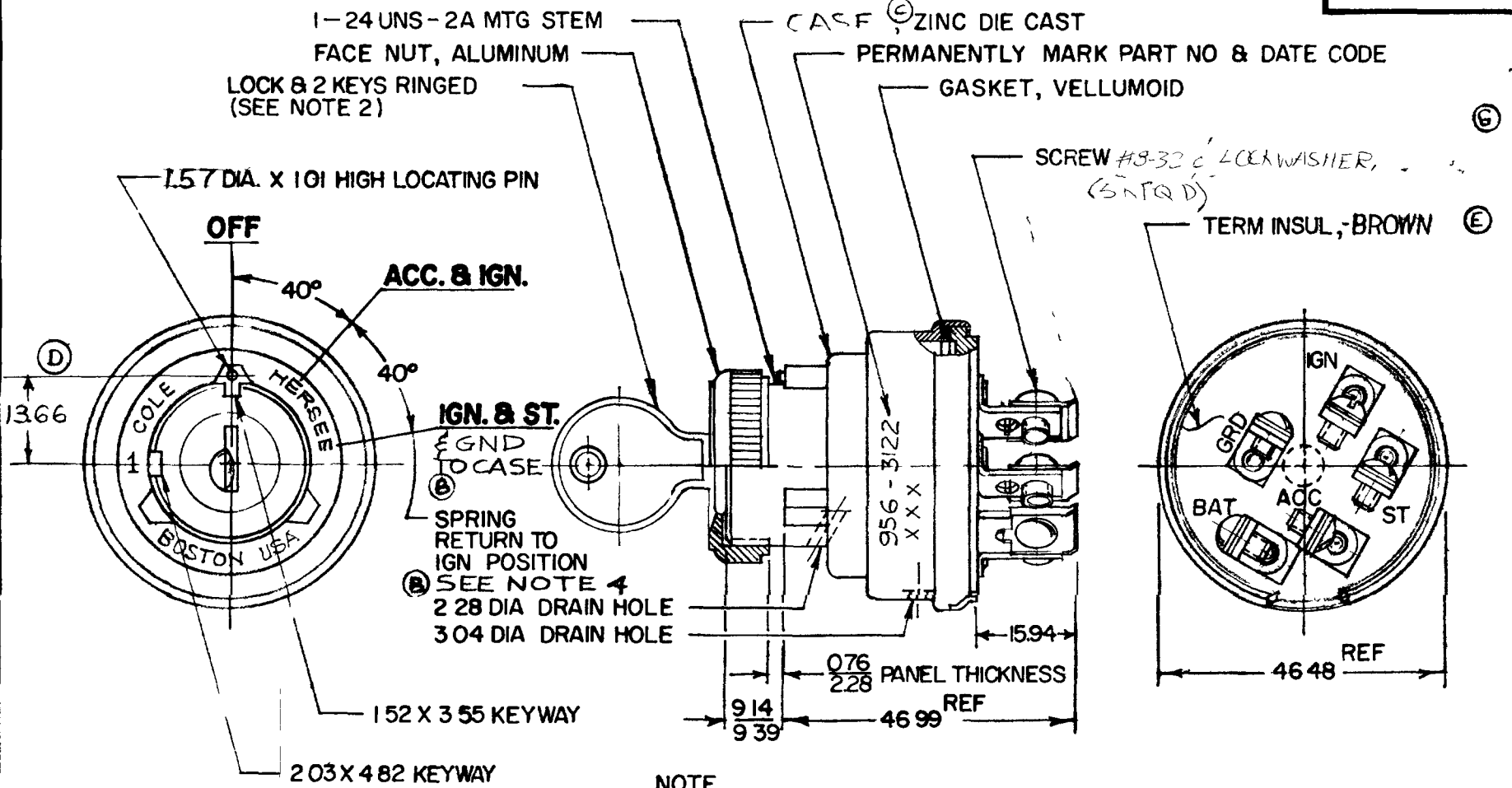


MM	IN
.25	.010
.76	.030
1.01	.040
1.52	.060
1.65	.065
2.03	.080
2.28	.090
3.04	.120
3.55	.140
4.82	.190
9.14	.360
9.39	.370
15.74	.620
16.00	.630
25.48	.830
46.99	1.850
1.57	.062
13.66	.538

NPM 3-4-76
EX-16393C

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-3122



- NOTE**
- 1. TERM INSUL GASKET SEALED
 - 2. SHUTTER TYPE SEAL ON LOCK FACE
 - 3. O-RING SEAL AT MTG STEM
 - 4. START LOCK-OUT FEATURE, SWITCH MUST GO TO "OFF" POSITION BEFORE START CIRCUIT CAN BE RE-ENERGIZED
 - 5. ALL STEEL PARTS PLATED

METRIC

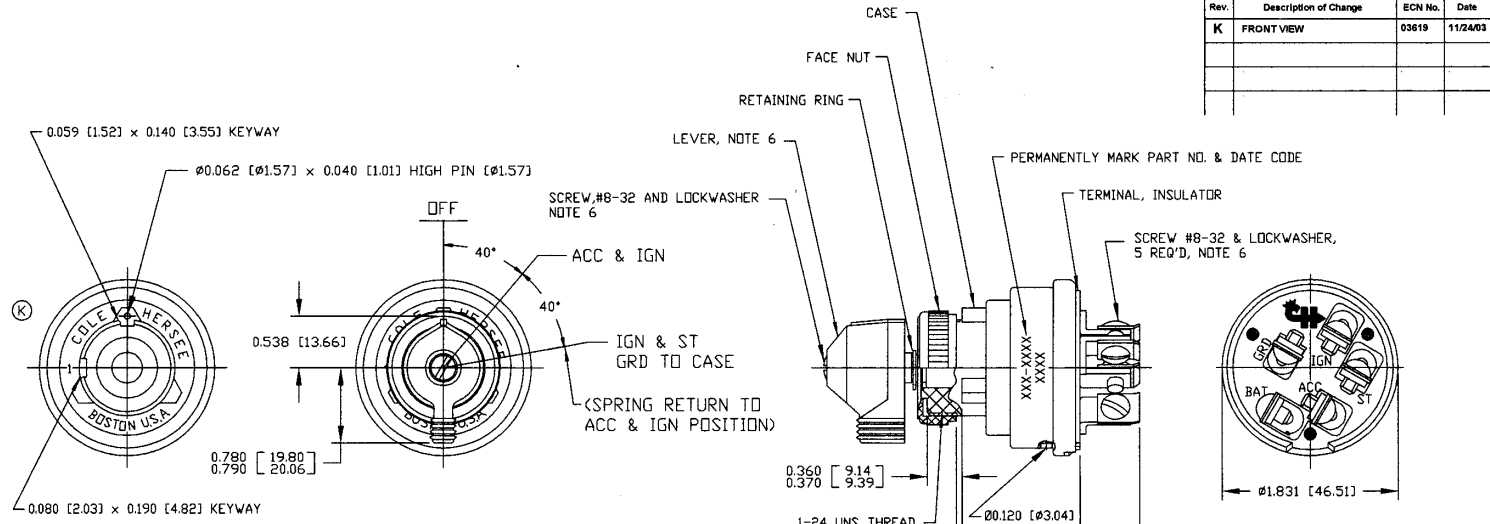
DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV D	SCALE	DATE DRAWN
				E	ECN 25189	8/13/92	TJH	#	EA	4-2-79		1:1	1-6-76
				D	16.00/22457	6-5-84	AK	#					DATE BLUEPRINT
				C	HOUSING	2-17-88	DB						
G	E 278/2000	2-11-90	AK	B	NOTE ADDED - 21267	12-22-80	AK	TOLERANCES					
F	CAD ON ZINC / 25239	12/22/92	AK	A	REDRAWN	3-22-79	AK	DECIMAL ±	3- POSITION IGNITION & START SWITCH				956-3122
								METRIC ± .25					

CH Cole Hersee Co.
20 OLD COONY A ENUE SOUT BOSTON MA US 27

Revision Control Record

Rev.	Description of Change	ECN No.	Date
K	FRONT VIEW	03619	11/24/03



0.059 [1.52] x 0.140 [3.55] KEYWAY

Ø0.062 [Ø1.57] x 0.040 [1.01] HIGH PIN [Ø1.57]

OFF

SCREW, #8-32 AND LOCKWASHER
NOTE 6

ACC & IGN

IGN & ST
GRD TO CASE

(SPRING RETURN TO
ACC & IGN POSITION)

PERMANENTLY MARK PART NO. & DATE CODE

TERMINAL, INSULATOR

SCREW #8-32 & LOCKWASHER,
5 REQ'D, NOTE 6

0.538 [13.66]

0.780 [19.80]
0.790 [20.06]

0.080 [2.03] x 0.190 [4.82] KEYWAY

0.360 [9.14]
0.370 [9.39]

Ø0.120 [Ø3.04]
DRAIN HOLE

PANEL
THICKNESS

0.030 [0.76]
0.090 [2.28]

0.619 [15.72]

Ø1.831 [46.51]

1-24 UNS THREAD

1.850 [46.98]

FRONT VIEW SHOWN W/D
LEVER AND FACE NUT

- NOTES:
1. ALL DIMENSIONS ARE REFERENCE ONLY
 2. ALL STEEL PARTS PLATED
 3. SHAFT O-RING SEALED TO CASE
 4. TERMINAL INSULATOR GASKET SEALED
 5. START LOCK-OUT FEATURE; SWITCH MUST GO TO 'OFF' POSITION BEFORE START CIRCUIT CAN BE RE-ENERGIZED
 6. PARTS MAY BE ASSEMBLED OR SUPPLIED IN A PLASTIC BAG
 7. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

Intolerance: Unless otherwise specifically noted, the following are default tolerances:
 • Duplex Decimal Dimensions: ±.005"
 • Duplex Decimal Dimensions: ±.010"
 • Angular Dimensions: ±0.1 Deg.
 • Metric: Refer to equivalent English Dimension Tolerance
 *** NOTE: All tolerances are Non-Cumulative. ***

Dimensional Limits: All dimensions are expressed in inches except those shown in brackets (mm) are expressed in millimeters.

MSP: or as **As Shown**, = Non-Toleranced Reference Dimension, shown for identification purposes only.

Used On: **EX26018** Scale: **1:1**

PROPRIETARY INFORMATION: This Engineering Drawing, and the information contained herein, is property of Cole Hersee Company and may not be disclosed, reproduced, or in any other way transmitted or communicated to any other party without the express written consent of an authorized representative of Cole Hersee Company.

DESIGN CONTROL: It is the responsibility of the individual using/referencing this drawing to ensure that the noted design revision level agrees with the revision level of the Control Drawing (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.

DO NOT SCALE: Dimensional variation may occur during printing/reproduction.

Drawn By: **KPC** Date: **4/17/06**

Basic Characteristics:

- ⊕ Critical Characteristics: relating to Safety and/or Regulatory Compliance
- ⊗ Significant Characteristics relating to Process Control (SPC)
- Ⓝ Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer.

(Note that the identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions & tolerances must be met.)

Responsible Engineer: **Pg. 1 of 1**

Cole Hersee Co.
 30 Old Colony Ave., South Boston, MA, 02127
 Phone: 617-268-2100 Web: www.colehersee.com

Description: **SW, IGN & START, 3 POS**

Drawing / Part No.: **956-3124**

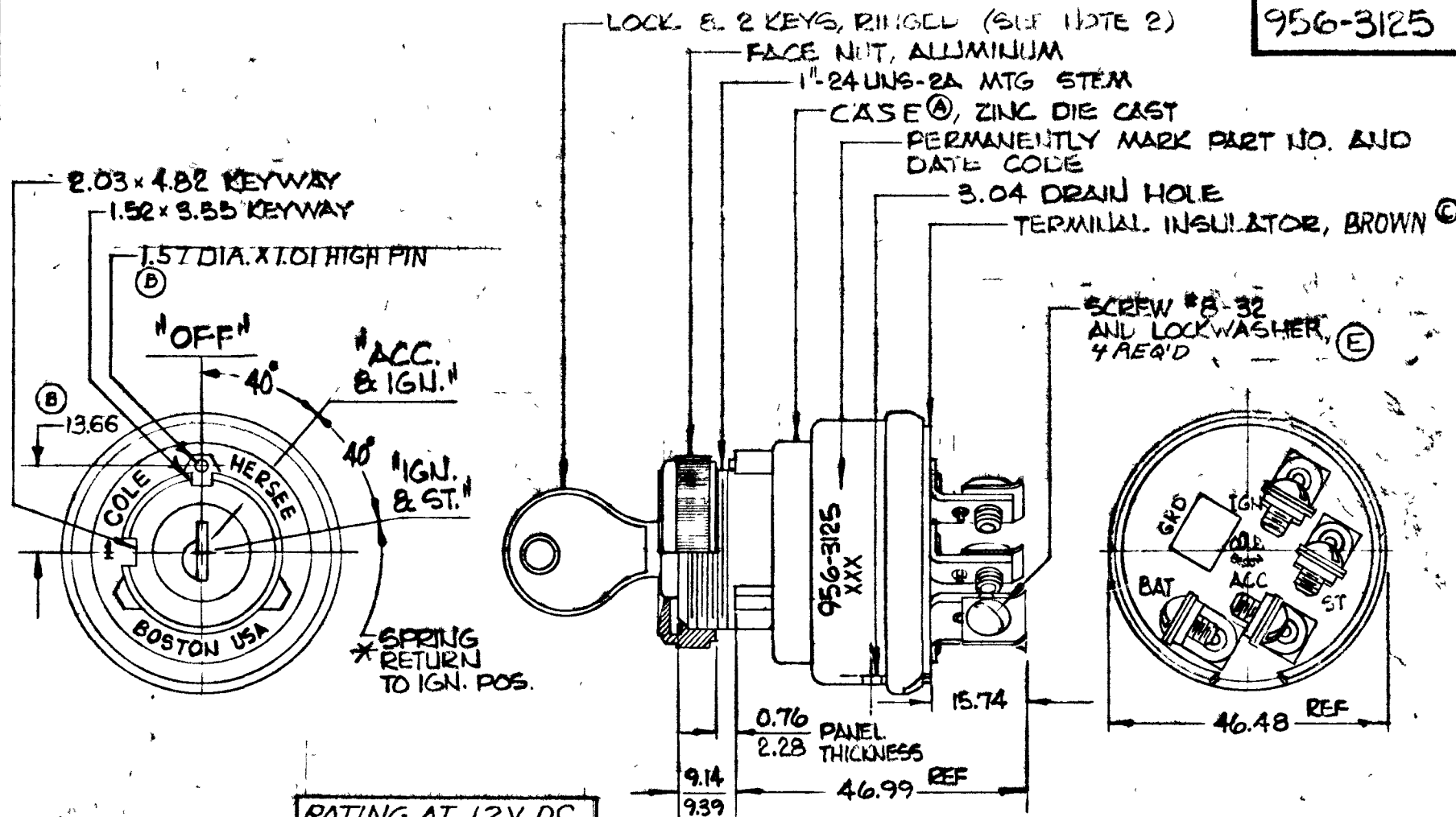
Current Rev.: **K**

ST CIRCUIT	5 AMPS
IGN CIRCUIT	10 AMPS
ACC CIRCUIT	10 AMPS
RATING AT 12 VDC	

MM	IN
0.25	.010
0.76	.030
1.01	.040
1.57	.062
1.52	.059
2.03	.080
2.28	.090
3.55	.140
4.82	.190
9.14	.360
9.39	.370
15.74	.620

46.48	1.850
46.99	1.850
3.04	.120
13.66	.538

COLE-HERSEE CO.
NPM



RATING AT 12V DC	
ACC	30 AMPS
IGN	10 AMPS
START	10 AMPS

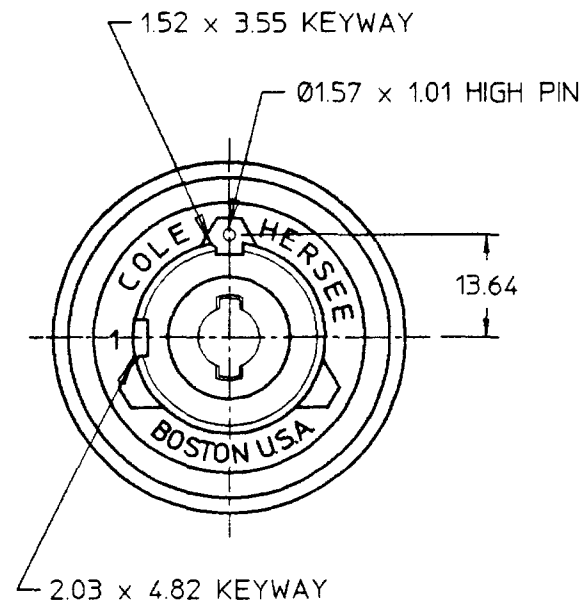
METRIC

- NOTES:
1. TERMINAL INSULATOR GASKET SEALED.
2. SHUTTER TYPE SEAL ON LOCK FACE.
*3. START LOCK-OUT FEATURE; SWITCH MUST GO TO "OFF" POSITION BEFORE START CIRCUIT CAN BE RE-ENERGIZED.
4. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259.
⑤ ALL STEEL PARTS PLATED

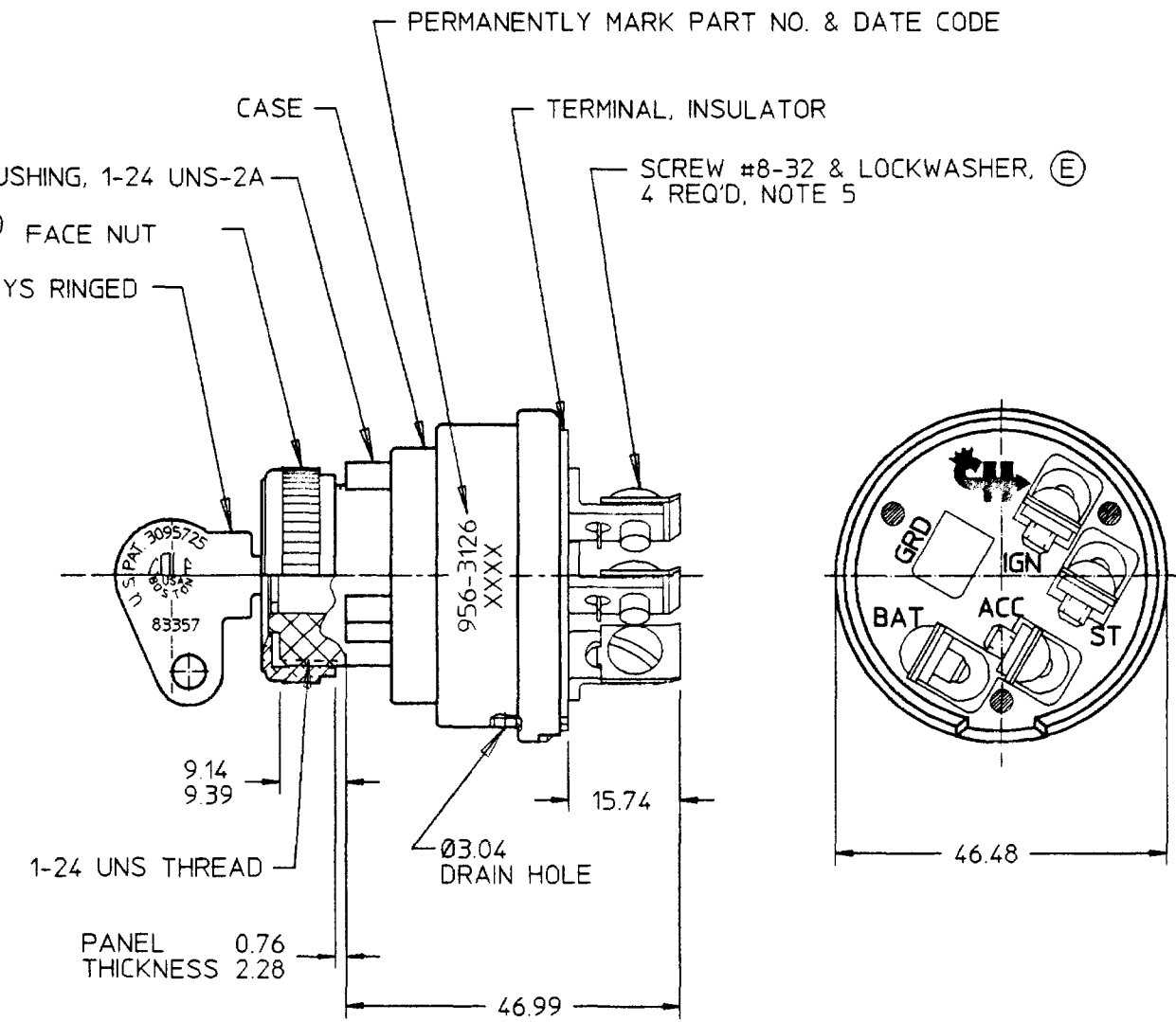
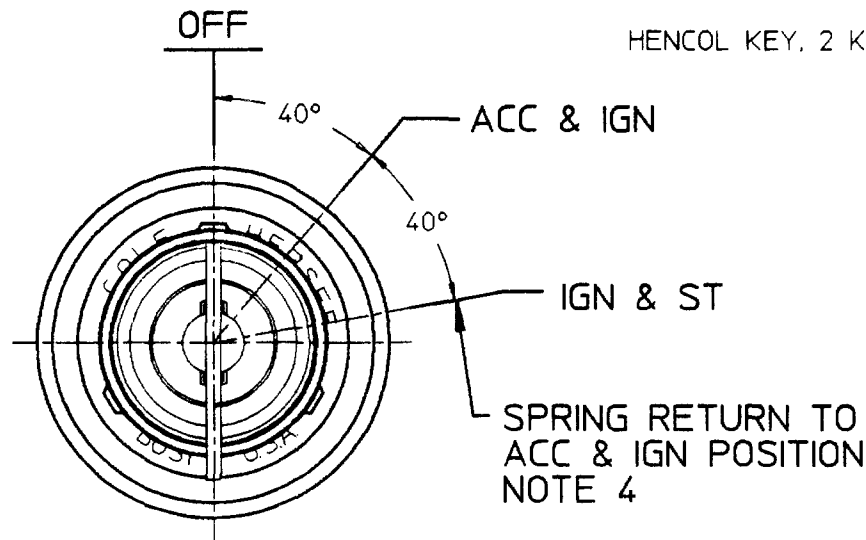
DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV D	SCALE	956-3122 LESS O-RINGS & GND CIRCUIT	DATE DRAWN
				D	NO ADDED 25039	12/20/90	LSH	—	KPC	RF		1:1		10-26-76
				C	ECN 25189	8/13/76	LSH	FINISH	COLE-HERSEE COMPANY					DATE BLUEPRINT
				B	15.02/22457	6-5-84	LSH	—	BOSTON, MASS. 02127, U.S.A.					
				A	HOUSING	813-82	OK	TOLERANCES	3-POSITION					956-3125
E	ECN 40137	3/1/00	MA		15 JUL	11/2/16	IT	FRACTIONAL ±	IGN. & START SWITCH					
								DECIMAL ±.25						

MM	IN
0.76	0.030
1.01	0.040
1.52	0.059
1.57	0.061
2.03	0.080
2.28	0.090
3.04	0.120
3.55	0.140
4.82	0.190
9.14	0.360
9.39	0.370
13.66	0.538
19.81	0.780
20.06	0.790
46.48	1.830
46.99	1.850



FRONT VIEW SHOWN W/O KEY AND FACE NUT



- NOTES:
1. ALL DIMENSIONS ARE REFERENCE ONLY
 2. ALL STEEL PARTS PLATED
 3. TERMINAL INSULATOR GASKET SEALED
 4. START LOCK-OUT FEATURE, SWITCH MUST GO TO "OFF" POSITION BEFORE START CIRCUIT CAN BE RE-ENERGIZED
 5. PARTS MAY BE ASSEMBLED OR SUPPLIED IN A PLASTIC BAG
 6. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

DO NOT SCALE

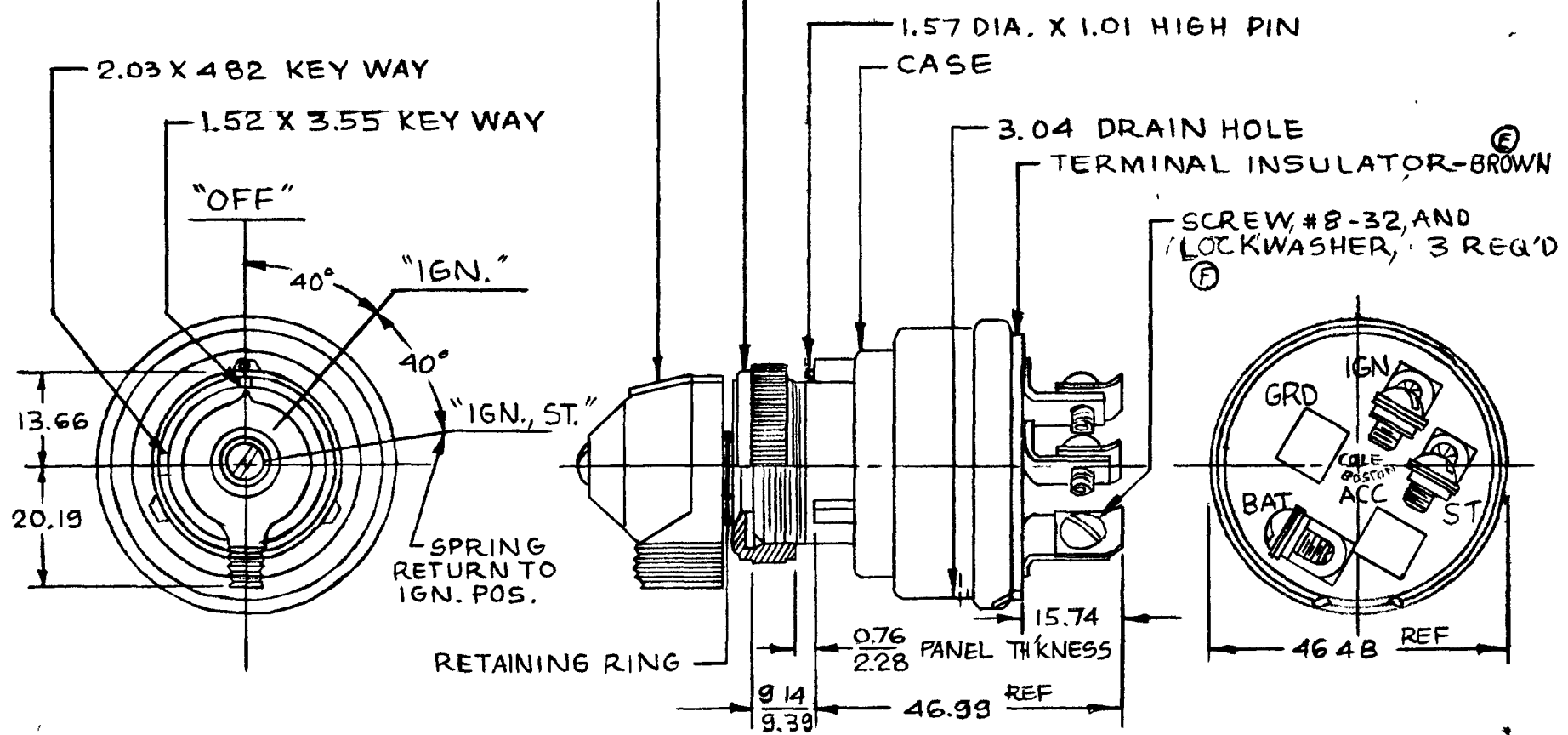
LET.	WAS	DATE	BY	LET.	WAS	DATE	BY	MATERIAL	DRAWN	CHK	APVD	SCALE	DATE DRAWN
									KG	Jmp		1:1	10/27/97
								FINISH	Cole Hersee Co. 20 OLD COLONY AVENUE, BOSTON, MA., U.S.A., 02127				DATE BLUEPRINTED
				F	ECN #98258	04/29/98	COL	TOLERANCES	SW, IGN & START, 3 POS				956-3126
				E	PUT ON CAD ECN #26936	9/12/97	AJS	DECIMAL ± ANGLE ±					

METRIC

MM	TN
0.25	.010
0.76	.030
1.01	.040
1.57	.060
2.03	.080
2.28	.090
2.55	.100
4.82	.190
9.14	.360
9.39	.370
15.74	.620
20.19	.795
46.48	1.830
46.99	1.850
15.74	.620
13.66	.538
3.04	.120

956-3127

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259



RATING AT 24VDC
IGN CIRCUIT 10AMPS
ST. CIRCUIT 5AMPS

NOTES:
1. SHAFT O' RING SEALED TO HOUSING
2. TERMINAL INSULATOR GASKET SEALED
3. START LOCK-OUT FEATURE; SWITCH MUST GO TO "OFF" POSITION BEFORE START CIRCUIT CAN BE RE-ENERGIZED.

METRIC

DO NOT SCALE

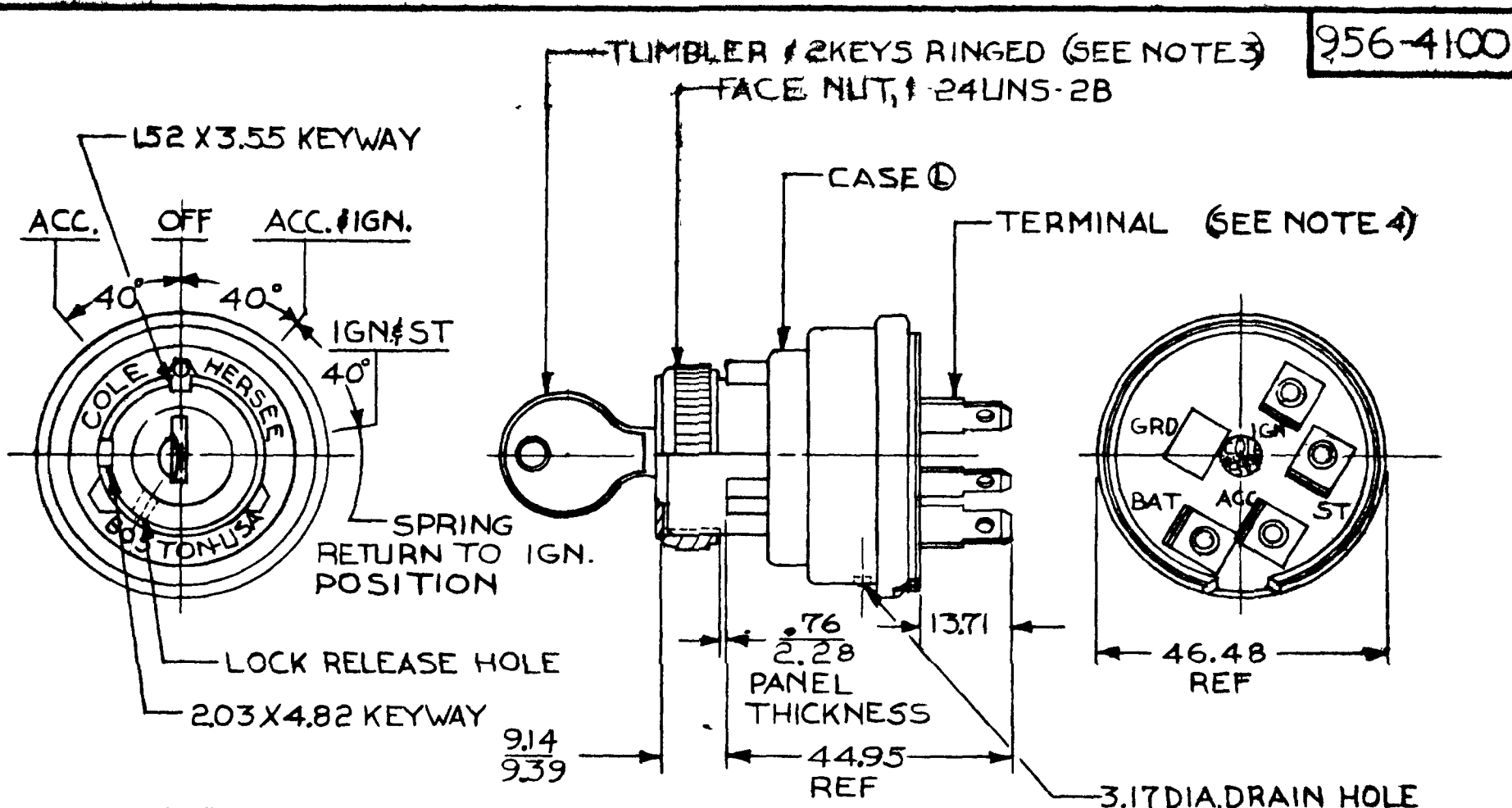
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'VD	SCALE	DATE DRAWN
								#	EA			1:1	1-10-77
								FINISH					DATE BLUEPRINT
				F	ECN 00140	3/1/00	MA						
				E	ECN 25189	8/1/92	TJH	TOLERANCES					
				D	REDRAWN	10/29/90	BL	DECIMAL ±					
								METRIC ±.25					
3 POSITION IGN. & START SWITCH												956-3127	

CH-188(4-78)

MM IN
 .25 .010
 .76 .030
 1.52 .060
 2.03 .080
 2.28 .090
 3.55 .140
 4.82 .190
 9.14 .360
 9.39 .370
 13.71 .540
 44.95 1.770
 46.48 1.830

TSE-1034

EX 14258



956-4100

METRIC

RATINGS AT 12VDC	
ACC. CIRCUIT	10 AMPS
IGN. "	10 "
ST. "	5 "

- NOTES:
1. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259
 2. LOCK REMOVABLE IN IGN. POSITION
 3. SHUTTER TYPE SEAL ON LOCK FACE
 4. TERMINALS ARRANGED TO FIT PACKARD CONNECTOR #2962912 OR EQUIV.

DO NOT SCALE

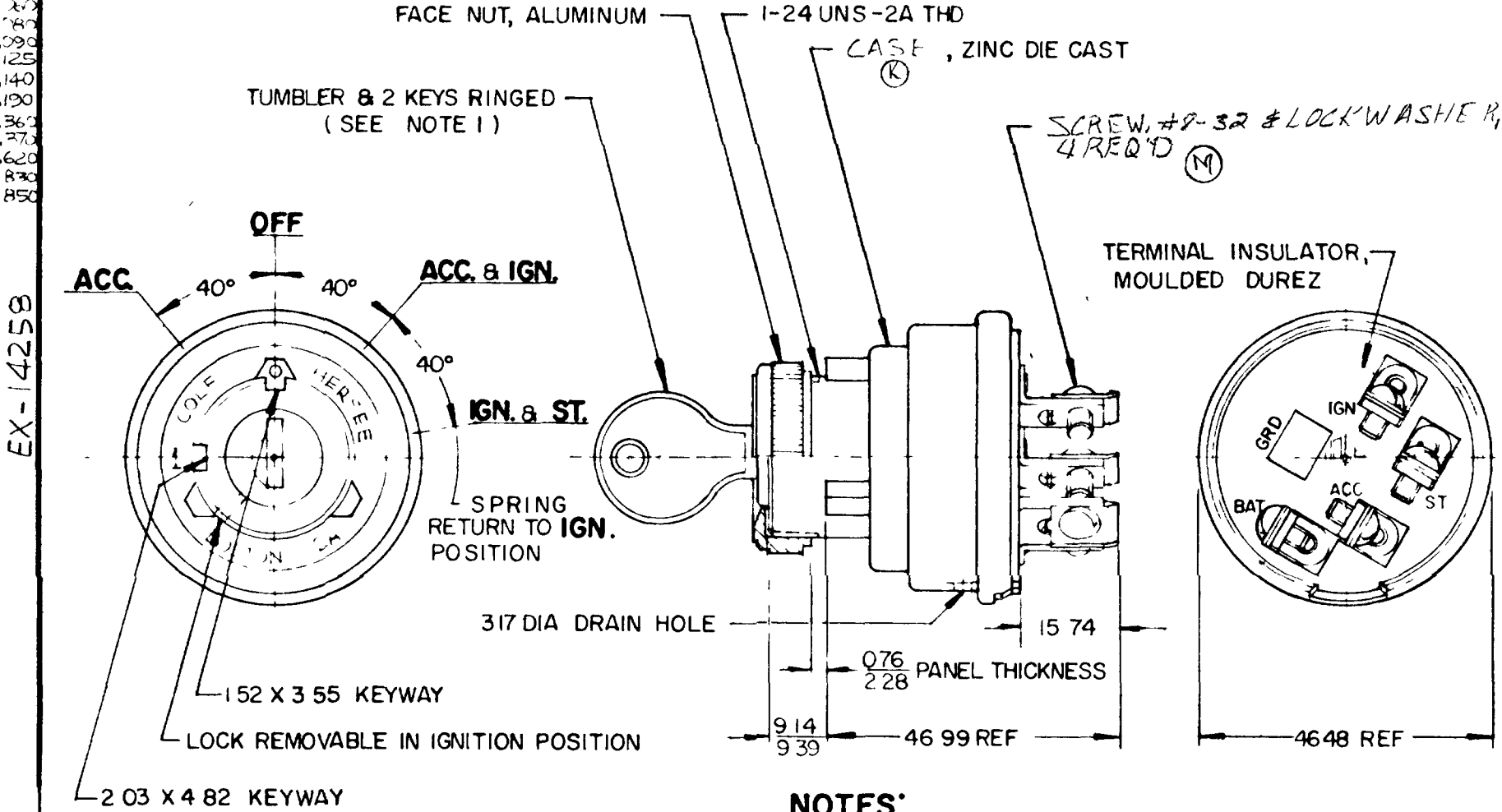
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	DATE DRAWN
								#	M.F.	4-28-80		1:1	2-24-66
								FINISH					DATE BLUEPRINT
								TOLERANCES	 30 OLD BOSTON AVENUE SOUTH BOSTON, MA U.S.A. 02127				
								DECIMAL ±					IGN & START SWITCH
								METRIC ± .05	(4 POSITION)				

CH-1894-78

MM	IN
0.76	0.03
1.52	0.06
2.28	0.09
3.04	0.12
3.80	0.15
4.56	0.18
5.32	0.21
6.08	0.24
6.84	0.27
7.60	0.30
8.36	0.33
9.12	0.36
9.88	0.39
10.64	0.42
11.40	0.45
12.16	0.48
12.92	0.51
13.68	0.54
14.44	0.57
15.20	0.60
15.96	0.63
16.72	0.66
17.48	0.69
18.24	0.72
19.00	0.75
19.76	0.78
20.52	0.81
21.28	0.84
22.04	0.87
22.80	0.90
23.56	0.93
24.32	0.96
25.08	0.99
25.84	1.02
26.60	1.05
27.36	1.08
28.12	1.11
28.88	1.14
29.64	1.17
30.40	1.20
31.16	1.23
31.92	1.26
32.68	1.29
33.44	1.32
34.20	1.35
34.96	1.38
35.72	1.41
36.48	1.44
37.24	1.47
38.00	1.50
38.76	1.53
39.52	1.56
40.28	1.59
41.04	1.62
41.80	1.65
42.56	1.68
43.32	1.71
44.08	1.74
44.84	1.77
45.60	1.80
46.36	1.83
47.12	1.86
47.88	1.89
48.64	1.92
49.40	1.95
50.16	1.98
50.92	2.01
51.68	2.04
52.44	2.07
53.20	2.10
53.96	2.13
54.72	2.16
55.48	2.19
56.24	2.22
57.00	2.25
57.76	2.28
58.52	2.31
59.28	2.34
60.04	2.37
60.80	2.40
61.56	2.43
62.32	2.46
63.08	2.49
63.84	2.52
64.60	2.55
65.36	2.58
66.12	2.61
66.88	2.64
67.64	2.67
68.40	2.70
69.16	2.73
69.92	2.76
70.68	2.79
71.44	2.82
72.20	2.85
72.96	2.88
73.72	2.91
74.48	2.94
75.24	2.97
76.00	3.00
76.76	3.03
77.52	3.06
78.28	3.09
79.04	3.12
79.80	3.15
80.56	3.18
81.32	3.21
82.08	3.24
82.84	3.27
83.60	3.30
84.36	3.33
85.12	3.36
85.88	3.39
86.64	3.42
87.40	3.45
88.16	3.48
88.92	3.51
89.68	3.54
90.44	3.57
91.20	3.60
91.96	3.63
92.72	3.66
93.48	3.69
94.24	3.72
95.00	3.75
95.76	3.78
96.52	3.81
97.28	3.84
98.04	3.87
98.80	3.90
99.56	3.93
100.32	3.96

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-4104



NOTES:

- 1 SHUTTER TYPE SEAL ON LOCK FACE
- 2 ALL STEEL PARTS PLATED

METRIC

RATINGS AT 12 VDC	
ACC CIRCUIT	10 AMPS
IGN CIRCUIT	10 AMPS
ST CIRCUIT	5 AMPS

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	ATERIAL	DRAWN	HEIGHTER	SCALE	DATE DRAWN
								—#—	MF	1-26-79	1:1	3-15-66
				M	ECN 00137	3/1/00	MA	FINISH				DATE BLUEPRINT
				L	LABOR ZINC 125234	12/22/90	JH					
				K	HOUSING	8/15/87	PS	TOLERANCES	4 - POSITION IGNITION & START SWITCH		956-4104	
				J	REDRAWN	1/18/79	JJ	FRACTIONAL ±				
								DECIMAL ± 25				

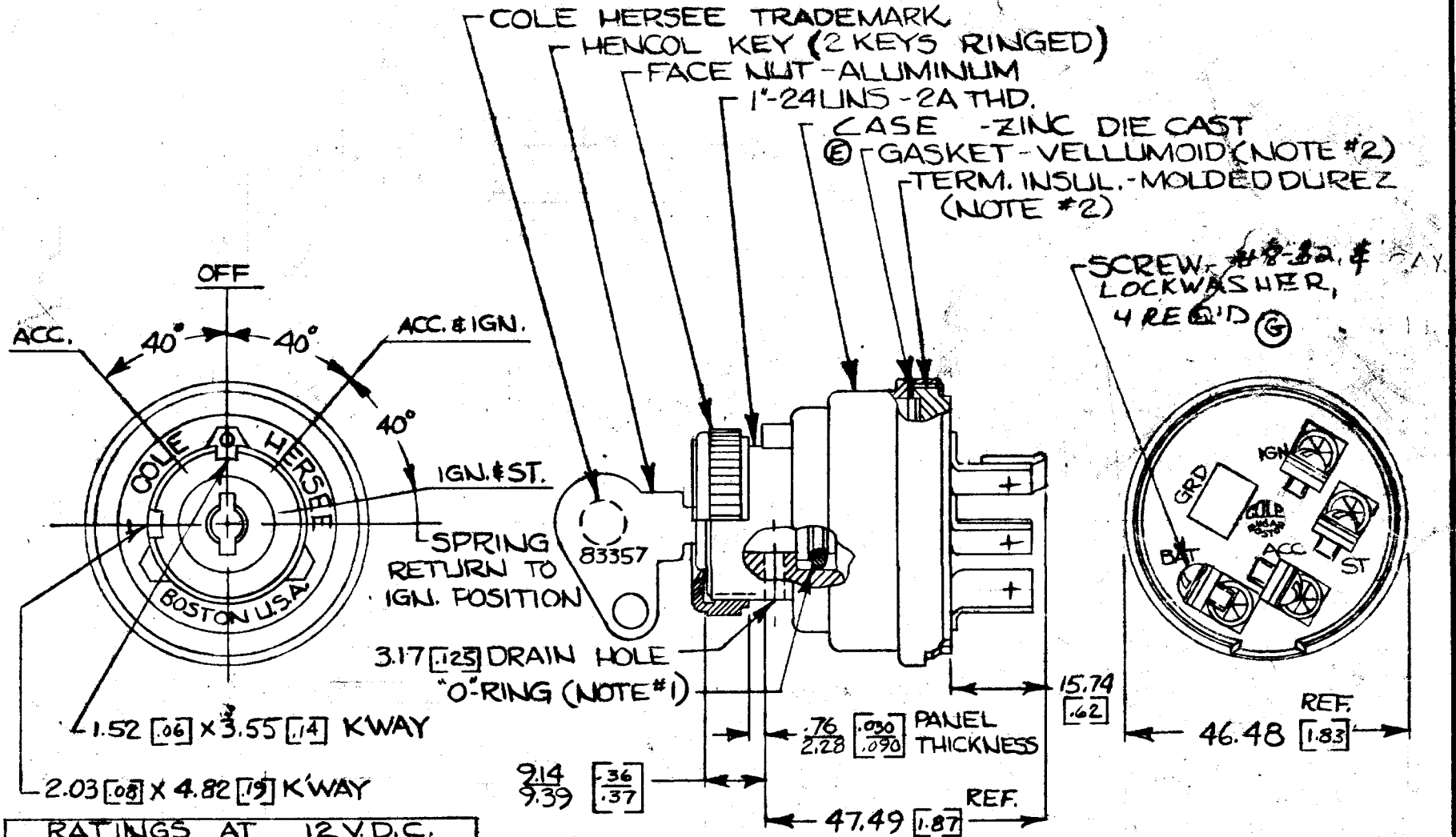


APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-4107

COLE-HERSEE CO.

EX-14258



RATINGS AT 12 V.D.C.	
ACC. CIRCUIT	10 AMPS
IGN.	10
ST.	5

DIMENSIONS: MILLIMETERS [INCHES]

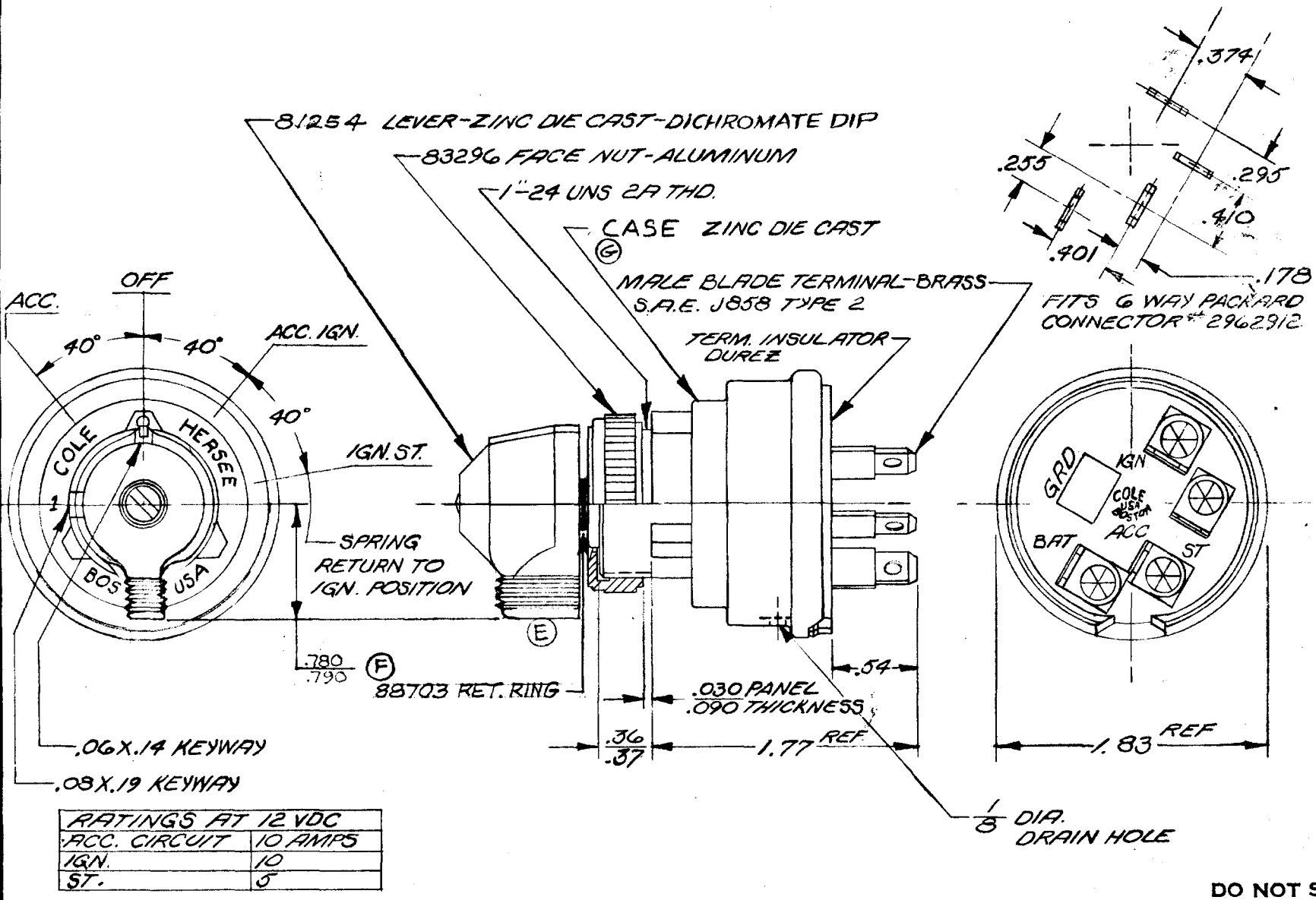
NOTE:
 1) SHAFT O-RING SEALED TO HOUSING
 2) TERMINAL INSULATOR (GASKET SEALED)
 3) ALL STEEL PARTS PLATED DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D.	SCALE	DATE DRAWN
								#	CF	UM		1:1	9-20-66
				G	ECN 0137	3/1/60	AM	FINISH	COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A. 4 POSITION IGN. & START SWITCH				DATE BLUEPRINT
				F	ADD 125234	12/18/92	JH	#					DATE
				E	HOUSING	8-13-82	PH	TOLERANCES					
				D	REDRAWN	2-11-76	WJ	FRACTIONAL ±					956-4107
								DECIMAL ±.010					

COLE-HERSEE CO. TSE-#1034

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-4111



RATINGS AT 12 VDC	
ACC. CIRCUIT	10 AMPS
IGN.	10
ST.	5

DO NOT SCALE

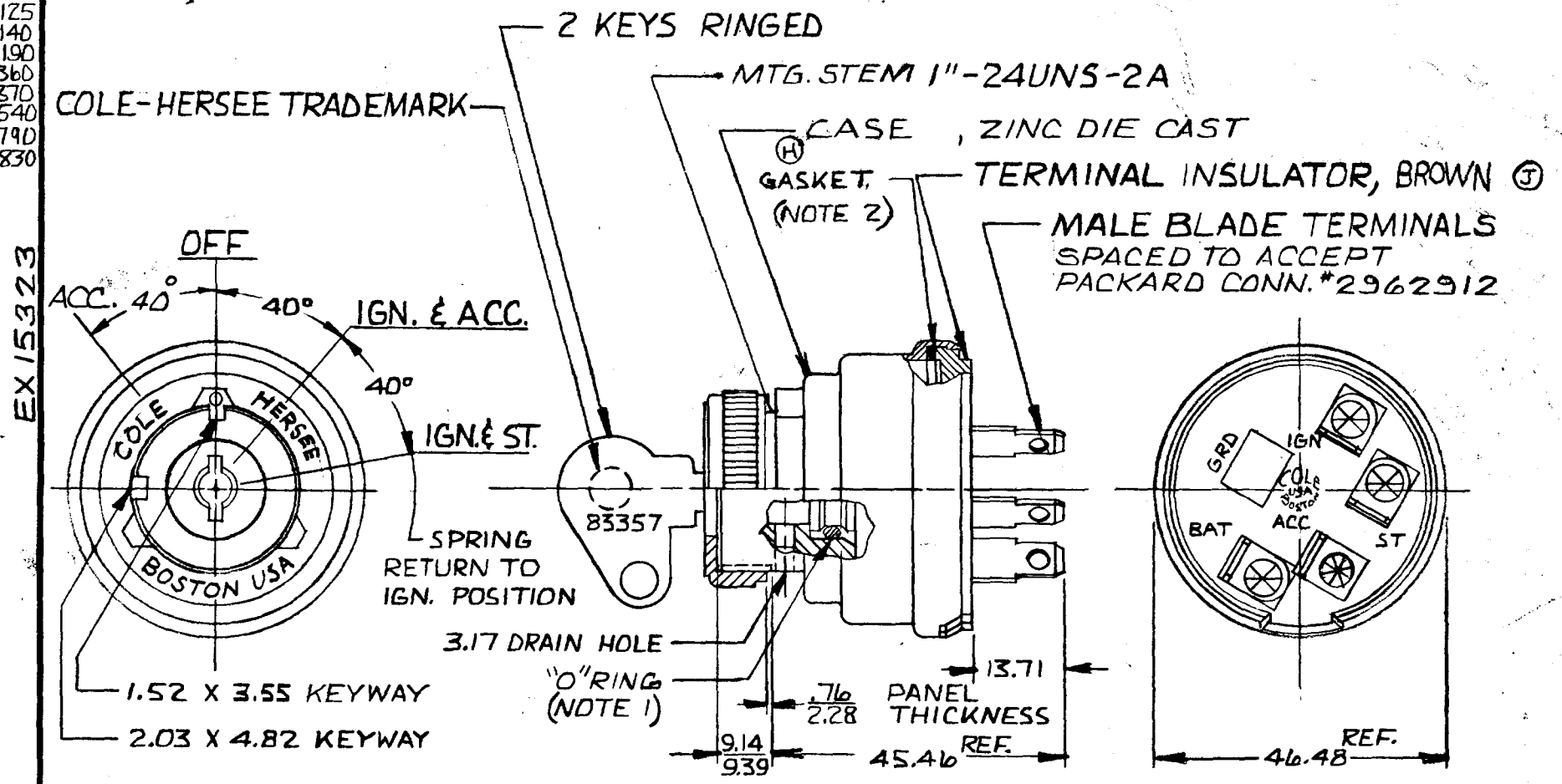
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D.	SCALE	DATE DRAWN
				G	HOUSING	8-13-66	CR	///	N.B	UNCL		FULL	1-18-68
				F	ADDED RING/20329	10-13-78	RR	FINISH	COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A.				DATE BLUEPRINT
				E	LEVER/10343	4-8-77	RE	///					4 POSITION IGN. & START SWITCH
				D	SAE SPEC ADDED	3-5-74	W	TOLERANCES	FRACTIONAL ± DECIMAL ±.010				956-4111
				C	NO CHANGE	3-21-75	JB						

SPAULDING CO., INC. 47570

MM	IN
.25	.010
.76	.030
1.52	.060
2.03	.080
2.28	.090
3.17	.125
3.55	.140
4.82	.190
9.14	.360
9.39	.370
13.71	.540
45.46	1.790
46.48	1.830

956-4113

APPLICABLE SAE STANDARD OR
RECOMMENDED PRACTICE SAE J 259



RATING AT 12 VDC	
IGN	10 AMPS
START	5 AMPS
ACC	30 AMPS

METRIC

- NOTE:
1. SHAFT "O" RING SEALED TO HOUSING
 2. TERMINAL INSULATOR GASKET SEALED

DO NOT SCALE

LET.	WAS	DATE	BY	LET.	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'VD.	SCALE	DATE DRAWN
								H	CF	LP6		1:1	3-6-69
								FINISH					DATE BLUEPRINT
				J	ECN 25189	8-13-92	JH						
				H	HOLISING	8-13-88	PS	TOLERANCES					
				G	REDRAWN NO CHANGE	2-26-81	EA	DECIMAL ± METRIC ±.25					
<p>Cole Hersee Co. 20 OLD COLONY AVENUE, SOUTH BOSTON, MA. U.S.A. 02127</p>													
<p>4 POSITION IGN. & START SWITCH</p>												956-4113	

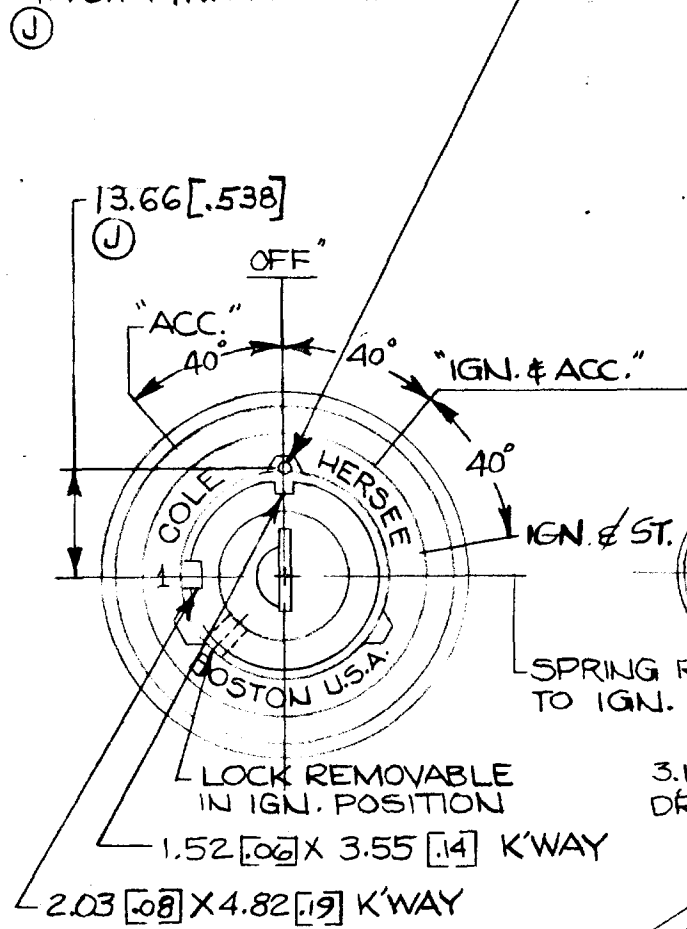
CH-188(4-78)

COLE-HERSEE CO. NPM 9-27-71
EX 16009 E

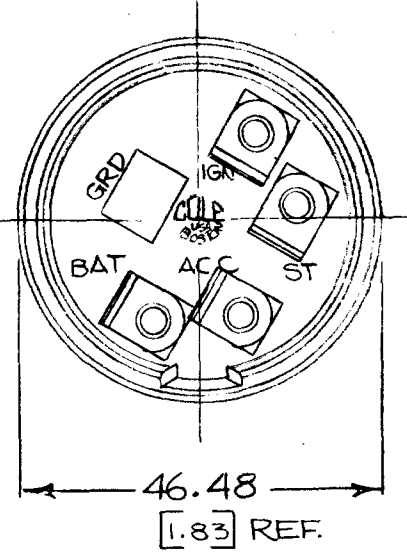
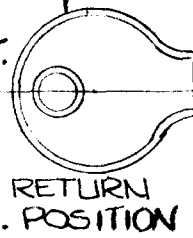
956-4116

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

1.57 [.062] DIA. x 1.01 [.040] HIGH PIN.



TUMBLER #2 KEYS-RINGED
FACE NUT-ALUMINUM
1-24 UNIS-2A THD.
CASE -ZINC DIE CAST
TERM. INSULATOR-
BROWN
MALE BLADE TERMS-BRS.
SAE J858 TYPE 2 SPACED
TO ACCEPT PACKARD ELEC.
CONN. NO. 962912



PERMANENTLY MARK
SWITCH NO. & DATE CODE
ON SIDE OF CASE

- 1) DIMENSIONS : MILLIMETERS [INCHES]
- 2) SILVER LAMINATED CONTACT SURFACES
- 3) SHUTTER TYPE SEAL ON LOCK FACE
- 4) SHOULDER TYPE RIVET CONSTRUCTION
- 5) TERM. INSUL. GASKET SEALED

DO NOT SCALE

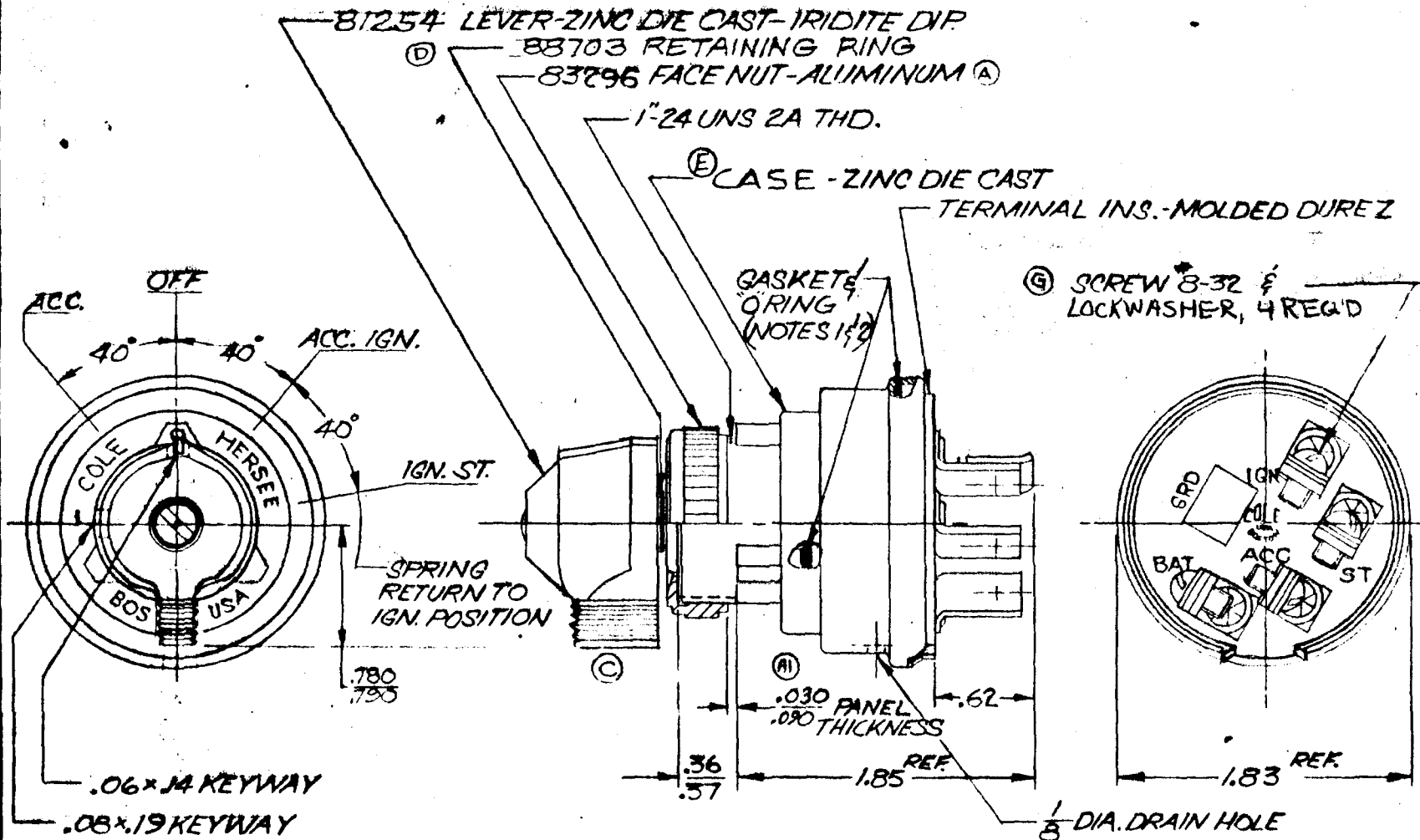
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D.	SCALE	4100 W/SILVER CONTACTS & FIBERITE TERM. INSUL.	DATE DRAWN				
								NOTED	RW	B		1:1		9-16-71				
				K	ECN 25189	4/2/72	TSH	FINISH	COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A.					DATE BLUEPRINT				
				J	REVISEL/2245	6/6/84	AK	11										
				H	HOUSING	8-13-88	PP	TOLERANCES						4 POSITION				
				G	REDRAWN	7-21-75	WJH	FRACTIONAL ±	IGNITION & START SWITCH					956-4116				
								DECIMAL ±.010										

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAEJ259

956-4124

NPM 410-72

EX NONE



RATINGS AT 12V D.C.	
ACC. CIRCUIT	10AMPS
IGN.	10
ST.	5

- NOTES:
1. SHAFT O-RING SEALED TO HOUSING.
 2. TERMINAL INSULATOR GASKET SEALED.
 3. ALL STEEL PARTS PLATED

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	BLD.	DATE DRAWN
				C	81254 LEVER	19843	4-6-77	RMT	W	CT	REC	FULL	956 4111	1-12-72
G	ECN #00138	3/1/00	KE	B	SAE SPEC ADDED	3-5-74	3	W	COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A.				DATE BLUEPRINT	
F	NOT ADDED 125234	12/22/92	JH	A1	.060 .110	17877	10-19-72	LY						
E	HOUSING	8-6-86	P	A	83344	17877	10-4-72	B	TOLERANCES FRACTIONAL ±	4 POSITION IGN. & START SWITCH				956-4124
D	RING/20329	10-18-78	R		ISSUE			DECIMAL ±0.010						

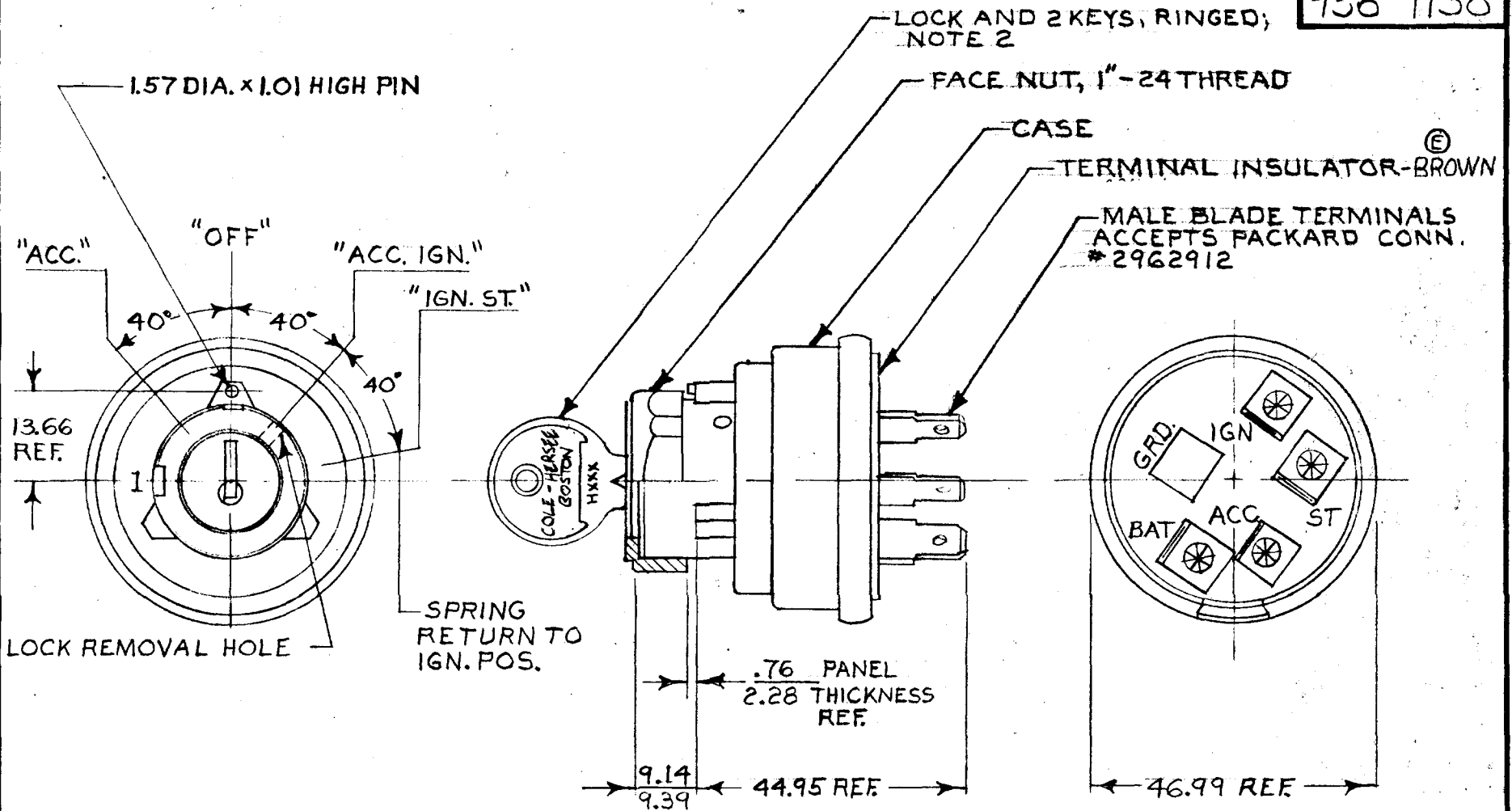
SPAULDING CO., INC.

COLE-HERSEE CO.

MM IN
 .76 .03
 2.28 .09
 9.14 .36
 9.39 .37
 13.66 .538
 25.65 1.01
 39.88 1.57
 44.95 1.77
 46.99 1.85

956-4138


NPM 8-30-77



- NOTES:
1. SWITCH DESIGNED TO PERMIT REMOVAL OF TUMBLER LOCK IN ACC. POSITION
 2. SWITCH SUPPLIED WITH STRATTEC[®] TUMBLER LOCK NO. 85144.
 3. ALL STEEL PARTS PLATED

METRIC

DO NOT SCALE

LET.	WAS	DATE	BY	LET.	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D.	SCALE	DATE DRAWN
								✓	KG	<i>[Signature]</i>		1:1	2-5-76
				G	ECN# 27087	10/21/97	AJS	FINISH					DATE BLUEPRINT
				F	ECN # 26335	10/17/96	Jmp	✓					
				E	ECN 25189	8-14-92	TJH	TOLERANCES	 Cole Hersee Co. <small>26 OLD COLONY AVENUE, SOUTH BOSTON, MA, U.S.A. 02177</small>				
				L	REDRAWN	8-15-89	VK	DECIMAL ±					SWITCH IGNITION & START 4 POS.
								METRIC ±					

CH-188(4-78)

RATING AT 12 V.D.C.

ACC CIRCUIT	20 AMPS
IGN. CIRCUIT	20 AMPS
ST. CIRCUIT	20 AMPS

TERMINAL INSULATOR, BROWN

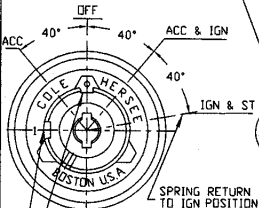
HENCOL KEY (2 KEYS RINGED)

FACE NUT, ALUMINUM

1-24-UNS-2A THD
CASE, ZINC DIE CAST
GASKET,
VELLUMOID
(NOTE #2)

"O"-RING
(NOTE #1)

SCREW #8-32 &
LOCKWASHER, 4 REQ'D



SPRING RETURN
TO IGN POSITION

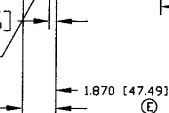
PANEL 0.030
THICKNESS 0.090

0.125 [3.17] DRAIN HOLE

0.060 [1.52] x 0.140 [3.55] KEYWAY

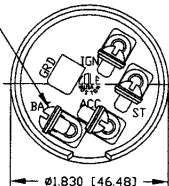
0.360 [9.14]
0.370 [9.39]

0.080 [2.03] x 0.190 [4.82] KEYWAY



0.620 [15.74]

1.870 [47.49]



1.830 [46.48]

NOTES:

1. SHAFT O RING SEALED TO HOUSING
2. TERMINAL INSULATOR GASKET SEALED
3. SILVER LAMINATED CONTACT SURFACE AT TERMINALS
4. SOLID SILVER RIVETS ON MOVING CONTACT
5. ALL STEEL PARTS PLATED
6. ALL DIMENSIONS REFERENCE ONLY UNLESS NOTED OTHERWISE

Revision Control Record

Rev.	Description of Change	ECN No.	Date
E	FIXED DIMENSION	01438	7/26/01

TOLERANCES - Unless otherwise specifically noted, the following are default tolerances:
 * 2-place Decimal Dimensiones - ".XZ"
 * 3-place Decimal Dimensiones - ".XXX"
 * Angular Dimensiones - ".X Deg."
 * Metric - Refer to equivalent English Dimension Tolerance
 *** NOTE: All tolerances are *Non-Cumulative*. ***

Dimensional Units - All dimensiones are expressed in inches except those shown in brackets (xxx) are expressed in millimeters

"NIP" or "at Armature" - Non-Tolerance Reference Dimension, shown for distribution purposes only.

Used On or Ref.: **TERM INSUL & SILVER CONTACTS**

Scale: **1:1**

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DO NOT SCALE - Dimensional variation may occur during printing/ reproduction.

Drawn By: **VK**

Date Drawn: **9/5/78**

Key for Special Characteristics:



Critical Characteristics, relating to Safety under Regulatory Compliance



Significant Characteristics relating to Process Control (SPC)



Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer

Note that the identification of any characteristic as being "Special" does not alter the requirement that ALL specified dimensiones & tolerances must be met.

Responsible Engineer: **N/A**

Pg. 1 of 1



Cole Hersee Co.

20 Old Colony Ave., South Boston, MA, 02127
 Phone: 617-288-2100 Web: www.colehersee.com

Description: **4 POSITION IGNITION & START SWITCH**

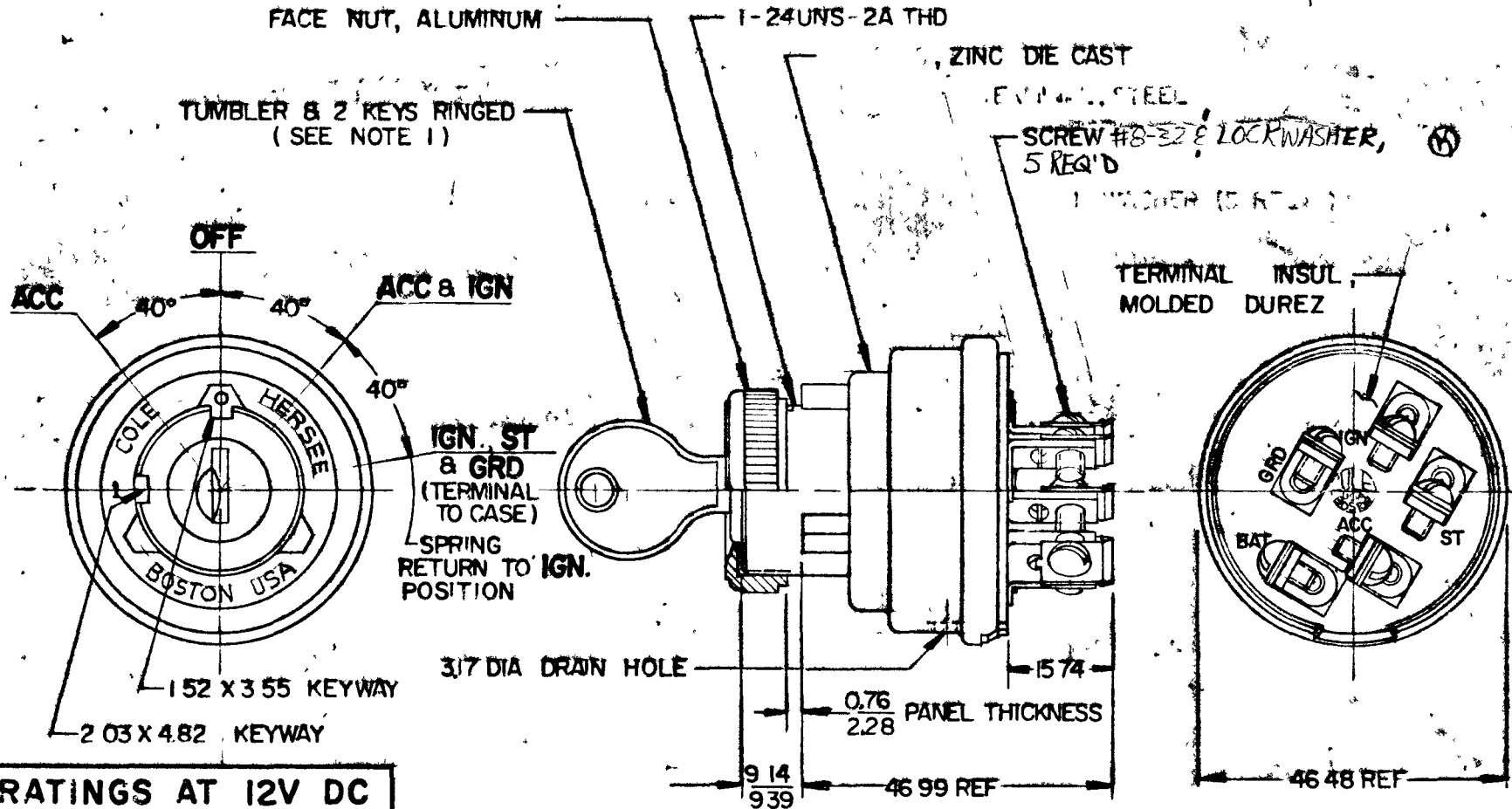
Drawing / Part No.: **956-4141**

Current Rev. **E**

MM	N
0.25	.010
0.76	.030
1.52	.060
2.03	.080
2.28	.090
3.17	.125
3.55	.140
4.82	.190
9.14	.360
9.99	.370
15.74	.620
46.48	1.830
46.99	1.850

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-4154



RATINGS AT 12V DC

ACC CIRCUIT	10 AMPS
IGN CIRCUIT	10 AMPS
ST CIRCUIT	5 AMPS
GRD CIRCUIT	1 AMP

METRIC

NOTES:

- 1 SHUTTER TYPE SEAL ON LOCK FACE
- 2 ALL STEEL PARTS PLATED WITH ...

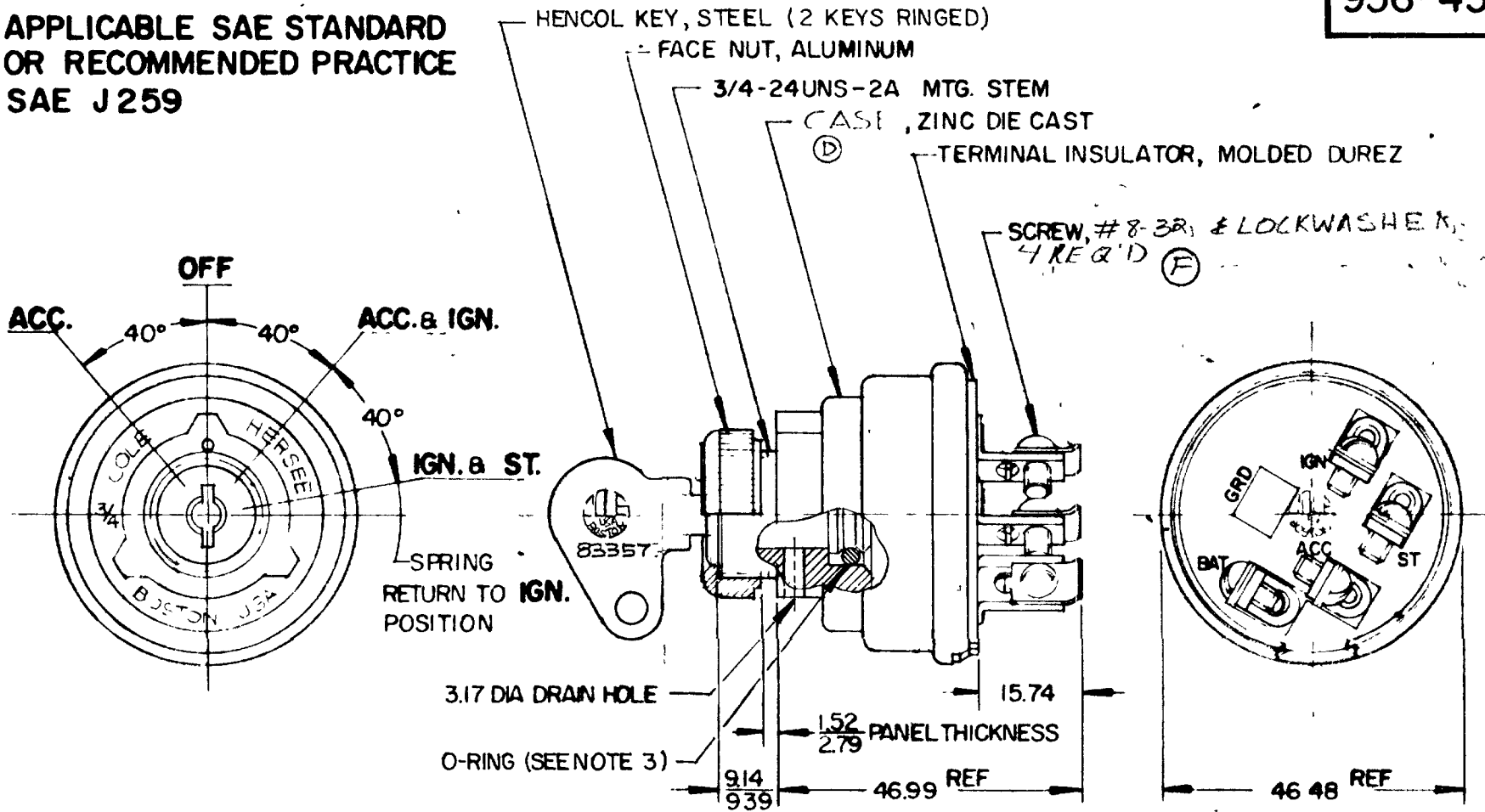
DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	DATE DRAWN
								— # —	C F	4/13/78		FULL	2-23-67
								FINISH	COLE-HERSEE COMPANY				DATE BLUEPRINT
				K	ECN #00142	3/1/00	KF		BOSTON, MASS 02127, U.S.A				
				J	CAUTION ZINC / 25234	12/22/92	JH	TOLERANCES	4-POSITION				956-4154
				H	REDRAWN	3-9-78	JV	FRACTIONAL ± DECIMAL ±0.25	IGNITION & START SWITCH				

MM	IN
0.25	.010
1.27	.050
2.79	.110
3.17	.125
9.14	.360
9.39	.370
15.74	.620
46.48	1.830
46.99	1.850

956-4307

APPLICABLE SAE STANDARD
OR RECOMMENDED PRACTICE
SAE J259



RATINGS AT 12 V.D.C.

ACC. CIRCUIT	10 AMPS
IGN. "	10 "
ST. "	5 "

METRIC

NOTES:

- 1 TERMINAL INSUL GASKET SEALED
- 2 ALL STEEL PARTS PLATED
- 3 SHAFT O-RING SEALED TO HOUSING.

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	APPRVD	SCALE	DATE DRAWN
								#	CF		11	12-12-66
				F	ECN 00137	3/1/00	HA	FINISH				DATE BLUEPRINT
				I	CAD OR ZINC / 25234	12/18/92	111	#				
				D	HOUSING	8-16-82	PB	TOLERANCES				
				C	REDRAWN	5-21-79	JV	DECIMAL ± .010				
								METRIC ± .25				

CH Cole Hersee Co.
7700 AVENUE SIX - BOSTON, MASS. U.S.A. 02127

4- POSITION
IGNITION & START SWITCH

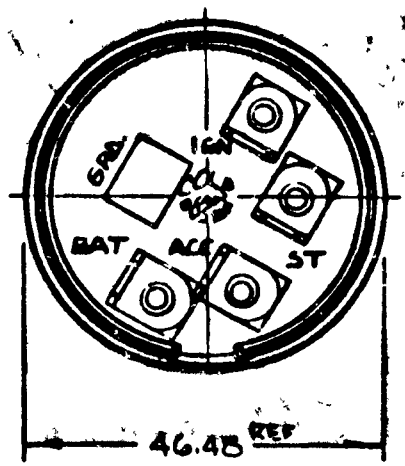
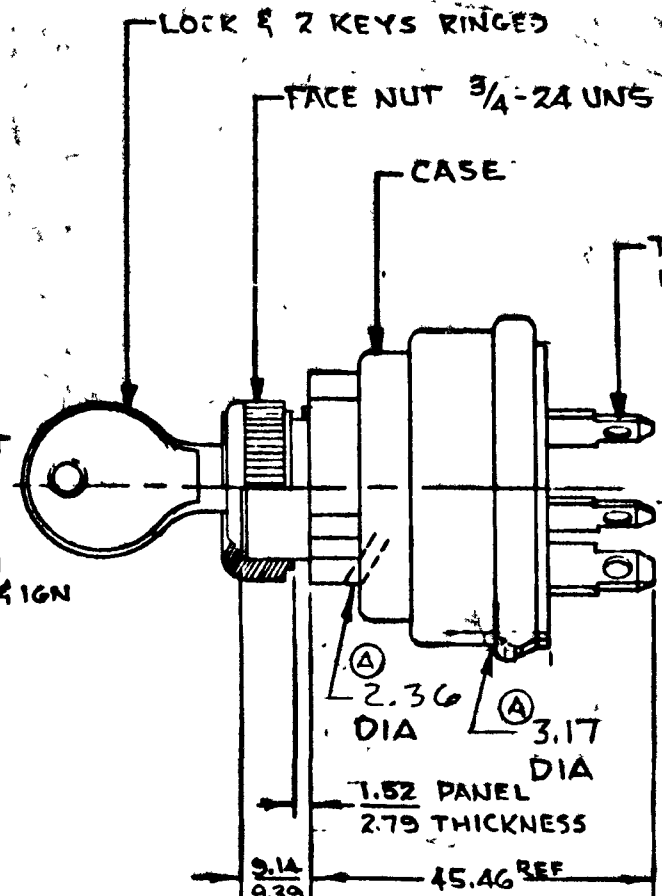
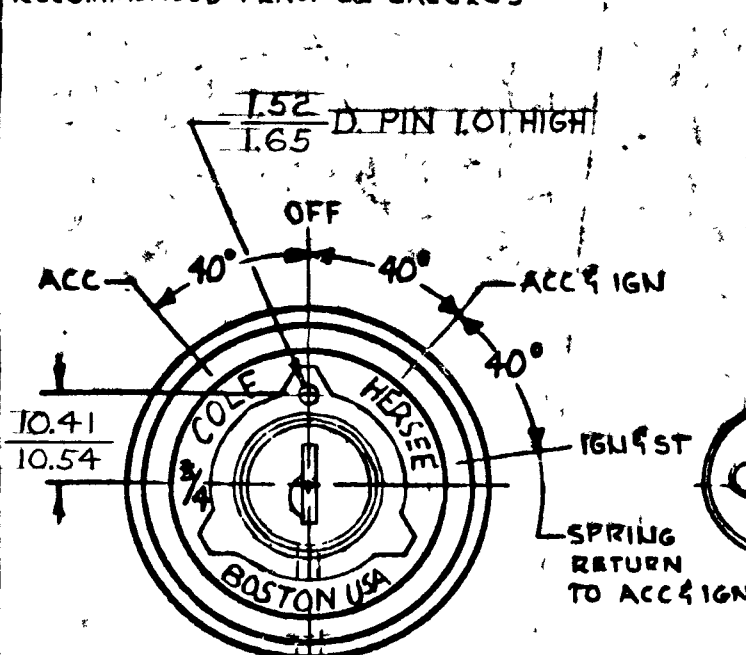
956-4307

CH 188(4 78)

MM	IN
1.01	.040
1.52	.060
1.65	.065
2.79	.110
3.14	.125
3.39	.133
3.70	.146
4.10	.161
4.15	.163
1.750	.069
1.830	.072
.093	
.125	

956-4311

APPLICABLE SAE STANDARD OR
RECOMMENDED PRACTICE SAE J269



EX 20121

- NOTES:
1. SHUTTER SEAL ON LOCK FACE
 2. LOCK O RING SEALED TO CASE
 3. TERM. INSULATOR GASKET SEALED
 - ④ 4. DRAIN HOLES ARE IN LINE 90° FROM & SHOWN

ST	5 AMPS
IGN	10 AMPS
ACC	10 AMPS

RATING @ 12V DC

METRIC

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPROVD.	SCALE	DATE DRAWN
								#	RJF	RFB		1"=1"	6-17-83
								FINISH					DATE BLUEPRINT
									Cole Hersee Co.				
				A	ADD'D DIM'S ECN 72701	7-2-83	WPS	TOLERANCES	4 POSITION IGNITION & START SWITCH			956-4311	
					ISSUED	9/2/83	LB	DECIMAL ±.010 METRIC ±2.54					

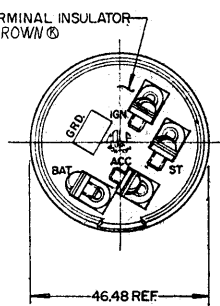
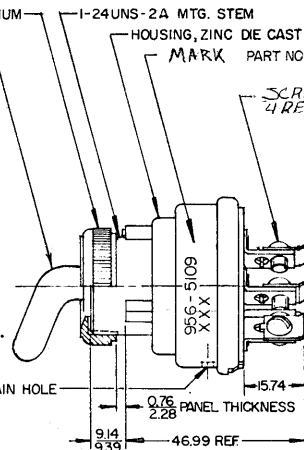
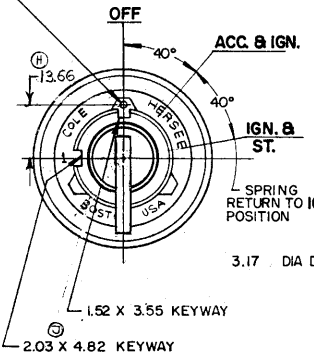
APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-5109

FACE NUT, ALUMINUM
 LEVER, ZINC DIE CAST, CHROME PLT.
 HOUSING, ZINC DIE CAST
 MARK PART NO. & DATE CODE AT RANDOM (N)

① 1.57 DIA. x 1.01 HIGH PIN

SCREW, # 8-32, & LOCKWASHER
 4 REQ'D (M)



NOTE:
 1. TERMINAL INSULATOR GASKET SEALED
 2. SHOULDER TYPE RIVET CONSTRUCTION
 3. SILVER LAMINATED CONTACT SURFACES
 ④ 4. ALL STEEL PARTS PLATED

METRIC

Confidential Property of Cole Hersee

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	DATE DRAWN
				L	ZINC 25034	12/29/72	BJ	—	RW			1:1	9-16-71
				K	ECN 25189	8/13/72	SH	FINISH					
				J	DELTE NOTE 23263	9-30-86	ZU	—					
N	ECN #00422	6/6/08	MK	H	REVISED 22457	6/6/04	JK	TOLERANCES					
M	ECN 00137	3/1/20	WH	G	REDRAWN	1-19-78	R	FRACTIONAL ±					
								DECIMAL ± .25					

ALL EXCEPT 3-POS
 & W/SCREW TERM. &
 LEVER

CH Cole Hersee Co.
REGISTERED SERVICE MARK

3 - POSITION
 IGNITION & START SWITCH

956-5109

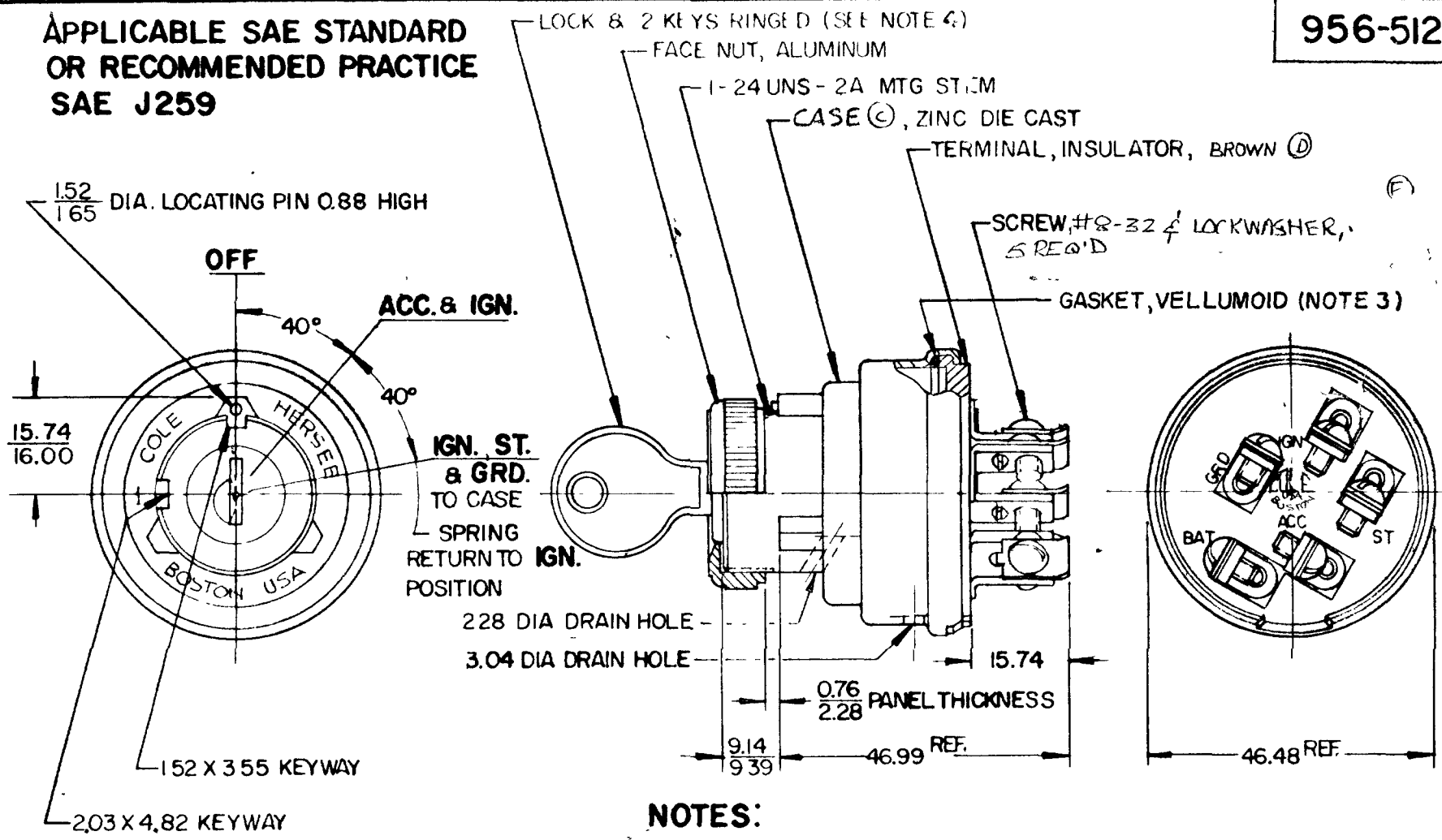
MM
 0.0015
 0.002
 0.0025
 0.003
 0.0035
 0.004
 0.0045
 0.005
 0.0055
 0.006
 0.0065
 0.007
 0.0075
 0.008
 0.0085
 0.009
 0.0095
 0.01
 0.0105
 0.011
 0.0115
 0.012
 0.0125
 0.013
 0.0135
 0.014
 0.0145
 0.015
 0.0155
 0.016
 0.0165
 0.017
 0.0175
 0.018
 0.0185
 0.019
 0.0195
 0.02
 0.0205
 0.021
 0.0215
 0.022
 0.0225
 0.023
 0.0235
 0.024
 0.0245
 0.025

11 P.M. 9-28-71
 -3X-16009C

MIM	IN
0.25	0.01
0.27	0.01
0.88	0.035
1.52	0.06
1.65	0.065
2.73	0.108
2.28	0.09
3.04	0.12
3.55	0.14
4.82	0.19
9.14	0.36
9.39	0.37
15.74	0.62
16.00	0.63
46.48	1.83
46.99	1.85

956-5122

**APPLICABLE SAE STANDARD
OR RECOMMENDED PRACTICE
SAE J259**



NOTES:

- ①. ALL STEEL PARTS PLATED
- 2. O RING SEAL AT MTG. STEM.
- 3. TERMINAL INSULATOR GASKET SEALED.
- 4. SHUTTER TYPE SEAL ON LOCK FACE.
- 5. COPPER CONTACT SURFACES.

METRIC

DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPROVED	SCALE	BASC 956-5108 EXCEPT, COPPER CON ORING DRAIN, GRD. CRKT	DATE DRAWN 1 - 7 - 75
				F	ICN# 00142	3-11-00	KF		JWH	1-30-79		1:1		
				E	CRIP ZINC	12-28-90	JH	FINISH						
				D	ECN 25189	8-13-92	JH							
				C	HOUSING	8-17-82	JH	TOLERANCES						
				B	REDRAWN	1-19-79	VK	FRACTIONAL ± DECIMAL ± .25						

CH Cole Hersee Co.
7 OLD COLONY AVENUE SOUTH BOSTON, MA 02107

**3 - POSITION
IGNITION & START SWITCH**

956-5122

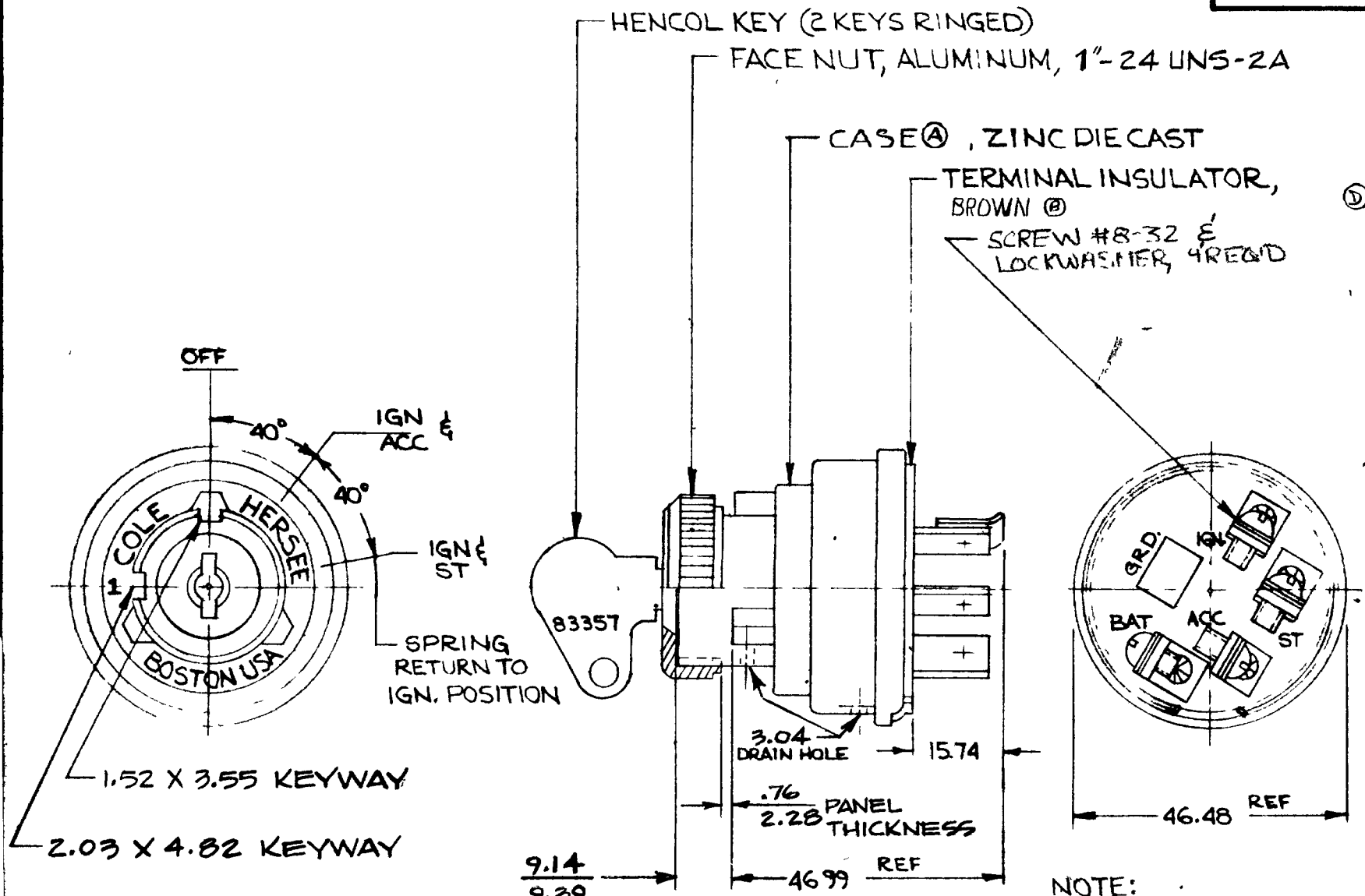
CH 189 (478)

MM	IN.
.25	.010
.70	.030
1.15	.060
2.03	.080
2.28	.090
3.04	.120
3.55	.140
4.82	.190
9.14	.360
9.39	.370
15.74	.620
46.48	1.830
46.99	1.850

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

956-5124

COLE-HERSEE CO.
N.P.M.



METRIC

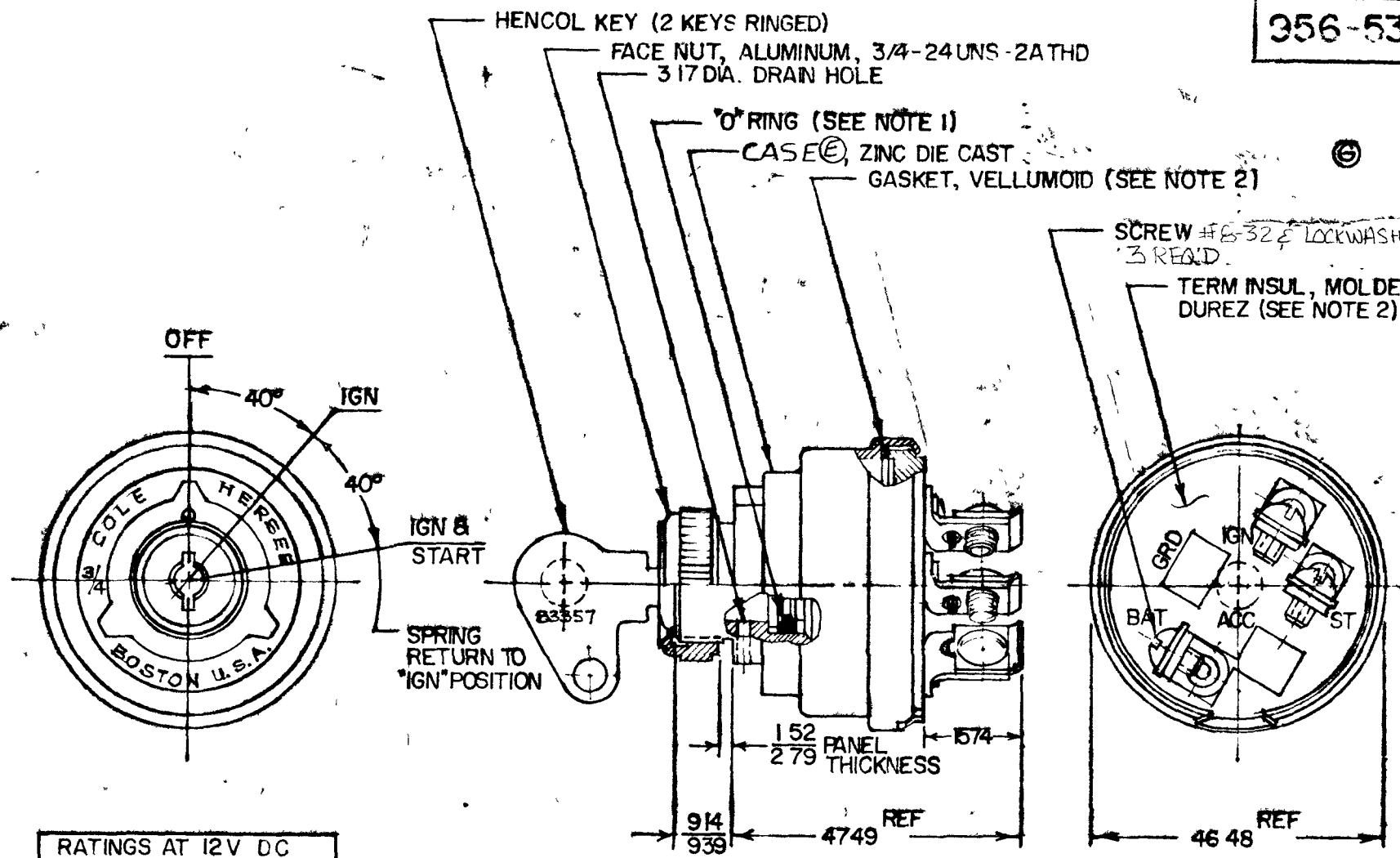
NOTE:
1. O RING SEALED.

2. ALL STEEL PARTS PLATED DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPR'D	SCALE	BASIC 956-5115 EXCEPT O RING SEALED	DATE DRAWN
				D	ECN#00138	3/11/75	KF	—	KG	11-5-75		FULL		11-4-75
				C	HOLE ADDED / 050239	12/23/80	LH	FINISH						
				B	ECN 25189	8-19-92	JH	—						
				A	HOUSING	8-17-82	PS	TOLERANCES						
					ISSUED	3-3-77	PS	FRACTIONAL ±						
								DECIMAL ±.25						
COLE-HERSEE COMPANY BOSTON, MASS. 02127, U.S.A.													DATE BLUEPRINT	
IGN. START SWITCH													956-5124	

MM	IN
1.52	.010
2.79	.110
3.14	.110
3.39	.110
3.74	.110
4.18	.110
4.43	.110
4.78	.110
5.17	.125

356-5307



RATINGS AT 12V DC	
IGN CIRCUIT	10 AMPS
START	5

- NOTE
1. SHAFT O-RING SEALED TO CASE
 2. TERM INSUL GASKET SEALED
 3. ALL STEEL PARTS PLATED 11T W/DIC-IRON, FL DIP OR CAL 17
 4. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

METRIC

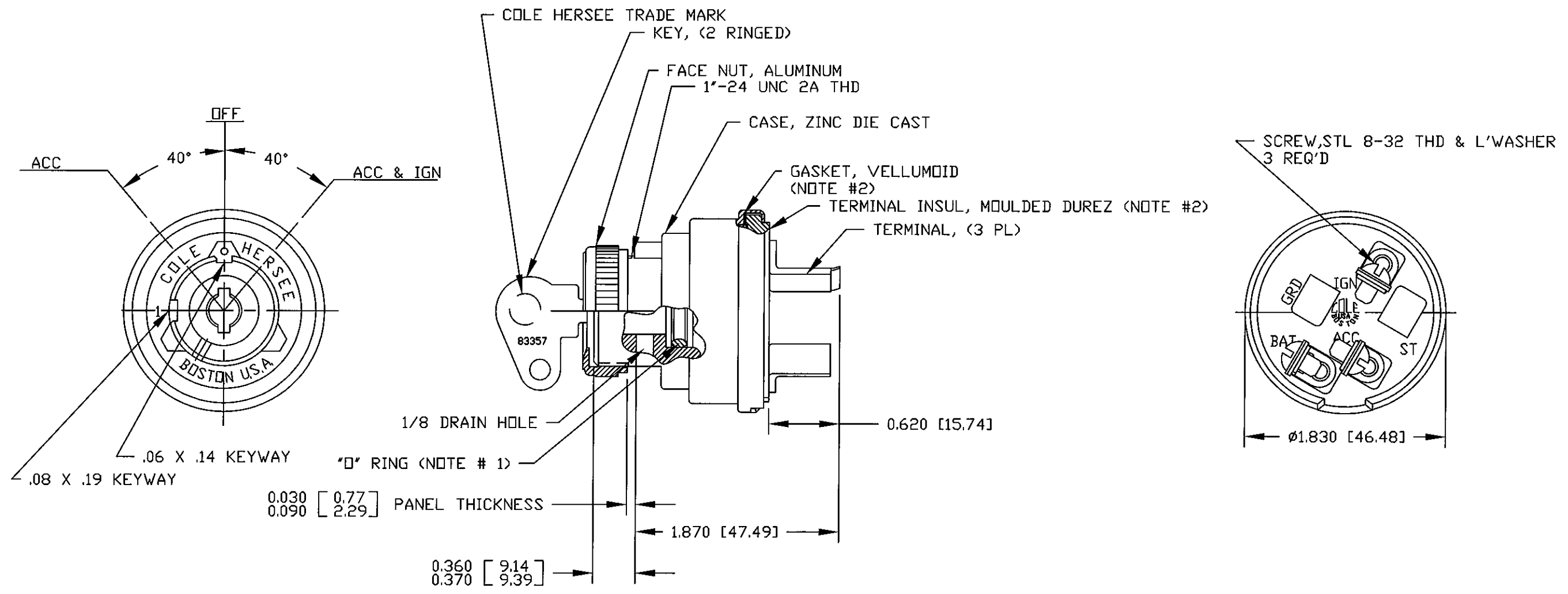
DO NOT SCALE

LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRV D	SCALE	DATE DRAWN
									CF	11-20-78		1:1	1-10-66
				G	LEN # 60139	3/1/00	KF	FINISH					DATE BLUEPRINT
				F	CADU / 25239	12/18/92	1,4						
				E	HOUSING	8-17-82	1,3	TOLERANCES					
				D	REDRAWN	11-8-78	R	FRACTIONAL ±					
								DECIMAL ± .25					
Cole Hersee Co. WORLD COLONY AVENUE SOUTH BOSTON MA U.S.A. 02127													
3 POS IGNITION & START SW												956-5307	

CH-188 (4-78)

Revision Control Record

Rev.	Description of Change	ECN No.	Date
J	PUT ON CAD	08552	10/09/08



- NOTE:**
1. SHAFT "O" RING SEALED TO CASE
 2. TERMINAL INSULATOR GASKET SEALED
 3. ALL STEEL PARTS PLATED
 4. ALL DIMENSION REFERENCE
 5. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

RATINGS @ 12V DC	
ACC. CIRCUIT	10 AMPS
IGN.	10 AMPS

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: **1:1** Drawn By: **CF** Date Drawn: **10/06/66**

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DO NOT SCALE - Dimensional variation may occur during printing / reproduction.

Special Characteristics:

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

(Note that the identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions & tolerances must be met)

Responsible Engineer: Pg. 1 of 1

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

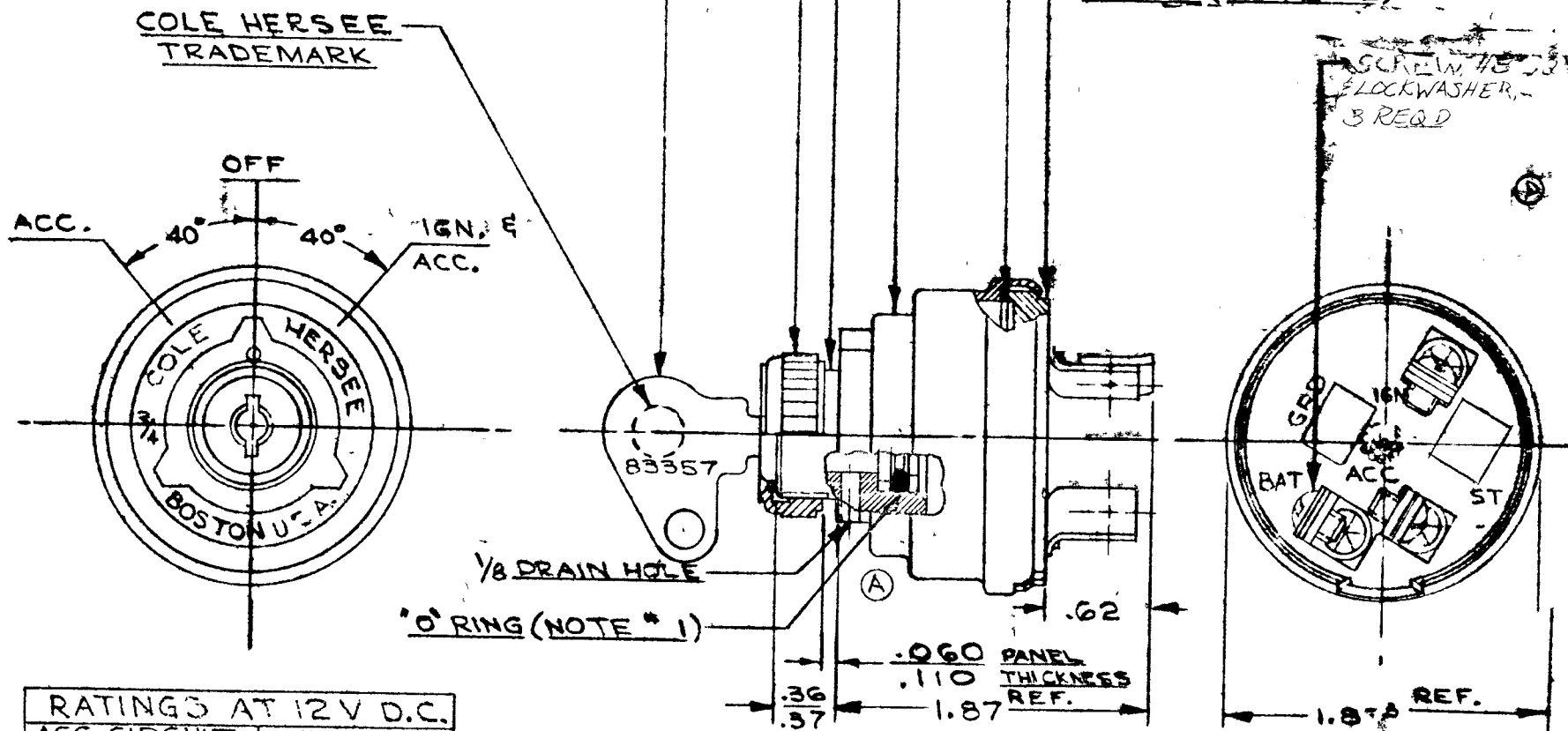
Description:
ACC-IGNITION SW

Drawing / Part No.: **956-6107**

J

COLE-HERSEE CO.

APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259



RATINGS AT 12 V D.C.	
ACC. CIRCUIT	10 AMPS
IGN.	10

- NOTE:
1. SHAFT "O" RING SEALED TO CASE
 2. TERMINAL INSULATOR GASKET SEALED
- © 3 ALL STEEL PARTS PLATED

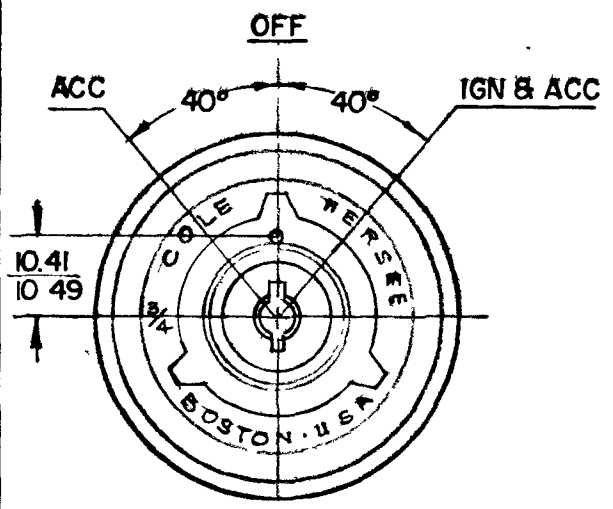
REV	WAS	DATE	BY	REV	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPROVED	SCALE	USED ON	DATE DRAWN
				F	FCM COPY	3/2/88	MA		CF	U.M.		FULL		1-31-67
				C	NOTE 3 ADDED	12/18/92	J.H.							
				B	HOUSING	8-17-82	PS							
				A	SPLIT SPEC ADDED	3-4-74	W							
					ISSUED	3-9-67	HF							
COLE-HERSEE COMPANY BOSTON 27, MASS., U.S.A.														
ACC-IGNITION SWITCH														PART NO 956-6307

COLE-HERSEE CO.
 NPM 6-6-79
 EX-18452

MM	IN
.25	.010
1.52	.060
2.79	.110
9.14	.360
9.39	.370
15.74	.620
46.48	1.830
47.49	1.870
3.17	.125
1.01	.040
1.65	.065
10.41	.410
16.49	.413

SEQ	DEPT.	OPERATING INSTRUCTIONS	DIE	MACH

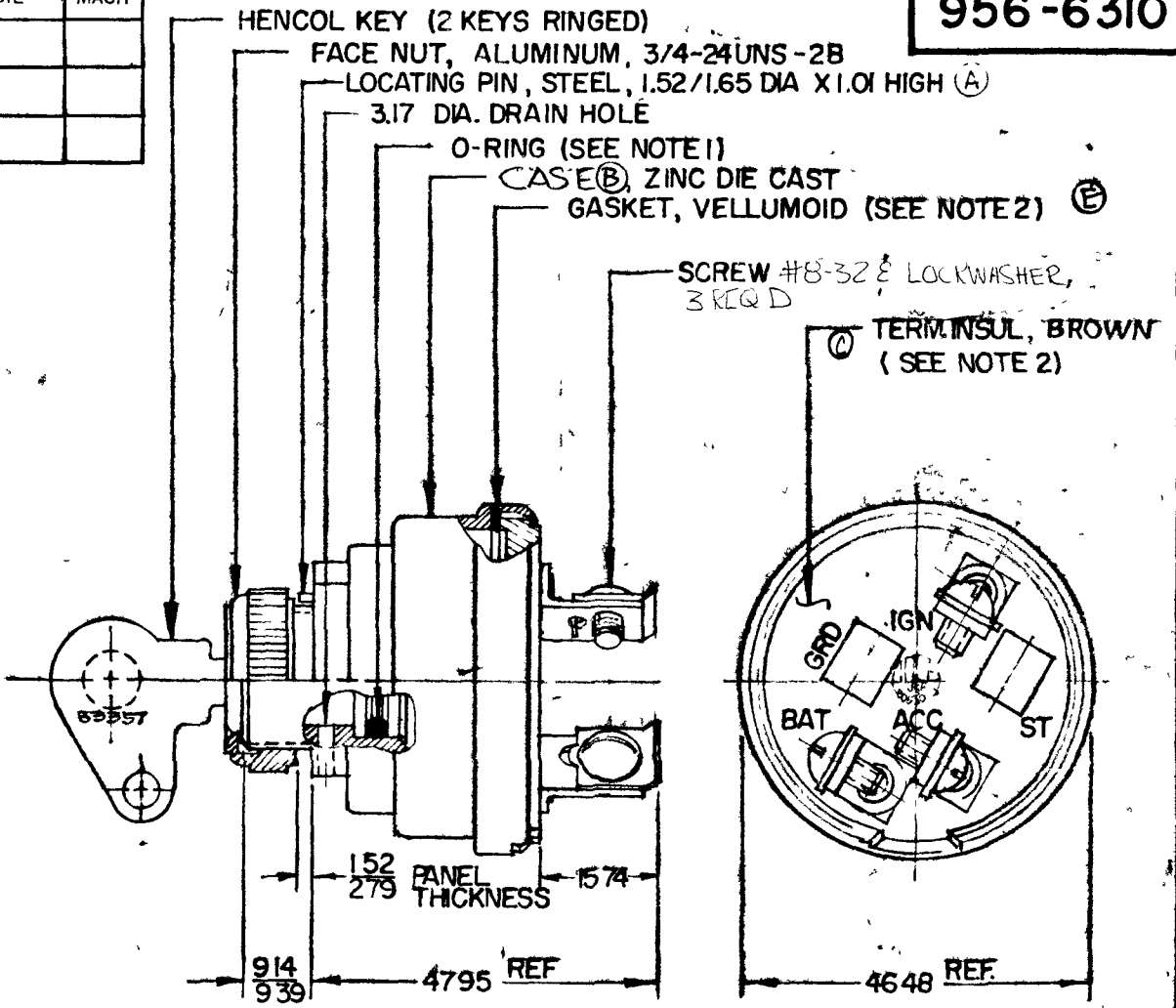
956-6310



RATINGS AT 12V DC	
ACC. CIRCUIT	30 AMPS
IGN.	10

APPLICABLE SAE STANDARDS OR RECOMMENDED PRACTICE SAE J259

METRIC

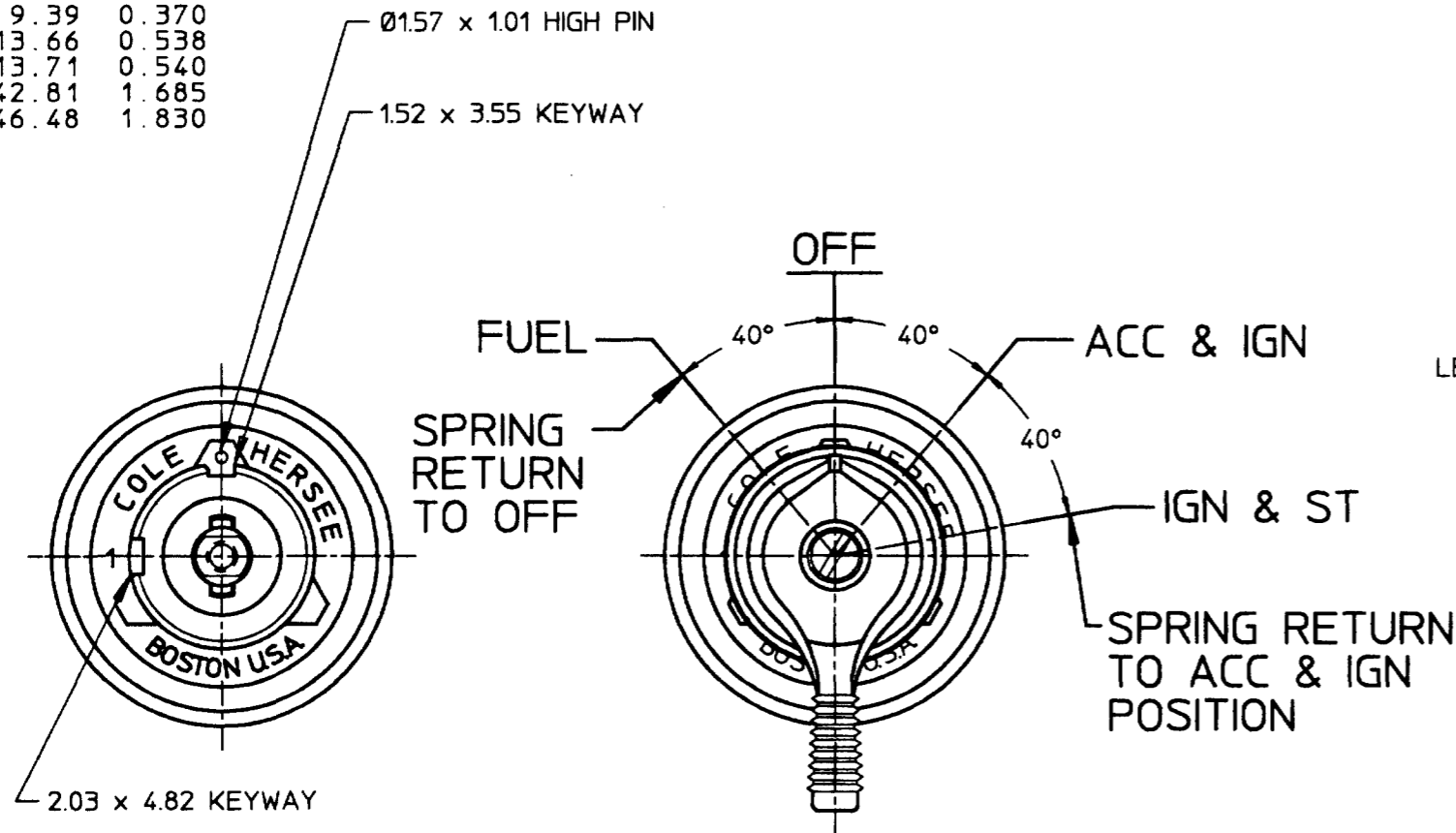


- NOTE:**
1. SHAFT O-RING SEALED TO CASE
 2. TERM INSUL GASKET SEALED
 3. COPPER RIVETS ON MOVABLE CONTACT
 4. ALL STEEL PARTS PLATED

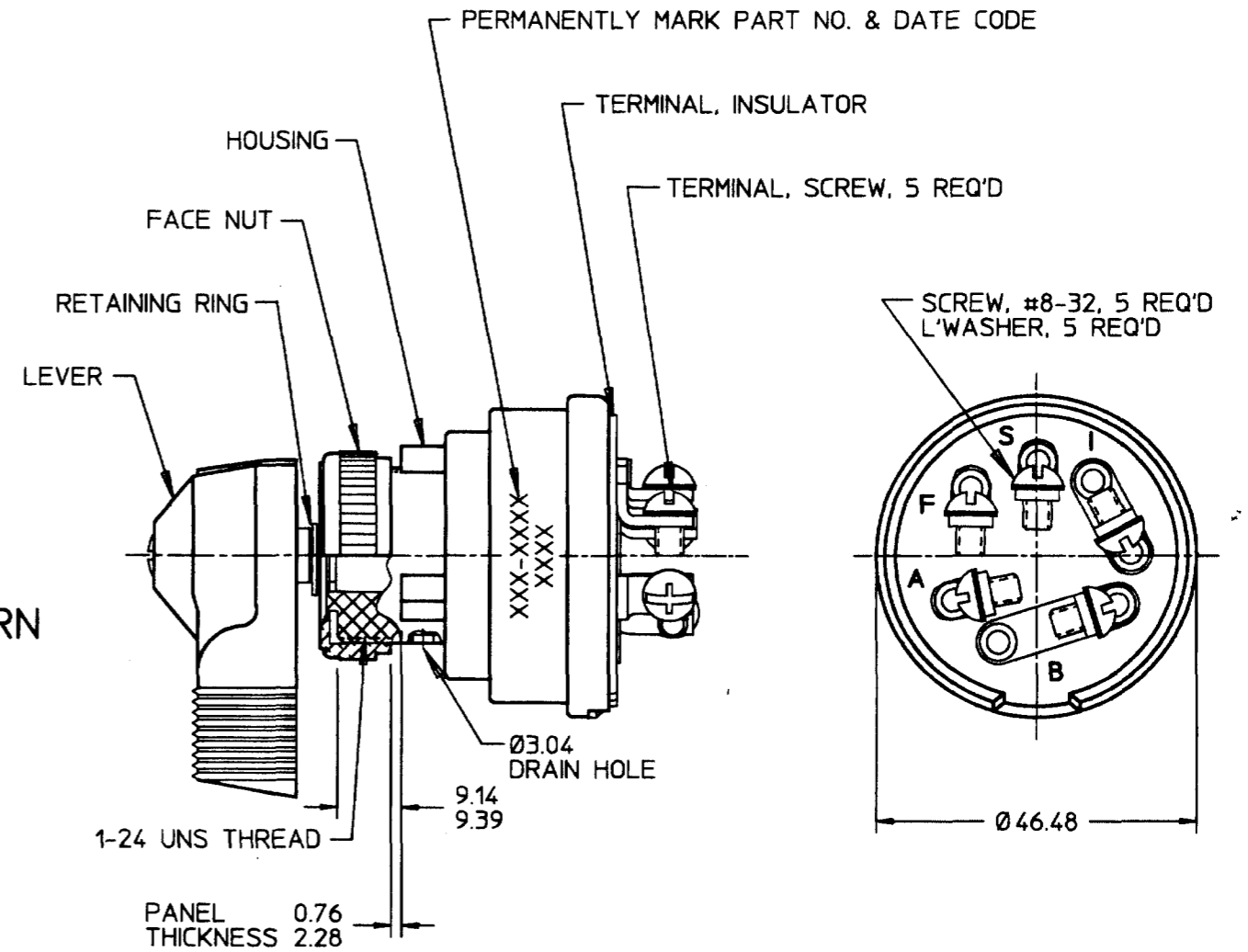
LET	WAS	DATE	BY	LET	WAS	DATE	BY	MATERIAL	DRAWN	CHECKED	APPRVD	SCALE	956-6310 W/ PIN, FIBER TE INSUL & COPPER RIVETS ON CONTACT	DO NOT SCALE
				D	ZINC 126234	12/18/92	TJH	—	RMT	5-23-79		1:1		DATE DRAWN 3-12-79
				C	ECN 25189	8-14-92	TJH	FINISH	COLE-HERSEE COMPANY BOSTON, MASS 02127, U.S.A.					DATE BLUEPRINT
				B	HOUSING	8/1/82	VB	—						
				A	REV 20702	9-12-79	JV	TOLERANCES FRACTIONAL ± DECIMAL ±.25	ACC - IGNITION SWITCH					956-6310
E	ECN #00139	3/1/00	MF	ISSUED	6-1-19	Y								

SPAULDING CO., INC

MM	IN
0.76	0.030
1.01	0.040
1.52	0.059
1.57	0.061
2.03	0.080
2.28	0.090
3.04	0.120
3.55	0.140
4.82	0.190
9.14	0.360
9.39	0.370
13.66	0.538
13.71	0.540
42.81	1.685
46.48	1.830



FRONT VIEW SHOWN W/O LEVER AND FACE NUT



- NOTES:
1. ALL STEEL PARTS PLATED
 2. ALL DIMENSIONS ARE REFERENCE ONLY UNLESS OTHERWISE SPECIFIED
 3. SHAFT O-RING SEALED TO CASE
 4. TERMINAL INSULATOR GASKET SEALED
 5. APPLICABLE SAE STANDARD OR RECOMMENDED PRACTICE SAE J259

DO NOT SCALE

RATING AT 12 VDC		LEGEND	
ACCESSORY	10 AMP	BATTERY	B
IGNITION	10 AMP	ACCESSORY	A
START	5 AMP	IGNITION	I
FUEL	10 AMP	START	S
		FUEL	F

METRIC

LET.	WAS	DATE	BY	LET.	WAS	DATE	BY	MATERIAL	DRAWN	CHK	APVD	SCALE	DATE DRAWN
								N/A	JMP	4	N/A	1:1	11/24/97
								FINISH	Cole Hersee Co. 20 OLD COLONY AVENUE, BOSTON, MA., U.S.A., 02127				DATE BLUEPRINTED
								N/A					SW, IGN & START, 4 POS
				A	ECN 00521	06/28/00	DPS	TOLERANCES DECIMAL ± N/A ANGLE ± N/A					