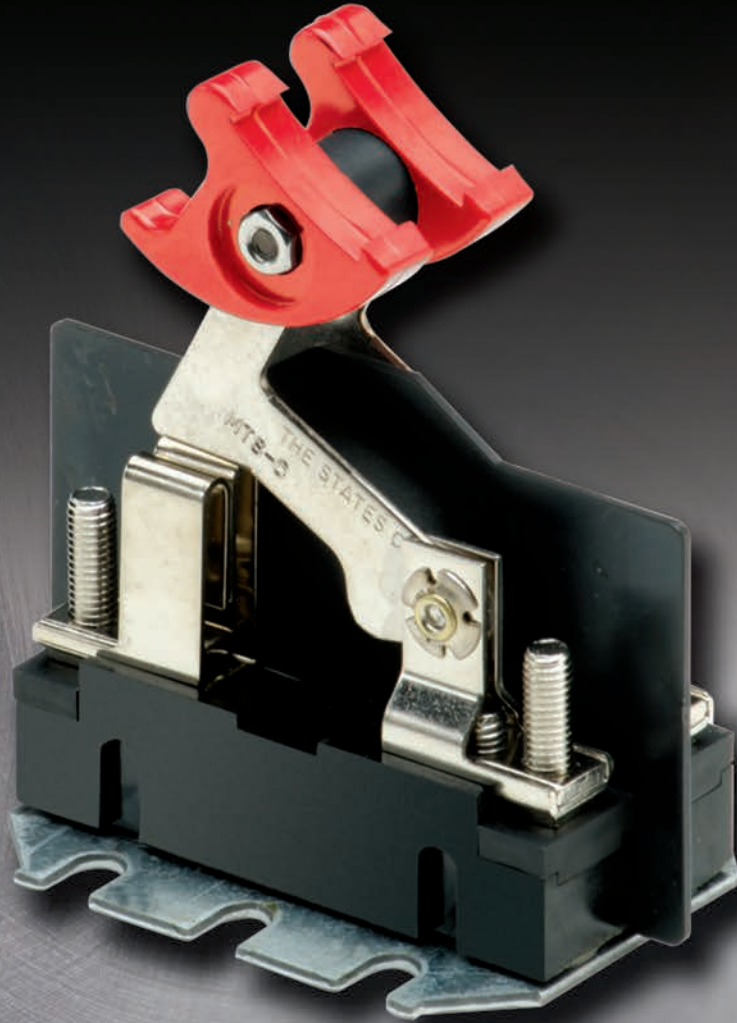


MTS & JTS

Miniature Test Switches



- Compact and versatile
- Front- and back-connected styles
- Safe, durable, rugged and reliable
- Recognized by UL and cUL

STATES®

In many panelboard, switchgear, metering, control circuit and instrumentation applications, space is at a premium. Yet provisions must be made to facilitate troubleshooting, testing, calibration and checkout of relays, meters, transducers, instruments and control systems. STATES Type MTS Miniature Test Switches are the compact, versatile solution for disconnecting and testing these devices and circuits.



Space-saving miniaturization means full test capability; yet, a Type MTS 10-pole switch requires just 7 inches of mounting space. Unit-pole construction permits virtually any pole arrangement from 1 to 52 poles mounted on a single base.

DESCRIPTION

They are the result of many decades of experience in the design and manufacture of test switches, and make use of the latest improvements in material composition and construction techniques.

Many features are incorporated for increased safety, durability, ruggedness and reliability. All the features you need, including potential elements, current elements and make-before-break short-circuiting elements for current transformer circuits and test jacks, are available in test switches ranging from 1 to 52 poles on one base, and in a miniature size.

Each switch blade can be operated independently or, where required, adjacent handles can be ganged for simultaneous operation.

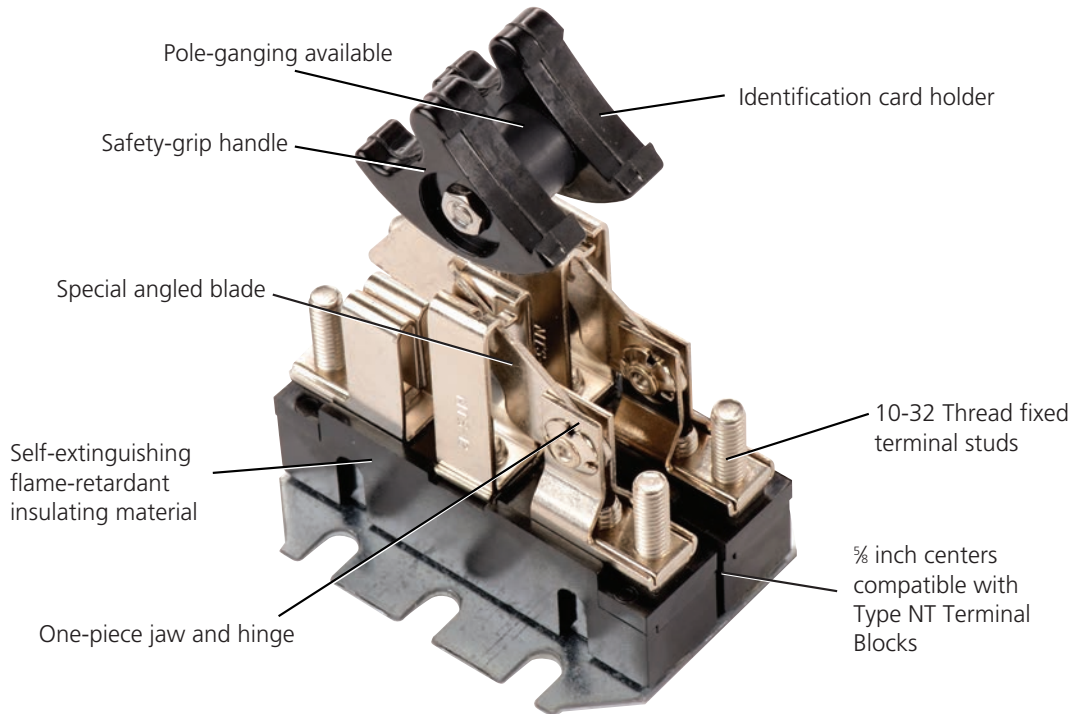
All Type MTS Test Switches are available in both front- and back-connected styles. Protective covers (available up to 30 poles in clear or opaque) are automatically included with all back-connected styles and may be ordered as an optional item with front-connected switches.

Underwriters Laboratories Inc., recognizes STATES Type MTS Miniature Test Switches under its component program, File No. E75355, with a rating of 600 volts, 30 amperes.

MTS & JTS Miniature Test Switches

FEATURES AND BENEFITS

- **Self-extinguishing materials:** All non-metallic components are made of self-extinguishing, flame-retardant materials with Underwriters Laboratories' best rating for self-extinguishing materials (V-O).
- **Nonferrous material:** All current-carrying metallic components, including hardware, are made of highest quality nonferrous materials such as copper, bronze, brass or phosphor bronze. This ensures excellent conductivity and minimizes galvanic action between dissimilar metals.
- **Nickel plating:** All current-carrying metallic components, including hardware, have a corrosion-resistant nickel finish that ensures good electrical contact and smooth operation of moving parts even after years of inactivity.
- **Safety-grip handle:** A molded handle covers the terminal and includes a lower lip that projects over the metal parts of the switch, thus protecting the operator from contact with live components.
- **One-piece jaw and hinge:** One-piece construction of hinge and jaw eliminates unnecessary, multiple connection points.
- **Special blade shape:** All blades are shaped so that the edge of the blade enters at a right angle to the jaw; thus, the blade enters and exits the full width of the jaw simultaneously.
- **Switch jaws:** All STATES Test Switches have uniform contact pressure over the full width of the blade. The "ping" heard when opening the blade is due to the special, spring-grade phosphor bronze used in the jaw. This design ensures an excellent low-resistant contact that will not overheat.
- **High barriers:** Maximum circuit isolation is obtained by extra-high barriers that provide uncompromised protection. Barriers are permanently mounted and cannot fall out or be knocked out, as in some "snap-in" designs.
- **Short-circuit jaw:** A rugged, make-before-break element is used to short the secondary of a current transformer.
- **Fixed terminal studs:** The screw terminals on which wiring connections are made are a part of a rigid, immovable assembly and cannot be turned or backed out.
- **Test jack:** The test jack eliminates the possibility of opening current transformer secondaries and permits safe, easy measurements to be made in current circuits without disturbing permanent wiring. A dual-circuit test plug, such as the STATES Part No. 15000, inserted into the test jack puts the measuring instrument in series with the current circuit. The test jack does not carry current except when making a test because it is shunted by a standard switch blade that is opened only when the test jack is used.
- **Color-coded handles:** Unless otherwise specified, **potential** elements have **red handles** and **current** elements have **black handles**; however, the following other colors are available at additional cost: blue, orange, white, yellow, green.
- **Identification card holder:** Each safety grip handle is slotted for insertion of an identification card for marking or coding. Cards are available under Part No. MTS28-100 (MTS28 packaged 100 pieces per bag).



STATES Type MTS Test Switch
Part No. 202-E (ARR: 13) shown

All configurations are available in either a front- or back-connected style.

FRONT-CONNECTED SWITCHES

The front-connected test switch usually is used where wiring entering and leaving the test switch is located on the same side of the panel that the test switch is mounted.

To order front-connected switches, refer to **Ordering Information**.



Front-connected type

BACK-CONNECTED SWITCHES

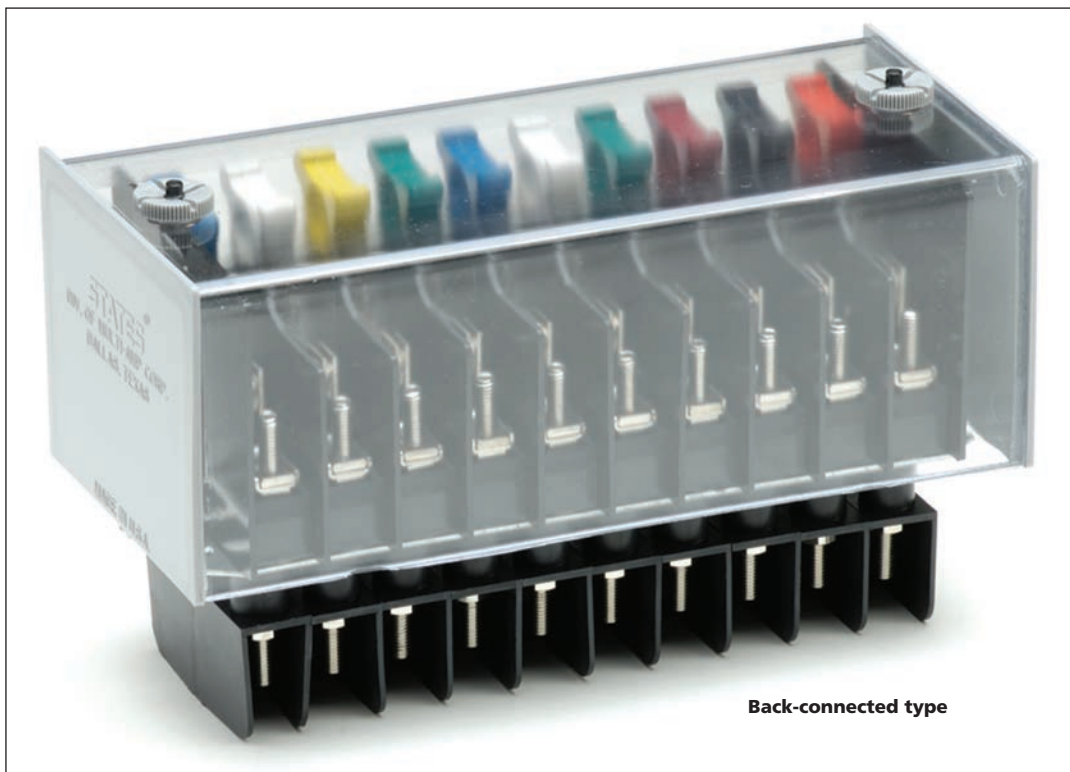
All switches can be provided in a back-connected version so that the switch is mounted on one side of a panel and the wiring connections are made on the opposite side.

Back-connected switches have factory-installed insulated barriers that project from the rear of the switch. They include either clear or opaque covers, up to 30 poles.

To order back-connected switches, refer to **Ordering Information**.



Bottom view of Back-connected switch



Back-connected type

MTS & JTS Miniature Test Switches

COVERS

STATES Type MTS Test Switches feature rugged, virtually unbreakable covers available in clear or opaque styles. These covers are manufactured from tough, self-extinguishing, flame-retardant polycarbonate. The covers are constructed so that

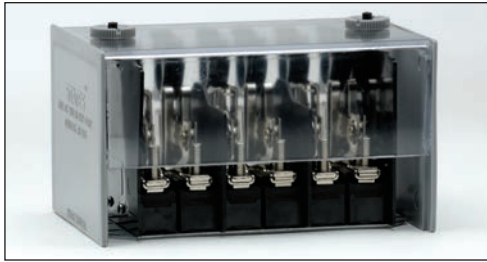
all switch blades must be closed when the cover is properly sealed. Switches provided with covers include two insulated studs that have holes for wire seals. To add a cover, refer to **ORDERING INFORMATION**.

COVERS FOR FRONT-CONNECTED SWITCHES

Covers for front-connected switches are open or slotted at the bottom of each side to permit wiring to enter and exit between the cover and the panel.

COVERS FOR BACK-CONNECTED SWITCHES

A cover is automatically included with a back-connected test switch. However, you must select either a clear or opaque style.



Slotted, front-connected clear cover



Nonslotted, back-connected clear cover – The nonslotted covers for back-connected switches fit flush with the panel because all wiring exits at the rear of the test switch



Front-connected opaque (C1) cover



Back-connected opaque (C2) cover



Front-connected clear (C3) cover



Back-connected clear (C4) cover

Covers, up to 30 poles, must be specified at order placement as cover studs are factory installed and cannot be added after shipment.

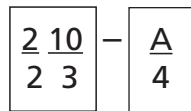
SPECIFICATIONS

MTS TECHNICAL SPECIFICATIONS		
Class	Front Connected	Back Connected
Brief Description	Metering Test Switch with Stud Terminals	Metering Test Switch with Stud Terminals
Typical Applications	Metering Sub-Station Monitoring Relay Panels	Metering Sub-Station Monitoring Relay Panels
Number of Poles Available	1 - 52 Poles	1 - 52 Poles
Certifications	UL, cUL UL File E75355	UL, cUL UL File E75355
Voltage Rating	600VAC	600VAC
Current Rating	30A	30A
Recommended Wire Size Range	Min 14awg / Max 10awg	Min 14awg / Max 10awg
Recommended Wire Lug Size	#10	#10
Stud Thread	10-32	10-32
Recommended Torque for Stud Wiring Connections	Max 25in/lbs	Max 25in/lbs
#25A - Fuse Clip Dimensions - 250 VAC 30 AMP *Fuse not included	1/4" Diameter 1 1/4" Length	1/4" Diameter 1 1/4" Length
#25 Fuse Clip Dimensions - 600 VAC 30 AMP *Fuse not included	13/32" Diameter 1 1/2" Length	13/32" Diameter 1 1/2" Length
Ambient Temperature	104° F (40° C)	104° F (40° C)

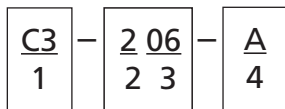
MTS & JTS
Test Switches

Understanding MTS Part Numbers				
1	2	3	4	5
Covers (Optional)	Front-Connected Part Number	Number of Poles	Arrangement Designator	Back-Connected
FRONT-CONNECTED C1 - Slotted, Opaque C3 - Slotted, Clear BACK-CONNECTED C2 - Solid, Opaque C4 - Solid, Clear NOTE: Covers can ONLY be installed by the factory	2	01 - 52	This is the letter and/or number designation that has been assigned for a particular arrangement See catalog page 81, or visit our website at www.statesproducts.com for arrangement options	Add a -B for back-connection Back-connected switches automatically come with a cover. Please specify either C2 = nonslotted, opaque or C4 = nonslotted, clear NOTE: Covers are available up to 30 poles. *Back-connection is available on higher poles if desired
*Switches excluding one of the cover designations above will be supplied front-connected without a cover				

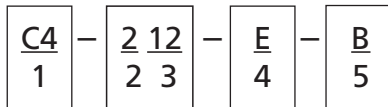
EXAMPLES



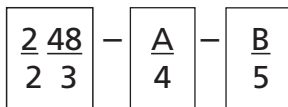
Part No. 210-A
Front-connected 10 pole test switch, no cover.



Part No. C3-206-A
Front-connected 6 pole test switch, with a clear slotted front-connected cover.



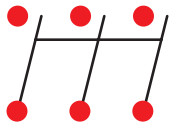

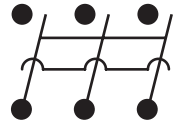


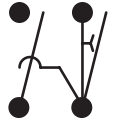
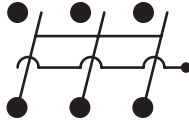


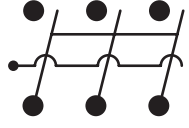










Part No. C4-212-E-B
Back-connected 12 pole test switch, with a clear solid back-connected cover.



Part No. 248-A-B
Back-connected 48 pole test switch, no cover.

MTS SWITCH ELEMENTS

<p>1</p>  <p>Single-Pole Potential</p>	<p>2</p>  <p>Ganged Double-Pole Potential</p>	<p>16</p>  <p>Ganged Three-Pole Potential</p>
<p>13</p>  <p>Ganged Two-Pole Short-Circuiting Current Assembly</p>	<p>17</p>  <p>Ganged Three-Pole Short-Circuiting Current Assembly</p>	<p>9</p>  <p>Current Test Jack</p>
<p>6</p>  <p>Short-Circuiting Assembly With Right-Hand Common Bar</p>	<p>10</p>  <p>Right-Hand Current Assembly Consists of Test Jack and Short-Circuiting Current Assemblies</p>	<p>20</p>  <p>Ganged Three-Pole Short-Circuiting Current Assembly, Right Extension</p>
<p>5</p>  <p>Short-Circuiting Assembly With Left-Hand Common Bar</p>	<p>11</p>  <p>Left-Hand Current Assembly Consists of Test Jack and Short-Circuiting Current Assemblies</p>	<p>19</p>  <p>Ganged Three-Pole Short-Circuiting Current Assembly, Left Extension</p>
<p>90</p>  <p>Right-Hand Short-Circuiting Assembly Ending at a Terminal</p>	<p>91</p>  <p>Left-Hand Short-Circuiting Assembly Ending at a Terminal</p>	<p>24</p>  <p>Through Bar</p>
<p>25</p>  <p>600-Volt Fuse Holder</p>	<p>25A</p>  <p>250-Volt Fuse Holder</p>	<p>26</p>  <p>Blank Space</p>
<p>7</p>  <p>Current Test Jack With Left-Hand Common Bar</p>	<p>8</p>  <p>Current Test Jack With Right-Hand Common Bar</p>	

NOTES:

- Barriers are provided between poles of opposite polarity.
- Potential** handles are **red** and **current** handles are **black** unless otherwise specified.
- Specify adjacent handles to be ganged (yoked) if desired.
- Arrange elements left to right, front view.
- Element No. 25A accepts standard cartridge fuses rated 250 VAC 30 AMP. **Fuse not included.** Fuse dimensions must be 1/4" diameter and 1 1/4" in length.
- Element No. 25 accepts standard cartridge fuses rated 600 VAC 30 AMP. **Fuse not included.** Fuse dimensions must be 9/32" diameter and 1 1/2" in length.

Color Key: k: Black b: Blue g: Green e: Orange r: Red w: White y: Yellow

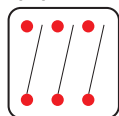
ORDERING INFORMATION

The part numbers under the arrangements beginning on page 81 are for front-connected switches without covers. These same numbers are also used as the basis for ordering back-connected.

The part numbers are three digits followed by a letter or letter and number combination.

Example: 203-A

1/1/1



The slashes "/" in the arrangements represent barriers that are installed standard between any adjoining elements of opposite polarity.

203-A

SPECIAL ORDERS

Special Arrangements: These can be made of any combination of potential or current elements, with a maximum of 52 poles. For more information, refer to the following example and illustrations on page 75.

To order a customized, 10-pole, back-connected switch with a clear, back-connected cover, specify:

Switch Type: STATES Type MTS
No. of poles: 10-pole test switch
***Arrangement:** 10/2/11/1/16
Style: Back-connected
Cover: Clear, back-connected

Handle Colors: The standard colors for handles are **red** for **potential** and **black** for **current**. Handles are also available in other colors.

***Arrangements should be given as front view of switch, left to right, using the elements listed on page 72.**

To specify non-standard colors, add to the element number the appropriate color code:

Color	Color Code	Color	Color Code
Black	k	Red	r
Blue	b	White	w
Green	g	Yellow	y
Orange	e		

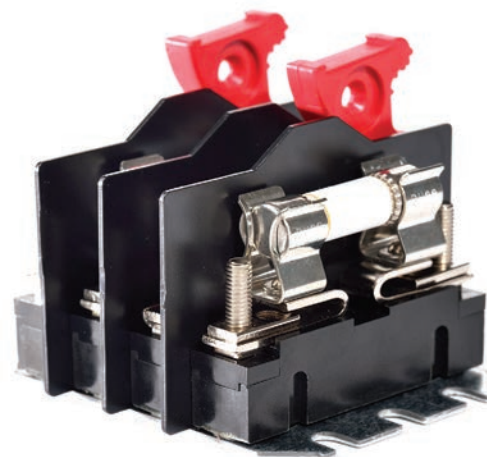
To order a switch with handles in non-standard colors, you must specify the arrangement with colors indicated. For example, to order a 10-pole switch with special handle colors, specify: **Arrangement:** 10/10r/10g/10w/1k/1k

Ganged handles: You may specify a yoking bar to gang adjacent handles. For example, to order a switch with the adjacent potentials ganged, you must specify: **Gang all potentials**

Ganged handles are represented with the number (#) sign.

Example: #1/1/1/1# (all handles in between the "#" are ganged together)

Hinge position: The "U" in an arrangement (next to an element) indicates the hinge is positioned upside down from the typical arrangement.



MTS shown with fuse holder (Fuse not included)

OPTIONAL ACCESSORIES



Socket Wrench and Insert

To speed installation of the terminal nuts on States Test Switches, the socket wrench (Part No. 16028) and 3/8 inch insert (Part No. 16027) are available. Pictures available in the Testing Accessories section on page 134.

Also available are the 5/16 inch insert (Part No. 16025) for use in installing the terminal nuts on STATES Type Terminal Blocks and States Type MTS Test Switches.

The screwdriver attachment (Part No. 16022) makes this wrench your complete meter installation tool.

Dual Circuit Plug

By inserting the STATES Dual Circuit Plug (Part No. 15000) into the test jack, safe measurement can be made of current transformer secondary current.



STATES recommends the use of Part No. 15000 on all of its' test switches.

Use of any other manufacturer's plug could damage the switch and may void the warranty.

Jumper Strips

Part No. TBT168

(The TBT168, which is 3ft long, can be cut to the required length by the user)

This nickel-plated jumper strip is made specially for the STATES Type NT & ZWM Terminal Blocks and the STATES Type MTS Test Switches.



See Testing Accessories on page 128.

JTS TEST SWITCHES

STATES' new JTS Test Switch is similar to the MTS platform when it comes to flexibility of pole arrangements, elements available and types of connections. It also provides a new safe and efficient approach to field measuring and testing for commercial and industrial metering applications.

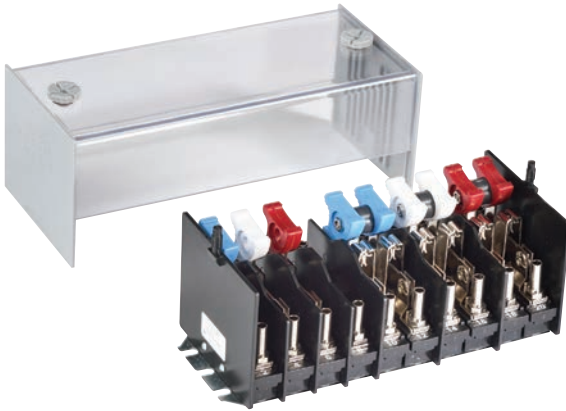
By allowing the technician to connect directly to the block, it eliminates false readings and the possibility of personnel accidents from a loose connection due to over-used and worn out tools. This makes it safer for technicians and improves their efficiency when performing their routine tests.

The base for these units comes numbered for ease of circuit identification in order to avoid connection mistakes.

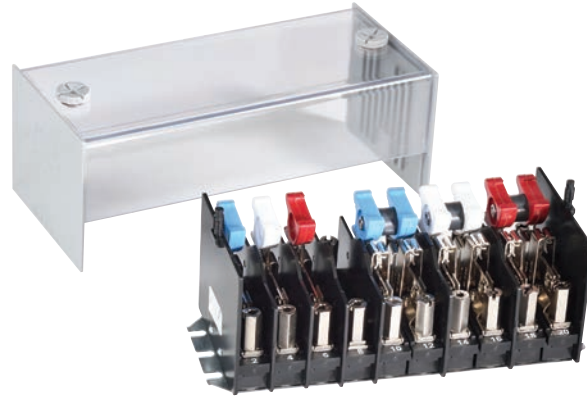
These can be ordered with; Safety Banana Jack barrel connectors, Standard Banana Jack connectors and Round head pan screws.

Safe, easy, fast to short the connection.

MTS & JTS
Test Switches



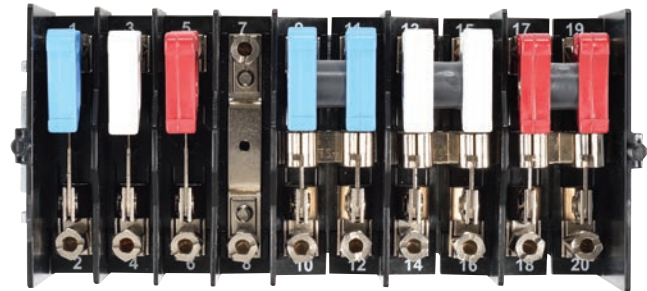
JTS 10 Pole Switch with safety jacks and clear cover



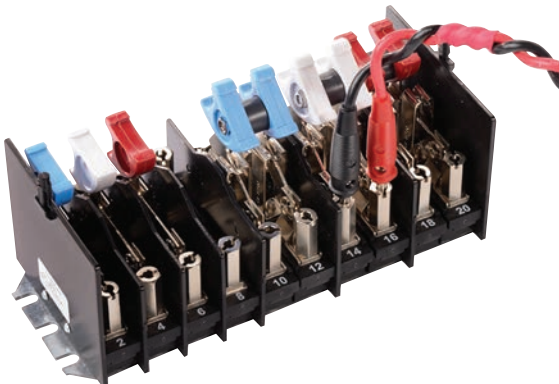
JTS 10 Pole Switch with hex jacks and clear cover



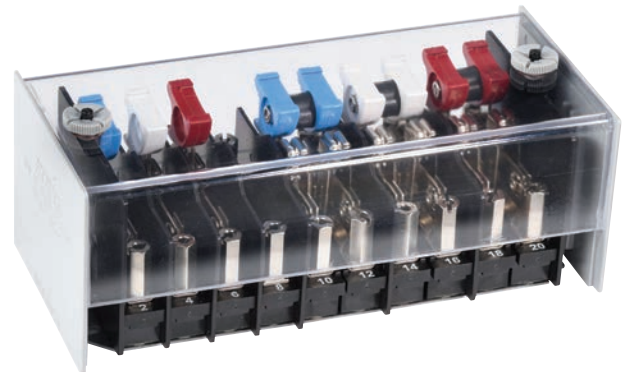
JTS 10 Pole Switch with plain screws and clear cover



Front view of hex jack switch



JTS shown with test leads attached



JTS shown with clear cover

SPECIFICATIONS

JTS TECHNICAL SPECIFICATIONS			
Class	Safety Jack Test Switch	Hex Jack Test Switch	Plain Screw Test Switch
Brief Description	Front Connected or Back Connected Semi-Flush Mounted Test Switch with Safety Banana Jack Bolt	Front Connected or Back Connected Semi-Flush Mounted Test Switch with Hex Banana Jack Bolt	Front Connected or Back Connected Semi-Flush Mounted Test Switch with Plain Screw
Typical Applications	Metering Sub-Station Monitoring Relay Panels	Metering Sub-Station Monitoring Relay Panels	Metering Sub-Station Monitoring Relay Panels
Number of Poles Available	1 - 52 Poles	1 - 52 Poles	1 - 52 Poles
Certifications	UL, cUL UL File E75355	UL, cUL UL File E75355	UL, cUL UL File E75355
Voltage Rating	600VAC / 300VDC	600VAC / 300VDC	600VAC / 300VDC
Current Rating	30A	30A	30A
Recommended Wire Size Range	Min 14awg / Max 10awg	Min 14awg / Max 10awg	Min 14awg / Max 10awg
Recommended Wire Lug Size	#10	#10	#10
Recommended Torque for Stud Wiring Connections	Max 25in/lbs	Max 25in/lbs	Max 25in/lbs
#25A - Fuse Clip Dimensions - 250 VAC 30 AMP *Fuse not included	1/4" Diameter 1 1/4" Length	1/4" Diameter 1 1/4" Length	1/4" Diameter 1 1/4" Length
#25 - Fuse Clip Dimensions - 600 VAC 30 AMP *Fuse not included	13/32" Diameter 1 1/2" Length	13/32" Diameter 1 1/2" Length	13/32" Diameter 1 1/2" Length
Ambient Temperature	104° F (40° C)	104° F (40° C)	104° F (40° C)

MTS & JTS
Test Switches

Understanding JTS Part Numbers					
1	2	3	4	5	6
Covers (Optional)	Front-Connected Part Number	Number of Poles	Arrangement Designator	Back-Connected	Optional (Special Printing)
FRONT-CONNECTED C1 - Slotted, Opaque C3 - Slotted, Clear BACK-CONNECTED C2 - Solid, Opaque C4 - Solid, Clear NOTE: Covers can ONLY be installed by the factory	S (Safety) H (Hex) P (Plain Screw) NOTE: Replace the "2" in any MTS part number with the desired option above	01 - 52	This is the letter and/or number designation that has been assigned for a particular arrangement See catalog page 81, or visit our website at www.statesproducts.com for arrangement options	Add a -B for back-connection Back-connected switches automatically come with a cover. Please specify either C2 = nonslotted, opaque or C4 = nonslotted, clear NOTE: Covers are available up to 30 poles. *Back-connection is available on higher poles if desired	-SP = for Special Printing This designation to be used when ordering custom printing. The JTS version is supplied with standard numbering 1 - xx (however many poles ordered) Example: S10-A will have standard numbering 1 - 20
*Switches excluding one of the cover designations above will be supplied front-connected without a cover					

EXAMPLES

H	10	-	A
2	3		4

Part No. H10-A

Front-connected 10 pole test switch, no cover, hex head connection.

C3	S	06	-	A
1	2	3		4

Part No. C3-S06-A

Front-connected 6 pole test switch, with a clear slotted front-connected cover, safety jack connection.

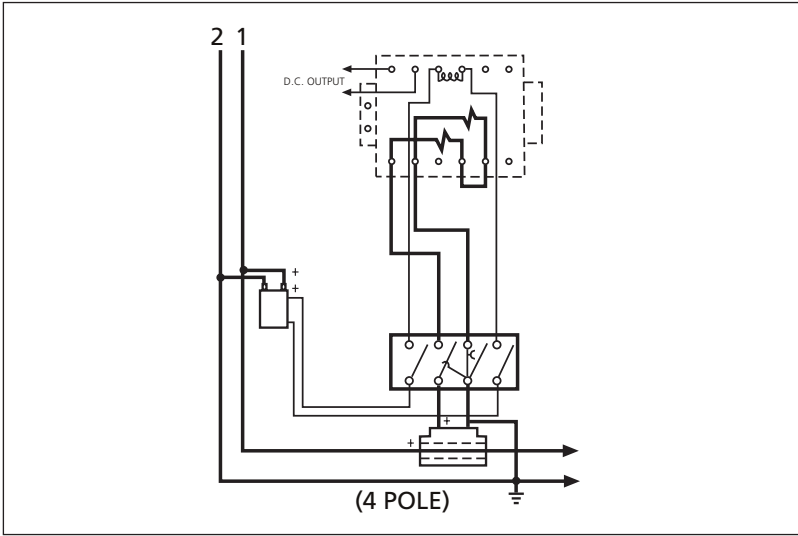
C4	P	12	-	E	-	B
1	2	3		4		5

Part No. C4-P12-E-B

Back-connected 12 pole test switch, with a clear solid back-connected cover, plain screw connection.

Typical Wiring Diagram

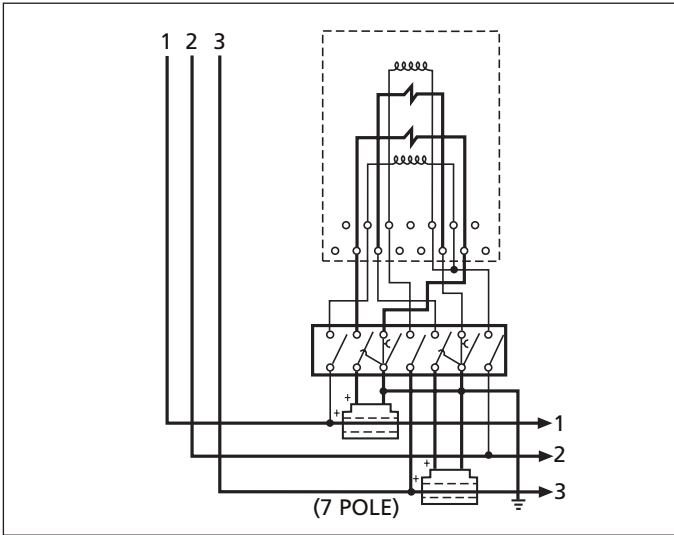
MTS & JTS
Test Switches



1 ϕ Watt Transducer



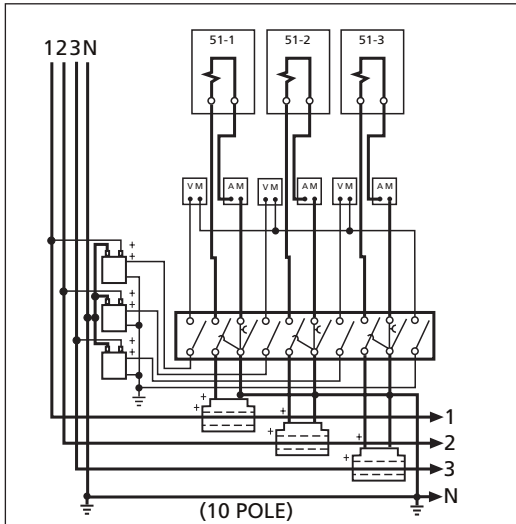
4-Pole Test Switch - Part No. 204-N (ARR: 1/10/1)



3 ϕ Watthour Meter



7-Pole Test Switch - Part No. 207-K (ARR: 1/10/1/10/1)



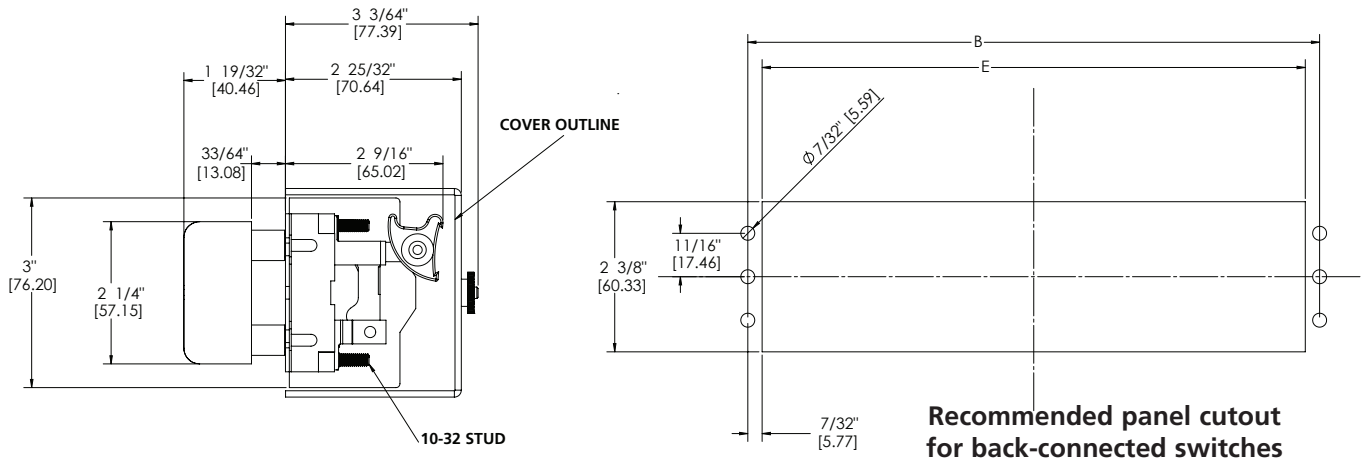
Overcurrent Relays



10-Pole Test Switch - Part No. 210-E (ARR: 1/10/1/10/1/10/1)

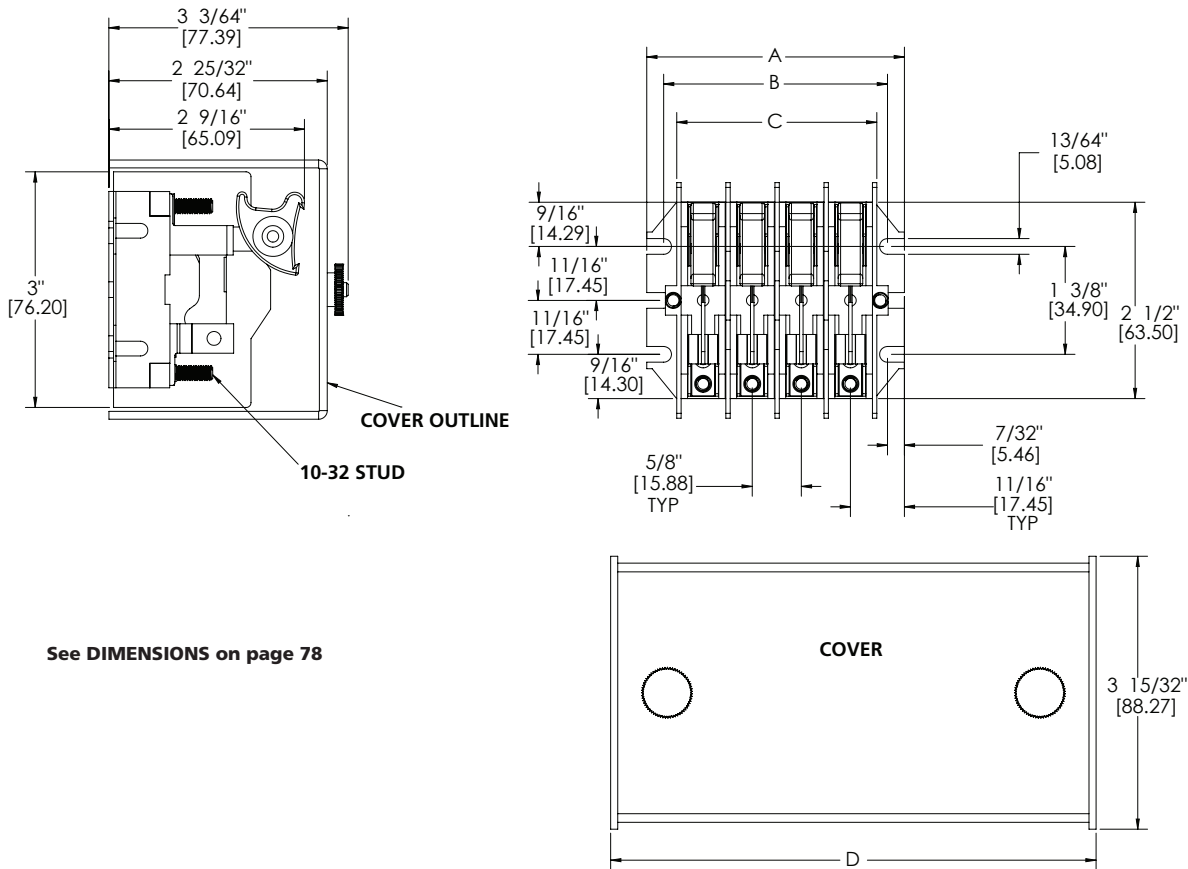
DIMENSIONS IN INCHES [MM]

STATES Type MTS & JTS Back-Connected Switches



**MTS & JTS
Test Switches**

STATES Type MTS & JTS Front-Connected Switches



See DIMENSIONS on page 78

Covers are OPTIONAL on front-connected switches and come standard on back-connected switches. Please specify which cover type, clear or opaque, you require when ordering a back-connected switch. Please refer to page 70 for cover information.

MTS & JTS Miniature Test Switches

DIMENSIONS

NO. OF POLES	A			B			C			D			E		
	FRACTIONS	DECIMAL	MM	FRACTIONS	DECIMAL	MM	FRACTIONS	DECIMAL	MM	FRACTIONS	DECIMAL	MM	FRACTIONS	DECIMAL	MM
1	1 3/8	1.38	34.93	31/32	0.97	24.61	35/64	0.55	13.89	1 13/16	1.81	46.04	43/64	0.67	17.07
2	2	2.00	50.80	1 19/32	1.59	40.48	1 11/64	1.17	29.77	2 1/2	2.50	63.50	1 19/64	1.30	32.94
3	2 5/8	2.63	66.68	2 7/32	2.22	56.36	1 51/64	1.80	45.64	3 1/8	3.13	79.38	1 59/64	1.92	48.82
4	3 1/4	3.25	82.55	2 27/32	2.84	72.23	2 27/64	2.42	61.52	3 3/4	3.75	95.25	2 35/64	2.55	64.69
5	3 7/8	3.88	98.43	3 15/32	3.47	88.11	3 3/64	3.05	77.39	4 3/8	4.38	111.13	3 11/64	3.17	80.57
6	4 1/2	4.50	114.30	4 3/32	4.09	103.98	3 43/64	3.67	93.27	5	5.00	127.00	3 51/64	3.80	96.44
7	5 1/8	5.13	130.18	4 23/32	4.72	119.86	4 19/64	4.30	109.14	5 5/8	5.63	142.88	4 27/64	4.42	112.32
8	5 3/4	5.75	146.05	5 11/32	5.34	135.73	4 59/64	4.92	125.02	6 1/4	6.25	158.75	5 3/64	5.05	128.19
9	6 3/8	6.38	161.93	5 31/32	5.97	151.61	5 35/64	5.55	140.89	6 7/8	6.88	174.63	5 43/64	5.67	144.07
10	7	7.00	177.80	6 19/32	6.59	167.48	6 11/64	6.17	156.77	7 1/2	7.50	190.50	6 19/64	6.30	159.94
11	7 5/8	7.63	193.68	7 7/32	7.22	183.36	6 51/64	6.80	172.64	8 1/8	8.13	206.38	6 59/64	6.92	175.82
12	8 1/4	8.25	209.55	7 27/32	7.84	199.23	7 27/64	7.42	188.52	8 3/4	8.75	222.25	7 35/64	7.55	191.69
13	8 7/8	8.88	225.43	8 15/32	8.47	215.11	8 3/64	8.05	204.39	9 3/8	9.38	238.13	8 11/64	8.17	207.57
14	9 1/2	9.50	241.30	9 3/32	9.09	230.98	8 43/64	8.67	220.27	10	10.00	254.00	8 51/64	8.80	223.44
15	10 1/8	10.13	257.18	9 23/32	9.72	246.86	9 19/64	9.30	236.14	10 5/8	10.63	269.88	9 27/64	9.42	239.32
16	10 3/4	10.75	273.05	10 11/32	10.34	262.73	9 59/64	9.92	252.02	11 1/4	11.25	285.75	10 3/64	10.05	255.19
17	11 3/8	11.38	288.93	10 31/32	10.97	278.61	10 35/64	10.55	267.89	11 7/8	11.88	301.63	10 43/64	10.67	271.07
18	12	12.00	304.80	11 19/32	11.59	294.48	11 11/64	11.17	283.77	12 1/2	12.50	317.50	11 19/64	11.30	286.94
19	12 5/8	12.63	320.68	12 7/32	12.22	310.36	11 51/64	11.80	299.64	13 1/8	13.13	333.38	11 59/64	11.92	302.82
20	13 1/4	13.25	336.55	12 27/32	12.84	326.23	12 27/64	12.42	315.52	13 3/4	13.75	349.25	12 35/64	12.55	318.69
21	13 7/8	13.88	352.43	13 15/32	13.47	342.11	13 3/64	13.05	331.39	14 3/8	14.38	365.13	13 11/64	13.17	334.57
22	14 1/2	14.50	368.30	14 3/32	14.09	357.98	13 43/64	13.67	347.27	15	15.00	381.00	13 51/64	13.80	350.44
23	15 1/8	15.13	384.18	14 23/32	14.72	373.86	14 19/64	14.30	363.14	15 5/8	15.63	396.88	14 27/64	14.42	366.32
24	15 3/4	15.75	400.05	15 11/32	15.34	389.73	14 59/64	14.92	379.02	16 1/4	16.25	412.75	15 3/64	15.05	382.19
25	16 3/8	16.38	415.93	15 31/32	15.97	405.61	15 35/64	15.55	394.89	16 7/8	16.88	428.63	15 43/64	15.67	398.07
26	17	17.00	431.80	16 19/32	16.59	421.48	16 11/64	16.17	410.77	17 1/2	17.50	444.50			
27	17 5/8	17.63	447.68	17 7/32	17.22	437.36	16 51/64	16.80	426.64	18 1/8	18.13	460.38			
28	18 1/4	18.25	463.55	17 27/32	17.84	453.23	17 27/64	17.42	442.52	18 3/4	18.75	476.25			
29	18 7/8	18.88	479.43	18 15/32	18.47	469.11	18 3/64	18.05	458.39	19 3/8	19.38	492.13			
30	19 1/2	19.50	495.30	19 3/32	19.09	484.98	18 43/64	18.67	474.27	20	20.00	508.00			
31	20 1/8	20.13	511.18	19 23/32	19.72	500.86	19 19/64	19.30	490.14						
32	20 3/4	20.75	527.05	20 11/32	20.34	516.73	19 59/64	19.92	506.02						
33	21 3/8	21.38	542.93	20 31/32	20.97	532.61	20 35/64	20.55	521.89						
34	22	22.00	558.80	21 19/32	21.59	548.48	21 11/64	21.17	537.77						
35	22 5/8	22.63	574.68	22 7/32	22.22	564.36	21 51/64	21.80	553.64						
36	23 1/4	23.25	590.55	22 27/32	22.84	580.23	22 27/64	22.42	569.52						
37	23 7/8	23.88	606.43	23 15/32	23.47	596.11	23 3/64	23.05	585.39						
38	24 1/2	24.50	622.30	24 3/32	24.09	611.98	23 43/64	23.67	601.27						
39	25 1/8	25.13	638.18	24 23/32	24.72	627.86	24 19/64	24.30	617.14						
40	25 3/4	25.75	654.05	25 11/32	25.34	643.73	24 59/64	24.92	633.02						
41	26 3/8	26.38	669.93	25 31/32	25.97	659.61	25 35/64	25.55	648.89						
42	27	27.00	685.80	26 19/32	26.59	675.48	26 11/64	26.17	664.77						
43	27 5/8	27.63	701.68	27 7/32	27.22	691.36	26 51/64	26.80	680.64						
44	28 1/4	28.25	717.55	27 27/32	27.84	707.23	27 27/64	27.42	696.52						
45	28 7/8	28.88	733.43	28 15/32	28.47	723.11	28 3/64	28.05	712.39						
46	29 1/2	29.50	749.30	29 3/32	29.09	738.98	28 43/64	28.67	728.27						
47	30 1/8	30.13	765.18	29 23/32	29.72	754.86	29 19/64	29.30	744.14						
48	30 3/4	30.75	781.05	30 11/32	30.34	770.73	29 59/64	29.92	760.02						
49	31 3/8	31.38	796.93	30 31/32	30.97	786.61	30 35/64	30.55	775.89						
50	32	32.00	812.80	31 19/32	31.59	802.48	31 11/64	31.17	791.77						
51	32 5/8	32.63	828.68	32 7/32	32.22	818.36	31 51/64	31.80	807.64						
52	33 1/4	33.25	844.55	32 27/32	32.84	834.23	32 27/64	32.42	823.52						
53	33 7/8	33.88	860.43	33 15/32	33.47	850.11	33 3/64	33.05	839.39						
54	34 1/2	34.50	876.30	34 3/32	34.09	865.98	33 43/64	33.67	855.27						
55	35 1/8	35.13	892.18	34 23/32	34.72	881.86	34 19/64	34.30	871.14						
56	35 3/4	35.75	908.05	35 11/32	35.34	897.73	34 59/64	34.92	887.02						
57	36 3/8	36.38	923.93	35 31/32	35.97	913.61	35 35/64	35.55	902.89						
58	37	37.00	939.80	36 19/32	36.59	929.48	36 11/64	36.17	918.77						

MTS & JTS Test Switches

DIMENSIONS

NO. OF POLES	A			B			C		
	FRACTIONS	DECIMAL	MM	FRACTIONS	DECIMAL	MM	FRACTIONS	DECIMAL	MM
59	37 5/8	37.63	955.68	37 7/32	37.22	945.36	36 51/64	36.80	934.64
60	38 1/4	38.25	971.55	37 27/32	37.84	961.23	37 27/64	37.42	950.52
61	38 7/8	38.88	987.43	38 15/32	38.47	977.11	38 3/64	38.05	966.39
62	39 1/2	39.50	1003.30	39 3/32	39.09	992.98	38 43/64	38.67	982.27
63	40 1/8	40.13	1019.18	39 23/32	39.72	1008.86	39 19/64	39.30	998.14
64	40 3/4	40.75	1035.05	40 11/32	40.34	1024.73	39 59/64	39.92	1014.02
65	41 3/8	41.38	1050.93	40 31/32	40.97	1040.61	40 35/64	40.55	1029.89
66	42	42.00	1066.80	41 19/32	41.59	1056.48	41 11/64	41.17	1045.77
67	42 5/8	42.63	1082.68	42 7/32	42.22	1072.36	41 51/64	41.80	1061.64
68	43 1/4	43.25	1098.55	42 27/32	42.84	1088.23	42 27/64	42.42	1077.52
69	43 7/8	43.88	1114.43	43 15/32	43.47	1104.11	43 3/64	43.05	1093.39
70	44 1/2	44.50	1130.30	44 3/32	44.09	1119.98	43 43/64	43.67	1109.27
71	45 1/8	45.13	1146.18	44 23/32	44.72	1135.86	44 19/64	44.30	1125.14
72	45 3/4	45.75	1162.05	45 11/32	45.34	1151.73	44 59/64	44.92	1141.02
73	46 3/8	46.38	1177.93	45 31/32	45.97	1167.61	45 35/64	45.55	1156.89

"C" dim is outside edge of block

To provide extra mounting support, at 26 poles one blank space is added and at 51 poles, two blank spaces are added.
 If you order part number 248-A-B, which is a 48 pole test switch, you will need to use the mounting dimension for the 49 pole strip.
 If you order part number 252-A, which is a 52 pole test switch, you will need to use the mounting dimension for the 54 pole strip.

MTS & JTS Miniature Test Switches

MTS & JTS ACCESSORIES

PART NUMBER	DESCRIPTION
MTS28-100	White Marker Handle Tags (100pcs per bag)
MTS20-xx	Handle Ganging Kit - Replace the "xx" with the required number of adjacent poles to be ganged together (example: MTS20-2 - 2 Pole Kit)
XNT126-100	Hex Nut 10-32 x 5/16 W x 7/64 Thick, Brass Nickel Plate (100pcs per bag)
MTS Covers are available from 1 - 30 Poles Only - Replace the "xx" below with the required number of poles to cover	
MTC1-xx	C1 - Front Connected Opaque Cover - includes cover cut to size and cover knobs
MTC2-xx	C2 - Back Connected Opaque Cover - includes cover cut to size and cover knobs
MTC3-xx	C3 - Front Connected Clear Cover - includes cover cut to size and cover knobs
MTC4-xx	C4 - Back Connected Clear Cover - includes cover cut to size and cover knobs

***NOTE:** MTS covers cannot be added to switches that were not originally purchased with a cover.

JTS Accessories



2005-286
Banana Jack Hex w/Slot



2005-287
Safety Banana Jack Receptacle



3704
Panhead Phillips Screw

2005-286-20	10-32 Male Banana Jack Hex w/Slot, Brass Nickel Plated (20pcs per bag)
2005-287-20	10-32 Male Safety Banana Jack Receptacle, Brass, Nickel Plated (20pcs per bag)
3704-20	10-32 x 3/8 Screw, Panhead Phillips, Stainless Steel (20pcs per bag)

Mounting bars are available from 1 to 73 poles, call the sales office, 1-800-325-4574, for part numbers.
Please refer to our website for accessory pictures.

**FRONT VIEW
1-POLE**



201-A

Color Options:

- 1k**
201-C
- 1y**
201-D

9



201-B

**2-POLE
1/1**



202-A

Color Options:

- 1k/1k**
202-H
- 1y/1y**
202-D

2



202-B

2k
202-J

10



202-C

11



202-F

Color Option:

- 11r**
202-L

13



202-E

Other 2-Pole
Standard Arrangement:

6-24
202-G

3-POLE

1/1/1



203-A

16



203-D

1/10



203-B

10/1



203-C

13/1



203-H

1/13



203-J

17



203-E

Other 3-Pole
Standard Arrangements:

6-6-5
203-K

6-6-24
203-L

9/9/9
203-F

9/24-5
203-G

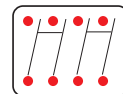
4-POLE

1/1/1/1



204-A

2/2

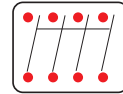


204-D

Color Option:

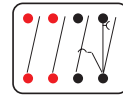
- 2k/2k**
204-A2

1/1/1/1



204-E

1/1/10



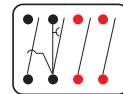
204-F

1/1/11



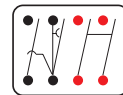
204-J

10/1/1



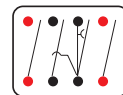
204-K

10/2



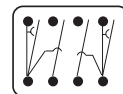
204-G

1/10/1



204-N

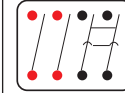
11/10



204-Q

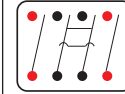
4-POLE (CONT.)

1/1/13



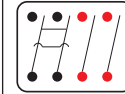
204-B

1/13/1



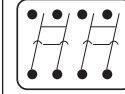
204-L

13/1/1



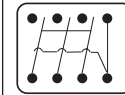
204-M

13/13



204-H

20-24



204-C

Other 4-Pole
Standard Arrangements:

1/10/24
204-A3

1/16
204-A5

9/9/9/9
204-R

9/24-14
204-S

11/11
204-W

11b/11e
204-Z

20-9
204-A4

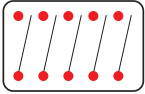
20r-24
204-U

24-19r
204-T

FRONT VIEW

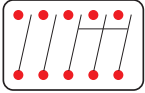
5-POLE

1/1/1/1/1



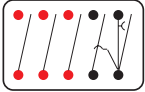
205-A

1/1/16



205-H

1/1/1/10



205-B

1/1/10/1



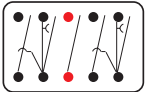
205-C

1/10/1/1



205-D

10/1/10



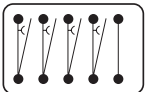
205-F

11/1/10



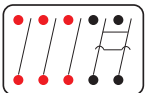
205-G

9/9/9/9/24



205-J

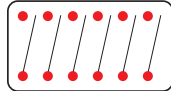
1/1/1/13



205-E

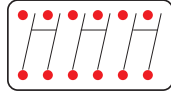
6-POLE

1/1/1/1/1/1



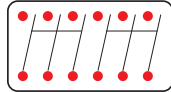
206-A

2/2/2



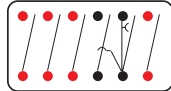
206-D

16/16



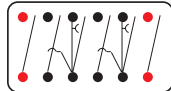
206-E

1/1/1/10/1



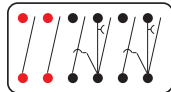
206-F

1/10/10/1



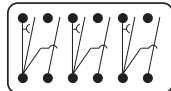
206-G

1/1/10/10



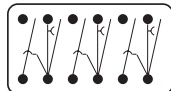
206-J

11/11/11



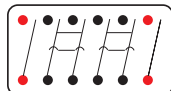
206-K

10/10/10



206-C

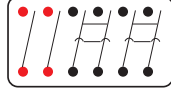
1/13/13/1



206-H

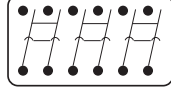
6-Pole (CONT.)

1/1/13/13



206-S

13/13/13



206-B

Other 6-Pole Standard Arrangements:

1/1/1/1/11

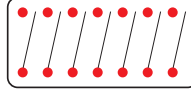
206-P

2/2/13

206-L

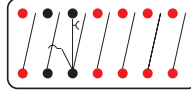
7-POLE

1/1/1/1/1/1/1



207-A

1/10/1/1/1/1/1



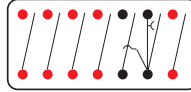
207-G

1/1/10/1/1/1



207-F

1/1/1/1/10/1



207-H

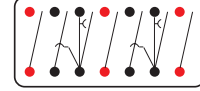
16/10/10



207-J

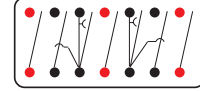
7-Pole (CONT.)

1/10/1/10/1



207-K

1/10/1/11/1



207-B

1/1/1/10/10



207-C

Color Option:

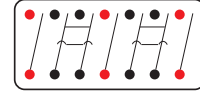
1k/1k/1k/10/10
207-P

1/1/1/10/11



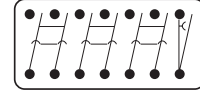
207-E

1/13/1/13/1



207-D

13/13/13/9



207-L

Other 7-Pole Standard Arrangements:

#1/1/1/1/1/1/1#
207-M

1/1/1/1/11/11
207-Q

1/6-1-6-9-9/1
207-N

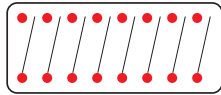
6-6-6-6-6-6-24
207-S

9/9/9/24-19
207-R

FRONT VIEW

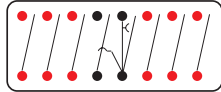
8-POLE

1/1/1/1/1/1/1/1



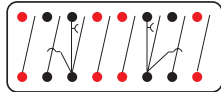
208-D

1/1/1/10/1/1/1/1



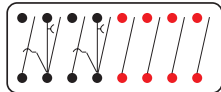
208-E

1/10/1/1/11/1



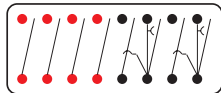
208-A

10/10/1/1/1/1



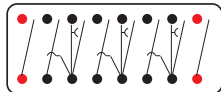
208-B

1/1/1/1/10/10



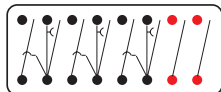
208-G

1/10/10/10/1



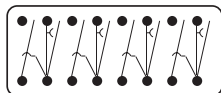
208-K

10/10/10/1/1



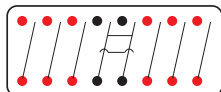
208-L

10/10/10/10



208-P

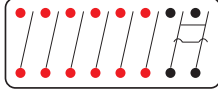
1/1/1/13/1/1/1



208-Q

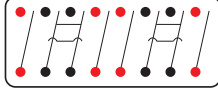
8-Pole (CONT.)

1/1/1/1/1/1/1/13



208-C

1/13/1/1/13/1



208-H

1/1/1/1/13/13



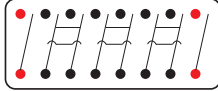
208-J

16/24/13/13



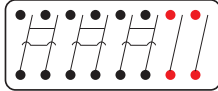
208-F

1/13/13/13/1



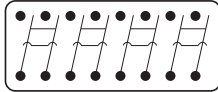
208-M

13/13/13/1/1



208-N

13/13/13/13



208-W

Other 8-Pole
Standard Arrangements:

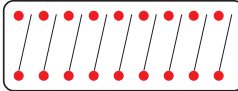
#1/1/1/1/1/1/1/1#
208-T

1/6-1-6-9-1-9/1
208-R

2/2/2/2
208-S

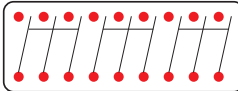
9-POLE

1/1/1/1/1/1/1/1/1



209-A

16/16/16



209-B

1/1/1/10/10/10



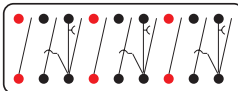
209-U

16/10/10/10



209-E

1/10/1/10/1/10



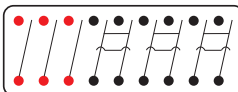
209-K

1/13/1/13/1/13



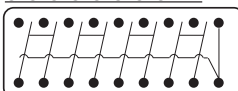
209-H

1/1/1/13/13/13



209-D

6-6-6-6-6-6-6-24



209-C

Other 9-Pole
Standard Arrangements:

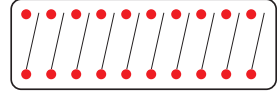
1/1/24/10/10/10
209-F

9/9/9/9/9/9/9/9/1
209-G

11/9/11/9/11/9
209-J

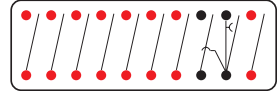
10-POLE

1/1/1/1/1/1/1/1/1/1



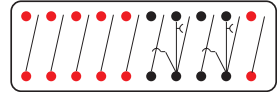
210-A

1/1/1/1/1/1/1/10/1



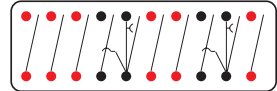
210-B

1/1/1/1/1/10/10/1



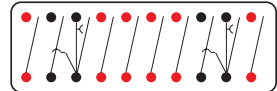
210-C

1/1/1/10/1/1/10/1



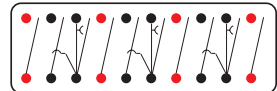
210-D

1/10/1/1/1/1/10/1



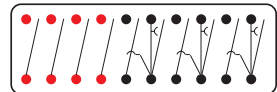
210-F

1/10/1/10/1/10/1



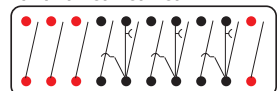
210-E

1/1/1/1/10/10/10



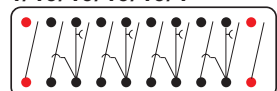
210-H

1/1/1/10/10/10/1



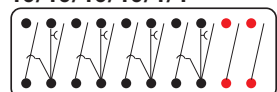
210-J

1/10/10/10/10/1



210-K

10/10/10/10/1/1



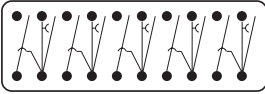
210-L

Color Key: k: Black b: Blue g: Green e: Orange r: Red w: White y: Yellow

FRONT VIEW

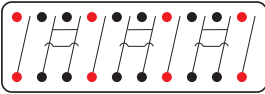
10-Pole (CONT.)

10/10/10/10/10



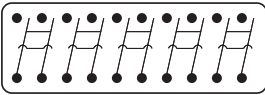
210-M

1/13/1/13/1/13/1



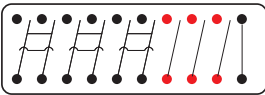
210-G

13/13/13/13/13



210-N

13/13/13/1/1/1/24



210-P

Other 10-Pole
Standard Arrangements:

1/1/1/24/10/10/10
210-T

1/1/1/24/13/13/13
210-AA

1/10/1/10/1/10/24
210-R

2/2/2/2/2
210-Y

9/9/9/9/9/9/9/9/9/9
210-Q

9/9/9/9/24-5-5-5-5-5
210-V

9/9/9/24#-19-19#
210-U

10/10/10/1/1/1/1
210-W

13/13/13/13/13
210-X

1/1/1/1/9-5-9-5-9-5
210-S

11-POLE

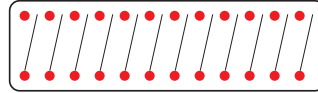
1/1/1/1/1/1/1/1/1/1/1
211-A

10/10/9/10/9/9/2
211-C

13/13/1/1/1/1/1/1/1
211-B

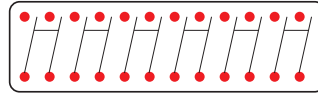
12-POLE

1/1/1/1/1/1/1/1/1/1/1/1



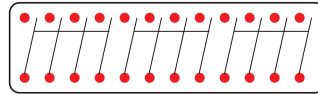
212-A

2/2/2/2/2/2



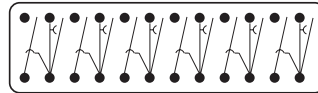
212-B

1/1/1/1/1/1/1/1/1/1/1/1



212-C

10/10/10/10/10/10



212-D

Other 12-Pole
Standard Arrangements:

1/1/10/1/10/1/10/1/1
212-F

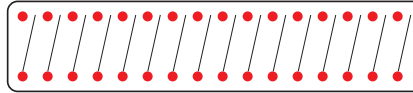
1/10/1/10/1/10/1/10
212-E

9/9/9/9/9/9/9/9/9/16
212-H

13/13/13/13/13/13
212-G

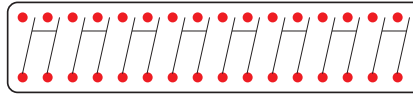
16-POLE

16 - #1 elements



216-A

8 - #2 elements



216-B

Other 16-Pole
Standard Arrangements:

1/1/1/1/13/13/1/1/1/1/1/1/1/1/1
216-D

1/1/1/24/10/10/10/10/10/10
216-C

21-POLE

21 - #1 elements
221-A

13/13/13/24/13/13/13/24/13/13/13/24
221-B

24/13w/13g/13k/24/13w/13g/13k/24/13w/13g/13k
221-C

13k/13g/13w/24/13k/13g/13w/24/13k/13g/13w/24
221-D

22-POLE

22 - #1 elements
222-A

2/2/2/2/2/2/2/2/2/2/2/2
222-B

24-POLE

24 - #1 elements
224-A

12 - #2 elements
224-B

12 - #13 elements
224-E

26-POLE

26 - #1 elements
226-A

26 - #1k elements
226-K

40-POLE

40 - #1 elements
240-A

20 - #13 elements
240-B

52-POLE

52 - #1 elements
252-A

26 - #13 elements
252-B

Please refer to the STATES website for more part numbers and up to date information