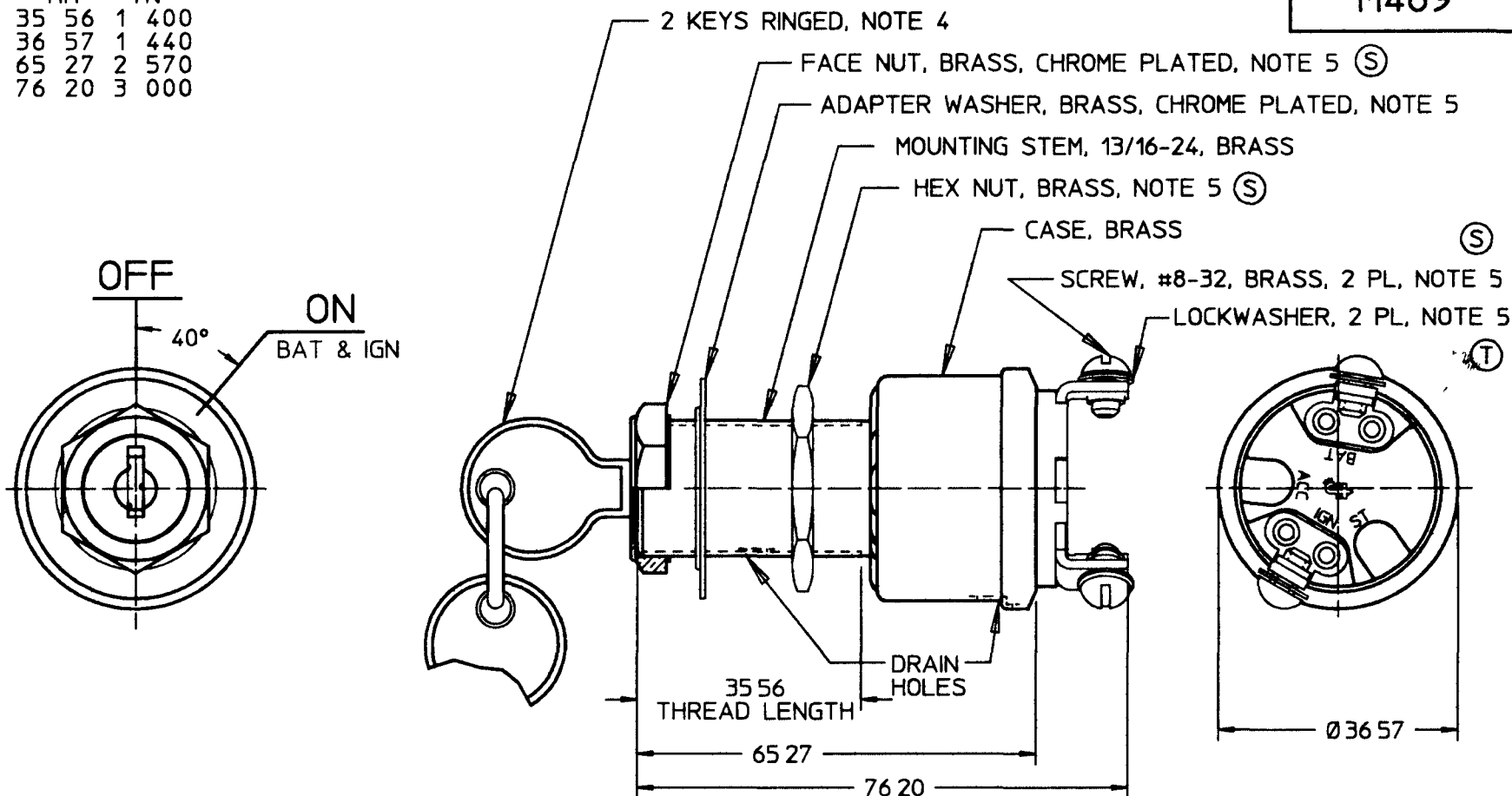


	MM	IN
35	56	1 400
36	57	1 440
65	27	2 570
76	20	3 000

M489



NOTES

- 1 ALL DIMENSIONS ARE REFERENCE ONLY
- 2 RATING: 12V DC, 10 AMPS PER CIRCUIT, 15 AMPS MAX
- 3 APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259
- 4 LOCK & KEYS SUPPLIED IN RANDOM KEY CODES
CH-501, CH-502, CH-503, CH-504, CH-505
CH-506, CH-510, CH-512, CH-516, CH-523
- 5 PARTS MAYBE ASSEMBLED OR SUPPLIED IN A PLASTIC BAG

METRIC

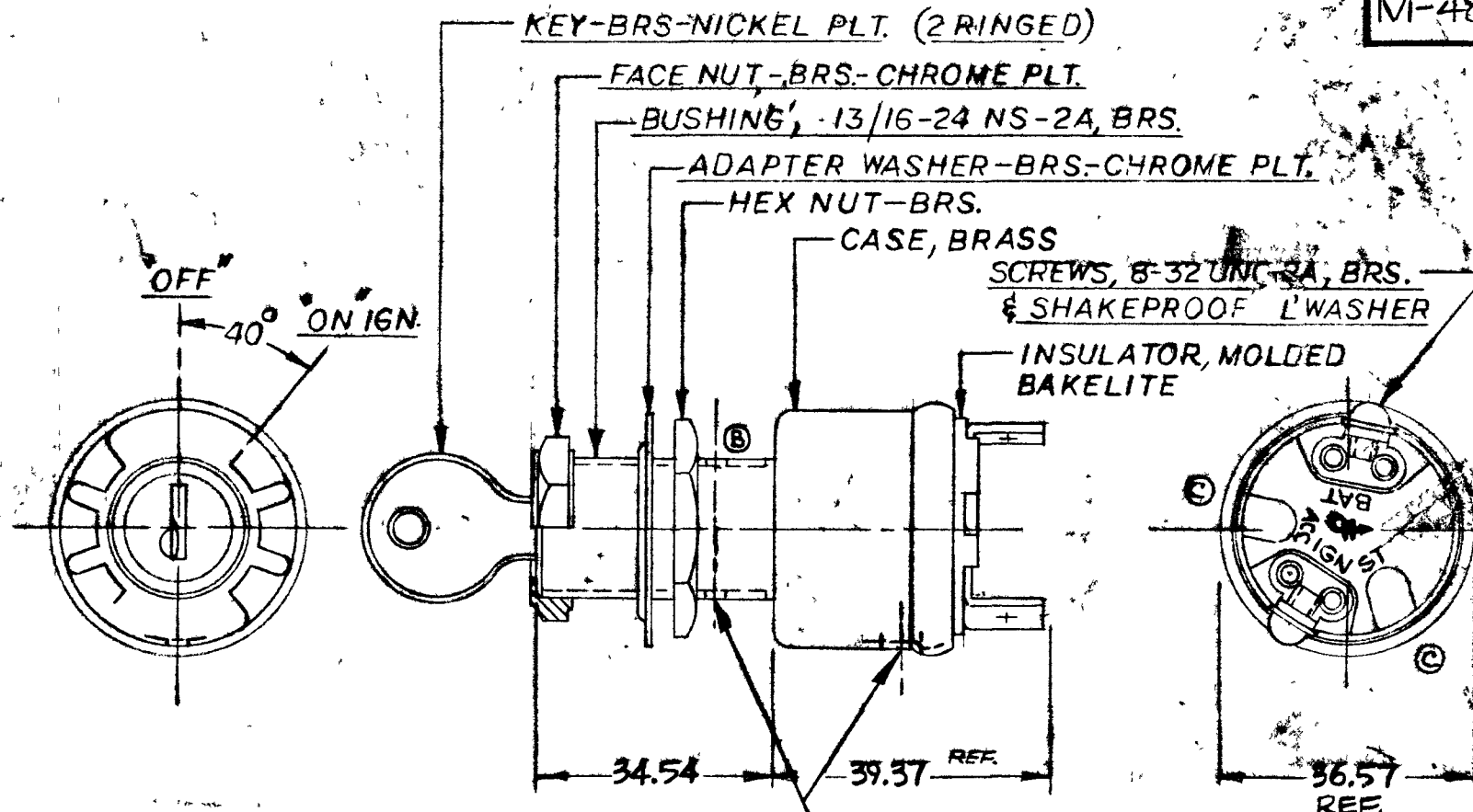
DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHK	APVD	SCALE	DATE DRAWN
									LM	6		11	1/20/55
				T	ECN #98119 ADDED L'WSHR	02/11/98	JMP	FINISH	Cole Hersee Co. 20 OLD COLONY AVENUE, BOSTON, MA, U.S.A., 02127				DATE BLUEPRINTED
				S	ECN #26813	7/16/97	AJS	TOLERANCES					
				R	PUT ON CAD	7/26/96	DPS	DECIMAL ± ANGLE ±	SW, ROT, IGN				M489

34.54 1.360
36.57 1.440
39.37 1.550

COLE-HERSEE CO.
NPM 10-5-76
EX-17081

M-489-03



METRIC

APPLICABLE SAE STANDARD OR
RECOMMENDED PRACTICE SAE J259

① DRAIN
HOLE
3 PLACES

NOTE:
1. O-RING SEAL IN BUSHING
2. SHUTTER TYPE SEAL ON LOCK FACE
3. TUMBLER & KEYS RINGED, SUPPLIED
IN 10 KEY CODES

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	BASIC W/M-6110-01 CONSTRUCTION	DATE DRAWN
								★	KG	10-6-76		1=1		10-4-76
				C	ECN 23394	2-2-87	1Z	FINISH	COLE-HERSEE COMPANY					DATE BLUEPRINT
				B	ALL LAMIN HOLE / 22681	2-28-85	AK	★	BOSTON, MASS. 02127, U.S.A.					
				A	REV. 21610	1-24-72	KG	TOLERANCES	IGNITION SWITCH					M-489-03
					ISSUED	10-6-76	1Y	FRACTIONAL ± DECIMAL ±.25						

SPAULDING CO., INC 21-55259

Confidential Property of Cole Hersee

MM	IN
5.00	.020
1.778	.070
5.58	.220
7.87	.310
11.18	.440
28.96	1.140
31.75	1.250
35.05	1.380
57.15	2.250
87.88	3.460



DO NOT SCALE

LET.	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPROVD.	SCALE		DATE DRAWN
								H	M	5/16		1/1		1-25-60
								FINISH	 Cole Hersee Co. 100 S. COLONY AVENUE, SOUTH BOSTON, MA, U.S.A. 02127					DATE BLUEPRINT
								TOLERANCES						
				E	REDRAWN	12-3-64	1/4 K	DECIMAL ± METRIC ±	ROTARY SWITCH					M497

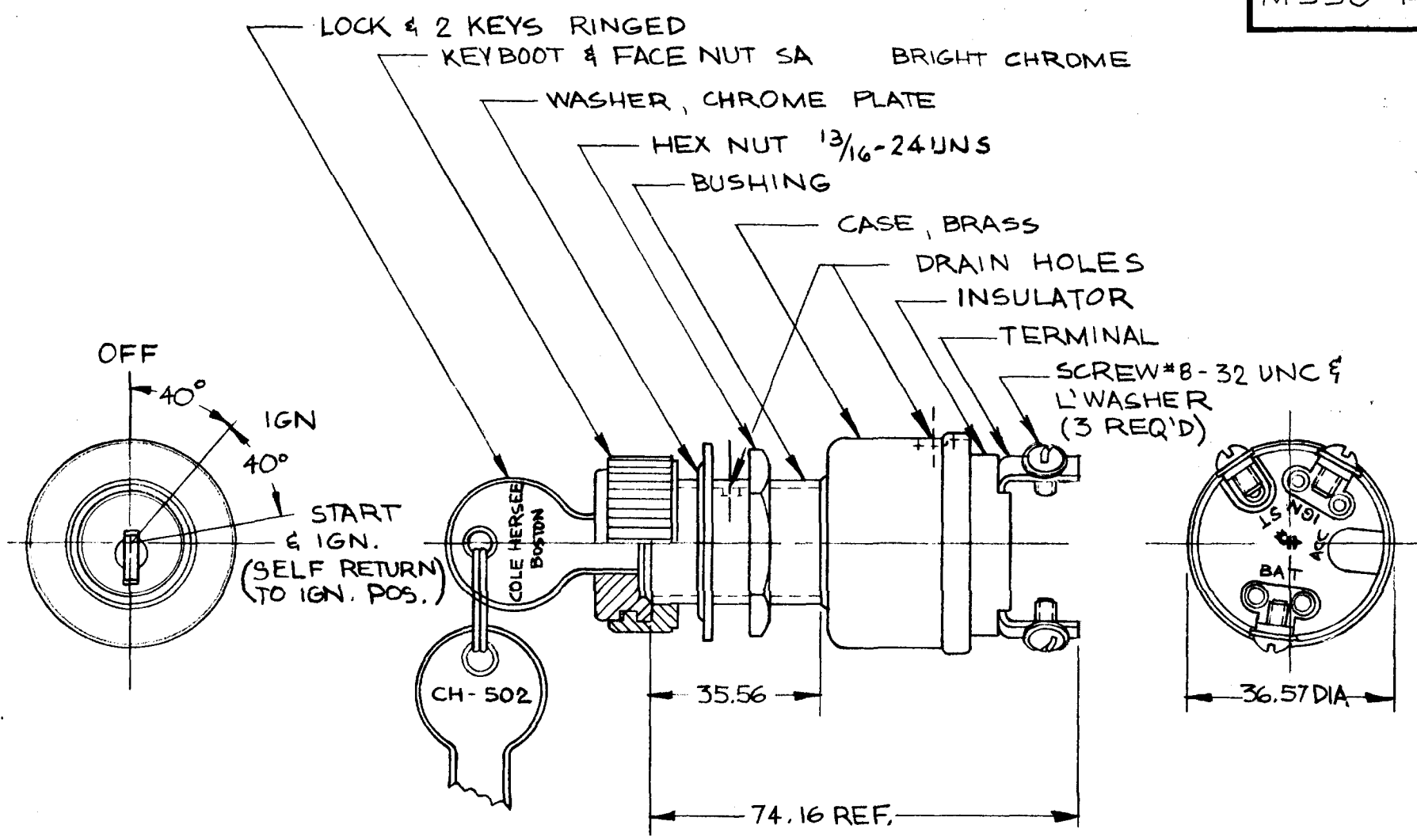
BRUNING 40-21 63765

CH-188(4-78)

MM	IN
35.56	1.400
36.57	1.440
74.16	2.920

M 550 -14

EX 16364



METRIC

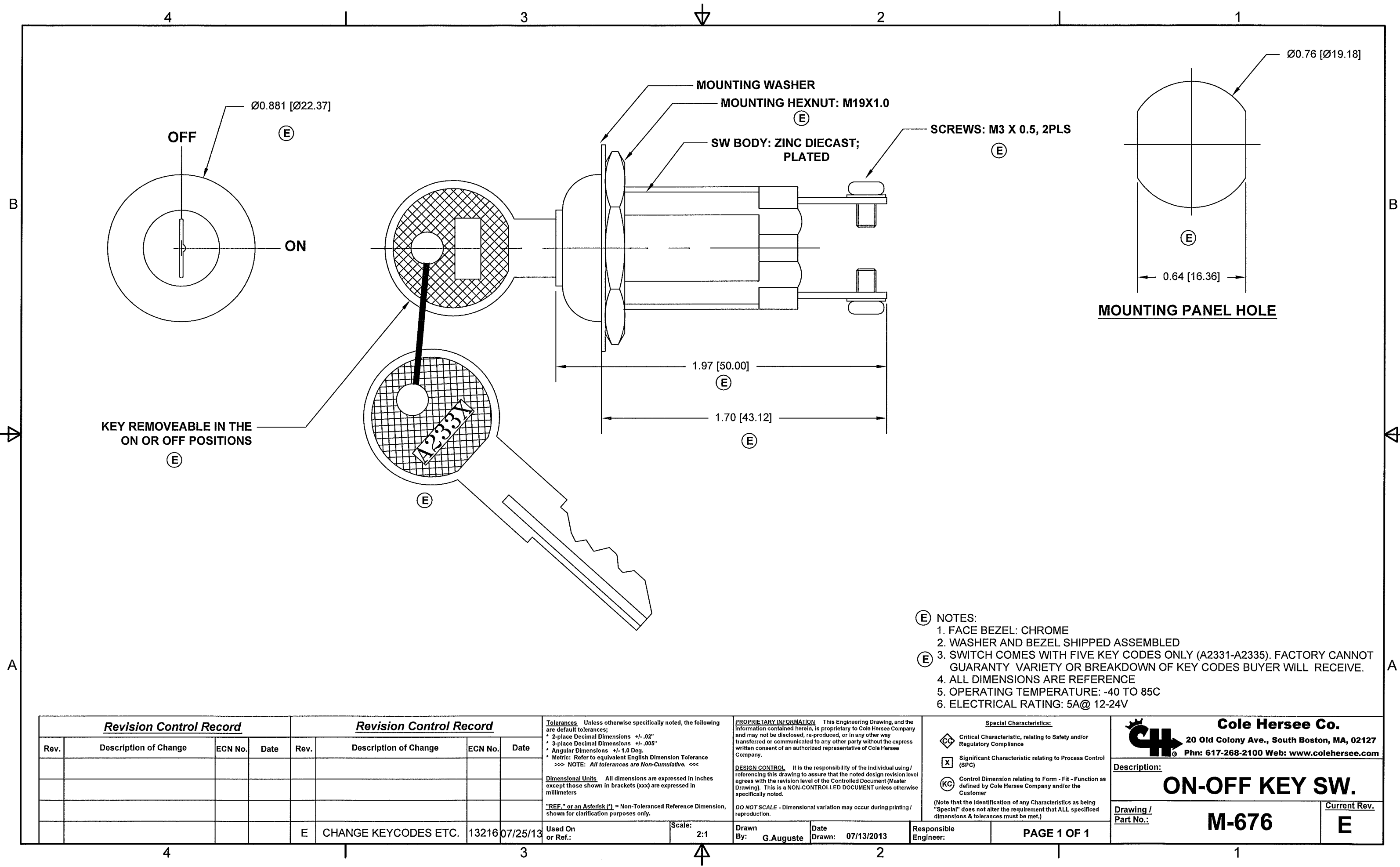
APPLICABLE SAE STANDARD
OR RECOMMENDED PRACTICE
SAE J259

DO NOT SCALE

LET.	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV'D	SCALE	FILED WITH	DATE DRAWN
									DPS			1:1	KEYBOOT & FACE NUT	1-15-80
								FINISH						DATE BLUEPRINT
								TOLERANCES						
								DECIMAL ± —						
								METRIC ± —						
				D	REDRAWN	5/3/69	RO						IGN. & START SW. ASSY	M550-14

CH Cole Hersee Co.
20 OLD COLONY AVENUE, SOUTH BOSTON, MA. U.S.A. 02127

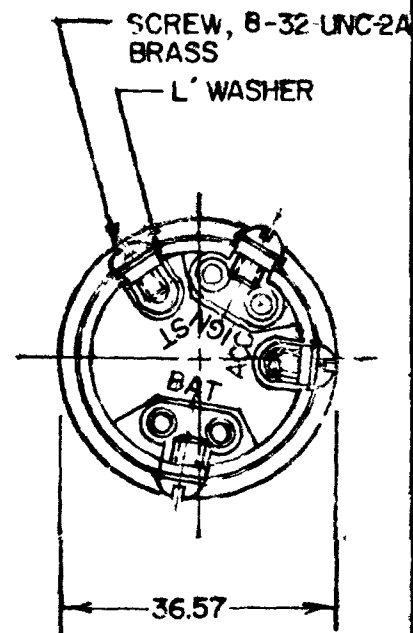
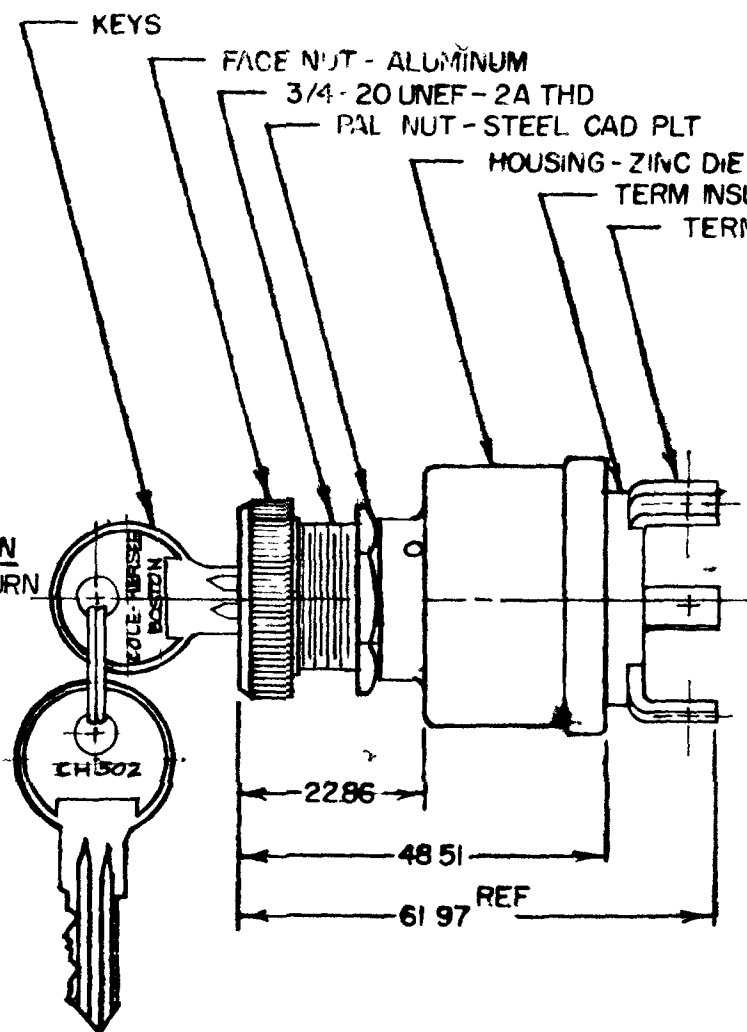
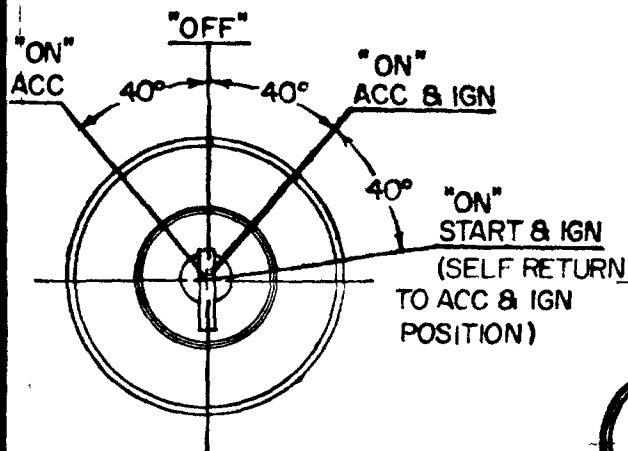
CH-188(4-78)



Revision Control Record				Revision Control Record				Tolerances				PROPRIETARY INFORMATION				Special Characteristics:				Cole Hersee Co.			
Rev.	Description of Change	ECN No.	Date	Rev.	Description of Change	ECN No.	Date	Unless otherwise specifically noted, the following are default tolerances;				This Engineering Drawing, and the information contained herein, is proprietary to Cole Hersee Company and may not be disclosed, re-produced, or in any other way transferred or communicated to any other party without the express written consent of an authorized representative of Cole Hersee Company.				Critical Characteristic, relating to Safety and/or Regulatory Compliance				20 Old Colony Ave., South Boston, MA, 02127			
								• 2-place Decimal Dimensions +/- .02"				It is the responsibility of the individual using / referencing this drawing to assure that the noted design revision level agrees with the revision level of the Controlled Document (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.				Significant Characteristic relating to Process Control (SPC)				Phn: 617-268-2100 Web: www.colehersee.com			
								• 3-place Decimal Dimensions +/- .005"				DO NOT SCALE - Dimensional variation may occur during printing / reproduction.				Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer				Description:			
								• Angular Dimensions +/- 1.0 Deg.				(Note that the identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions & tolerances must be met.)								ON-OFF KEY SW.			
								• Metric: Refer to equivalent English Dimension Tolerance				Used On or Ref:								Drawing / Part No.:			
								>>> NOTE: All tolerances are Non-Cumulative. <<<				Scale: 2:1								M-676			
								Dimensional Units: All dimensions are expressed in inches except those shown in brackets (xxx) are expressed in millimeters				Drawn By: G.Auguste				Date Drawn: 07/13/2013				Current Rev.:			
								"REF." or an Asterisk (*) = Non-Toleranced Reference Dimension, shown for clarification purposes only.				Responsible Engineer:				PAGE 1 OF 1				E			
								E CHANGE KEYCODES ETC.				Used On or Ref:											
								13216															
								07/25/13															

APPLICABLE SAE STANDARD
OR RECOMMENDED PRACTICE
SAE J259

M-700



NOTE
8367 ADAPTER FACE NUT PERMITS ASS'Y OF
SWITCH TO 19 05 & 22 22 DIA PANEL HOLES

METRIC

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV D	SCALE	DATE DRAWN
								— # —	AA	9-24-59		1:1	1-14-59
								FINISH					DATE BLUEPRINT
				H	REV CASE	9-283	P ₃	TOLERANCES					
				G	REDRAWN	9-19-78	R	FRACTIONAL ±					
								DECIMAL ± .25					

CH Cole Hersee Co.
20 OLD COLONY AVENUE SOUTH BOSTON MA U.S.A. 02 27

IGN & START SWITCH

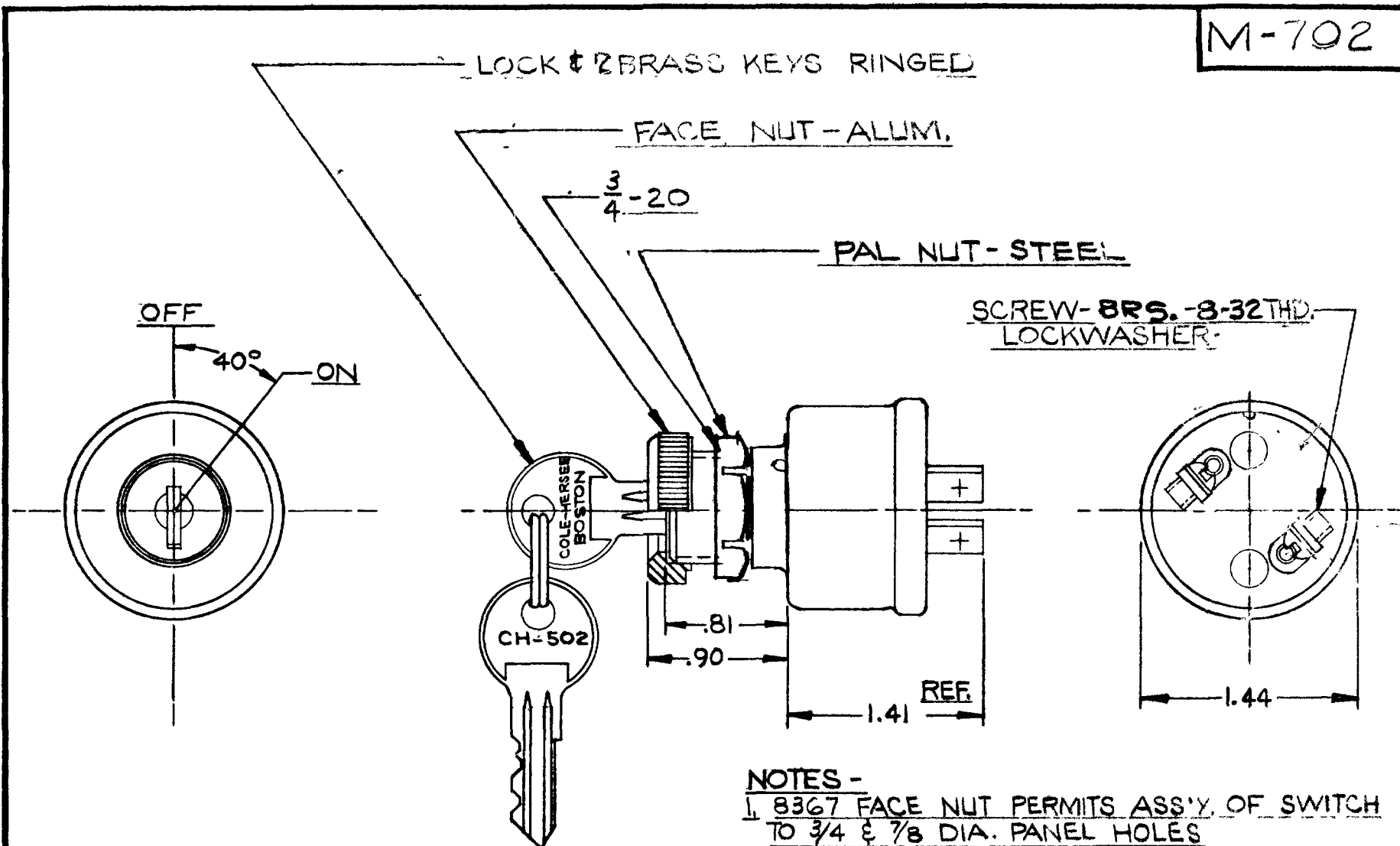
M-700

CH-188 (4-78)

REF -
9577
Ex15997

M-702

COLE-HERSEE CO.



APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

NOTES -

1. 8367 FACE NUT PERMITS ASS'Y. OF SWITCH TO 3/4 & 7/8 DIA. PANEL HOLES
2. 250 KEY COMBINATIONS
3. ALL STEEL PARTS EITHER ZINC PLT. - WITH DICH. DIP OR CAD. PLT.

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	DATE DRAWN
								NOTED	H			FULL	1-14-59
								FINISH					DATE BLUEPRINT
				F	REV. CASE ECH 22/20	9-2-83	DS	NOTED					
				E	SAE SPEC ADDED	3-2-74	W						
				D	REVISED 17223	4-21-72	KW	TOLERANCES FRACTIONAL ± DECIMAL ±.010					
COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A.													DATE BLUEPRINT
IGNITION SWITCH													M-702

SPAULDING CO., INC.

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE (SAE J259)

R3337 FACE NUT-BRASS-ROLLED CHROME

M712-02

M48946 ADAPTER WASHER
BRASS-CHROME PLATE

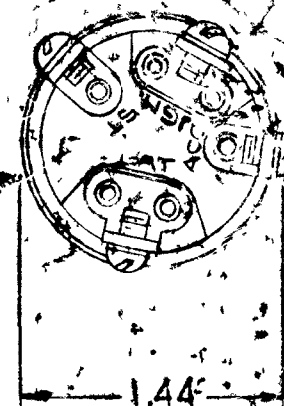
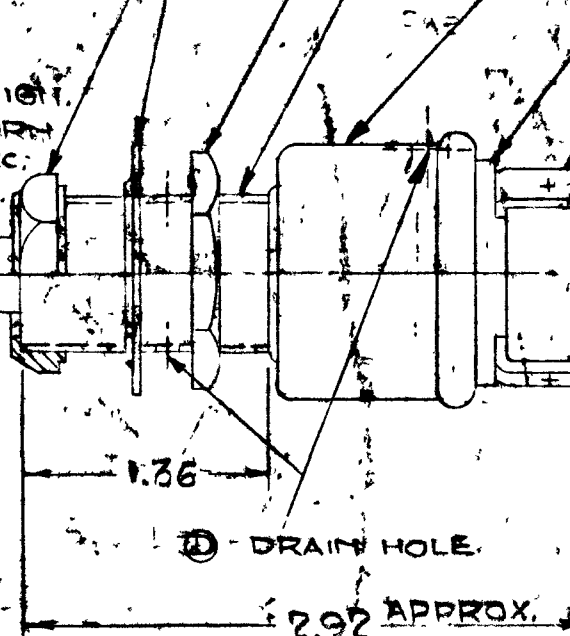
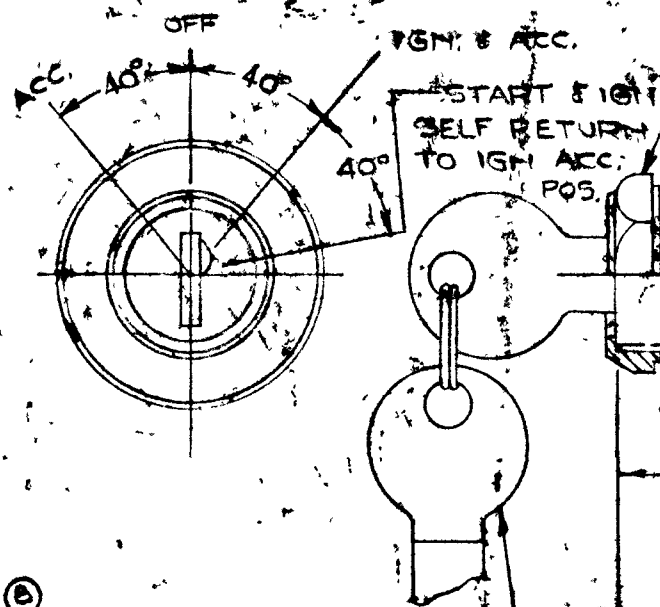
M48940 HEX NUT-BRASS

MTG STEM-BRASS- $\frac{3}{16}$ -24-UNS-2A

CASE-BRASS

INSULATOR-MOLDED WHITE

TERMINALS-BRASS



RATINGS AT 12VDC	
IGN. CIRCUIT	10 AMPS
ACC	10
ST.	8

95817 TUMBLER &
2 KEYS RINGED-10 KEY CODES

5410-J-8-32 BRASS
SCREW WITH LOCKWASHER
4 REQ.

NOTE-

1. SHUTTER TYPE SEAL ON LOCK FACE
2. O-RING SEALED AT MTG. STEM

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	BASIC MCHG EXPL. FOR SADDLE & TERM. INSULATOR	DATE DRAWN
				D	REV/2110/10	1-29-82								5-1-73
				C	REV/19782	2-28-77		FINISH						
				P	REV/19782	12-1-76								
F	ECN 23141	11-1-81		A	REV/19782	3-21-74		TOLERANCES FRACTIONAL ±						
E	DEPT. NOTE 23290	10-30-86		Z	ISSUED	5-14-13		DECIMAL ±						

COLE-HERSEE COMPANY

BOSTON, MASS. 02127, U.S.A.

4 POSITION
IGN. & START SWITCH

M712-02

APPLICABLE SAE STANDARD OR
RECOMMENDED PRACTICE SAE J259

M712-09

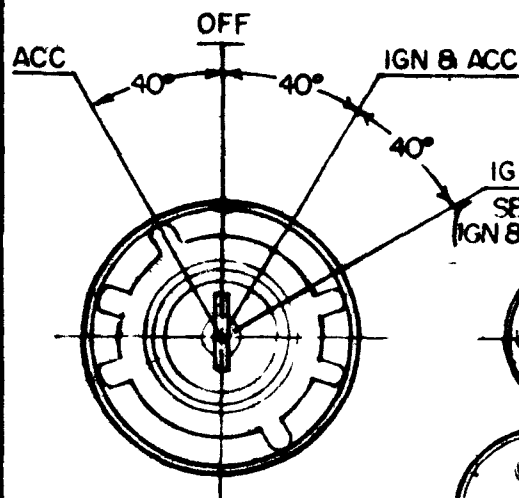
FACE NUT & BOOT SA

ADAPTER WASHER - BRASS, CHROME PLT

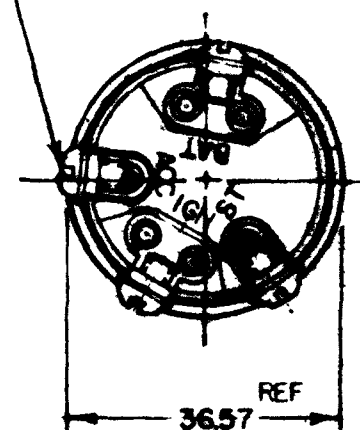
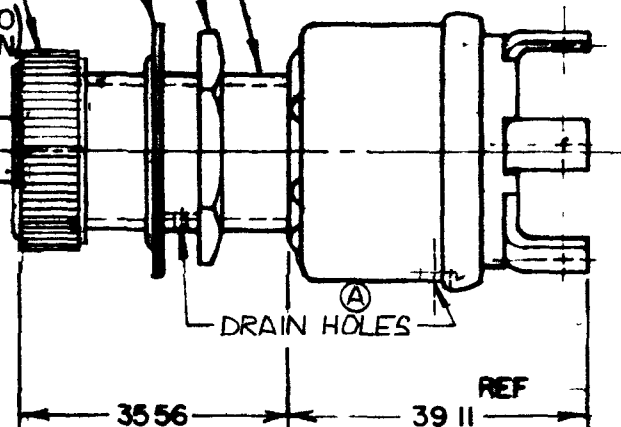
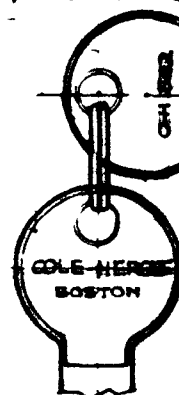
HEX NUT - BRASS

13/16-24UNS-2A THD

SCREW - 8-32 UNC-2A, BRASS,
W/ L' WASHER -
4 REQ'D (B)



IGN & START
SELF RETURN TO
IGN & ACC POSITION



NOTE

1. ALL EXTERIOR METAL PARTS PLAIN BRASS UNLESS NOTED
2. TUMBLER & KEYS - BRASS, NICKEL PLT (RINGED)
SUPPLIED IN 10 SETS

METRIC

DO NOT SCALE

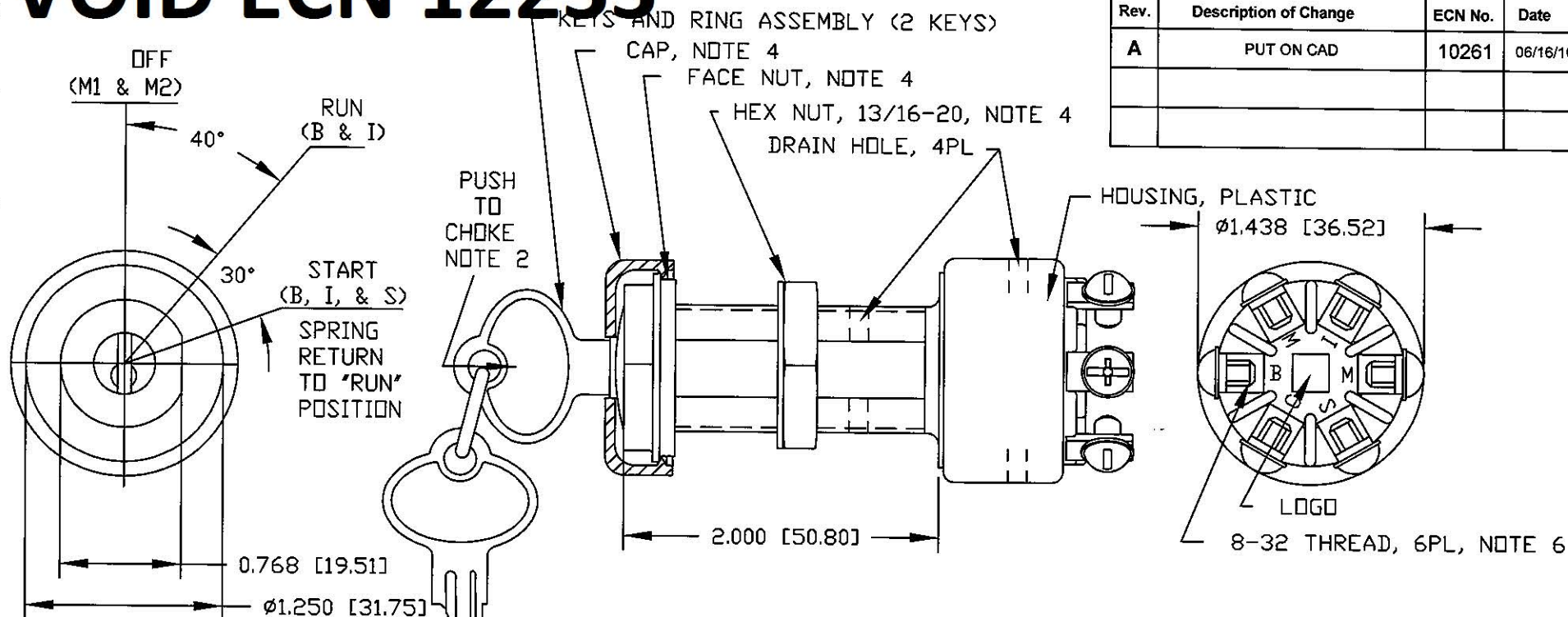
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV D	SCALE	DATE DRAWN
								—	RMT	6-12-79		1:1	5-31-79
								FINISH					DATE BLUEPRINT
				B	ECN 23741	5-19-88	JK						
				A	REV DRAIN HOLE #21032	2-22-82	(E)	TOLERANCES					
					ISSUED	6-12-79	JK	FRACTIONAL ±					
								DECIMAL ±.25					

Cole Hersee Co.
20 OLD COLONY AVENUE, SOUTH DORSET, MA 01967

IGN & START SWITCH
(4 POSITION)

M712-09

VOID ECN 12233



VIEW LESS CAP,
FACE & HEX NUTS

NOTES:

1. ALL STEEL PARTS PLATED
2. THERE SHALL BE A POSITIVE BREAK FROM MAGNETO 1 AND MAGNETO 2 TERMINALS IN POSITION 1 BEFORE MAKING BATTERY AND IGNITION TERMINALS IN POSITION 2
3. BATTERY AND CHOKE TERMINALS SHALL MAKE IN POSITION 2 AND 3.
4. MOUNTING HARDWARE HEXNUT, FACENUT, & CAP SHIPPED LOOSE
5. RATING: 10 AMPS @ 12V DC
6. TERMINAL HARDWARE 6 SCREWS, 6 WASHERS ASSEMBLED
7. 5 KEY CODES
8. ALL DIMENSIONS ARE REFERENCE ONLY

Revision Control Record

Rev.	Description of Change	ECN No.	Date
A	PUT ON CAD	10261	06/16/10

Tolerances Unless otherwise specifically noted, the following are default tolerances;

2-places $\pm 0.02"$ **3-places** $\pm 0.005"$ **Angular** $\pm 1^\circ$

Metric: Shown in [] refers to equivalent English Dim Tol

"REF." or an Asterisk (*) = Non-Toleranced Reference Dimension, shown for clarification purposes only.

NOTE: All tolerances are Non-Cumulative.

PROPRIETARY INFORMATION

This Engineering Drawing, and the information contained herein, is proprietary to Cole Hersee Company and may not be disclosed, re-produced, or in any other way transferred or communicated to any other party without the express written consent of an authorized representative of Cole Hersee Company.

Special Characteristics:

- ☒ Critical Characteristic, relating to Safety and/or Regulatory Compliance
- ☒ Significant Characteristic relating to Process Control
- ☒ Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer



Cole Hersee Co.

20 Old Colony Ave., South Boston, MA, 02127
Phn: 617-268-2100 Web: www.colehersee.com

Description:

SW, ROT, IGN

Drawing /
Part No.:

M-832

Current Rev.

A

FORM CHT-6 (2/07)

Used On
or Ref.: **EX27032-B**

Scale: 1:1

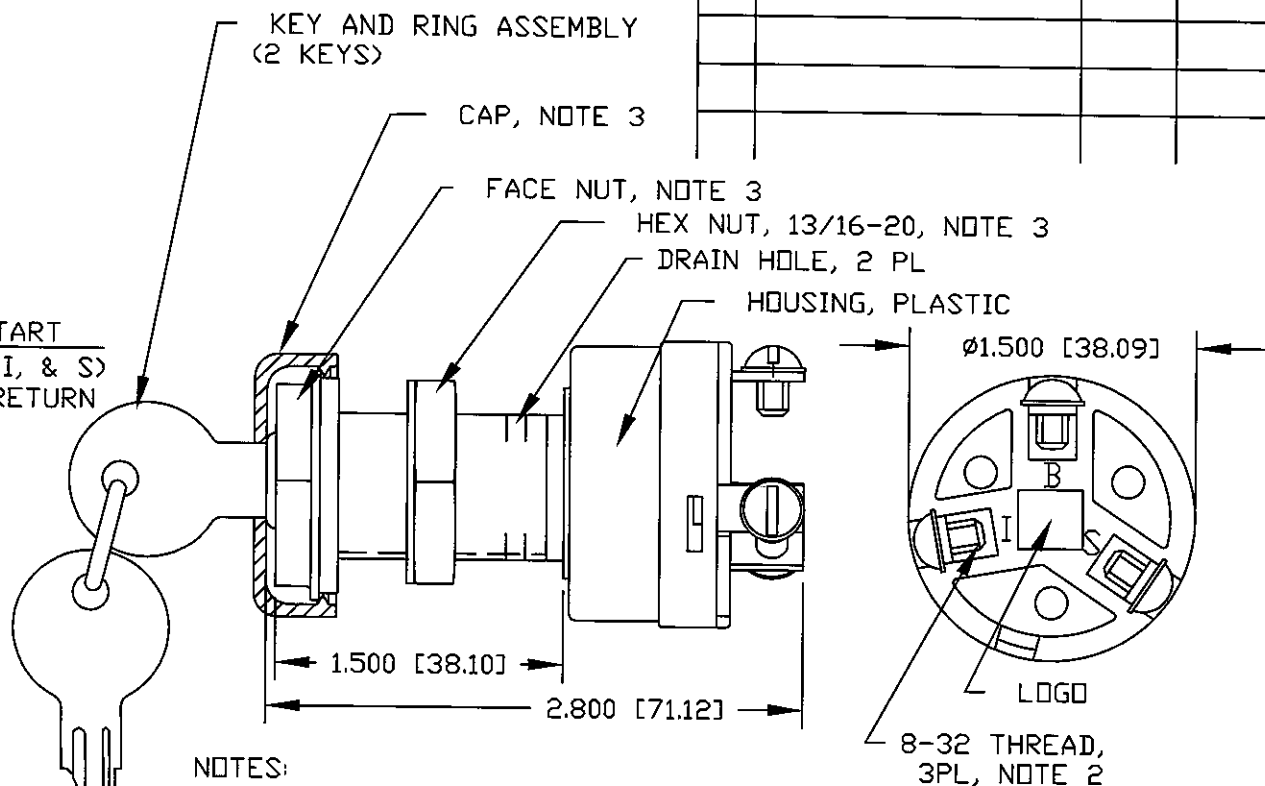
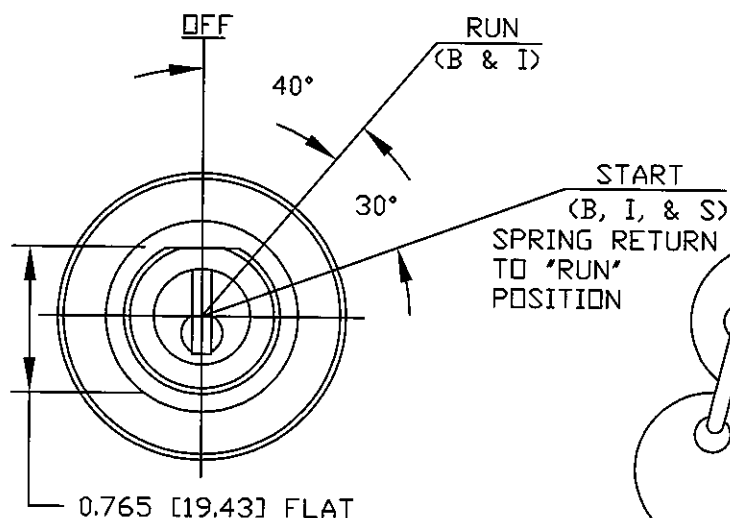
Drawn
BY: **AJS**

Date
Drawn: 10/15/99

Pg. 1 of 1

LEGEND		
POSITION	CIRCUIT	AMPS
OFF	NONE	--
RUN	B + I	15
START	B + I + S	20

Revision Control Record			
Rev.	Description of Change	ECN No.	Date
A	PUT ON CAD	10261	06/16/10



- NOTES:
1. ALL STEEL PARTS PLATED
 2. TERMINAL HARDWARE, 3 SCREWS, 3. WASHERS ASSEMBLED
 4. MOUNTING HARDWARE 1 HEXNUT, FACENUT & CAP SHIPPED LOOSE
 5. FIVE (5) KEY CODES
 6. RATING: 12V DC
 7. ALL DIMENSIONS ARE REFERENCE ONLY

Tolerances Unless otherwise specifically noted, the following are default tolerances;

2-places $\pm 0.02"$ **3-places** $\pm 0.005"$ **Angular** $\pm 1^\circ$

Metric: Shown in [] refers to equivalent English Dim Tol

"REF." or an Asterisk (*) = Non-Toleranced Reference Dimension, shown for clarification purposes only.

NOTE: All tolerances are Non-Cumulative.

PROPRIETARY INFORMATION

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Special Characteristics:

- ☒ **CC** Critical Characteristic, relating to Safety and/or Regulatory Compliance
- ☒ **X** Significant Characteristic relating to Process Control
- ☒ **KC** Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer



Cole Hersee Co.

20 Old Colony Ave., South Boston, MA, 02127
Phn: 617-268-2100 Web: www.colehersee.com

Description:

SW, ROT,IGN

Drawing / Part No.:

M-850

Current Rev.

A

FORM CHT-6 (2/07)

Used On or Ref.: **EX27033-B**

Scale: 1:1

Drawn BY: **AJS**

Date Drawn: 10/15/99

Pg. 1 of 1

Mouser Electronics

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Littelfuse:

[M-550-14](#) [M-489](#) [M-489-03](#) [M-700](#) [M-550](#)