

D. Gottlieb & Co.

1978

PARTS

CATALOG

Volume P

D. Gottlieb & Co.



A Columbia Pictures Industries Company

165 W. Lake Street • Northlake, Illinois 60164

Phone: 312/562-7400 Telex: 72-8463

Over 50 Years of Leadership 1927-1978

In the year 1977, D. GOTTLIEB & CO. celebrated both its 50th Anniversary as a manufacturer of coin-operated amusement machines and its acquisition by Columbia Pictures Industries, Inc. These events highlight the Company's success in the past and its strong current position as a progressive supplier to coin machine operators around the world.

The Company has three plants totalling over 300,000 square feet (27,870 square meters) and employs approximately 1,600 people in Northlake, Illinois, Bensenville, Illinois and Fargo, North Dakota. D. GOTTLIEB & CO. continues to operate the world's largest combination of facilities devoted exclusively to the design and production of coin-operated flipper pinball machines.

This Catalog and the operation of an efficient Parts Department provide a service to all GOTTLIEB operators that helps insure the most profitable return on their investment.

The fine performance and subsequent high earning power of GOTTLIEB machines can be maintained by the exclusive use of genuine GOTTLIEB replacement parts available at all GOTTLIEB Distributors.

D. Gottlieb & Co.

A Columbia Pictures Industries Company



Designers and Manufacturers of Amusement Machines since 1927
165 W. Lake Street • Northlake, Illinois 60164
Phone: 312/562-7400 Telex: 72-8463

Gottlieb

WHEN ORDERING PARTS

1. Refer to the catalog and order all parts by number and description, specifying quantity and name of game of which parts are being ordered.
2. Figure prices as quoted in the catalog. All prices are subject to change without notice.
3. Returned merchandise will not be accepted unless previously authorized.

REMEMBER! SERVICE GOTTLIEB MACHINES ONLY WITH GENUINE GOTTLIEB PARTS BECAUSE "THERE IS NO SUBSTITUTE FOR QUALITY."

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INSTRUCTION
&
SERVICE MANUAL

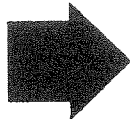


NOW AVAILABLE!

Instruction and Service Manual

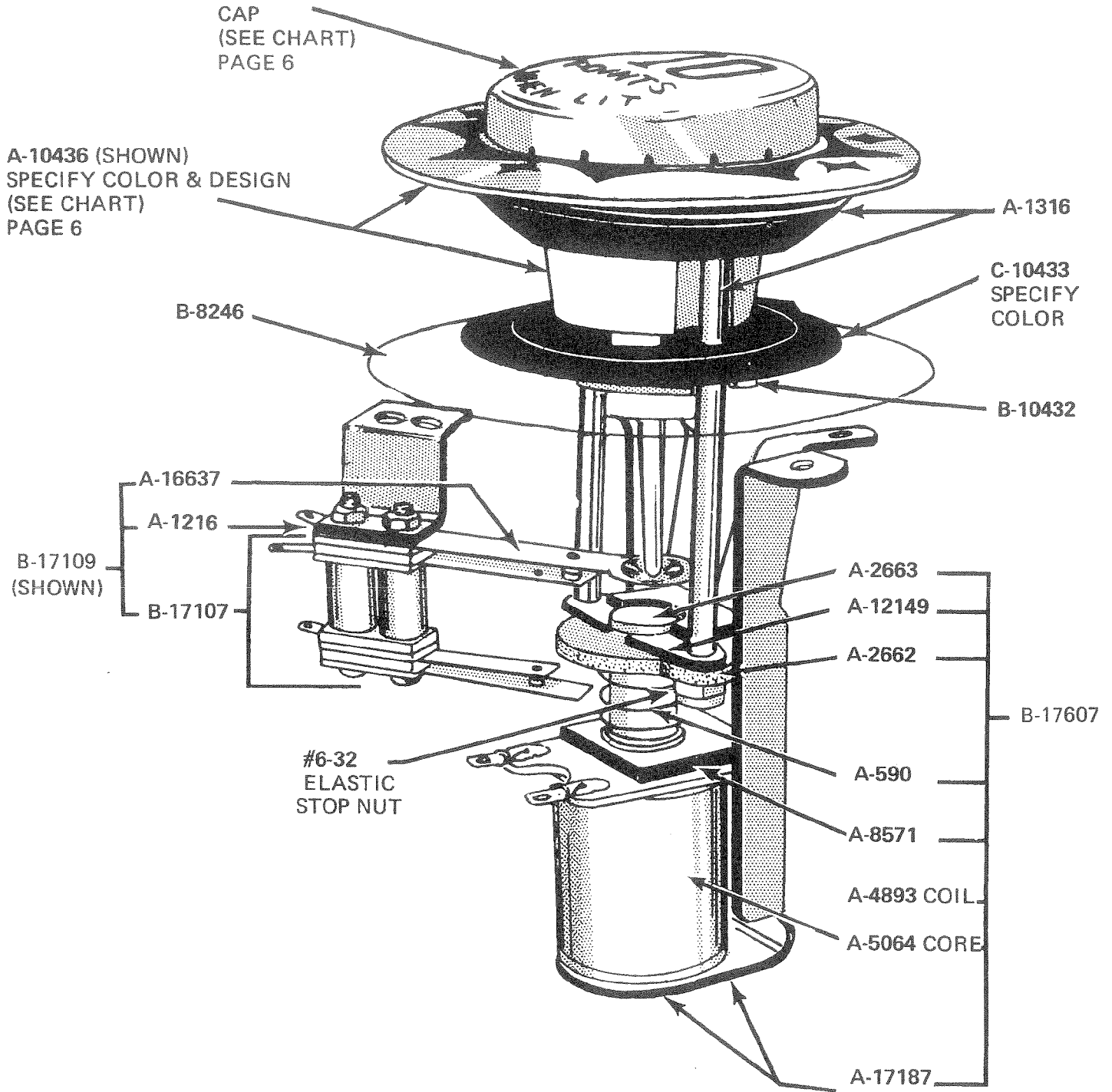
A factory prepared book covering:

- ① Components, Descriptions and Adjustments
- ② Circuit Analysis
- ③ Trouble Shooting
- ④ Set-up for Operation
- ⑤ Maintenance



You can obtain a copy from
your Gottlieb Distributor.

price \$4.00



SWITCH ADJUSTMENT:

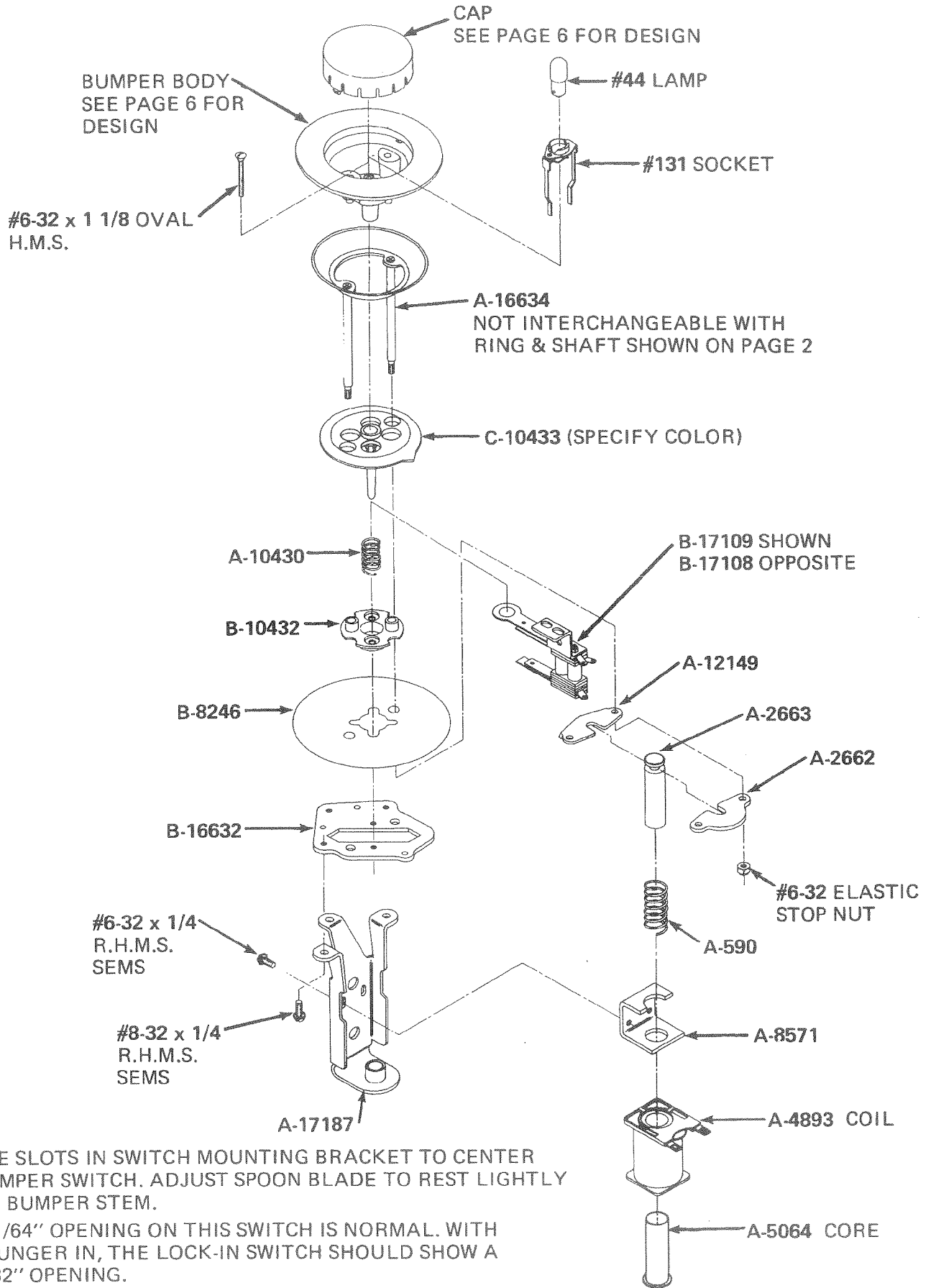
Use slots in A-1216 mounting bracket to center bumper switch. Adjust A-8546 blade to rest lightly on bumper stem.

A 1/64-in. opening on this switch is normal. With the plunger in, the lock-in switch should show a 1/32-in. opening.

WHEN ORDERING PARTS, SPECIFY PART NO. AND NAME OF GAME.

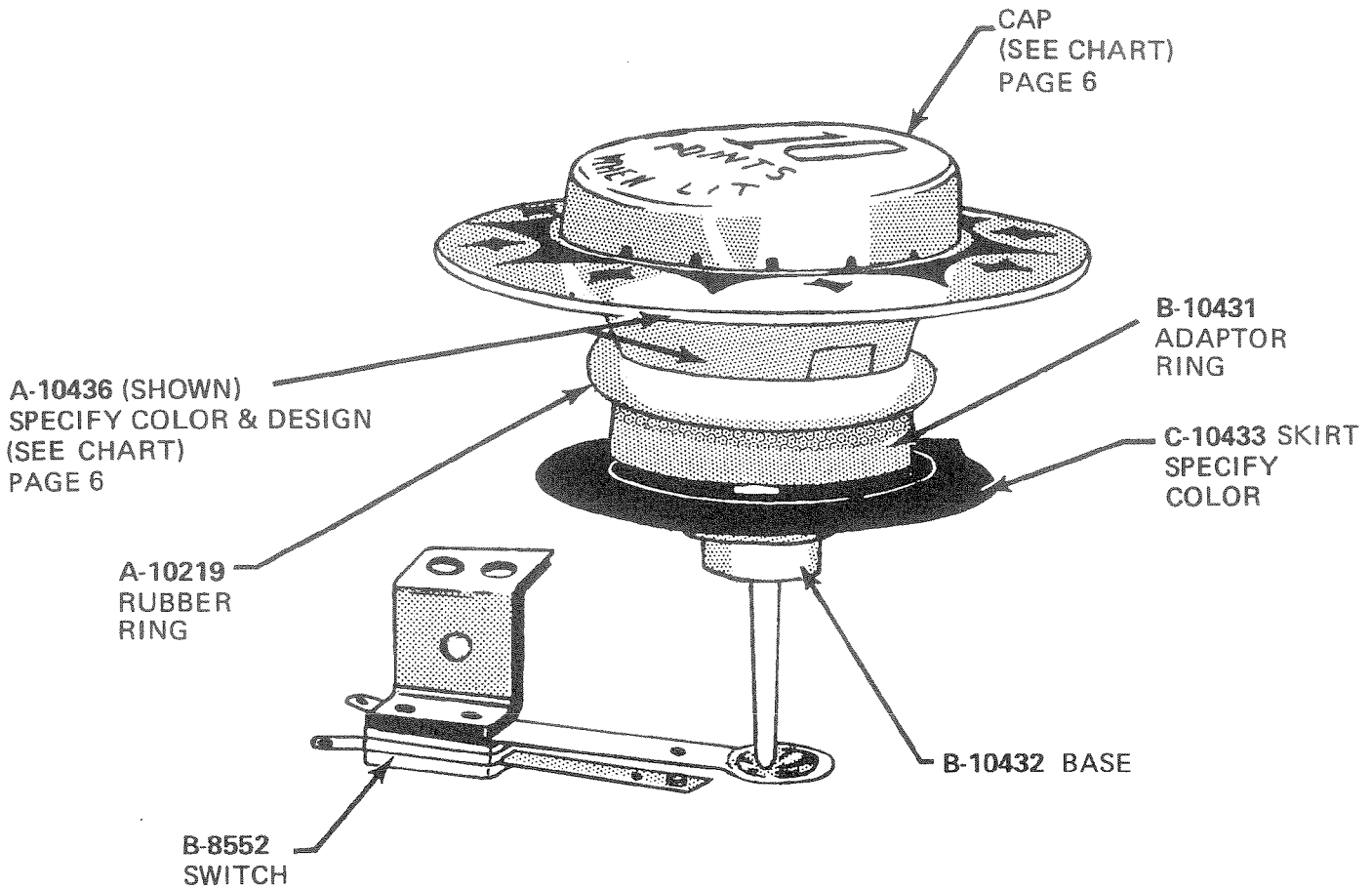
POP BUMPER WITH PAD

Gottlieb



USE SLOTS IN SWITCH MOUNTING BRACKET TO CENTER BUMPER SWITCH. ADJUST SPOON BLADE TO REST LIGHTLY ON BUMPER STEM.

A 1/64" OPENING ON THIS SWITCH IS NORMAL. WITH PLUNGER IN, THE LOCK-IN SWITCH SHOULD SHOW A 1/32" OPENING.



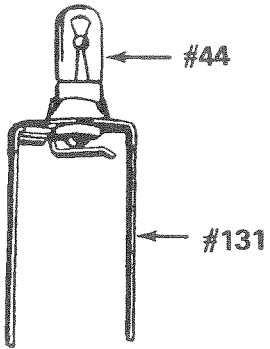
SWITCH ADJUSTMENT:

Use slots in A-1216 mounting bracket to center bumper switch. Adjust A-8546 blade to rest lightly on bumper stem.

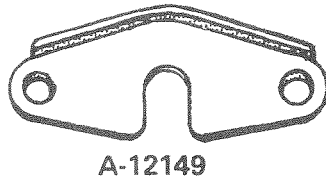
A 1/64-in. opening on this switch is normal.

WHEN ORDERING PARTS, SPECIFY PART NO. AND NAME OF GAME.

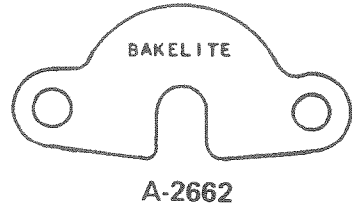
BUMPER BAYONET
LAMP & SOCKET



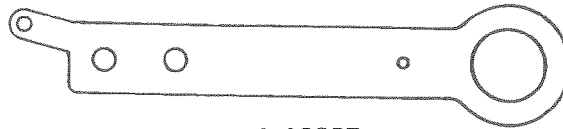
SLOTTED YOKE



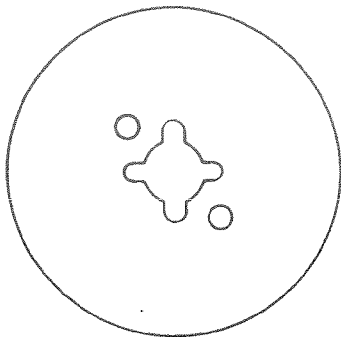
INSULATING YOKE



BUMPER SWITCH BLADE
WITH POINT



POP BUMPER TRIM PLATTER

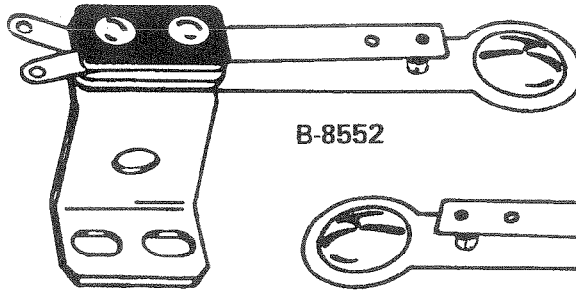


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(SHOWN HALF SIZE)

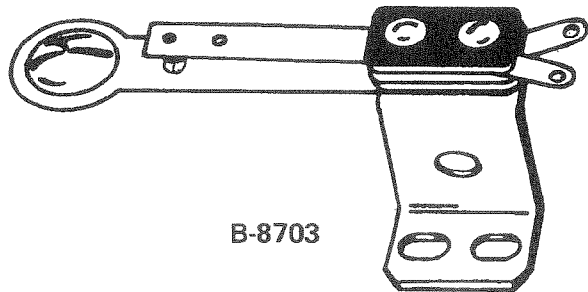
SPRING



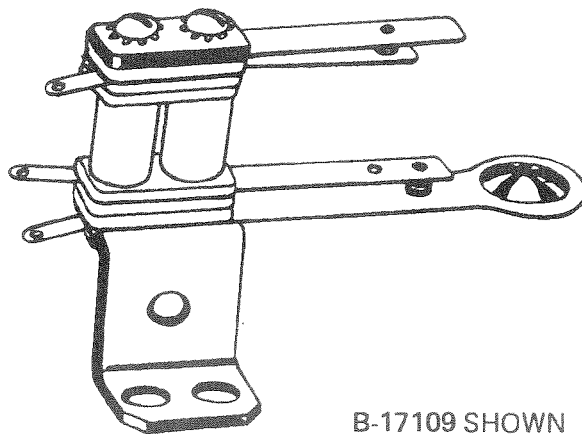
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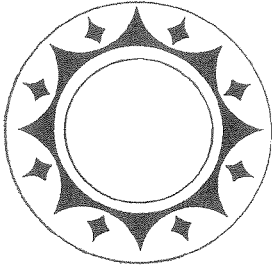


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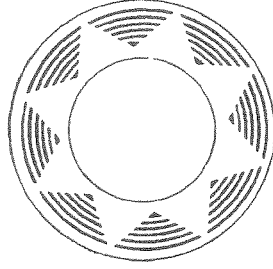


B-17109 SHOWN
B-17108 OPPOSITE

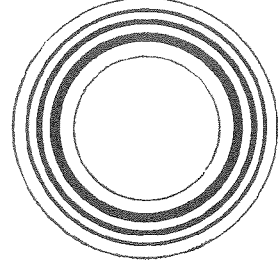
WHITE BUMPER BODIES
SHOWN 1/2 SIZE – SPECIFY DESIGN COLOR



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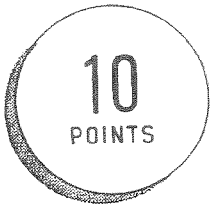


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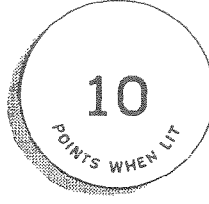
SHOWN 1/2 SIZE – WHITE CAP – SPECIFY COLOR OF PRINTING



A-11423



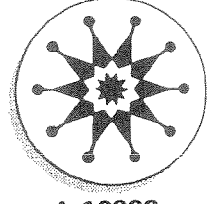
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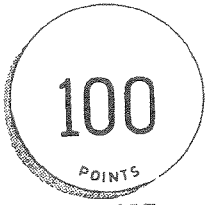
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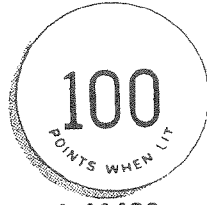
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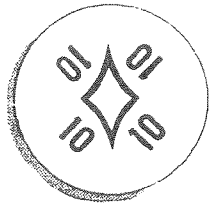
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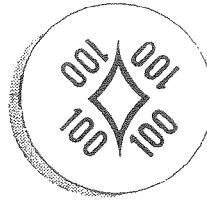
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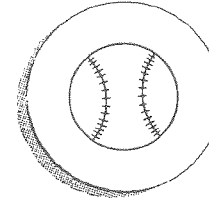
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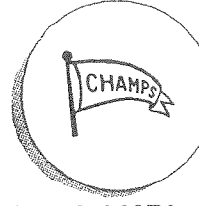
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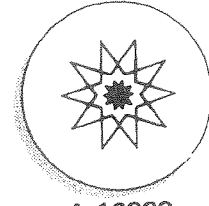
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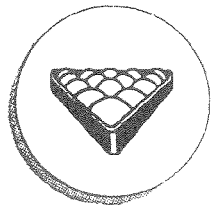
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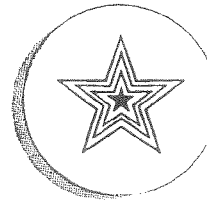
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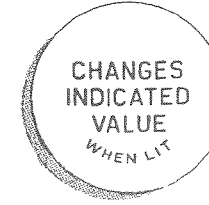
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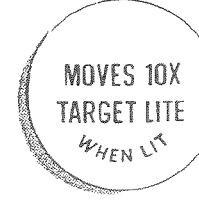
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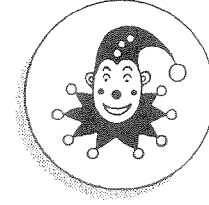
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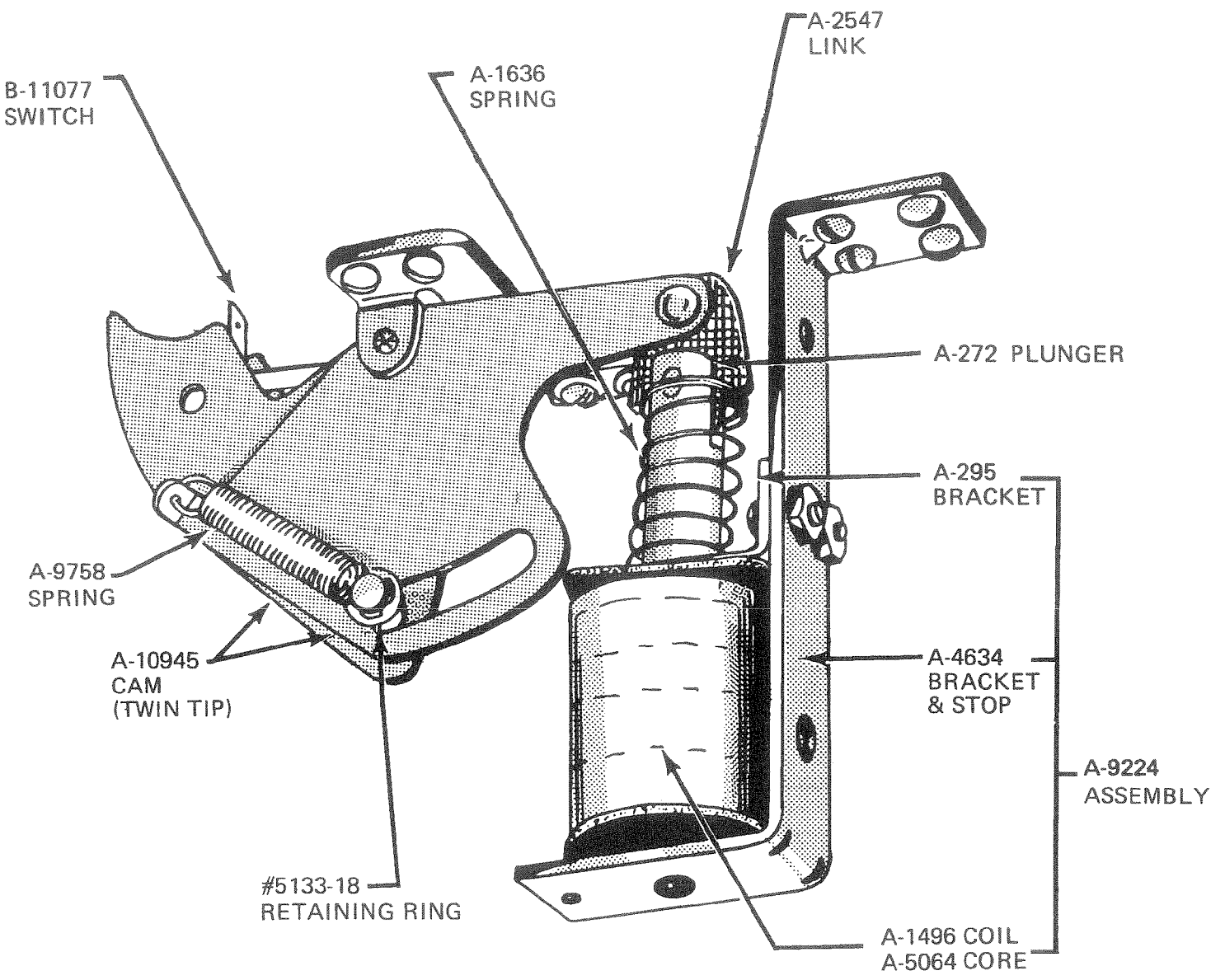
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A-15745

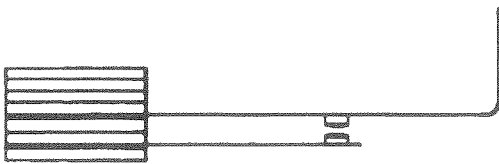
BALL RETURN (OUTHOLE)

Gottlieb



BALL RETURN SWITCH

BALL RETURN SWITCH BLADE
LESS POINT

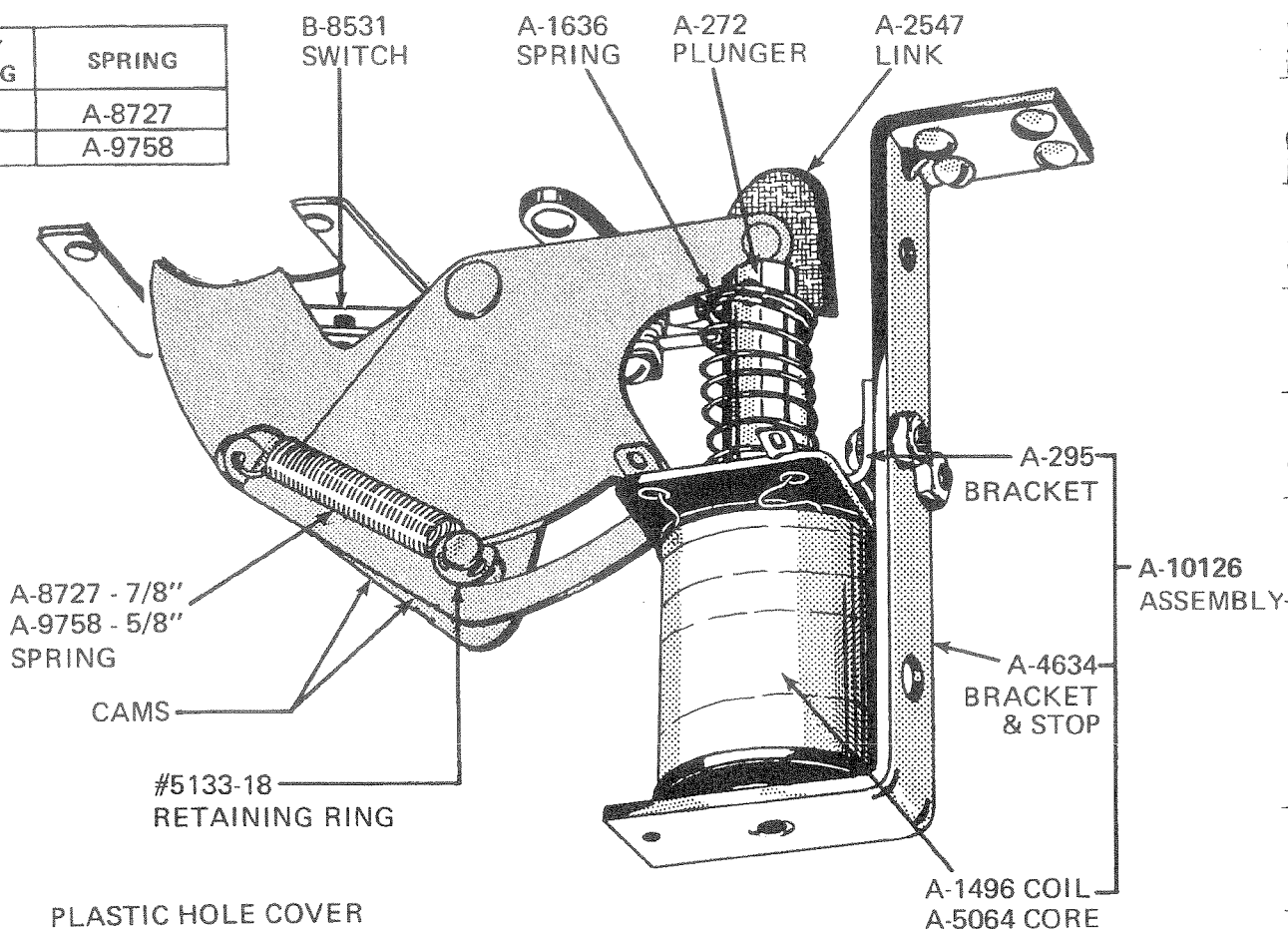


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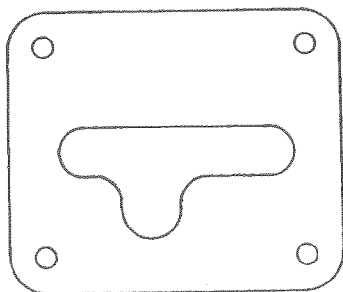
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(SPRING LOADED)

ASSEMBLY WITH SPRING	SPRING
A-9988	A-8727
A-10108	A-9758

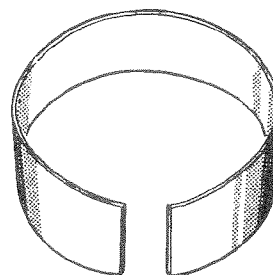


PLASTIC HOLE COVER



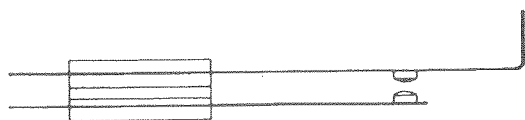
A-945
SPECIFY COLOR

METAL HOLE LINER

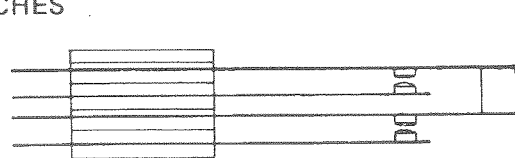


A-11151

HOLE KICKER SWITCHES



B-8531



B-8532

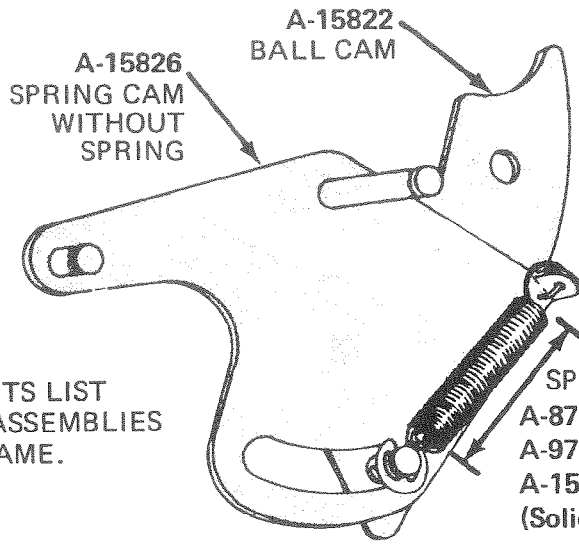
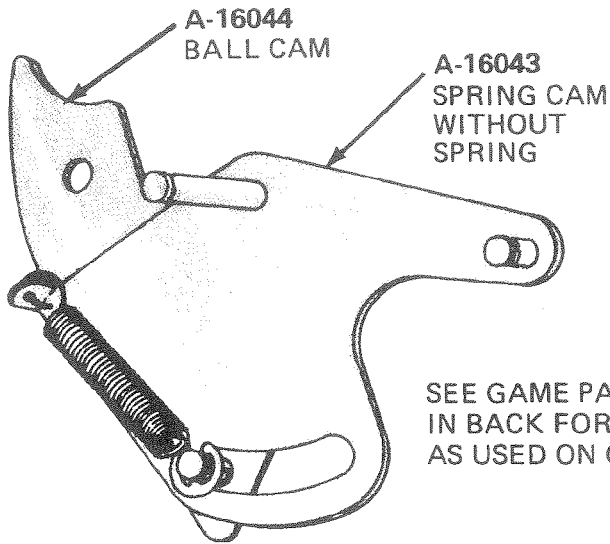
HOLE KICKER SWITCH BLADE
LESS POINT



A-154

BALL HOLE KICKERS

Gottlieb



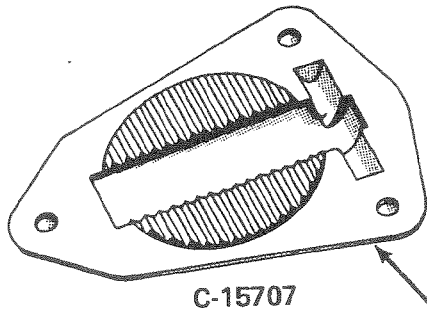
SEE GAME PARTS LIST
IN BACK FOR ASSEMBLIES
AS USED ON GAME.

SPRINGS
A-8727 7/8"
A-9758 5/8"
A-15598 11/16"
(Solid Height)

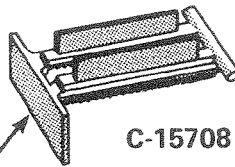
ASSEMBLY WITH FULCRUM	BALL CAM	SPRING CAM (NO SPRING)	SPRING
A-16045	A-16044	A-16043	A-9758
A-16085	A-16044	A-16043	A-8727
A-16086	A-16044	A-16043	A-15598

ASSEMBLY WITH FULCRUM	BALL CAM	SPRING CAM (NO SPRING)	SPRING
A-15827	A-15822	A-15826	A-9758
A-15828	A-15822	A-15826	A-15598
A-16083	A-15822	A-15826	A-8727

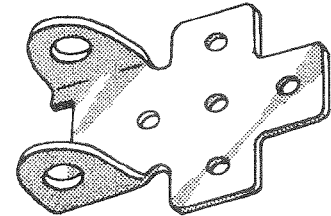
HOLE BASE PLATE



HOLE SWITCH ARM

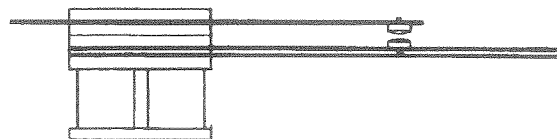
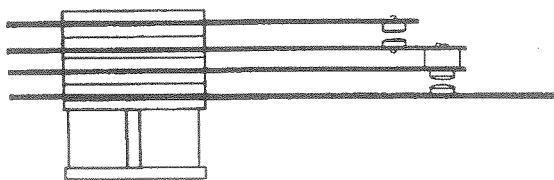
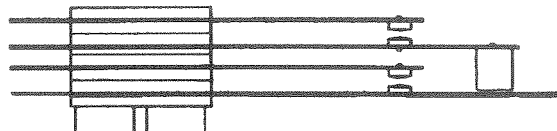
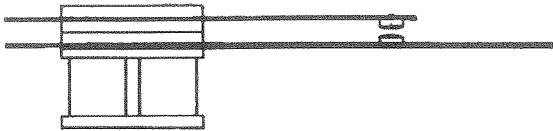


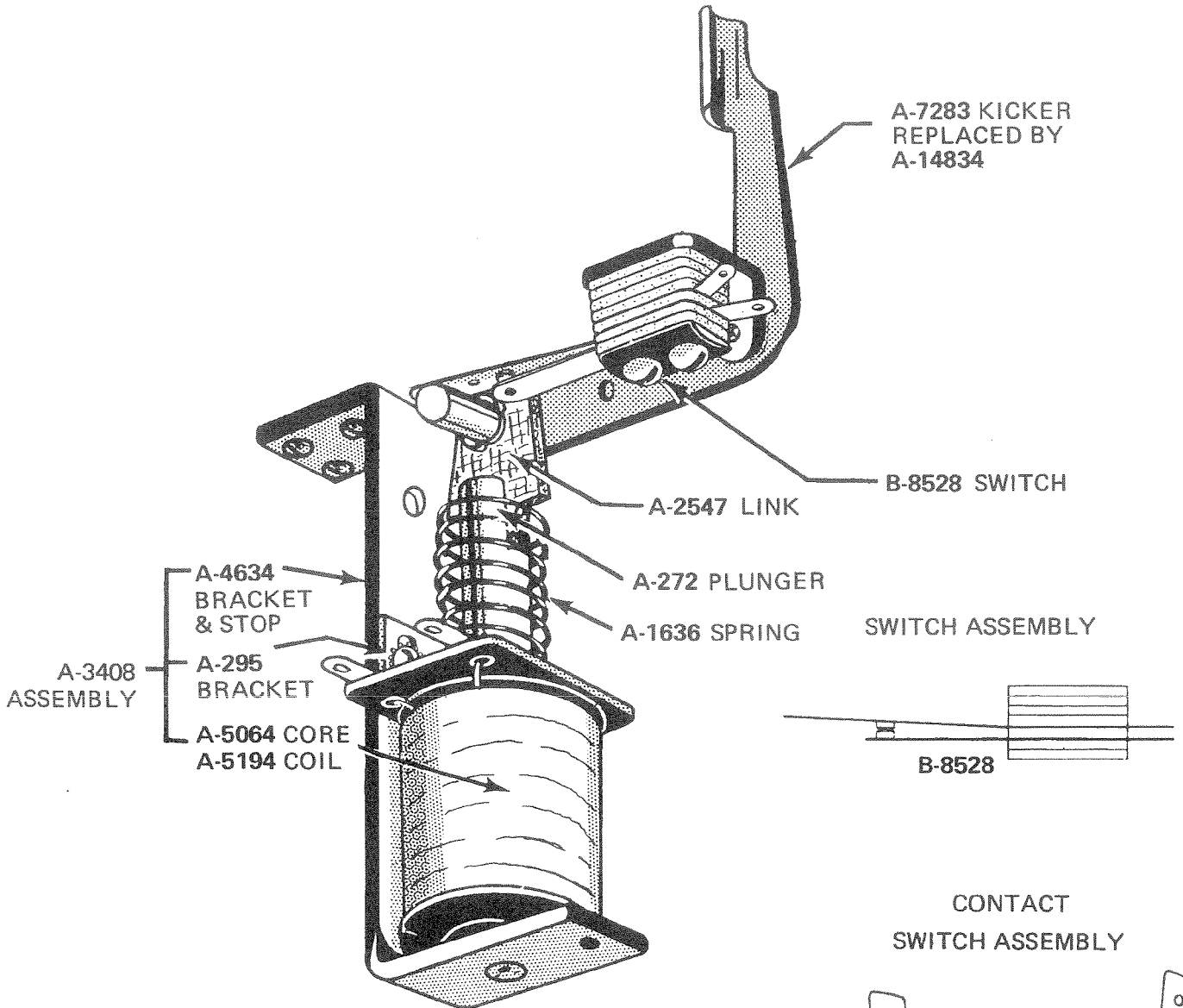
FULCRUM



PAT. NO. 3,901,511

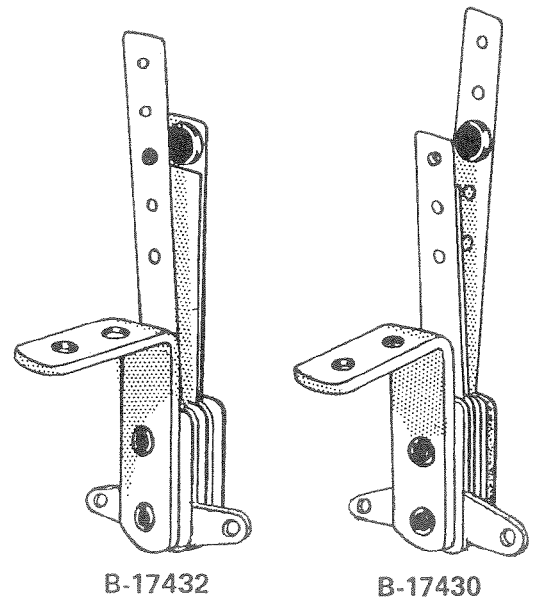
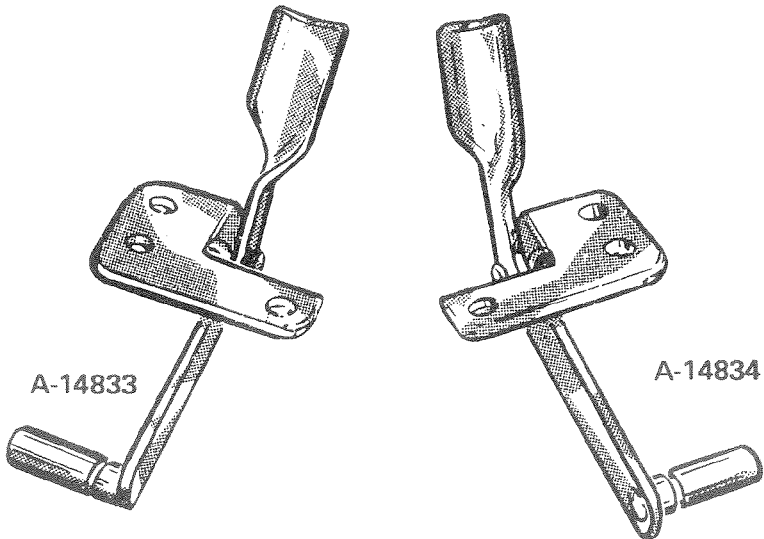
HOLE KICKER SWITCHES



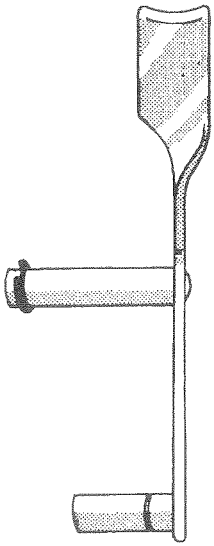


CONTACT SWITCH ASSEMBLY

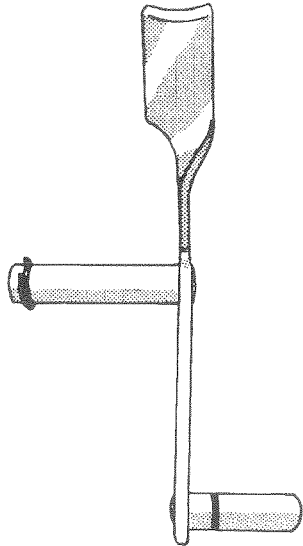
KICKER SUB-ASSEMBLY



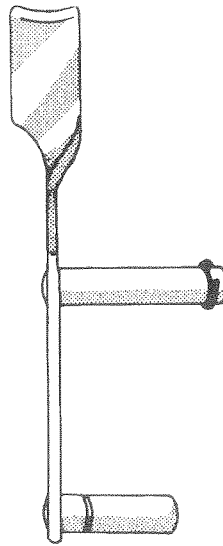
CONTACT KICKER ARMS
SEE PARTS LIST IN BACK FOR ASSEMBLIES
AS USED ON GAME.



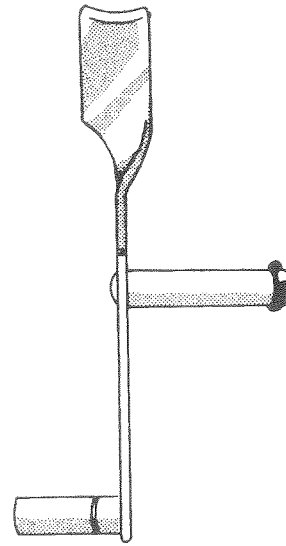
A-15832
WITH FULCRUM
A-15836



A-15833
WITH FULCRUM
A-15837

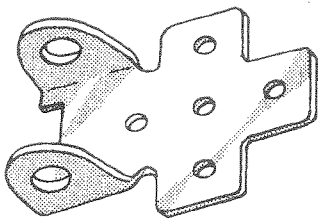


A-15834
WITH FULCRUM
A-15838



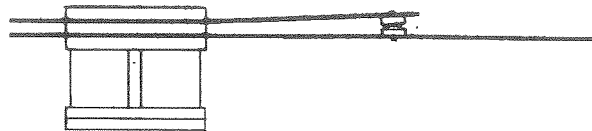
A-15835
WITH FULCRUM
A-15839

FULCRUM



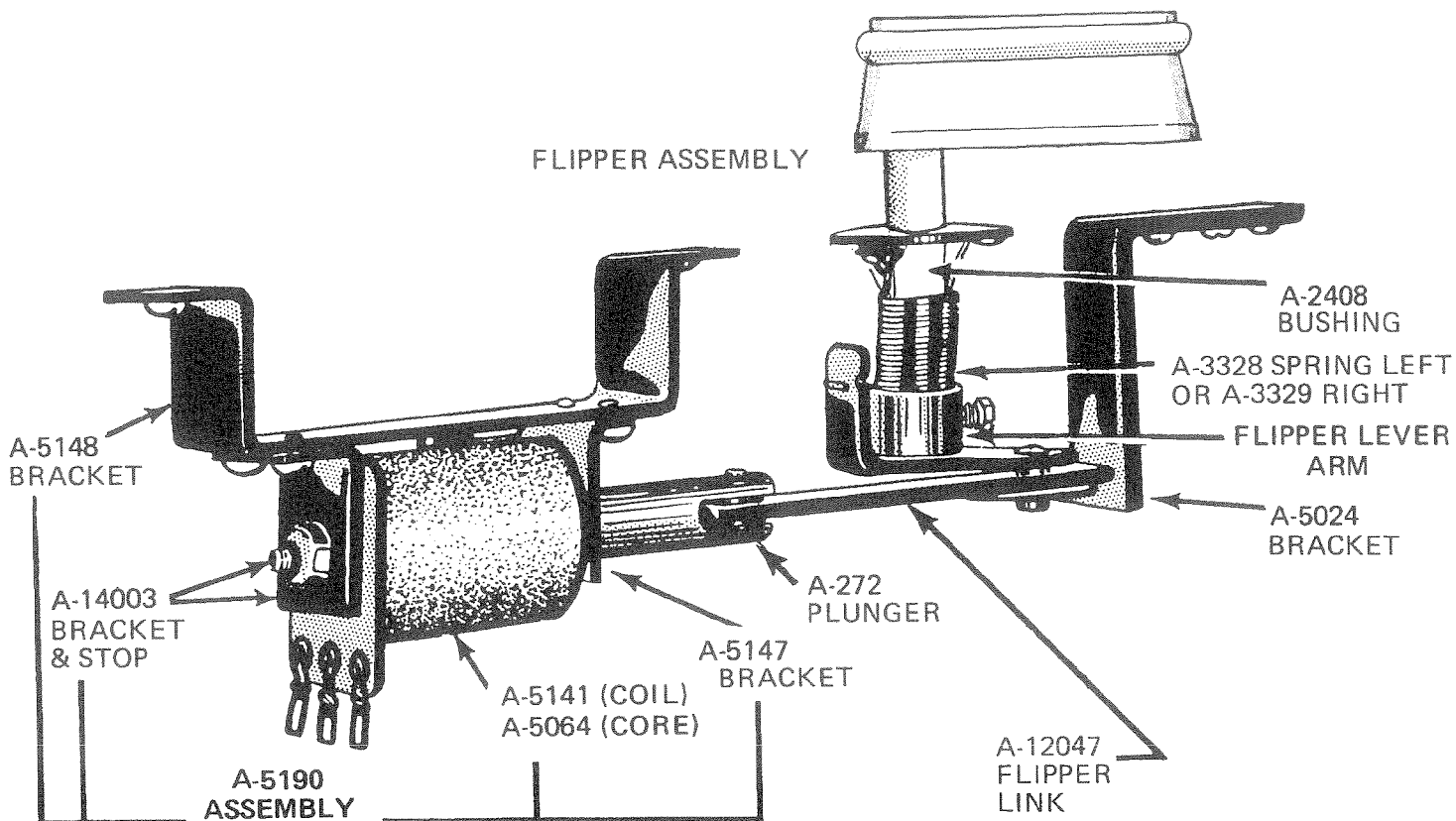
A-15819

CONTACT KICKER
SWITCH ASSEMBLY

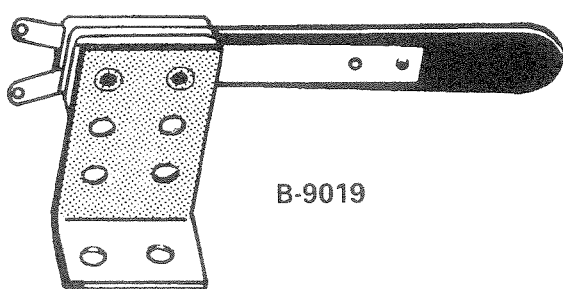


B-15983

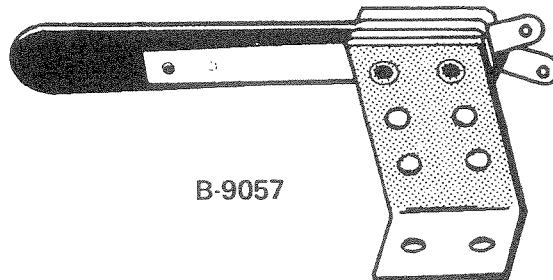
FLIPPER ASSEMBLY



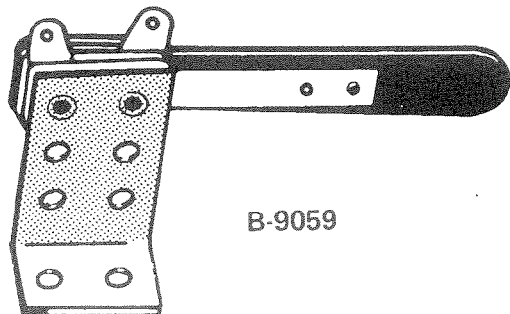
END OF STROKE SWITCHES



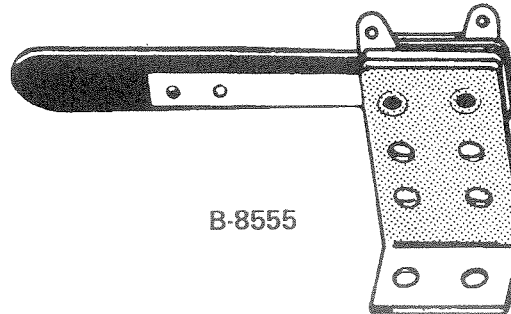
B-9019



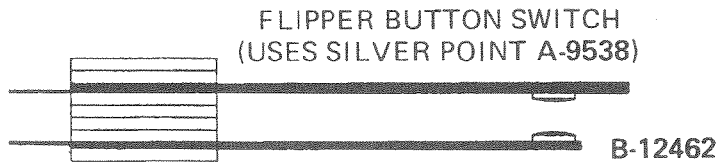
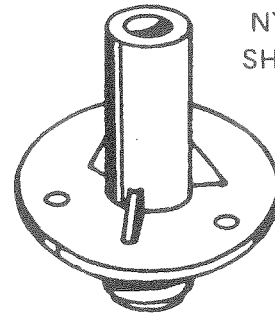
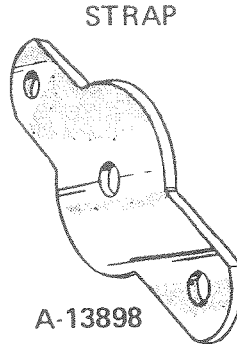
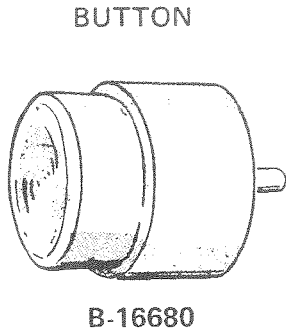
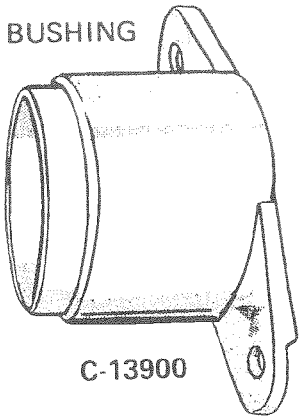
B-9057



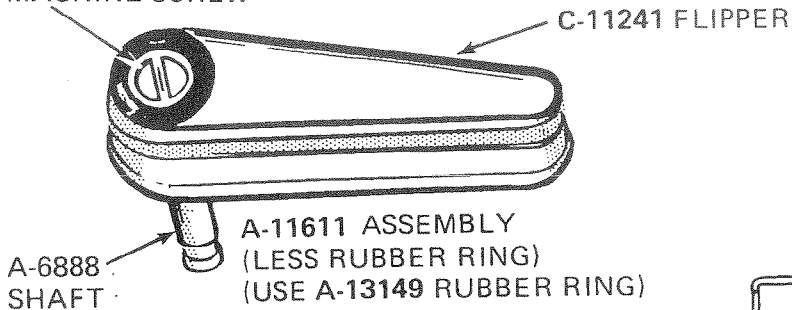
B-9059



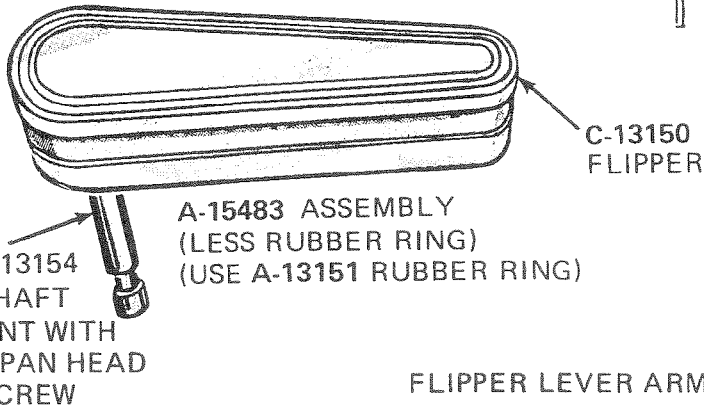
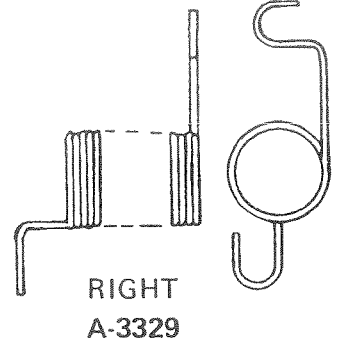
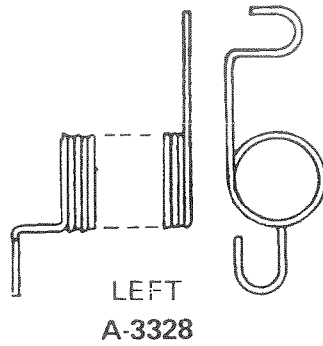
B-8555



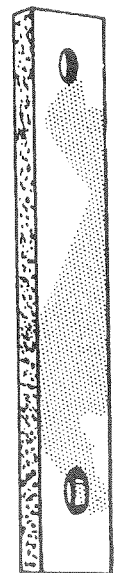
#6-32 x 1-1/8
FLAT HEAD
MACHINE SCREW



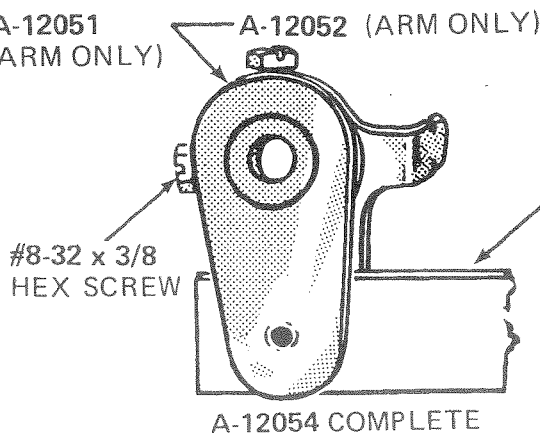
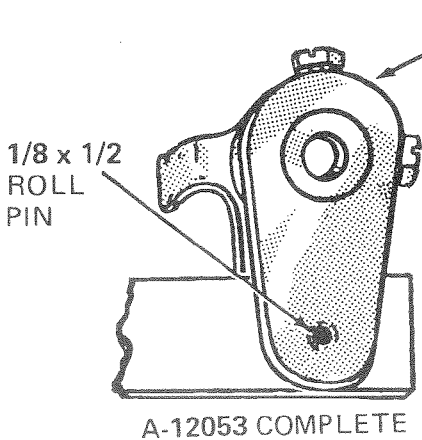
FLIPPER RETURN SPRINGS

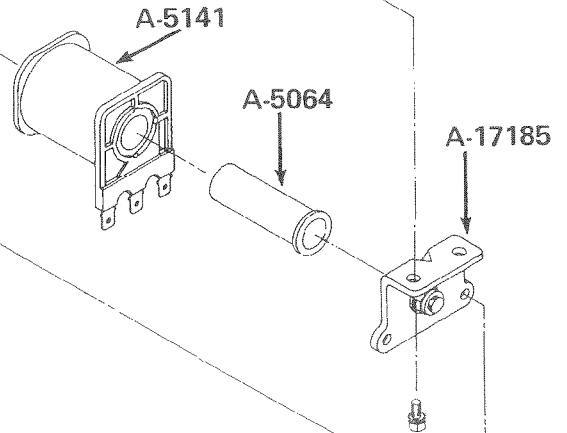
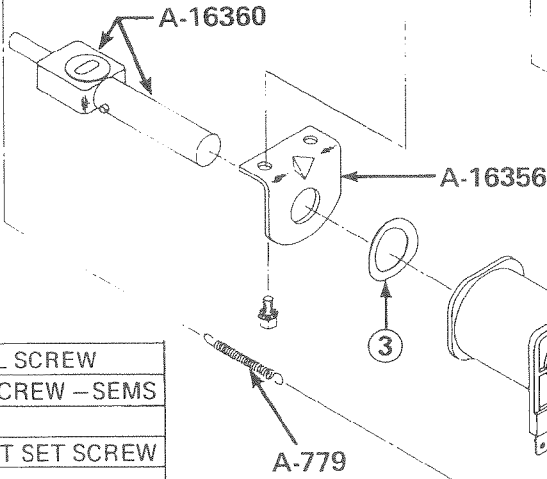
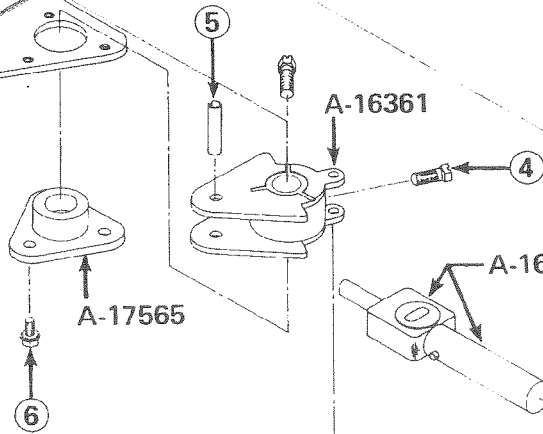
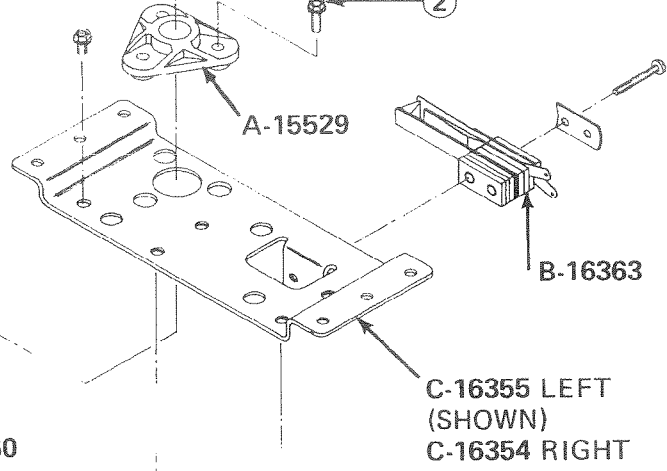
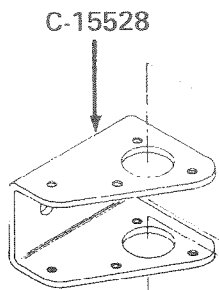
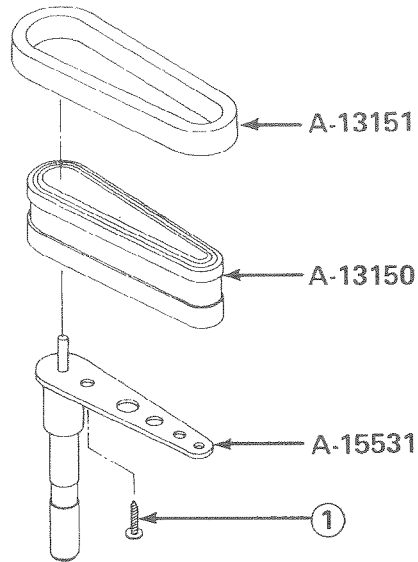
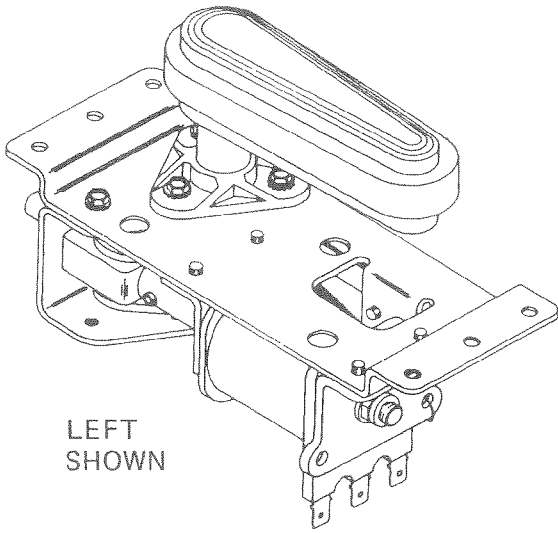


FLIPPER LINK



FLIPPER LEVER ARMS

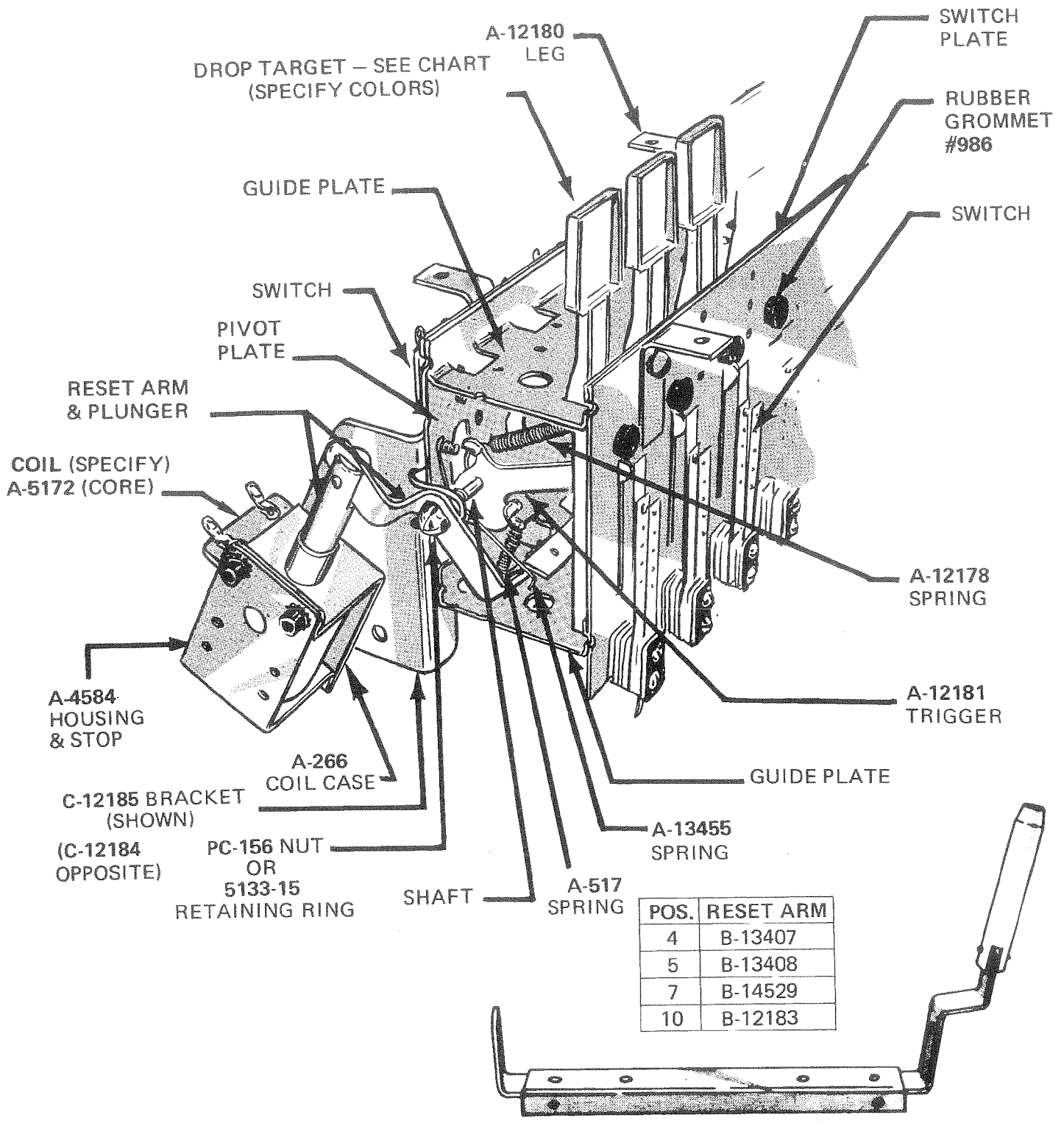




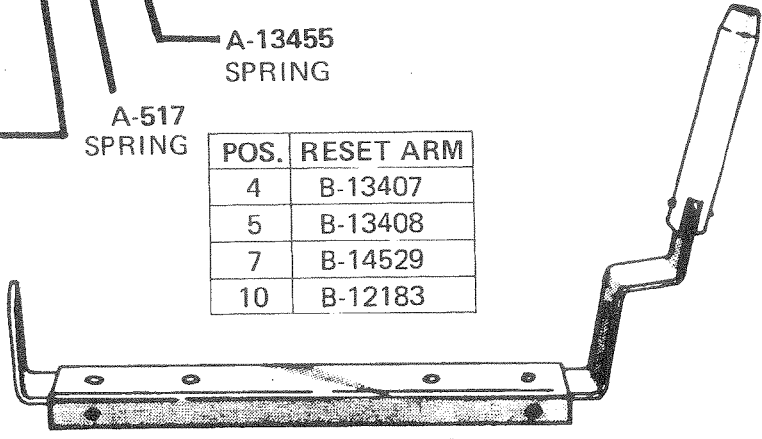
1	#6 x 1/2 PAN HEAD SHEET METAL SCREW
2	#8-32 x 3/8 HEX WASHER HEAD SCREW - SEMS
3	#3502 - 24 - 26 SPRING WASHER
4	#10-32 x 3/8 HEX HEAD CUP POINT SET SCREW
5	3/16 x 3/4 ROLL PIN
6	#8-32 x 1/4 HEX WASHER HEAD SCREW - SEMS

ASSEMBLIES AVAILABLE

C-16970 FRAME - LEFT, WITH BEARINGS
C-16969 FRAME - RIGHT, WITH BEARINGS
A-16362 FLIPPER LEVER & PLUNGER



POS.	RESET ARM
4	B-13407
5	B-13408
7	B-14529
10	B-12183

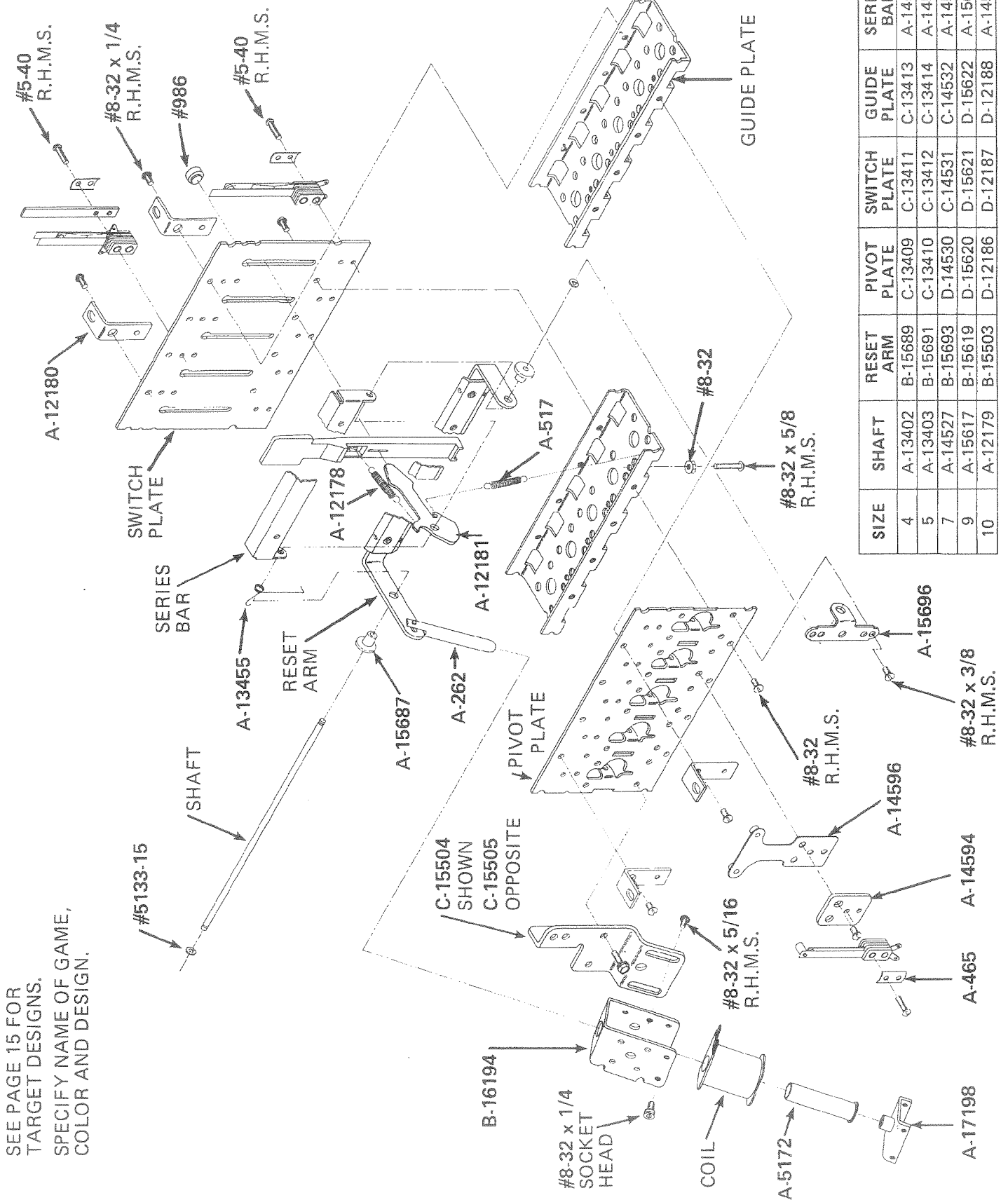


RESET ARM USED ON THIS BANK

DROP TARGET DESIGNS

A-13179	STAR	A-14857	BOWLING PIN	A-15665	HORSE	A-17122	N
A-13437	2	A-14936	INDIAN	A-16115	SURFER	A-17124	R
TO	THRU	A-15177	BULLS-EYE	A-17086	SINGLE	A-17126	Y
A-13449	A	A-15202	1	A-17088	DOUBLE	A-17128	SHIELD
A-13781	HORSESHOE	A-15416	CHECKERED	A-17090	TRIPLE	A-17147	500
A-14485	CLOWN	A-15661	COWBOY	A-17118	C	A-17181	MONKEY
A-14700	BALL & RACK	A-15663	CACTUS	A-17120	D		

USED ON GAMES FROM FAR OUT (12-74)



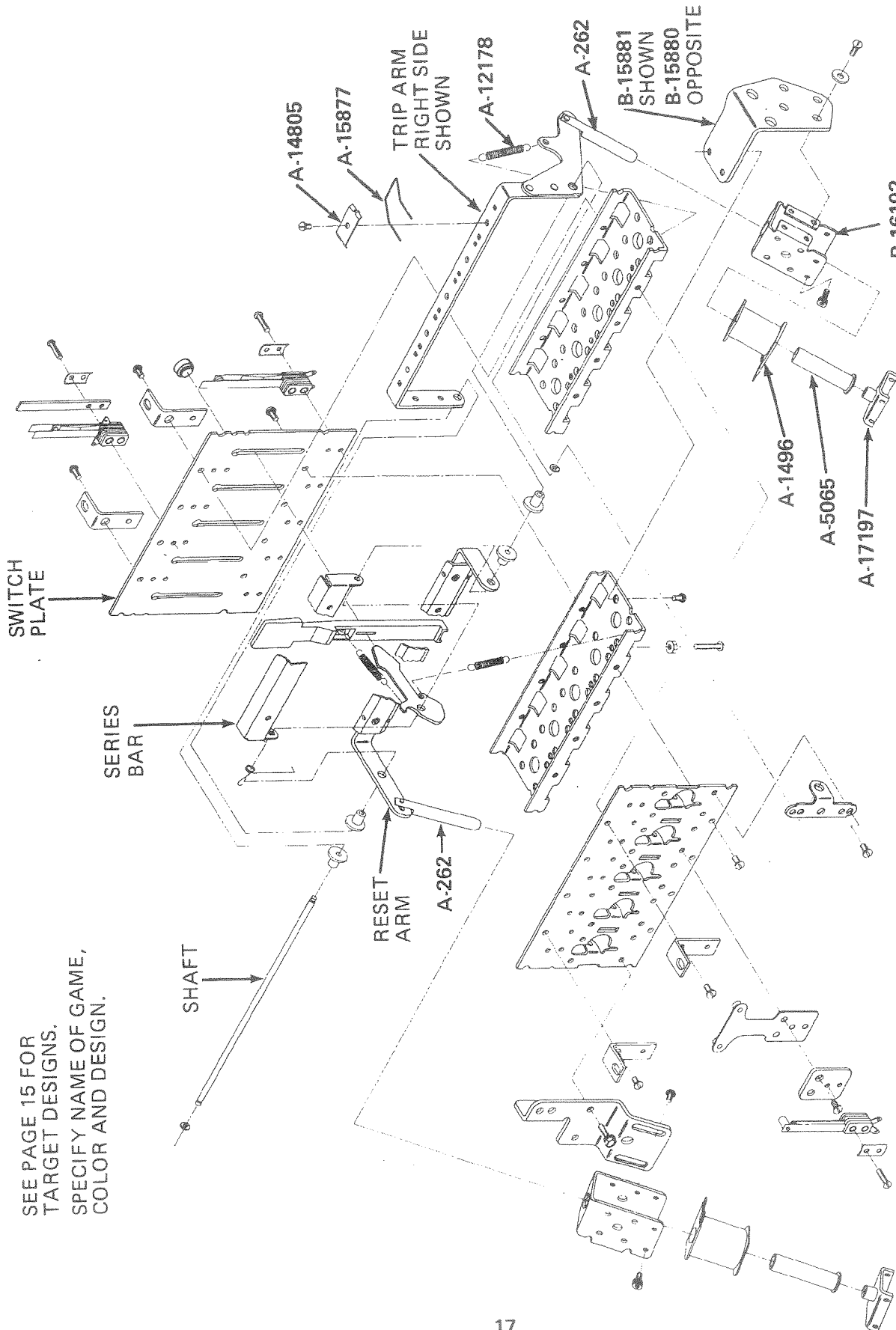
SIZE	SHAFT	RESET ARM	PIVOT PLATE	SWITCH PLATE	GUIDE PLATE	SERIES BAR
4	A-13402	B-15689	C-13409	C-13411	C-13413	A-14533
5	A-13403	B-15691	C-13410	C-13412	C-13414	A-14534
7	A-14527	B-15693	D-14530	C-14531	C-14532	A-14535
9	A-15617	B-15619	D-15620	D-15621	D-15622	A-15618
10	A-12179	B-15503	D-12186	D-12187	D-12188	A-14536

SEE PAGE 15 FOR TARGET DESIGNS. SPECIFY NAME OF GAME, COLOR AND DESIGN.

DROP TARGET

Gottlieb

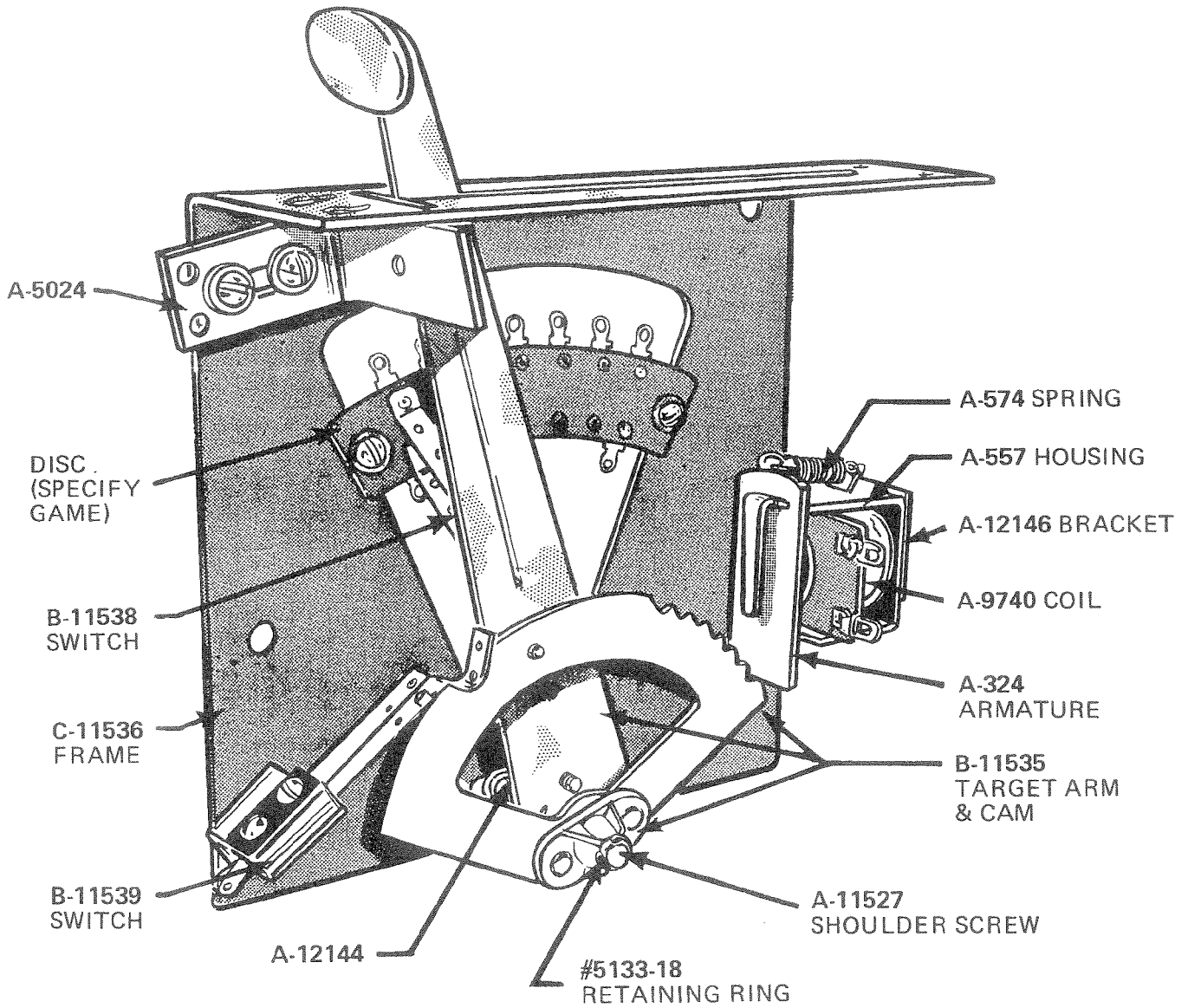
WITH TRIP ARM



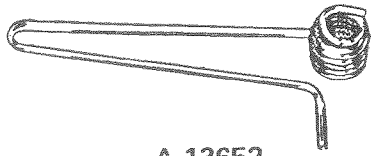
PARTS FOR DROP TARGETS WITH TRIP ARM

TARGETS	SHAFT	RESET ARM	PIVOT PLATE	SWITCH PLATE	GUIDE PLATE	SERIES BAR	TRIP ARM LEFT	TRIP ARM RIGHT
5	A-15878	B-15691	C-13410	C-13412	C-13414	A-14534	B-15883	B-15884
9	A-16406	B-15619	D-15620	D-15621	D-15622	B-15618	C-16404	C-16405

SEE PAGE 15 FOR TARGET DESIGNS. SPECIFY NAME OF GAME, COLOR AND DESIGN.



GATE



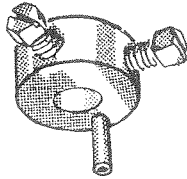
A-13652

GATE



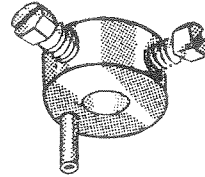
A-14099

BUSHING



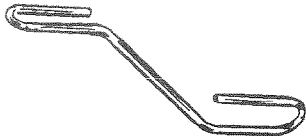
A-13656

BUSHING



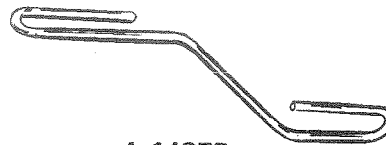
A-14376

ARMATURE WIREFORM

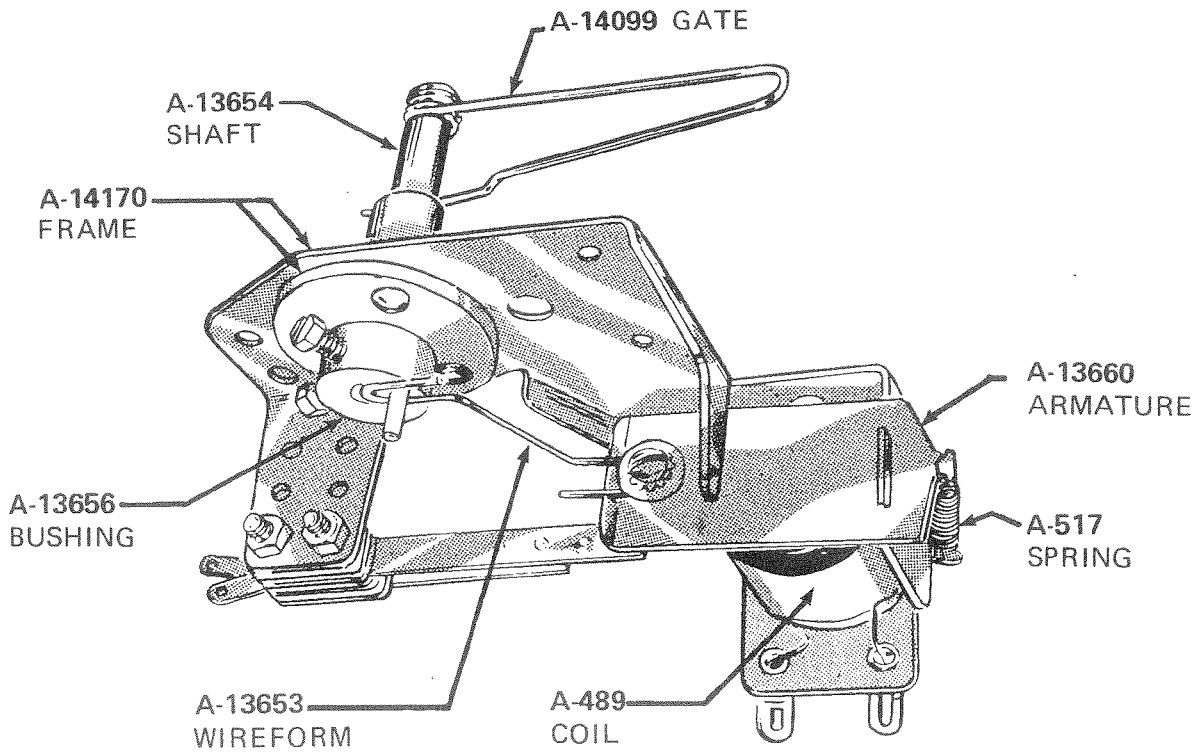


A-13653

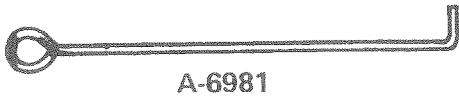
ARMATURE WIREFORM



A-14375



SWINGING TARGET SWITCH ROD



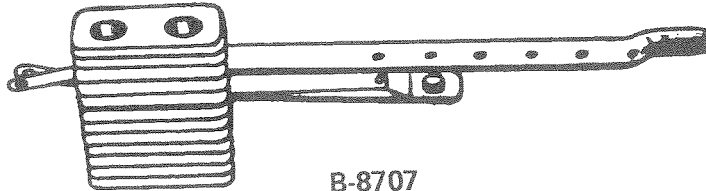
A-6981

SWINGING TARGET SWITCH ROD



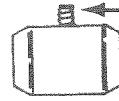
A-16381

SWINGING TARGET SWITCH



B-8707

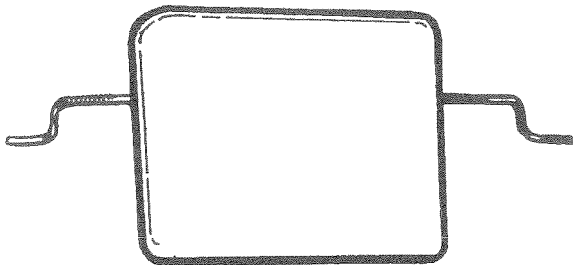
SWINGING TARGET SWITCH ROD WEIGHT



A-16382

6 - 32 X 1/4 ALLEN HEAD SET SCREW

SWINGING TARGET

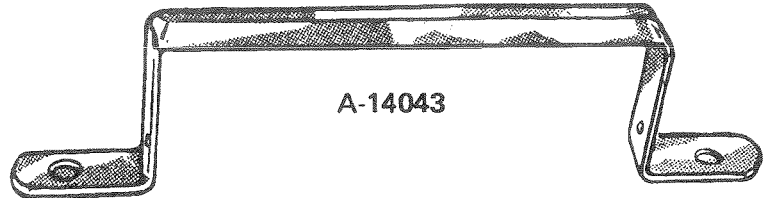


SWINGING TARGET SWITCH



B-16384

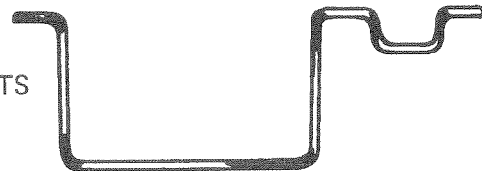
SWINGING TARGET SHIELD



A-14043

PART NUMBER	DESIGN
A-12796	CHECKERED
A-14271	10
A-14286	FOOTBALL
A-14514	LION
A-16116	SURFER
A-16305	BOWLING PIN
A-16439	SKULL & CROSS BONES

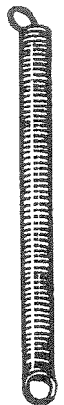
ROLLUNDER GATE



A-4706

ROLLUNDER PARTS

SPRING



A-14236

ROLLUNDER SWITCHES

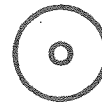


B-8709



B-8708

NYLON WASHER



A-7032

METAL SHIELD

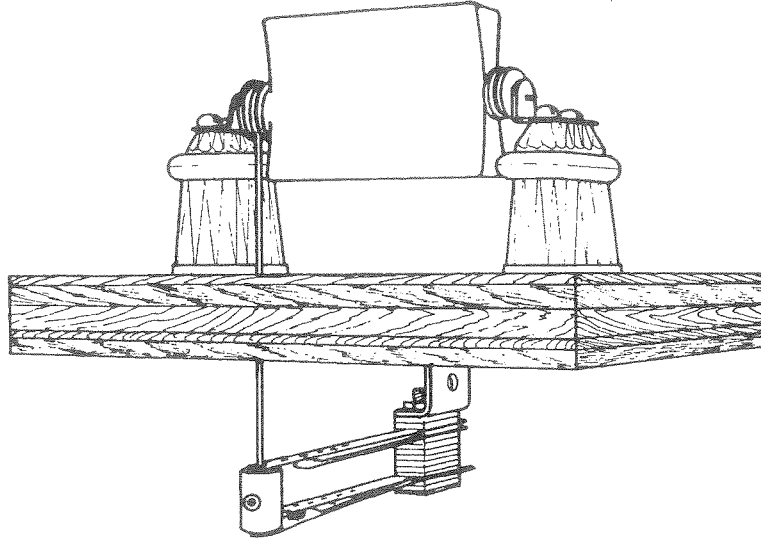


A-4869

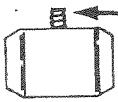
ROLLUNDER SWITCH BLADE LESS POINT



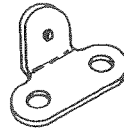
A-4830



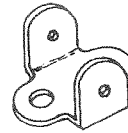
SWINGING TARGET SWITCH ROD WEIGHT



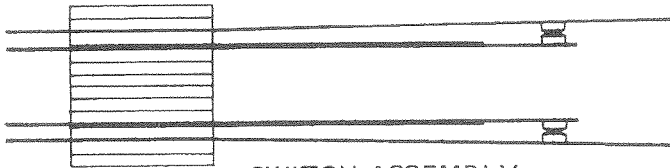
6 - 32 X 1/4 ALLEN HEAD SET SCREW



"L" BRACKET
A-17494

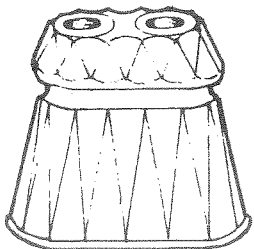


"U" BRACKET
A-17495

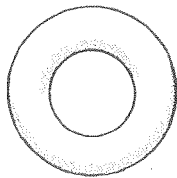


SWITCH ASSEMBLY
B-17497

PART NUMBER	MARKING
B-17175	BLANK
A-17559	EAGLE
A-17969	FOOTBALL

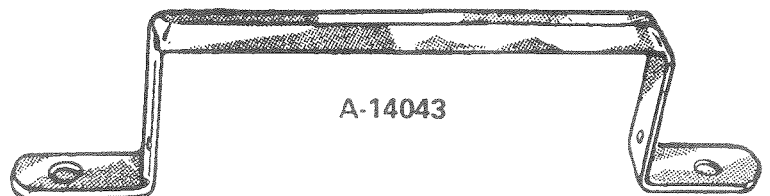


POST
C-17492



A-17493
RUBBER RING

SWINGING TARGET SHIELD



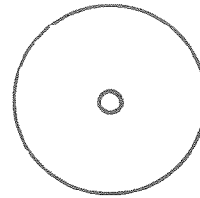
A-14043

(SPECIFY COLOR OF PLASTIC AND COLOR OF MARKING)

PART NUMBER	MARKING	ROUND	OCTAGON
A-9374	NONE	X	
A-9383	BULLSEYE	X	
A-11094	NONE		X
A-12290	CIRCLES	X	
A-12301	OCTAGONS	X	
A-13895	WHEEL		X
A-14273	FOOTBALL	X	
A-14396	STARS		X
A-14404	CLOWN	X	
A-14787	STAR	X	
A-14788	AZTEC	X	
A-15288	DIAMOND	X	
A-15290	HEART	X	
A-17385	STARS	X	

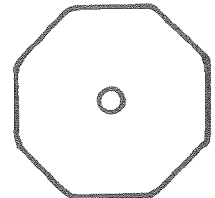
PLASTIC TARGETS

ROUND



A-9374

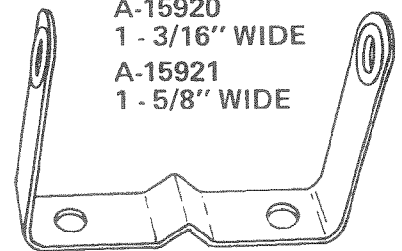
OCTAGON



A-11094

DIP TARGET PARTS

MOUNTING BRACKET



A-15920

1 - 3/16" WIDE

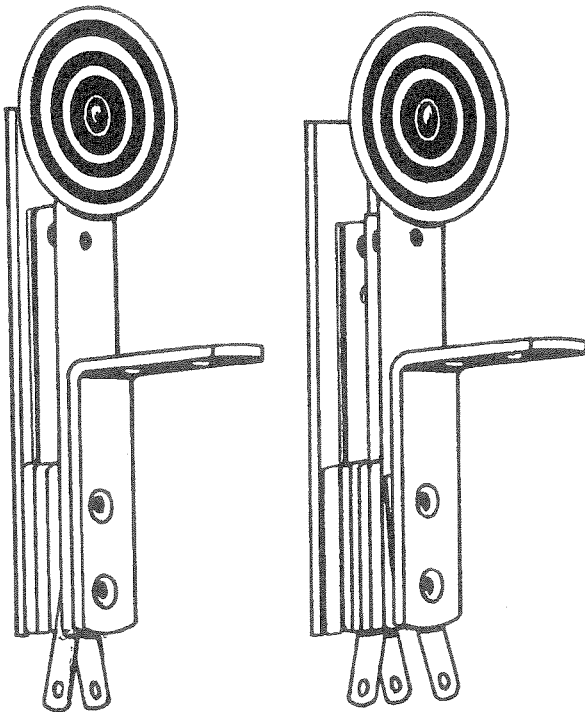
A-15921

1 - 5/8" WIDE

TARGET



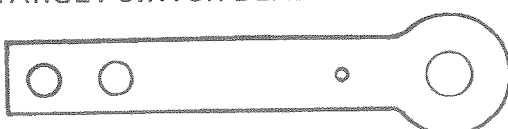
TARGET SWITCHES (SPECIFY MARKING)



B-9591

B-9592

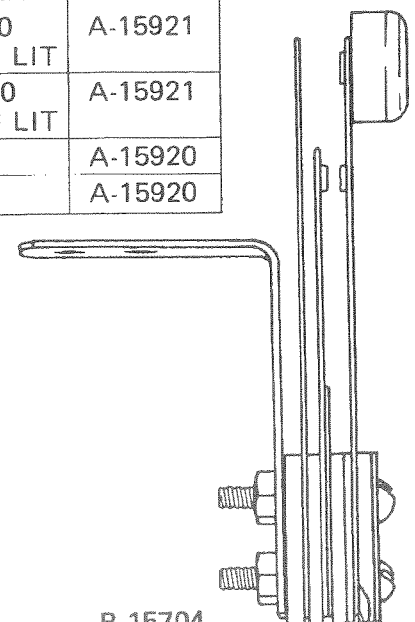
TARGET SWITCH BLADE WITH POINT



A-9589

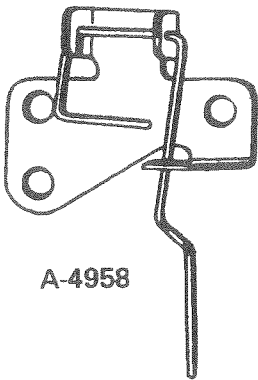
DIP TARGET	MARKING	MOUNTING BRACKET
A-15747	500 WHEN LIT	A-15921
A-15749	3000 WHEN LIT	A-15921
A-16188	5	A-15920
A-16190	6	A-15920

SWITCH

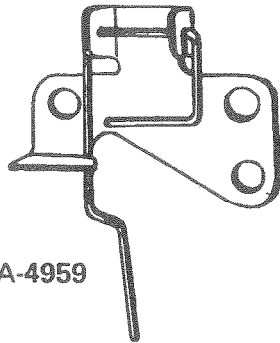


B-15704

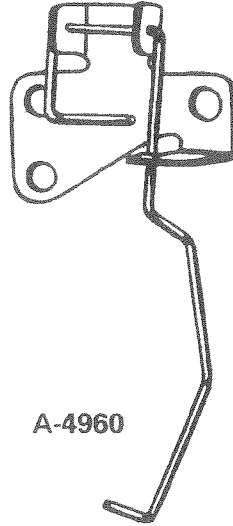
ROLLOVER WIRE ASSEMBLIES



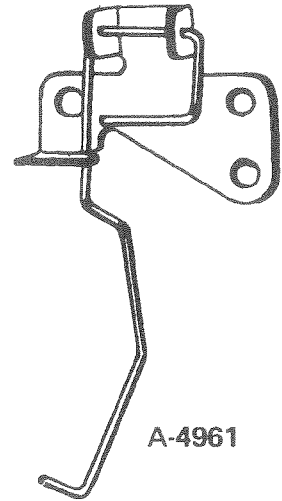
A-4958



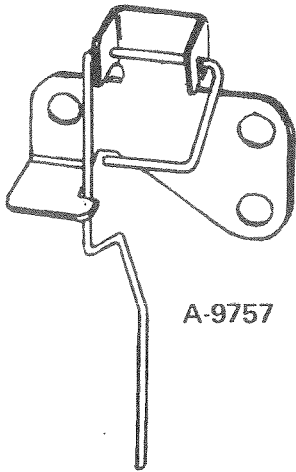
A-4959



A-4960

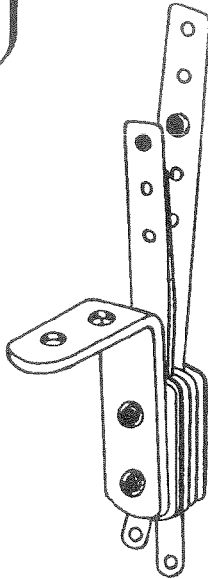


A-4961

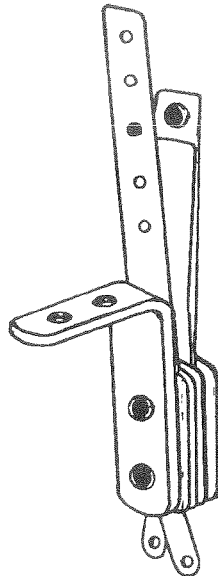


A-9757

RUBBER CONTACTS



B-17419



B-17424

ROLLOVER SWITCHES



B-8533
B-14650 LARGE POINTS

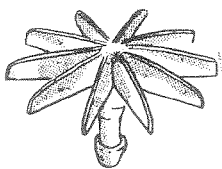


B-8534

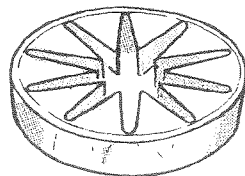


B-8535

TWIN STAR
ROLLOVER BUTTON AND INSERT



D-11968



D-11966

RUNWAY SWITCH

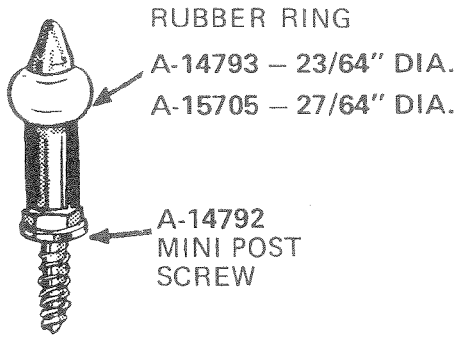


B-9328

TWIN STAR ROLLOVER
BUTTON SWITCH



B-12881



PIN



A-10542

PLASTIC POSTS

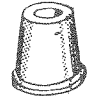


C-11561



C-11562

A-14488



A-14487

POST FASTENING SCREW



A-8857

NUT



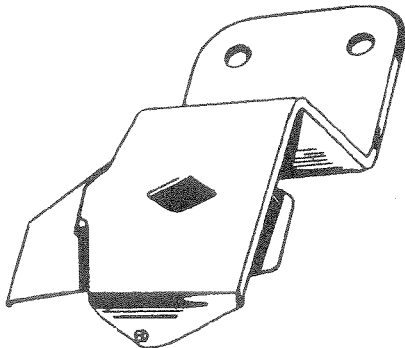
SC-125

RUBBER TIP



E-15

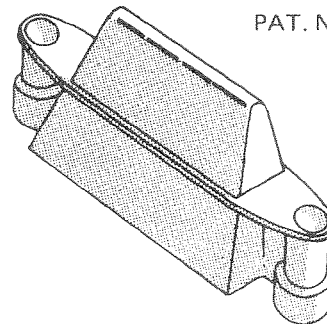
BALL GATE ASSEMBLY



A-3290

ROLLOVER GUIDE
(SPECIFY COLOR)

PAT. NO. D-238,435



C-15646 1-1/2" CENTERS
C-15647 2" CENTERS
C-15648 2-1/2" CENTERS

METAL RUNWAY SHIELD

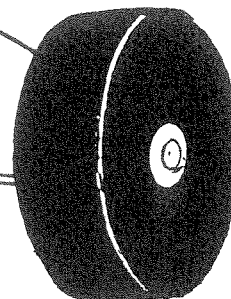


A-8215

REBOUND RUBBER
ASSEMBLY

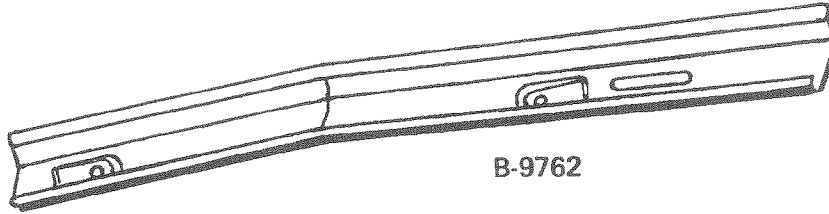
A-9143

A-1309
BRACKET & PIN



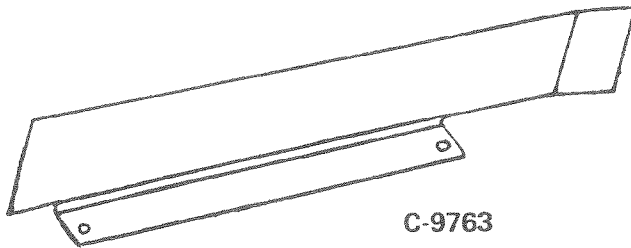
A-1344
REBOUND
RUBBER

BALL RETURN TRACK



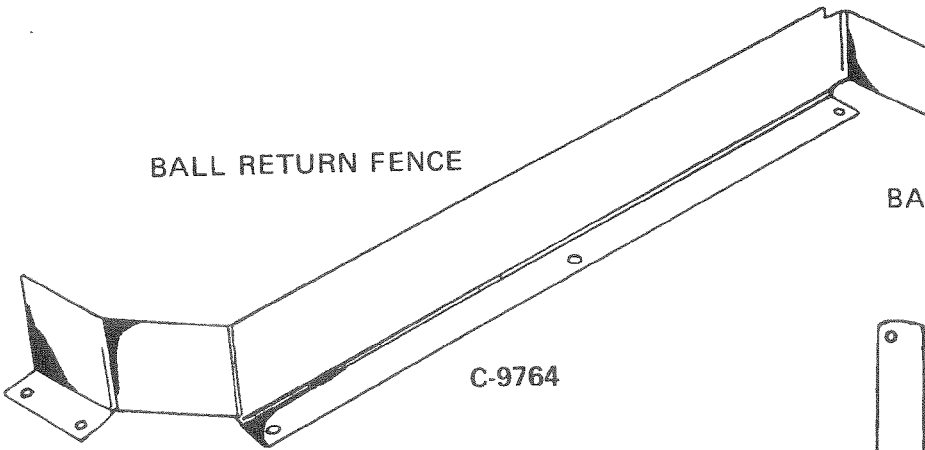
B-9762

BALL RETURN FENCE



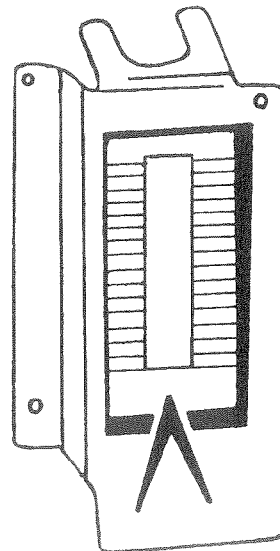
C-9763

BALL RETURN FENCE



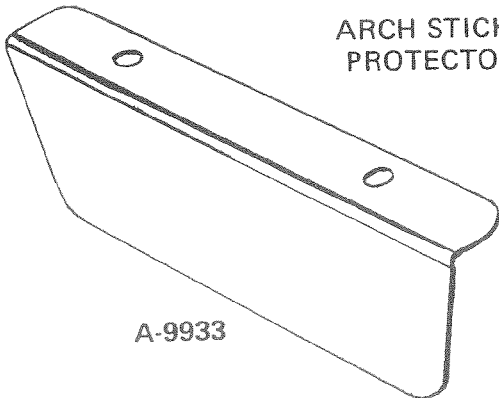
C-9764

BALL SHOOTER GAUGE



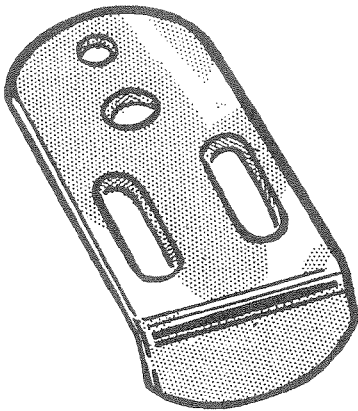
C-9767

ARCH STICK PROTECTOR



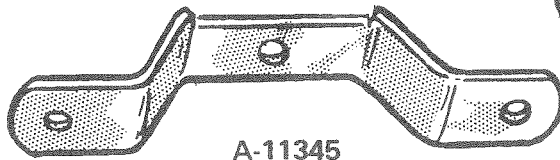
A-9933

FRONT REST HOOK



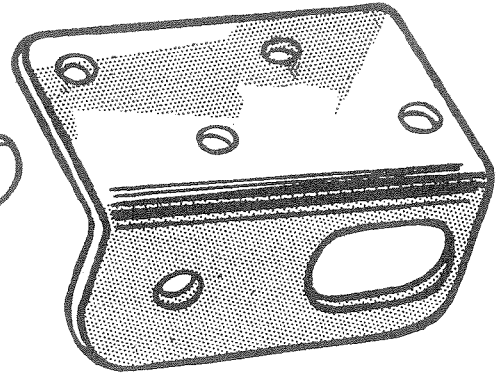
A-11346

FRONT REST SADDLE

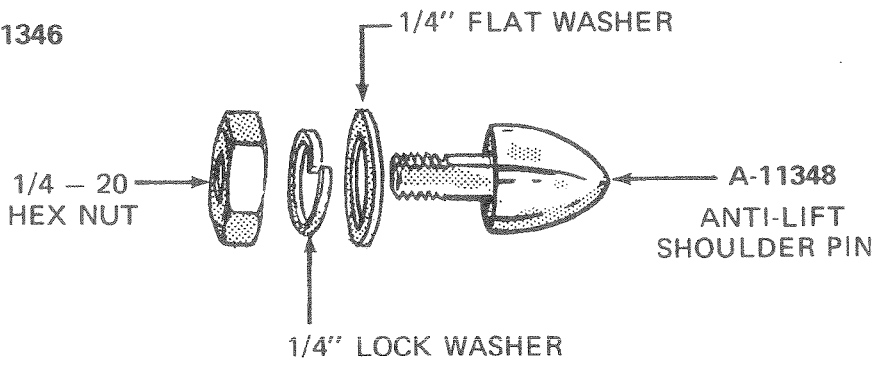


A-11345

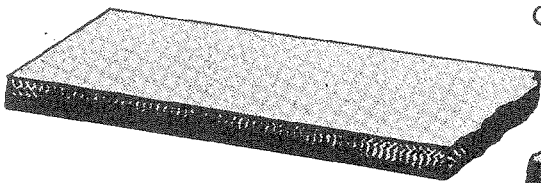
ANTI-LIFT BRACKET



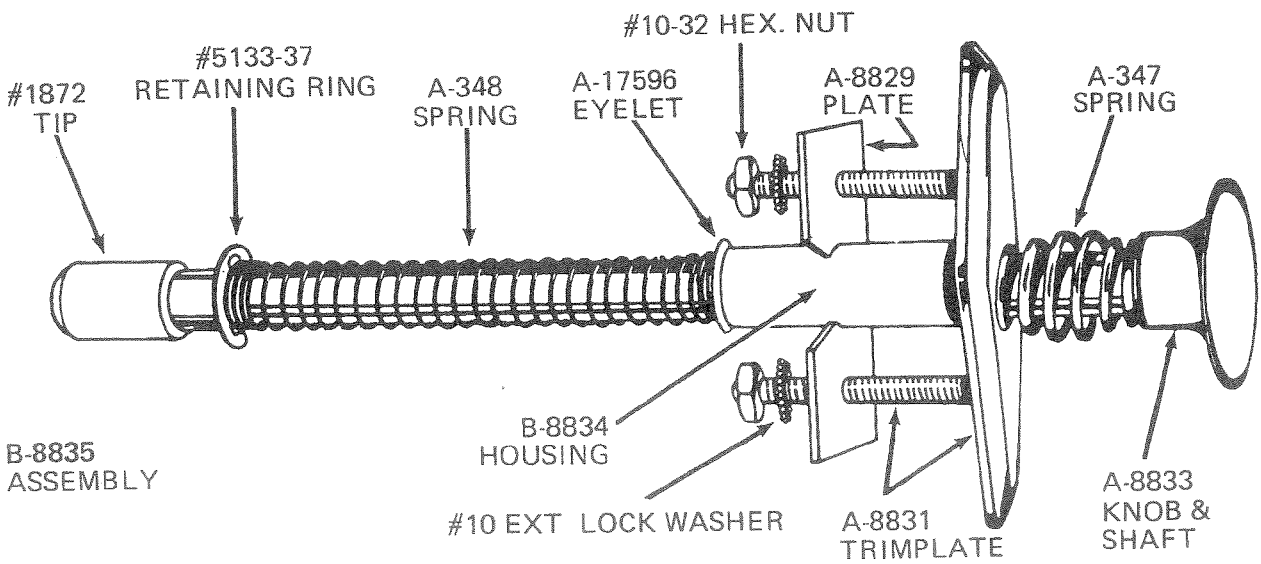
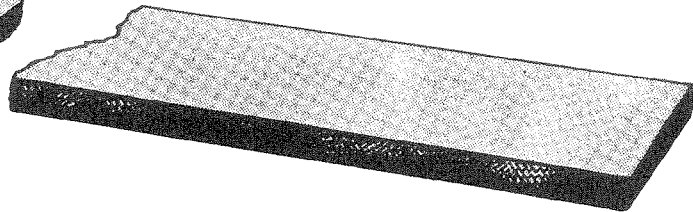
A-11347



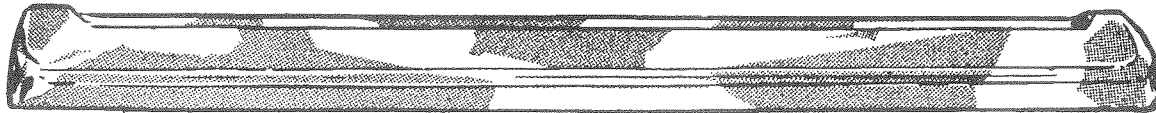
GLASS SEAL



A-15811

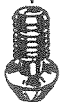


FRONT MOULDING ASSEMBLY



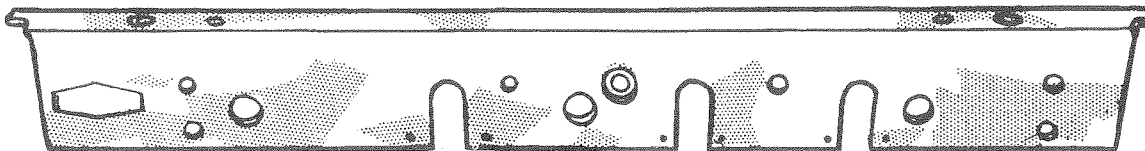
D-14008

3/2 x 1/4
ALLEN
SCREW

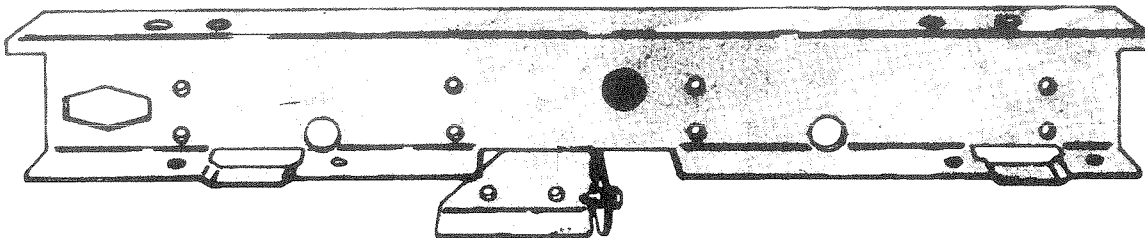


A-7408
ADJUSTMENT SCREW

LOCKDOWN MOULDING SLIDES



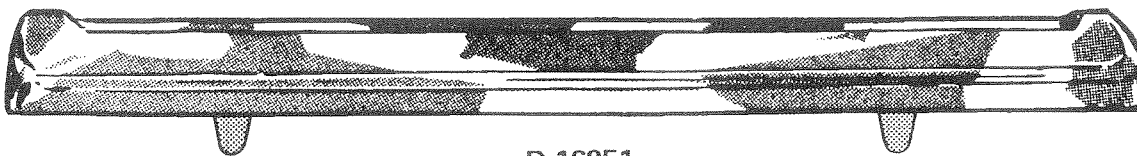
D-11352



D-15106

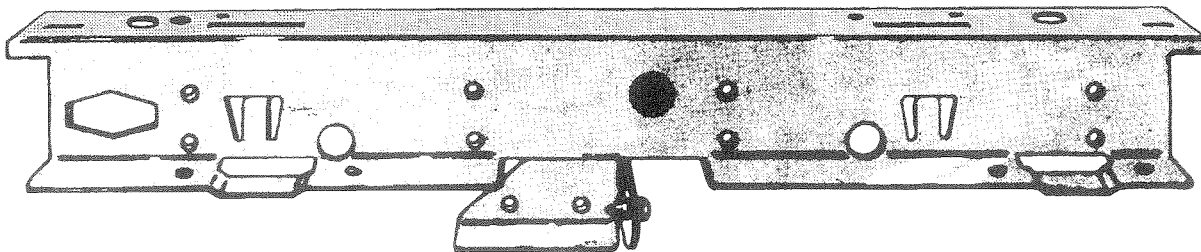
used with RECESSED FRONT DOOR & D-14008 MOULDING

FRONT MOULDING ASSEMBLY (RECESSED FRONT DOOR)

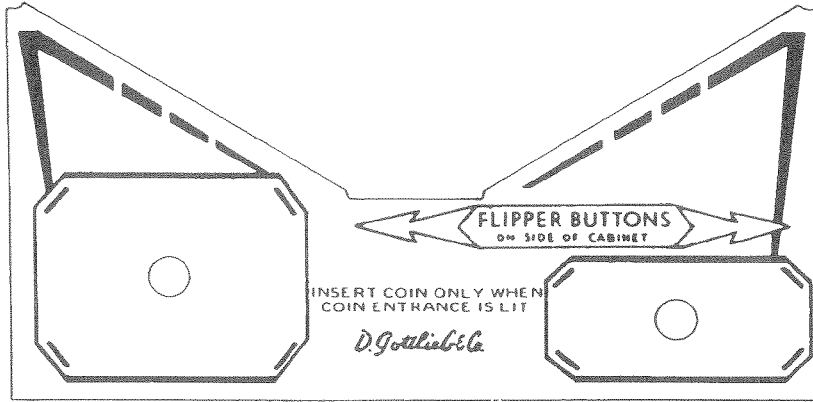


D-16951

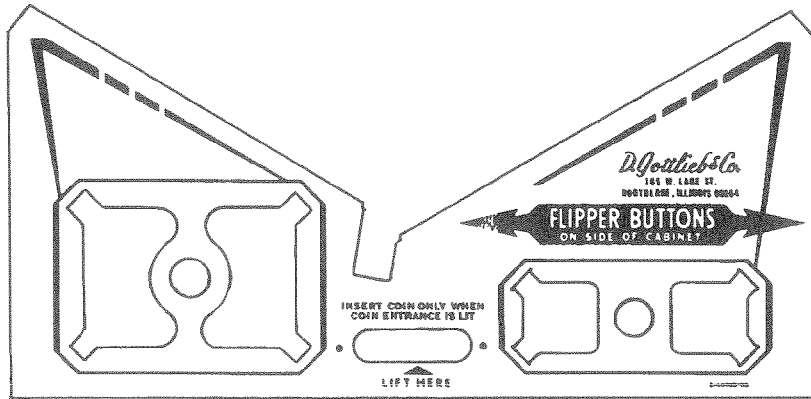
LOCKDOWN MOULDING SLIDE
(RECESSED FRONT DOOR)



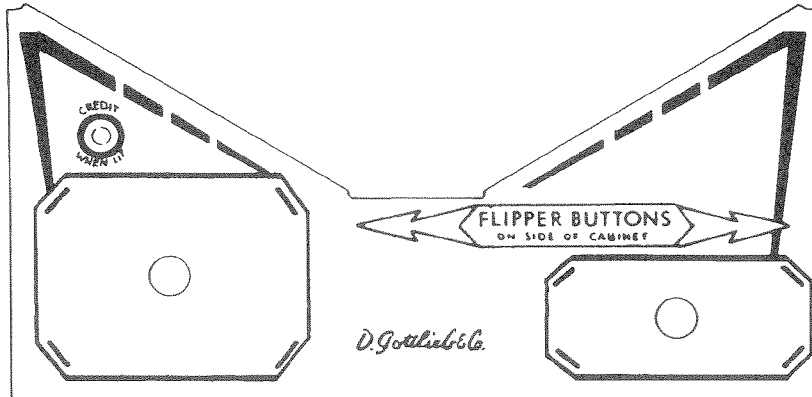
D-16949



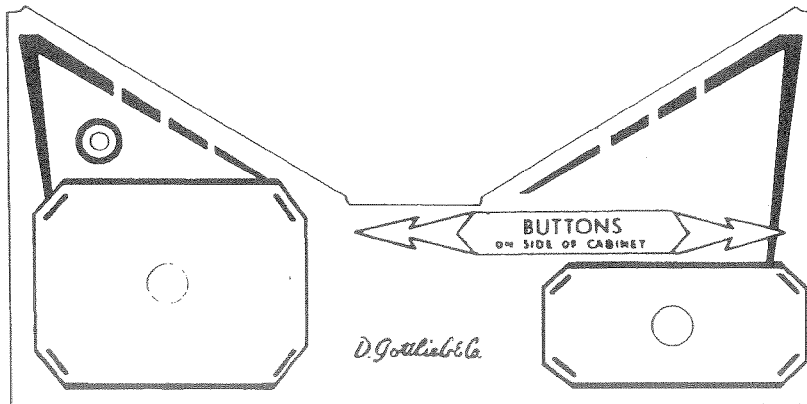
D-13647-1A



E-14910

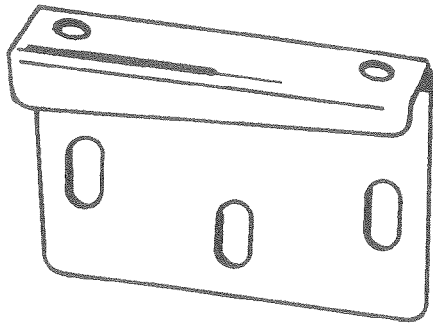


D-13761-A



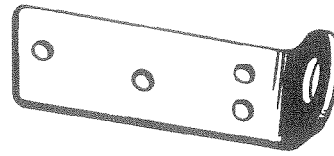
D-13761-B

LIGHT BOX
LOCK STRIKE PLATE



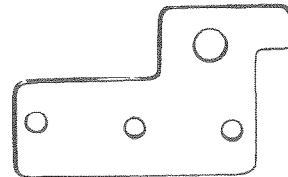
A-8560

LIGHT BOX INSERT HINGE PIVOT



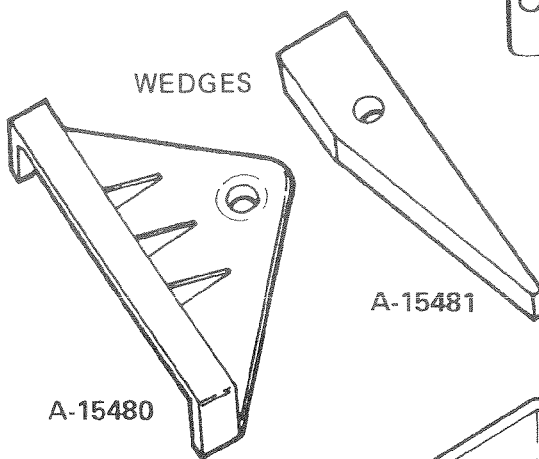
A-4758

LIGHT BOX INSERT HINGE PIN



A-4759

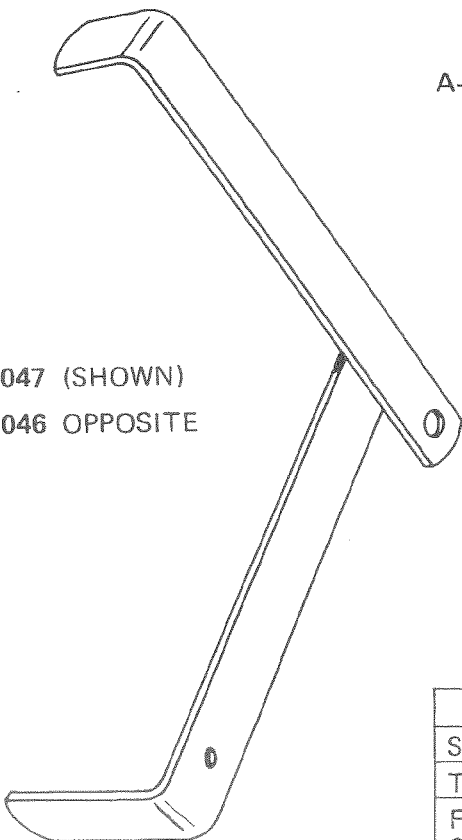
WEDGES



A-15480

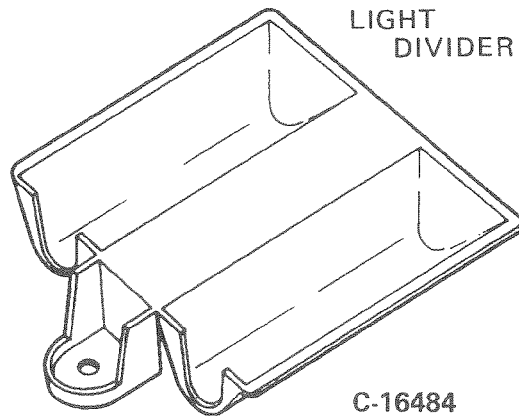
A-15481

INSERT LOCK LEVER



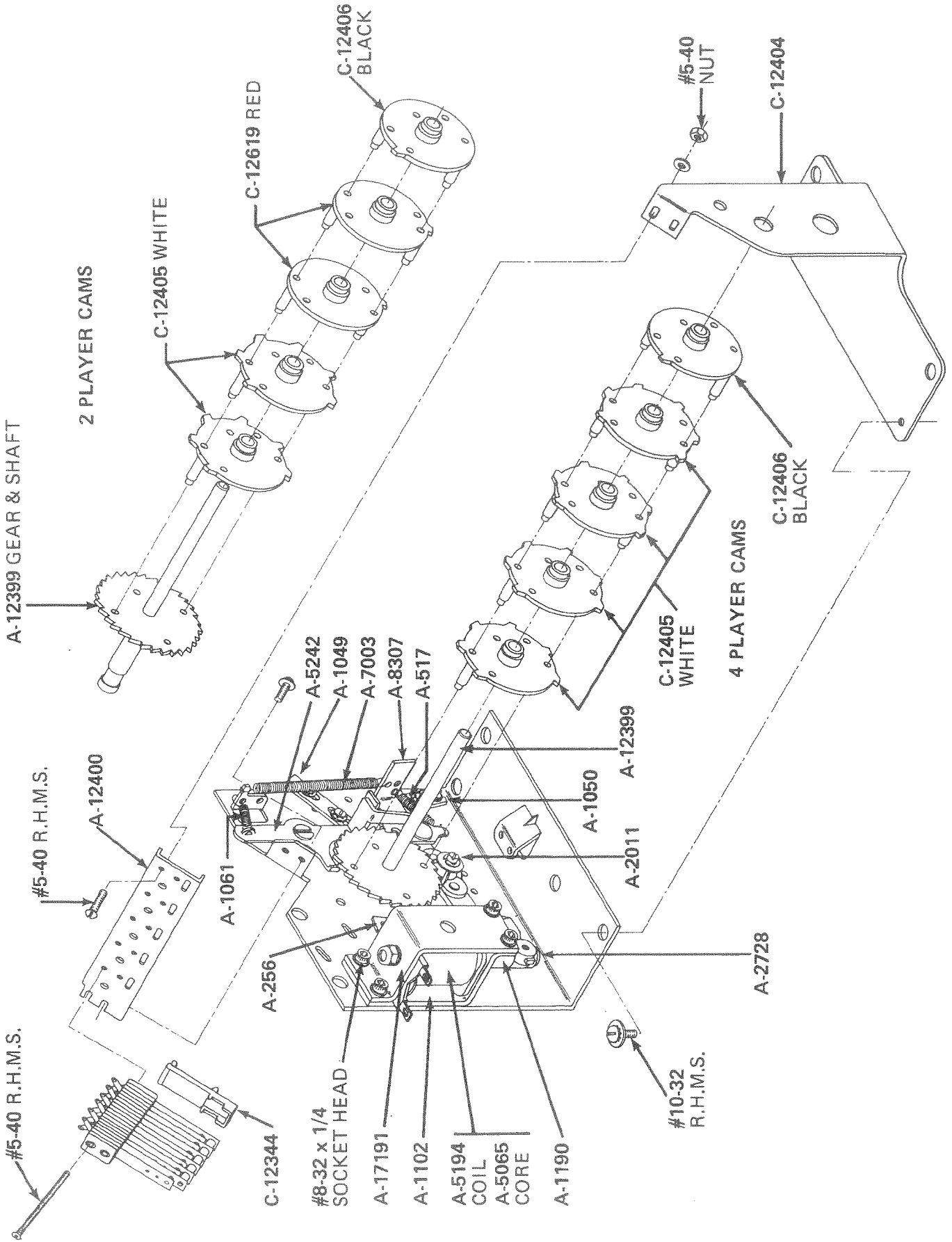
B-6047 (SHOWN)
B-6046 OPPOSITE

LIGHT
DIVIDER

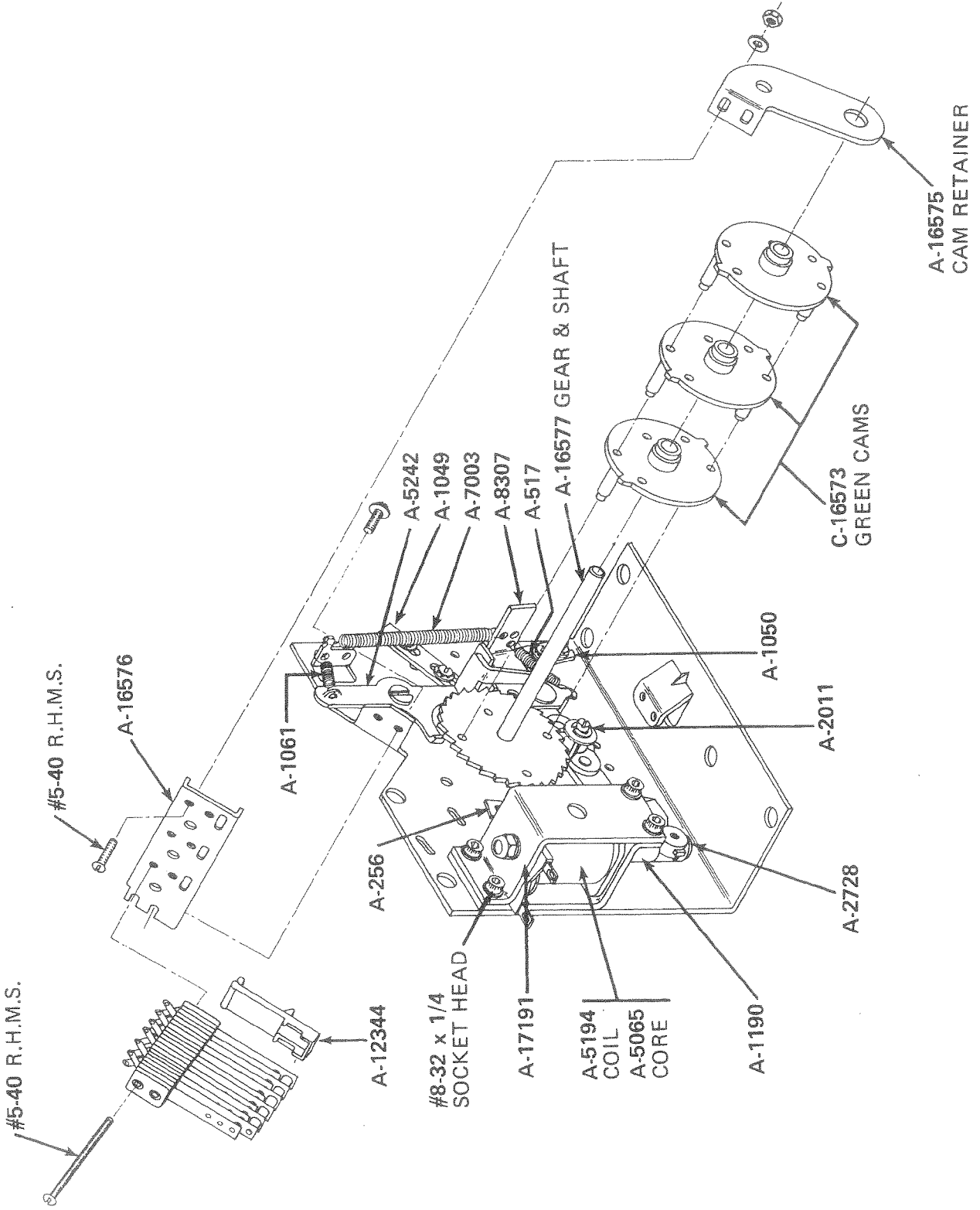


C-16484

TYPE	LIGHTBOX	DOOR	CHANNEL
SINGLE PLAYER	D-8624	D-8563	C-8561
TWO PLAYER	D-8627	D-8564	C-8562
FOUR PLAYER GLASS SIZE 24 x 26	D-10824	D-10813	C-8562
FOUR PLAYER GLASS SIZE 26 x 26	D-16745	D-16758	C-8562



FOR 2 PLAYER GAMES STARTING WITH FIRE QUEEN



BONUS UNIT WITH RESET

NOT SHOWN

A-5194
RESET COIL

A-5064 CORE

A-17195 COIL STOP
AND MOUNTING
BRACKET

A-272 PLUNGER

A-2820 LINK

#8-32 x 1/4
SOCKET HEAD
CAP SCREW

A-17197
BRACKET
& STOP

B-16192
COIL
HOUSING

A-5194
COIL
A-5065
CORE

A-2728

A-1190

A-8307

A-1070

A-2011

#5133-18

B-14023

A-10271

A-1279

A-1061

A-1058

GEAR & SHAFT
(REFER TO
GAME PARTS LIST)

A-7003

A-256

A-729

A-1345

Adjust zero stop A-10271 so that reset lever A-1279 rests in base of tooth.

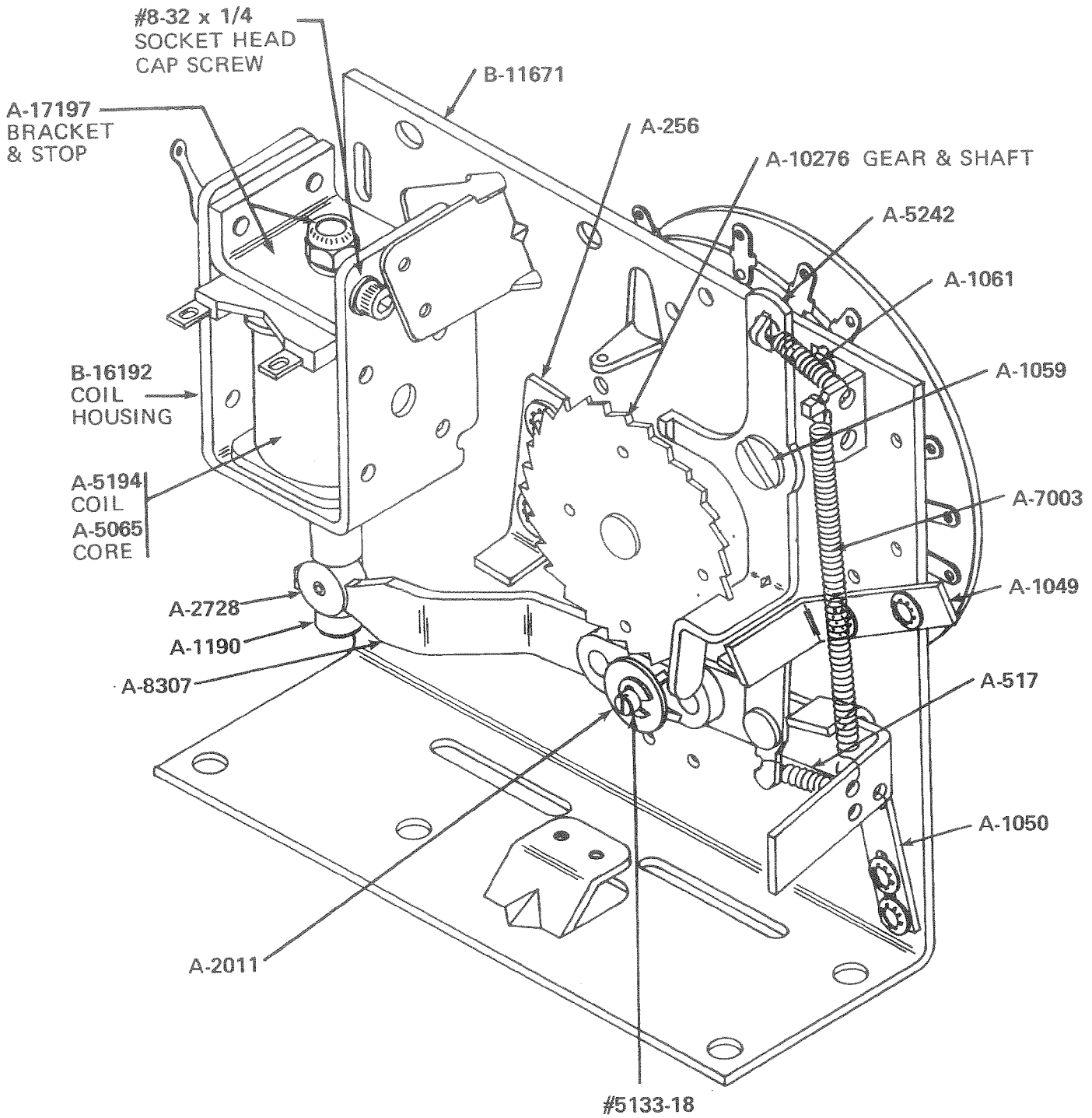
Adjust stop A-256 near drive spring, so that step-up pawl will move gear just to point where reset lever A-1279 comes to rest at base of tooth as unit is stepped.

Hold plunger A-1190 against coil stop and adjust coil case up or down so that step-up pawl has moved approximately 1½ teeth.

Hold drive lever (A-8307) in, adjust stop A-256 (stop near step-up coil) against drive lever A-8307.

WHEN ORDERING PARTS, SPECIFY PART NO. AND NAME OF GAME.

NO RESET



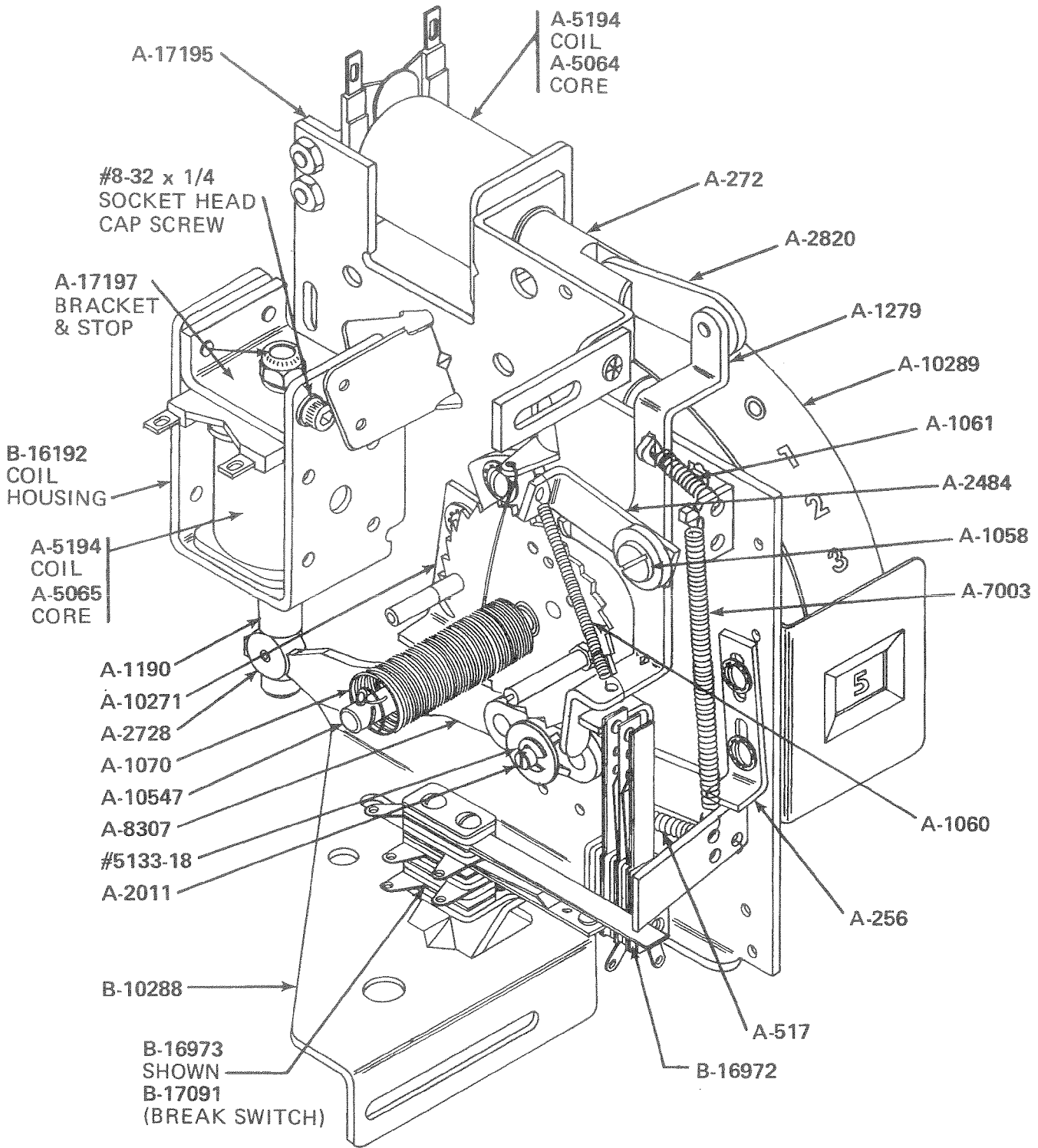
Adjust stop A-1050 so that step-up pawl will move gear just to point where reset lever A-5242 comes to rest at base of tooth as unit is stepped.

Adjust A-1049 jam stop to jam against step-up pawl.

Hold plunger A-1190 against coil stop and adjust coil case up or down so that step-up pawl has moved approximately 1½ teeth.

Hold drive lever (A-8307) in, adjust stop A-256 against drive lever A-8307.

WHEN ORDERING PARTS, SPECIFY PART NO. AND NAME OF GAME.



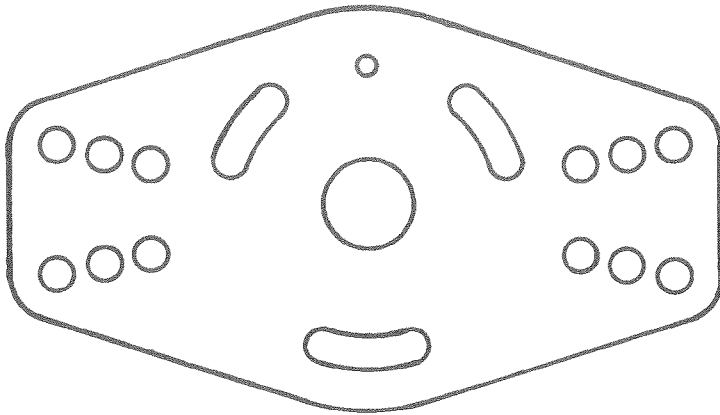
Adjust zero stop A-10271 so that reset lever A-1279 rests in base of tooth.

Adjust stop A-256 near drive spring, so that step-up pawl will move gear just to point where reset lever A-1279 comes to rest at base of tooth as unit is stepped.

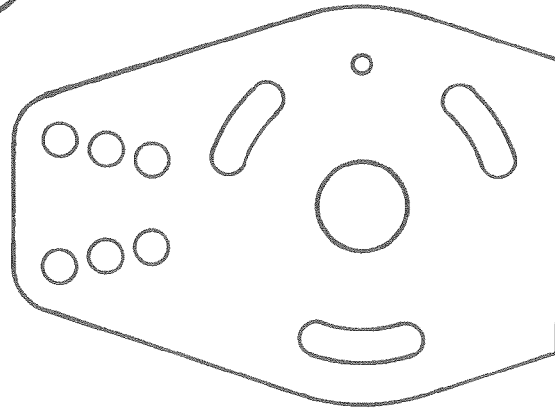
Hold plunger A-1190 against coil stop and adjust coil case up or down so that step-up pawl has moved approximately 1½ teeth.

Hold drive lever (A-8307) in, adjust stop A-256 (stop near step-up coil) against drive lever A-8307.

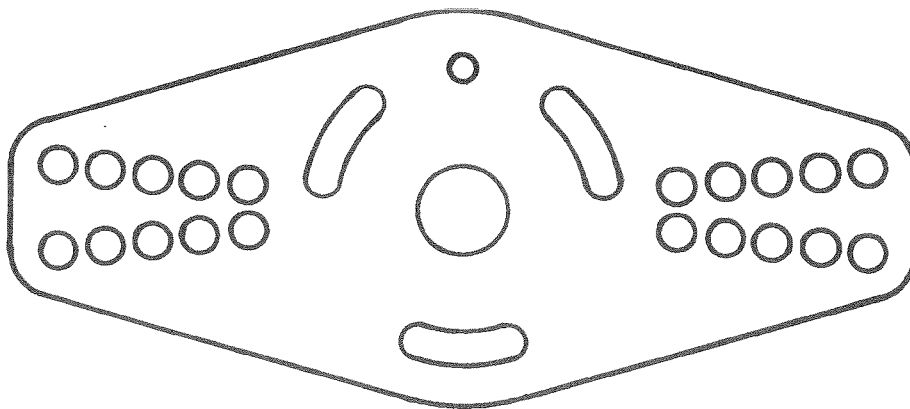
WHEN ORDERING PARTS, SPECIFY PART NO. AND NAME OF GAME.



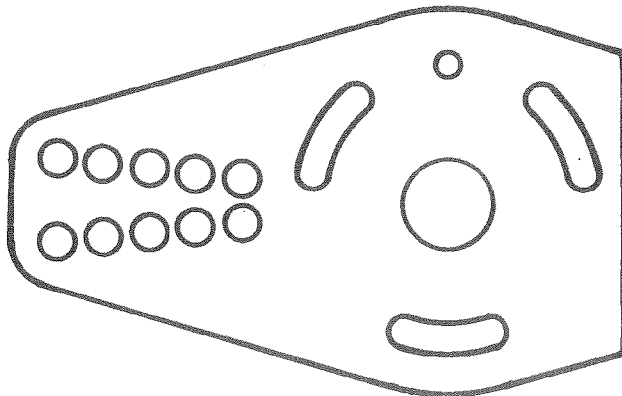
B-10277



A-10278



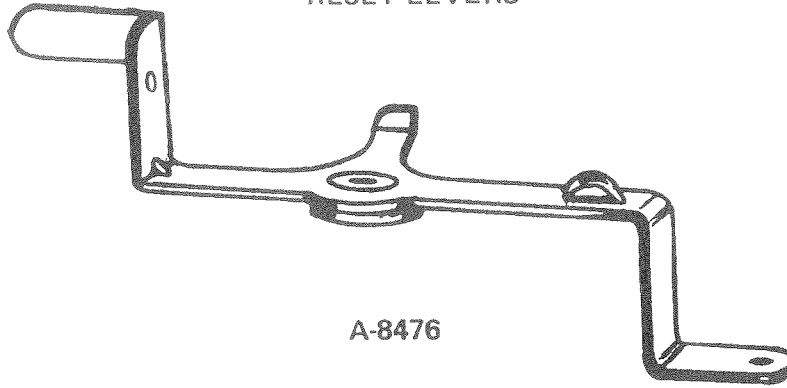
B-10279



A-10280

REFER TO GAME CHART PARTS LIST IN THE BACK OF THE CATALOG FOR COMPLETE WIPER ASSEMBLIES. THESE ASSEMBLIES CONSIST OF BUSHINGS, SPRINGS AND WIPER FINGERS.

RESET LEVERS

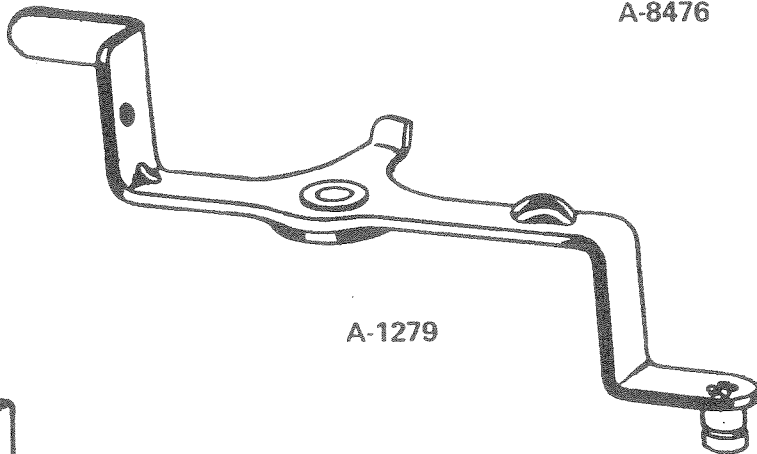


A-8476

RESET LINK

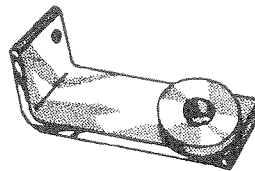


A-2820



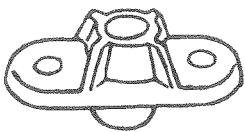
A-1279

SUBTRACT PAWL



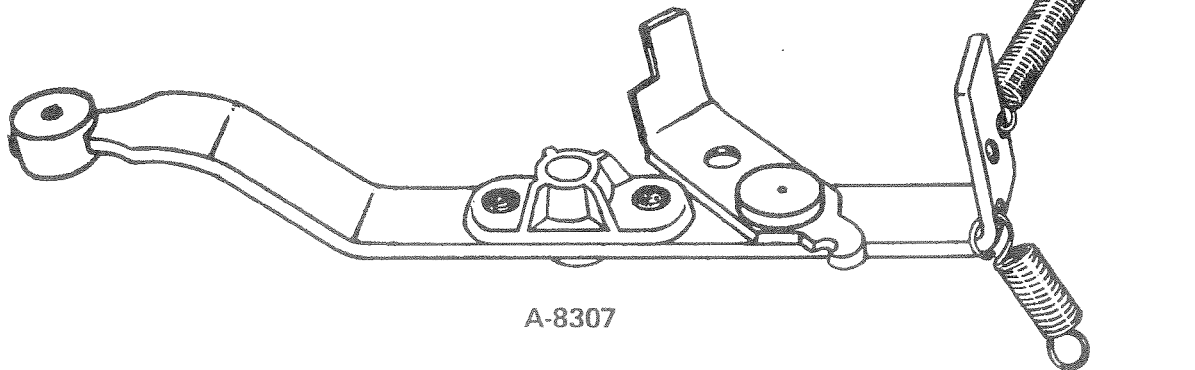
A-2484

BUSHING



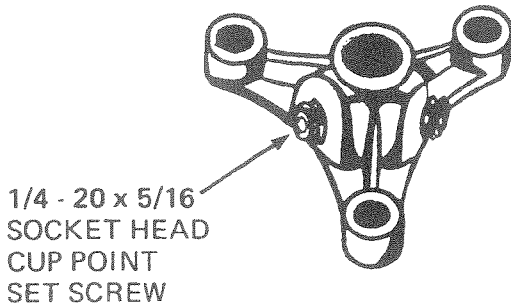
B-8230

DRIVE LEVER ASSEMBLY



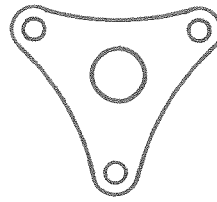
A-8307

WIPER MOUNTING SPIDER



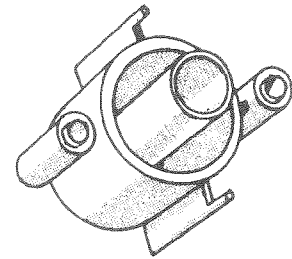
B-9711 3/8" SHAFT

WIPER COVER PLATE



A-10285

NYLON SHAFT BEARING



D-16274

WIPER FINGER BUSHING



A-7292

WIPER FINGER



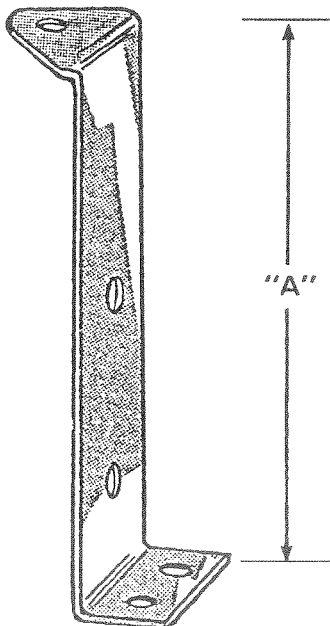
A-7291

WIPER FINGER SPRING



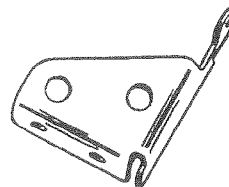
A-307

UNIT MOUNTING BRACKET

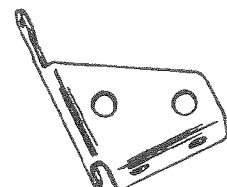


A-14754 "A" 2-7/8"
A-14755 "A" 4-1/4"

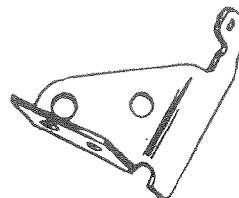
UNIT MOUNTING BRACKETS



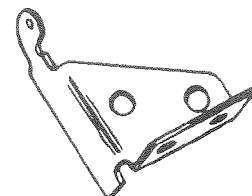
A-6944



A-6943

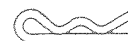


A-6942



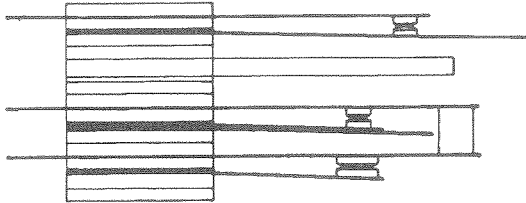
A-6941

HAIRPIN FASTENER

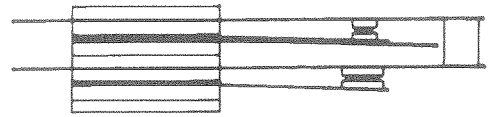


A-6947

ZERO POSITION, REPLAY UNIT

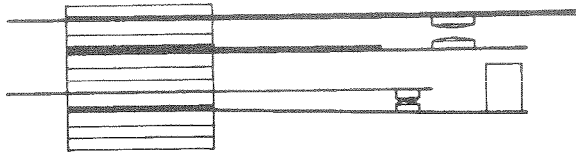


B-8519 (SHOWN)
B-10668 (ALL SMALL POINTS)

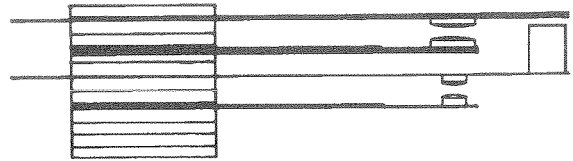


B-10296

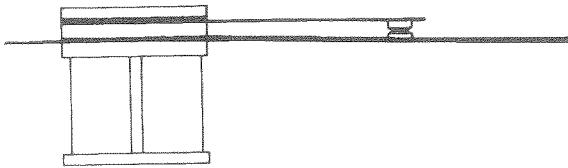
DRIVE ARM, REPLAY UNIT



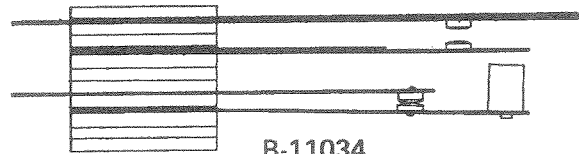
B-8520



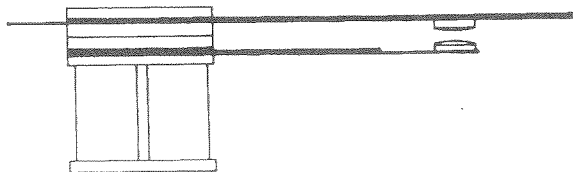
B-10524



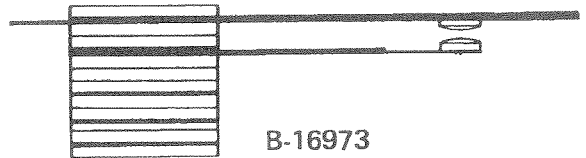
B-8521



B-11034



B-8522 (SHOWN)
B-10587 (SMALL POINTS)



B-16973

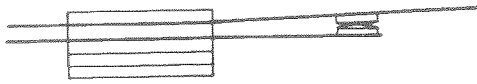
USED ON SUBTRACT ARM
REPLAY UNIT



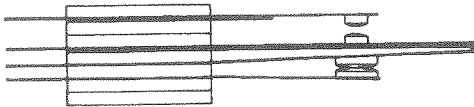
B-16972

STEP SWITCH UNITS

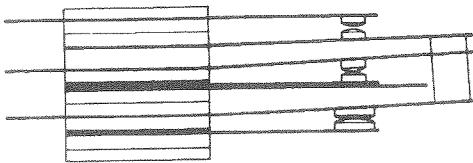
USED ON ZERO POSITION



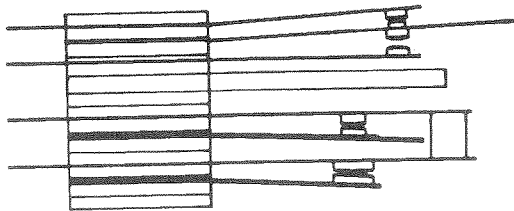
B-8525 (SHOWN)
B-11542 (SMALL POINTS)



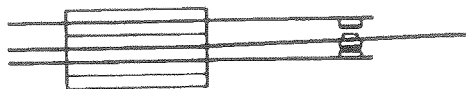
B-8526 (SHOWN)
B-12408 (ALL SMALL POINTS)



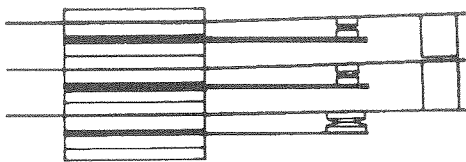
B-8527 (SHOWN)
B-11353 (ALL SMALL POINTS)



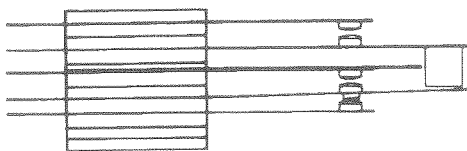
B-9593



B-10150



B-10740 (SHOWN)
B-12012 (ALL SMALL POINTS)

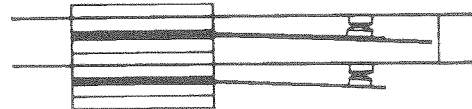


B-10816

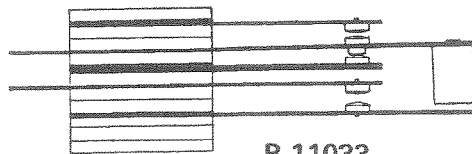
USED ON ZERO POSITION



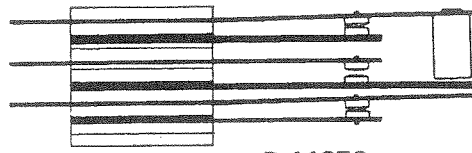
B-10883



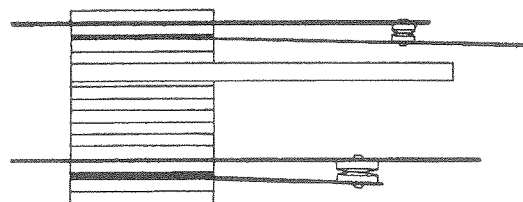
B-10996



B-11033

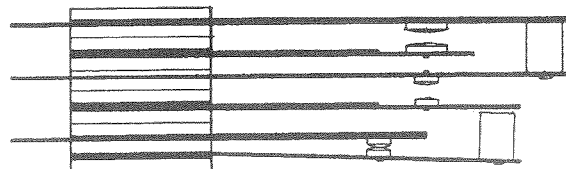


B-11852



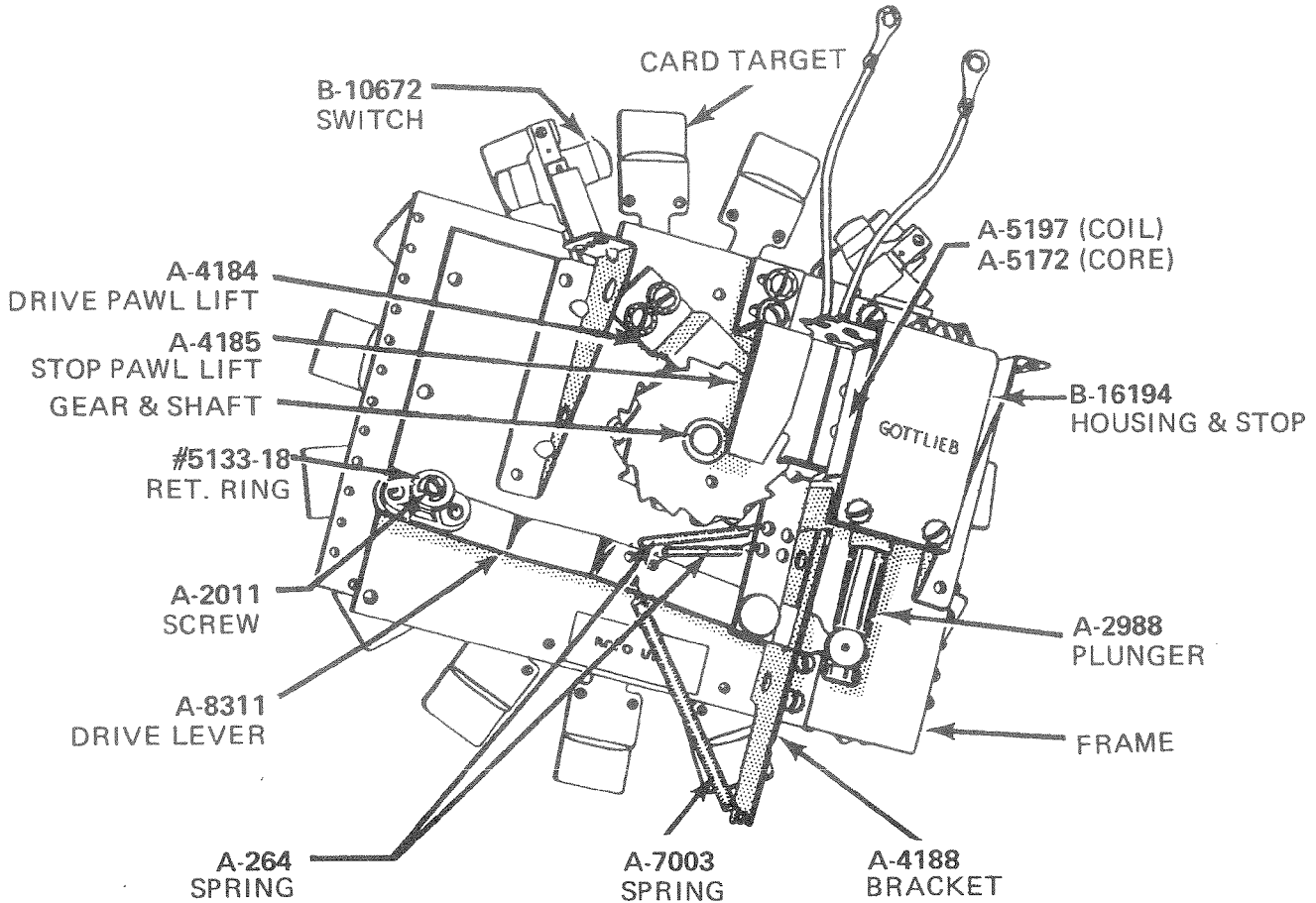
B-11902 (SHOWN)
B-12418 (ALL SMALL POINTS)

USED ON DRIVE POSITION

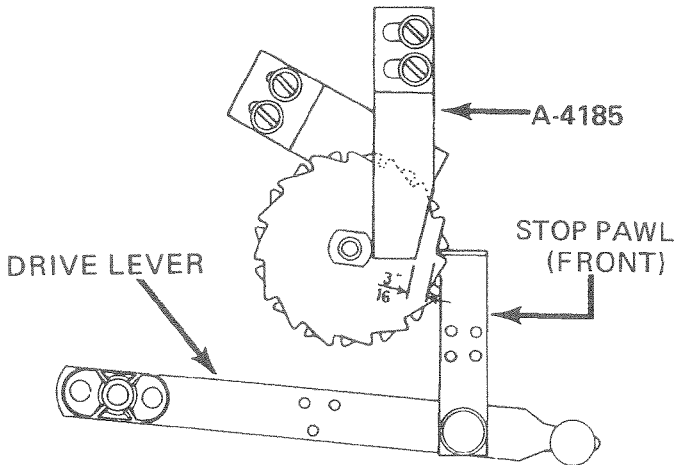


B-11219

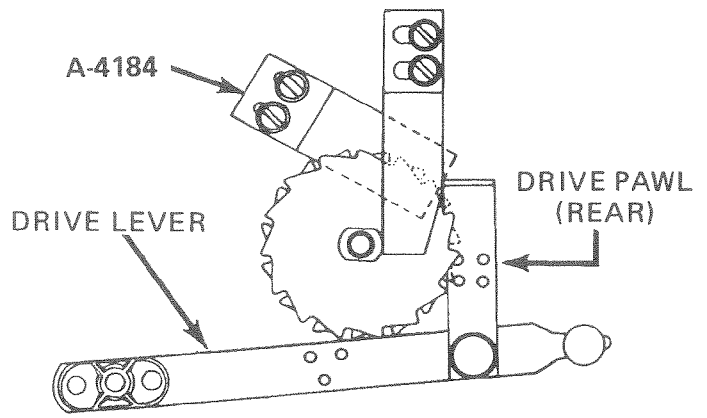
CLOCKWISE ROTATION UNIT SHOWN



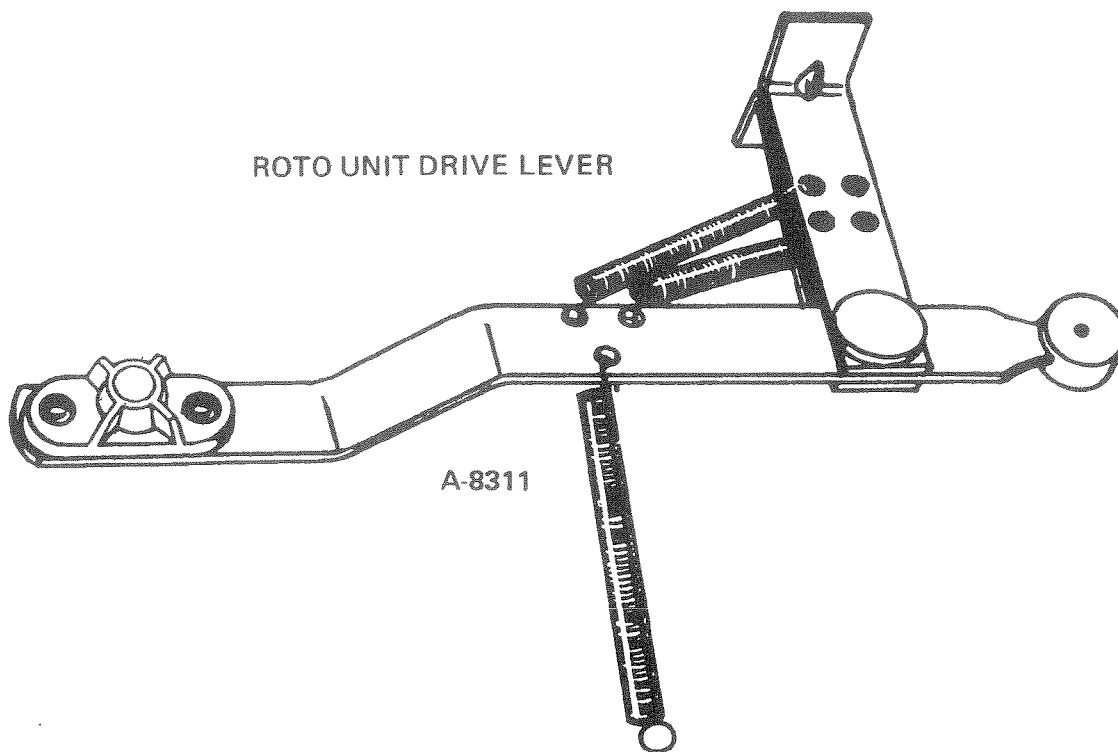
ROTO UNIT ADJUSTMENT INSTRUCTIONS



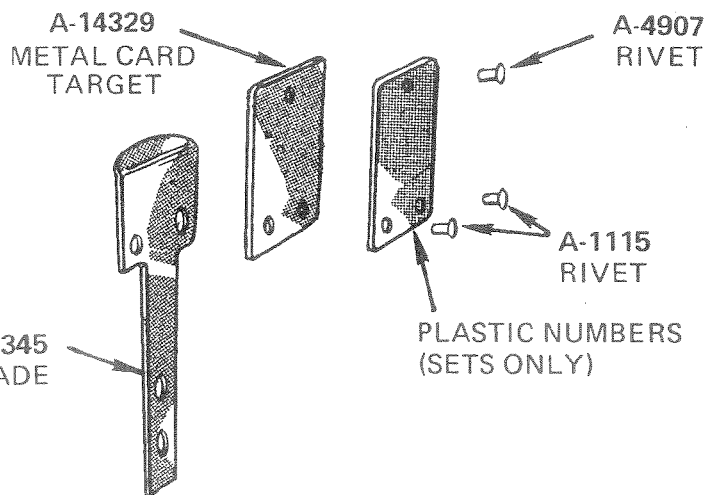
Adjust stop pawl lift A-4185 with drive lever in at rest position. The space between the stop pawl and A-4185 is $\frac{3}{16}$ inch. Note relation of teeth on ratchet to A-4185 for visual check.



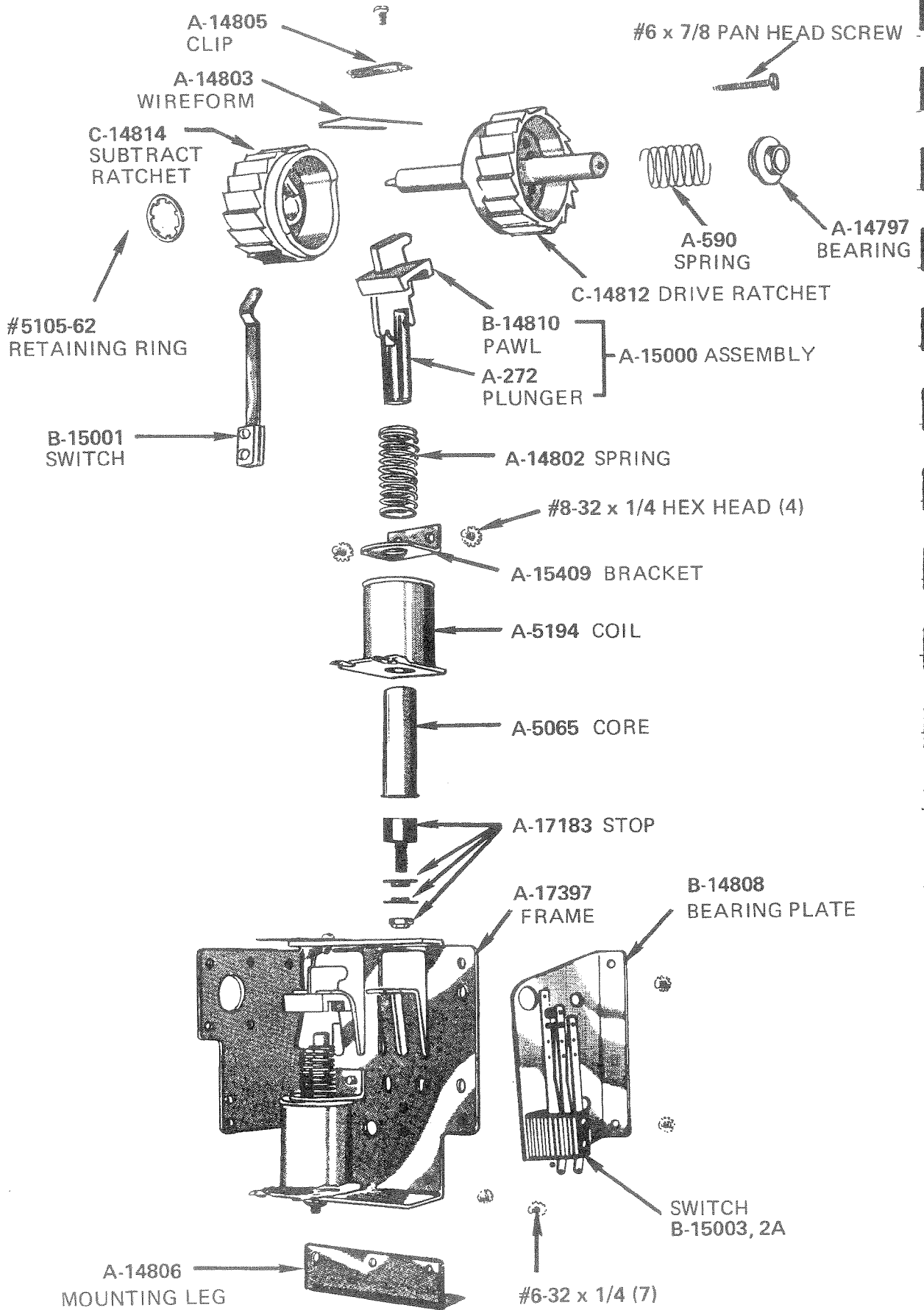
Adjust drive pawl lift A-4184 with drive lever in energized position. Drive Pawl should clear spinning ratchet by $\frac{1}{32}$ -in. Both pawls should be clear of ratchet at this position. Stroke of plunger in coil is $\frac{7}{8}$ inch.



SPIN OUT PLASTIC TARGET SET A-15734
JET SPIN, SUPER SPIN PLASTIC TARGET SET A-16894



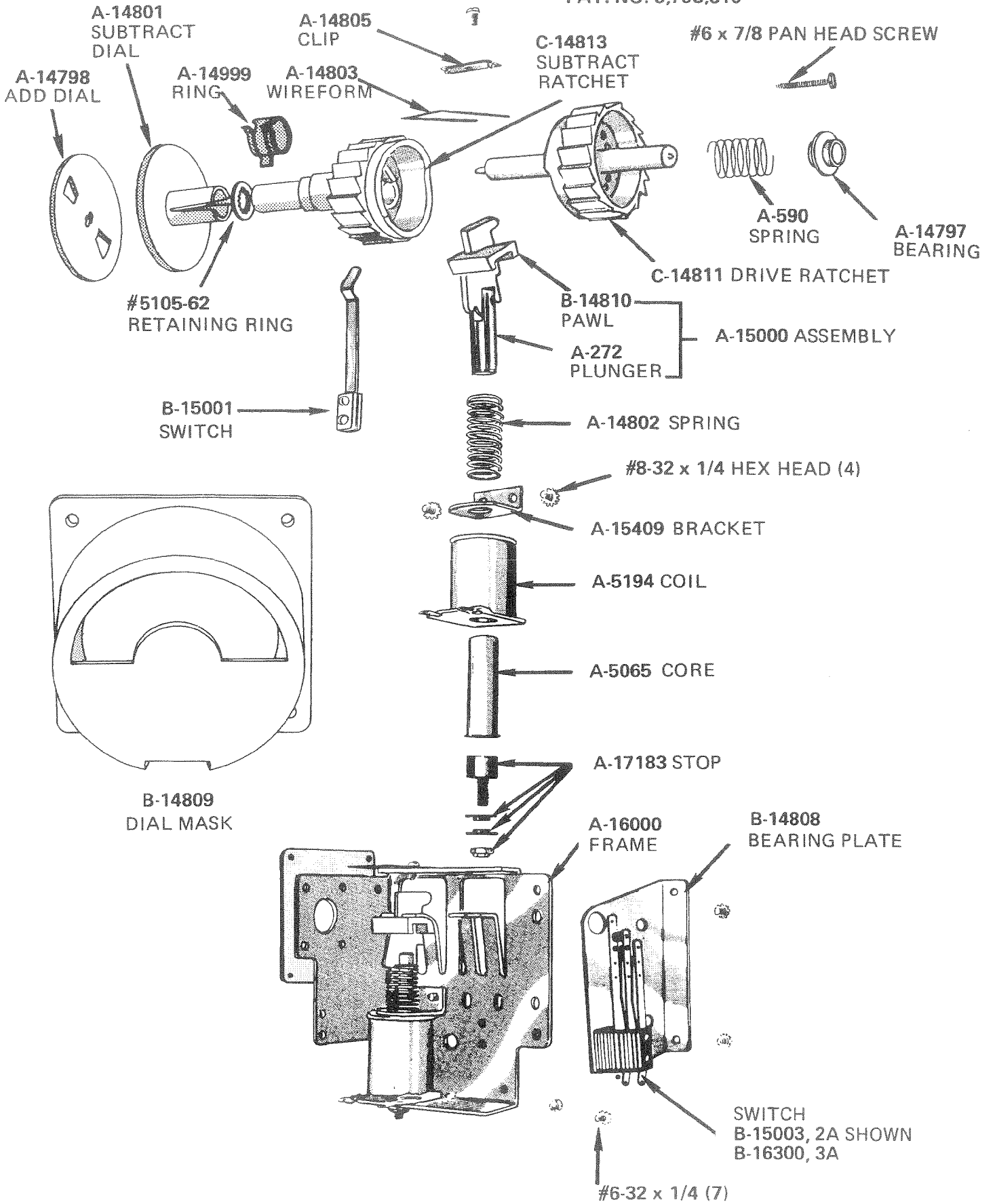
SPECIFY IF
TARGETS ARE TO
BE MOUNTED TO
BLADE.
SOLD IN SETS ONLY.

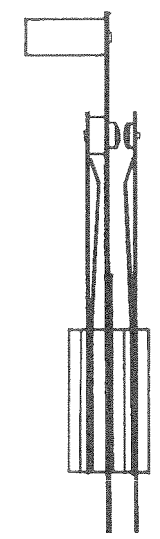
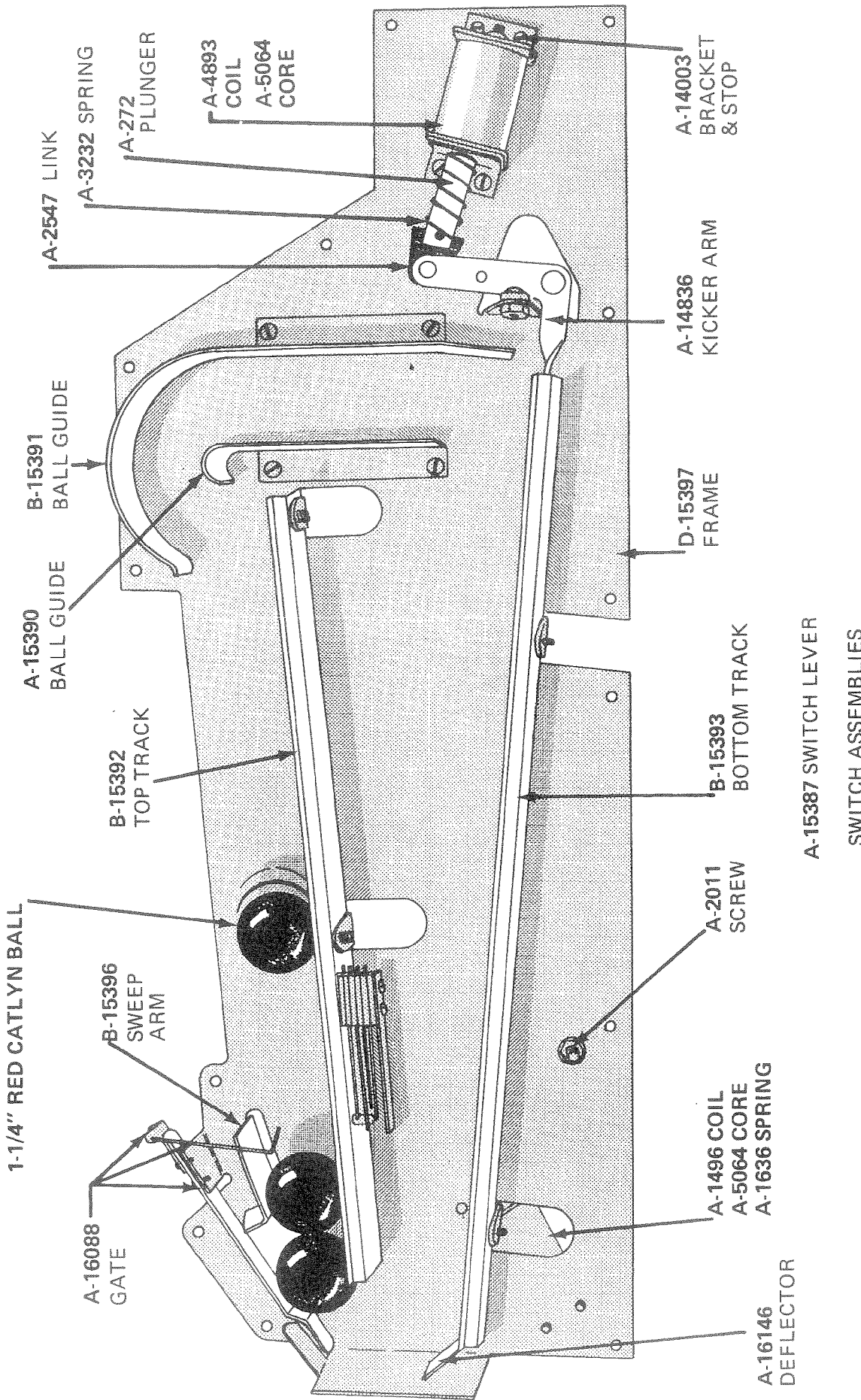


REPLAY UNIT

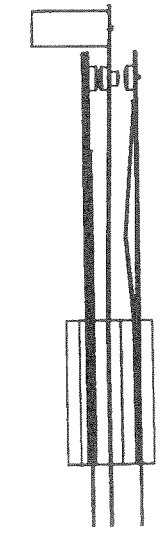
Gottlieb

PAT. NO. 3,793,510





B-16280
used on "300" & TOP SCORE



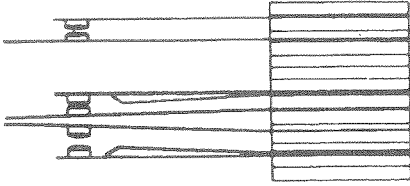
B-15595
used on SUPER SOCCER & SOCCER

A-15387 SWITCH LEVER
SWITCH ASSEMBLIES

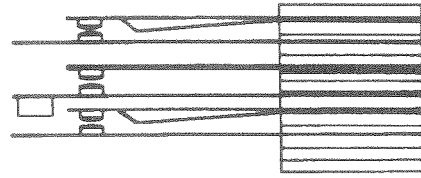
SCORE UNIT SWITCH ASSEMBLIES

Gottlieb

FOR SCORE UNITS SHOWN ON PAGES 46, 47



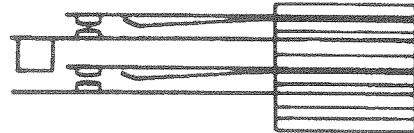
B-9576



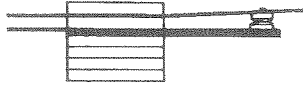
B-9577



B-10428



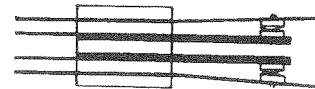
B-10851



B-14107

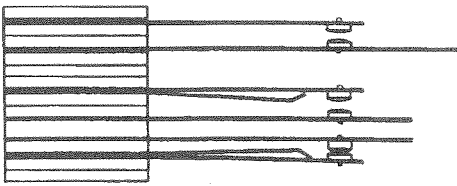


B-14249

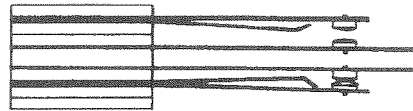


B-14337

FOR SCORE UNITS SHOWN ON PAGES 48, 49



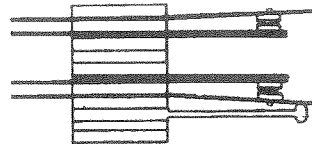
B-15903



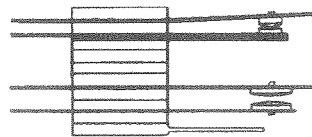
B-15904



B-15905

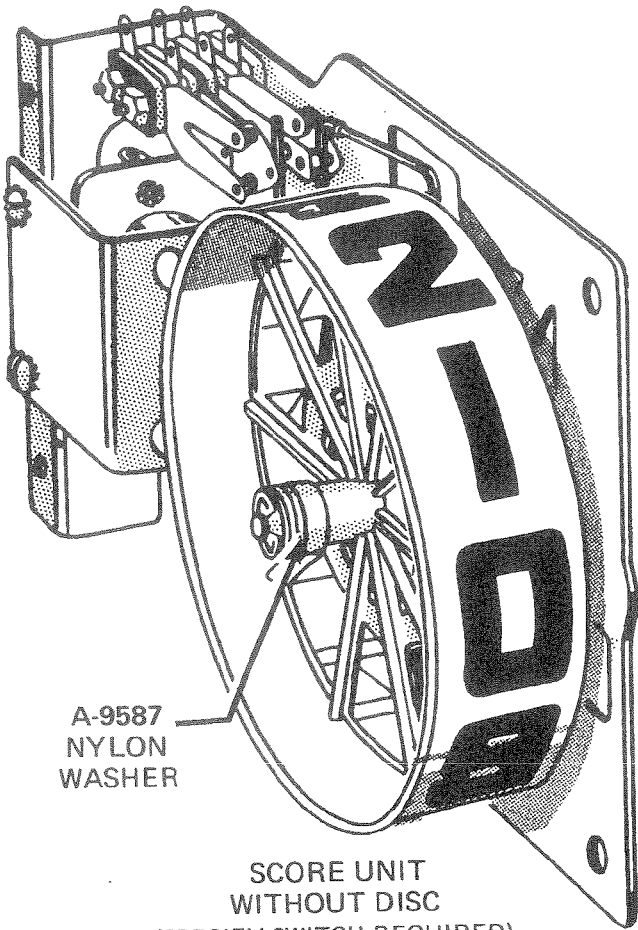


B-15906



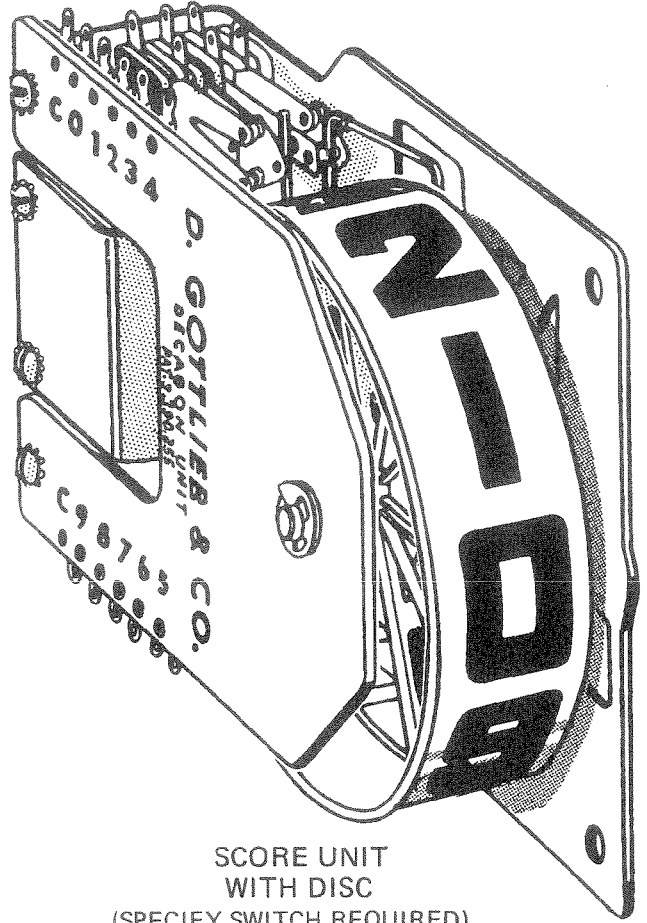
B-16062

PAT. NO. 3, 390, 255



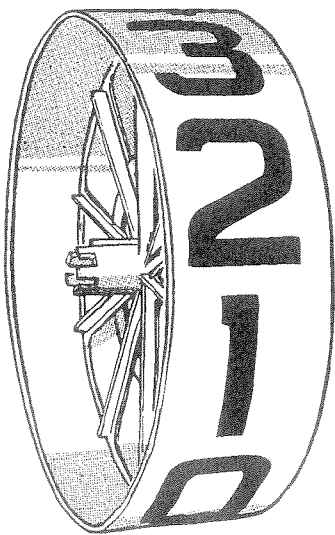
A-9587
NYLON
WASHER

SCORE UNIT
WITHOUT DISC
(SPECIFY SWITCH REQUIRED)



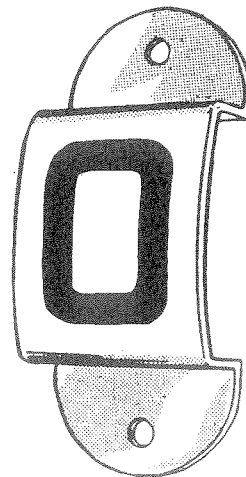
SCORE UNIT
WITH DISC
(SPECIFY SWITCH REQUIRED)

SCORE REEL



E-13755

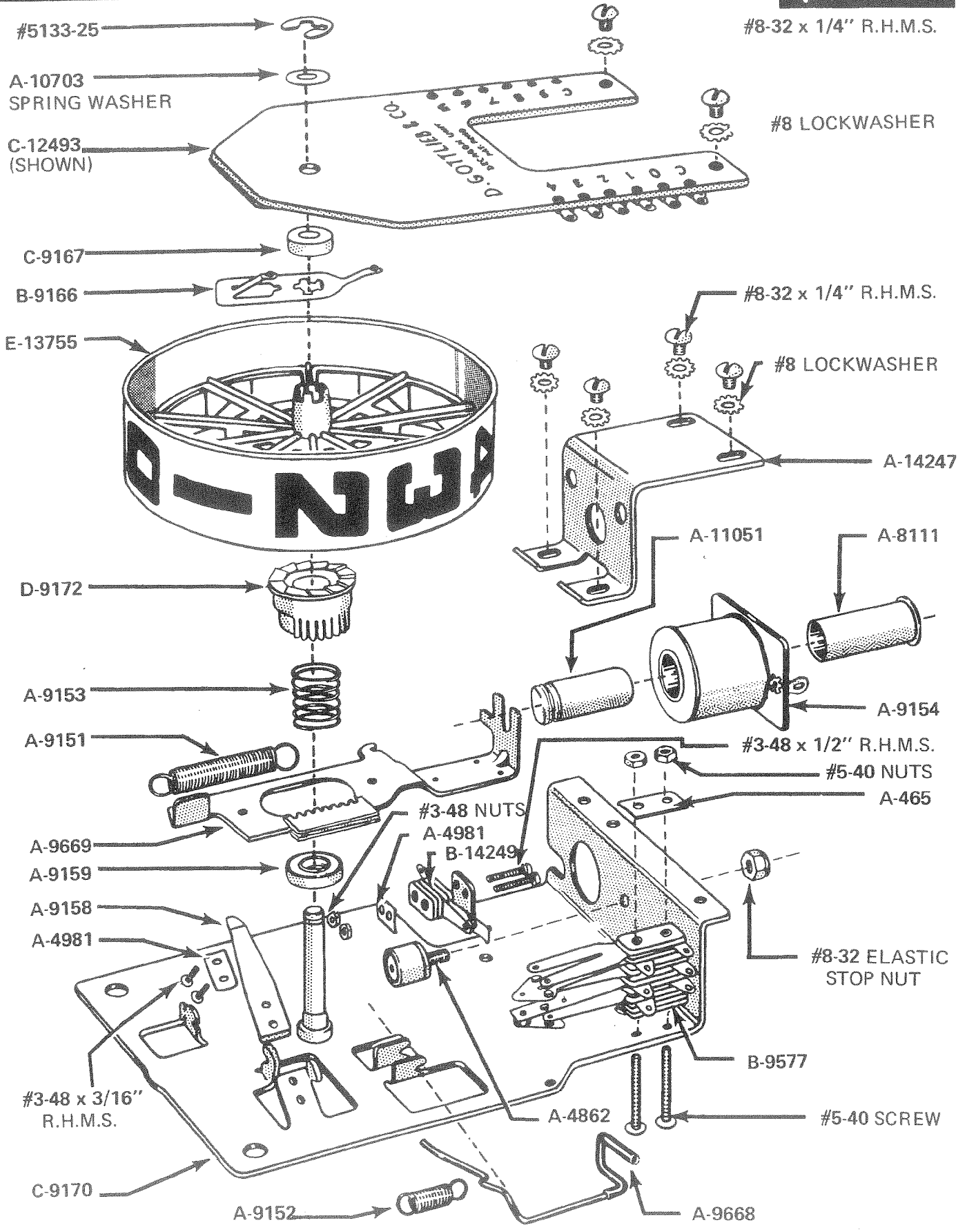
DRUM SEGMENT

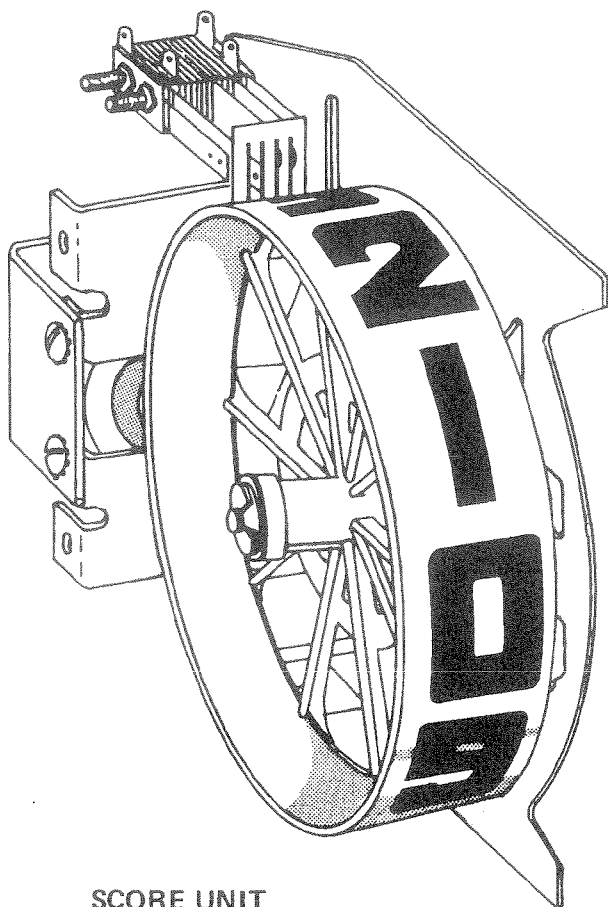


B-13794

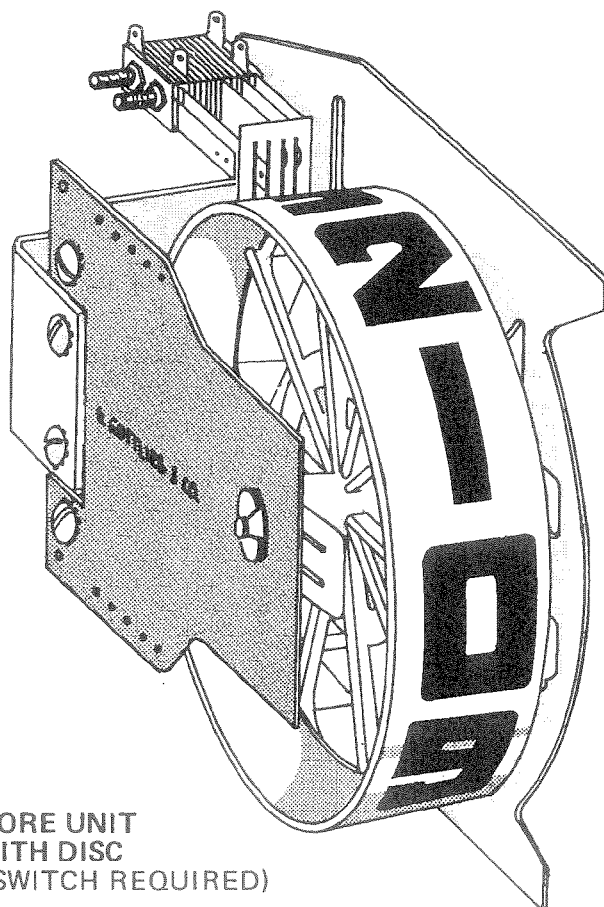
SCORE UNIT PARTS

Gottlieb





SCORE UNIT
WITHOUT DISC
(SPECIFY SWITCH REQUIRED)

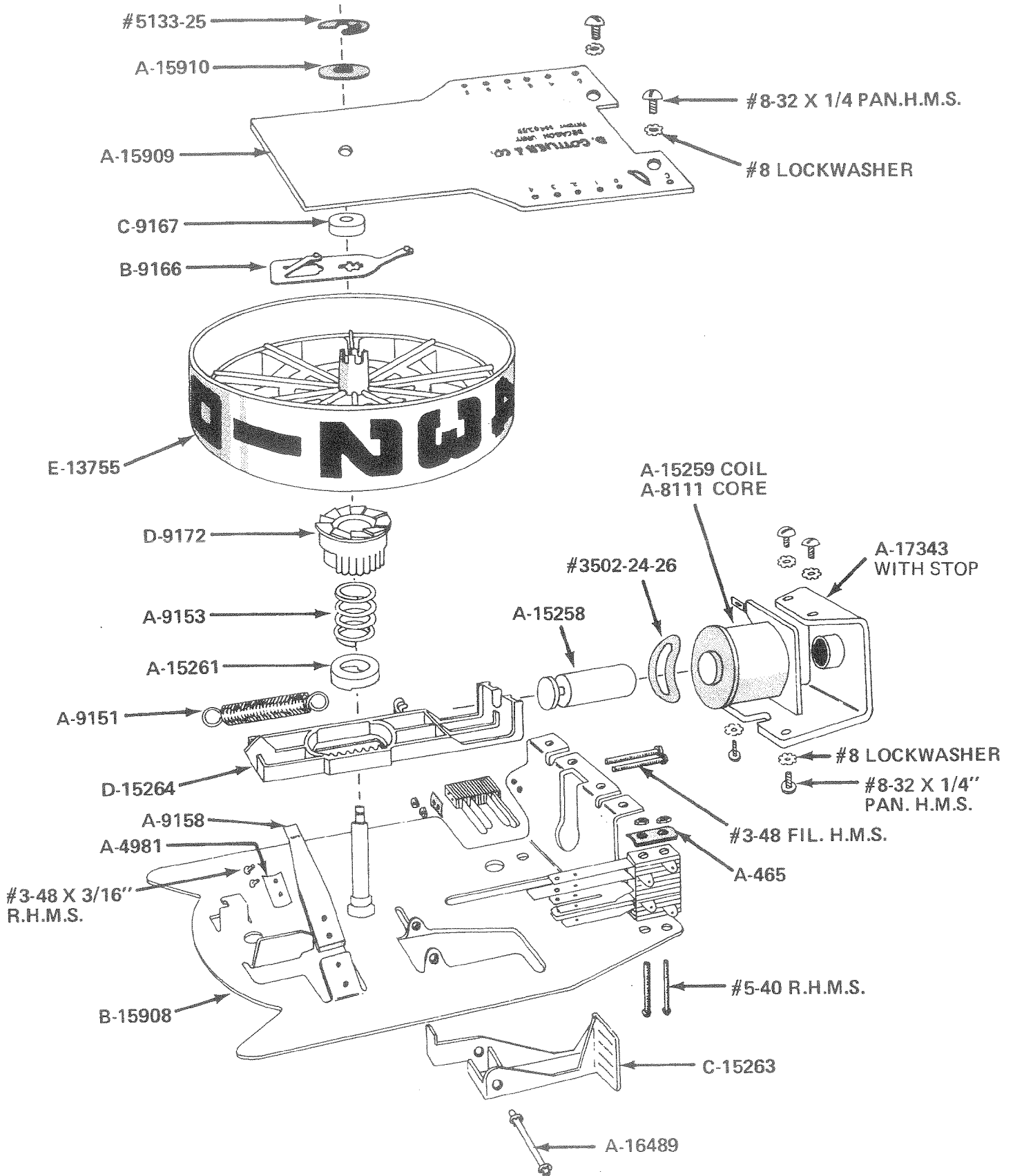


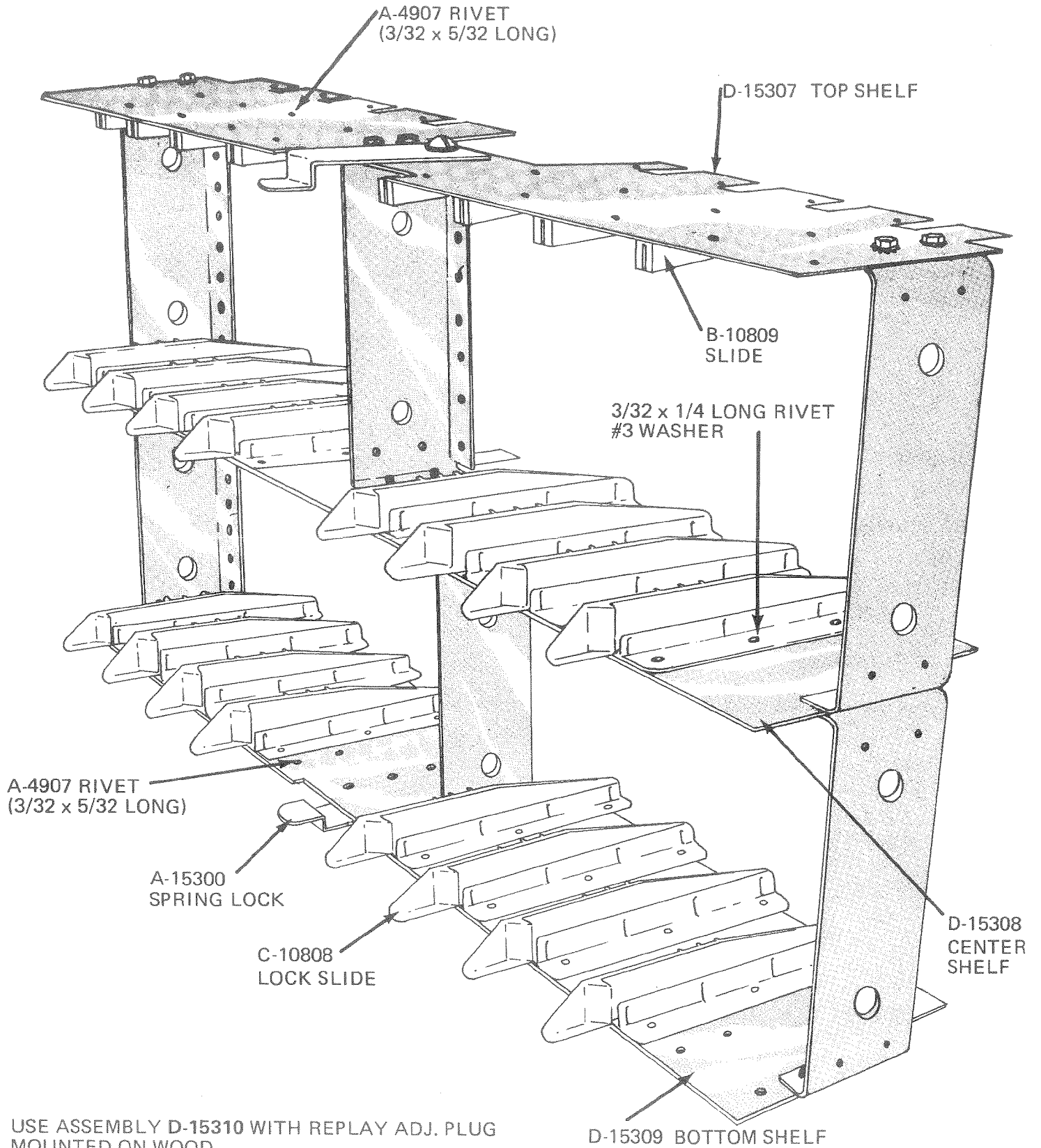
SCORE UNIT
WITH DISC
(SPECIFY SWITCH REQUIRED)

SCORE UNIT PARTS

Gottlieb

CURRENT (FROM MARCH, 1975)





USE ASSEMBLY D-15310 WITH REPLAY ADJ. PLUG MOUNTED ON WOOD.

USE ASSEMBLY D-16975 WITH REPLAY ADJ. PLUG MOUNTED ON BRACKETS.

SCORE UNIT MOUNTING SHELVES

Gottlieb

A-4907 RIVET
(3/32 x 5/32 LONG)

2 PLAYER

B-15312
TOP SHELF

B-10809
SLIDE

3/32 x 1/4
LONG RIVET
#3 WASHER

C-10808
LOCK SLIDE

B-15313
CENTER
SHELF

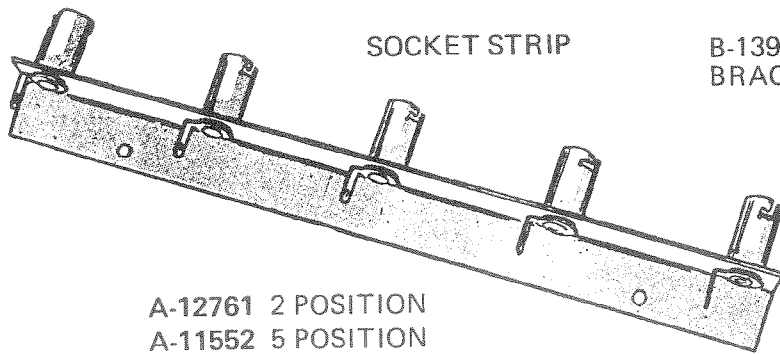
D-15315 ASSEMBLY

A-4907 RIVET
(3/32 x 5/32 LONG)

B-15314
BOTTOM
SHELF

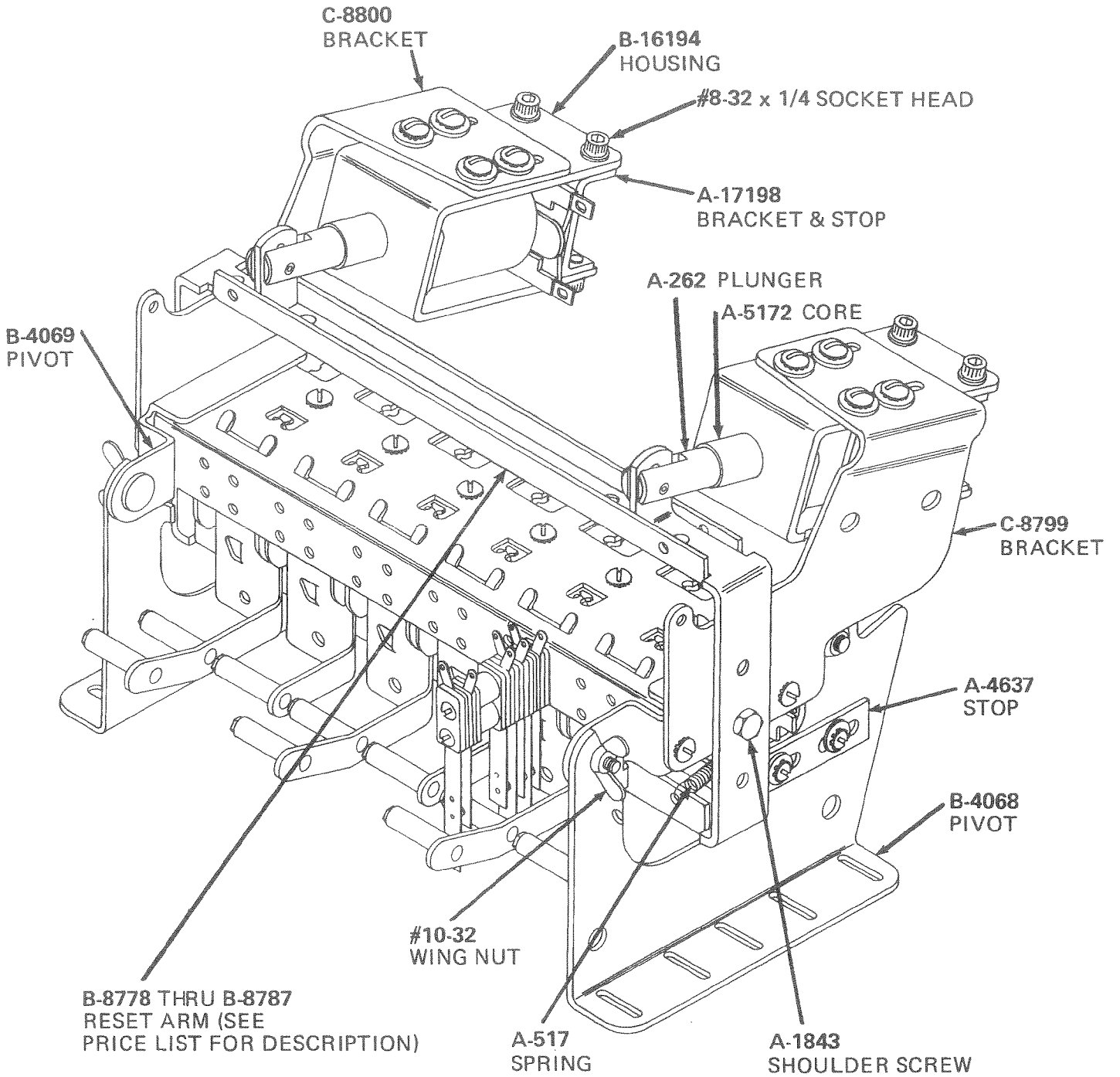
1 PLAYER

B-13903
TOP SHELF



B-13901
BRACKET

B-13902
BOTTOM SHELF



ARMATURES

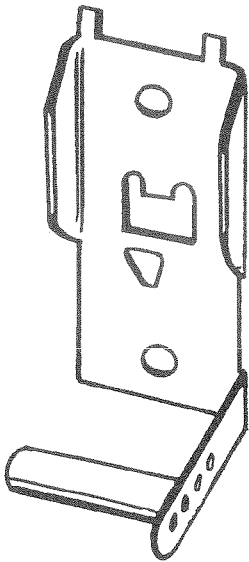


A-9032

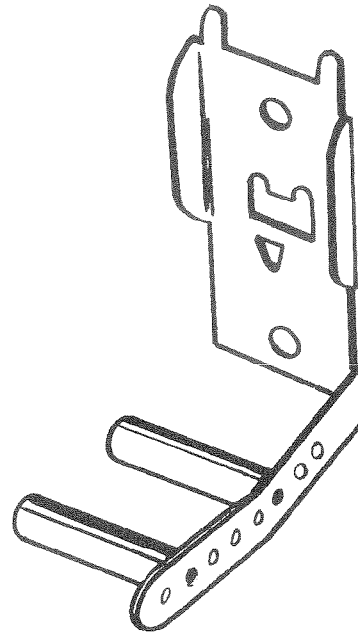


A-9105

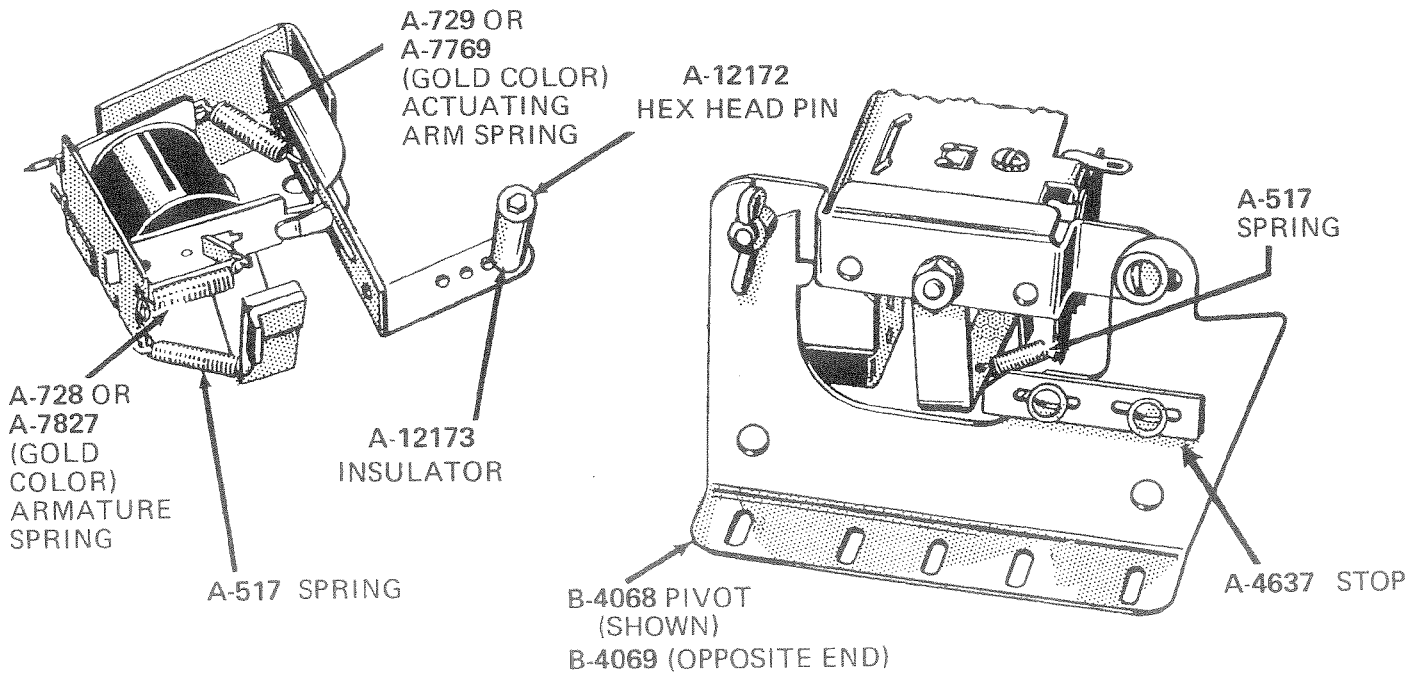
ACTUATING ARMS



A-12324

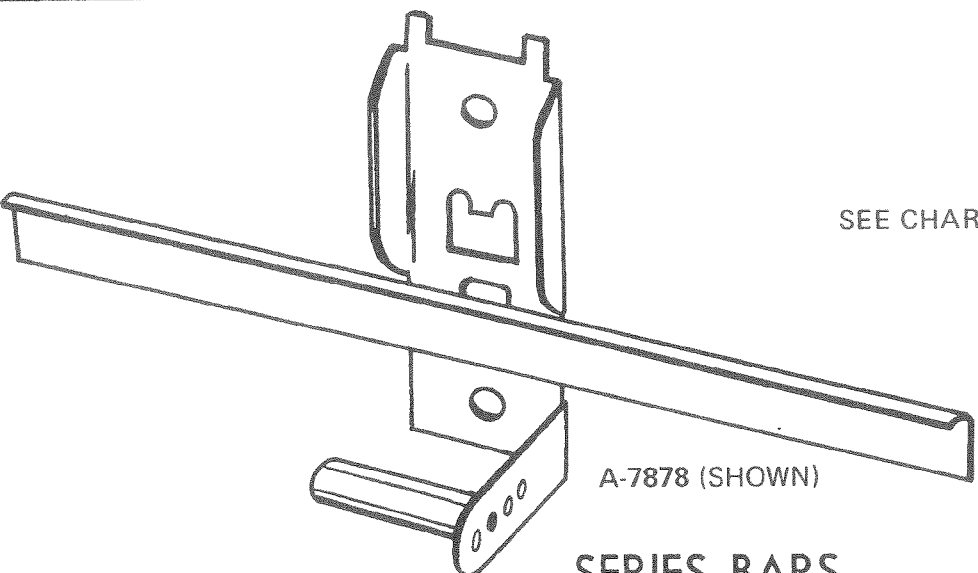


A-12326





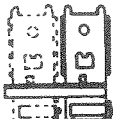

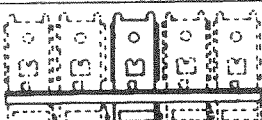

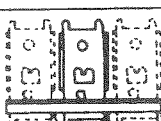
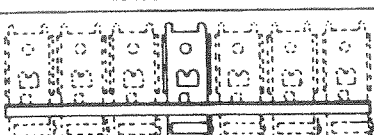
CONTACTS	ASSEMBLY NO.
A	B-8448
B	B-8450
BB	B-8451
CA	B-8452
CA	B-12190
CA	B-12298
C [◦] A	B-8453
C	B-8454
CB	B-8455
BA	B-8456
AA	B-8713
A-BB	B-8458 & B-8451
B-BB	B-8459 & B-8451
C-BB	B-8460 & B-8451
A-AA	B-8458 & B-8713
B-AA	B-8459 & B-8713
C-AA	B-8460 & B-8713
A-BA	B-8458 & B-8456
B-BA	B-8459 & B-8456
C-BA	B-8460 & B-8456
AA-BA	B-13301 & B-8456
CA-BA	B-13945 & B-8456
A-CA	B-8461 & B-8452
C-CA	B-8462 & B-8452
BB-CA	B-8463 & B-8452
A-C [◦] A	B-8461 & B-8453
C-C [◦] A	B-8462 & B-8453
BB-C [◦] A	B-8463 & B-8453
A-CB	B-8461 & B-8455
B-CB	B-11041 & B-8455
C-CB	B-8462 & B-8455
BB-CB	B-8463 & B-8455
C-C	B-8460 & B-8454
B [◦]	B-8457 (Armature Only)

◦ Denotes Large Points

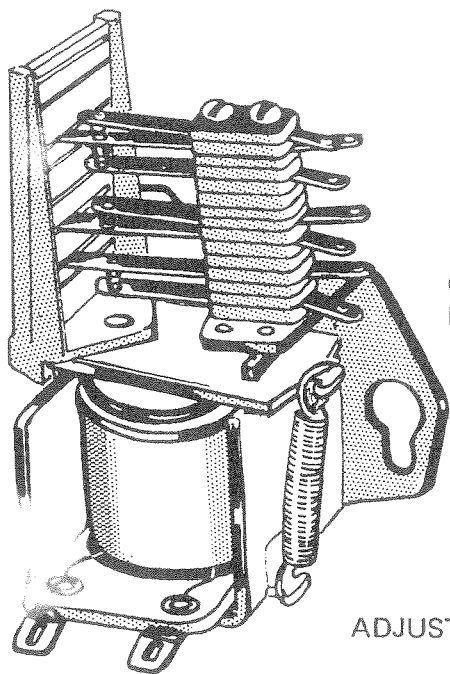


SEE CHART BELOW

SERIES BARS

Actuating arms and series bars are shown in solid lines. Dotted lines are actuating arms shown for reference only.	Actuating arm with pin in 2nd hole. 	Actuating arm with pins in 2nd & 6th hole. 
	A-7876	A-7896
	A-7877	A-7897
	A-7878	
	A-7879	
	A-16183	
	A-7881	

ARMATURES WITH INSULATOR ARMS

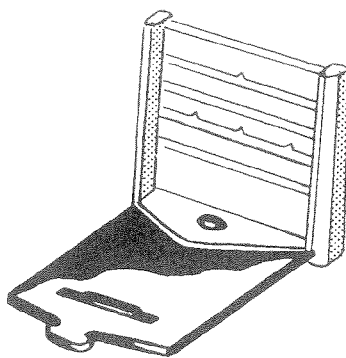


C-4989 HOUSING

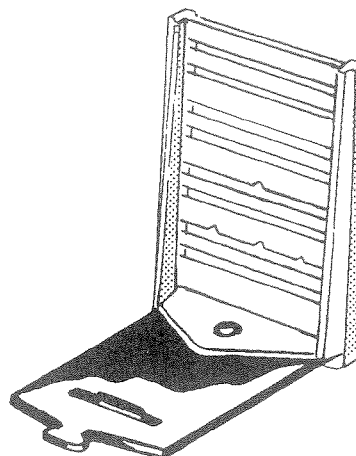
A-5081 SPRING

ADJUST LOCKIN POINTS FOR .010 GAP

ADJUST OTHER POINTS FOR .019 GAP

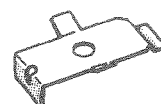


A-5369 (A.C. RELAY)
A-16892 (D.C. RELAY)



A-5370 (A.C. RELAY)
A-16893 (D.C. RELAY)

RELAY CLIP



A-9519

"AG" SWITCH STACKS



B-5363 (LOCKIN MAKE WITH SMALL POINTS)



B-5366 (BREAK WITH SMALL POINTS)



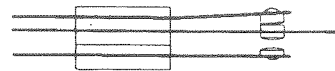
B-5364 (MAKE WITH SMALL POINTS)



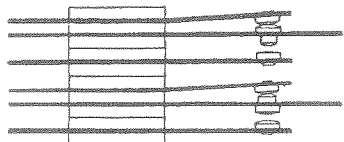
B-5367 (BREAK WITH LARGE POINTS)



B-5365 (MAKE WITH LARGE POINTS)



B-5368 (BREAK-MAKE WITH SMALL POINTS)

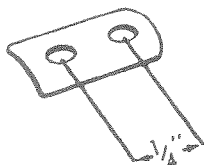


B-10737 (BREAK-MAKE (2) WITH SMALL POINTS)



B-15211 (MAKE AND BREAK SMALL POINTS)

SWITCH COVER PLATE



A-4981

SWITCH BLADE SEPARATOR



- A-4977 1/16" THK. BAKELITE
- A-4978 3/64" THK. BAKELITE
- A-4980 ALUMINUM OVERRIDE
BLADE SPACER

OVERRIDE BLADE RETAINER



A-4979

"AG" RELAY BLADES

SWITCH BLADE



A-4983

OVERRIDE BLADE



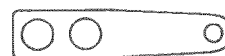
A-4986

SWITCH BLADE



A-4984

LOCK-IN BACKING BLADE



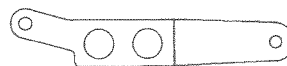
A-4987

LOCK-IN BLADE



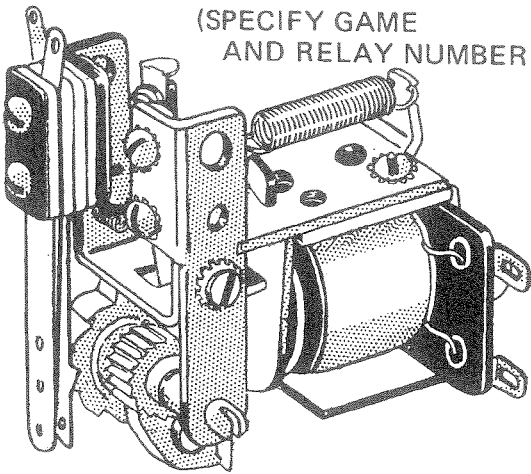
A-4985

SWITCH BLADE



A-5536

"AS" RELAY ASSEMBLY
(SPECIFY GAME
AND RELAY NUMBER)



CAMS

LEFT



C-8752



C-8754



C-15221

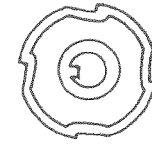
RIGHT



C-8753

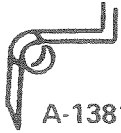


C-10356



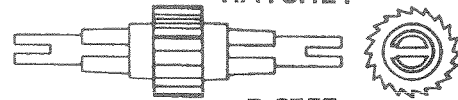
C-15658

DRIVE FINGER SPRING



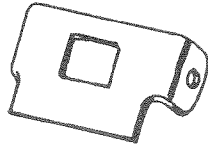
A-13819

RATCHET



D-8755

OVERRIDE STOP



A-8738

DRIVE FINGER



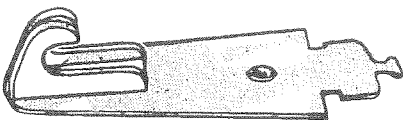
C-13817

RATCHET AND CAM ASSEMBLIES

ASSEMBLY PART NUMBER	LEFT SIDE CAM NUMBER	RIGHT SIDE CAM NUMBER
A-9012	C-8752	NO CAM
A-9013	C-8754	C-8753
A-10848	NO CAM	C-10356
A-14045	C-8752	C-10356
A-15222	C-15221	C-8753
A-15659	C-15221	C-15658
A-16293	C-8752	C-15658
A-16836	C-15221	NO CAM

NOTE: Position ratchet so teeth point down. (As shown)
Install cams with open side out.

ARMATURE & FULCRUM



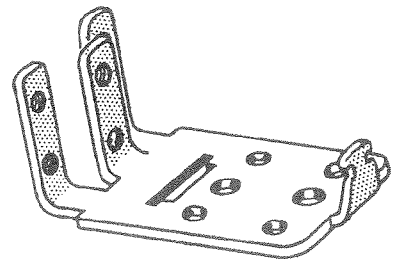
A-13818

RATCHET SPRING



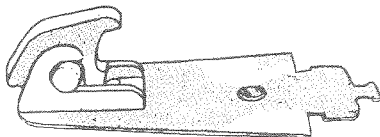
A-8740

ARMATURE FRAME



C-8750

ASSEMBLED ARMATURE



A-14044

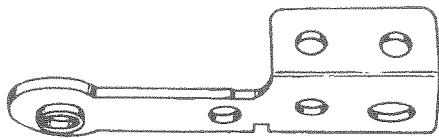
ARMATURE SPRING



A-8737

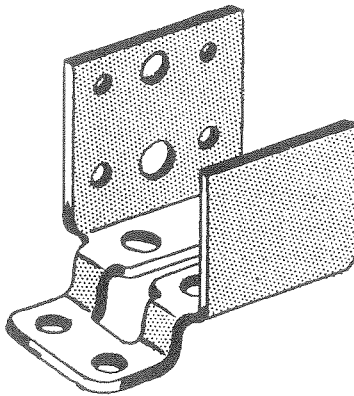
A-9272 (RED)

OUTBOARD BEARING



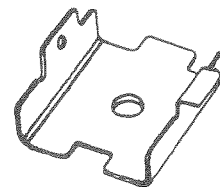
A-16624 (SHOWN)
A-16625

COIL FRAME



C-8749

RELAY CLIP



B-10378

SWITCH
BLADE



A-8741

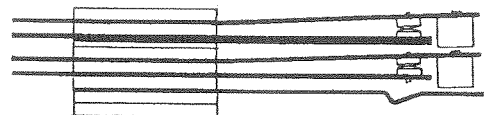
SWITCHES



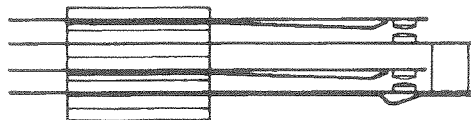
B-11467



B-9018

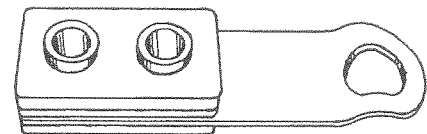


B-12804



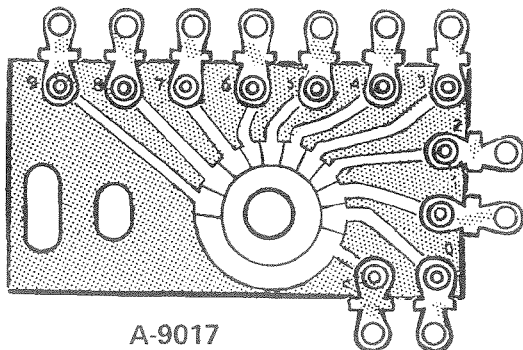
B-10957

WIPER RETAINER



B-11788

DISC



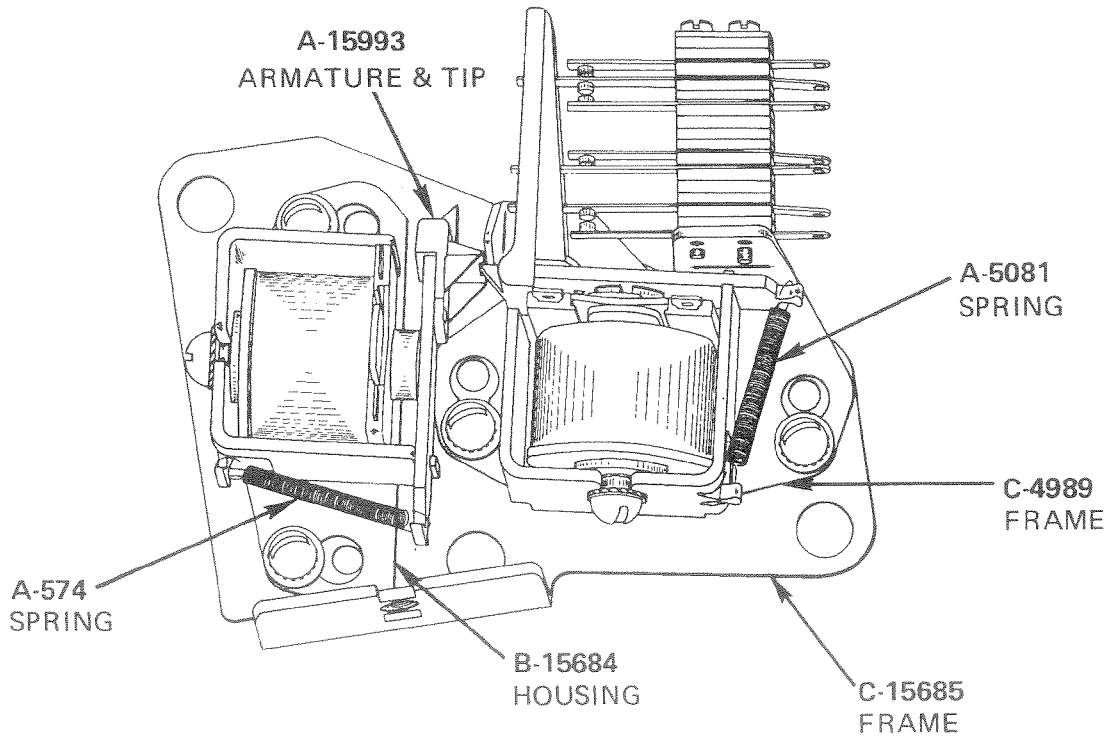
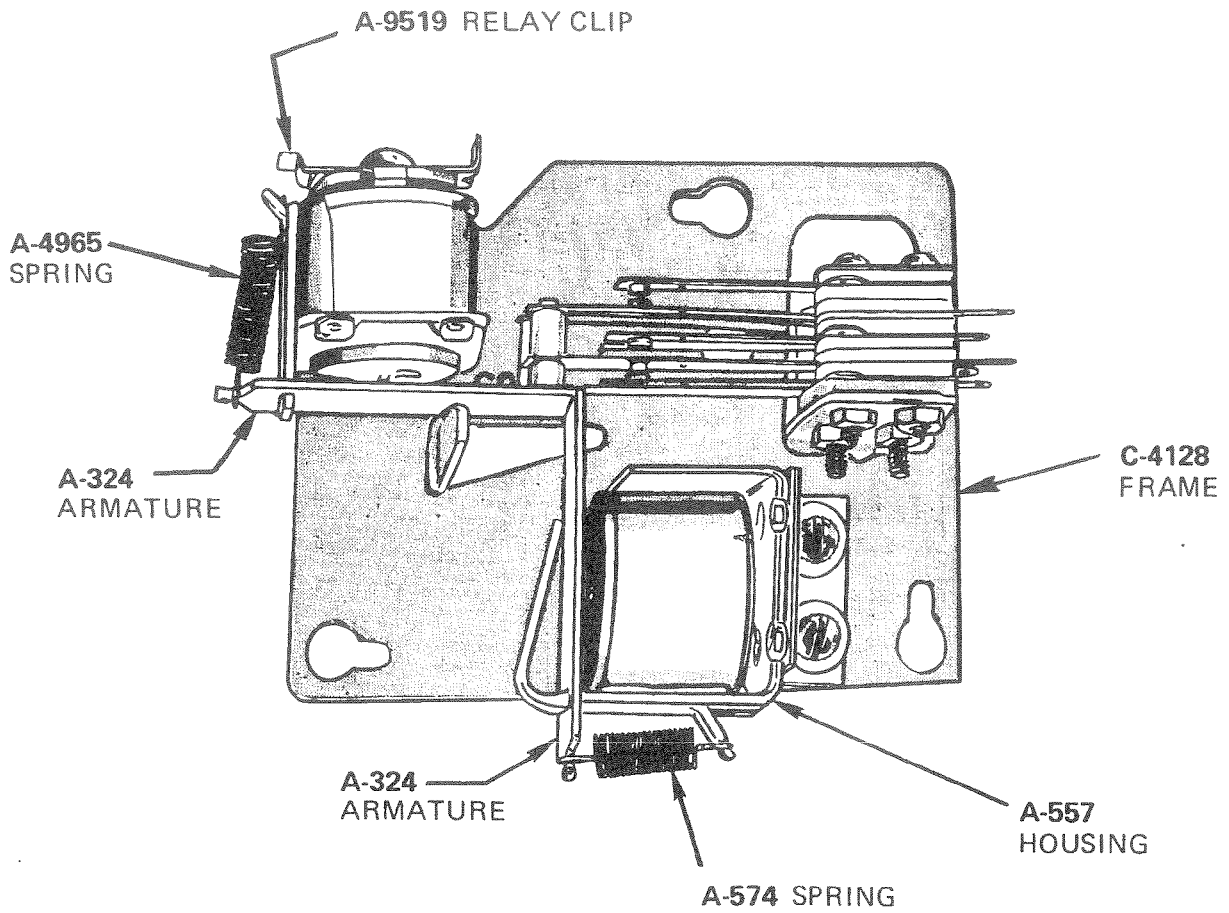
A-9017
(SHOWN)

A-9016

WIPER



B-9015



MOTOR SWITCH ASSEMBLIES

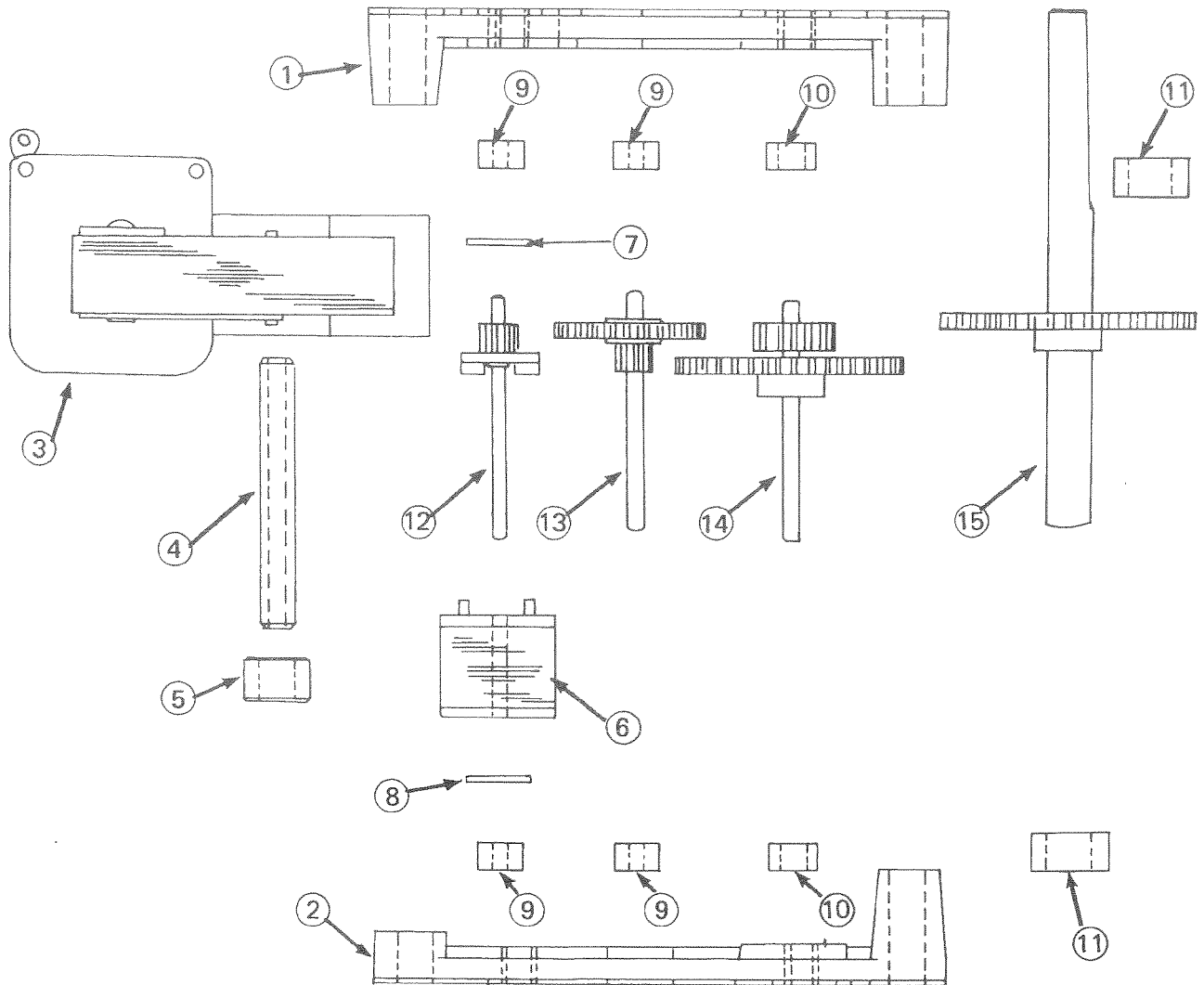
All switches are listed as they appear off the motor frame.

° Denotes Large Points

Used on positions 1A, 1C, 2C, 3C, 4A, and 4C

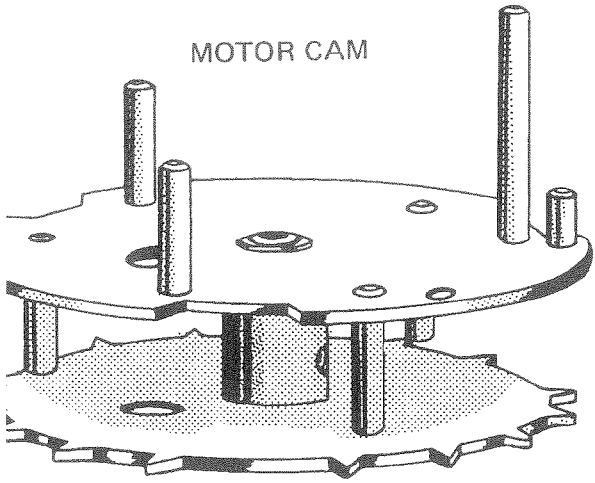
Used on positions:

Used on positions 1A, 1C, 2C, 3C, 4A, and 4C		Used on positions:				2B
1B, 3B & 4B	1D, 1E, 3D, 4D & 4E	1D	2B	3B	4B	
B-14106 AAA-B	B-14696 ABBB-BB	A-3309 FORMED BLADE	A-918 FORMED BLADE	A-127 FORMED BLADE	A-786 FORMED BLADE	
B-8391 AAA-B	B-12648 ABBB-BB	B-8269 A	B-14467 A	B-8286 A	B-14235 A	
B-10475 AAA-B	B-11040 ABBB-C	B-9023 A	B-14649 AA	B-10799 A	B-8343 A	
B-9886 AAA-BB	B-11901 ABB-BBC	B-8270 A	B-15919 AA	B-8287 A-A	B-16402 A-A	
B-9101 AAA-BB	B-13757 ABBB-BBB	B-8271 A-A	B-15370 AAA	B-11777 A-A	B-8328 A-BB	
B-8675 AAA-BB	B-13910 ABBB-BBB	B-8657 A-A	B-14281 AC	B-14644 A-A	B-8293 B	
B-9748 AAA-BBB	B-8298 B	B-14774 A-A	B-14283 ACC	B-8288 A-AA	B-10045 B-A	
B-13913 AAA-BBB	B-10525 B	B-8272 A-AA	B-15768 B	B-10800 A-AA	B-8309 B-AB	
B-10557 AAA-BBB	B-8299 BB	B-12883 A-AA	B-14648 B	B-10815 A-AAB	B-8295 B-B	
B-8304 AAA-BBB	B-8312 BB	B-8998 A-B	B-16297 B-AA	B-8326 B	B-8296 B-BA	
B-9100 AAB-BB	B-8931 BB	B-8276 B	B-14161 BC	B-8389 B-A	B-15888 B-BAA	
B-9384 AAB-BB	B-10623 BC	B-16349 B	B-14158 C	B-13776 B-A	B-8294 B-BB	
B-10858 AAB-BB	B-8300 BBB	B-8275 B-A	B-14540 CC	B-12668 B-AA	B-11434 B-BBA	
B-14088 AAB-BB	B-9385 BBB	B-8393 B-A		B-10215 B-AA	B-17516 B-BBA	
B-9747 AA-BBB	B-8808 BBB	B-8851 B-AA		B-13940 B-AAA	B-9753 B-C	
B-8387 AAB-BB	B-11431 BBB	B-11578 B-AA		B-16505 B-AAA	B-9752 B-CB	
B-8849 AAB-BB	B-8301 BBBB	B-8656 B-AA		B-13694 B-AAB	B-14279 B-BAA	
B-8386 AAB-BB	B-8937 BBBB	B-14789 B-AAA		B-13942 B-B	B-14646 B-BBB	
B-9146 AAB-BB	B-9391 BBBB	B-17505 B-AAA		B-13911 B-BA		
B-13915 AAB-BBB	B-8302 BBBB	B-9031 B-AB				
B-14253 AAB-BB	B-8321 BBBB	B-8274 B-B				
B-8280 ABB-BB	B-11428 BBBB	B-8273 B-BB				
B-8850 ABB-BB	B-8303 BBB-BB	B-14548 B-BBA				
B-8384 ABB-BB	B-11895 BBB-BB	B-16348 B-BBA				
B-9144 ABB-BB	B-10297 BBB-BB	B-16350 B-BAA				
B-8379 ABB-BB	B-9754 BBB-BB	B-13672 B-BA				
B-8281 ABBB-BB	B-15778 BBB-BB	B-13969 B-BA				
B-10857 ABBB-BB	B-12694 BBB-BB	B-14546 B-BAA				
B-9755 ABBB-BB	B-15924 BBB-BBB					



	60 HZ MOTOR	50 HZ MOTOR	DESCRIPTION
1	A-15437	A-15452	FRONT PLATE (WITH BEARINGS)
2	A-15438	A-15453	BACK PLATE (WITH BEARINGS)
3	A-15439	A-15439	COIL AND CORE (SPECIFY 50 OR 60 HZ)
4	A-15440	A-15440	MOUNTING STUD
5	A-15441	A-15441	1/4" SPACERS
6	A-15442	A-15442	ROTOR ASSEMBLY
7	A-15443	A-15443	STEEL ROTOR WASHER
8	A-15444	A-15444	FIBRE ROTOR WASHER
9	A-15445	A-15445	.078 BEARING
10	A-15446	A-15446	.125 BEARING
11	A-15447	A-15447	.250 BEARING
12	A-15448	A-15448	ROTOR SHAFT ASSEMBLY
13	A-15449	A-15449	1ST REDUCTION ASSEMBLY
14	A-15450	A-15454	2ND REDUCTION ASSEMBLY
15	A-15451	A-15455	OUTPUT SHAFT ASSEMBLY
	B-7760	B-11550	ASSEMBLED MOTOR

MOTOR CAM



A-9329

SEE GAME PARTS LIST FOR CAM REQUIRED

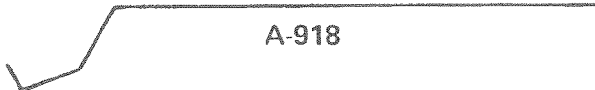
FORMED SWITCH BLADES



A-127



A-786

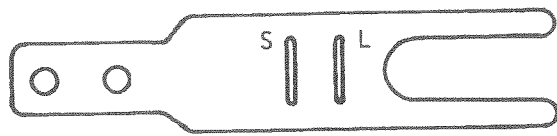


A-918

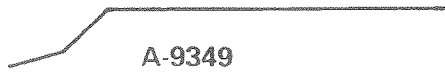


A-3309

SWITCH DOG BRACKET

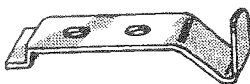


A-1452



A-9349

SWITCH DOG



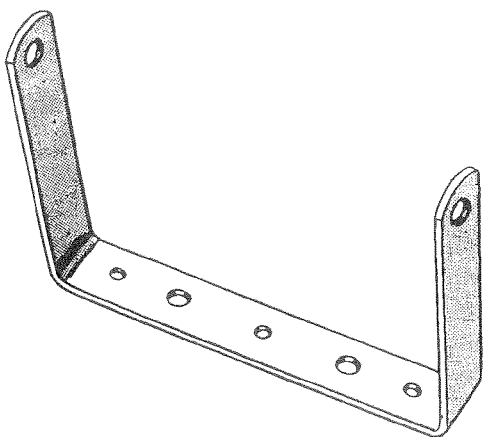
A-1451

MOTOR BRAKE SWITCH ASSEMBLY

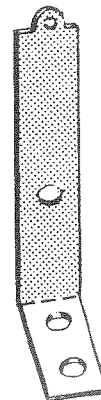


B-8306

MOTOR MOUNTING BRACKETS



B-10104
SHOWN HALF SIZE

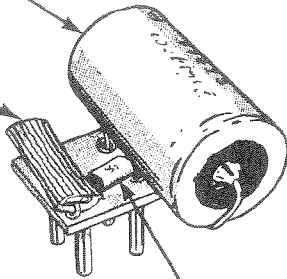


A-10103

CIRCUIT DELAY MODULES

500 MICRO-FARAD
50 W.V.D.C.
CAPACITOR

6 OHM
2 WATT
RESISTOR

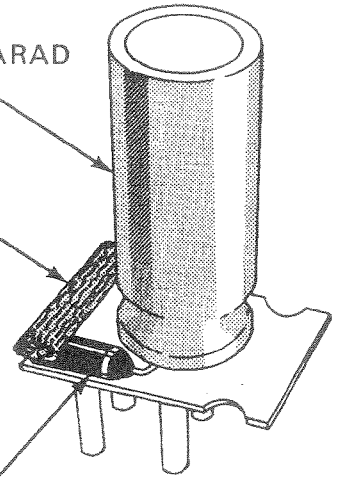


100 P.I.V. RECTIFIER

A-11556

1000 MICRO-FARAD
35 W.V.D.C.
CAPACITOR

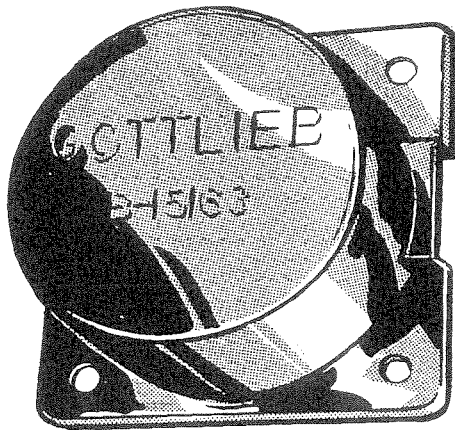
6 OHM
2 WATT
RESISTOR



100 P.I.V.
RECTIFIER

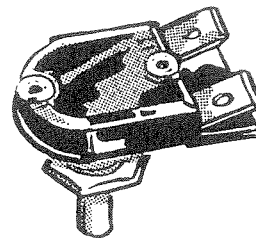
A-15597

ON-OFF SWITCH COVER



B-15163

ON-OFF SWITCH

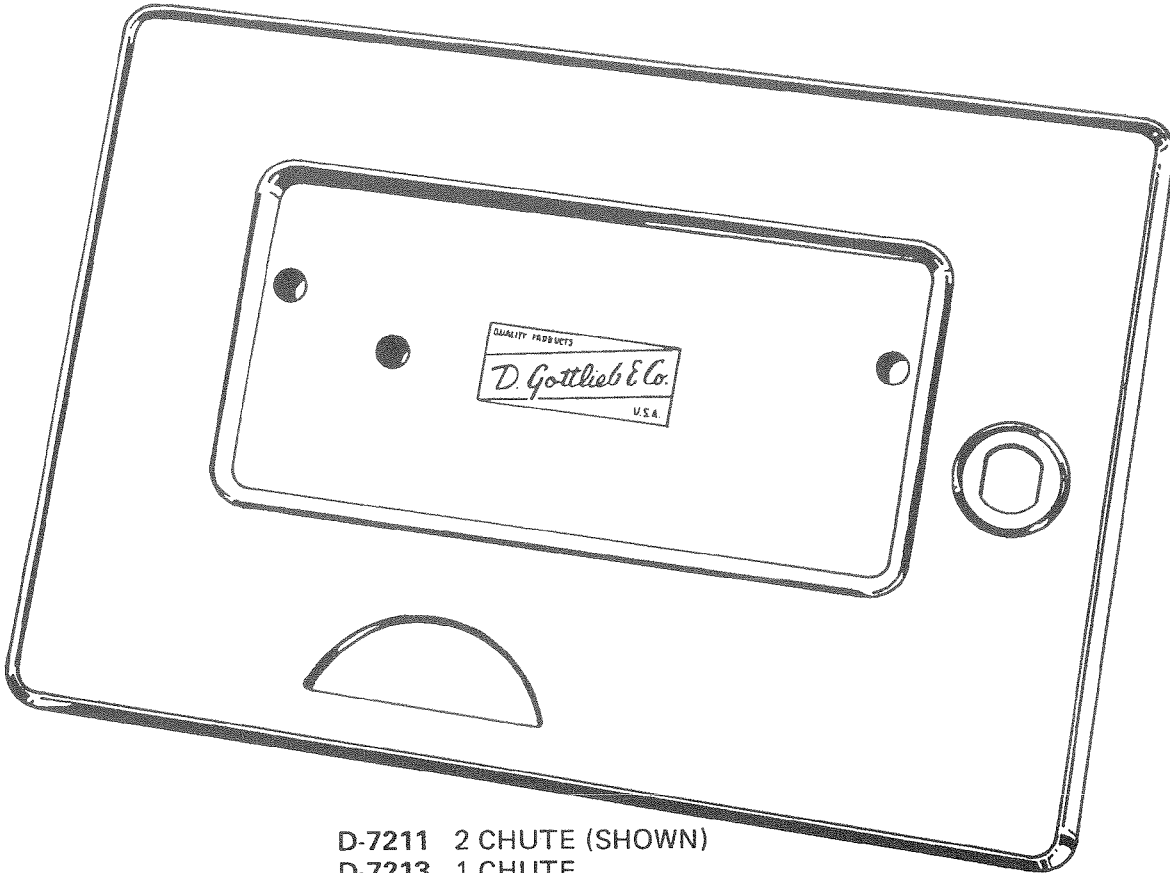


A-15401

FUSE CHART

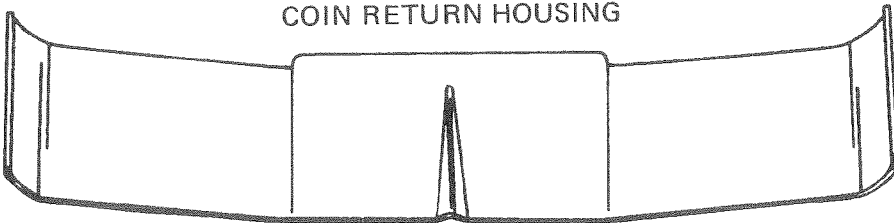
USE #350-308 FUSE HOLDER

5 AMP
7½ AMP
10 AMP
12 AMP
15 AMP
½ AMP SLO-BLO
1 AMP SLO-BLO
2 AMP SLO-BLO
5 AMP SLO-BLO
10 AMP SLO-BLO



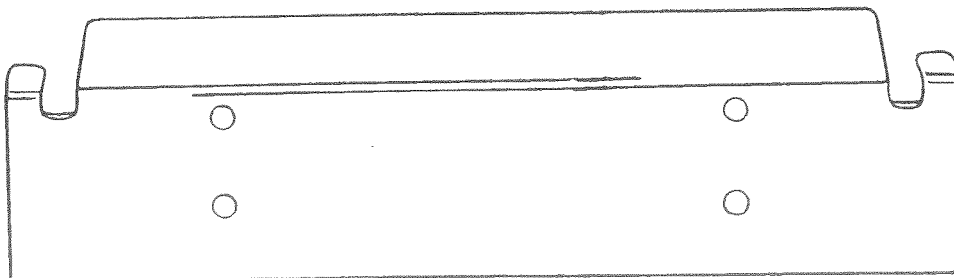
D-7211 2 CHUTE (SHOWN)
D-7213 1 CHUTE
D-10066 3 CHUTE

COIN RETURN HOUSING



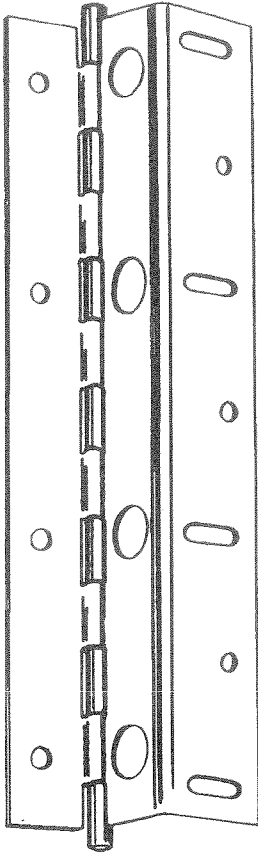
B-7193
B-12490 (FRENCH)

COIN RETURN COVER



B-7194 (SHOWN) 1 OR 2 CHUTES
B-10064 (TRIPLE CHUTE)

HINGE



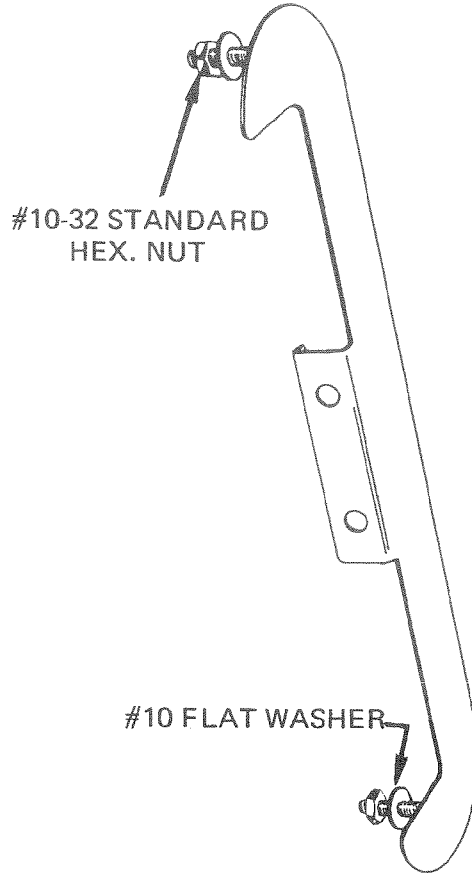
B-7196

HINGE NUT STRIP



A-7181

FRONT DOOR STRIKE PLATE

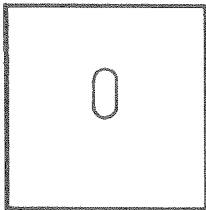


#10-32 STANDARD
HEX. NUT

#10 FLAT WASHER

B-8089

COIN RETURN
BAFFLE PLATE



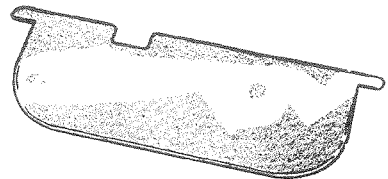
A-7495

FRONT DOOR
HOLE PLUG



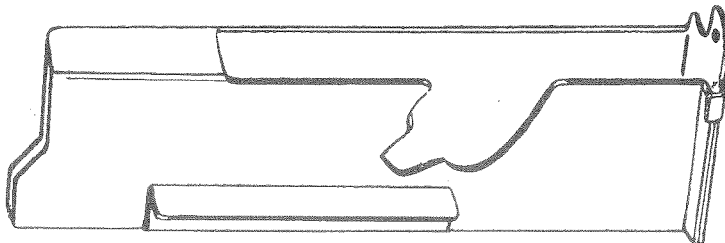
A-7478
USE RETAINING
RING #5133-25

COIN RETURN DOOR



A-11446

COIN GUIDE TROUGH



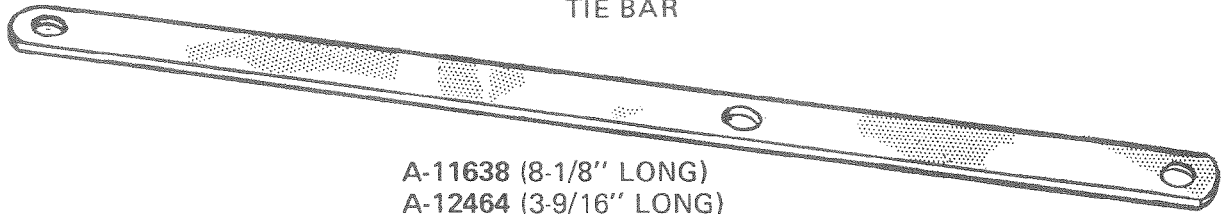
B-7192

METAL DOOR
PUSH BUTTON



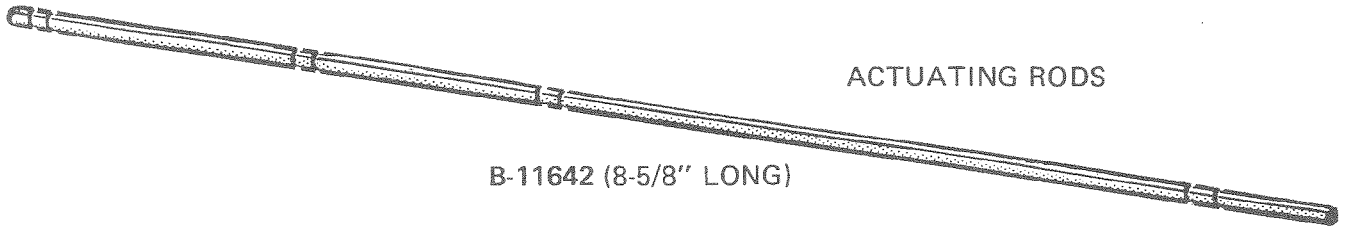
A-4524
USE RETAINING
RING #5133-25

TIE BAR



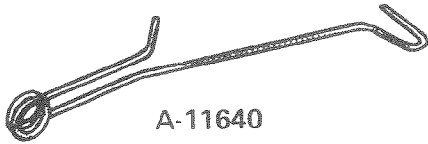
A-11638 (8-1/8" LONG)
A-12464 (3-9/16" LONG)

ACTUATING RODS



B-11642 (8-5/8" LONG)

LOCKOUT WIRE

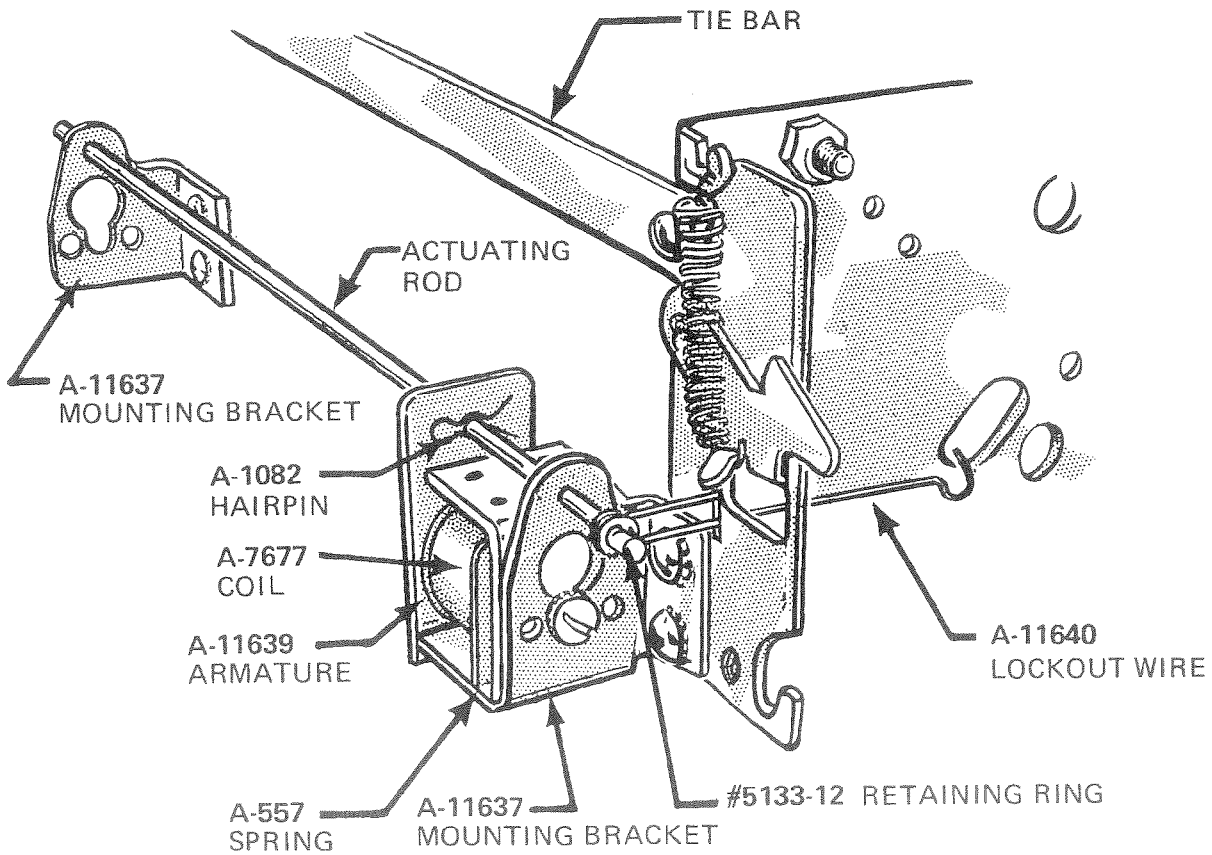


A-11640

A-12465 (4-1/16" LONG)

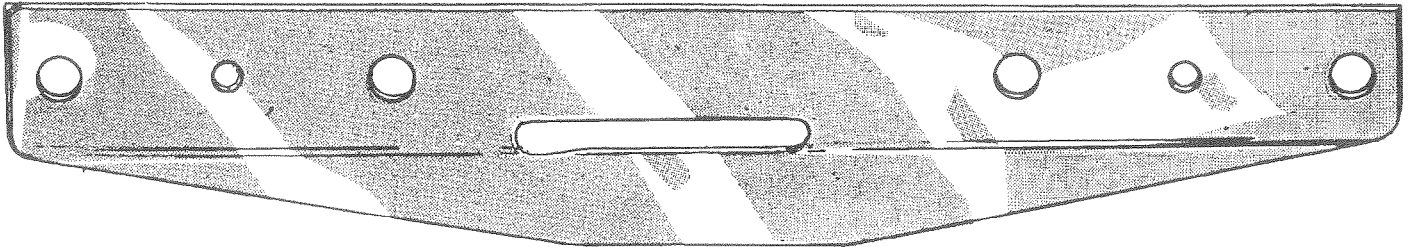


A-11641 (2-1/4" LONG)



LOCK CAM GUIDE

USE THIS PART TO STRENGTHEN SINGLE CAM DOOR

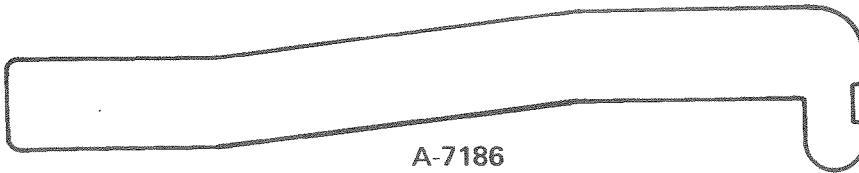


C-14010

MOUNT LOCK CAM GUIDE
TO EDGE OF DOOR
WITH #6-32 x 1/4 F.H.M.S.

**PARTS REQUIRED TO CONVERT STANDARD
DOOR TO DUAL BOLT SECURITY**

LOCK BOLT



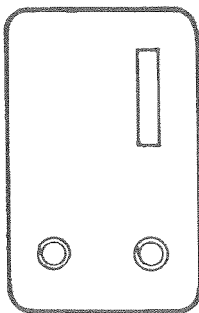
A-7186

LOCK STRIKE PLATE



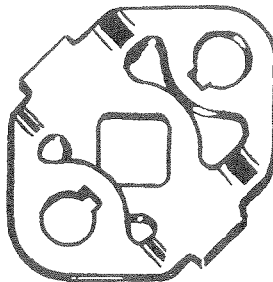
A-10060

LOCK BOLT GUIDE



A-7187

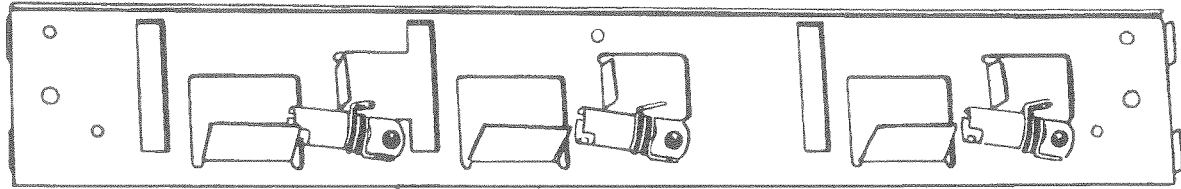
LOCK CAM



A-7189

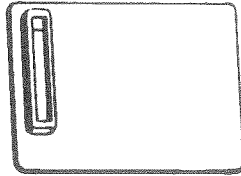
PARTS LIST

- 2 A-7186
- 2 A-7187
- 1 A-7189
- 2 A-10060
- 4 #10-32 x 3/8 R.H.M.S.
- 4 #10 FLAT WASHER
- 4 #10 EXT. LOCKWASHER

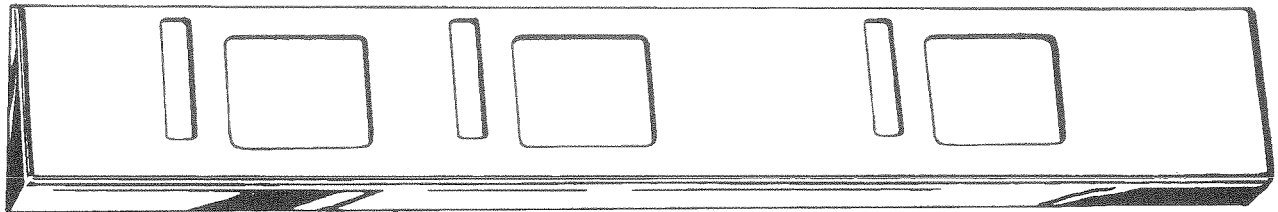


COIN ENTRANCE MOUNTING PLATE

- C-10722 3 CHUTE (SHOWN)
- C-11021 1 CHUTE
- C-11022 2 CHUTE

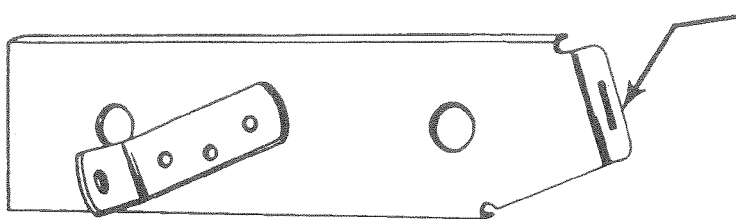


COIN ENTRANCE PLATES
SEE CHARTS ON PAGES 72 AND 73.



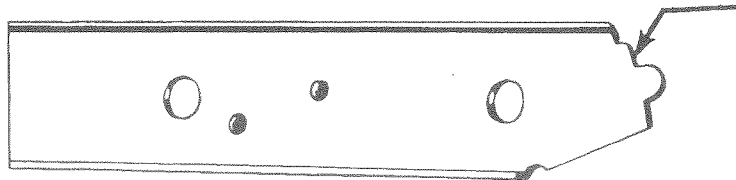
COIN ENTRANCE HOUSING

- C-10718 1 CHUTE (LEFT SIDE)
- C-10719 2 CHUTE (1 EACH SIDE)
- C-10720 3 CHUTE (SHOWN)
- C-13896 1 CHUTE (RIGHT SIDE)
- C-12463 2 CHUTE (LEFT SIDE-FRANCE)



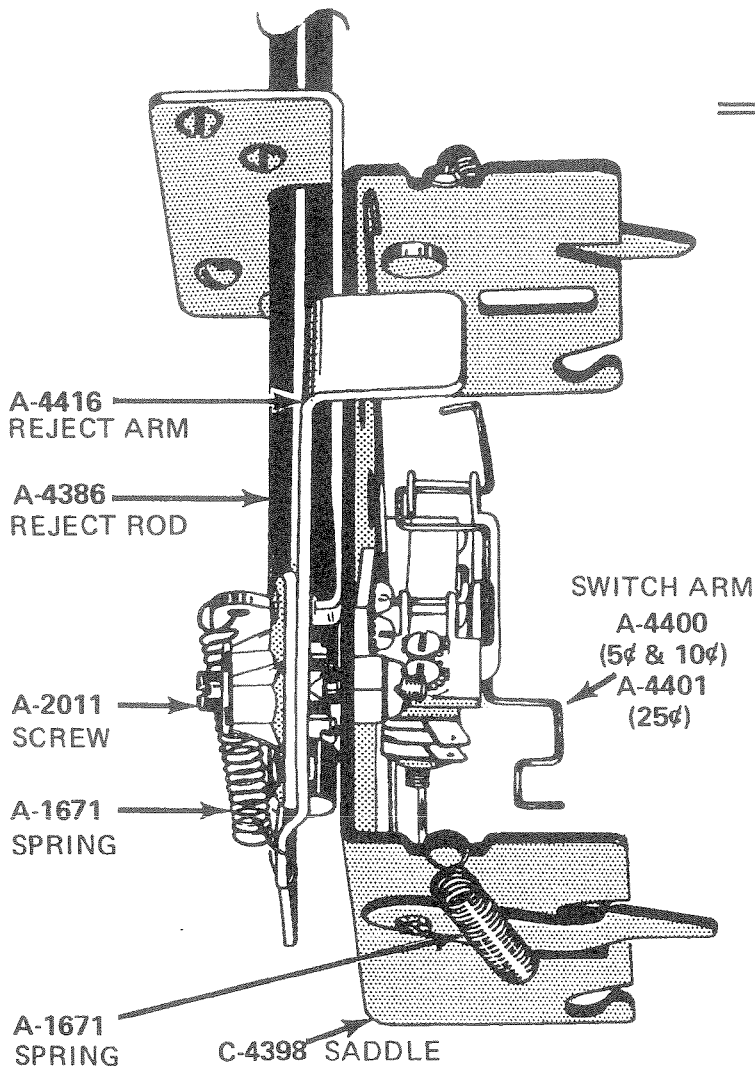
COVER

- B-10708 STANDARD
- B-10709 WITH REBOUND SPRING
- B-11188 (FOR 100 LIRE & 1 PESO COIN)



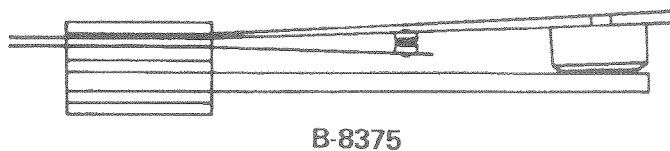
TROUGH

- B-10707 STANDARD
- B-11187 (FOR 100 LIRE COIN)
- B-14972 (FOR 1 PESO COIN)

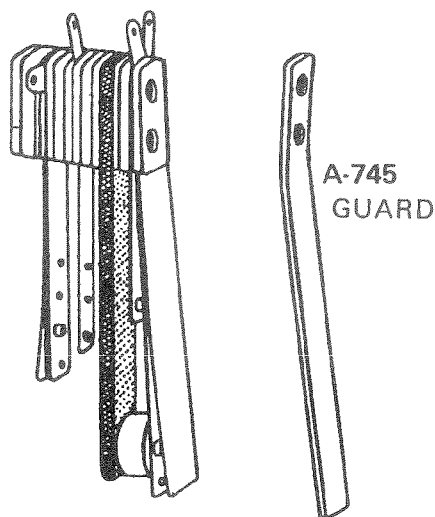


VIBRATION DAMPER

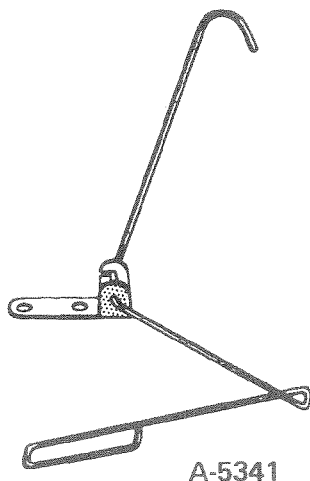
ANTI-CHEAT SWITCH ASSEMBLY



PUSH BUTTON AND ANTI-CHEAT SWITCH ASSEMBLY

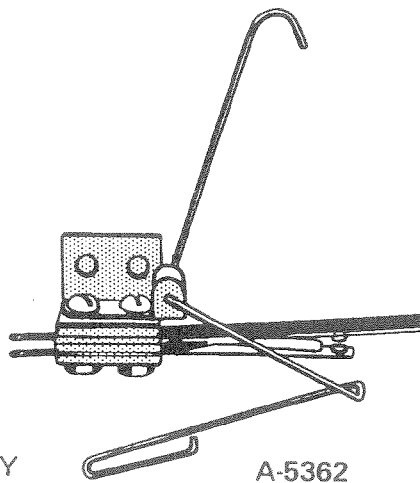


VIBRATION DAMPER AND SWITCH



FOREIGN COIN ENTRANCE PLATES
 & SLUG REJECTOR CHUTE PARTS
 AVAILABLE ON REQUEST.
 SPECIFY COUNTRY NAME,
 NAME AND DENOMINATION
 OF COIN.

SLUG REJECTOR SWITCH ASSEMBLY



COUNTRY	White	C-10711	C-10712	C-10713	C-10714	C-10715	C-10716	C-10717
	Red	C-16562	C-16563	C-16564	C-16565	C-16566	C-16567	C-16568
U.S.A.		10 Cents		5 Cents		25 Cents		
AUSTRALIA			5 Cents			10 Cents		20 Cents
BELGIUM						5 Francs		10 Francs
CAMEROUN								25 Francs
CANADA		10 Cents		5 Cents		25 Cents		
CANARY ISLANDS						5 Peseta		25 Peseta
DENMARK						25 Ore	1 Krone	
ECUADOR								1 Sucre
ENGLAND						5 Pence		10 Pence
FINLAND					20 Pennia		50 Pennia	1 Markka
FRANCE			½ Franc			1 Franc		
						20 Centimes		
GERMANY				50 Pfennig	10 Pfennig	1 Mark		2 Marks
GREECE						2 Drachmai		5 Drachmai
ISRAEL						½ Pound	25 Agorot	
ITALY							50 Lire	100 Lire
JAPAN				50 Yen (new)	100 Yen	10 Yen	50 Yen (old)	
KENYA			50 Cents					1 Shilling
LEBANON						Piastres		
MADAGASCAR						20 Centimes		
MEXICO								1 Peso
NETHERLANDS-ANTILLES			25 Cents					1 Guilder
NEW CALEDONIA						1 Schilling		20 Francs
NORWAY		25 Ore			50 Ore		1 Krone	
REUNION ISLAND						20 or 50 Francs		
RUSSIA					20 Koneeks			
SPAIN				1 Peseta		5 Pesetas		
SOUTH AFRICA				10 Cents		20 Cents		
SWEDEN		25 Ore			50 Ore		1 Krona	
SWITZERLAND			50 Centimes	20 Centimes		1 Franc		2 Francs
TURKEY					25 Kurus			1 Lira
VENEZUELA		25 Centimos		50 Centimos		1 Bolivar		
YUGOSLAVIA					1 Dinar			

NO OPENING
 C-10710 – Blank White
 C-16561 – Blank Red

LABELS FOR WHITE PLATES ONLY

LABEL PART NO.	COIN INFORMATION
A-10723	5¢ – 1 Play
A-10724	2 Nickels – 1 Play
A-10725	10¢ – 1 Play
A-10726	10¢ – 2 Plays
A-16196	25¢ – 1 Play
A-10727	25¢ – 2 Plays
A-10728	25¢ – 3 Plays
A-10729	25¢ – 4 Plays
A-10730	25¢ – 5 Plays

SEE PAGE 73
 FOR PRINTED INSERTS
 USED WITH RED PLATES.

COUNTRY	PART NUMBER	COIN INFORMATION	
U.S.A. & CANADA	A-14054	5¢ - 1 PLAY	
	A-11394	2 NICKELS - 1 PLAY	
	A-11471	5¢	
	A-11395	10¢ - 1 PLAY	
	A-14056	10¢ - 2 PLAYS	
	A-11472	10¢	
	A-15355	25¢ - 1 PLAY	
	A-11886	25¢ - 2 PLAYS	
	A-11396	25¢ - 3 PLAYS	
	A-14058	25¢ - 4 PLAYS	
	A-14060	25¢ - 5 PLAYS	
	A-13280	25¢ (WITH BORDER)	
A-15354	2 X 25¢ - 3 PLAYS		
AUSTRALIA	A-12764	10 CENTS - 1 PLAY	
	A-11338	10 CENTS - 2 PLAYS	
	A-15157	20 CENTS - 1 PLAY	
	A-14251	20 CENTS - 2 PLAYS	
	A-12555	20 CENTS - 3 PLAYS	
	A-11339	20 CENTS - 4 PLAYS	
	A-15159	2 X 20 CENTS - 3 PLAYS	
	A-16240	2 X 20 CENTS - 4 PLAYS	
	A-16579	20 CENTS	
	A-11313	5 FRANCS	
BELGIUM	A-13474	2 X 5 FRANCS	
	A-12037	10 FRANCS	
BRAZIL	A-15667	1 PARTIDA - 1 FICHA	
CAMEROUN	A-11372	25 FRANCS - 1 PLAY	
CANARY ISLANDS	A-15245	5 PESETA - 1 PLAY	
	A-15247	25 PESETAS - 6 PLAYS	
	A-16150	2 X 5 PESETAS - 1 PLAY	
	A-16152	25 PESETAS - 3 PLAYS	
DENMARK	A-11389	1 KRONE - 3 PLAYS	
	A-15818	1 KRONE - 1 PLAY	
ECUADOR	A-14269	1 SUCRE - 1 PLAY	
ENGLAND	A-13381	1 SHILLING	
	A-13820	1 SHILLING - 2 PLAYS	
	A-11240	2 SHILLINGS - 4 PLAYS	
	A-11573	2 SHILLINGS - 5 PLAYS	
	A-14172	1 PLAY - 1 P	
	A-15985	1 PLAY - 5 P	
	A-14110	2 PLAYS - 5 P	
	A-15987	2 PLAYS - 10 P	
	A-14112	4 PLAYS - 10 P	
	A-17911	1 PLAY - 10 P	
	A-12415	20 PENNIA - 1 PLAY	
FINLAND	A-12653	50 P. - 1 PELI	
	A-12417	50 PENNIA - 3 PLAYS	
	A-12154	2 X 50 PENNIA - 1 PLAY	
	A-12155	1 MARKKA - 2 PLAYS	
	A-12654	1 MK - 3 PELIA	
	A-16501	1 MK - 2 PELIA	
FRANCE	A-13385	1 FRANC	
	A-13383	2 X 1 FRANC	
	A-12781	1 FRANC - 2 PLAYS	
	A-14694	1 FRANC - 3 PLAYS	
	A-12857	1 FRANC - 4 PLAYS	
GERMANY	A-13387	50 PFENNIG	
	A-15369	50 PFENNIG - 1 SPIEL	
	A-13663	50 PFENNIG - 2 SPIELE	
	A-13560	50 PFENNIG - 3 SPIELE	
	A-15365	1 MARK - 2 SPIELE	
	A-15491	1 MARK - 3 SPIELE	
	A-13665	1 MARK - 4 SPIELE	
	A-13562	1 MARK - 6 SPIELE	
	A-15367	2 MARKS - 5 SPIELE	
	A-15493	2 MARKS - 6 SPIELE	
	A-15495	2 MARKS - 7 SPIELE	

COUNTRY	PART NUMBER	COIN INFORMATION
GERMANY continued	A-15498	2 MARKS - 8 SPIELE
	A-16299	2 MARKS - 9 SPIELE
	A-13667	2 MARKS - 10 SPIELE
ISRAEL	A-13208	25 AG - 1 PLAY
	A-15487	50 AG - 1 PLAY
ITALY	A-14062	50 LIRE - 1 PLAY
	A-13389	100 LIRE
	A-13542	100 LIRE - 1 PLAY
	A-14064	100 LIRE - 2 PLAYS
	A-13544	2 X 100 LIRE - 3 PLAYS
JAPAN	A-14867	50 YEN - 1 PLAY
	A-12791	50 YEN - 2 PLAYS
	A-13391	100 YEN
	A-14869	100 YEN - 3 PLAYS
	A-14784	100 YEN - 4 PLAYS
	A-13379	100 YEN - 6 PLAYS
	A-16618	100 YEN - 2 PLAYS
KENYA	A-13351	50 CENTS - 1 PLAY
	A-13353	1 SHILLING - 2 PLAYS
LEBANON	A-13232	25 PIASTRES - 1 PLAY
	A-16227	50 PIASTRES - 1 PLAY
	A-13233	50 PIASTRES - 2 PLAYS
	A-16229	2 X 50 PIASTRES - 3 PLAYS
MADAGASCAR	A-13397	20 CENTIMES - 1 PLAY
MEXICO	A-15271	1 PESO - 1 PLAY
	A-15035	2 X 1 PESO - 1 PLAY
NETHERLANDS- ANTILLES	A-14174	25¢ - 1 PLAY
	A-14550	1 GUILDER - 4 PLAYS
	A-14176	1 GUILDER - 5 PLAYS
NEW CALEDONIA	A-15160	20 FRANCS - 1 PLAY
NORWAY	A-11145	2 X 25 ORE - 1 PLAY
	A-11389	1 KRONE - 3 PLAYS
REUNION ISLAND	A-14083	20 FRANCS - 1 PLAY
	A-14085	50 FRANCS - 3 PLAYS
RUSSIA	A-14081	20 KONEEK
SPAIN	A-11246	2 X 1 PESETA - 1 PLAY
	A-13393	5 PESETAS
	A-11247	5 PESETAS - 3 PLAYS
SWEDEN	A-11973	2 X 25 ORE - 1 SPEL
	A-13282	50 ORE - 1 SPEL
	A-13395	1 KRONA
	A-15775	1 KRONA - 1 SPEL
	A-14179	1 KRONA - 2 SPEL
A-11975	1 KRONA - 3 SPEL	
SWITZERLAND	A-12784	50 CENTIMES - 1 PLAY
	A-12781	1 FRANC - 2 PLAYS
	A-14694	1 FRANC - 3 PLAYS
	A-12857	1 FRANC - 4 PLAYS
	A-11322	1 FRANC - 5 PLAYS
	A-14773	2 FRANCS - 6 PLAYS
	A-13824	2 FRANCS - 10 PLAYS
	A-15575	2 FRANCS - 5 PLAYS
TURKEY	A-11335	25 KURUS - 1 PLAY
	A-11336	1 LIRA - 2 PLAYS
VENEZUELA	A-11159	25 CENTIMOS - 1 PLAY
	A-13853	50 CENTIMOS
	A-12489	1 BOLIVAR - 3 PLAYS
YUGOSLAVIA	A-14932	1 DINAR - 1 PLAY
	A-14934	2 X 1 DINAR - 3 PLAYS

PRINTED INSERTS FOR RED PLATES



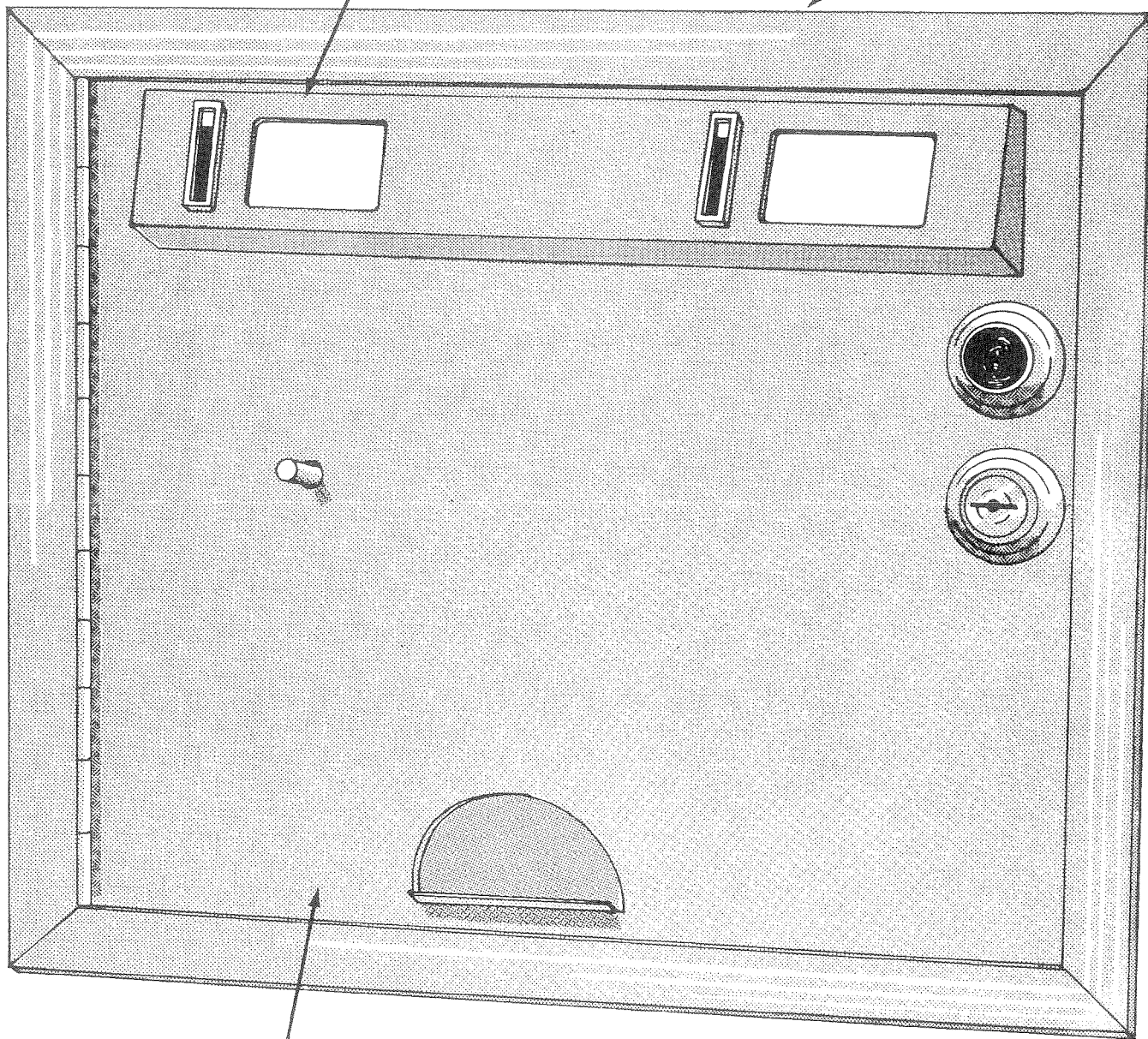
COUNTRY	PART NUMBER	COIN INFORMATION	COUNTRY	PART NUMBER	COIN INFORMATION
U.S.A. CANADA ARGENTINA PANAMA PARAGUAY	A-16507	10¢ – 1 Play	GREECE	A-17177	2 Drachmai – 1 Play
	A-16509	25¢ – 1 Play		A-17178	5 Drachmai – 3 Plays
	A-16510	25¢ – 2 Plays	ITALY	A-16546	50 Lire – 1 Play
	A-16511	25¢ – 3 Plays		A-16547	100 Lire – 1 Play
	A-16734	25¢		A-16548	100 Lire – 2 Plays
	A-17657	2 X 25¢ – 3 Plays		A-17380	2 X 100 Lire – 3 Plays
AUSTRALIA	A-16507	10¢ – 1 Play	JAPAN	A-16559	50 Yen – 1 Play
	A-16514	20¢ – 1 Play		A-16616	100 Yen – 2 Plays
	A-16515	20¢ – 2 Plays		A-16560	100 Yen – 3 Plays
	A-16516	2 X 20¢ – 3 Plays	LEBANON	A-16549	50 Piastres – 1 Play
	A-16517	2 X 20¢ – 4 Plays		A-16550	2 X 50 Piastres – 3 Plays
	A-16580	20¢	NETHERLANDS ANTILLES	A-16509	25¢ – 1 Play
A-16521	5 Francs – 1 Play	A-16551		1 Guilder – 4 Plays	
BELGIUM	A-16702	2 X 5 Francs – 1 Play	NORWAY	A-16531	1 Krone – 1 Play
	A-16703	10 Francs – 1 Play		SPAIN	A-16527
	A-16522	10 Francs – 2 Plays	A-16528		5 Pesetas – 3 Plays
	A-16529	2 X 5 Pesetas – 1 Play	SOUTH AFRICA	A-16507	10¢ – 1 Play
A-16530	25 Pesetas – 3 Plays	A-16515		20¢ – 2 Plays	
CANARY ISLANDS	A-16531	1 Krone – 1 Play	SWEDEN	A-16553	1 Krona – 1 Spel
	A-17354	3 X 1 Sucre – 1 Play		SWITZERLAND	A-16519
A-17355	5 X 1 Sucre – 2 Plays	A-16520	2 Francs – 5 Plays		
ENGLAND	A-16533	5 P – 1 Play			
	A-16534	10 P – 2 Plays			
FINLAND	A-16675	50 P – 1 Play			
	A-16676	1 MK – 2 Plays			
	A-16880	1 Markka – 1 Peli			
FRANCE	A-16519	1 Franc – 2 Plays			
	A-17356	1 Franc			
GERMANY	A-16535	50 Pfennig – 1 Spiel			
	A-16536	50 Pfennig – 2 Spiele			
	A-16537	1 Mark – 2 Spiele			
	A-16538	1 Mark – 3 Spiele			
	A-16539	1 Mark – 4 Spiele			
	A-16540	2 Mark – 5 Spiele			
	A-16541	2 Mark – 6 Spiele			
	A-16542	2 Mark – 7 Spiele			
	A-16543	2 Mark – 8 Spiele			
	A-16544	2 Mark – 9 Spiele			

RECESSED FRONT DOOR PARTS

STARTING WITH GAME SPIRIT OF 76
COIN ENTRANCE HOUSINGS

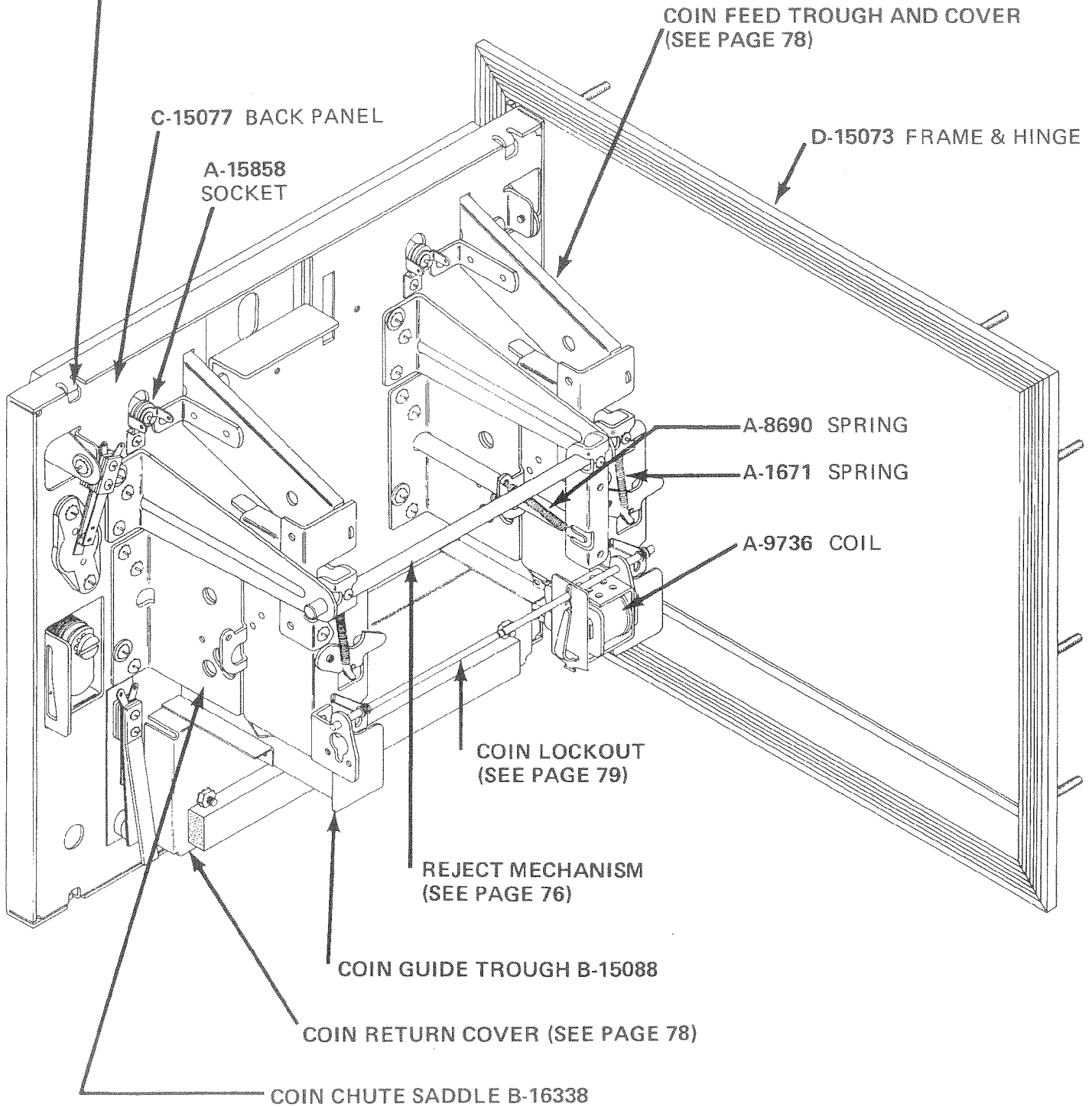
- C-17367 1 CHUTE (CENTER)
- C-15079 1 CHUTE (LEFT)
- C-15080 2 CHUTE (SHOWN)
- C-15081 3 CHUTE

D-15073 FRAME AND HINGE



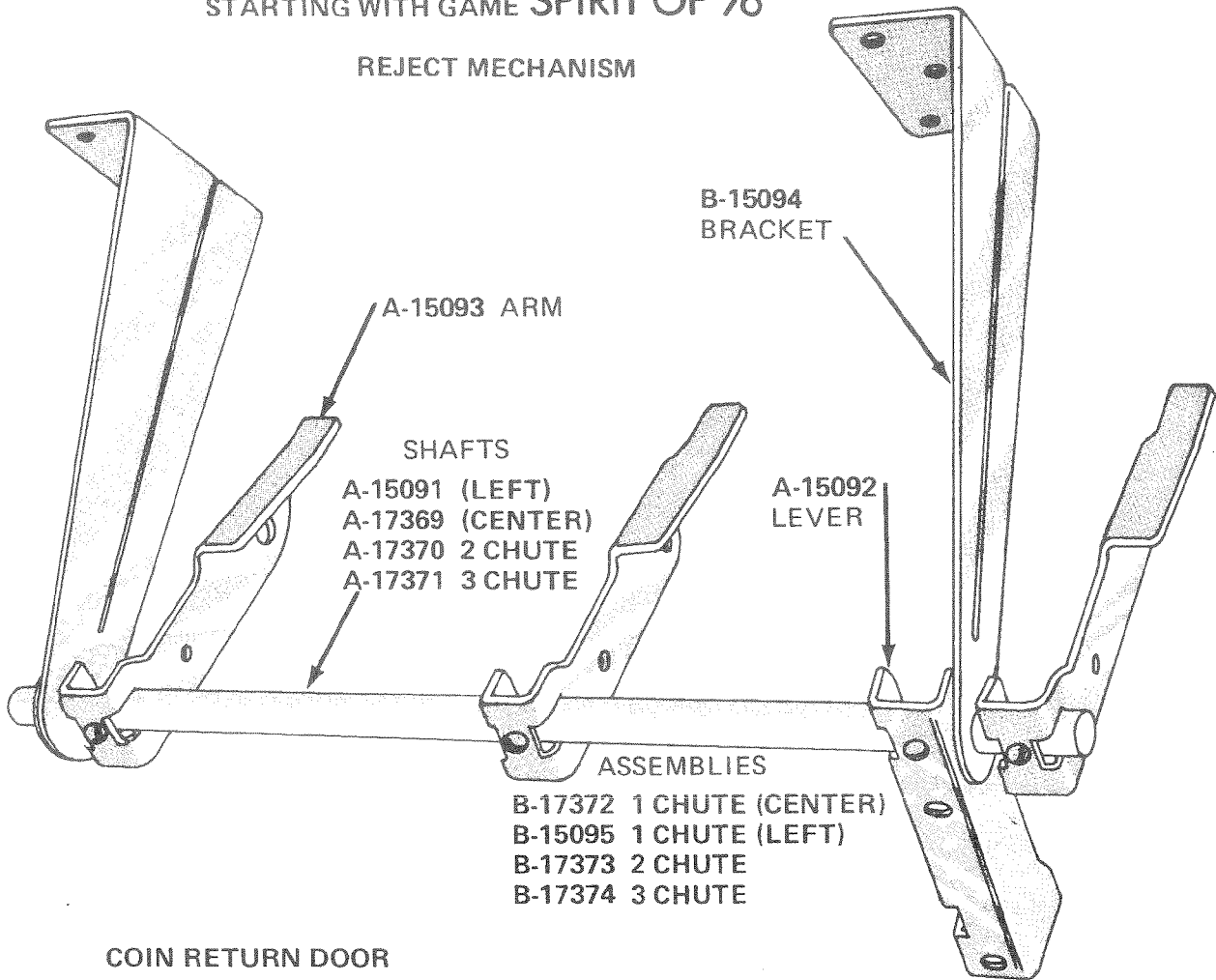
E-15074 FRONT PANEL ONLY

NOTE: TO REMOVE BACK PANEL FROM FRONT PANEL BEND TABS UP.

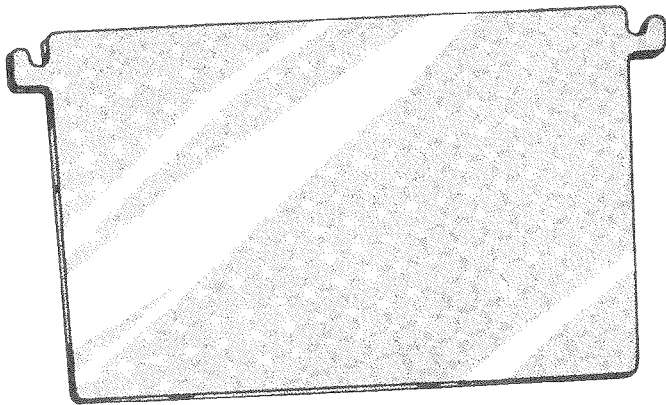


STARTING WITH GAME SPIRIT OF 76

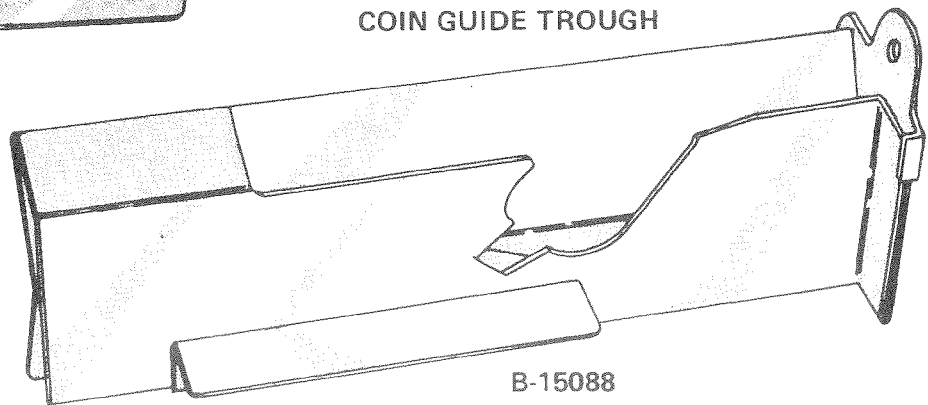
REJECT MECHANISM



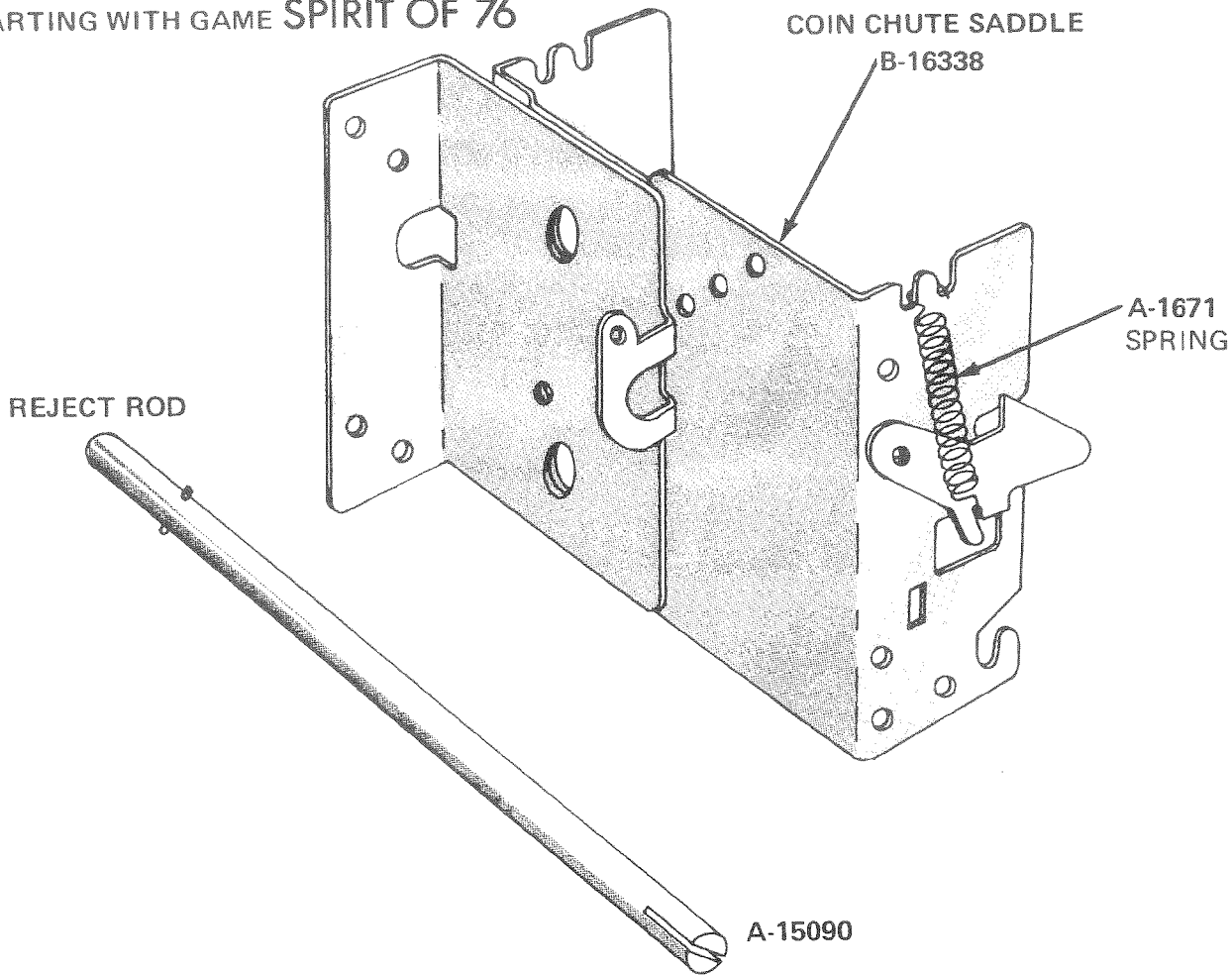
COIN RETURN DOOR



COIN GUIDE TROUGH

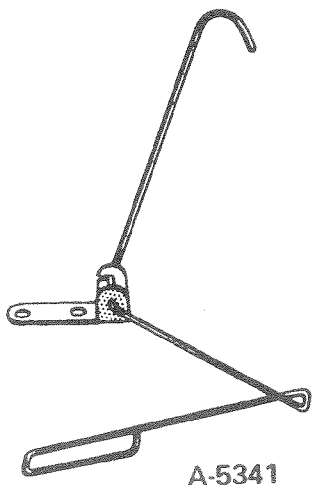


STARTING WITH GAME SPIRIT OF 76

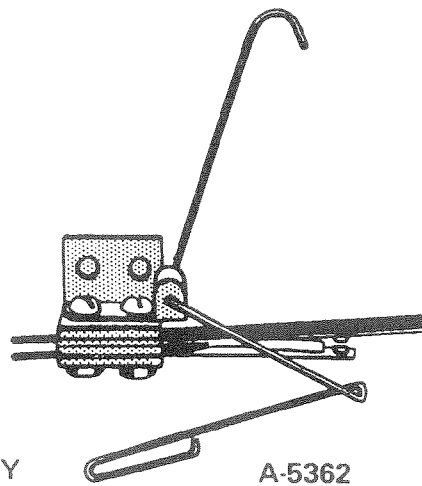


VIBRATION DAMPER

VIBRATION DAMPER AND SWITCH



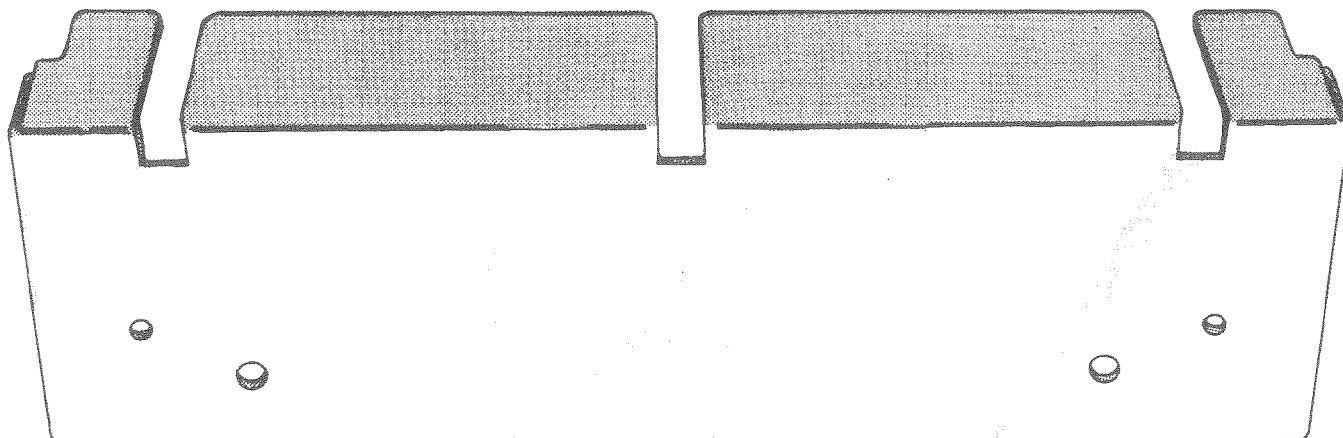
FOREIGN COIN ENTRANCE PLATES & SLUG REJECTOR CHUTE PARTS AVAILABLE ON REQUEST. SPECIFY COUNTRY NAME, NAME AND DENOMINATION OF COIN.



SLUG REJECTOR SWITCH ASSEMBLY

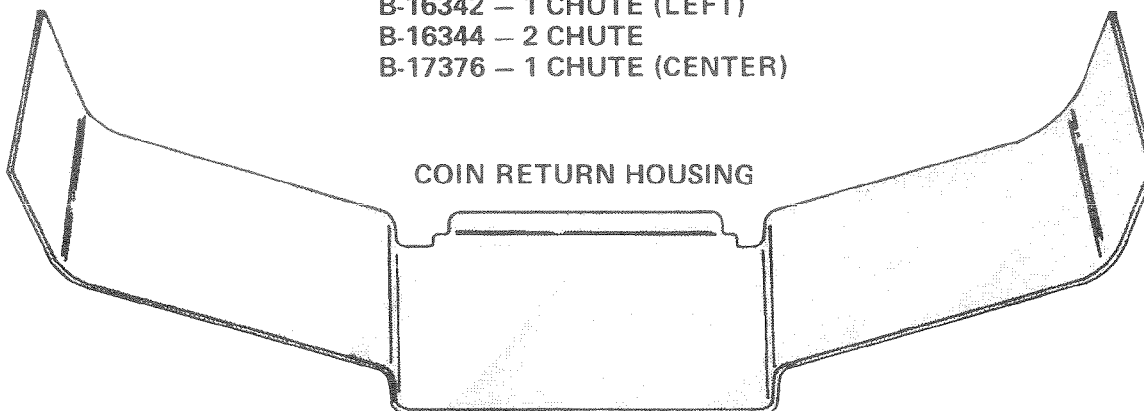


COIN RETURN COVER

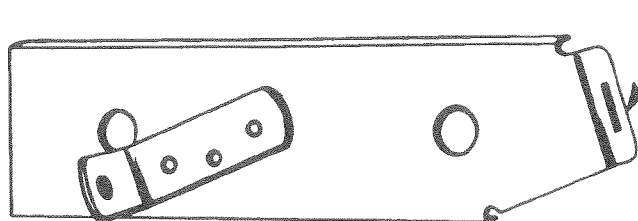


- B-15101 – 3 CHUTE (SHOWN)
- B-16342 – 1 CHUTE (LEFT)
- B-16344 – 2 CHUTE
- B-17376 – 1 CHUTE (CENTER)

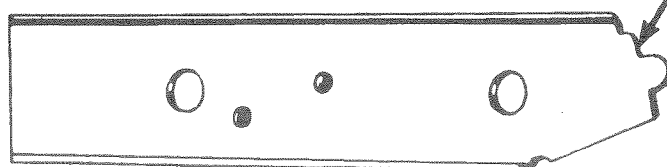
COIN RETURN HOUSING



C-15102



- COVER**
- B-15083 STANDARD
 - B-15084 WITH REBOUND SPRING
 - B-16336 FOR 100 LIRE, 2 MARKS AND 1 PESO COINS



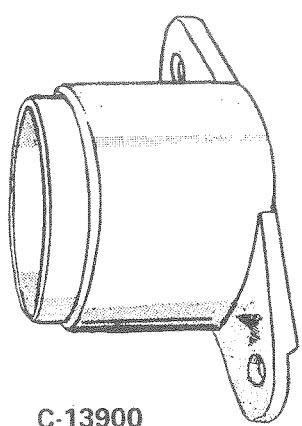
- TROUGH**
- B-15082 STANDARD
 - B-16335 FOR 100 LIRE AND 2 MARKS COINS
 - B-16337 FOR 1 PESO COIN

RECESSED FRONT DOOR PARTS



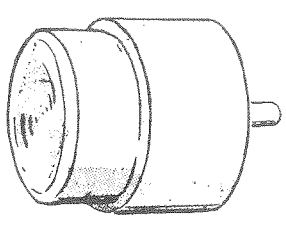
STARTING WITH GAME SPIRIT OF 76

BUSHING



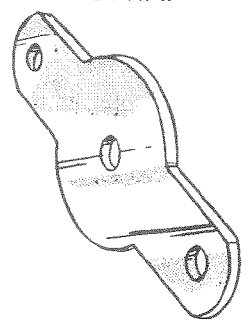
C-13900

BUTTON



B-16680

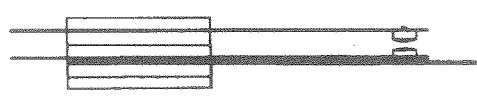
STRAP



A-13898

SWITCH ASSEMBLIES

CREDIT BUTTON



B-15856

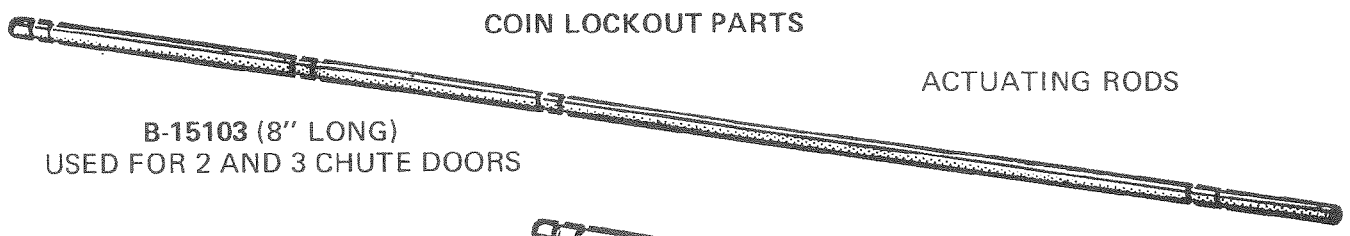
ANTI-CHEAT



B-17039

COIN LOCKOUT PARTS

ACTUATING RODS

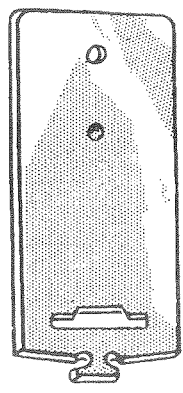


B-15103 (8" LONG)
USED FOR 2 AND 3 CHUTE DOORS



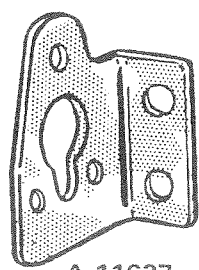
A-11641 (2-1/4" LONG)
USED ON 1 CHUTE DOOR

ARMATURE



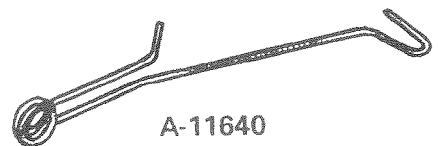
A-11639

MOUNTING BRACKET

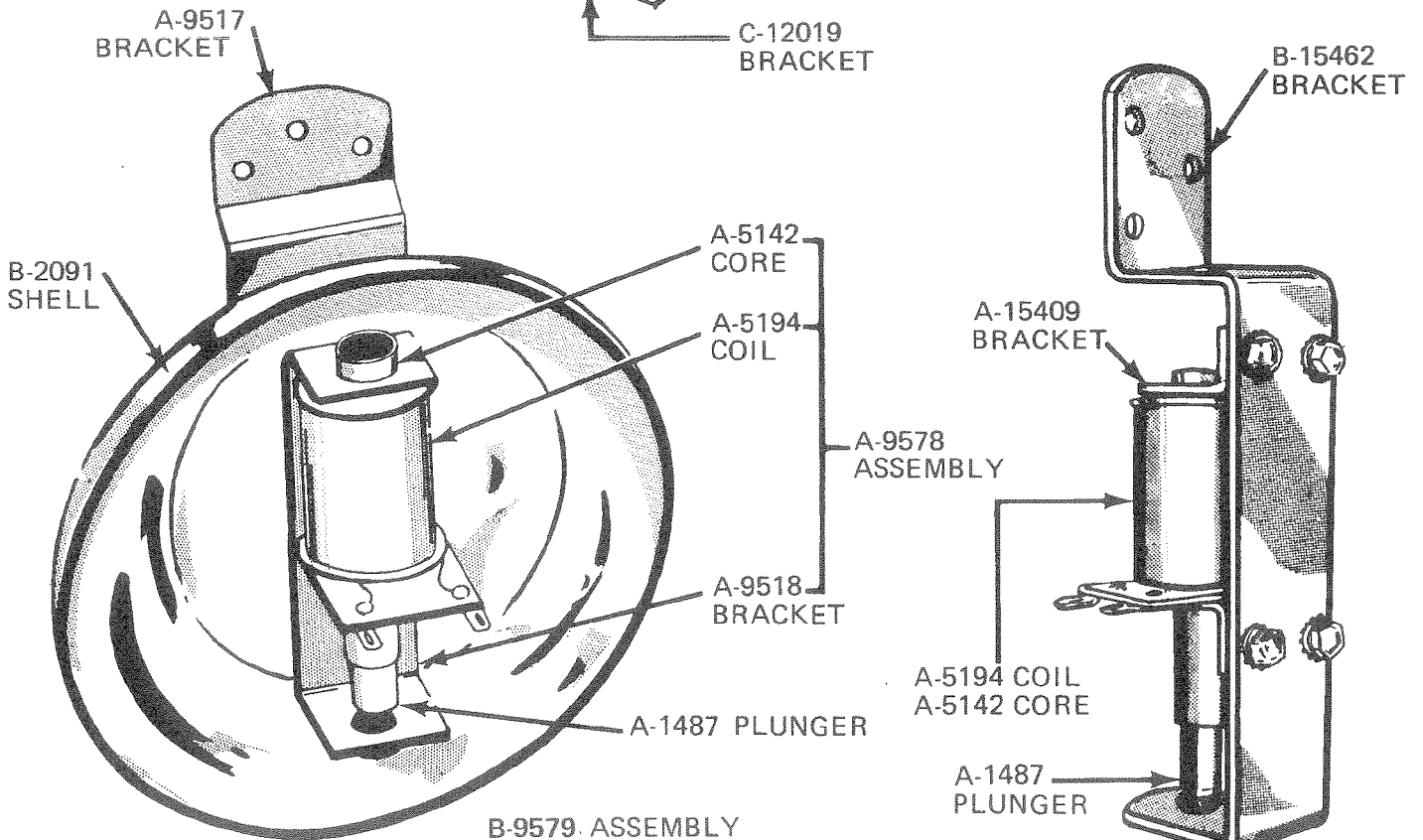
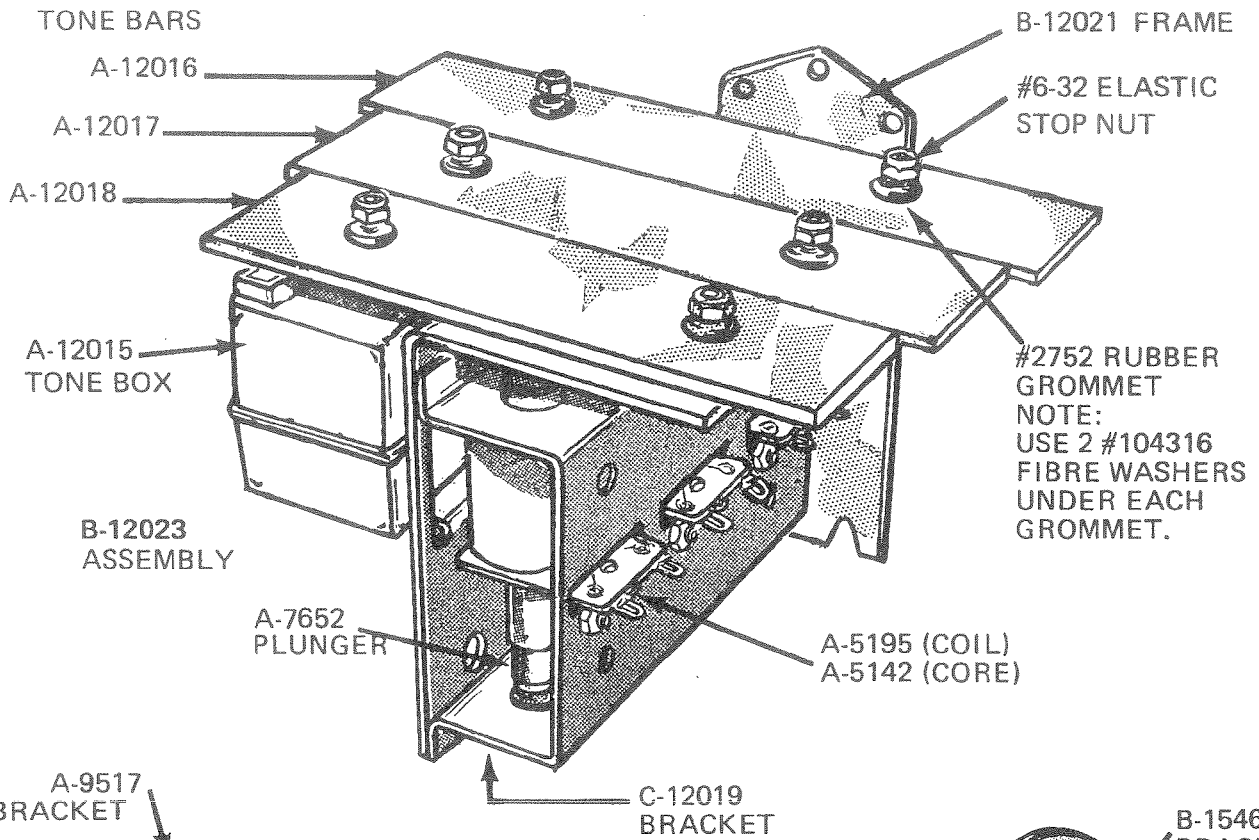


A-11637

LOCKOUT WIRE



A-11640



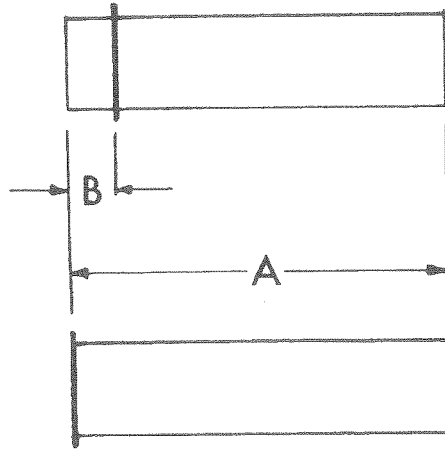
NOTE:
BELL SHELL B-2091 IS MOUNTED TO BELL COIL & MOUNTING BRACKET A-9578 WITH:
(1) 1/4" STANDARD WASHER
(1) 1/4" SPLIT LOCKWASHER
(1) 1/4-20 x 5/8 SOCKET HEAD CAP SCREW

SOLENOID COIL CHART

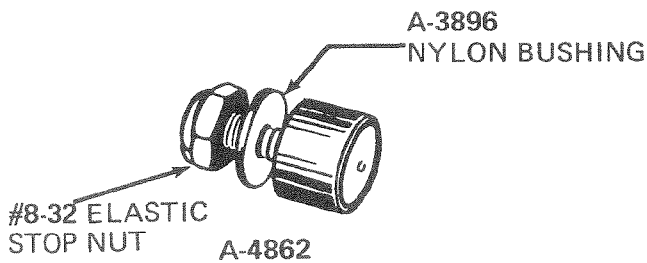
COIL	SLEEVE
A-1496	A-5065
A-4893	A-5064
A-5141	A-5064
A-5194	A-5064
A-5195	A-5142
A-5196	A-5172
A-5197	A-5172
A-7800	A-5172
A-9154	A-8111
A-9479	A-5172
A-15259	A-8111
A-15555	A-5172

COIL SLEEVE

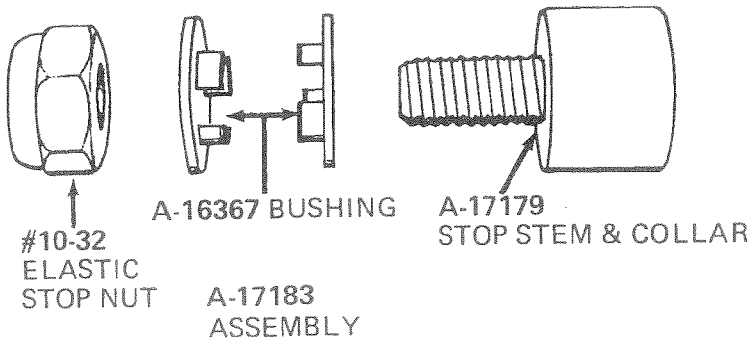
(SLIP IN CORE FOR COILS)



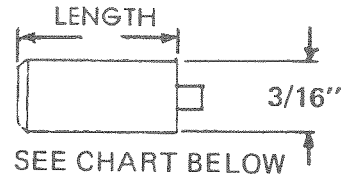
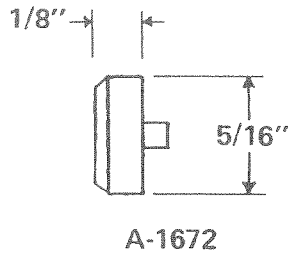
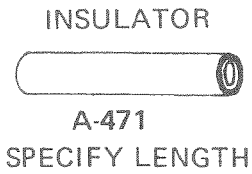
COIL STOPS



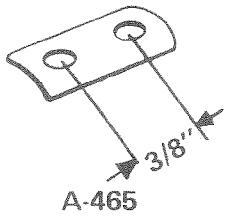
PART NUMBER	A	B
A-5064	1-21/32	
A-5065	1-7/8	
A-5142	2-3/4	1/4
A-5172	2-1/2	
A-6087	1-31/32	1/4
A-8111	1-1/4	



SWITCH BLADE LIFTERS (SHOWN OVERSIZE)

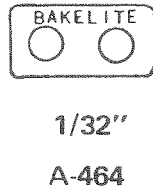
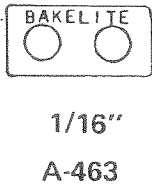


SWITCH COVER PLATES

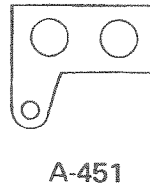


LENGTH	NYLON NO.	FIBRE NO.
3/32"	A-5255	A-453
1/8"	A-5256	A-454
5/32"	A-5257	A-455
3/16"	A-5258	A-456
7/32"	A-5259	A-457
1/4"	A-5260	A-458
9/32"	A-5261	A-459
5/16"	A-5262	A-460
11/32"	A-5263	A-461
13/32"	A-5264	A-462

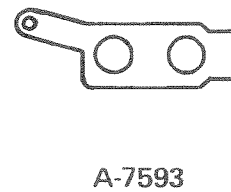
SEPARATORS



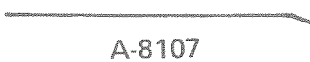
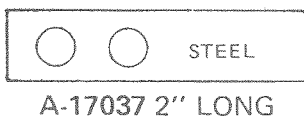
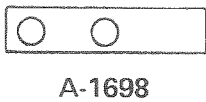
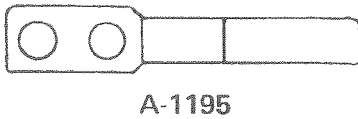
SIDE LUG



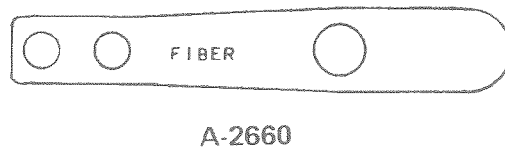
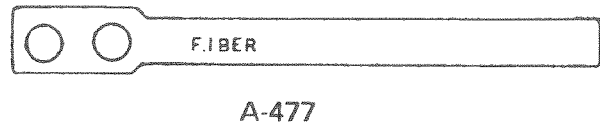
SOLDER LUG BLADE



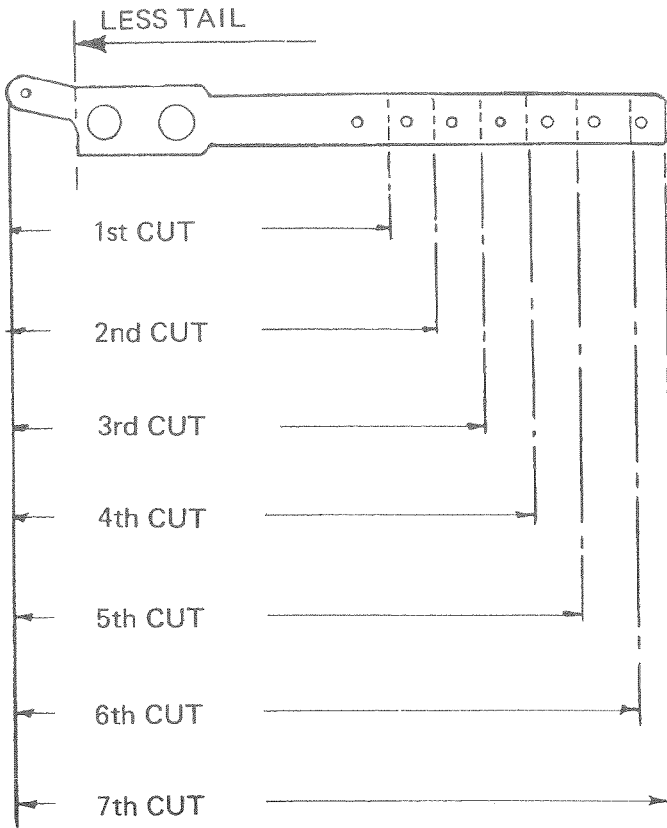
BACKING BLADES



SWITCH BLADE INSULATORS



3/8" MOUNTING CENTERS



When ordering switch blades with points or lifters installed, specify:

- Blade number,
- Point number,
- Point facing up or down,
- Point location,
- Lifter number,
- Lifter facing up or down,
- Lifter location.

EXAMPLE:

To obtain a .010 4th cut switch blade with tail, large point in 3rd hole facing up, a 5/16" long nylon lifter in the 4th hole facing down. (Hold blade in manner shown below)



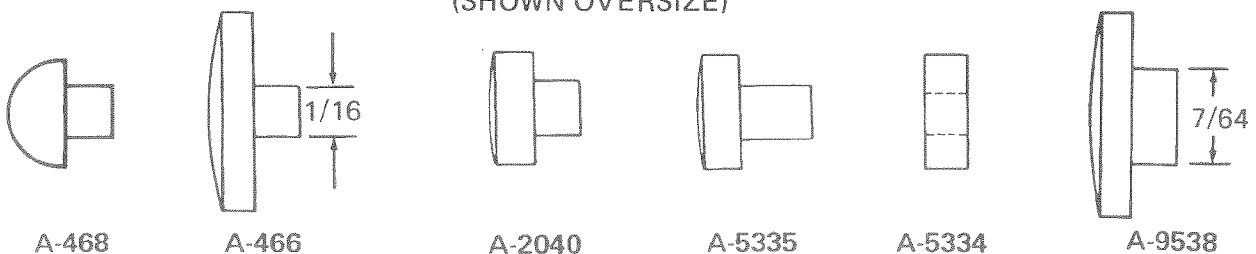
TO WRITE ORDER:

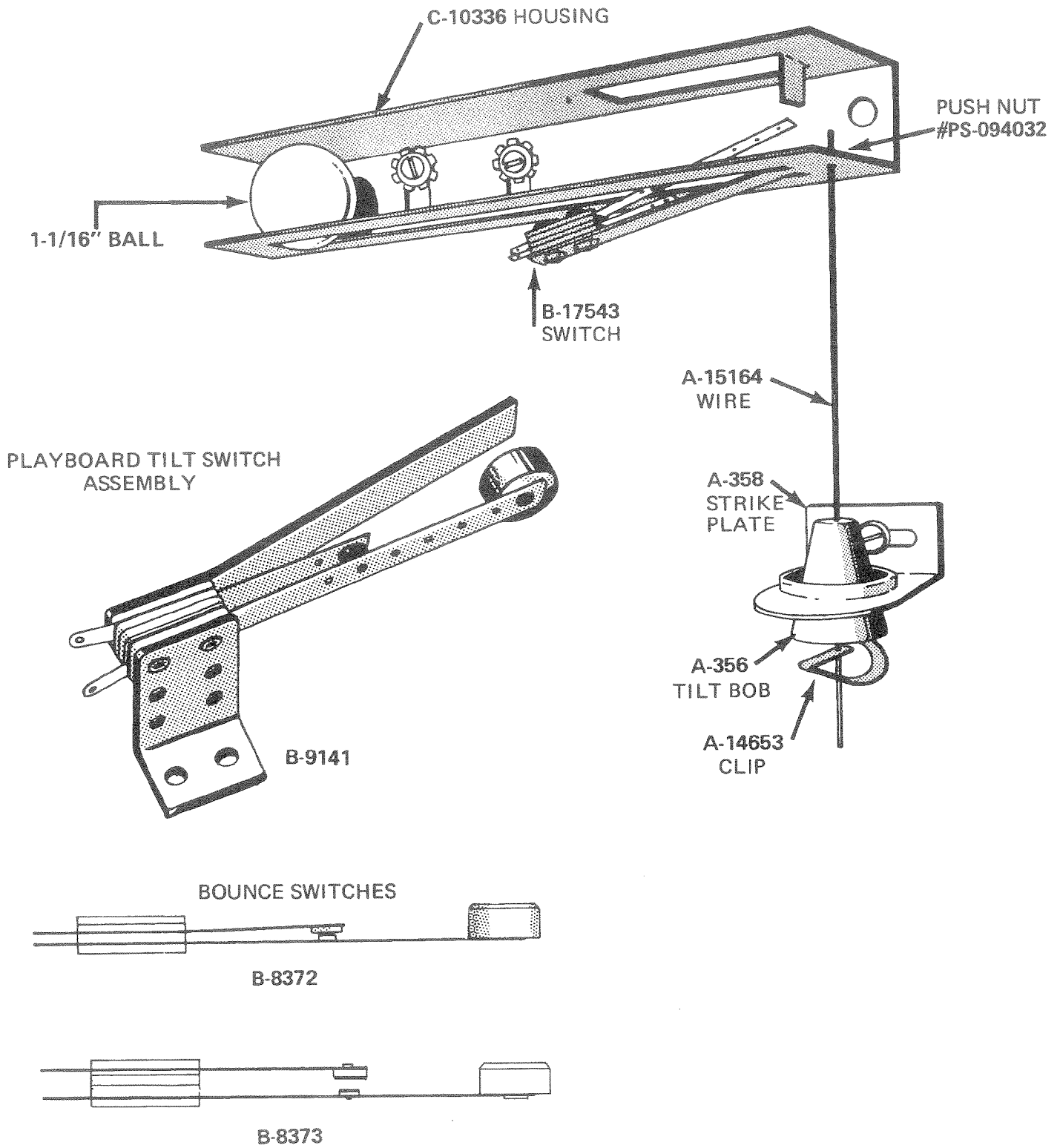
A-407, A-466 up 3rd & A-5262 down 4th.

BLADE THICKNESS		1ST CUT	2ND CUT	3RD CUT	4TH CUT	5TH CUT	6TH CUT	7TH CUT
.008"	With Tail	A-391	A-396	A-401	A-406	A-411	A-2314	A-416
	Less Tail	A-421	A-426	A-431	A-436	A-441	A-2319	A-446
.010"	With Tail	A-392	A-397	A-402	A-407	A-412	A-2315	A-417
	Less Tail	A-422	A-427	A-432	A-437	A-442	A-2320	A-447
.012"	With Tail	A-393	A-398	A-403	A-408	A-413	A-2316	A-418
	Less Tail	A-423	A-428	A-433	A-438	A-443	A-2321	A-448
.016"	With Tail	A-394	A-399	A-404	A-409	A-414	A-2317	A-419
	Less Tail	A-424	A-429	A-434	A-439	A-444	A-2322	A-449
.020"	With Tail	A-395	A-400	A-405	A-410	A-415	A-2318	A-420
	Less Tail	A-425	A-430	A-435	A-440	A-445	A-2323	A-450

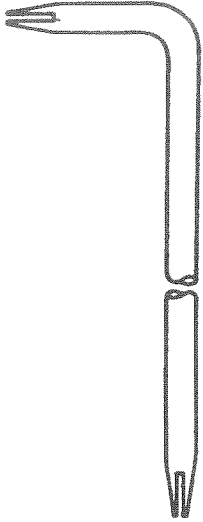
SILVER CONTACT POINTS

(SHOWN OVERSIZE)



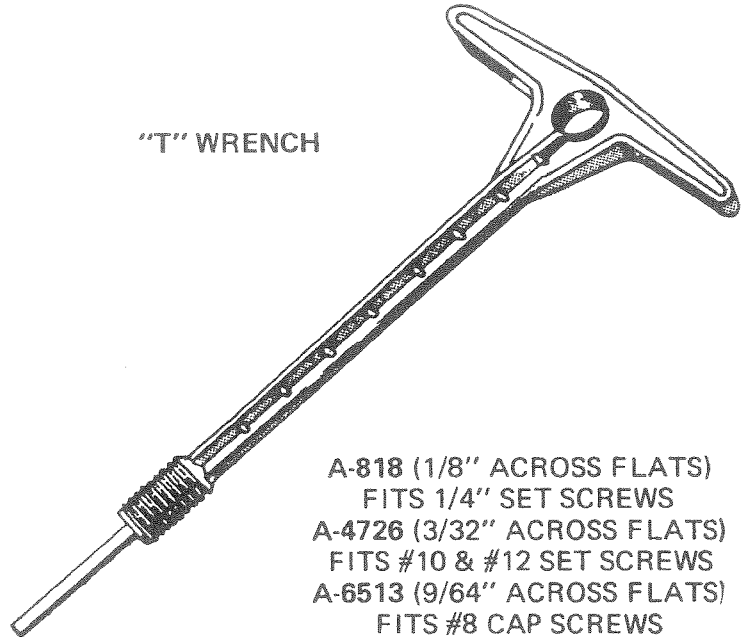


CONTACT ADJUSTER



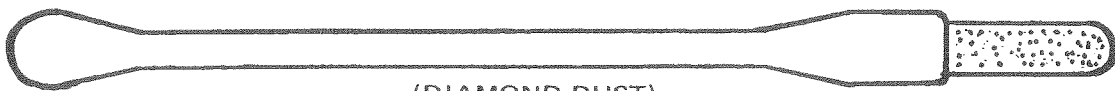
A-4515

"T" WRENCH

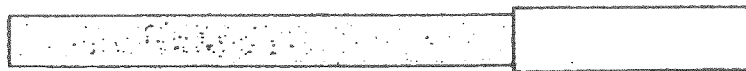


- A-818 (1/8" ACROSS FLATS)
FITS 1/4" SET SCREWS
- A-4726 (3/32" ACROSS FLATS)
FITS #10 & #12 SET SCREWS
- A-6513 (9/64" ACROSS FLATS)
FITS #8 CAP SCREWS

POINT BURNISHING TOOLS



(DIAMOND DUST)
A-9460



A-14104

MINI PRY BAR



A-16351

ELECTRIC BALL SHOOTER KIT

Replaces player actuated ball shooter. Comes complete with shooter coil, hardware, switch, cover plate and spotting templet.

Part Number C-11444

FRONT DOOR INTER-LOCK KIT

Comes complete with 3 wire line cord, transformer cage, inter-lock switch, wire, hardware and wiring instructions.

Part Number A-15352

TILT DELAY KITS

Prevents cheating from pounding and dropping of game. Comes complete with relay, lamp, wire, hardware and wiring instructions. Specify multiple or single player game.

Part Numbers

A-15566 – Multiple Player
Game.

Games Made
before 8-72

A-15567 – Single Player
Game.

A-16930 – All Games after 9-72

25¢ – 1 PLAY, 2 × 25¢ 3 PLAYS KIT

Converts games to 1 coin 1 play and 2 coins 3 plays. Comes complete with relay, counter, switches, labels, wire, hardware and wiring instructions.

Part Number C-16246

Motor: 10 drops Fine Oil through $\frac{3}{8}$ " round hole located on motor switch mounting plate 1" from motor coil.

Motor unit cam edges: White Lube.

Step switch gear shaft: Fine Oil.

Step switch gear: Black Lube.

Step switch torsion spring: Fine Oil.

Step switch reset arm pivot: Fine Oil.

Step switch drive arm pivot: Fine Oil.

Wiper discs and rivet heads: White Lube.

Flipper shaft and bushing: Nylon bushing: Fine Oil.

Ball shooter plunger: Fine Oil.

Coil driven bank set up arm: White Lube at ends; Fine Oil on pivot.

Long reset arm inside bank: White Lube.

Kick out hole fulcrum: Fine Oil.

Contact ball kicker fulcrum: Fine Oil.

Cup type bumper switch: White Lube in cup.

Printed circuit disc — Very fine film — White Lube.

"AS" Relay armature fulcrum: White Lube.

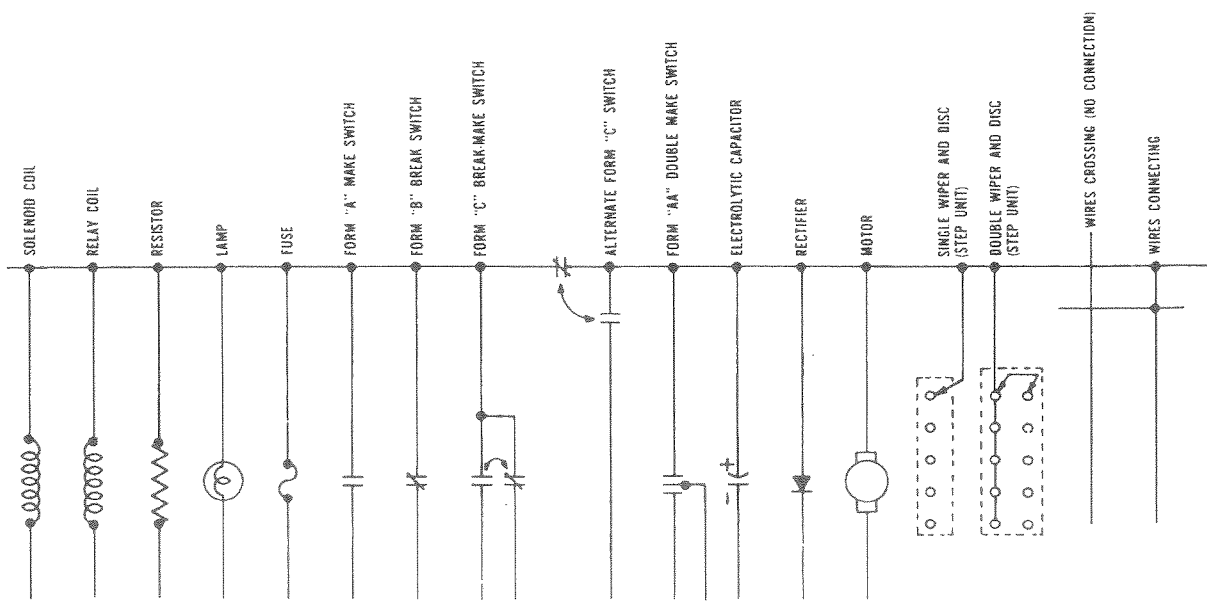
"AS" Relay flat spring: White Lube.

"AS" Relay ratchet shaft: Fine Oil.

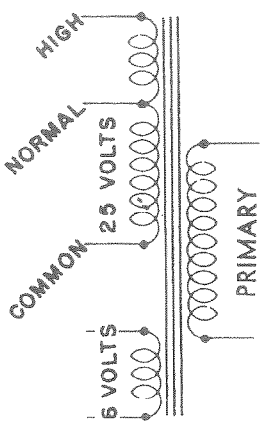
IMPORTANT:

Coil plungers such as the "POP" bumper coil plunger, have a bright nickel plate finish and should not be lubricated. If kept clean, these plungers will operate efficiently for the life of the game. Other parts that should not be lubricated are the coin rejectors and "AG" relays.

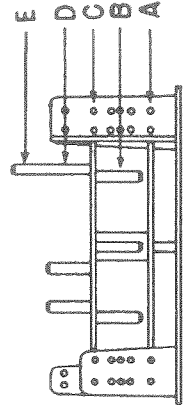
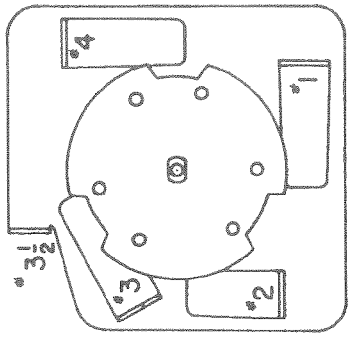
WIRING DIAGRAM SYMBOLS



TRANSFORMER



MOTOR SWITCH POSITIONS



"COLOR CODE ABBREVIATIONS"

- BL = BLUE
- BR = BROWN
- BLK = BLACK
- GR = GREEN
- OR = ORANGE
- SL = SLATE
- YEL = YELLOW
- WH = WHITE
- MAR = MAROON
- PUR = PURPLE

EXAMPLE:

- BL - WH = BLUE WITH A WHITE TRACER.
- BL & WH = BLUE AND WHITE MOTTLED.



NOTE:
 SWITCHES ON SCHEMATIC DIAGRAMS ARE SHOWN WITH GAME IN RESET POSITION — LINE CORD DISCONNECTED FROM POWER OUTLET. BANKS SHOWN WITH ALL RELAYS SET-UP.

NOTES