



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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TW Series – 22mm NEMA Style Pushbuttons

**Key features:**

- TW NEMA Style Switches with snap-on contacts
- Corrosion resistant octagonal chrome plated locking bezel
- Snap-on 10A contact blocks
- LED illumination
- Slow make, double break, contacts
- Modular construction for maximum flexibility
- Type 4X and IP65 watertight/oiltight panel
- Available assembled or as sub-components
- Finger-Safe - Spring-Up
- Large M3.5 screw terminals with captive sems plate

IDEC has your 22mm switching needs covered.

Button styles include flush, extended, mushroom, or square and all bodies are crafted from fracture-resistant nylon.

All illuminated units feature two lens styles, one that maximizes light dispersion, the other accommodates direct lens engraving.

Contact mechanism allow for a wide current rating, 5mA to 10A, which reduces the need for various contact materials.

When looking for a 22mm switch that is durable, easy to use, and versatile, then IDEC's TW series is your solution.



UL Listed
File No. E68961



TUV Rheinland



CSA Approved
File No. LR21451



File No. DK95-01696



Certificate No.
2030010305027380



Switches & Pilot Devices

Signaling Lights







Relays & Sockets

Timers

Contactors

Terminal Blocks

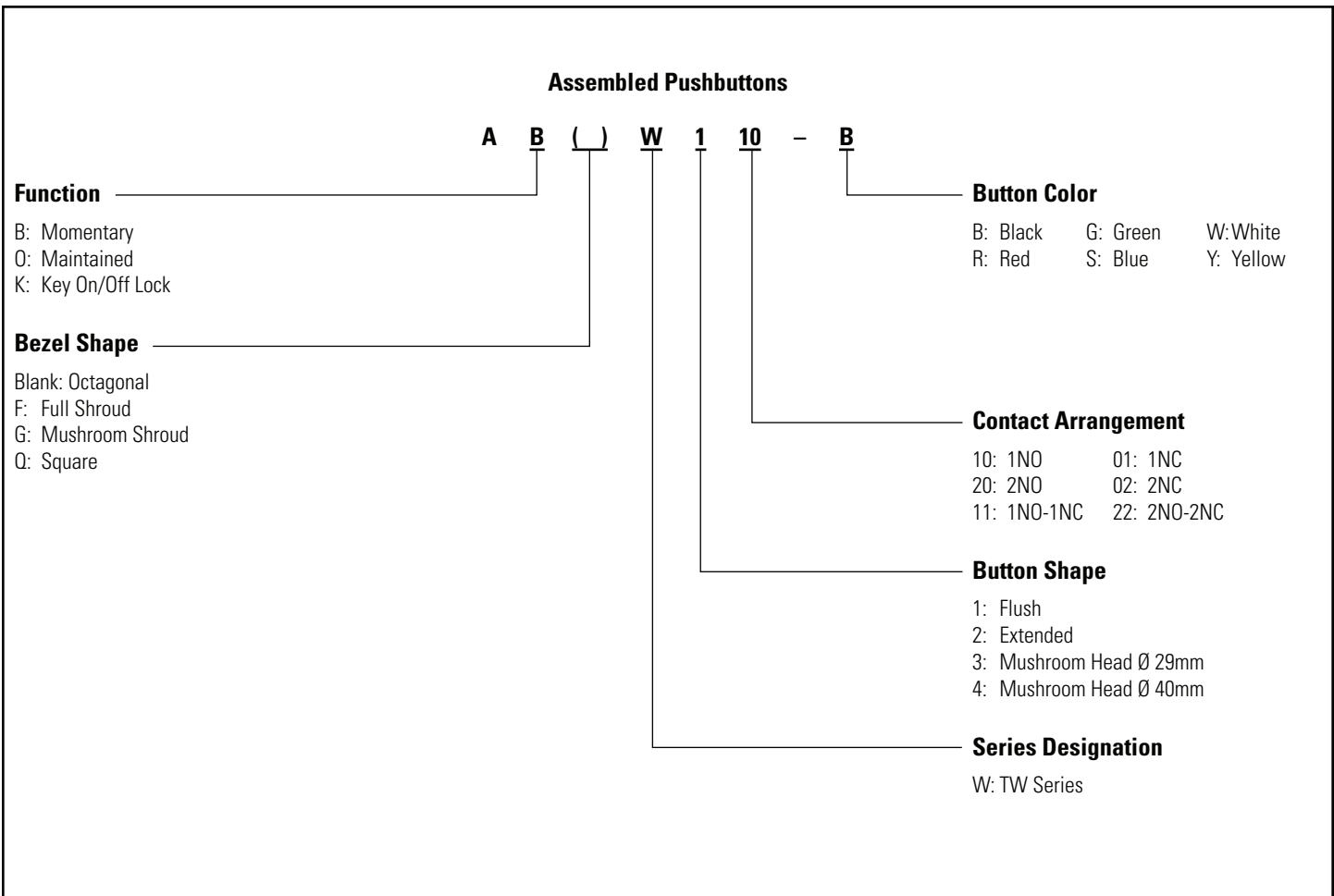
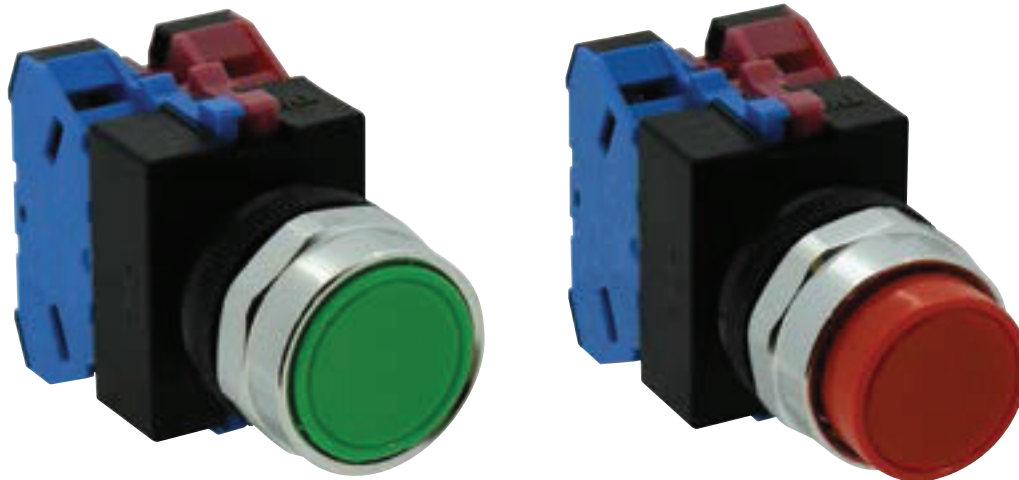
Circuit Breakers

Conforming to Standards	EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14					
Approvals	 File No. E68961  File No. LR21451  Certificate No. 2030010305027380  					
Operating Temperature	Operation: -25 to +50°C (without freezing), Storage: -40 to +80°C (without freezing)					
Vibration Resistance	5 to 55Hz, 100m/sec ² (10g) conforming to IEC6068-2-6					
Shock Resistance	1000m/sec ² (100g) conforming to IEC6068-2-7					
Electric Shock Protection	Class 2 conforming to IEC60664-7					
Degree of Protection (conforming to IEC60529) (conforming to NEMA ICSG-110)	IP65 from front of the panel; (IP54 for key switches) IP20 (Type HW-U contact block) Type 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (Type 1, 2, 3R, 5, 12, 13 for key switches)					
Mechanical Life	Momentary pushbuttons: 5,000,000 (1800 operations per hour) All other switches: 500,000					
Pollution Degree (conforming to IEC60947-1)	3					
Rated Operational Characteristics	AC-15: A600 or Ue = 250V, Ie = 3A (NO, NC, NO-EM, NC-LB) DC-13: P600 or Ue = 125V, Ie = 1.1A (NO, NC) DC-13: Q600 or Ue = 125V, Ie = 0.9A (NO-EM, NC-LB)					
Rated Insulation Voltage	600V					
Rated Switching Over-Voltage	Less than 4kV, conforming to IEC60947-1					
Rated Impulse Withstanding Voltage	4kV for contact circuit, 2.5kV for lamp circuit					
Rated Thermal Current	10 Amp					
Minimum Switching Capacity	5 mA at 3V AC/DC					
Contact Operation	Slow break NC or slow make NO, self-cleaning					
Recommended Terminal Torque	Unit	Wire	Number of Wires	Recommended Tightening Torque (Nm)	Terminal Screw	
						Crimping Terminal
	Solid Wire	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3		
		Stranded Wire	ø1.7 to 2.0 mm (AWG12)	1	1.2 to 1.3	
	Crimping Terminal		0.3 to 2.0 mm ² (AWG14 to 22)	2	1.0 to 1.3	M3.5
		Stranded Wire	2.1 to 3.5 mm ² (AWG12)	1	1.2 to 1.3	
	Illuminated Unit (*1)		Crimping Terminal	ø0.5 to 1.6 mm (AWG14 to 22)	2	1.0 to 1.3
		Stranded Wire		0.3 to 2.0 mm (AWG14 to 22)	2	1.0 to 1.3
	Applicable Wire Size		Pilot Light	Crimping Terminal	ø0.5 to 1.6 mm (AWG14 to 22)	2
		Stranded Wire			ø0.3 to 2.0 mm (AWG14 to 22)	2
 1. * refers to the lamp terminals of the illuminated push buttons and selector switches.						
External Short-Circuit Protection	10A 250V fuse conforming to IEC60269-1					
Applicable Wire Size	Minimum 1 x 22 AWG, max. 2 x 14 AWG or 1 x 12 AWG					
Contact Resistance	Initial contact resistance of 50mΩ or less					
Contact Gap	4mm (NO and NC), 2mm (NO-EM and NC-LB)					
Electrical Reliability	MTBF < 1 fault for 10 million operation cycles (3V DC, 5mA)					
Lamp Ratings	LEDs: 6V: 17mA max, 12/24V: 11mA max, 120/240V: 10mA max					
Horsepower Rating	1/4 HP @ 120V (single-phase, non-reversing motor); 1 HP @ 240V (3 phase, non-reversing motor)					
Contact Material	Silver					

Contact Ratings	Pushbuttons Illuminated Pushbuttons Selector Switches Illuminated Selector Switches Pushbutton Selectors	Contact Block	Type HW-U
		Rated Insulation Voltage	600V
		Rated Continuous Current	10A
		Contact Ratings by Utilization Category IEC 60947-5-1	AC-15 (A600) DC-13 (P600)

Characteristics		Contact Ratings by Utilization Category						
		Operational Voltage	24V	48V	50V	110V	220V	440V
Operational Current	AC50/60Hz	AC-12 Control of resistive loads and solid state loads	10A	—	10A	10A	6A	2A
		AC-15 Control of electromagnetic loads (> 72VA)	10A	—	7A	5A	3A	1A
	DC	DC-12 Control of resistive loads and solid state loads	10A	5A	—	2.2A	1.1A	—
		DC-13 Control of electromagnets	5A	2A	—	1.1A	0.6A	—

Non-Illuminated Pushbuttons (Assembled)



To be used for interpreting part numbers only, not for part number development.

Non-Illuminated Pushbuttons (Assembled) continued

Non-Illuminated Pushbuttons

① Button Color Codes

Style	Contacts	Momentary Action	Maintained Action
Flush	1NO	ABW110-①	AOW110-①
	1NC	ABW101-①	AOW101-①
	1NO-1NC	ABW111-①	AOW111-①
	2NO	ABW120-①	AOW120-①
	2NC	ABW102-①	AOW102-①
Extended	1NO	ABW210-①	AOW210-①
	1NC	ABW201-①	AOW201-①
	1NO-1NC	ABW211-①	AOW211-①
	2NO	ABW220-①	AOW220-①
	2NC	ABW202-①	AOW202-①
Recessed	1NO	ABFW110-①	AOFW110-①
	1NC	ABFW101-①	AOFW101-①
	1NO-1NC	ABFW111-①	AOFW111-①
	2NO	ABFW120-①	AOFW120-①
	2NC	ABFW102-①	AOFW102-①
Extended with Full Shroud	1NO	ABFW210-①	AOFW210-①
	1NC	ABFW201-①	AOFW201-①
	1NO-1NC	ABFW211-①	AOFW211-①
	2NO	ABFW220-①	AOFW220-①
	2NC	ABFW202-①	AOFW202-①
Ø 29mm Mushroom Head	1NO	ABW310-①	AOW310-①
	1NC	ABW301-①	AOW301-①
	1NO-1NC	ABW311-①	AOW311-①
	2NO	ABW320-①	AOW320-①
	2NC	ABW302-①	AOW302-①
Ø 40mm Mushroom Head	1NO	ABW410-①	AOW410-①
	1NC	ABW401-①	AOW401-①
	1NO-1NC	ABW411-①	AOW411-①
	2NO	ABW420-①	AOW420-①
	2NC	ABW402-①	AOW402-①
Ø 40mm Mushroom Head with Full Shroud	1NO	ABGW410-①	AOGW410-①
	1NC	ABGW401-①	AOGW401-①
	1NO-1NC	ABGW411-①	AOGW411-①
	2NO	ABGW420-①	AOGW420-①
	2NC	ABGW402-①	AOGW402-①
Square Flush	1NO	ABQW110-①	AQW110-①
	1NC	ABQW101-①	AQW101-①
	1NO-1NC	ABQW111-①	AQW111-①
	2NO	ABQW120-①	AQW120-①
	2NC	ABQW102-①	AQW102-①
Square Extended	1NO	ABQW210-①	AQW210-①
	1NC	ABQW201-①	AQW201-①
	1NO-1NC	ABQW211-①	AQW211-①
	2NO	ABQW220-①	AQW220-①
	2NC	ABQW202-①	AQW202-①
Keylock Push On/Off	1NO	AKW210	—
	1NC	AKW201	
	1NO-1NC	AKW211	
	2NO	AKW220	
	2NC	AKW202	

Color	Code
Black	B
Green	G
Red	R
Blue	S
Yellow	Y
White	W

- 1. In place of ①, specify the Button Color Code from table.
- 2. For sub-assembled part numbers, see next page.
- 3. For accessories, see page 703.
- 4. For dimensions, see page 705.
- 5. Keyed switches are supplied with two keys. All units are keyed alike.

Non-Illuminated Pushbuttons (Sub-Assembled)



Operators

Style	Part Number	
	Momentary	Maintained
Round Flush/Extended 	ABW-100	AOW-100
Round with Full Shroud/ Recessed 	ABFW-200	AOFW-200
Ø 40mm, Ø 29mm Mushroom Head 	ABW-300	AOW-300
Ø 40mm Mushroom Head with Full Shroud 	ABGW-400	AOGW-400
Square Flush/Extended 	ABQW-100	AQQW-100
Keylock Push On/Off 	—	AKW-200



Buttons

Style	Part Number
Round Flush 	ABW1B-Ⓞ
Round Extended 	ABW2B-Ⓞ
Ø 29mm Mushroom 	ABW3B-Ⓞ
Ø 40mm Mushroom 	ABW4B-Ⓞ
Square Flush 	ABQW1B-Ⓞ
Square Extended 	ABQW2B-Ⓞ



In place of Ⓞ specify the button color code from table

Contact Blocks

Style	Part Number	
	1NO	1NC
Finger-Safe Spring-Up Contact Blocks 	HW-U10 HW-U10R (early make)	HW-U01 HW-U01R (late break)
Dummy Block 	HW-DB	



1. Dummy blocks (no contacts) are used with an odd number of contact blocks.
2. Use of early and late break contacts creates a make before break function

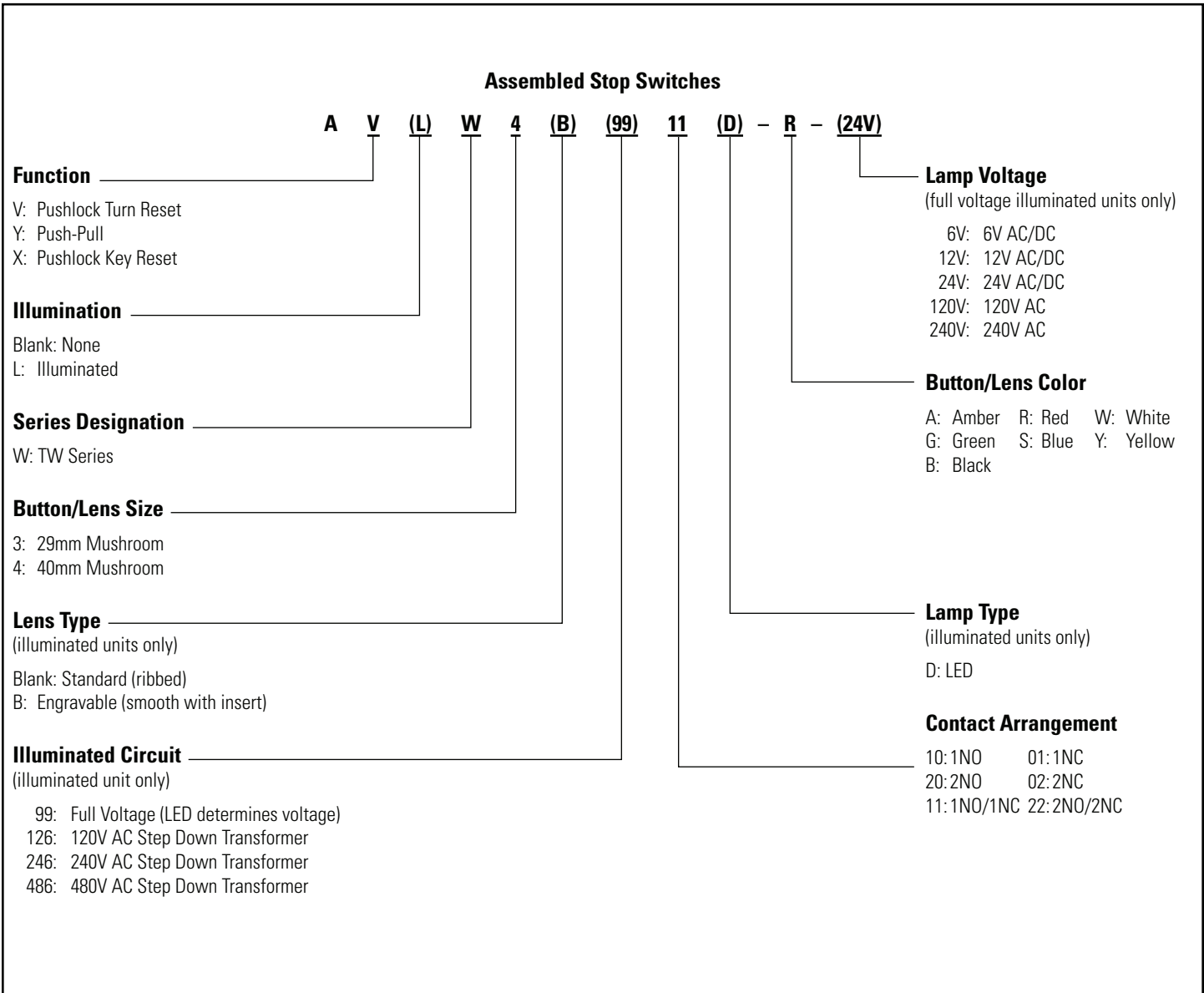
① Button Color Codes

Color	Code
Black	B
Green	G
Red	R
Blue	S
Yellow	Y
White	W

Stop Switches (Assembled)



To be used for interpreting part numbers only, not for part number development.



Stop Switches (Assembled), continued

Non-Illuminated Stop Switches

Style	Contacts	Part Number
Ø 40mm Pushlock Turn Reset* 	1NO	AVW410-R*
	1NC	AVW401-R*
	1NO-1NC	AVW411-R*
	2NO	AVW420-R*
	2NC	AVW402-R*
Ø 29mm Pushlock Turn Reset* 	1NO	AVW310-R*
	1NC	AVW301-R*
	1NO-1NC	AVW311-R*
	2NO	AVW320-R*
	2NC	AVW302-R*
Ø 40mm Push-Pull 	1NO	AYW410-Ⓞ
	1NC	AYW401-Ⓞ
	1NO-1NC	AYW411-Ⓞ
	2NO	AYW420-Ⓞ
	2NC	AYW402-Ⓞ
Ø 40mm Pushlock Key Reset * 	1NO	AXW410- R*
	1NC	AXW401- R*
	1NO-1NC	AXW411- R*
	2NO	AXW420- R*
	2NC	AXW402- R*

- 1. *Available in Red only.
- 2. In place of Ⓞ, specify the Button Color Code from table.
- 3. For sub-assembled part numbers, see next page.
- 4. For accessories, see page 703.
- 5. For dimensions, see page 705.

① Button Color Codes

Color	Code
Black	B
Green	G
Red	R
Blue	S
White	W
Yellow	Y

② LED/Lens Color Codes


Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W

③ Full Voltage Codes



Voltage	Code
6V AC/DC	6V
12V AC/DC	12V
24V AC/DC	24V
120V AC	120V
240V AC	240V

④ Transformer Voltage Codes

Voltage	Code
120VAC	126
240VAC	246
480VAC	486

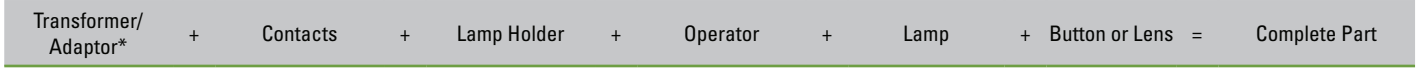
 Transformers step down to 6V.

Illuminated Stop Switches

Style	Type	Contacts	Part Number
Ø 40mm Pushlock Turn Reset Type 	Transformer	1NO-1NC	AVLW4 Ⓞ 11D-R*
		2NO	AVLW4 Ⓞ 20D-R*
		2NC	AVLW4 Ⓞ 02D-R*
	Full Voltage	1NO-1NC	AVLW49911D-R*-③
Ø 29mm Pushlock Turn Reset 	Transformer	1NO-1NC	AVLW3Ⓞ11D-R*
		2NO	AVLW3Ⓞ20D-R*
		2NC	AVLW3Ⓞ02D-R*
	Full Voltage	1NO-1NC	AVLW39911D-R*-③
Ø 40mm Push-Pull 	Transformer	1NO-1NC	AYLW4 Ⓞ 11D-Ⓞ
		2NO	AYLW4 Ⓞ 20D-Ⓞ
		2NC	AYLW4 Ⓞ 02D-Ⓞ
	Full Voltage	1NO-1NC	AYLW49911D-Ⓞ-③
		2NO	AYLW49920D-Ⓞ-③
		2NC	AYLW49902D-Ⓞ-③

- 1. *Available in red only.
- 2. In place of Ⓞ, specify the Lens Color Code (see table above).
- 3. In place of ③, specify the Full Voltage Code (lamp voltage) (see table above).
- 4. In place of Ⓞ, specify the Transformer Voltage Code (see table above).
- 5. For sub-assembly part numbers, see next page.
- 6. For accessories, see page 703.
- 7. For dimensions, see page 705.

Stop Switches (Sub-Assembled)







*Not applicable for full voltage units

Operators


Style	Part Number	
	Non-Illuminated	Illuminated
 Ø 29/Ø 40mm Pushlock Turn Reset	AVW-300	AVLW3-0600
 Ø 40mm Push-Pull	AYW-400	AYLW4-0600
 Ø 40mm Pushlock Key Reset	AXW-300	—

Buttons

Style	Part Number
 Ø 40mm Pushlock Turn Reset	AVW4B-R*
 Ø 29mm Pushlock Turn Reset	AVW3B-R*
 Ø 40mm Push-Pull	AYW4B-⊙
 Ø 40mm Pushlock Key Reset	AXW4B-R*

- 1. *Available in Red only
- 2. In place of ⊙, specify the button color code from table.

Lamps

Style	Voltage	Part Number
 LED	6V AC/DC	LSTD-6Ⓢ
	12V AC/DC	LSTD-1Ⓢ
	24V AC/DC	LSTD-2Ⓢ
	120V AC	LSTD-H2Ⓢ
	240V AC	LSTD-M4Ⓢ

- 1. In place of Ⓢ, specify the LED color code.
- 2. The LED contains a current-limiting resistor and a protection diode.

① Button Color Codes

Color	Code
Black	B
Green	G
Red	R
Blue	S
White	W
Yellow	Y

② LED/Lens Color Codes

Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W



Illuminated Stop Switches (Sub-Assembled) continued

Lenses

Style	Part Number	
	Standard	Engravable
Ø 29mm Head Pushlock Turn Reset 	AVLW3LU-R*	AVLW3BLU-R*
Ø 40mm Head Pushlock Turn Reset 	AVLW4LU-R*	AVLW4BLU-R*
Ø 40mm Head Push Pull 	AYLW4LU-Ⓢ	AYLW4BLU-Ⓢ

- 1. In place of Ⓢ, specify the lens color code from table on previous page.
- 2. *Available only in red
- 3. Standard lenses have ribbed pattern, Engravable lenses are smooth and include an engravable insert.

Lamp Circuit Components



Style	Application	Part Number
Short Lamp Holder 	Used with full voltage adaptor. Always installed directly to operator.	TW-LH1
Long Lamp Holder 	Used with Full-size Transformer and two contact blocks	TW-LH2
Lead Holder 	Used with TW-LH2 holder when using four contact blocks and transformer	HW-LH3

Transformers/Full Voltage Modules

Style	Description	Part Number
Full Size Transformer 	120V AC	HW-T126
	Spring-up Terminals 240V AC	HW-T246
	480V AC	HW-L486
Full voltage model (mounted to operator on first deck) 	Finger-Safe	HW-GA1N

 All Transformers step down to 6V (use 6V LED).

Contact Blocks

Style	Part Number	
	1NO	1NC
Finger-Safe Spring-Up 	HW-U10 HW-U10R (early make)	HW-U01 HW-U01R (late break)
Dummy Block 	HW-DB	

- 1. Dummy blocks (no contacts) are used with an odd number of contact blocks.
- 2. Use of early and late break contacts creates a make before break function

Switches & Pilot Devices

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Pilot Lights (Assembled)



Assembled Pilot Lights

A P (Q) W 1 (B) (99) (D) - R - (24V)

Function

P: Pilot Light

Bezel Shape

Blank: Octagonal (round lenses)

Q: Square

Series Designation

W: TW Series

Lens Shape

1: Flat

2: Dome

Lens Type

Blank: Standard (ribbed)

B: Engravable (smooth with insert included)

Illumination Circuit

99: Full Voltage (lamp determines voltage)

126: 120V AC Step Down Transformer

246: 240V AC Step Down Transformer

486: 480V AC Step Down Transformer

Lamp Voltage

(Full Voltage Units Only)

6V: 6V AC/DC

12V: 12V AC/DC

24V: 24V AC/DC

120V: 120V AC

240V: 240V AC

Lens Color Code

A: Amber

G: Green

R: Red

S: Blue

W: White

Y: Yellow

Lamp

D: LED



1. Use only when interpreting part numbers. Do not use for developing part numbers.
2. All transformers step down to 6V.

Pilot Lights (Assembled) continued

Assembled Pilot Lights

Style	Type	Voltage	Part Number
Round Flat	Transformer	120VAC 240VAC 480VAC	APW1126D-② APW1246D-② APW1486D-②
	Full Voltage	—	APW199D-②-③
Dome	Transformer	120VAC 240VAC 480VAC	APW2126D-② APW2246D-② APW2486D-②
	Full Voltage	—	APW299D-②-③
Square Flat	Transformer	120VAC 240VAC 480VAC	APQW1B126D-② APQW1B246D-② APQW1B486D-②
	Full Voltage	—	APQW1B99D-②-③



1. In place of ②, specify the Lens Color Code from table below.
2. In place of ③, specify the Full Voltage Code from table below.
3. For accessories, see page 703.
4. For dimensions, see page 705.
5. For sub-assembly part numbers, see next page.
6. Yellow pilot light comes with white LED.

② Lens Color Codes

Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W
Yellow	Y

③ Full Voltage Codes

Voltage	Code
6V AC/DC	6V
12V AC/DC	12V
24V AC/DC	24V
120V AC	120V
240V AC	240V

Pilot Lights (Sub-Assembled)



* Transformer not required for full voltage units.


Operators

Style	Part Number
Round Dome/Flat	APW-199
	
Square	UPQW-199
	



Same operator is used for full voltage as for transformer completed units.

Lamps

Style	Voltage	Part Number
LED 	6V AC/DC	LSTD-6Ⓢ
	12V AC/DC	LSTD-1Ⓢ
	24V AC/DC	LSTD-2Ⓢ
	120V AC	LSTD-H2Ⓢ
	240V AC	LSTD-M4Ⓢ



1. In place of Ⓢ, specify the LED color code.
2. The LED contains a current-limiting resistor and a protection diode.
3. Yellow LED not available. Use white LED.

Ⓢ LED/Lens Color Codes

Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	PW
Yellow	Y



If clear lens is desired, use white marking lens and remove engraving insert




Transformers

Style	Description	Part Number
	120V AC	HW-T126
	Finger-Safe 240V AC	HW-T246
	480V AC	HW-T486



All Transformers step down to 6V (use 6V LED).

Lenses

Style	Part Number	
	Standard	Engravable
Dome 	APW2LU-Ⓢ	—
Round Flat 	APW1LU-Ⓢ	APW1BLU-Ⓢ
Square Flat 	—	APQW1BLU-Ⓢ



1. In place of Ⓢ, specify the Lens Color Code from table.
2. Standard lenses have a ribbed lens to enhance light dispersion. Marking lenses are smooth and include an engraving insert.

Illuminated Pushbuttons (Assembled)



Assembled Illuminated Pushbuttons

A L (F) W 2 (B) 99 11 (D) - R - (24V)

Function

L: Momentary Action
OL: Maintained Action

Bezel Shape

Blank: Octagonal (round lenses)
F: Full Shroud (round lenses)
Q: Square

Series Designation

W: TW series

Lens Shape/Size

2: Standard Extended (round or square)
3: 29mm Mushroom
4: 40mm Mushroom

Lens Type

Blank: Standard (ribbed)
B: Engravable (smooth with insert)

Illumination Circuit

99: Full Voltage (lamp determines voltage)
126: 120V AC Step Down Transformer
246: 240V AC Step Down Transformer
486: 480V AC Step Down Transformer

Lamp Voltage

(Full Voltage Units Only)

6V: 6V AC/DC
12V: 12V AC/DC
24V: 24V AC/DC
120V: 120V AC
240V: 240V AC

Lens Code

A: Amber
G: Green
R: Red
S: Blue
W: White
Y: Yellow

Lamp Type

D: LED Lamp

Contact Arrangement

10: 1NO 01: 1NC
20: 2NO 02: 2NC
11: 1NO-1NC 22: 2NO-2NC

1. Use only when interpreting part numbers. Do not use for developing part numbers.
2. Transformers step down to 6V.


Illuminated Pushbuttons (Assembled)

Illuminated Pushbuttons

Style	Contacts	Part Number		
		Momentary	Maintained	
 Extended Lens	Transformer	1NO-1NC 2NO 2NC	ALW2 ⊕ 11D-Ⓜ ALW2 ⊕ 20D-Ⓜ ALW2 ⊕ 02D-Ⓜ	AOLW2 ⊕ 11D-Ⓜ AOLW2 ⊕ 20D-Ⓜ AOLW2 ⊕ 02D-Ⓜ
	Full Voltage	1NO-1NC 2NO 2NC	ALW29911D-Ⓜ-Ⓝ ALW29920D-Ⓜ-Ⓝ ALW29902D-Ⓜ-Ⓝ	AOLW29911D-Ⓜ-Ⓝ AOLW29920D-Ⓜ-Ⓝ AOLW29902D-Ⓜ-Ⓝ
 Extended Lens with Full Shroud	Transformer	1NO-1NC 2NO 2NC	ALFW2 ⊕ 11D-Ⓜ ALFW2 ⊕ 20D-Ⓜ ALFW2 ⊕ 02D-Ⓜ	AOLFW2 ⊕ 11D-Ⓜ AOLFW2 ⊕ 20D-Ⓜ AOLFW2 ⊕ 02D-Ⓜ
	Full Voltage	1NO-1NC 2NO 2NC	ALFW29911D-Ⓜ-Ⓝ ALFW29920D-Ⓜ-Ⓝ ALFW29902D-Ⓜ-Ⓝ	AOLFW29911D-Ⓜ-Ⓝ AOLFW29920D-Ⓜ-Ⓝ AOLFW29902D-Ⓜ-Ⓝ
 ø29mm Mushroom Button	Transformer	1NO-1NC 2NO 2NC	ALW3 ⊕ 11D-Ⓜ ALW3 ⊕ 20D-Ⓜ ALW3 ⊕ 02D-Ⓜ	AOLW3 ⊕ 11D-Ⓜ AOLW3 ⊕ 20D-Ⓜ AOLW3 ⊕ 02D-Ⓜ
	Full Voltage	1NO-1NC 2NO 2NC	ALW39911D-Ⓜ-Ⓝ ALW39920D-Ⓜ-Ⓝ ALW39902D-Ⓜ-Ⓝ	AOLW39911D-Ⓜ-Ⓝ AOLW39920D-Ⓜ-Ⓝ AOLW39902D-Ⓜ-Ⓝ
 ø40mm Mushroom Button	Transformer	1NO-1NC 2NO 2NC	ALW4 ⊕ 11D-Ⓜ ALW4 ⊕ 20D-Ⓜ ALW4 ⊕ 02D-Ⓜ	AOLW4 ⊕ 11D-Ⓜ AOLW4 ⊕ 20D-Ⓜ AOLW4 ⊕ 02D-Ⓜ
	Full Voltage	1NO-1NC 2NO 2NC	ALW49911D-Ⓜ-Ⓝ ALW49920D-Ⓜ-Ⓝ ALW49902D-Ⓜ-Ⓝ	AOLW49911D-Ⓜ-Ⓝ AOLW49920D-Ⓜ-Ⓝ AOLW49902D-Ⓜ-Ⓝ
 Square Extended	Transformer	1NO-1NC 2NO 2NC	ALQW2B ⊕ 11D-Ⓜ ALQW2B ⊕ 20D-Ⓜ ALQW2B ⊕ 02D-Ⓜ	AOLQW2B ⊕ 11D-Ⓜ AOLQW2B ⊕ 20D-Ⓜ AOLQW2B ⊕ 02D-Ⓜ
	Full Voltage	1NO-1NC 2NO 2NC	ALQW2B9911D-Ⓜ-Ⓝ ALQW2B9920D-Ⓜ-Ⓝ ALQW2B9902D-Ⓜ-Ⓝ	AOLQW2B9911D-Ⓜ-Ⓝ AOLQW2B9920D-Ⓜ-Ⓝ AOLQW2B9902D-Ⓜ-Ⓝ

② LED/Lens Color Codes

Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W
Yellow	Y

-  1. Mushroom lenses not available in yellow.
- 2. Yellow pushbutton comes with white LED.


③ Full Voltage Codes

Voltage	Code
6V AC/DC	6V
12V AC/DC	12V
24V AC/DC	24V
120V AC	120V
240V AC	240V

④ Transformer Voltage Codes

Voltage	Code
120VAC	126
240VAC	246
480VAC	486

-  Transformers step down to 6V (use 6V LED).

-  1. In place of ⊕, specify the Lens Color Code (see table). Mushroom lenses not available in yellow.
- 2. In place of Ⓝ, specify the Full Voltage Code (lamp voltage) (see table).
- 3. In place of ⊕, specify the Transformer Voltage Code (see table).
- 4. For sub-assembly part numbers, see next page.
- 5. For accessories, see page 703.
- 6. For dimensions, see page 705.
- 7. Light is independent of switch position.
- 8. Yellow pushbutton comes with white LED.

Illuminated Pushbuttons (Sub-Assembled)



*Not applicable for full voltage units

Operators

Style	Image	Part Number	
		Momentary	Maintained
Extended		ALW-0600	AOLW-0600
Extended with Full Shroud		ALFW-0600	AOLFW-0600
ø29mm/ø40mm Mushroom		ALW3-0600	AOLW3-0600
Square/Extended		ALQW-2B0600	AOLQW-2B0600

Lenses

Style	Image	Part Number	
		Standard	Engravable
Round Extended		ALW2LU-Ⓞ	ALW2BLU-Ⓞ
ø 29mm Mushroom Head*		ALW3LU-Ⓞ	ALW3BLU-Ⓞ
ø 40mm Mushroom Head*		ALW4LU-Ⓞ	ALW4BLU-Ⓞ
Square Extended		—	ALQW2BLU-Ⓞ

- 1. In place of Ⓞ, specify the lens color code from table on the bottom right.
- 2. *Mushroom lens not available in yellow.
- 3. Standard lenses have ribbed pattern, Engravable lenses are smooth and include an engravable insert.

Lamps

Style	Voltage	Part Number
	6V AC/DC	LSTD-6Ⓞ
	12V AC/DC	LSTD-1Ⓞ
	24V AC/DC	LSTD-2Ⓞ
	120V AC	LSTD-H2Ⓞ
	240V AC	LSTD-M4Ⓞ

- 1. In place of Ⓞ, specify the LED color code.
- 2. The LED contains a current-limiting resistor and a protection diode.

Lamp Circuit Components

Style	Application	Part Number
Short Lamp Holder 	Used with full voltage adaptor. Always mounted directly to operator.	TW-LH1
Long Lamp Holder 	Used with Full-size Transformer and two contact blocks	TW-LH2
Lead Holder 	Used with TW-LH2 holder when using four contact blocks and transformer	HW-LH3



Ⓞ LED/Lens Color Codes

Color	Code	Color	Code
Amber	A	Blue	S
Green	G	White	PW
Red	R	Yellow	Y

- Yellow LED not available. Use white LED.



Illuminated Pushbuttons (Sub-Assembled) continued


Contact Blocks

Style	Part Number	
	1NO	1NC
Finger-Safe Spring-Up 	HW-U10 HW-U10R (early make)	HW-U01 HW-U01R (late break)
Dummy Block 	HW-DB	

- 1. Dummy blocks (no contacts) are used with an odd number of contact blocks.
- 2. Use of early and late break contacts creates a make before break function

Transformers/Full Voltage Modules

Style	Description	Part Number
Full Size Transformer 	120V AC	HW-T126
	240V AC	HW-T246
	480V AC	HW-T486
Full voltage model (to be mounted to operator on the first deck) 	Spring-Up Terminals	HW-GA1N

 All Transformers step down to 6V (use 6V LED).

Switches & Pilot Devices

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Non-Illuminated Selector Switches (Assembled)



Assembled Selector Switches

A S W 3 (1) (L) 20 - 304

Function

S: Selector Switch

Series Designation

W: TW Series

Number of Positions

- 2: 2-Position
- 3: 3-Position
- 4: 4-Position
- 5: 5-Position

Spring Return Action

Blank: Maintained

- 1: Spring return from Right (2 or 3 position)
- 2: Spring return from Left (2 or 3 position)
- 3: 2-Way spring return from Left and Right (3 position only)

Circuit Number

(Standard circuits shown on following pages and 695.)

Contact Arrangement Code

- 10: 1NO 01: 1NC
- 20: 2NO 02: 2NC
- 40: 4NO 04: 4NC
- 11: 1NO-1NC 22: 2NO-2NC

Operator Style Code

- Blank: Knob Operator
- L: Lever Operator
- K: Key Operator

- 1. Use only when interpreting part numbers. Do not use for developing part numbers.
- 2. Custom contact configurations available.
- 3. Custom key removable codes available.
- 4. Portions of part number inside () are optional.

Non-Illuminated Selector Switches (Assembled) continued

2-Position Selector Switches

Contact	Style				Part Number		
	Mounting	Operator Position			Maintained	Spring Return from Right	Spring Return from Left
		L	R				
1NO	1 2	0 0	X 0	Knob Lever Key	ASW210 ASW2L10 ASW2K10	ASW2110 ASW21L10 ASW21K10	ASW2210 ASW22L10 ASW22K10
1NC	1 2	X 0	0 0	Knob Lever Key	ASW201-116 ASW2L01-116 ASW2K01-116	ASW2101-116 ASW21L01-116 ASW21K01-116	ASW2201-116 ASW22L01-116 ASW22K01-116
1NO 1NC	1 2	X 0	0 X	Knob Lever Key	ASW211 ASW2L11 ASW2K11	ASW2111 ASW21L11 ASW21K11	ASW2211 ASW22L11 ASW22K11
2NO	1 2	0 0	X X	Knob Lever Key	ASW220 ASW2L20 ASW2K20	ASW2120 ASW21L20 ASW21K20	ASW2220 ASW22L20 ASW22K20
2NC	1 2	X X	0 0	Knob Lever Key	ASW202-104 ASW2L02-104 ASW2K02-104	ASW2102-104 ASW21L02-104 ASW21K02-104	ASW2202-104 ASW22L02-104 ASW22K02-104
2NO 2NC	1 2 3 4	0 X 0 X	X 0 X 0	Knob Lever Key	ASW222 ASW2L22 ASW2K22	ASW2122 ASW21L22 ASW21K22	ASW2222 ASW22L22 ASW22K22
2NO 2NC	1 2 3 4	0 0 X X	X X 0 0	Knob Lever Key	ASW222-111 ASW2L22-111 ASW2K22-111	ASW2122-111 ASW21L22-111 ASW21K22-111	ASW2222-111 ASW22L22-111 ASW22K22-111



Switches & Pilot Devices

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

Non-Illuminated Selector Switches (Assembled) continued

3-Position Selector Switches

Style					Part Number				
Contact	Mounting	Operator Position			Key	Maintained	Spring Return from Right	Spring Return from Left	Spring Return Two-Way
		L	C	R					
2NO	1	X	0	0	Knob	ASW320 ASW3L20 ASW3K20	ASW3120 ASW31L20 ASW31K20	ASW3220 ASW32L20 ASW32K20	ASW3320 ASW33L20 ASW33K20
	2	0	0	X					
2NC	1	0	X	X	Knob	ASW302 ASW3L02 ASW3K02	ASW3102 ASW31L02 ASW31K02	ASW3202 ASW32L02 ASW32K02	ASW3302 ASW33L02 ASW33K02
	2	X	X	0					
2NO	1	X	0	0	Knob	ASW322 ASW3L22 ASW3K22	ASW3122 ASW31L22 ASW31K22	ASW3222 ASW32L22 ASW32K22	ASW3322 ASW33L22 ASW33K22
	2	0	0	X					
2NC	3	0	X	X	Lever	ASW322-309 ASW3L22-309 ASW3K22-309	ASW3122-309 ASW31L22-309 ASW31K22-309	ASW3222-309 ASW32L22-309 ASW32K22-309	ASW3322-309 ASW33L22-309 ASW33K22-309
	4	X	X	0					
2NO	1	X	0	X	Knob	ASW322-310 ASW3L22-310 ASW3K22-310	ASW3122-310 ASW31L22-310 ASW31K22-310	ASW3222-310 ASW32L22-310 ASW32K22-310	ASW3322-310 ASW33L22-310 ASW33K22-310
	2	0	0	X					
2NC	3	0	X	X	Lever	ASW322-310 ASW3L22-310 ASW3K22-310	ASW3122-310 ASW31L22-310 ASW31K22-310	ASW3222-310 ASW32L22-310 ASW32K22-310	ASW3322-310 ASW33L22-310 ASW33K22-310
	4	0	0	X					
4NO	1	X	0	0	Knob	ASW340 ASW3L40 ASW3K40	ASW3140 ASW31L40 ASW31K40	ASW3240 ASW32L40 ASW32K40	ASW3340 ASW33L40 ASW33K40
	2	0	0	X					
4NC	3	X	0	0	Lever	ASW340 ASW3L40 ASW3K40	ASW3140 ASW31L40 ASW31K40	ASW3240 ASW32L40 ASW32K40	ASW3340 ASW33L40 ASW33K40
	4	0	0	X					
4NO	1	0	X	X	Knob	ASW304 ASW3L04 ASW3K04	ASW3104 ASW31L04 ASW31K04	ASW3204 ASW32L04 ASW32K04	ASW3304 ASW33L04 ASW33K04
	2	X	X	0					
4NC	3	0	X	X	Lever	ASW304 ASW3L04 ASW3K04	ASW3104 ASW31L04 ASW31K04	ASW3204 ASW32L04 ASW32K04	ASW3304 ASW33L04 ASW33K04
	4	X	X	0					



- The truth table indicates the operating position of contact block when the operator is switched to that position.
X = On (closed contacts)
0 = Off (open contacts)
X—X = Overlapping Contacts: Remain on (closed contacts) when switch is moved between these two positions.
- All knob and lever selector switches come in black. Other colors are available by ordering the knob or lever separately.
- Every key selector switch uses an identical key. The key is removable in any maintained position.
- Custom contact configurations are available, see page 695.

4-Position Selector Switch

Style						Maintained	
Contact	Mounting	Operator Position				Key	Part Number
		1	2	3	4		
2NO	1	X	0	0	0	Knob	ASW422-411 ASW4L22-411
	2	0	X	0	0		
2NC	3	0	0	X	0	Lever	ASW422-411 ASW4L22-411
	4	0	0	0	X		

5-Position Selector Switch

Style							Maintained	
Contact	Mounting	Operator Position					Key	Part Number
		1	2	3	4	5		
2NO	1	X	0	0	0	0	Knob	ASW522-501 ASW5L22-501
	2	0	X	0	0	0		
2NC	3	0	0	0	X	0	Lever	ASW522-501 ASW5L22-501
	4	0	0	0	0	X		

Switches & Pilot Devices

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks



Circuit Breakers

Non-Illuminated Selector Switches (Sub-Assembled)






- 1. *Not needed with key type switches.
- 2. *Knob type shown.



Operators

Style	Positions	Description	Part Number	
Knob/Lever 	2	Maintained	ASW200	
		Spring return from right	ASW2100	
		Spring return from left	ASW2200	
Key 	3	Maintained, Cam 1	ASW300-1	
		Maintained, Cam 2	ASW300-2	
		Maintained, Cam 3	ASW300-3	
	3	Spring return from right, Cam 1	ASW3100-1	
		Spring return from right, Cam 2	ASW3100-2	
		Spring return from left, Cam 1	ASW3200-1	
4	4	Spring return from left, Cam 2	ASW3200-2	
		Spring return from left/right, Cam 1	ASW3300-1	
		Spring return from left/right, Cam 2	ASW3300-2	
Key	2	Maintained, Standard Cam	ASW400	
		Maintained, Cam 1	ASW400-1	
		Maintained, Standard cam	ASW500	
	3	5	Maintained, Cam 1	ASW500-1
			Maintained	ASW2K00
			Spring return from right	ASW21K00
Key	3	Spring return from left	ASW22K00	
		Maintained, Cam 1	ASW3K00-1	
		Maintained, Cam 2	ASW3K00-2	
	3	3	Maintained, Cam 3	ASW3K00-3
			Spring return from right, Cam 1	ASW31K00-1
			Spring return from right, Cam 2	ASW31K00-2
3	3	Spring return from left, Cam 1	ASW32K00-1	
		Spring return from left, Cam 2	ASW32K00-2	
		Spring return from left/right, Cam 1	ASW33K00-1	
3	3	Spring return from left/right, Cam 2	ASW33K00-2	

Handles and Inserts

Style	Part Number
Knob 	ASWHHY-①
Lever 	ASWHHL-①
Color Insert 	TW-HC1-①

Contact Blocks

Style	Part Number	
	1NO	1NC
Finger-Safe Spring-Up Terminals 	HW-U10	HW-U01
	HW-U10R (early make)	HW-U01R (late break)
Dummy Block 	HW-DB	

- 1. Push rod color code:
Green = NO contact block
Red = NC contact block.
- 2. Dummy blocks (no contacts) are used with an odd number of contact blocks.

- 1. Two keys are supplied with every key switch, all are keyed alike, and removable from any maintained position.
- 2. Locking rings are included with all operators. Order knobs, levers, and color inserts separately.
- 3. Different cams produce different contact actions. For details, see page 695.
- 4. Key switch operator supplied with black sleeve.

① Handle/Insert Color Codes

Color	Code
Black*	B
Blue	S
Green	G
Red	R
Yellow	Y
White†	W

- *Color inserts not available in black.
- †Knob and lever not available in white.

Replacement Parts

Key Switch Black Sleeve	AKW2B-B
-------------------------	---------

Illuminated Selector Switches (Assembled)



Assembled Illuminated Selector Switches

A SL W 2 (2) 99 11 (D) - (103) - R - (24V)

Function

SL: Illuminated Selector Switch

Series Designation

W: TW series

Number of Positions

2: 2-Position
3: 3-Position

Spring Return Action

Blank: Maintained
1: Spring return from Right
2: Spring return from Left
3: Two-Way spring return from Left and Right

Illumination Circuit

99: Full Voltage (lamp determines voltage)
126: 120V AC Step Down Transformer
246: 240V AC Step Down Transformer
486: 480V AC Step Down Transformer

Lamp Voltage

(Full Voltage Units Only)

6V: 6V AC/DC
12V: 12V AC/DC
24V: 24V AC/DC
120V: 120V AC
240V: 240V AC

Lens Color Code

A: Amber
G: Green
R: Red
S: Blue
W: White
Y: Yellow

Contact Circuit Number

Standard circuits are listed on the following pages and 695.

Lamp Type

D: LED Lamp

Contact Arrangement

10: 1NO	01: 1NC
20: 2NO	02: 2NC
40: 4NO	04: 4NC
11: 1NO-1NC	22: 2NO-2NC

1. Use only when interpreting part numbers. Do not use for developing part numbers.
2. All transformers step down to 6V (use 6V lamp).

Illuminated Selector Switches(Assembled) continued

Illuminated 2-Position Selector Switches

Style					Part Number		
Contact	Mounting	Operator Position		Lamp Circuit Type	Maintained	Spring Return from Right	Spring Return from Left
		L	R				
1NO 1NC	1 2	0 X	X 0	Transformer Full Voltage	ASLW2 ① 11D-② ASLW29911D-②-③	ASLW21 ① 11D-② ASLW219911D-②-③	ASLW22 ① 11D-② ASLW229911D-②-③
2NO	1 2	0 0	X X	Transformer Full Voltage	ASLW2 ① 20D-② ASLW29920D-②-③	ASLW21 ① 20D-② ASLW219920D-②-③	ASLW22 ① 20D-② ASLW229920D-②-③
2NC	1 2	X X	0 0	Transformer Full Voltage	ASLW2 ① 02D-104-② ASLW29902D-104-②-③	ASLW21 ① 02D-104-② ASLW219902D-104-②-③	ASLW22 ① 02D-104-② ASLW229902D-104-②-③
2NO 2NC	1 2 3 4	0 X 0 X	X 0 X 0	Transformer Full Voltage	ASLW2 ① 22D-② ASLW29922D-②-③	ASLW21 ① 22D-② ASLW219922D-②-③	ASLW22 ① 22D-② ASLW229922D-②-③

① Transformer Voltage Codes

Voltage	Code
120VAC	126
240VAC	246
480VAC	486

Transformers step down to 6V (use 6V LED).

② LED/Lens Color Codes

Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W
Yellow	Y

Illuminated 3-Position Selector Switches, Maintained and Spring Return from Right

Style						Part Number			
Contact	Mounting	Operator Position			Lamp Circuit Type	Maintained	Spring Return From Right	Spring Return from Left	Spring Return Two-Way
		L	C	R					
2NO 2NC	1 2	X 0	0 0	0 X	Transformer Full Voltage	ASLW3 ① 20D-② ASLW39920D-②-③	ASLW31 ① 20D-② ASLW319920D-②-③	ASLW32 ① 20D-② ASLW329920D-②-③	ASLW33 ① 20D-② ASLW339920D-②-③
2NC	1 2	0 X	X X	X 0	Transformer Full Voltage	ASLW3 ① 02D-② ASLW39902D-②-③	ASLW31 ① 02D-② ASLW319902D-②-③	ASLW32 ① 02D-② ASLW329902D-②-③	ASLW33 ① 02D-② ASLW339902D-②-③
2NO 2NC	1 2 3 4	X 0 0 X	0 0 X X	0 X X 0	Transformer Full Voltage	ASLW3 ① 22D-② ASLW39922D-②-③	ASLW31 ① 22D-② ASLW319922D-②-③	ASLW32 ① 22D-② ASLW329922D-②-③	ASLW33 ① 22D-② ASLW339922D-②-③
2NO 2NC	1 2 3 4	X X 0 0	0 X X 0	X 0 0 X	Transformer Full Voltage	ASLW3 ① 22D-309-② ASLW39922D-309-②-③	ASLW31 ① 22D-309-② ASLW319922D-309-②-③	ASLW32 ① 22D-309-② ASLW329922D-309-②-③	ASLW33 ① 22D-309-② ASLW339922D-309-②-③
2NO 2NC	1 2 3 4	0 0 0 0	X 0 X 0	0 X 0 X	Transformer Full Voltage	ASLW3 ① 22D-310-② ASLW39922D-310-②-③	ASLW31 ① 22D-310-② ASLW319922D-310-②-③	ASLW32 ① 22D-310-② ASLW329922D-310-②-③	ASLW33 ① 22D-310-② ASLW339922D-310-②-③
4NO	1 2 3 4	X 0 X 0	0 0 0 0	0 X 0 X	Transformer Full Voltage	ASLW3 ① 40D-② ASLW39940D-②-③	ASLW31 ① 40D-② ASLW319940D-②-③	ASLW32 ① 40D-② ASLW329940D-②-③	ASLW33 ① 40D-② ASLW339940D-②-③
4NC	1 2 3 4	0 X 0 X	X X X X	X 0 X 0	Transformer Full Voltage	ASLW3 ① 04D-② ASLW39904D-②-③	ASLW31 ① 04D-② ASLW319904D-②-③	ASLW32 ① 04D-② ASLW329904D-②-③	ASLW33 ① 04D-② ASLW339904D-②-③

- 1. In place of ①, specify the Transformer Voltage Code.
- 2. In place of ②, specify the Lens/LED Color Code.
- 3. In place of ③, specify the Full Voltage Code.
- 4. For custom contact configurations, see page 695.
- 5. Light is independent of switch position.
- 6. Yellow selector switch comes with white LED.

③ Full Voltage Codes

Voltage	Code
6V AC/DC	6V
12V AC/DC	12V
24V AC/DC	24V
120V AC	120V
240V AC	240V

Illuminated Selector Switches (Sub-Assembled)



*Full voltage units use a full voltage adaptor (HW-GA1N) instead of a transformer.
[†]Lamp holder is not included with operators, order separately.

Operators

Style	Positions	Description	Part Number
	2	Maintained	ASLW200
		Spring return from right	ASLW2100
		Spring return from left	ASLW2200
	3	Maintained, cam 1	ASLW300-1
		Maintained, cam 2	ASLW300-2
		Maintained, cam 3	ASLW300-3
	Spring return from right, cam 1	ASLW3100-1	
	Spring return from right, cam 2	ASLW3100-2	
	Spring return from left, cam 1	ASLW3200-1	
	Spring return from left, cam 2	ASLW3200-2	
	Spring return from left/right, cam 1	ASLW3300-1	
Spring return from left/right, cam 2	ASLW3300-2		

Different cams produce different contact action. For details, see Contact Arrangements on page 695.

Lenses (Knobs)

Style	Part Number
Knob	ASLWLU-Ⓢ

In place of Ⓢ, specify the lens color code from table.

Lamps

Style	Voltage	Part Number
	6V AC/DC	LSTD-6Ⓢ
	12V AC/DC	LSTD-1Ⓢ
	24V AC/DC	LSTD-2Ⓢ
	120V AC	LSTD-H2Ⓢ
	240V AC	LSTD-M4Ⓢ

1. In place of Ⓢ, specify the LED color code.
 2. The LED contains a current-limiting resistor and a protection diode.



Ⓢ LED/Lens Color Codes

Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W
Yellow	Y

Yellow LED not available. Use white LED

Illuminated Selector Switches (Sub-Assembled) continued


Contact Blocks

Style	Part Number	
	1NO	1NC
Finger-Safe Spring-Up 	HW-U10 HW-U10R (early make)	HW-U01 HW-U01R (late break)
Dummy Block 	HW-DB	


- 1. Dummy blocks (no contacts) are used with an odd number of contact blocks.
- 2. Use of early and late break contacts creates a make before break function

Transformers/Full Voltage Modules

Style	Description	Part Number
Full Size Transformer 	120V AC	HW-T126
	Spring-Up 240V AC	HW-T246
	480V AC	HW-L486
Full voltage model (to be mounted directly to the operator on the first deck) 	Spring-Up	HW-GA1N

 All Transformers step down to 6V (use 6V lamp).

Lamp Circuit Components

Style	Application	Part Number
Short Lamp Holder 	Used with full voltage adaptor	TW-LH1
Long Lamp Holder 	Used with Full-size Transformer and two contact blocks	TW-LH2
Lead Holder 	Used with TW-LH2 holder when using four contact blocks and full size transformer	HW-LH3

Switches & Pilot Devices

Signaling Lights

Relays & Sockets

Timers

Contactors

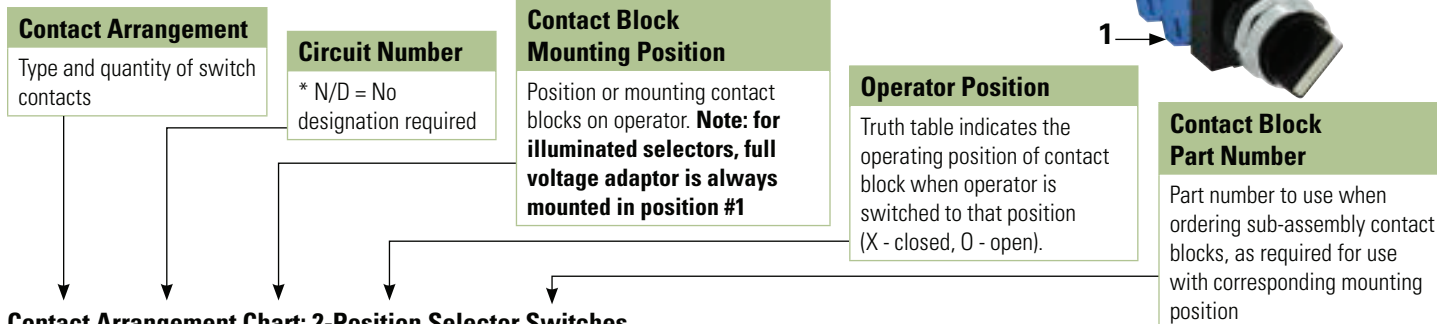
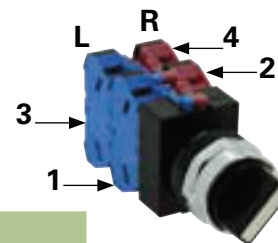
Terminal Blocks

Circuit Breakers




Contact Arrangement Charts

How to Read Contact Arrangement Charts

To determine contact block mounting position, first make sure the selector switch is oriented as shown on the right



Contact Arrangement Chart: 2-Position Selector Switches

Style		Mounting Position	Operator Position		Contact Block Part Number	Description	Operator Part Number		
Contact	Circuit Number		L	R			Maintained	Spring Ret. from Rt.	Spring Ret. from Lt.
							L  R	L  R	L  R
1NO	N/D	1	O	X	HW-U10	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	O	O	HW-DB	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
1NC	116	1	X	O	HW-U01	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	O	O	HW-DB	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
1NO 1NC	N/D	1	O	X	HW-U10	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	X	O	HW-U01	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
1NO-EM 1NC-LB	600	1	O	X	HW-U10R	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	X	O	HW-U01R	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
	601	1	X	O	HW-U01R	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	O	X	HW-U10R	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
2NO	N/D	1	O	X	HW-U10	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	O	X	HW-U10	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
2NC	104	1	X	O	HW-U01	Knob/Lever Key	ASW200 ASW2K00	ASW2100 ASW21K00	ASW2200 ASW22K00
		2	X	O	HW-U01	Illuminated Knob	ASLW200	ASLW2100	ASLW2200
2NO 2NC	N/D	1	O	X	HW-U10	Knob/Lever Key Illuminated Knob	ASW200 ASW2K00 ASLW200	ASW2100 ASW21K00 ASLW2100	ASW2200 ASW22K00 ASLW2200
		2	X	O	HW-U01				
		3	O	X	HW-U10				
		4	X	O	HW-U01				
	111	1	O	X	HW-U10	Knob/Lever Key Illuminated Knob	ASW200 ASW2K00 ASLW200	ASW2100 ASW21K00 ASLW2100	ASW2200 ASW22K00 ASLW2200
		2	O	X	HW-U10				
		3	X	O	HW-U01				
		4	X	O	HW-U01				

1. NO-EM, NC-LB = Early Make, Late Break.
 N/D = No circuit number designation required in assembled selector switch part number.
 2. X = On (closed contacts) O = Off (Open contacts)