EECO's 1400 series switches feature snap-in front mounting in a large, easy to use package size. These switches snap together, allowing the user to create multi-switch assemblies quickly and easily without the need for additional hardware. The 1400 series offers a choice of thumbwheel, push-set or lock-set actuator methods. The lock-set model eliminates the possibility of accidental setting changes in critical applications. The 1400 series offers several 10 and 16 position binary and decimal output codes. Options such as diode provision termination, stops and F-pins for P.C. board mounting make the 1400 series switch a popular choice among design engineers. The 1400 series is covered by EECO's one year warranty.

NOTE: 1300 Series pushwheel switch discontinued, 1400 series is suggested replacement.

[1400 Series Specifications](#)

[Download Data Sheet (.PDF)](#)

1776/1976 Series

EECO's 1776 and 1976 thumbwheel switches are the standards of the industry. Both series offer 8, 10, 12 or 16 position binary or decimal codes for every possible application. The 1776 series switch is .500" wide, while the 1976 is .350" wide to save valuable front panel space. Optional notched terminals allow motherboards be easily attached. The list of available options also includes custom legends, lighting

options, double wide message units and fast mount installation hardware. Many switch models offer diode provision or several optional P.C. board configurations, allowing the switch outputs to be bussed together. The 1776 and 1976 both offer proven reliability at a reasonable price, and are backed by EECO's one year warranty.

1776/1976 Series Specifications

Download Data Sheet And Truth Tables (.PDF)

1800 Series

The 1800 series thumbwheel switch features large, easy to read characters and a small price. The 1800 series design includes front snap-in mounting, and is a slim .315" (8MM) wide to conserve front panel space. The 1800 is offered in the most popular decimal and binary output codes to meet the requirements of almost any design. Other options include stop pins and provision for diode diode installation. termination. The 1800 series is covered by EECO's one year warranty.

1800 Series Specifications

Download Data Sheet (.PDF)

2000 Series

EECO®

1776/1976 SERIES
THUMBWHEEL SWITCHES

EECO's 1776 and 1976 Series thumbwheel switches are the standards of the industry. Both Series offer 8, 10, 12 or 16 position binary or decimal output codes for every possible application.

The *1776 Series* is a standard .500" wide, while the *1976 Series* is .350" wide to save valuable front panel space. Optional notched terminals allow motherboards to be easily attached. The list of available options includes custom legends, lighting options, doublewide message units and fast-mount installation hardware. Many switch models offer mounting provisions for diodes. The *1776 and 1976 Series* both offer proven reliability at an economical price, and both are backed by EECO's one-year warranty.

LEAD-FREE!

SPECIFICATIONS

MECHANICAL

No. of Switching Positions	8, 10, 12, 16
Life	Minimum 1,000,000 Detents @ 10 mA, 5 VDC, +25^{0}C
Tangential Operating Force	1776 Series: 6-18 Oz., 1976 Series 5-16 Oz.
Weight	0.35 Oz.

ELECTRICAL

Maximum Electrical Current, Non-Switching	3A Per Common Terminal
Maximum Rated Load, Switching	125 mA at 28 VDC or 115 VAC
Contact Resistance (Initial)	100 mΩ Maximum
(After Life)	200 mΩ Maximum
Insulation Resistance	1,000 MΩ Minimum At 100 VDC
Dielectric Withstanding Voltage	1000 VAC (RMS) Single Pole Models
	500 VAC (RMS) Double Pole Models

ENVIRONMENTAL

Operating Temperature	-20^{0}C To +75^{0}C
Storage Temperature	-40^{0}C To +100^{0}C
Seal	Dust Resistant

MATERIALS
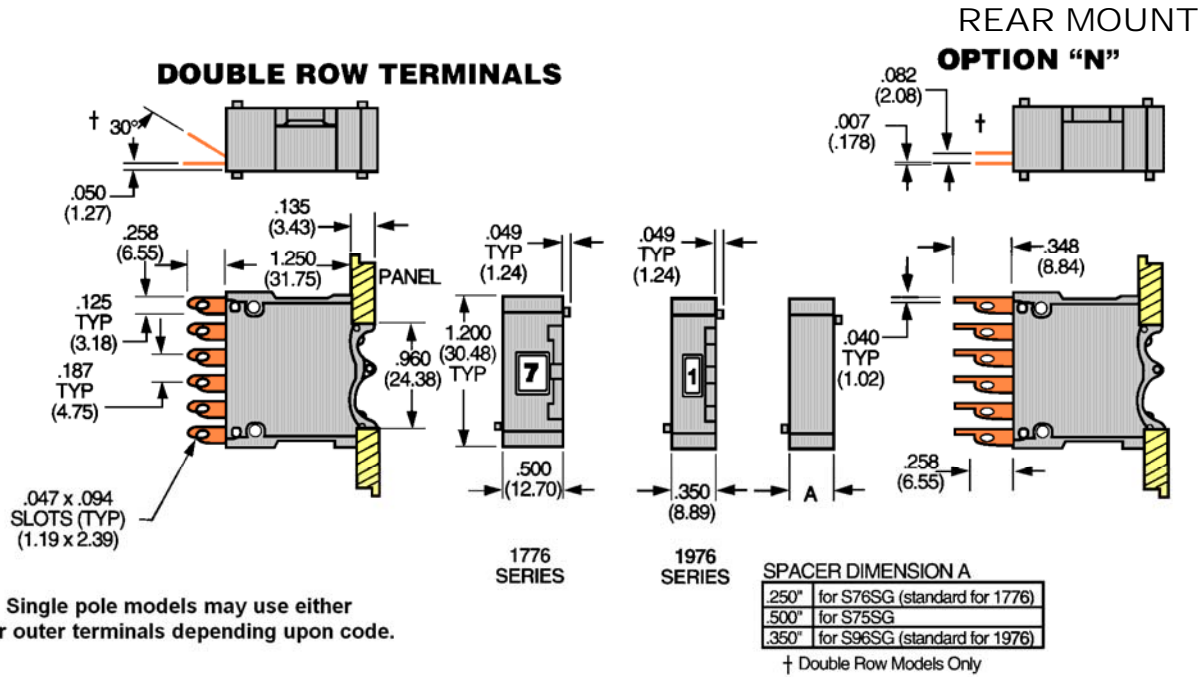
Plastic	Polycarbonate per Federal Spec LP-393A
Metals	Corrosion Resistant
Circuit Disc - Material	Glass Epoxy
Plating	Gold Over Nickel Plating
Terminals	Copper Alloy, Plated for Soldering
Contacts	Copper Alloy, Gold Over Nickel Plating

RoHS COMPLIANCE

EECO Switch is fully committed to complying with the European Lead-Free and RoHS directives. The 1776 and 1976 series are Lead Free and RoHS compliant.

OUTLINE DIMENSIONS

**REAR MOUNT
OPTION "N"**

DOUBLE ROW TERMINALS

† 30°

.050
(1.27)

.258
(6.55)

.135
(3.43)

1.250
(31.75)

PANEL

.125
TYP
(3.18)

.187
TYP
(4.75)

.047 x .094
SLOTS (TYP)
(1.19 x 2.39)

NOTE: Single pole models may use either
inner or outer terminals depending upon code.

.049
TYP
(1.24)

1.200
(30.48)
TYP

.960
(24.38)

7

.500
(12.70)

1776
SERIES

.049
TYP
(1.24)

1

.350
(8.89)

A

1976
SERIES

.082
(2.08)

.007
(.178)

†

.348
(8.84)

.040
TYP
(1.02)

.258
(6.55)

SPACER DIMENSION A

.250"	for S76SG (standard for 1776)
.500"	for S75SG
.350"	for S96SG (standard for 1976)

† Double Row Models Only

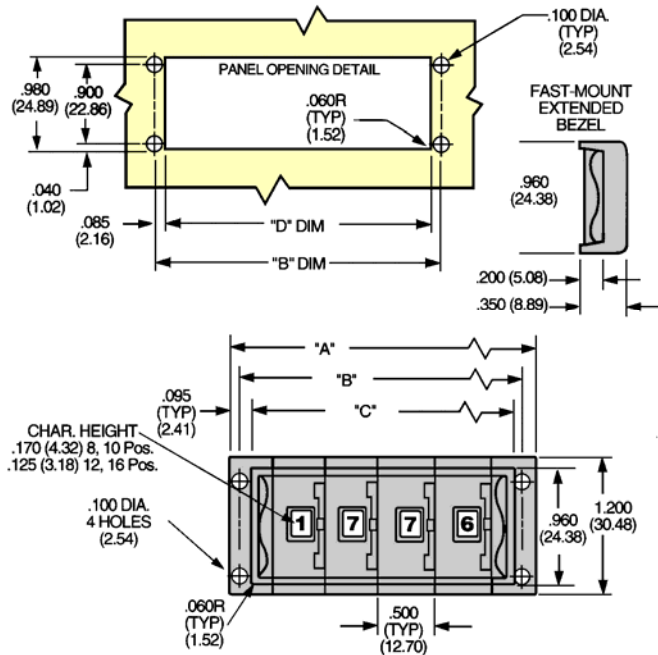## 1776/1976 HARDWARE AND ACCESSORIES

77SG-X/97SG-X	Standard Hardware Kit: Endpieces, Threaded Rods, Screws, Nuts and Washers
78SG-X/98SG-X	Fast Mount Hardware Kit: Endpieces, Bezels Threaded Rods, Screws, Nuts and Washers (Option Y)
NOTE:	**REPLACE "G" WITH "M" TO ORDER SPRAY MATTE HARDWARE** **REPLACE "X" WITH THE APPROPRIATE NUMBER OF SWITCHES IN ASSEMBLY**

SERIES	CATALOG NUMBER	PART NUMBER	DESCRIPTION
1776/1976	E76SG	195934-00	Endpiece Gloss
1776/1976	E76SM	195970-00	Endpiece Matte
1776/1976	Option Y	233658-01	Fast Mount Endpiece Gloss
1776/1976	Option Y	233659-01	Fast Mount Bezel Gloss
1776/1976	Option Y	233659-02	Fast Mount Bezel Matte
1776	S75SG	233875-01	.500" Spacer Gloss
1776	S75SM	233875-02	.500" Spacer Matte
1776	S76SG	195954-00	.250" Spacer Gloss
1776	S76SM	195972-00	.250" Spacer Matte
1976	S96SG	234104-01	.350" Spacer Gloss
1976	S96SM	234104-03	.350" Spacer Matte
1776	SW7600DP	196992-01	Diode/Resistor Module

PANEL MOUNTING INFORMATION

1776 MODEL

NO. OF STATIONS	A	B	C	D
1	1.26	1.09	0.90	0.92
	(32.0)	(27.7)	(22.9)	(23.4)
2	1.76	1.59	1.40	1.42
	(44.7)	(40.4)	(35.6)	(36.1)
3	2.26	2.09	1.90	1.92
	(57.4)	(53.1)	(48.3)	(48.8)
4	2.76	2.59	2.40	2.42
	(70.1)	(65.8)	(61.0)	(61.5)
5	3.26	3.09	2.90	2.92
	(82.8)	(78.5)	(73.7)	(74.2)
6	3.76	3.59	3.40	3.42
	(95.5)	(91.2)	(86.4)	(86.9)
7	4.26	4.09	3.90	3.92
	(108.2)	(103.9)	(99.1)	(99.6)
8	4.76	4.59	4.40	4.42
	(120.9)	(116.6)	(111.8)	(112.3)
9	5.26	5.09	4.90	4.92
	(133.6)	(129.3)	(124.5)	(125.0)
10	5.76	5.59	5.40	5.42
	(146.3)	(142.0)	(137.2)	(137.7)

Assembly dimensions may exhibit expansion of 0.003" per station before installation, but will adjust to recommended panel dimensions shown once installed. Subtract 0.250" from each dimension shown for each S76SG spacer included in the assembly. Add 0.500" to each dimension per switch for assemblies over 10 stations.
Tolerances .XXX ± 0.010", .XX ± 0.030. Metric equivalents shown in ().
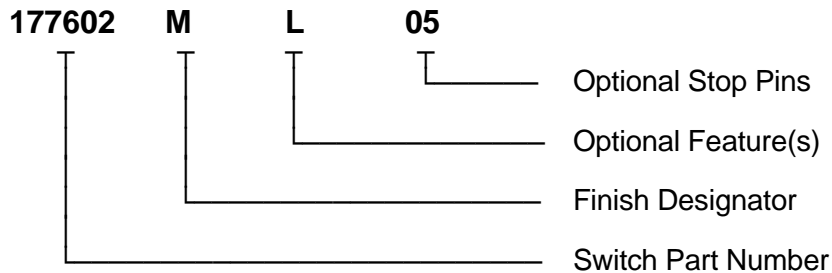
1976 MODEL

NO. OF STATIONS	A	B	C	D
1	1.11	0.94	0.75	0.77
	(28.2)	(23.9)	(19.1)	(19.6)
2	1.46	1.29	1.10	1.12
	(37.1)	(32.8)	(27.9)	(28.4)
3	1.81	1.64	1.45	1.47
	(46.0)	(41.7)	(36.8)	(37.3)
4	2.16	1.99	1.80	1.82
	54.9)	(50.5)	(45.7)	(46.2)
5	2.51	2.34	2.15	2.17
	(63.8)	(59.4)	(54.6)	(55.1)
6	2.86	2.69	2.50	2.52
	(72.6)	(68.3)	(63.5)	(64.0)
7	3.21	3.04	2.85	2.87
	(81.5)	(77.2)	(72.4)	(72.9)
8	3.56	3.39	3.20	3.22
	(90.4)	(86.1)	(81.3)	(81.8)
9	3.91	3.74	3.55	3.57
	(99.3)	(95.0)	(90.2)	(90.7)
10	4.26	4.09	3.90	3.92
	(108.2)	(103.9)	(99.1)	(99.6)

Assembly dimensions may exhibit expansion of 0.003" per station before installation, but will adjust to recommended panel dimensions shown once installed. Add 0.350" to each dimension per switch for assemblies over 10 stations.
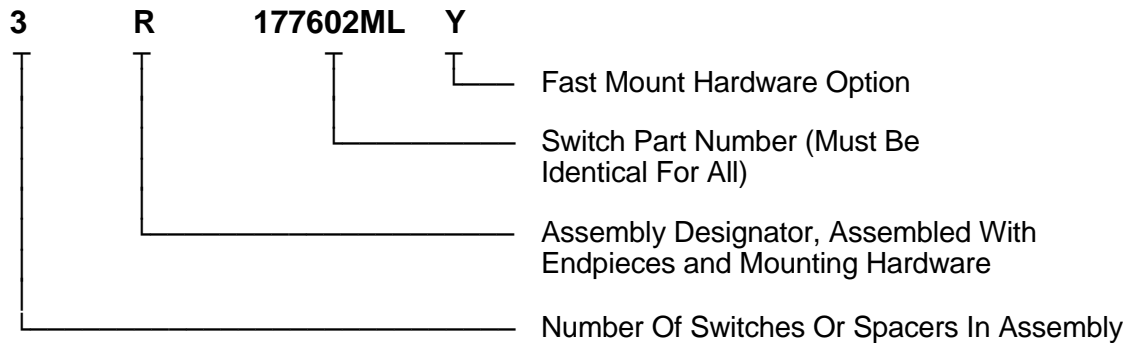Tolerances. XXX ± 0.010", .XX ± 0.030. Metric equivalents shown in ( )

AVAILABLE OPTIONS

A   Diodes Installed Anode To Common

C   Diodes Installed Cathode To Common

D   Decimal Point

G   Gloss Finish (Standard)

K   Lighted Decimal Point

L   Lighted Switch Legend, black hot-stamped character on white translucent background. 5 Volt lamp standard, consult factory for other voltages

M   Spray Matte Finish

N   Notched Terminals – Required to attach PC boards. Also accepts soldered cable connection

P   +/-Rotor Marking

R   Reverse Lighting – Illuminated white character on black background

T   Alphabet Marking

U   EMI/RFI Shielding

Y   Fast Mount Hardware (applies to assembly part number)

      Stop Pins

      Consult Factory for Custom Rotor Marking, Double-Wide Switch Modules, Custom Output Codes and Other Special Requests

ORDERING EXAMPLE - SWITCH

177602   M   L   05

- Optional Stop Pins
- Optional Feature(s)
- Finish Designator
- Switch Part Number

ORDERING EXAMPLE – SWITCH ASSEMBLY

3   R   177602ML   Y

- Fast Mount Hardware Option
- Switch Part Number (Must Be Identical For All)
- Assembly Designator, Assembled With Endpieces and Mounting Hardware
- Number Of Switches Or Spacers In Assembly

Assemblies of mixed switches and/or certain options require a special assembly number. Consult factory for additional ordering information.