

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	Added new part numbers 90020-00009 through-00026.	1 Feb 1991	Randy Larson
B	Changed "part number" to "Part or Identifying Number" (PIN) Corrected display type on PIN's 90020-00006 through -00008. Editorial changes throughout.	28 Oct 1991	Dave Moore
C	Added new PIN 90020-00027. Changed legend description format.	9 Apr 1993	Dave Moore
D	Added new PIN 90020-00028 and -00029.	7 Jun 1993	Dave E. Moore
E	Added new PIN 90020-00030.	28 Oct 1994	Nancy J. Christolear
F	Added new PIN 90020-00031.	15 May 1996	B. Boulter
G	Added new PIN 90020-00032.	3 July 1996	A. Ernst
H	Changes in accordance with NOR 5930-R001-98	11 Sep 1998	Kendall Cottongim
J	Inactive for new design Editorial changes throughout.	19-Nov-02	Kendall A. Cottongim

Inactive for new design

PREVIOUS CAGE CODE 14933 SUPERSEDED BY 037Z3

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED.

Prepared in accordance with ASME Y14.100.

Selected item drawing

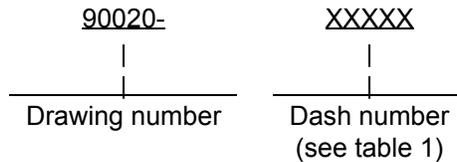
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PMIC N/A	PREPARED BY Charles R. De Vault	DEFENSE ELECTRONIC SUPPLY CENTER, DAYTON, OHIO	
Original date of drawing  27 July 1990	CHECKED BY Richard A. Gosciniak	TITLE SWITCH, PUSHBUTTON, ILLUMINATED, 4 LAMP (MIL-PRF-22885/101 WITH LEGEND)	
	APPROVED BY Randy Larson		
	SIZE A	CODE IDENT. NO. 14933	DWG NO. <b>90020</b>
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1. SCOPE

1.1 Scope. This drawing describes the requirements for illuminated pushbutton switches and indicator lights, with legends, supplied to the requirements of MIL-PRF-22885 and MIL-PRF-22885/101 except as noted herein.

1.2 Part or Identifying Number (PIN). The complete PIN shall be as shown in the following example:



2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

DEPARTMENT OF DEFENSE

- MIL-PRF-22885 - Switches, Push Button, Illuminated, General Specification for.
- MIL-PRF-22885/101 - Switches, Pushbutton, Matrix or Individually Mounted, Illuminated, 4-Lamp, SPDT and DPDT, 5.0 Amperes Silver Contacts, 1 Ampere Gold Contacts, (Dripproof, Sunlight Readable, EMI/RFI Shielded).

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Document Automation and Printing Service, Building 4D (DPM-DoDSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be in accordance with the requirements for the referenced military PIN shown in table I with the addition of the applicable legend (see 3.4).

3.2 Interface and physical dimensions. The switch shall meet the interface and physical dimensions as specified in MIL-PRF-22885, MIL-PRF-22885/101 and herein (see table I).

3.3 Performance. The performance requirements shall be as specified in MIL-PRF-22885 and MIL-PRF-22885/101 for the referenced military PIN shown in table I.

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3.4 Legend. The legend shall be in accordance with table I. Table I shows the legend with commas between rows of characters and a diagonal backslash to indicate different legend areas within the display. Unless otherwise specified in table I, legend consists of block characters .090 inch (2.29 mm) to .100 inch (2.54 mm) high, centered in legend area. Display type, legend area sequence, color, and luminance shall be as specified in MIL-PRF-22885 and MIL-PRF-22885/101 for the referenced military PIN shown in table I.

3.5 Lamps. Unless otherwise specified in the contract or purchase order, four T-1 submidjet flange base incandescent lamps of the type specified in table I shall be installed in each switch.

3.6 Marking. Marking shall be in accordance with MIL-PRF-22885 except the PIN shall be in accordance with 1.2 herein. The "M22885/101-XXXXXX" PIN shall not be marked on the item.

3.7 Quality assurance requirements. Switches furnished under this drawing shall have been subjected to, and passed all the requirements, tests, and inspections as specified herein including conformance inspection requirements.

3.7.1 Conformance inspection. Conformance inspection shall be in accordance with 4.2 herein.

PIN 90020	Military PIN for switch or indicator light without legend	Legend	Installed lamp type 1/ (see table II)
00001	M22885/101E003S1B	RKTS	1
00002	M22885/101E003S1G	L-MSL	1
00003	M22885/101E003S1G	R-MSL	1
00004	M22885/101E003S1Y	ARM	1
00005	M22885/101E099S1G	PWR, RESET	2
00006	M22885/101E007H1Y 2/	SELECT	3
00007	M22885/101E007H1Y 2/	LOCATE	3
00008	M22885/101E007H1Y 2/	MODE 4	3
00009	M22885/101E100W1W	CLEAR	3
00010	M22885/101E100W1W	ENTR	3
00011	M22885/101E100W1W	LED, TEST	3
00012	M22885/101E082W2WW	POINT/CLTR	3
00013	M22885/101E082W2WW	INTL/EXT	3
00014	M22885/101E082W2WW	525/875	3
00015	M22885/101E082W2WW	HI/LOW	3
00016	M22885/101E082W2WW	LRU 18/LRU 8	3
00017	M22885/101E082W2WW	6°\12°	3
00018	M22885/101E099W1W	E <sup>2</sup> /PPI	3
00019	M22885/101E099W1W	SELF, TEST	3
00020	M22885/101E099W1W	RANGE, CHANGE	3
00021	M22885/101E099W1W	CURSOR, PRESET	3
00022	M22885/101E099W1W	TARGET, PRESET	3
00023	M22885/101E099W1W	CLEAR	3
00024	M22885/101E082W1R	LOOP, TEST	3
00025	M22885/101E099W1W	LED, TEST	3
00026	M22885/101E082CIR	ON	3
00027	M22885/101E193C2GG 3/	TOD\DAC6	2
00028	M22885/101E028W1R	BATTLE, SHORT	None 4/
00029	M22885/101E028W1G	POWER, ON	None 4/
00030	M22885/101E193C2GG 3/	TOD\DAC25	2
00031	M22885/101E209W2GG 3/	GPS\U20	None 4/
00032	M22885/101E004C2GG	RT20\GPS	None 4/
00033	M22885/101E203W2GR 3/	ON/OFF	2
00034	M22885/101E043WIR	OVER, TEMP	2

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- 1/ Luminance and contrast characteristics specified in MIL-PRF-22885/101 are based on use of calibrated 0.15 MSCP lamps.
- 2/ Display type H: Hidden legend. Legend not legible until illuminated, then legend appears in color. Background remains black. No contrast requirements.
- 3/ Dimension "A" on MIL-PRF-22885/101 is changed to 1.53 maximum.
- 4/ Lamps are to be acquired separately.

TABLE II. Lamp description.

Lamp type	Design volts	Design amperes	MSCP	Design watts	Industry lamp number
1	28.0	.016	.072 +25%	.45	N/A
2	28.0	.024	.15 +15%	.67	6839
3	5.0	.06	.15 +15%	.30	6180 or 3071

3.8 Certification as an approved source of supply. In order to be listed as an approved source of supply for switches manufactured to this drawing, a manufacturer shall:

- a. Agree to make available to DSCC, upon request, all pertinent test data on its production of the subject part, including, but not limited to, test data in accordance with the qualification inspection table of MIL-PRF-22885.
- b. Provide to DSCC-VAT or its designated agent, upon request, free of charge and without obligation, a current production sample from its production of the subject part.
- c. Meet one of the following criteria:
  - (1) Currently possess listing on qualified products list QPL-22885 for at least one part.
  - (2) Be in current production of the subject part.

3.9 Certification of compliance. A certificate of compliance shall be required from a manufacture in order to be listed as an approved source of supply (see 6.6 and 6.7).

3.10 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.11 Workmanship. The switches shall be uniform in quality and free from any defects that will affect life, serviceability, or appearance.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-PRF-22885.

4.2 Conformance inspection. Conformance inspection shall be in accordance with group A testing of MIL-PRF-22885. Group A testing shall be performed on each inspection lot and manufacturers shall keep lot records for 3 years (minimum), monitor for compliance to the prescribed procedures, and observe that satisfactory manufacturing conditions and records on lots are maintained for these switches.

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5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Departments or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Definitions. Definitions as specified in MIL-PRF-22885 shall apply to this drawing.

6.2 Intended use. Switches conforming to this drawing are intended for use when military specifications do not exist and qualified military parts totally defined by military PIN's are not available for user application. This drawing is intended exclusively to prevent the proliferation of unnecessary duplicate specifications, drawings, and stock catalog listings. When a military specification exists and the product covered by this drawing has been qualified for listing on QPL-22885, this drawing will become inactive for new design. The QPL-22885 product shall be the preferred item for all applications.

6.3 Ordering data. The contract or purchase order should specify the following:

- a. Complete PIN (see 1.2).
- b. Requirements for delivery of one copy of the conformance inspection data that parts have passed conformance inspection, with each shipment of parts by the manufacturer.
- c. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1).
- d. Requirements for packaging and packing.

6.4 Replaceability. Switches and indicator lights covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.

6.5 Comments. Comments on this drawing should be directed to DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0551.

6.6 Users of record. Coordination of this document for future revisions are coordinated only with the suggested sources of supply and the users of record of this document. Requests to be added as a recorded user of this drawing should be in writing to: DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0551 or DSN 850-0551.

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6.7 Suggested sources of supply. Suggested sources of supply are listed herein. Additional sources will be added as they become available. For assistance in the use of this drawing, contact DSCC-VAT, P.O. Box 3990, Columbus, OH 43216-5000 or by telephone (614) 692-0551 or DSN 850-0551.

DSCC drawing PIN	Vendor similar designation or type number <sup>1/</sup>	Vendor CAGE	Vendor name and address
90020-00001	631220-00001	12522	Stacoswitch 1139 Baker Street Costa Mesa, CA 92626
90020-00002	631220-00002	12522	
90020-00003	631220-00003	12522	
90020-00004	631220-00004	12522	
90020-00005	631220-00005	12522	
90020-00006	631220-00006	12522	
90020-00007	631220-00007	12522	
90020-00008	631220-00008	12522	
90020-00009	631220-00009	12522	
90020-00010	631220-00010	12522	
90020-00011	631220-00011	12522	
90020-00012	631220-00012	12522	
90020-00013	631220-00013	12522	
90020-00014	631220-00014	12522	
90020-00015	631220-00015	12522	
90020-00016	631220-00016	12522	
90020-00017	631220-00017	12522	
90020-00018	631220-00018	12522	
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90020-00028	631220-00028	12522	
90020-00029	631220-00029	12522	
90020-00030	631220-00030	12522	
90020-00031	631220-00031	12522	
90020-00032	631220-00032	12522	
90020-00033	631220-00033	12522	
90020-00034	631220-00034	12522	

<sup>1/</sup> Parts must be purchased to this DSCC PIN to assure that all performance requirements and tests are met.

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DSCC drawing PIN	Vendor similar designation or type number 1/	Vendor CAGE	Vendor name and address
90020-00001	581H31A0B6C1F9L5N1(B), P11, 12 RKTS	96182	Eaton Corporation/MSC Products 1640 Monrovia Avenue Costa Mesa, CA 92627
90020-00002	581H31A0B6C1F9L5N1(G), P11, 12 L-MSL	96182	
90020-00003	581H31A0B6C1F9L5N1(G), P11, 12 R-MSL	96182	
90020-00004	581H31A0B6C1F9L5N1(Y), P11, 12 ARM	96182	
90020-00005	581H34A2B3C1F4L5N1(G), P11, 13 PWR, RESET	96182	
90020-00006	581H31A1B1C3F8L3N1(Y), P11, 12 SELECT	96182	
90020-00007	581H31A1B1C3F8L3N1(Y), P11, 12 LOCATE	96182	
90020-00008	581H31A1B1C3F8L3N1(Y), P11, 12 MODE 4	96182	
90020-00009	581H34A2B3C3F8L2N1(W), P11, 12 CLEAR	96182	
90020-00010	581H34A2B3C3F8L2N1(W), P11, 12 ENTR	96182	
90020-00011	581H34A2B3C3F8L2N1(W), P11, 13 LED, TEST	96182	
90020-00012	581H33A4B3C1F8L2N2(WW), P11, 16 POINT/CLTR	96182	
90020-00013	581H33A4B3C1F8L2N2(WW), P11, 16 INTL/EXT	96182	
90020-00014	581H33A4B3C1F8L2N2(WW), P11, 16 525/875	96182	
90020-00015	581H33A4B3C1F8L2N2(WW), P11, 16 HI/LOW	96182	
90020-00016	581H33A4B3C1F8L2N2(WW), P11, 16 LRU 18/LRU 8	96182	
90020-00017	581H33A4B3C1F8L2N2(WW), P11, 16 6°/12°	96182	
90020-00018	581H34A2B3C1F8L2N1(W), P11, 12 E <sup>2</sup> /PPI	96182	
90020-00019	581H34A2B3C1F8L2N1(W), P11, 13 SELF, TEST	96182	
90020-00020	581H34A2B3C1F8L2N1(W), P11, 13 RANGE, CHANGE	96182	
90020-00021	581H34A2B3C1F8L2N1(W), P11, 13 CURSOR, PRESET	96182	
90020-00022	581H34A2B3C1F8L2N1(W), P11, 13 TARGET, PRESET	96182	
90020-00023	581H34A2B3C1F8L2N1(W), P11, 12 CLEAR	96182	
90020-00024	581H33A4B3C1F8L2N1(R), P11, 13 LOOP, TEST	96182	
90020-00025	581H34A2B3C1F8L2N1(W), P11, 13 LED, TEST	96182	
90020-00026	581H33A4B3C1F8L6N1(R), P11, 12 ON	96182	
90020-00027	581H41A3B13C3F4L6N2(GG), P11, 16 TOD/DAC6	96182	
90020-00028	581H31A4B4C1L2N1(R), P11, 13 BATTLE, SHORT	96182	
90020-00029	581H31A4B4C1L2N1(G), P11, 13 POWER, ON	96182	
90020-00030	581H41A3B13C3F4L6N2(GG), P11, 16 TOD/DAC25	96182	
90020-00031	581H43A3B13C3L2N2(GG), P11, 16 GPS/U20	96182	
90020-00032	581H31A0B6C3L6N2(GG), P11, 16 RT20/GPS	96182	

1/ Parts must be purchased to this DSCC PIN to assure that all performance requirements and tests are met.

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