

ON TARGET

TECHNICAL NEWSLETTER VOLUME 2, ISSUE 9 OCTOBER 1981

Gottlieb

GOTTLIEB'S NEW KICKING TARGET!

Gottlieb introduces on its games Volcano and Black Hole a target that kicks the ball with the force of a flipper! The unique design of the kicking target provides a reliable mechanical device offering new action for pin-ball games.



Figure 1 is an illustration of the kicking target mechanism and Figure 2 is an exploded view. When the ball strikes the face of the target arm (10), the lower target arm section moves forward on the pivot shaft (13), closing the switch contacts (11). The closed contacts allow voltage (+24VDC) to energize the A-1496 coil (3). The activated coil pulls the coil plunger (7) into the coil core. The plunger action causes the target kicker cam (8) to strike the backside of the target face. The target arm snaps forward, kicking the ball forward with extraordinary force. This action opens the switch contacts, thus de-energizing the coil.

A normally open scoring switch contact rests on the kicker cam pin. The switch contacts close when the kicker cam is pulled in by the plunger.

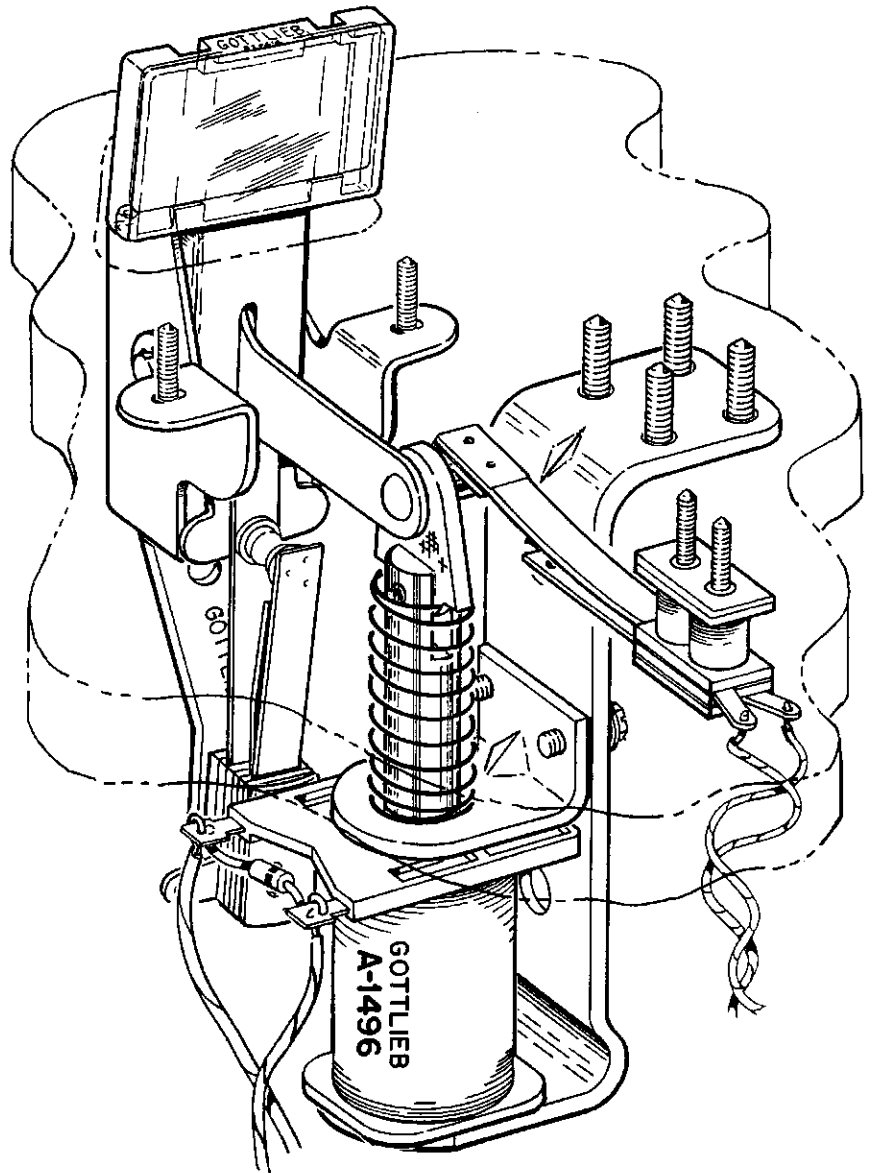


FIGURE 1

Removing the coil is done by unscrewing the mounting bracket (2) from the coil stop bracket (4).

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(continued from page 1)

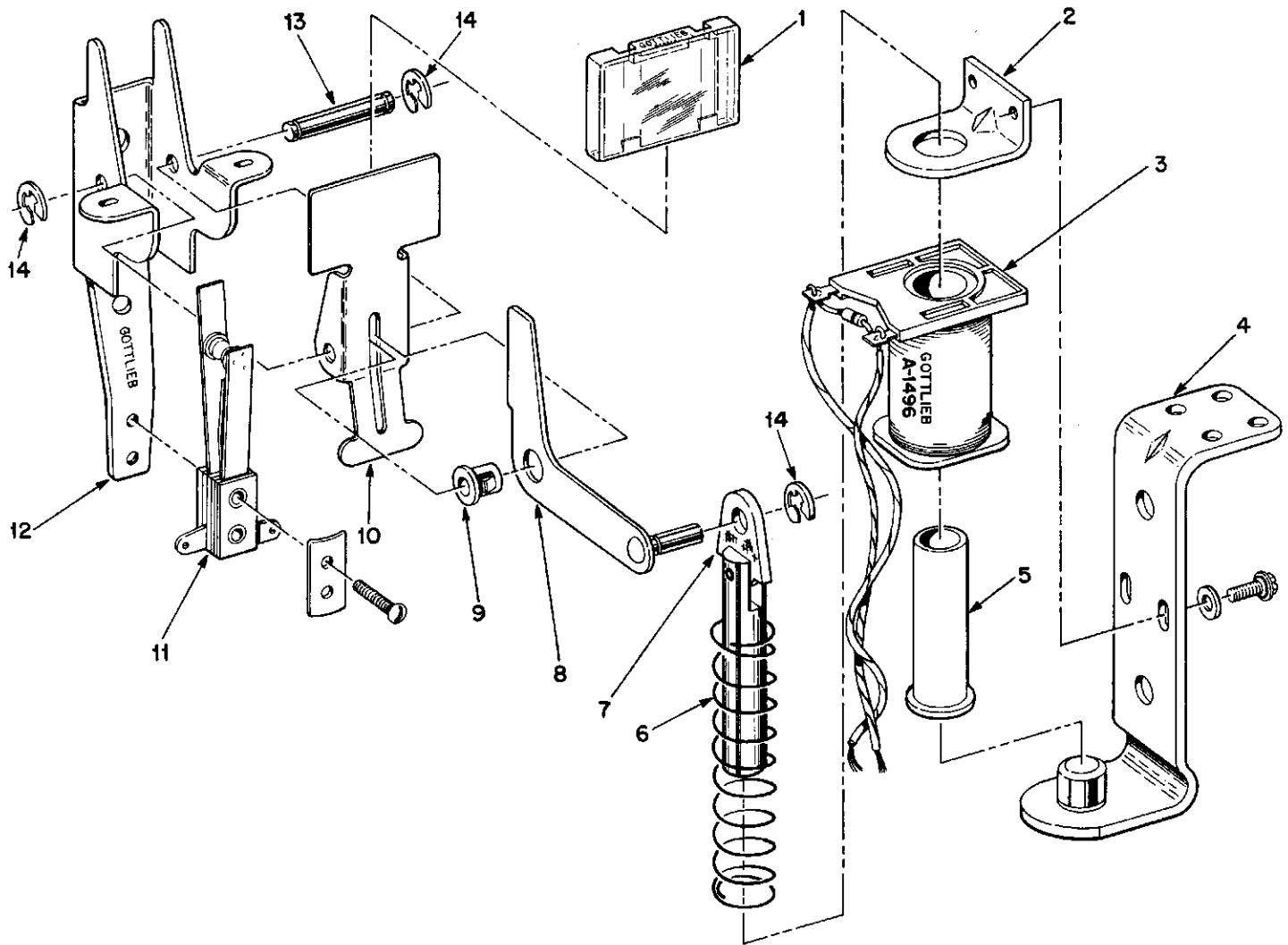


FIGURE 2

<u>No.</u>	<u>Description</u>	<u>Part No.</u>
1	Plastic Shield	B-20210
2	Mounting Bracket	A-15409
3	Coil	A-1496
4	Coil Stop & Mtg. Bracket	A-20597
5	Coil Sleeve	A-5064
6	Spring	A-1636
7	Link & Plunger Assembly	A-20212
8	Target Kicker Cam	A-20209
9	Snap Bushing	SB-312-3
10	Target Arm	A-20207
11	Switch Assembly	B-20227
12	Target Housing	A-20206
13	Target Shaft	A-20211
14	E-Ring	5133-18

POP BUMPER SCORING SWITCH

The pop bumper scoring switches on our pinball game, Black Hole, have been changed to eliminate the mechanical wear on the switch caused by the insulating yoke slamming the scoring switch closed when the pop bumper is activated. Gottlieb will now use the configuration shown in Figure 3 on all of its future games. A contact of the switch now rests atop the insulating yoke, keeping the switch open. When the pop bumper is activated, the switch closes by just the spring tension of the contact, allowing for a more reliable switch.

SCORING SWITCH

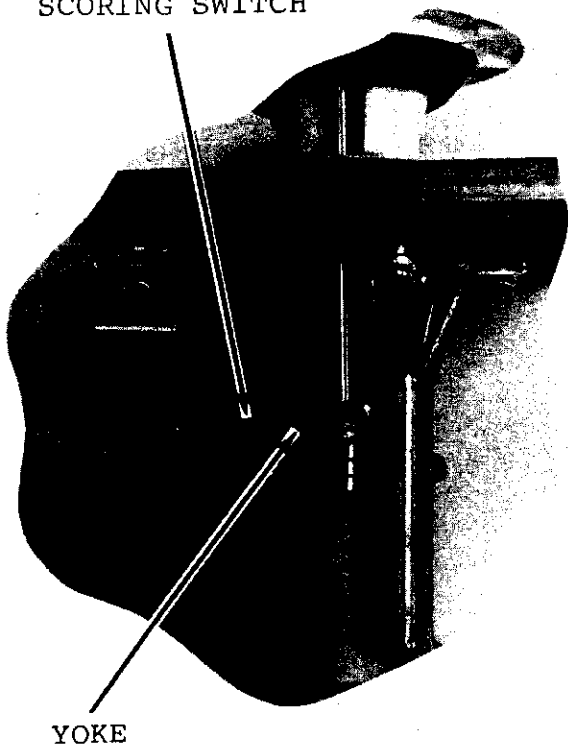


FIGURE 3

Correction

The September issue (Volume 2, Issue 8) had two errors:

- 1) The U14 Strobe Circuit modification procedure (p. 1), C-17 must be removed.
- 2) Figure 5A and 5B. The vertical settings for U21, Pin 6 should be 2v/DIV, not 5v/DIV.

FLASHBACK

Starting with JOCKEY CLUB, and for the next nine games (all single-player), a player inserting a second coin would double any replays won. The replay unit had two step-up coils; the second one moved the step-up arm over two teeth of the gear and so gave two steps for each pulse. The chances of winning replays was not affected by this feature. The following games had this "Double Award" feature.

JOCKEY CLUB (April 1954)
HAWAIIAN BEAUTY
DRAGONETTE
4-BELLES
DAISY MAY
DIAMOND LILL
MYSTIC MARVEL
GOLD STAR
LADY LUCK (Sept. 1954)

BLACK HOLE



Notice

The Pinball/Video Service Hotlines are now the same. Call 800-323-9121, in Illinois 800-942-1620 from 8:00 a.m. to 4:30 p.m. CST for any Gottlieb pinball or video game assistance.

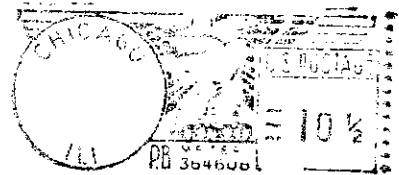
MAILING LIST: Get ON TARGET every month by sending your name and mailing address to:

ON TARGET
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