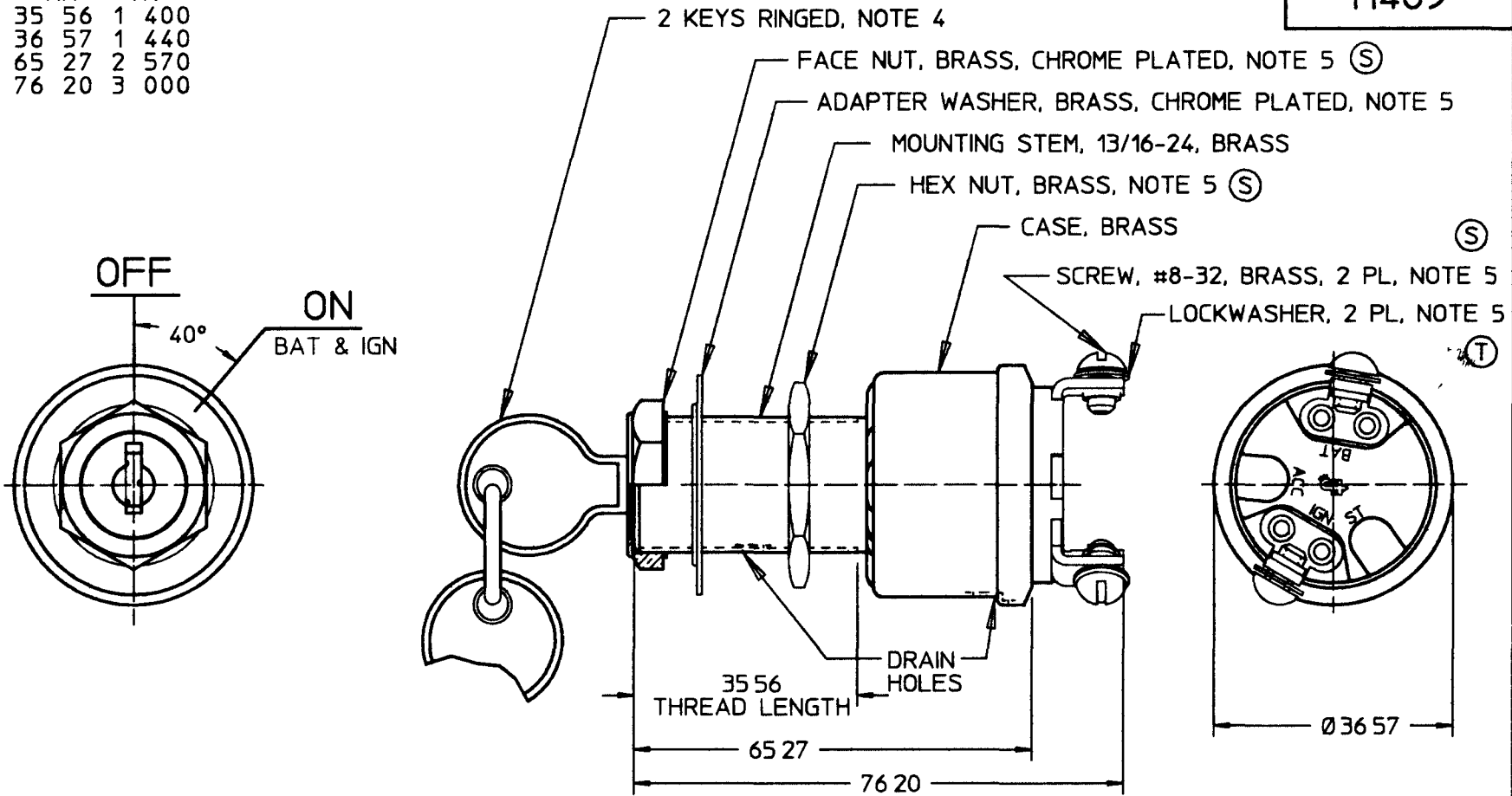


M489

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



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
- (S) 5 PARTS MAYBE ASSEMBLED OR SUPPLIED IN A PLASTIC BAG

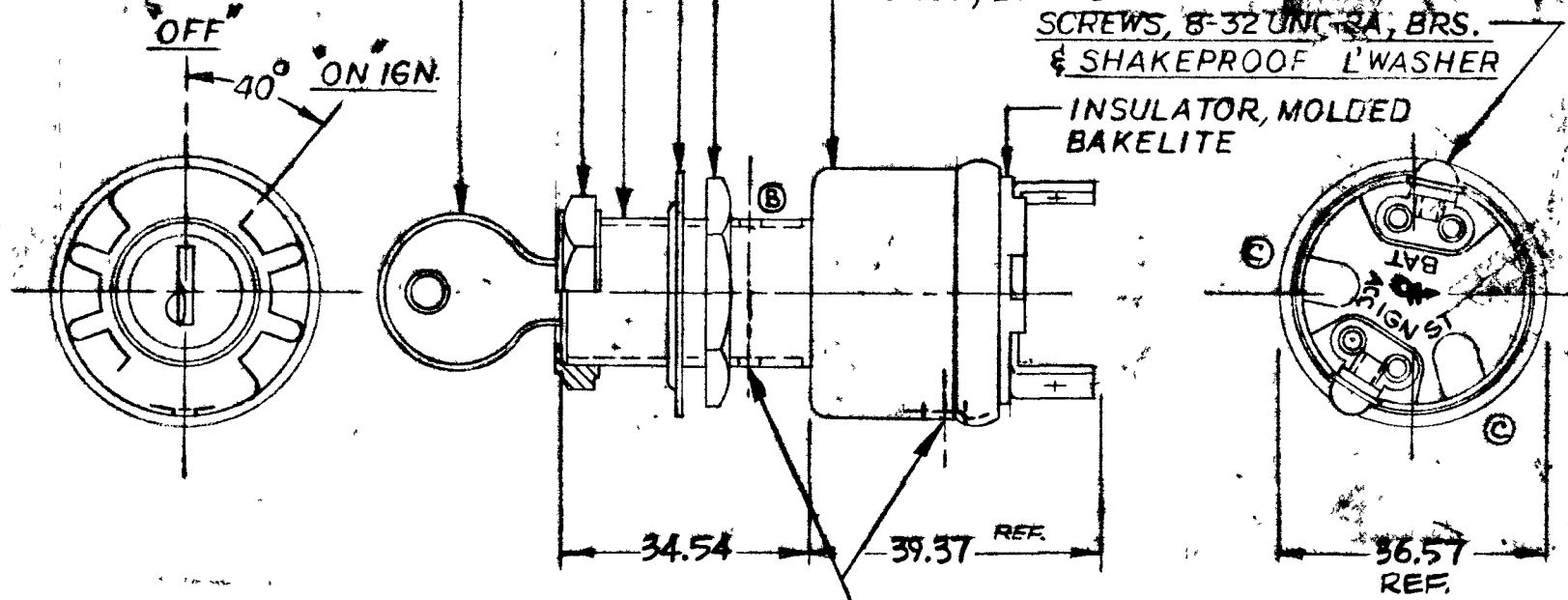
METRIC

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	<b>Cole Hersee Co.</b> 20 OLD COLONY AVENUE, BOSTON, MA, U.S.A. 02127				DATE BLUEPRINTED
				S	ECN #26813	7/16/97	AJS	TOLERANCES	SW, ROT, IGN				M489
				R	PUT ON CAD	7/26/96	DPS	DECIMAL ± ANGLE ±					

M-489-03

- KEY-BRS-NICKEL PLT. (2 RINGED)
- FACE NUT, -BRS.-CHROME PLT.
- BUSHING, -13/16-24 NS-2A, BRS.
- ADAPTER WASHER-BRS-CHROME PLT.
- HEX NUT-BRS.
- CASE, BRASS
- SCREWS, 8-32 UNC-2A, BRS.
- SHAKEPROOF L'WASHER
- INSULATOR, MOLDED BAKELITE



(A) 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

METRIC

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

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	1/2	FINISH	<b>COLE-HERSEE COMPANY</b> BOSTON, MASS. 02127, U.S.A.					DATE BLUEPRINT
				B	ALL L'NUTS / HOLE / 22681	2-28-85	AK	—						
				A	REV. 216110	1-29-72	1/2	TOLERANCES	<b>IGNITION SWITCH</b>					<b>M-489-03</b>
					ISSUED	10-6-76	1/2	FRACTIONAL ± DECIMAL ±.25						

SPAULDING CO., INC 21-55259

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

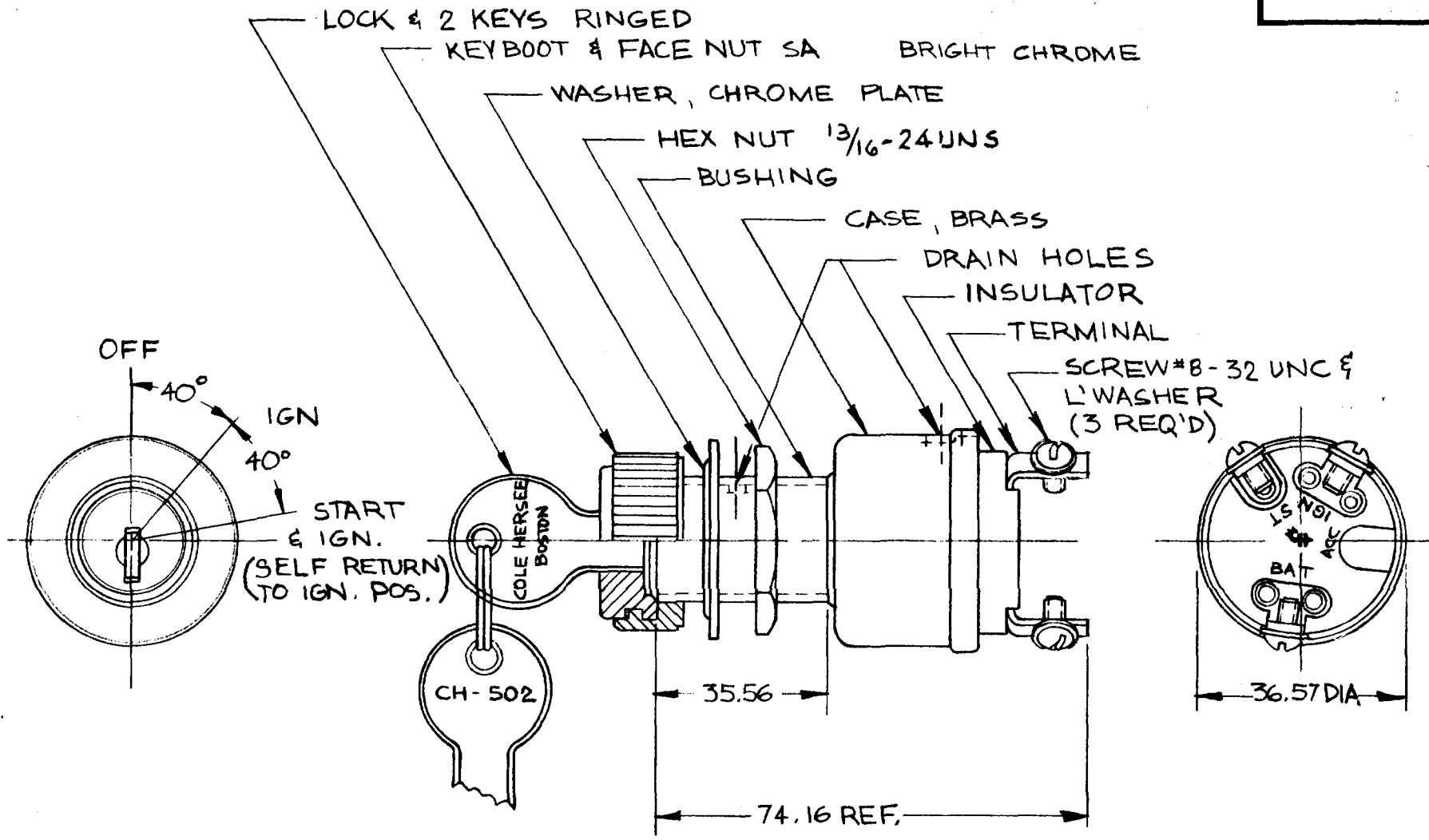
34.54 1.360  
 36.57 1.440  
 39.57 1.550





MM	IN
35.56	1.400
36.57	1.440
74.16	2.920

M 550 -14




EX 16364

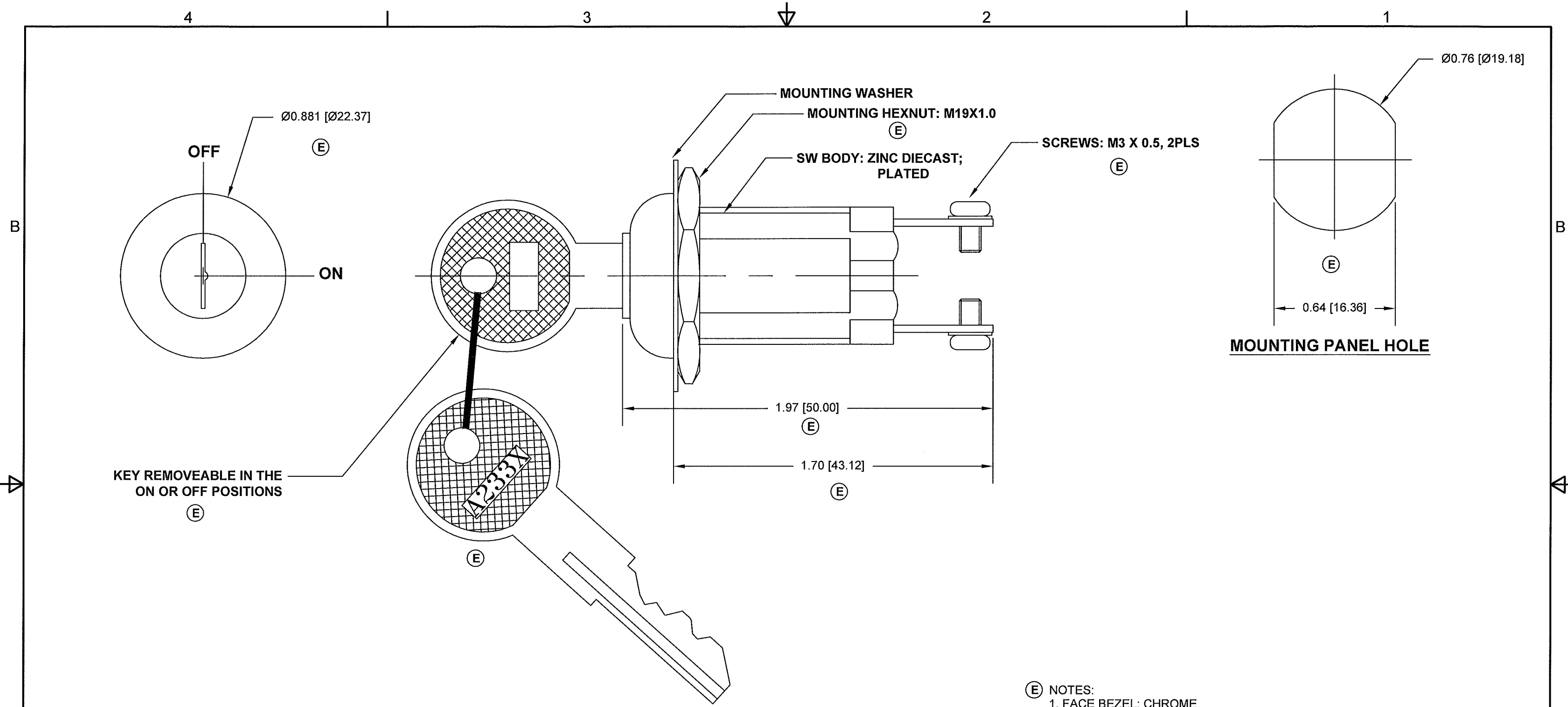
APPLICABLE SAE STANDARD  
OR RECOMMENDED PRACTICE  
SAE J259

METRIC

DO NOT SCALE

LET.	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	FILED WITH	DATE DRAWN
									DPS	JJ		1:1	FILED WITH KEYBOOT & FACE NUT	1-15-80
								FINISH	 70 OLD COLONY AVENUE SOUTH BOSTON MA U.S.A. 02127					DATE BLUEPRINT
								TOLERANCES DECIMAL ± — METRIC ± —						IGN. & START SW. ASSY

CH-188(4-78)



- (E) NOTES:
1. FACE BEZEL: CHROME
  2. WASHER AND BEZEL SHIPPED ASSEMBLED
  3. SWITCH COMES WITH FIVE KEY CODES ONLY (A2331-A2335). FACTORY CANNOT GUARANTY VARIETY OR BREAKDOWN OF KEY CODES BUYER WILL RECEIVE.
  4. ALL DIMENSIONS ARE REFERENCE
  5. OPERATING TEMPERATURE: -40 TO 85C
  6. ELECTRICAL RATING: 5A@ 12-24V

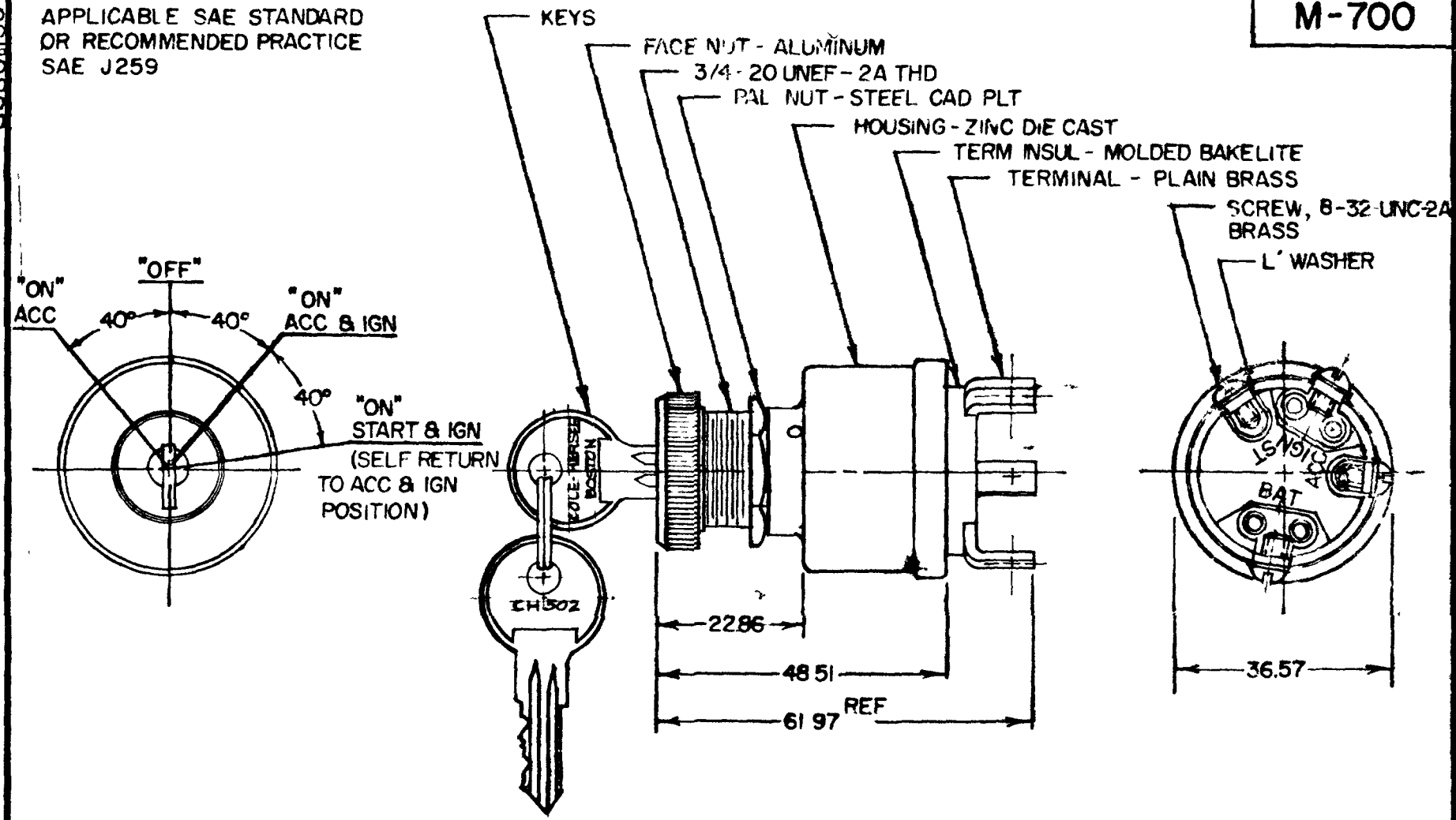
Revision Control Record				Revision Control Record				Tolerances Unless otherwise specifically noted, the following are default tolerances: * 2-place Decimal Dimensions +/- .02" * 3-place Decimal Dimensions +/- .005" * Angular Dimensions +/- 1.0 Deg. * Metric: Refer to equivalent English Dimension Tolerance >>> NOTE: All tolerances are Non-Cumulative. <<<  Dimensional Units All dimensions are expressed in inches except those shown in brackets (xxx) are expressed in millimeters  "REF." or an Asterisk (*) = Non-Toleranced Reference Dimension, shown for clarification purposes only.  Used On or Ref.:	Scale: 2:1	Drawn By: G.Auguste	Date Drawn: 07/13/2013	Responsible Engineer:	PAGE 1 OF 1	Cole Hersee Co. 20 Old Colony Ave., South Boston, MA, 02127 Phn: 617-268-2100 Web: www.colehersee.com	
Rev.	Description of Change	ECN No.	Date	Rev.	Description of Change	ECN No.	Date							Description:	Current Rev.
				E	CHANGE KEYCODES ETC.	13216	07/25/13								

MM  
 25  
 05  
 22  
 86  
 57  
 51  
 97

IN  
 .010  
 .750  
 .875  
 .900  
 1.440  
 1.910  
 2.440

**M-700**

APPLICABLE SAE STANDARD  
 OR RECOMMENDED PRACTICE  
 SAE J259



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

**METRIC**

DO NOT SCALE

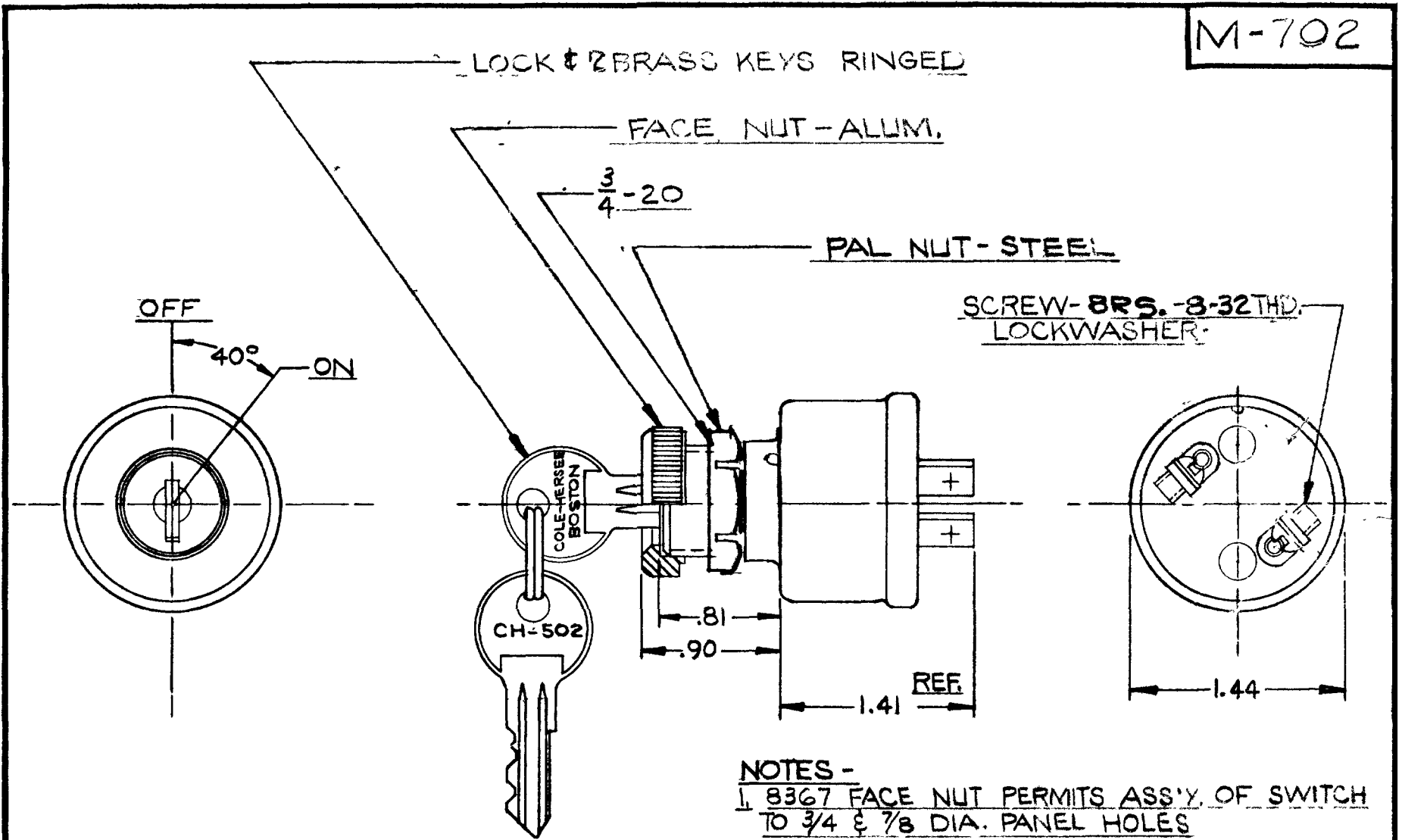
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV D	SCALE	DATE DRAWN
								— # —	AA	9-24-59		1:1	1-14-59
								FINISH	 Cole Hersee Co. <small>20 OLD COLONY AVENUE SOUTH BOSTON MA U.S.A. 02 27</small>				DATE BLUEPRINT
								— # —					
				H	REV CASE ECN 22209	9-283	P <sub>3</sub>	TOLERANCES	<b>IGN &amp; START SWITCH</b>				<b>M-700</b>
				G	REDRAWN	9-1978	R	FRACTIONAL ±					
								DECIMAL ± .25					

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'V'D	SCALE	DATE DRAWN
								NOTE1	H			FULL	1-14-59
								FINISH	COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A.				DATE BLUEPRINT
				F	REV. CASE ECH 22/20	9-2-83	PS	NOTE2					
				E	SAE SPEC ADDED	3-27-74	W	TOLERANCES	IGNITION SWITCH				M-702
				D	REV. REVISED 1723	4-21-72	KW	FRACTIONAL ±					
								DECIMAL ±					

SPAULDING CO., INC.



COLE-HERSEE CO.

R3337 FACE NOT-BRASS-ROLLED CHROME

M712-02

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE (SAE J259)

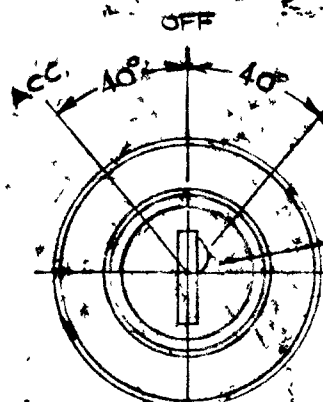
M48946 ADAPTED WASHER  
BRASS-CHROME PLATE

M48940 HEX NUT-BRASS

MT'G STEM-BRASS- $\frac{3}{16}$ -24-UNS-2A

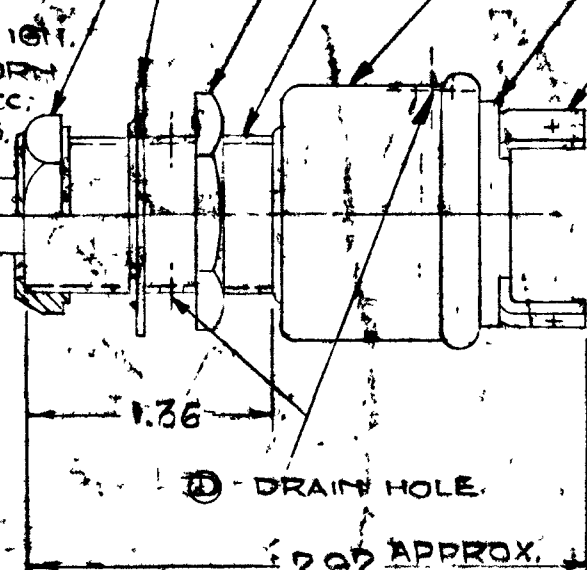
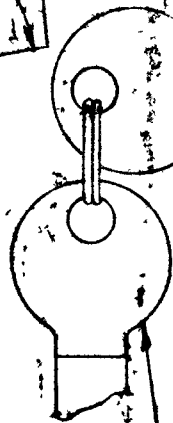
CASE-BRASS

INSULATOR-MOULDED BITE  
TERMINALS-BRASS



IGN. & ACC.

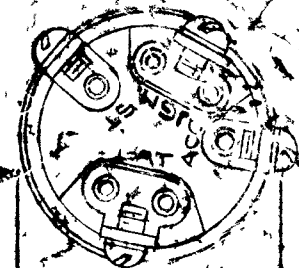
START & IGN.  
SELF RETURN  
TO IGN. ACC.  
POS.



1.36

ⓓ - DRAIN HOLE

2.92 APPROX.



ⓐ ⓔ

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 MTO EXCL. FOR SADDLE & TERM. INSULATOR	DATE DRAWN
				D	REV/211610	1-29-82	ⓑ							5-1-73
				C	REV/19782	2-28-77		FINISH						DATE BLUEPRINT
									<b>COLE-HERSEE COMPANY</b>					
									BOSTON, MASS. 02127, U.S.A.					
F	ECN 23741	11-1-83	A					TOLERANCES					4 POSITIONS	
E	DEPT. NOTE 23290	10-30-86	Z		ISSUED	5-14-83		FRACTIONAL ±					IGN. & START/ SWITCH	M712-02
								DECIMAL ±						

M712-09

APPLICABLE SAE STANDARD OR  
RECOMMENDED PRACTICE SAE J259

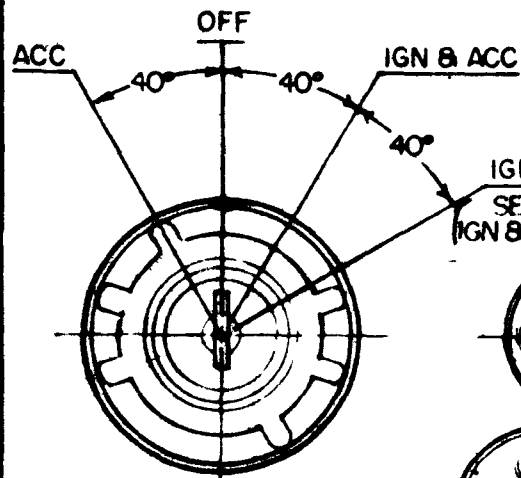
FACE NUT & BOOT SA

ADAPTER WASHER - BRASS, CHROME PLT

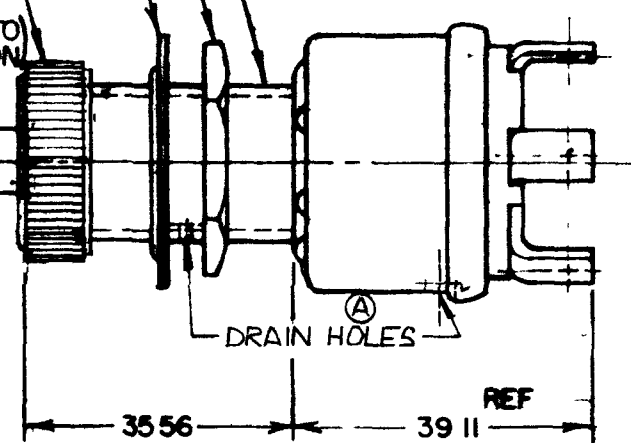
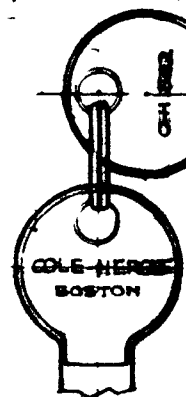
HEX NUT - BRASS

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

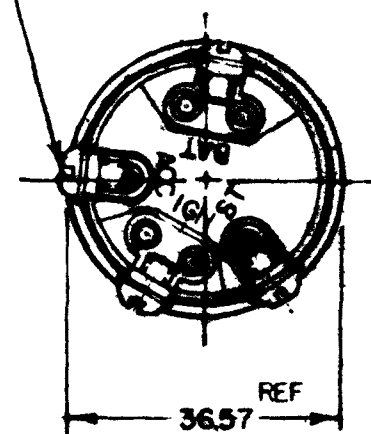


DRAIN HOLES

35.56

39.11

REF



REF  
36.57

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	APPR'D	SCALE	BASIC EXCEPT W/ 83288 KEY BOOT & NUT SA	DATE DRAWN
								—	RMT	6-12-79		1:1		5-31-79
				B	ECN 23741	5-19-88	JK							DATE BLUEPRINT
				A	REV DRAIN HOLE 21032	2-22-82	(B)	TOLERANCES FRACTIONAL ± DECIMAL ±.25						
					ISSUED	6-12-79	JK							

**IGN & START SWITCH**  
(4 POSITION)

**M712-09**



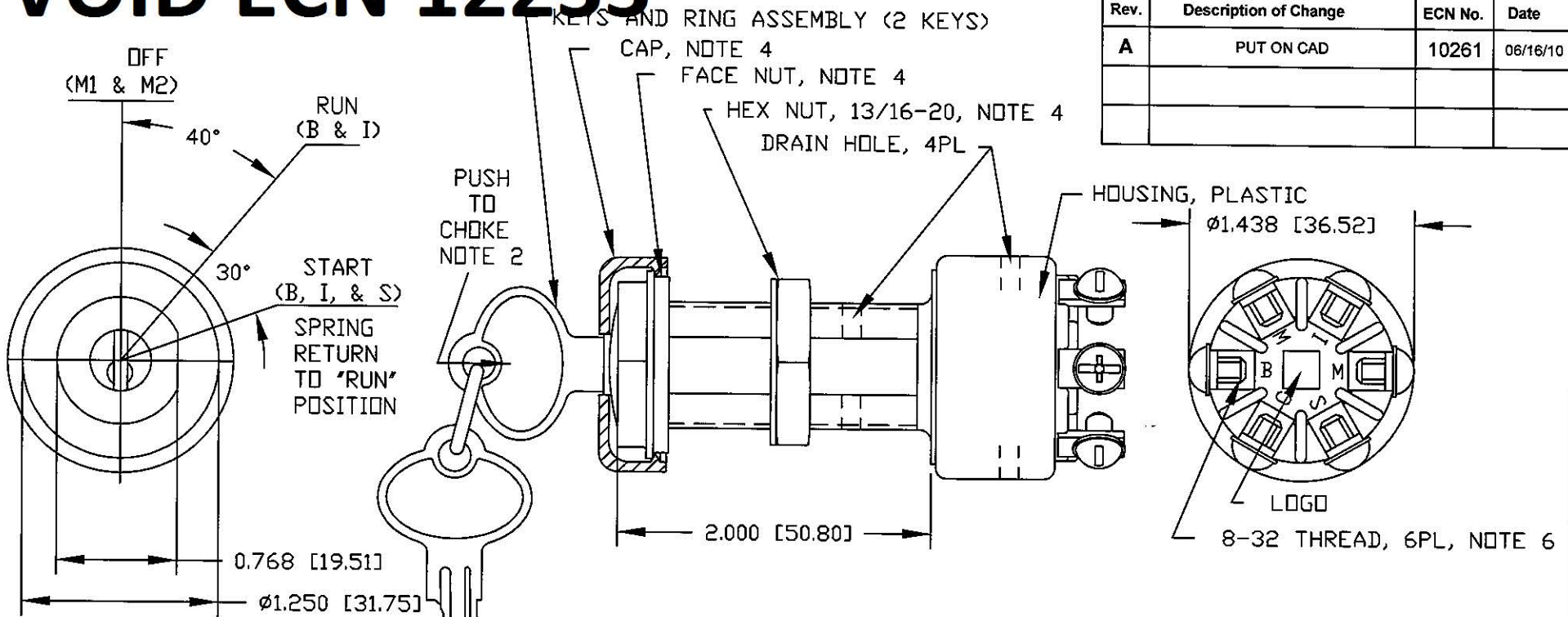
NPM 6-6-78  
EX-1955

UNIFORCE ELECTRONICS

# VOID ECN 12233

## Revision Control Record

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



VIEW LESS CAP,  
FACE & HEX NUTS

START	B + I + S
RUN	B + I
OFF	M1 + M2
POSITION	CIRCUIT
LEGEND	

### 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

**Tolerances** Unless otherwise specifically noted, the following are default tolerances:

**2-places**  $\pm 0.02''$     **3-places**  $\pm 0.005''$     **Angular**  $\pm 1'$

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-832**

Current Rev.

**A**

FORM CHT-6 (2/07)

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

Scale: 1:1

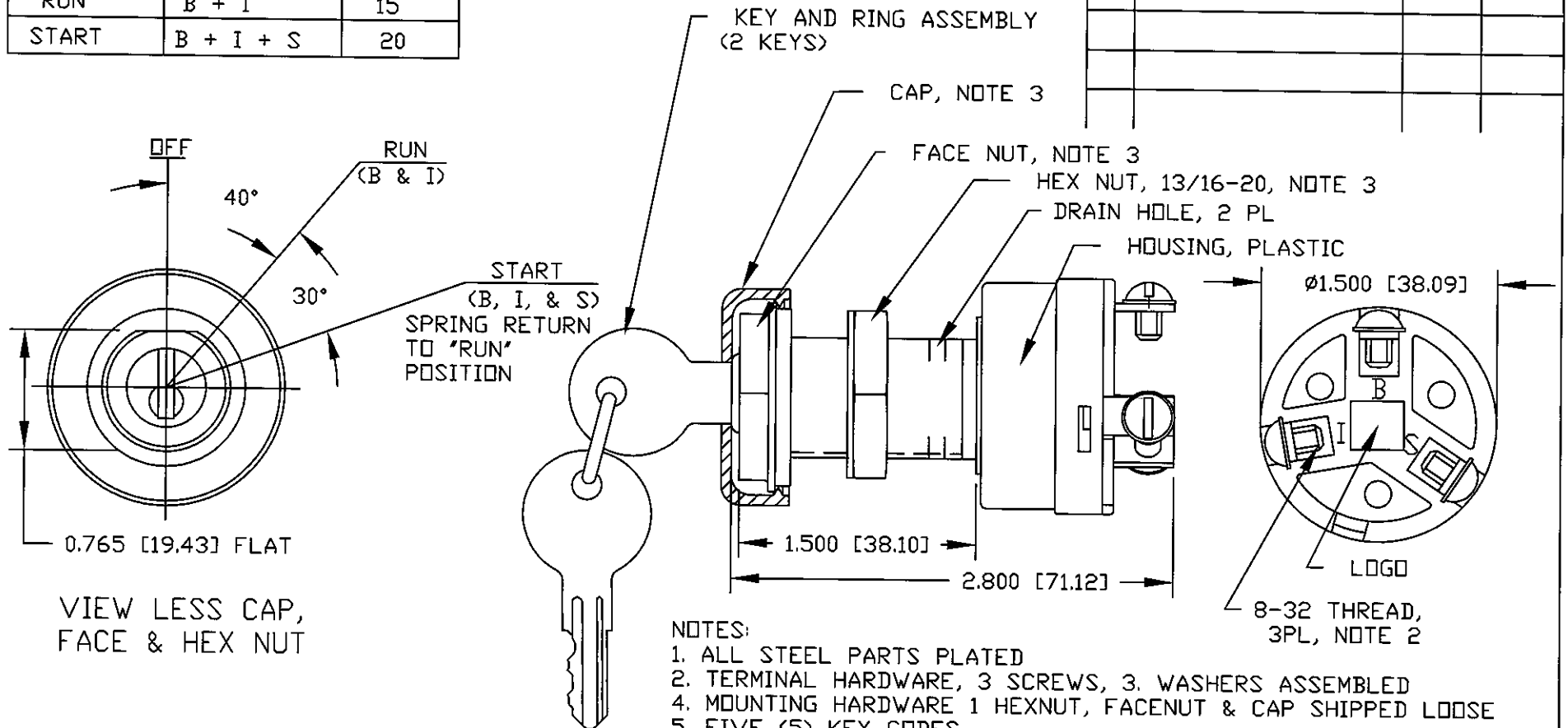
Drawn  
BY: **AJS**

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**  $\pm 1'$

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

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**Special Characteristics:**

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**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**