT56



SERIES TT51



SERIES TT59



SERIES TT53

Ten series of blank panels are available in 19" and 23" widths, standard or flush mounting, and double, twin or three row configurations. OEM's can order blank components and individual modules, jacks, switches and lamp jacks for production line assembly according to standard or special front panel configurations. Kwik-Change® designation strips are supplied with panels for custom legend marking. Flush mounting styles can use extension legs (on special order), for stand-off mounting from front of rack. Contact Switchcraft for Mounting Bracket Kit K107.

**SPECIFICATIONS**

**Panel and Designation Mounting Strip:** Aluminum alloy, extruded per QQ-A-200/8. Black anodized per MIL-A-8265C.

**Marking Strip:** Matte finish white plastic.

**Designation Strip Cover:** Extruded clear plastic.

**SPECIFYING NOTE:** Part numbers in table are for blank panels only.

**ORDERING**

1. Order by part number from table
2. Refer to jack section to specify other jacks and components.

Series Number <sup>1</sup>	Description <sup>2</sup>
TT51	19" double row standard mount panel. Mounts 96 single jacks on 24 modules.
TT53	19" three row standard mount panel. Mounts 48 Tri-Jax® jacks on 24 modules.
TT54	23" three row standard mount panel. Mounts 56 Tri-Jax® jacks on 28 modules.
TT55	19" double row flush mount panel. Mounts 96 single jacks on 24 modules.
TT56	23" double row flush mount panel. Mounts 112 single jacks on 28 modules.
TT58	23" three row flush mount panel. Mounts 56 Tri-Jax® jacks on 28 modules.
TT59	19" twin row standard mount panel. Mounts 48 TT Twin-Jax® jacks on 24 modules.
TT60	23" twin row standard mount panel. Mounts 56 TT Twin-Jax® jacks on 28 modules.
TT61	19" twin row flush mount panel. Mounts 48 TT Twin-Jax® jacks on 24 modules.
TT62	23" twin row flush mount panel. Mounts 56 TT Twin-Jax® jacks on 28 modules.

◇ Special order only. Contact Switchcraft.

1. Prefix TTD for standard mounting panels indicates predrilled holes for mounting "X Wide" vertical designation strips. See "Designation Strips" section.
2. Each panel includes integral designation mounting strip, marking strips and clear plastic covers.
3. Contact Switchcraft for any special order items.

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

## TT MODULE INSERTS – SERIES TT91, TT92 AND TT93

## SERIES TT91

## SERIES TT92

## SERIES TT93



TT91402 (black, 4 hole)   TT91202 (black, 2 hole)   TT91002 (black, blank)   TT92402 (black, 4 hole)   TT92202 (black, 2 hole)   TT92002 (black, blank)   TT93602 (black, 6 hole)   TT93302 (black, 3 hole)   TT93002 (black, blank)

Module colors are black or gray (standard); red, green, blue, white and yellow available on special order. Each module has a matte finish front surface and includes two mounting screws (Switchcraft P2348).

**SERIES TT91**

Choice of blank, two- or four-hole modules for double row panels Series TT51, TT55 and TT56. The following components are used with Series TT91 modules:

1. Front mount TT-Jax® jacks.
2. Front mount TT-Switch® switches Series TT300FM and WTT420FM.
3. Front mount TT Lamp Jax® lamp jacks TT420FM and WTT420FM.

**SERIES TT92**

Blank, two- or four-hole modules for twin row panels Series TT59, TT60, TT61 and TT62. TT Twin-Jax® jacks are used with these modules.

**SERIES TT93**

Blank, three- or six-hole modules for three row panels Series TT53, TT54, TT57 and TT58. Tri-Jax® jacks are used with these modules.

**SPECIFICATIONS**

**Module:** Precision molded thermosetting plastic in colors.

**Mounting Screws:** Black zinc, #3-48 x .312" flat head machine screws.

**ORDERING**

1. Order by part number from tables.
2. Contact Switchcraft for any special order items.

**SPECIFYING NOTE:** The part numbers listed on this page are for modules only. Refer to following page for specifying panel assemblies with components installed.

**SERIES TT91 (For Double Row Panels)**

Color	Openings		
	4	2	Blank
Red	TT91401	◇TT91201	TT91001
Black	◇TT91402	◇TT91202	◇TT91002
Green	TT91403	◇TT91203	TT91003
Blue	TT91404	◇TT91204	TT91004
White	TT91405	◇TT91205	TT91005
Yellow	TT91408	◇TT91208	TT91008
Gray	TT91411	TT91211	TT91011

**SERIES TT92 (For Twin Row Panels)**

Color	Openings		
	4	2	Blank
Red	TT92401	◇TT92201	TT92001
Black	◇TT92402	TT92202	◇TT92002
Green	TT92403	◇TT92203	TT92003
Blue	TT92404	◇TT92204	TT92004
White	TT92405	◇TT92205	TT92005
Yellow	TT92408	◇TT92208	TT92008
Gray	TT92411	TT92211	TT92011

**SERIES TT93 (For Three Row Panels)**

Color	Openings		
	4	2	Blank
Red	TT93601	◇TT93301	TT93001
Black	TT93602	TT93302	TT93002
Green	TT93603	◇TT93303	TT93003
Blue	TT93604	◇TT93304	TT93004
White	TT93605	◇TT93305	TT93005
Yellow	TT93608	◇TT93308	TT93008
Gray	TT93611	TT93311	TT93011

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

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

## MODULAR TT-JAX® (.173") JACK PANELS – SERIES TT5102000, TT5202000, TT5502000, TT5602000



Series TT5102000,  
TT5202000 (Typical)



Series TT5502000,  
TT5602000 (Typical)  
Shown w/mounting bracket K107  
(not supplied).



### SERIES TT5102000\*

Modular double row, 1.75" high x 19" wide, standard mount. Supplied with 24 black modules, designation strips, and covers. Mounts 96 TT-Jax® single jacks, lamp jacks and/or switches.

### SERIES TT51020001\*

Modular double row, 1.75" high x 19" wide, standard mount. Supplied with 24 black modules, designation strips, and covers. Mounts 96 TT-Jax® single jacks, lamp jacks and/or switches. Comes supplied with cable tie bar.

### SERIES TT5202000\*

Similar to TT5102000, except 23" wide. Supplied with 28 black modules, designation strips, and covers. Mounts 112 TT-Jax® single jacks, jack lamps and/or switches.

### SERIES TT5502000

Modular double row, 1.75" high x 19" wide, flush mount. Supplied with 24 black modules, designation strips, and covers. Panels can be mounted flush with rack/control panel surface, or use with extension legs for standoff mounting with easy access to rear of jacks for testing/monitoring. Mounts 96 TT-Jax® single jacks, lamp jacks and/or switches.

### SERIES TT5602000

Similar to TT5502000, except 23" wide. Supplied with 28 black modules, designation strips, and covers. Mounts 112 TT-Jax® single jacks, jack lamps and/or switches.

### ORDERING

1. Order part number from table
2. Contact Switchcraft for any special order items.
3. Separate components can be ordered.

\* Prefix TTD indicates panel is pre-drilled with countersunk holes for mounting "X-Wide" vertical designation strips. See "DESIGNATION STRIPS" section.

	Jack Data		Panel Data		
Part Number	Part Number	Qty.	Width	Mount	Modules
TT5102000	without jacks	0	19"	Stan- dard	24 (Black)
◇TT5102S31	TT31FM	96			
◇TT5102W31	WTT31FM				
TT5102S32A	TT32AFM				
TT5102W32A	WTT32AFM				
TT5102S32B²	TT32BFM				
TT5102W32B	WTT32BFM				
◇TT5102S33B	TT33BFM				
◇TT5102W33B	WTT33BFM				
TT5102S34B²	TT34BFM				
TT5102W34B	WTT34BFM				
TTD5102000	without jacks	0	23"	Stan- dard	28 (Black)
TTD5102S31 Through TTD5102W34B	Note¹	96			
TT5202000 TTD5202000	without jacks	0			
TT5202S31 Through TT5202W34B	Note¹	112			
TTD520231 Through TTD5202W34B	Note¹				
TT552000	without jacks	0	19"	Flush	24 (Black)
TT5502S31 Through TT5502W34B	Note¹	96			
TT5602000	without jacks	0			
TT5602S31 Through TT5602W34B	Note¹	112	23"	Flush	28 (Black)

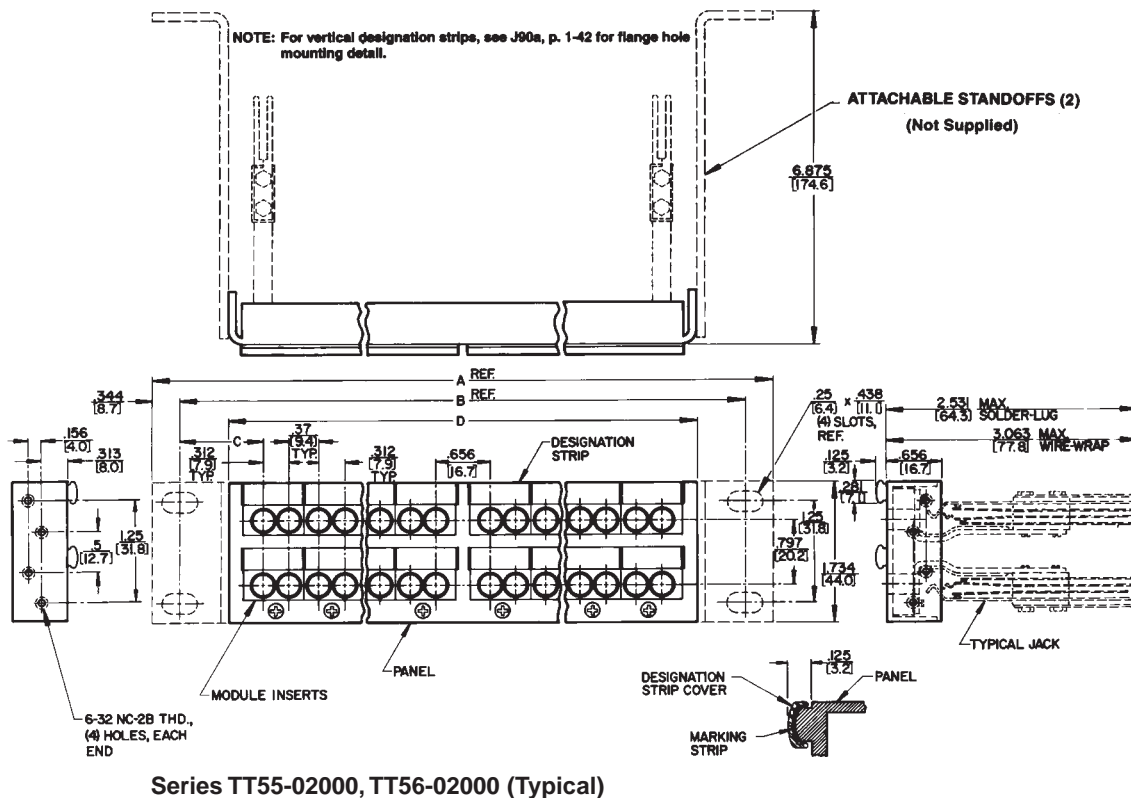
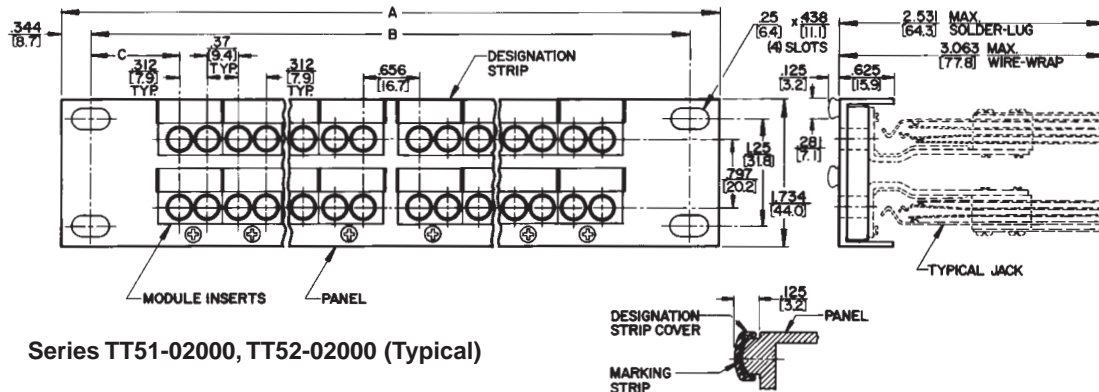
◇ Special order only; contact Switchcraft for price and delivery.

1 Complete panel part number with jacks installed can be constructed as shown for Series TT51.

2. Add a "1" to part number to specify cable tie bar.

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

### MODULAR TT-JAX® (.173") JACK PANELS – SERIES TT5102000, TT5202000, TT5502000, TT56020000 (continued)



Jack Panel Dimensions - inch (mm)				
Series Number	A	B	C	D
TT51	19 (482.6)	18.3 (465.1)	1.013 (25.7)	-
◇TT52	23 (584.2)	22.3 (566.7)	1.648 (41.9)	-
TT55	19 (482.6)	18.3 (465.1)	1.013 (25.7)	17.125 (435)
TT56	23 (584.2)	22.3 (566.7)	1.648 (41.9)	21.125 (536.6)

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

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

## TT-JAX® (.173") TWIN ROW AND THREE ROW JACK PANELS



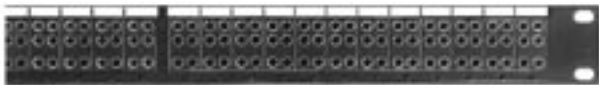
Series TT5902000



Series TT6102000



Series TT5302000, TT5402000 (Typical)

**SERIES TT5902000\***

Modular twin row, 1.75" high x 19" wide, standard mount. Supplied with 24 black modules, designation strips, and covers. Mounts 48 TT Twin-Jax® twin jacks.

**SERIES TT6002000\***

Similar to TT5902000, except 23" wide. Supplied with 28 black modules, designation strips, and covers. Mounts 56 TT Twin-Jax® twin jacks.

**SERIES TT6102000**

Modular twin row, 1.75" high x 19" wide, flush or standoff mount. Supplied with 24 black modules, designation strips, and covers. Mounts 48 TT Twin-Jax® twin jacks.

**SERIES TT6202000**

Similar to TT6102000, except 23" wide. Supplied with 28 black modules, designation strips, and covers. Mounts 56 TT Twin-Jax® twin jacks.

**SERIES TT5302000\***

Modular three row, 1.75" high x 19" wide, standard mount. Supplied with 24 black modules, designation strips, and covers. Designed for LINE, EQUIP and MONITOR patch connections. Mounts 48 Tri-Jax® triple jacks.

**SERIES TT5402000\***

Similar to TT5302000, except 23" wide. Supplied with 28 black modules, designation strips, and covers. Mounts 56 Tri-Jax® triple jacks.

**SERIES TT5702000**

Modular three row, 1.75" high x 19" wide, flush or standoff mount. Supplied with 24 black modules, designation strips, and covers. Mounts 48 Tri-Jax® triple jacks.

**SERIES TT5802000**

Similar to TT5702000, except 23" wide. Supplied with 28 black modules, designation strips, and covers. Mounts 56 Tri-Jax® triple jacks.

**ORDERING**

1. Order part number from table

2. Contact Switchcraft for any special order items.

\*Prefix TTD indicates panel is pre-drilled with countersunk holes for mounting "X-Wide" vertical designation strips. See "DESIGNATION STRIPS" section.

Part Number	Jack Data		Panel Data				
	Part Number	Qty.	Width	Mount	Modules		
TT5902000	without jacks	0	19"	Standard	24 (Black)		
TT5902S89	TT89FM	48					
TT5902W89	WTT89FM						
TTD5902000	without jacks	0					
TTD5902S89	TT89FM	48					
TTD5902W89	WTT89FM						
TT6002000	without jacks	0	23"	Flush	28 (Black)		
TTD6002000							
TT6002S89	Note <sup>1</sup>	56					
TT6002W89							
TTD6002S89	Note <sup>1</sup>	56					
TTD6002W89							
TT6102000	None	0	19"	Flush	28 (Black)		
TT6102S89	Note <sup>1</sup>	48					
TT6102W89			23"			Flush	28 (Black)
TT6202000	without jacks	0					
TT6202S89	Note <sup>1</sup>	56					
TT6202W89							
TT5302000	without jacks	0	19"	Standard	24 (Black)		
◇TT5302S95	TT95FM	48					
TT5302W95	WTT95FM						
◇TT5302S96	TT96FM						
TT5302W96	WTT96FM						
TTD5302000	without jacks	0					
TTD5302S95	Note <sup>2</sup>	48					
Through							
TTD5302W96							
TT5402000	without jacks	0	23"	Standard	28 (Black)		
TTD5402000							
TT5402S95	Note <sup>2</sup>	56					
Through							
TT5402W96							
TTD5402S95	Note <sup>2</sup>						
Through							
TTD5402W96							
TT5702000	without jacks	0	19"	Flush	24 (Black)		
TT5702S95	Note <sup>2</sup>	48					
Through							
TT5702W96			23"	Flush	28 (Black)		
TT5802000	without jacks	0					
TT5802S95	Note <sup>2</sup>	56					
Through							
TT5802W96							

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

1. Complete panel part number with jacks installed can be constructed as shown for Series TT59 or TTD59.

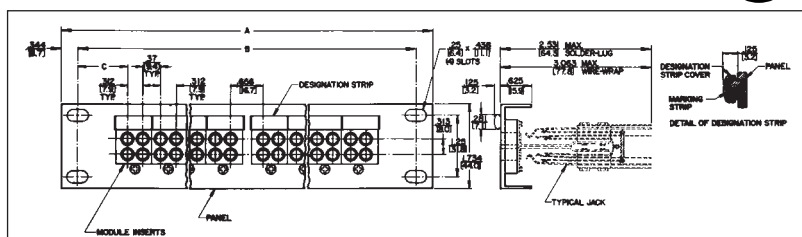
2. Complete panel part number with jacks installed can be constructed as shown for series TT53.

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

### TT-JAX® (.173") TWIN ROW AND THREE ROW JACK PANELS (continued)



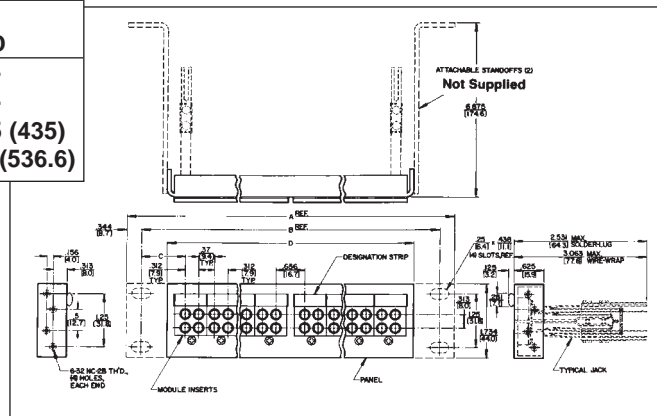
Series TT5902000 and  
TT6002000 (Typical)



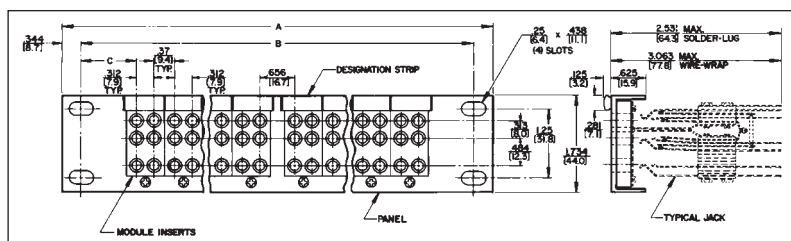
Jack Panel Dimensions - inch (mm)

Series Number	A	B	C	D
TT59	19 (482.6)	18.3 (465.1)	1.013 (25.7)	-
TT60	23 (584.2)	22.3 (566.7)	1.648 (41.9)	-
TT61	19 (482.6)	22.3 (566.7)	1.013 (25.7)	17.125 (435)
TT62	23 (584.2)	22.3 (566.7)	1.648 (41.9)	21.125 (536.6)

Series TT6102000 and  
TT6202000 (Typical)



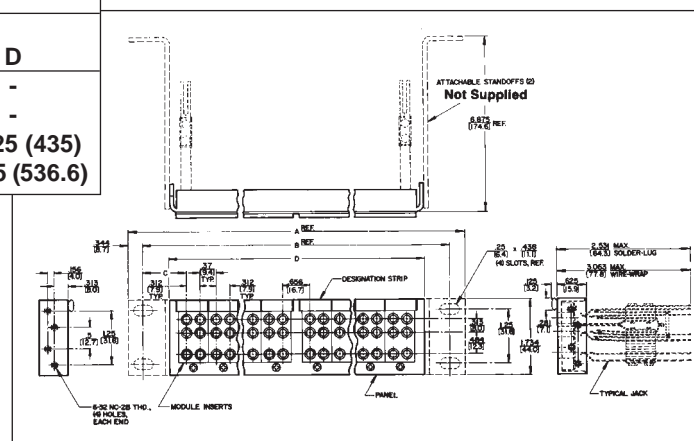
Series TT5302000 and  
TT5402000 (Typical)



Jack Panel Dimensions - inch (mm)

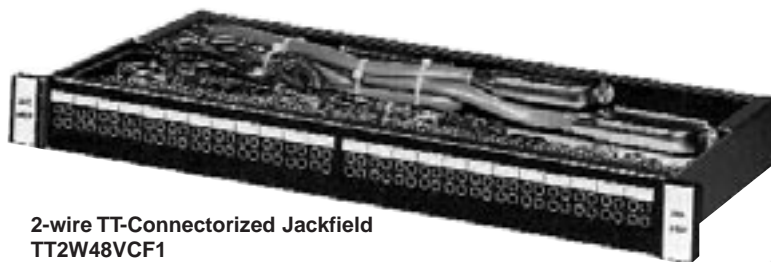
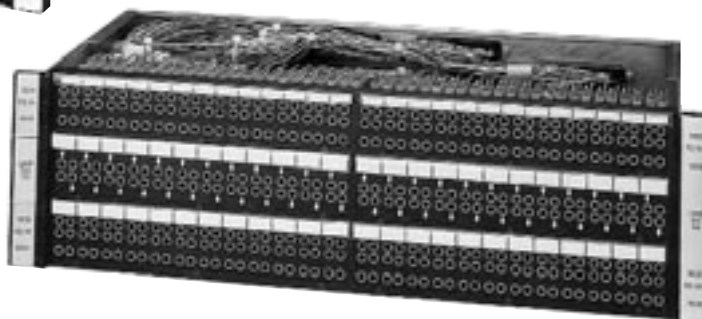
Series Number	A	B	C	D
TT53	19 (482.6)	18.3 (465.1)	1.013 (25.7)	-
TT54	23 (584.2)	22.3 (566.7)	1.648 (41.9)	-
TT57	19 (482.6)	22.3 (566.7)	1.013 (25.7)	17.125 (435)
◇TT58	23 (584.2)	22.3 (566.7)	1.648 (41.9)	21.125 (536.6)

Series TT5702000 and  
TT5802000 (Typical)

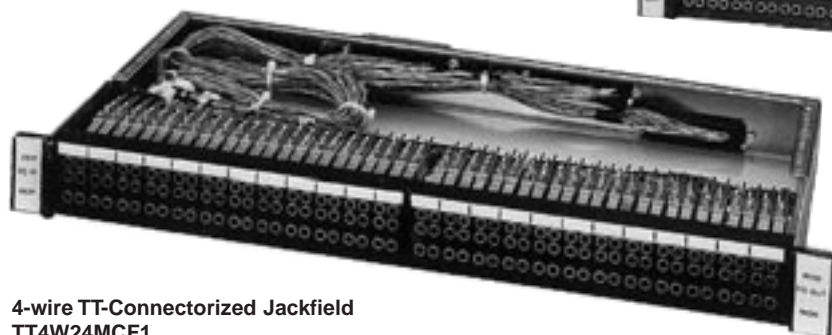


DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

TT-JAX® (.173") CONNECTORIZED JACKFIELDS –  
SERIES TT, 2-WIRE, 4-WIRE, 6-WIRE2-wire TT-Connectorized Jackfield  
TT2W48VCF1

6-wire TT-Connectorized Jackfield

4-wire TT-Connectorized Jackfield  
TT4W24MCF1**2-WIRE TT-CONNECTORIZED JACKFIELDS, SERIES TT**

Contains 48, 2-wire circuits. Arrangements include: LINE-DROP or Signal E/M, or LINE-DROP-MON. Available with MONITOR jack row. On rear panel, LINE connectors are receptacles and DROP connectors are plugs. LINE and DROP circuits may be isolated from each other for separate monitoring. On special order, 48 circuits LINE/COMBINATION DROP/MON or 96 circuits, LINE/DROP or Signal E/M may be specified.

**2-WIRE TT-CONNECTORIZED PC JACKFIELD, SERIES TTPC**

Same as 2-Wire TT-connectorized jackfields above, except all connections are machine-soldered on a double-sided PC board instead of hand wired.

**4-WIRE TT-CONNECTORIZED JACKFIELDS, SERIES TT**

4-Wire jackfields have 24, 4-wire circuits for MOD-DEM/EQ IN-EQ OUT/MON/SIG patching, or may be used for other 4-wire patching applications. Can be supplied with or without MONITOR jack row. On rear panel, MOD AND EQ IN connectors are receptacles and DEM and EQ OUT connectors are plugs.

**6-WIRE TT-CONNECTORIZED JACKFIELDS, SERIES TT**

6-Wire jackfields contain 48, 6-wire circuits for MOD-DEM/EQ IN EQ OUT/MON/SIG LINE/SIG EQ patching with toll test boards. Available with or without MONITOR jack row. On rear panel, MOD, EQ IN and SIG LINE connectors are receptacles and DEM, EQ OUT and SIG EQ connectors are plugs. The following can be specified on special order: 12 circuits, DEM-MOD/EQ IN-EQ OUT/MON/SIG E/M; 48 circuits, signal E/M leads separated; 48 circuits for D3 channel banks.

**ORDERING**

1. Order by part number from tables.
2. Contact Switchcraft for any special order items.

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

**TT-JAX® (.173") CONNECTORIZED JACKFIELDS –  
 SERIES TT, 2-WIRE, 4-WIRE, 6-WIRE (continued)**

**SPECIFICATIONS**

**Panel and Integral Designation Strip:** Aluminum alloy, extruded per QQ-A-200/8. Black anodized per MIL-A-8265.

**Modules:** Precision-molded thermosetting plastic. Black standard. Other colors on special order.

**Mounting Screws:** Black zinc, #3-48 x 312" flat head machine screw.

**TT-Jax® Jacks:** See jacks section for TT-Jax® specifications.

**Marking Strip:** Matte finish white plastic.

**Vertical Designation Strip:** Extruded aluminum, black anodized.

**Back Frames:** Cold rolled steel, zinc-plated with iridescent tarnish-resistant finish.

**Screws, Nuts and Lockwashers:** Steel, clear iridite tarnish-resistant finish over zinc-plating.

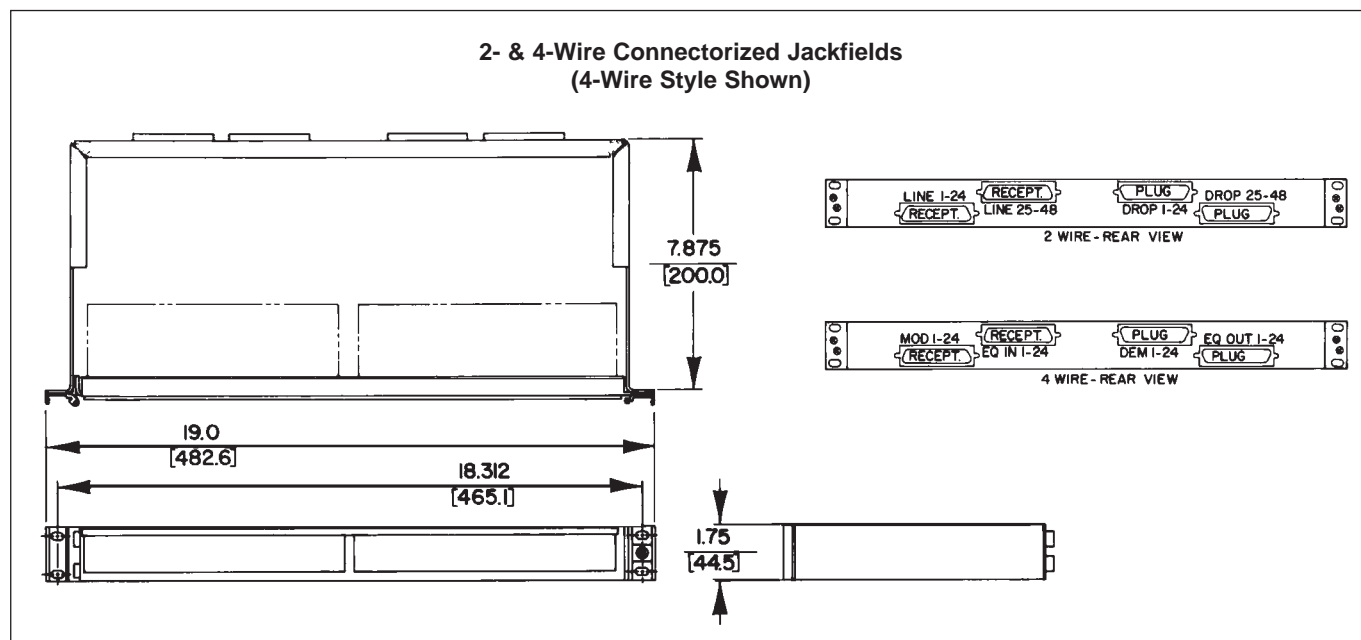
**Connectors:** 50-pin micro/pierce plugs and receptacles.

**Cable Tie Bar:** Aluminum hexagon alloy. 6061-T6, clear iridite finish per MIL-C-5541 (not hinged versions only).

**Cables:** 25 pair, 24 AWG solid copper wire, tinned and annealed, covered with insulating grade thermoplastic jacket.

**Cable Ties:** Thermoplastic, locking-non-releaseable, 30 pounds minimum loop tensile strength.

**2- & 4-Wire Connectorized Jackfields  
 (4-Wire Style Shown)**



DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

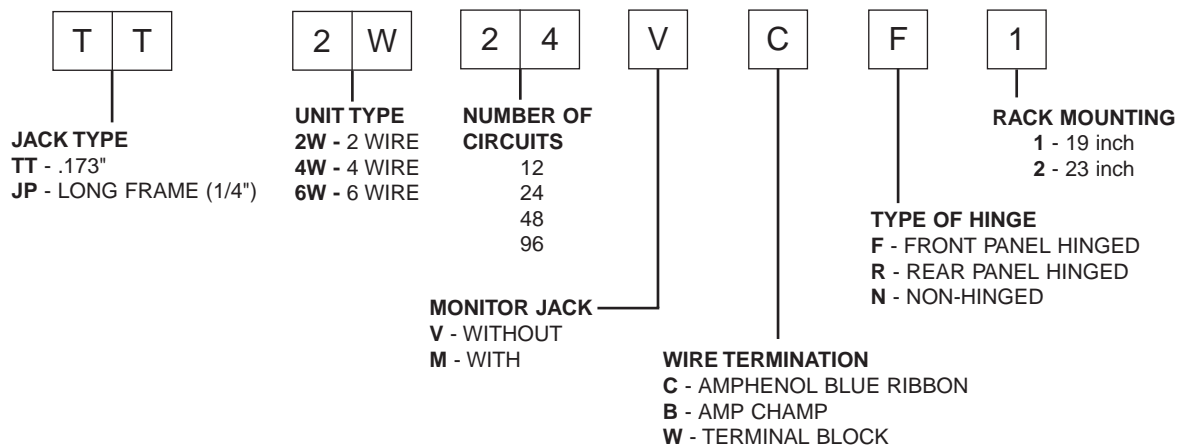
## TT-JAX® (.173") CONNECTORIZED JACKFIELDS (continued)



## PART NUMBERS

1. Compose part numbers from data below to specify your jackfield...or use the table to order popular jackfields.

**SPECIFYING NOTE:** Any jackfield can be manufactured with AMP CHAMP connectors. Contact Switchcraft.



## TYPICAL PART NUMBERS

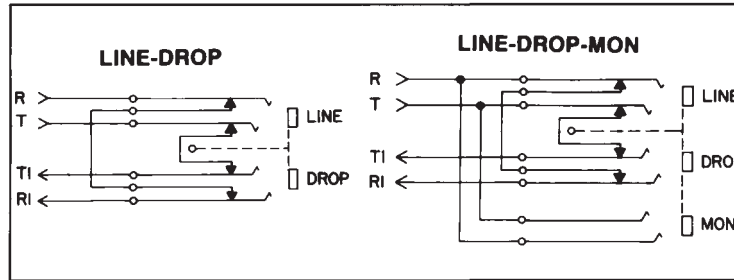
2-WIRE JACKFIELDS	
Part Number	Description
TT2W48VCF1	Hinged front panel.
TT2W48VCN1	Front panel NOT hinged.
TT2W48MCF1	Same as TT2W48VCF1, except with MONITOR jack row.
TT2W48MCN1	Same as TT2W48VCN1, except with MONITOR jack row.
4-WIRE JACKFIELDS	
Part Number	Description
TT4W24MCF1	Hinged front panel with MONITOR jack row.
TT4W24MCN1	Front panel NOT hinged with MONITOR jack row.
TT4W24VCF1	Same as TT4W24MCF1, except no MONITOR jack row.
TT4W24VCN1	Same as TT4W24MCN1, except no MONITOR jack row.
6-WIRE JACKFIELDS	
Part Number	Description
TT6W48MCF1	Hinged front panel with MONITOR jack row.
16J1055	Hinged front panel with MONITOR jack row.
TT6W48MCN1	Front panel NOT hinged with MONITOR jack row.
TT6W48VCF1	Same as TT6W48MCF1, except no MONITOR jack row.
TT6W48VCN1	Same as TT6W48MCN1, except no MONITOR jack row.

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

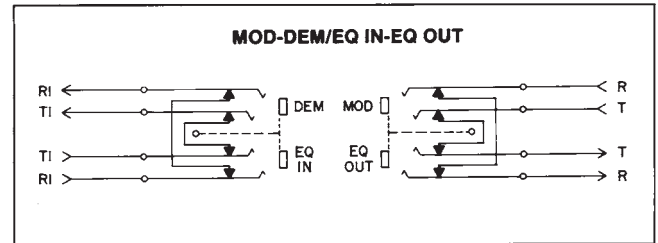
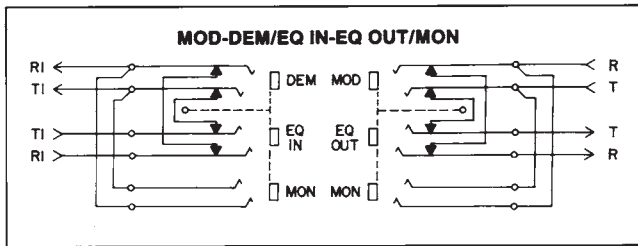
TT-JAX® (.173") CONNECTORIZED JACKFIELDS (continued)



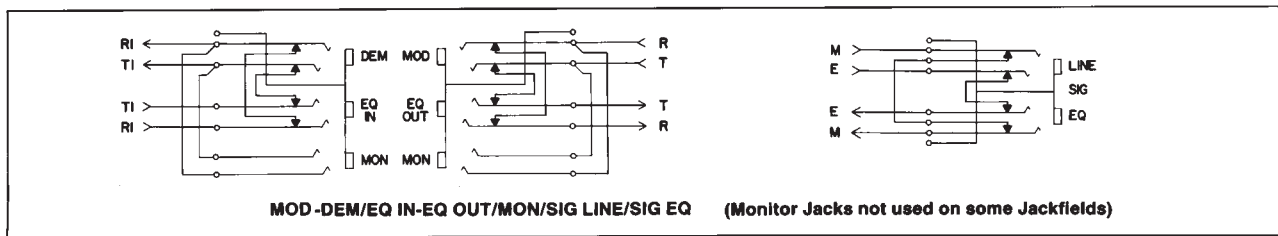
**TYPICAL CIRCUIT ARRANGEMENTS - 2-WIRE**



**TYPICAL CIRCUIT ARRANGEMENTS - 4-WIRE**



**TYPICAL CIRCUIT ARRANGEMENTS - 6-WIRE**

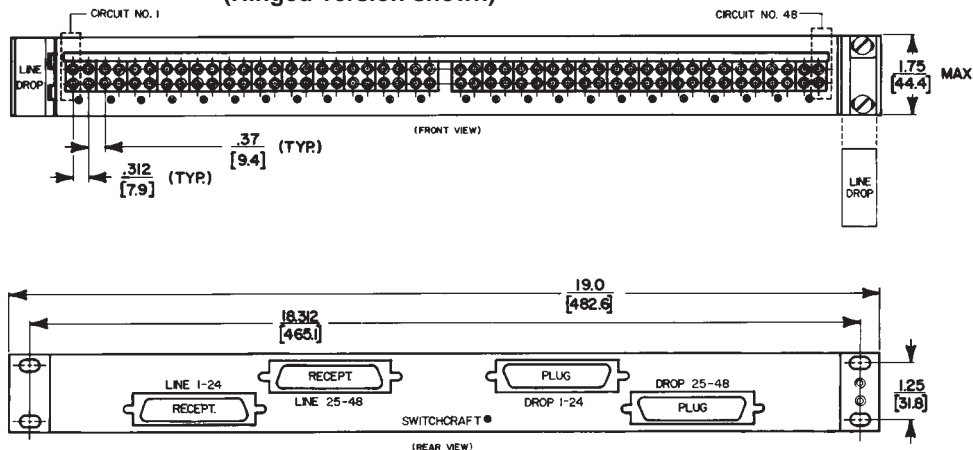


DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

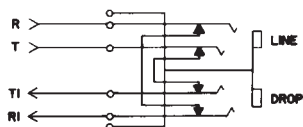
## TT-JAX® (.173") CONNECTORIZED JACKFIELDS (continued)



No. TT2W48VCF1 (hinged)  
No. TT2W48VCN1 (not hinged)  
(Hinged version shown)

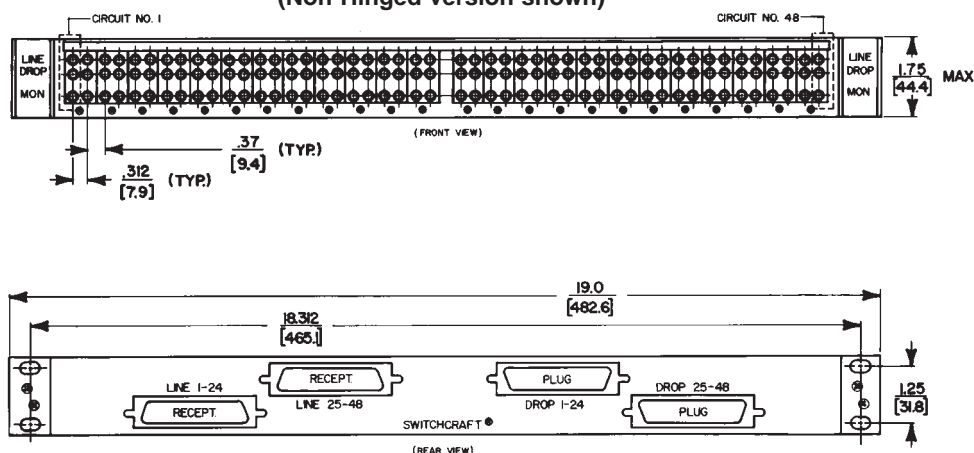


TYPICAL CIRCUIT ARRANGEMENT

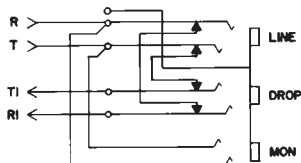


TO PLUG CONNECTOR				TO RECEPTACLE CONNECTOR			
TO PLUG CONNECTOR	PN	TO RECEPTACLE CONNECTOR	PN	TO PLUG CONNECTOR	PN	TO RECEPTACLE CONNECTOR	PN
CKT. 1	DROP	TI	25	CKT. 1	LINE	T	25
	RI	I			R	R	I
REPEATED				REPEATED			
CKT. 24	DROP	TI	49	CKT. 24	LINE	T	49
	RI	R	24		R	R	24
CKT. 25	DROP	TI	25	CKT. 25	LINE	T	25
	RI	I			R	R	I
REPEATED				REPEATED			
CKT. 48	DROP	TI	49	CKT. 48	LINE	T	49
	RI	R	24		R	R	24

No. TT2W48MCF1 (hinged)  
No. TT2W48MCN1 (not hinged)  
(Non-Hinged version shown)



TYPICAL CIRCUIT ARRANGEMENT



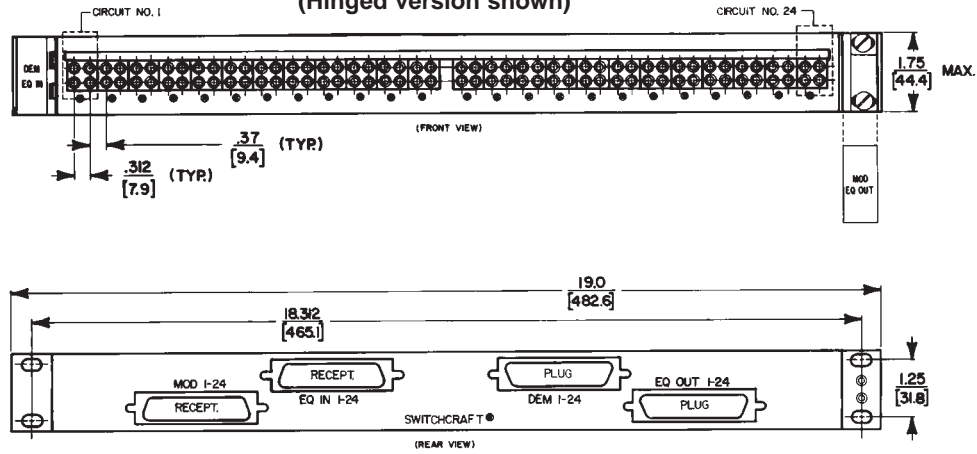
TO PLUG CONNECTOR				TO RECEPTACLE CONNECTOR			
TO PLUG CONNECTOR	PN	TO RECEPTACLE CONNECTOR	PN	TO PLUG CONNECTOR	PN	TO RECEPTACLE CONNECTOR	PN
CKT. 1	DROP	TI	25	CKT. 1	LINE	T	25
	RI	I			R	R	I
REPEATED				REPEATED			
CKT. 24	DROP	TI	49	CKT. 24	LINE	T	49
	RI	R	24		R	R	24
CKT. 25	DROP	TI	25	CKT. 25	LINE	T	25
	RI	I			R	R	I
REPEATED				REPEATED			
CKT. 48	DROP	TI	49	CKT. 48	LINE	T	49
	RI	R	24		R	R	24

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

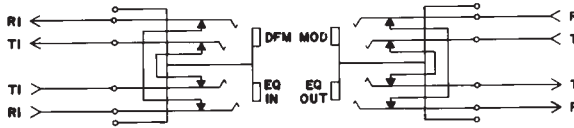
TT-JAX® (.173") CONNECTORIZED JACKFIELDS (continued)



No. TT4W24VCF1 (hinged)  
No. TT4W24VCN1 (not hinged)  
(Hinged version shown)

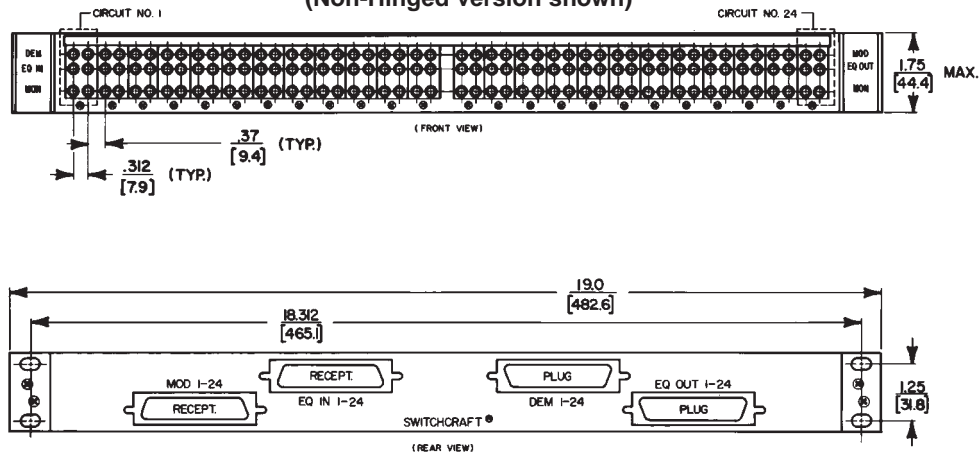


TYPICAL CIRCUIT ARRANGEMENT

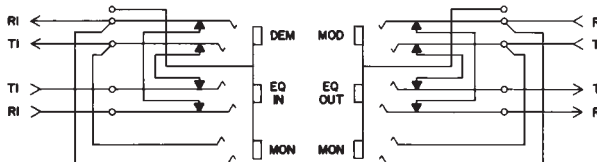


CONNECTION TABLE					
TO PLUG CONNECTOR			TO RECEPTACLE CONNECTOR		
TO PLUG CONNECTOR	TO RECEPTACLE CONNECTOR	PN	TO PLUG CONNECTOR	TO RECEPTACLE CONNECTOR	PN
OKT. 1	DEM	TI 26	OKT. 1	MOD	T 26
		RI 1			R 1
REPEATED			REPEATED		
OKT. 24	DEM	TI 49	OKT. 24	MOD	T 49
		RI 24			R 24
OKT. 1	EQ OUT	T 26	OKT. 1	EQ IN	TI 26
		R 1			RI 1
REPEATED			REPEATED		
OKT. 24	EQ OUT	T 49	OKT. 24	EQ IN	TI 49
		R 24			RI 24

No. TT4W24MCF1 (hinged)  
No. TT4W24MCN1 (not hinged)  
(Non-Hinged version shown)



TYPICAL CIRCUIT ARRANGEMENT



CONNECTION TABLE					
TO PLUG CONNECTOR			TO RECEPTACLE CONNECTOR		
TO PLUG CONNECTOR	TO RECEPTACLE CONNECTOR	PN	TO PLUG CONNECTOR	TO RECEPTACLE CONNECTOR	PN
OKT. 1	DEM	TI 26	OKT. 1	MOD	T 26
		RI 1			R 1
REPEATED			REPEATED		
OKT. 24	DEM	TI 49	OKT. 24	MOD	T 49
		RI 24			R 24
OKT. 1	EQ OUT	T 26	OKT. 1	EQ IN	TI 26
		R 1			RI 1
REPEATED			REPEATED		
OKT. 24	EQ OUT	T 49	OKT. 24	EQ IN	TI 49
		R 24			RI 24

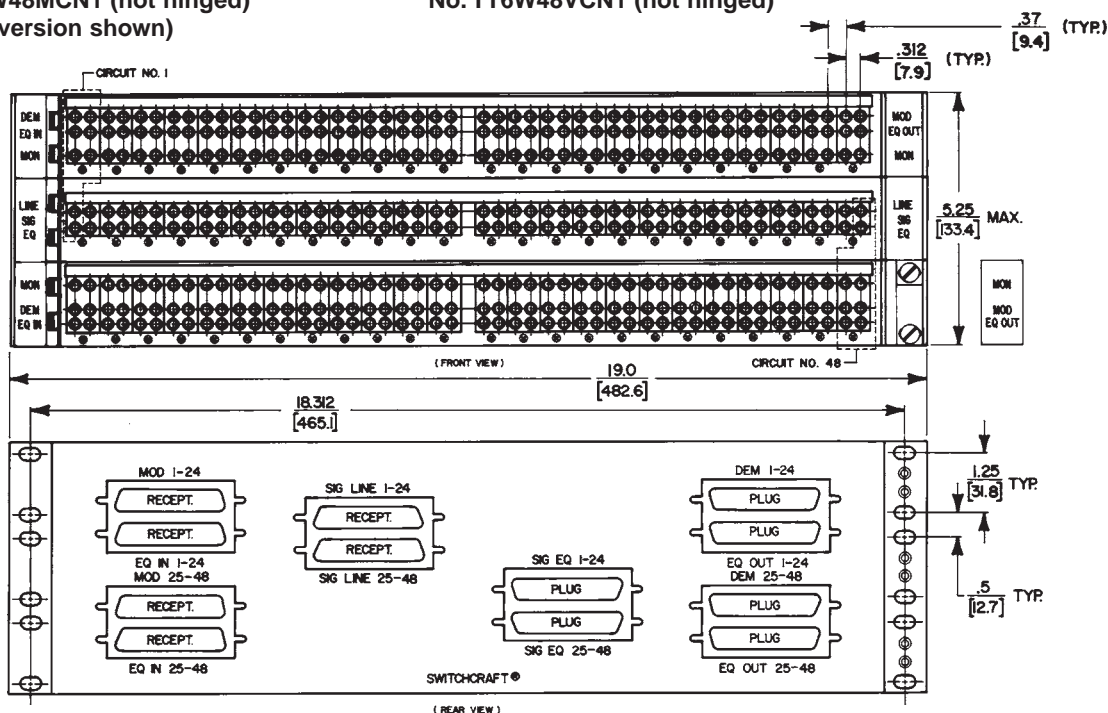
DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

## TT-JAX® (.173") CONNECTORIZED JACKFIELDS (continued)

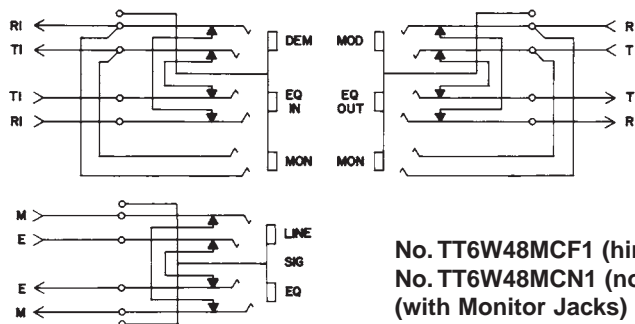


No. TT6W48MCF1 (hinged)  
No. TT6W48MCN1 (not hinged)  
(Hinged version shown)

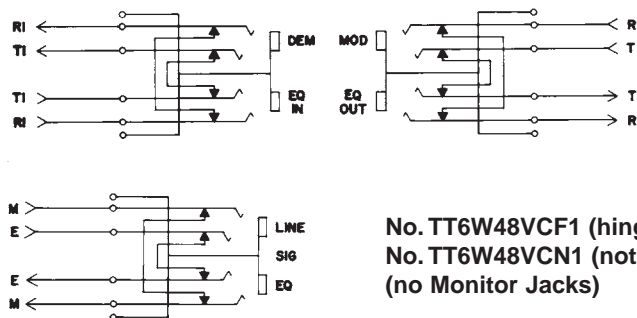
No. TT6W48VCF1 (hinged)  
No. TT6W48VCN1 (not hinged)



## TYPICAL CIRCUIT ARRANGEMENT



No. TT6W48MCF1 (hinged)  
No. TT6W48MCN1 (not hinged)  
(with Monitor Jacks)

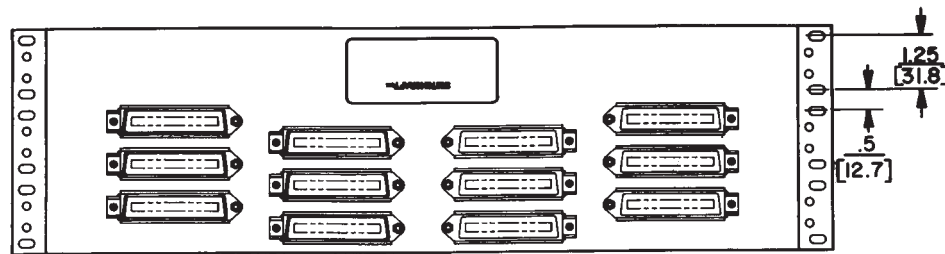


No. TT6W48VCF1 (hinged)  
No. TT6W48VCN1 (not hinged)  
(no Monitor Jacks)

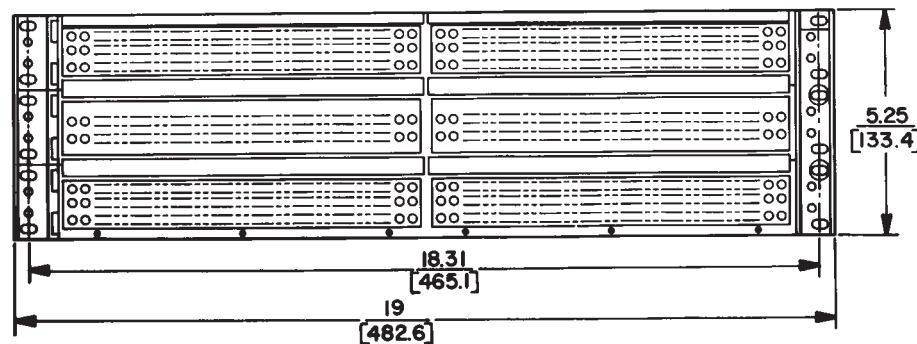
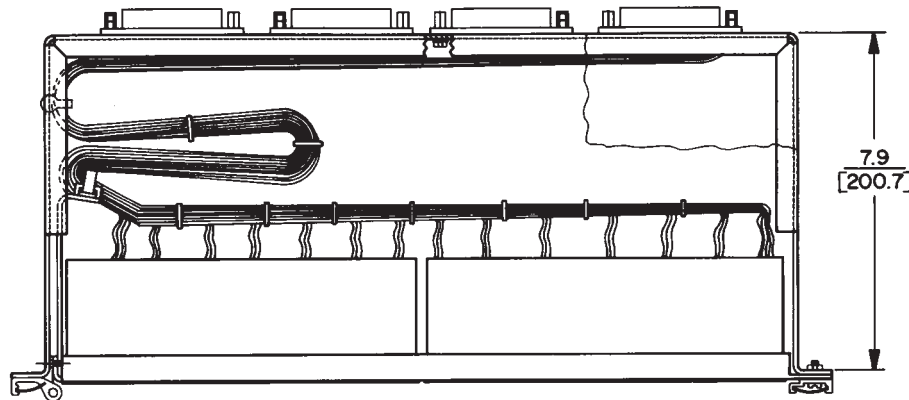
CONNECTION TABLE									
TO PLUG CONNECTOR					TO RECEPTACLE CONNECTOR				
CKT. I	DEM.	T1	25	R1	CKT. I	MOD.	T	25	R
REPEATED					REPEATED				
CKT. 24	DEM.	T1	49	R1	CKT. 24	MOD.	T	49	R
CKT. 25	DEM.	T1	25	R1	CKT. 25	MOD.	T	25	R
REPEATED					REPEATED				
CKT. 48	DEM.	T1	49	R1	CKT. 48	MOD.	T	49	R
CKT. I	EQ. OUT	T	25	R	CKT. I	EQ. IN	T1	25	R1
REPEATED					REPEATED				
CKT. 24	EQ. OUT	T	49	R	CKT. 24	EQ. IN	T1	49	R1
CKT. 25	EQ. OUT	T	25	R	CKT. 25	EQ. IN	T1	25	R1
REPEATED					REPEATED				
CKT. 48	EQ. OUT	T	49	R	CKT. 48	EQ. IN	T1	49	R1
CKT. I	SIG. EQ.	E	25	M	CKT. I	SIG. LINE	E	25	M
REPEATED					REPEATED				
CKT. 24	SIG. EQ.	E	49	M	CKT. 24	SIG. LINE	E	49	M
CKT. 25	SIG. EQ.	E	25	M	CKT. 25	SIG. LINE	E	25	M
REPEATED					REPEATED				
CKT. 48	SIG. EQ.	E	49	M	CKT. 48	SIG. LINE	E	49	M

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

TT-JAX® (.173") CONNECTORIZED JACKFIELDS

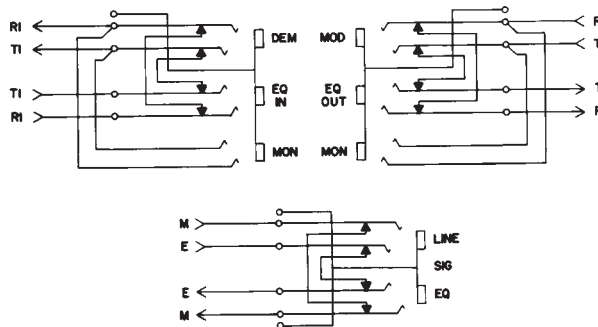


REAR VIEW —ROTATED



No. 16J-1055

TYPICAL CIRCUIT ARRANGEMENTS



CONNECTION TABLE									
TO PLUG CONNECTOR				TO RECEPTACLE CONNECTOR				PIN	
CKT. I	DEM	TI	28	CKT. I	MOD	T	28		
REPEATED				REPEATED					
CKT. 24	DEM	TI	49	CKT. 24	MOD	T	49		
CKT. 25	DEM	TI	26	CKT. 25	MOD	T	26		
REPEATED				REPEATED					
CKT. 48	DEM	TI	49	CKT. 48	MOD	T	49		
CKT. I	EQ OUT	T	26	CKT. I	EQ IN	T	26		
REPEATED				REPEATED					
CKT. 24	EQ OUT	T	49	CKT. 24	EQ IN	T	49		
CKT. 25	EQ OUT	T	26	CKT. 25	EQ IN	T	26		
REPEATED				REPEATED					
CKT. 48	EQ OUT	T	49	CKT. 48	EQ IN	T	49		
CKT. I	SIG. EQ	E	26	CKT. I	SIG. LINE	E	26		
REPEATED				REPEATED					
CKT. 24	SIG. EQ	E	49	CKT. 24	SIG. LINE	E	49		
CKT. 25	SIG. EQ	E	26	CKT. 25	SIG. LINE	E	26		
REPEATED				REPEATED					
CKT. 48	SIG. EQ	E	49	CKT. 48	SIG. LINE	E	49		

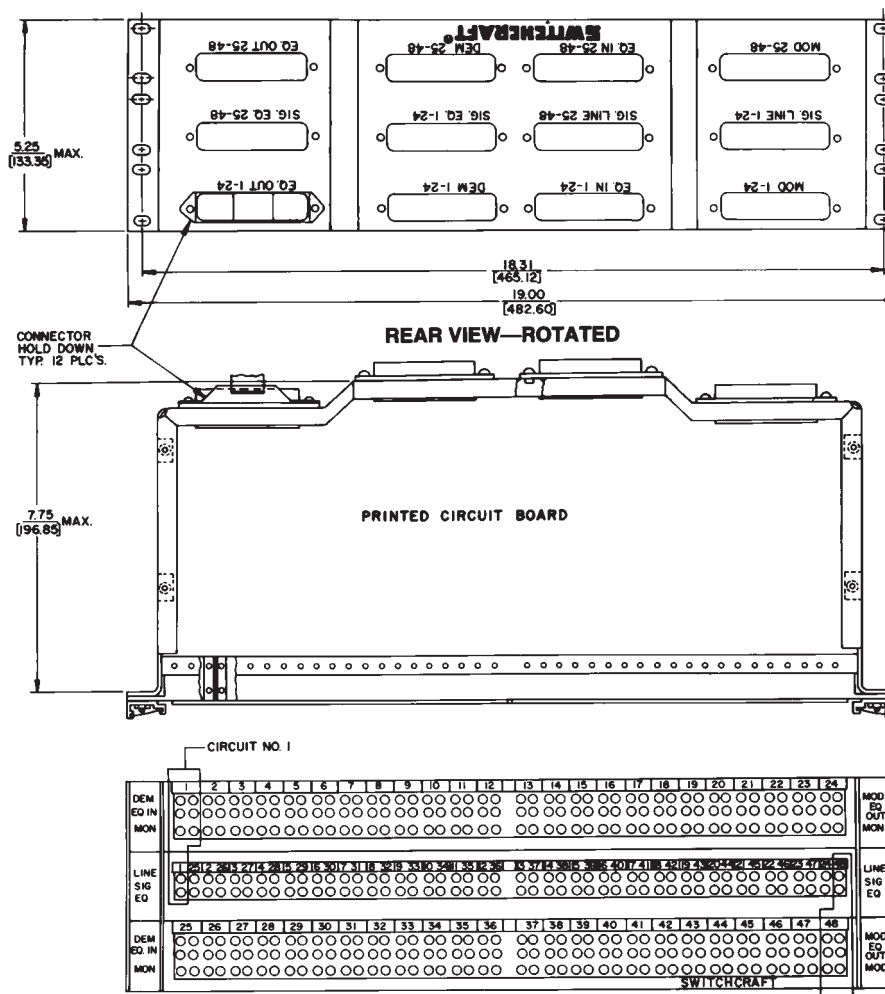
DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

TT-Jax® (.173") CONNECTORIZED JACKFIELDS



TYPICAL SERIES TTJC 6-WIRE JACKFIELD DIMENSIONS



TO PLUG CONNECTOR										PIN
CKT. 1	DEM	T	1	26	R	1				
REPEATED										
CKT. 24	DEM	T	1	49	R	1	24			
CKT. 25	DEM	T	1	26	R	1				
REPEATED										
CKT. 48	DEM	T	1	49	R	1	24			
CKT. 1	EQ OUT	T	1	26	R	1				
REPEATED										
CKT. 24	EQ OUT	T	1	49	R	1	24			
CKT. 25	EQ OUT	T	1	26	R	1				
REPEATED										
CKT. 48	EQ OUT	T	1	49	R	1	24			
CKT. 1	SIG EQ	E	1	26	M	1				
REPEATED										
CKT. 24	SIG EQ	E	1	49	M	1	24			
CKT. 25	SIG EQ	E	1	26	M	1				
REPEATED										
CKT. 48	SIG EQ	E	1	49	M	1	24			

## TT® LAMPS AND JEWEL ASSEMBLIES



Steady "On" Lamp  
Series TT450



Blinking/Steady  
"On" Lamp

### SERIES TT-450 LAMPS

Red LED and series dropping resistor are molded into compact cartridge with bi-pin terminals for use with TT Lamp-Jax® lamp jacks. Colored bezels are molded in for color coding of functions; colors are black, red, green, white and yellow. On special order, blue or other colors are available.

Standard voltages are 6, 24 and 48 V (DC only). No tools are required for lamping/relamping. Simply slip TT-LED into lamp jack with (+) terminal up. If it doesn't light, remove it, rotate it 180°, and reinsert it into jack.

### SPECIFICATIONS

**Housing:** Molded black plastic.

**Bezel:** Molded plastic in colors.

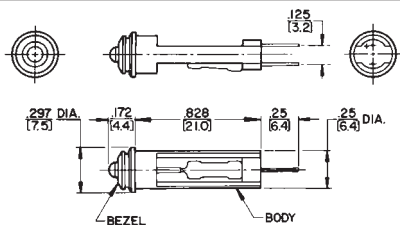
**LED:** Red illumination.

**Pins:** T-1 3/4 bi-pin configuration.

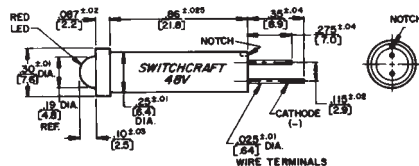
Part Number	Voltage	Bezel Color	Part Number	Voltage	Bezel Color
TT45106	6	Red	TT45406	6	Blue
TT45124	24		TT45424	24	
TT45148	48		TT45448	48	
TT45206	6	Black	TT45506	6	White
TT45224	24		TT45524	24	
TT45248	48		TT45548	48	
TT45306	6	Green	TT45806	6	Yellow
TT45324	24		TT45824	24	
TT45348	48		TT45848	48	

### ORDERING

- Order by part number from table.
- For special order items, such as other LED colors, voltages, lamps with 25% reduced power consumption, etc., contact Switchcraft.

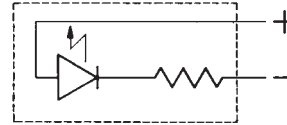


Series TT-450 TT-LED Lamps



Flashing/Steady "On" Lamps

### SCHEMA\*



TT-LED Lamps  
Installed

### FLASHING/STEADY ON LEDS

Yellow, green and red LEDs are 2-pin cartridge plug-ins which operate from a 48 VDC supply. When 48 V is applied, LED flashes for 30 seconds, then changes to steady "On" condition.

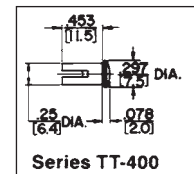
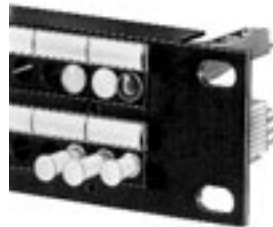
### SPECIFICATIONS

**Body:** Thermoplastic, UL 94V-0 rated.

**LED Colors:** Yellow, green or red.

Part Number	Description
15J9068	Red flashing/continuous
15J9076	Yellow flashing/continuous
15J9077	Green flashing/continuous
15J9078	Amber flashing/continuous

### TT-JEWEL ASSEMBLY



Series TT-400

Panel with TT-Jewel Assemblies  
and TT-Switches installed

Jewel assemblies use bi-pin lamp and act as lighted jewel and lamping/relamping tool. Simply slip bi-pin lamp in brass collar and insert lamp with pins in vertical plane. Lamp automatically seats properly. Jewel is molded plastic in colors; sleeve is brass.

Part Number	Color	Part Number	Color
TT401	Red	TT408	Yellow
TT403	Green	TT413	Amber
TT404	Blue	TT510	Black*
TT405	White	*Used as hole plug where no jack is installed.	

### LAMPS

Part Number	Description
P2290	6.3 V, GE No. 7377.
P2315	6.3 V, GE No. 7381. Avg. life: 50K hrs. @ 200 mA.
P2316	28 V, GE No. 7387. Avg. life: 25K hrs. @ 40 mA.
P2456	24 V, GE No. 7001.

DIMENSIONS ARE FOR REFERENCE ONLY

Inch  
(mm)

## LONGFRAME SWITCHBOARD SWITCHES



### SERIES 11000 and 11200

Premium quality, long frame switches, designed especially for jack panel mounted switching. Standard actuations are push-lock/pull-release, 2-position turn button and 3 position turn button. Many contact forms available. Mounts in Switchcraft Jack Panels Series 1200, 1400, 2400, 2600, 2800, modular JP® jack panels, and other standard telephone jack panels. Part numbers in table indicate "A" frame. For same switch with "C" frame, add prefix "C" to part number. Many circuit forms not shown in tables are available on special order. Long leaf springs have no forms at point of flexing, which insures long life. Welded crossbar palladium contacts rated at 2A 200W maximum are standard. Fine silver (for higher currents) or gold alloy (dry circuit to 1A) contacts are available on special order. Contact Switchcraft.

### SPECIFICATIONS

**Frame, Screws and Twin Nut:** Steel, plated.

**Springs, Pressure Plate and Terminals:** Copper alloy.  
Solder lugs are tin-dipped.

**Contacts:** Welded crossbar palladium are standard. Fine silver or gold alloy are available on special order.

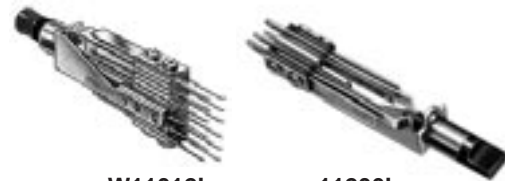
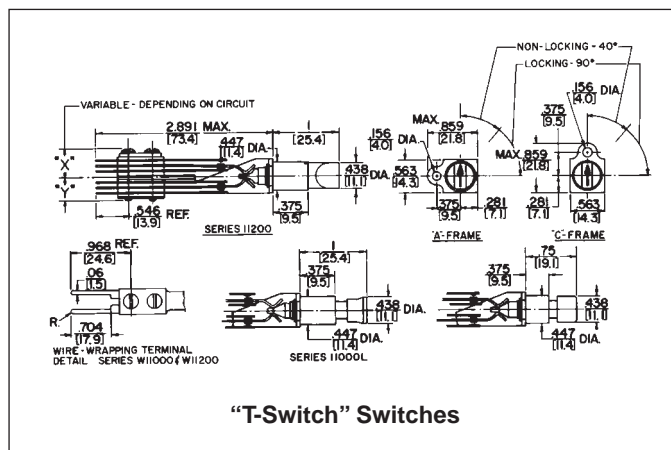
**Insulation:** Rigid plastic. Extruded plastic tubing through stack.

**Knob:** Molded black plastic. Turn-key type faced with white arrow.

**Bushing:** Copper alloy, nickel-plated.

### ORDERING

1. Order by part number from table.
2. For special order items, contact Switchcraft.



W11012L

11206L

Part Numbers		Circuit
Locking	Momentary	

### PUSHBUTTONS - SERIES 11000

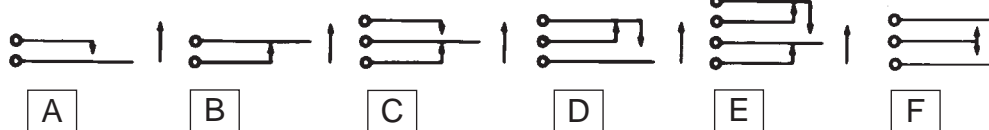
◇11001L	◇11001	1-A
◇11002L	◇11002	1-B
11003L	11003	1-C
◇W11003L	◇W11003	
◇11003DL	◇11003D	1-D
◇11004L	◇11004	2-A
◇11005L	◇11005	2-B
11006L	11006	2-C
◇W11006L	◇W11006	
◇11006DL	◇11006D	2-D
◇11008L	◇11008	4-A
◇11009L	◇11009	3-C
◇11012L	11012	4-C
◇W11012L	◇W11012	

### TURN BUTTONS - SERIES 11200

◇11201L	◇11201	1-A
◇11202L	◇11202	1-B
11203L	11203	1-C
◇W11203L	◇W11203	
◇11203DL	◇11203D	1-D
◇11204L	◇11204	2-A
◇11205L	◇11205	2-B
11206L	11206	2-C
◇W11206L	◇W11206	
◇11206DL	◇11206D	2-D
◇11208L	◇11208	4-A
◇11209L	◇11209	3-C
◇11212L	11212	4-C
◇W11212L	◇W11212	

◇ Special order only; contact Switchcraft.

**Mounting Screws:** #6-32, P10725, can be ordered separately.  
Contact Switchcraft. (Screws not supplied with switches.)



**Basic Schematic Circuits**

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

# DUMMY PLUGS AND HOLE PLUGS



491



492



493

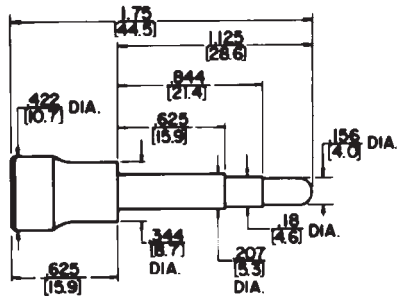
When inserted into a standard size telephone jack, the dummy plug actuates springs like a normal plug, except no signal is conducted through since the plug is made of non-conducting plastic. Dummy plugs can also be used to plug-up unused jacks to prevent accidental insertion of an incorrect plug.

**SERIES 491:** 3-conductor with .206" diameter finger. Mates with MT342B and MT344B MT-Jax®, Series M Hi-D Jax®, and other standard telephone jacks having .21" inside diameter sleeves.

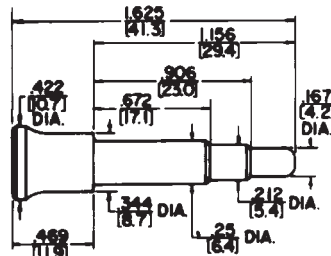
**SERIES 492:** 3-conductor with .25" diameter finger. Mates with 3-conductor MT-Jax® and Series M Hi-D Jax®, and other standard telephone jacks have .25" inside diameter sleeves.

**SERIES 493:** 2-conductor with .25" diameter finger. Mates with 2-conductor MT-Jax®, Series M Hi-D Jax®, and other standard telephone jacks having .25" inside diameter sleeves.

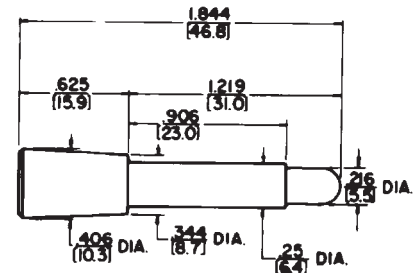
Part Number	Description		Interchangeable with	
	Conductors	Color	WEco	Trimm
49101	3	Red	—	—
49102	3	Black	—	—
49105	3	White	—	—
49201	3	Red	258F	558D
49202	3	Black	258C	558C
49205	3	White	258E	558E
49301	2	Red	165F	556D
49302	2	Black	165C	556C
49305	2	White	165E	—



No. 491



No. 492



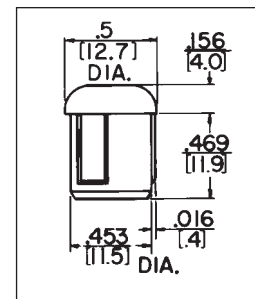
No. 493



## PLASTIC HOLE PLUG Hole Plug P1801



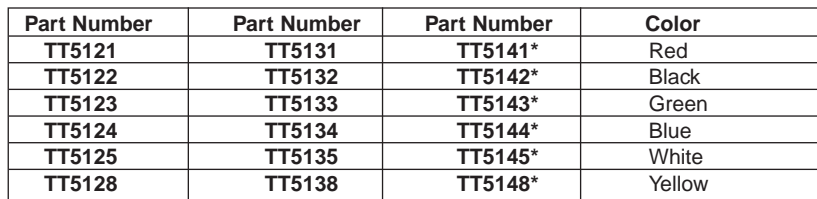
Used to seal off unused holes in jack panels, Series 1200, 1400, 2400, 2600 and JP012000 through JP122000. Constructed of dimensionally stable molded black plastic.



DIMENSIONS ARE FOR REFERENCE ONLY  
Inch (mm)



1. Order by part number from table.
2. Contact Switchcraft for any special order items.



Technical drawing of the Series TT-514 component, showing front, side, and detail views with dimensions in inches and millimeters.

**Front View Dimensions:**

- Overall Width: 6.14 (15.6)
- Overall Height: 6.14 (15.6)
- Inner Width: 4.39 (11.1)
- Inner Height: 4.25 (10.7)

**Side View Dimensions:**

- Base Thickness: .5 (12.7)
- Mounting Hole Diameter: .078 (2.0)
- Mounting Hole Spacing: 3.15 (8.0)

**Detail View Dimensions:**

- Finger Nail Slots: 3/32 (2.4)
- Mounting Hole Diameter: .078 (2.0)
- Mounting Hole Spacing: 3.15 (8.0)

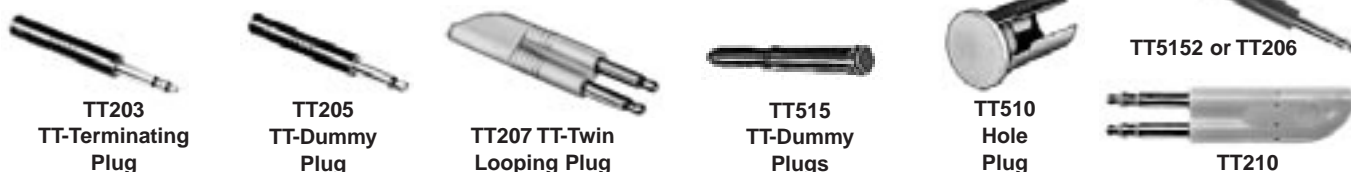
**Labels:**

- COVER
- BASE
- FINGER NAIL SLOTS
- MARKING STRIP

**Series TT-514**

[www.switchcraft.com](http://www.switchcraft.com) SWITCHCRAFT, INC. 5555 N. Elston Ave. • Chicago, IL 60630

## MINIATURE, DUMMY PLUGS, HOLE PLUGS



Terminating, dummy and looping plugs are designed for use with Tini-Telephone® Jacks. TT-Phone Plugs are also recommended for use on other miniature telephone jacks with same bushing inside diameter and compatible tip and/or ring spring configurations.

### TT-TERMINATING PLUGS

TT-Phone Plug terminating plugs are used to terminate a circuit with a specific resistive load. A precision 1/2 watt,  $\pm 1\%$  resistor is molded into the handle of each terminating plug. See "PLUG SCHEMATICS" for resistor wiring. Resistance value is marked on plug handle. Other resistance values are available on special order.

### TT-DUMMY PLUGS

TT-Phone Plug dummy plugs are designed to be inserted into phone jacks to actuate shunt and isolated switching circuits.

### TT-LOOPING PLUGS

TT-Phone Plug looping plugs are used to loop or patch adjacent jack circuits. See "PLUG SCHEMATICS" for wiring.

### TT-HOLE PLUG

TT-Hole Plugs are used to close off unused openings in all Switchcraft TT-Jack Panels. Molded of black plastic with brass sleeve.

### ORDERING

1. Order by part number from table.
2. Contact Switchcraft for any special order items.

### SPECIFICATIONS

#### Series TT200 Tip Rod, Ring and Sleeve:

Brass per QQ-B-626.

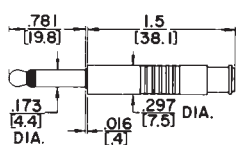
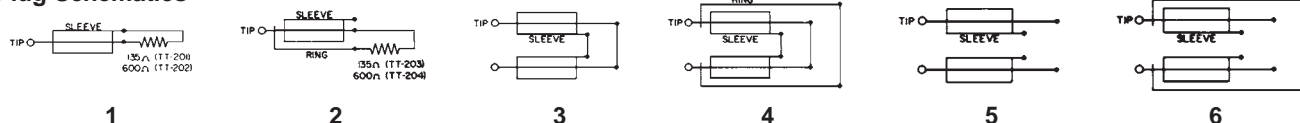
Handle: Molded PVC, ivory or black.

Series TT515: Molded of dimensionally stable plastic in black, red or white.

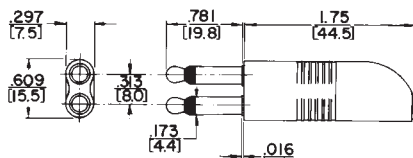
Part No.	Description	Schematic	Color
TT201	2-conductor terminating-135 $\Omega$	1	Gray
TT202	2-conductor terminating-600 $\Omega$	1	Gray
TT203	3-conductor terminating-135 $\Omega$	2	Gray
TT204	3-conductor terminating-600 $\Omega$	2	Gray
TT205	2-conductor dummy	5	Gray
TT206	3-conductor dummy	6	Gray
TT207	2-conductor twin looping	3	Gray
TT208	3-conductor twin looping	4	Gray
TT209	2-conductor twin dummy	5	Ivory
TT210	3-conductor twin dummy	6	Ivory
TT510	Hole Plug	—	Black
TT5151	2- or 3-conductor dummy	—	Red
TT5152	2- or 3-conductor dummy	—	Black
TT5155	2- or 3-conductor dummy	—	White

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

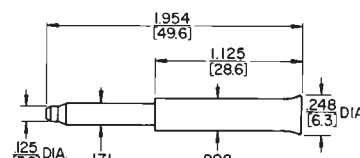
### Plug Schematics



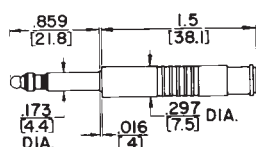
Nos. TT-201, TT-202, TT-205



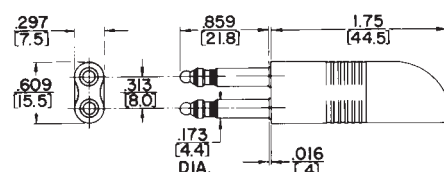
Nos. TT-207, TT-209



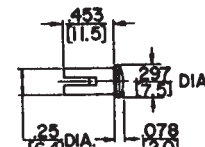
Nos. TT-515-1, -2



Nos. TT-203, TT-204, TT-206



Nos. TT-208, TT-210



Nos. TT-510

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

## DESIGNATION STRIPS



Designation strips with protective covers are supplied with all tini-telephone® jack panels, jackfields and certain standard jack panels. Replacement kits and individual parts are also available. Legends can be marked in pencil, ink, or lettering transfers. Kwik-Change® is the name of all horizontal strips. See illustration.

Three types of designation strips are available as accessories:

1. Kwik-Change single height.
2. Kwik-Change double height.
3. X-Wide vertical.

### KWIK-CHANGE® DESIGNATION STRIPS (SINGLE HEIGHT)

Two types of single height designation strips are available:

1. SERIES 1600, A1600, B1600, C1600, 1700, B1700, 1400300, 2600300, JP012000 through JP122000
  - Extruded aluminum mounting strip
  - Four mounting screws
  - Marking strips
  - Clear plastic strip covers

Mounting strips are fastened with four mounting screws provided. Marking strip slides into the clear plastic cover, and cover is snapped into place on the mounting strip. Legends can be marked in pencil, ink, lettering transfers, typewriter, etc.

### SPECIFICATIONS

(Used on panels 1600, A1600, B1600, C1600, 1700, B1700)

**Mounting Strip:** Extruded aluminum black anodized

**Cover:** Clear extruded plastic.

**Marking Strip:** White matte finish plastic.

**Screws:** Copper alloy, plated.

(Used on panels 1400300, 1600300)

**Mounting Strip:** Aluminum alloy, extruded, black anodized.

**Cover:** Clear extruded plastic.

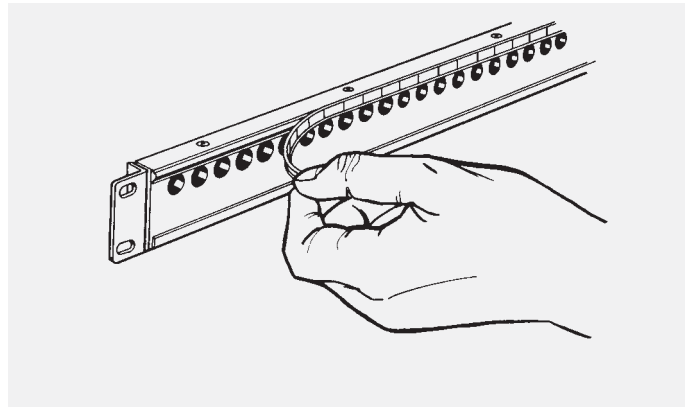
**Marking Strip:** White matte finish plastic.

**Screws:** Steel, plated.

SERIES TT51 through TT62, TT-Connectorized (2-, 4- and 6-Wire), JP012000 through JP122000, TTPC and DSX panels. Mounting strips are extruded as part of the panel. Otherwise, use is the same as above.

### ORDERING

Order by part number from table.



Kwik-Change Designation Strip  
Kit Number DS301 (single height)



Kwik-Change Designation Strip  
Kit Number DS318 (single height)



Kwik-Change Designation Strip  
Kit Number TT501 (single height)



Kwik-Change Designation Strip  
Kit Number TT516 (single height)

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

## DESIGNATION STRIPS (continued)

## SINGLE HEIGHT DESIGNATION STRIPS

Part No.	Description	For Panels
<b>TT501</b>	Kits (single height) includes: 1-mounting strip (8.375" long) 1-cover 1-marking strip sheet (5 strips per sheet) 4-mounting screws	1600, 1700 (Alternate spacing)
<b>TT502</b>	Marking Strip sheet (used with Kit TT501 & TT521)	—
<b>TT503</b>	Cover (used with Kit TT501 and TT504)	—
<b>TT504</b>	Kits (single height) includes: 1-mounting strip (8.375" long) 1-cover 1-marking strip sheet (5 strips per sheet) 4-mounting screws	A1600, C1600 (Continuous spacing)
<b>TT519</b>	Kit (single height) includes: 2-covers (9.61" long) 1- marking strip sheet (5 strips per sheet)	TT52, TT54 TT56, TT58 TT60, TT62 (23" Panels)
<b>TT520</b>	Marking strip sheet (used with Kit TT519)	—
<b>TT521</b>	Kit (single height) includes: 2-covers (8.25" long) 1- marking strip sheet (5 strips per sheet)	TT51, TT53 TT55, TT57 TT59, TT61, Connectorized Jackfields (2-, 4- and 6 wire)



Part No.	Description	For Panels
<b>DS301</b>	Kit (single height) includes: 1-mounting strip (17" long) 1-cover 1-marking strip sheet (5 strips per sheet) 4-mounting screws	1400301, 2600301
<b>DS302</b>	Cover (used with Kit DS301)	—
<b>DS303</b>	Marking strip sheet (used with Kit DS301 and DS316).	—
<b>DS306</b>	Marking strip sheet (used with Kit DS307 and DS308).	—
<b>DS307</b>	Kit (single height) includes: 2-covers (16.5" long) 1-marking strip sheet (5 strips per sheet)	JP012000, JP032000, JP052000
<b>DS308</b>	Kit (single height) includes: 2-covers (19.5" long) 1-marking strip sheet (5 strips per sheet)	JP022000, JP042000, JP062000
<b>DS316</b>	Kit (single height) includes: 2-covers (16.25" long) 1- marking strip sheet (5 strips per sheet)	JP072000 JP092000, JP112000
<b>DS317</b>	Marking strip sheet (used with Kit DS318).	—
<b>DS318</b>	Kit (single height) includes: 2-covers (20" long) 1- marking strip sheet (5 strips per sheet)	JP082000 JP102000, JP122000

KWIK-CHANGE® DESIGNATION STRIPS  
(DOUBLE HEIGHT)

Double height strips allow larger legends. Can be factory installed on Series 1600, B1600, 1700 and B1700 panels, or may be ordered separately for customer installation.

- Series 1600/B1600: Four strips can be mounted, two above each row of jack openings.
- Series 1700: Two strips can be mounted, two above or two below (special order) the double row of jack openings.
- Series B1700: Two strips can be mounted (side-by-side) above top row of jacks.

**NOTE:** When TT516 kits are mounted above top row of jacks on Series 1600, B1600 and B1700, strips will overhang top edge of panel by .156 inches. For most applications, the strips help seal the normal opening between adjacent panels. Series B1700 panel mounting screws may have to be loosened to facilitate removal of the panel above it in this type of installation.

## SPECIFICATIONS

**Mounting Strip:** Black thermoplastic UL 94V-0.

**Cover:** Clear plastic.

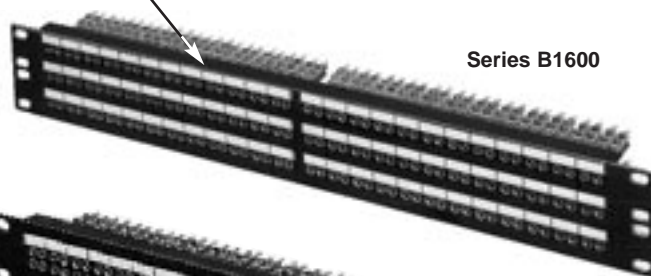
**Marking Strip:** Matte finish white plastic.

**Mounting Screws:** Copper alloy, plated.

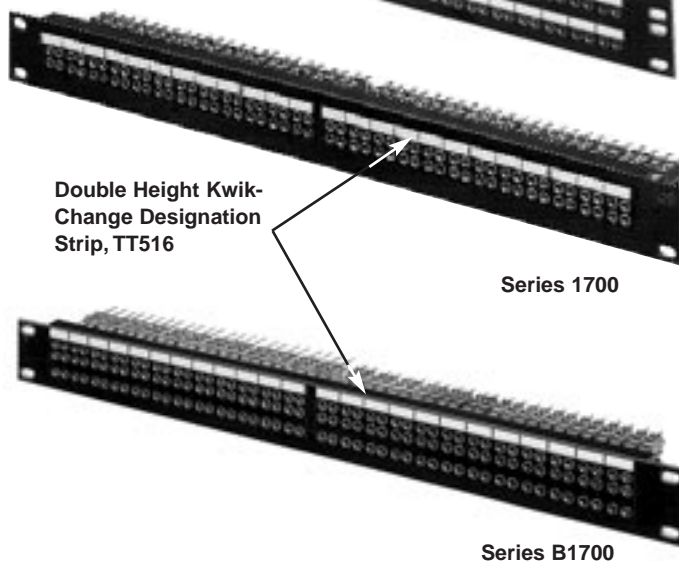
## ORDERING

1. Order by part number from table.
2. To order double height strips installed on panels, contact Switchcraft.

Single Height Kwik-Change®  
Designation Strip, TT501

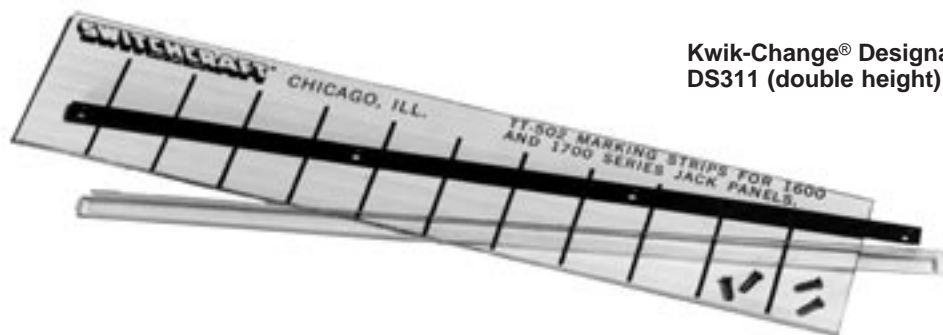


Double Height Kwik-Change  
Designation Strip, TT516



DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)

## KWIK-CHANGE® DESIGNATION STRIPS (DOUBLE HEIGHT)

Kwik-Change® Designation Strip  
DS311 (double height)

## DOUBLE HEIGHT DESIGNATION STRIPS

Part No.	Description	For Panels
<b>DS311</b>	Kit (double height) includes: 1-mounting strip (17" long) 1-cover 1-marking strip sheet (3 strips per sheet) 4-mounting screws	2600310, 1400315
<b>DS312</b>	Cover (used with Kit DS311)	—
<b>DS313</b>	Marking strip sheet (used with Kit DS311)	—

Part No.	Description	For Panels
<b>TT516</b>	Kit (double height) includes: 1-mounting strip (8.375" long) 1-cover 1-marking strip sheet (3 strips per sheet) 4-mounting screws	1600, B1600, 1700, B1700
<b>TT517</b>	Marking strip sheet (used with Kit TT516)	—
<b>TT518</b>	Cover (used with Kit TT516)	—

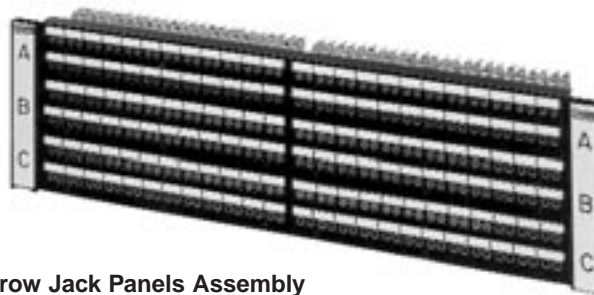
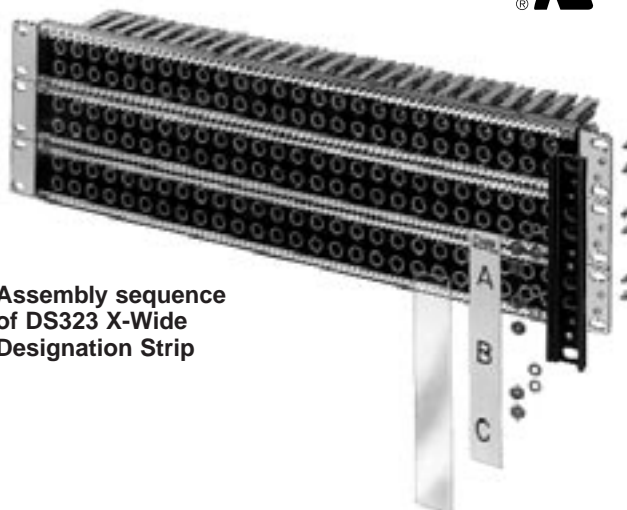
## X-WIDE® VERTICAL DESIGNATION STRIPS

X-Wide designation strips mount on either side (or both) of standard 19" and 23" wide panels and do not interfere with horizontally mounted strips. Each kit contains two mounting brackets which easily fasten with mounting screws provided. Marking strips and clear plastic covers slide into place. Each kit fits onto both sides of a jack panel. X-Wide strips are used on the following panels:

UNDRILLED	PREDRILLED
1600, A1600, 1700 B1700, TT51 through TT62, 2-, 4- & 6-Wire TT-Connectorized Jackfields, 2- & 4-Wire TTPC Connectorized Jackfields, 1200, 1400, 1400320, 2600, and 2600320.	D1600, D1700, BD1700, TTD51 through TTD62, 2- 4 & 6-Wire TT-Connectorized Jackfields, 2 & 4-Wire TTPC Connectorized Jackfields.

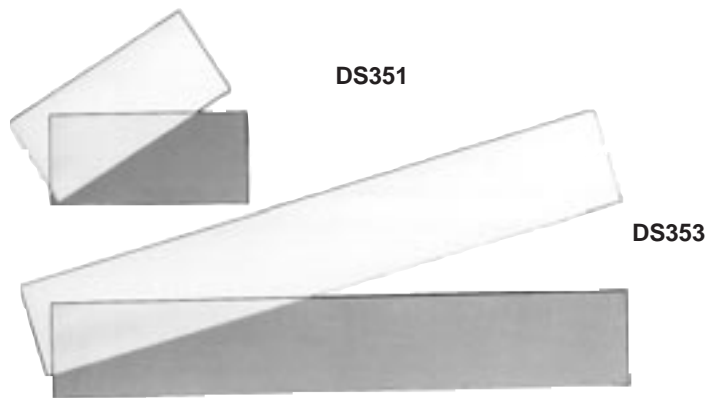
**SPECIFYING NOTES:** Each kit fits both sides of a jack panel (Standard height 1.75". Also available in 3.5 inch and 5.25 inch heights.

Prefix letter "D" indicates panels have been predrilled countersunk holes to facilitate mounting X-Wide strips. Series 1200, 1400, & 2600 can be predrilled on special order.

3-row Jack Panels Assembly  
with DS323 X-Wide  
Designation Strip installedAssembly sequence  
of DS323 X-Wide  
Designation Strip

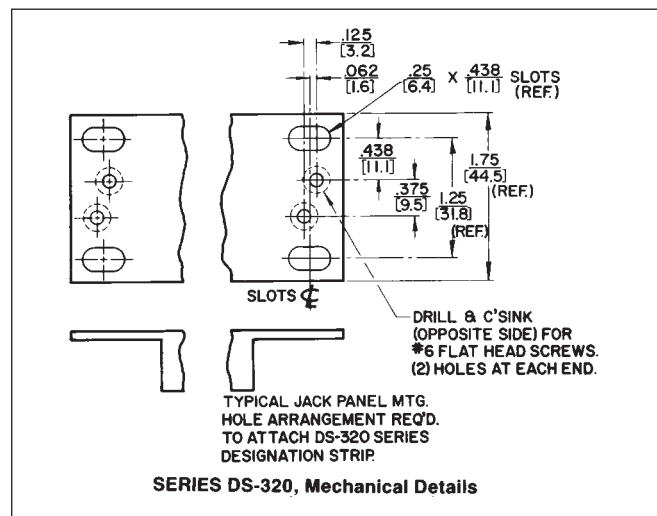
DIMENSIONS ARE FOR REFERENCE ONLY  $\frac{\text{Inch}}{(\text{mm})}$

## X-WIDE® VERTICAL DESIGNATION STRIPS



### X-WIDE VERTICAL DESIGNATION STRIPS

Part No.	Description	For Panels
<b>DS321</b>	Kit (.75 x 1.75 inches) includes: 2-mounting brackets 2-marking strips 2-covers 4-mounting screws, nuts and lockwashers	1600, A1600 1700, B1700 TT51 thru TT54, TT59 thru TT62, 2- & 4-Wire TTConnectorized Jackfields, 2-, 4- & 6-Wire TTPC Connectorized Jackfields
<b>DS322</b>	Kit (.75 x 3.5 inches) includes: 2-mounting brackets 2-marking strips 2-covers 8-mounting screws, nuts and lockwashers	Same as DS321 (Mounted in pairs)
<b>DS323</b>	Kit (.75 x 5.25 inches) includes: 2-mounting brackets 2-marking strips 2-covers 12-mounting screws, nuts and lockwashers	6-Wire TT- Connectorized and panels for DS321
<b>DS350</b>	Kit (.75 x 2.265 inches) includes: 2-mounting brackets 2-marking strips 2-covers 4-mounting screws, nuts and lockwashers	B1600, C1600
<b>DS351</b>	Kit (.75 x 1.75 inches) includes: 1-marking strip 1-cover (Used on all 1.75 inch height connectorized jackfields except next to hinge)	2-, 4- & 6-Wire Connectorized Jackfields, TTPC Connectorized Jackfields
<b>DS352</b>	Kit same as DS351 except narrow width. To be used next to hinge.	Same as DS351
<b>DS353</b>	Kit (.75 x 5.25 inches) includes: 1-marking strip 1-cover	6-Wire TT- Connectorized Jackfields



### ORDERING

1. Order by part number from table.
2. To order X-Wide® strips installed on panels, contact Switchcraft.

DIMENSIONS ARE FOR REFERENCE ONLY Inch  
(mm)