

# 22mm Plastic Pilot Device Accessories

## Replacement incandescent bulbs



**ECX1902-5**

## Replacement LED lamps



**ECX1915-2**

## Hole plug



**ECX1490**

## Protective covers for pushbuttons



**ECX1703-5**

## Knockout Punches



**109225**

## Replacement keys



**ECX1067-2**

### Replacement Incandescent Bulbs

Part Number	Quantity	Price	Rating	Description
<a href="#">ECX1900-5</a>	5	\$9.50	6V@ 200mA 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
<a href="#">ECX1902-5</a>	5	\$9.50	24V@ 80mA 2 watts	24V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
<a href="#">ECX1904-5</a>	5	\$20.00	130V@20mA 2.6 watts	120V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4

Note: Bulb removal tool available. Order part number HT8LAMPTOOL.

### Replacement LED Lamps

Part Number	Color	Quantity	Price	Rating	Description
<a href="#">ECX1911-2</a>	Red	2	\$17.50	24V@26mA 0.6 watts	LED replacement lamp for miniature bayonet bases Works with 22mm switches and indicators, but illumination will not be as even when used with the ECX 22mm indicators Note: Will not replace sealed Cutler-Hammer monoblock LED indicators.
<a href="#">ECX1912-2</a>	Green		\$22.00		
<a href="#">ECX1913-2</a>	Yellow		\$17.50		
<a href="#">ECX1914-2</a>	Blue		\$23.50		
<a href="#">ECX1915-2</a>	White		\$28.00		
<a href="#">ECX1921-2</a>	Red		\$17.50	120V@5mA 0.6 watts	
<a href="#">ECX1922-2</a>	Green		\$22.00		
<a href="#">ECX1923-2</a>	Yellow		\$17.50		
<a href="#">ECX1924-2</a>	Blue		\$23.50		
<a href="#">ECX1925-2</a>	White		\$28.00		

Note: LED modules have very low current draw and should not be used with triac output devices like PLC triac output modules. It is recommended that dry contact outputs be used to switch 120 volt AC LED modules.

### Hole Plug

Part Number	Color	Price	Description
<a href="#">ECX1490</a>	Black	\$2.75	Plastic hole plug for 22.5 mm openings in panels and enclosures; supplied with O-ring and mounting screw. Two plugs per package.

### Protective Covers for Pushbuttons

Part Number	Color	Quantity	Price	Description
<a href="#">ECX1700-5</a>	Black	5	\$7.50	Silicone protective covers for use with 22mm standard-size flush pushbuttons. Will not work with Cutler-Hammer pushbuttons, 22mm plastic illuminated or extended pushbuttons, or 22mm plastic pushbuttons with 40mm actuator face.
<a href="#">ECX1701-5</a>	Red		\$7.50	
<a href="#">ECX1702-5</a>	Green		\$7.50	
<a href="#">ECX1703-5</a>	Yellow		\$7.50	
<a href="#">ECX1704-5</a>	Blue		\$7.50	
<a href="#">ECX1705-5</a>	Clear		\$7.50	
<a href="#">ECX1706-5</a>	Clear		\$13.00	Clear silicone protective covers for use with 22mm illuminated and extended pushbuttons only. Will not work with Cutler-Hammer pushbuttons or 22mm mushroom pushbuttons.

Ruko's knockout punch hole-cutting tool includes punch, die and draw bolt (without ball bearing). Use for sheet steel, stainless-steel sheets, non-ferrous and light metals, and plastics up to 0.16" (8 ga.) thick. Replacement bolts are offered in three of the most popular sizes. See the Tools section of the catalog for details.

Note: Part number [109225](#) is recommended when punching holes for 22mm pilot devices.

### Replacement Keys

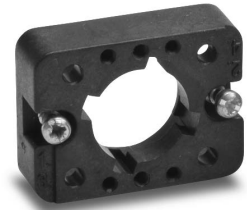
Part Number	Quantity	Price	Description
<a href="#">ECX1067-2</a>	2	\$6.50	Replacement key for GCX series key-actuated selector switches, pack of 2 sets (2 keys each). NOTE: Will not work with Cutler-Hammer 22mm switches.

Note: All key-actuated 22mm plastic selector switches are keyed alike.

# 22mm Plastic Pilot Device Accessories

## Replacement 22mm support base

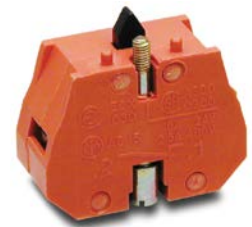
Replacement 22mm Support Base				
Part Number	Quantity	Price	Drawing Link	Description
<a href="#">ECX3029-2</a>	1	\$1.75	<a href="#">PDF</a>	22mm plastic support base Note: This item is supplied as a replacement part and is not required with any switch assembly. Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect



[ECX3029-2](#)

## Replacement contact blocks

Replacement Contact Blocks					
Part Number	Quantity	Price	Drawing Link	Contacts	Description
<a href="#">ECX1030-2</a>	2	\$7.25	<a href="#">PDF</a>	Red, normally-closed (N.C.)	Replacement contact block for 22mm pushbuttons and selector switches. Tightening Torque, terminal screw: 0.8 N-m max mounting screw: 0.5 N-m max Note: Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect
<a href="#">ECX1030-5</a>	5	\$17.00	<a href="#">PDF</a>		
<a href="#">ECX1040-2</a>	2	\$7.25	<a href="#">PDF</a>	Green, normally-open (N.O.)	Note: Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect
<a href="#">ECX1040-5</a>	5	\$17.00	<a href="#">PDF</a>		
<a href="#">ECX1042-2</a>	2	\$7.25	<a href="#">PDF</a>	Brown, normally-open (N.O.), push-push	Use on lighted Push-push button only



[ECX1030-2](#)

Note: See electrical specifications on GCX Series 22mm Plastic Pilot Devices

## EMERGENCY STOP legend plate

EMERGENCY STOP Legend Plate				
Part Number	Quantity	Price	Drawing Link	Description
<a href="#">ECX1651</a>	1	\$2.75	<a href="#">PDF</a>	Oversize yellow circular EMERGENCY STOP legend plate for 22mm E-stop type mushroom pushbuttons, 60mm outside diameter.



[ECX1651](#)

## Two-position short lever operator

Short Lever Replacement Operator				
Part Number	Lamp Color	Price	2-Position	Use with
<a href="#">GR1172PR-5</a>	Red	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX124, GCX125, GCX324, GCX325
<a href="#">GR1172PV-5</a>	Green	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#">GR1172PG-5</a>	Yellow	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#">GR1172PB-5</a>	Blue	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#">GR1172PN-5</a>	Clear	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	



[GR1172PR-5](#)

# 22mm Plastic Pilot Device Accessories

## Three-position short lever operator

Short Lever Replacement Operator				
Part Number	Lamp Color	Price	3-Position	Use with
<a href="#">GR1288PR-5</a>	Red	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX126, GCX128, GCX326, GVX328
<a href="#">GR1288PV-5</a>	Green	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#">GR1288PG-5</a>	Yellow	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#">GR1288PB-5</a>	Blue	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#">GR1288PN-5</a>	Clear	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	



[GR1288PR-5](#)

## Mushroom switch replacement operator

Mushroom Switch Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
<a href="#">PL1171PR-5</a>	Red	\$7.25	22mm, illuminated momentary Mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1221, GCX3221 mushroom-style illuminated pushbuttons
<a href="#">PL1298P-5</a>	Red	\$7.25	22mm illuminated twist-to-release mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1226, GCX3226 mushroom-style illuminated pushbuttons



[PL1298P-5](#)

## Flush pushbutton replacement operator

Flush Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
<a href="#">GR1168PR-5</a>	Red	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	Part numbers starting with GCX119, GCX120, GCX319, GCX320
<a href="#">GR1168PV-5</a>	Green	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#">GR1168PG-5</a>	Yellow	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#">GR1168PB-5</a>	Blue	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#">GR1168PN-5</a>	Clear	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#">GR1168PW-5</a>	White	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	



[GR1168PR-5](#)

## Extended pushbutton replacement operator

Extended Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
<a href="#">PL1308PR-5</a>	Red	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	Part numbers starting with GCX121, GCX321
<a href="#">PL1308PV-5</a>	Green	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#">PL1308PG-5</a>	Yellow	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#">PL1308PB-5</a>	Blue	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#">PL1308PN-5</a>	Clear	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#">PL1308PW-5</a>	White	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	



[PL1308PR-5](#)

# 22mm Plastic Pilot Device Accessories

## Legend plates

Plastic legend plates for use with 22mm pilot devices. White engraved text on colored background. O-ring included.



**ECX1670-B07**



**ECX1670-R03**

Plastic Legend Plates				
Legend	Color of Field	Part Number	Price	Drawing Link
AUTO OFF HAND	Black	<a href="#">ECX1670-B46</a>	\$3.75	<a href="#">PDF</a>
Blank Plate	Black	<a href="#">ECX1670-B</a>	\$3.00	<a href="#">PDF</a>
Blank Plate	Red	<a href="#">ECX1670-R</a>	\$3.00	<a href="#">PDF</a>
CLAMP	Black	<a href="#">ECX1670-B24</a>	\$3.75	<a href="#">PDF</a>
CLOSE	Black	<a href="#">ECX1670-B01</a>	\$3.00	<a href="#">PDF</a>
DOWN	Black	<a href="#">ECX1670-B02</a>	\$3.00	<a href="#">PDF</a>
EMERG. STOP	Red	<a href="#">ECX1670-R03</a>	\$3.00	<a href="#">PDF</a>
EXTEND	Black	<a href="#">ECX1670-B51</a>	\$3.75	<a href="#">PDF</a>
FEEDER OFF	Black	<a href="#">ECX1670-B26</a>	\$3.75	<a href="#">PDF</a>
FEEDER ON	Black	<a href="#">ECX1670-B25</a>	\$3.75	<a href="#">PDF</a>
FOR OFF REV	Black	<a href="#">ECX1670-B19</a>	\$3.00	<a href="#">PDF</a>
FOR-REV	Black	<a href="#">ECX1670-B13</a>	\$3.00	<a href="#">PDF</a>
FORWARD	Black	<a href="#">ECX1670-B04</a>	\$3.00	<a href="#">PDF</a>
GRIP	Black	<a href="#">ECX1670-B53</a>	\$3.75	<a href="#">PDF</a>
HAND-AUTO	Black	<a href="#">ECX1670-B14</a>	\$3.00	<a href="#">PDF</a>
HAND OFF AUTO	Black	<a href="#">ECX1670-B20</a>	\$3.00	<a href="#">PDF</a>
HIGH	Black	<a href="#">ECX1670-B27</a>	\$3.75	<a href="#">PDF</a>
HIGH LOW	Black	<a href="#">ECX1670-B43</a>	\$3.75	<a href="#">PDF</a>
IN	Black	<a href="#">ECX1670-B28</a>	\$3.75	<a href="#">PDF</a>
INCH	Black	<a href="#">ECX1670-B29</a>	\$3.75	<a href="#">PDF</a>
JOG	Black	<a href="#">ECX1670-B05</a>	\$3.00	<a href="#">PDF</a>
JOG FOR	Black	<a href="#">ECX1670-B30</a>	\$3.75	<a href="#">PDF</a>
JOG REV	Black	<a href="#">ECX1670-B31</a>	\$3.75	<a href="#">PDF</a>
JOG-RUN	Black	<a href="#">ECX1670-B15</a>	\$3.00	<a href="#">PDF</a>
LOW	Black	<a href="#">ECX1670-B32</a>	\$3.75	<a href="#">PDF</a>
LOWER	Black	<a href="#">ECX1670-B33</a>	\$3.75	<a href="#">PDF</a>

Note: Legend plate text is 3mm in height

Plastic Legend Plates				
Legend	Color of Field	Part Number	Price	Drawing Link
MAN AUTO	Black	<a href="#">ECX1670-B44</a>	\$3.75	<a href="#">PDF</a>
MAN OFF AUTO	Black	<a href="#">ECX1670-B47</a>	\$3.75	<a href="#">PDF</a>
MOTOR RUN	Black	<a href="#">ECX1670-B22</a>	\$3.00	<a href="#">PDF</a>
MOTOR STOP	Black	<a href="#">ECX1670-B23</a>	\$3.00	<a href="#">PDF</a>
OFF	Black	<a href="#">ECX1670-B34</a>	\$3.75	<a href="#">PDF</a>
OFF-ON	Black	<a href="#">ECX1670-B16</a>	\$3.00	<a href="#">PDF</a>
ON	Black	<a href="#">ECX1670-B06</a>	\$3.00	<a href="#">PDF</a>
OPEN	Black	<a href="#">ECX1670-B07</a>	\$3.00	<a href="#">PDF</a>
OPEN OFF CLOSE	Black	<a href="#">ECX1670-B48</a>	\$3.75	<a href="#">PDF</a>
OPEN-CLOSE	Black	<a href="#">ECX1670-B17</a>	\$3.00	<a href="#">PDF</a>
OUT	Black	<a href="#">ECX1670-B35</a>	\$3.75	<a href="#">PDF</a>
POWER ON	Black	<a href="#">ECX1670-B21</a>	\$3.00	<a href="#">PDF</a>
PULL ON PUSH OFF	Black	<a href="#">ECX1670-B50</a>	\$3.75	<a href="#">PDF</a>
RAISE	Black	<a href="#">ECX1670-B36</a>	\$3.75	<a href="#">PDF</a>
READY	Black	<a href="#">ECX1670-B37</a>	\$3.75	<a href="#">PDF</a>
RELEASE	Black	<a href="#">ECX1670-B54</a>	\$3.75	<a href="#">PDF</a>
RESET	Black	<a href="#">ECX1670-B38</a>	\$3.75	<a href="#">PDF</a>
RETRACT	Black	<a href="#">ECX1670-B52</a>	\$3.75	<a href="#">PDF</a>
REVERSE	Black	<a href="#">ECX1670-B08</a>	\$3.00	<a href="#">PDF</a>
RUN	Black	<a href="#">ECX1670-B09</a>	\$3.00	<a href="#">PDF</a>
SAFE RUN	Black	<a href="#">ECX1670-B45</a>	\$3.75	<a href="#">PDF</a>
START	Black	<a href="#">ECX1670-B10</a>	\$3.00	<a href="#">PDF</a>
STOP	Black	<a href="#">ECX1670-B11</a>	\$3.00	<a href="#">PDF</a>
STOP	Red	<a href="#">ECX1670-R11</a>	\$3.00	<a href="#">PDF</a>
TEST	Black	<a href="#">ECX1670-B39</a>	\$3.75	<a href="#">PDF</a>
TRANSFER	Black	<a href="#">ECX1670-B40</a>	\$3.75	<a href="#">PDF</a>
TRIP	Black	<a href="#">ECX1670-B41</a>	\$3.75	<a href="#">PDF</a>
UNCLAMP	Black	<a href="#">ECX1670-B42</a>	\$3.75	<a href="#">PDF</a>
UP	Black	<a href="#">ECX1670-B12</a>	\$3.00	<a href="#">PDF</a>
UP OFF DOWN	Black	<a href="#">ECX1670-B49</a>	\$3.75	<a href="#">PDF</a>
UP-DOWN	Black	<a href="#">ECX1670-B18</a>	\$3.00	<a href="#">PDF</a>

# 22mm Plastic Pilot Device Accessories



**ECX1690-B16**



**ECX1690-R11**

<b>Jumbo Plastic Legend Plates</b>				
<b>Legend</b>	<b>Color of Field</b>	<b>Part Number</b>	<b>Price</b>	<b>Drawing Link</b>
<b>Blank Plate</b>	Black	<b><u>ECX1690-B</u></b>	\$3.75	<a href="#">PDF</a>
<b>Blank Plate</b>	Red	<b><u>ECX1690-R</u></b>	\$3.75	<a href="#">PDF</a>
<b>EMERG. STOP</b>	Red	<b><u>ECX1690-R03</u></b>	\$3.75	<a href="#">PDF</a>
<b>HAND-OFF-AUTO</b>	Black	<b><u>ECX1690-B20</u></b>	\$3.75	<a href="#">PDF</a>
<b>JOG</b>	Black	<b><u>ECX1690-B05</u></b>	\$3.75	<a href="#">PDF</a>
<b>OFF-ON</b>	Black	<b><u>ECX1690-B16</u></b>	\$3.75	<a href="#">PDF</a>
<b>OPEN-CLOSE</b>	Black	<b><u>ECX1690-B17</u></b>	\$3.75	<a href="#">PDF</a>
<b>POWER ON</b>	Black	<b><u>ECX1690-B21</u></b>	\$3.75	<a href="#">PDF</a>
<b>START</b>	Black	<b><u>ECX1690-B10</u></b>	\$3.75	<a href="#">PDF</a>
<b>STOP</b>	Red	<b><u>ECX1690-R11</u></b>	\$3.75	<a href="#">PDF</a>

Note: Legend plate text is 3mm in height

# GCX Series 22mm Plastic Pilot Devices Specifications

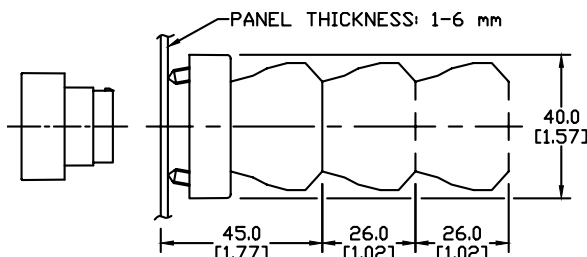
## Assembly information

These pushbuttons and indicator lights are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel.

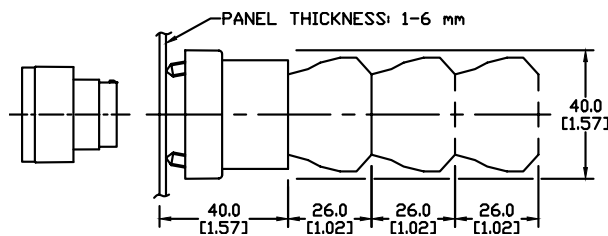
## Dimensions

mm  
[inches]

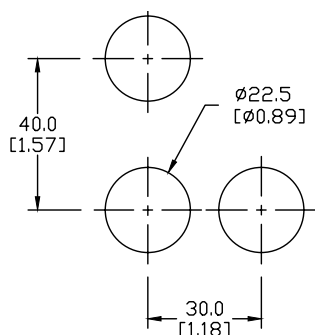
**Pushbuttons and selector switches**



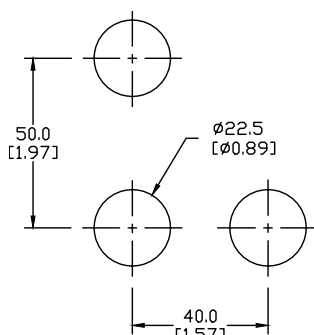
**Illuminated pushbuttons and selector switches/ indicator lights**



## Mounting

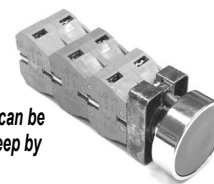


**This layout is suitable if all switches are 230V or less and the same polarity.**

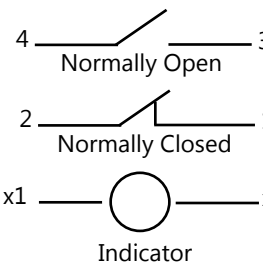


**This layout is suitable if all switches are 400V or less and different polarity.**

**NOTE: Contact blocks can be arranged up to three deep by two wide.**



Typical Wiring



## Specifications

These specifications apply to all the GCX and ECX 22mm plastic pushbuttons and switches.

Physical Specifications	
<b>Standards Reference</b>	CEI EN 60947-5-1, CSA C22-2 n.14
<b>Approvals</b>	UL File E189258, IMQ (where specified)
<b>Enclosure Material</b>	Fiberglass reinforced thermoplastic
<b>Contacts Material</b>	Silver
<b>Protection Degree</b>	IP40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP65 for all others. (See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.)
<b>Electric Shock Protection</b>	IEC 536, Class II
<b>Temperature Ratings</b>	Storage: -40 to 80°C (-40 to 176° F) Operating: -25° to +70°C (-13° to 158° F)
<b>Working Positions</b>	All working positions are allowed
<b>Mechanical Life</b>	Pushbuttons, selector switches, joy stick switches: 1,000,000 operations Emergency mushrooms and push-push pushbuttons: 300,000 operations
<b>Positive Opening Operation</b>	(according to IEC 947-5-1) All functions incorporating an NC contact are positive opening operation

Electrical Specifications	
<b>Rated Thermal Current (contact block)</b>	A300, Q300 (Refer to E22 Series mounting/contact rating section for details)
<b>Rated Insulation Voltage</b>	Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14 and UL 508
<b>Dielectric Strength</b>	3kV (1 second)
<b>Insulation Resistance</b>	2MΩ min. (500VDC)
<b>Initial Contact Resistance</b>	≤ 25mΩ
<b>Short-Circuit Protection*</b>	Cartridge fuses gl 10 A-500V 10, 3x381 100 KA
<b>Terminal Markings</b>	According to CENELEC EN 50013
<b>Connections</b>	Single screw with non-loosening plate clamp, 14AWG max., Tighten to 0.8Nm max
<b>Contacts Operation</b>	Self-cleaning types EN01 (N.C.) EN 10 (N.O.) slow-action, positive opening
<b>Operation Frequency</b>	3600 operations per hour max.
<b>Utilization Category</b>	AC15 (Control of AC electromagnetic loads) 24 volts AC at 10 amps 130 volts AC at 6.5 amps DC13 (Control of DC electromagnetic loads) 24 volts DC at 1.5 amps 110 volts DC at 0.5 amps

\*Note: Recommended, not supplied