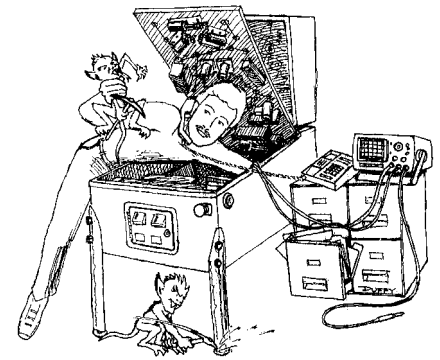


Service Bulletin N^o 108



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TO: Parts & Service Managers

DATE: August 18, 1998

SUBJ: "Sega" Style & "Data East" Style Flipper Rebuild Kits are Available!

Explanation:

Here's another improvement from the folks at **Sega Pinball**. Because you asked for it your getting it! We have put together several flipper parts rebuild kits & whether you have the "Data East Pinball" Style or the "Sega Pinball" Style, this kit is for you! We have reintroduced Service Bulletin 94 (modified), Flipper Alignment Spots, as a helpful hint in aligning your flipper bats after you have rebuilt your flippers.

If you have the Sega Style Flippers (SPI Part N^o: 500-5944-XX) (Batman Forever thru current) ask for the Left and/or Right "Complete" Sega Flipper Rebuild Kit:

COMPLETE LT. FLIPPER (SEGA STYLE) REBUILD KIT SPI Part N^o: 500-6306-10 which contains:

Description	SPI Part N ^o	Qty.
A Plunger Link & Pawl Assy. <u>Left</u>	515-6518-01	1
B Flipper Bushing	545-5594-00	1
C #10-32 X 3/8" HWH Swage	237-5985-00	2
D #8-32 X 3/8" HWH TF Swage	237-5975-00	2
E #10 Lock Washer	246-5002-00	2
F Coil Sleeve	545-5388-00	1
G Coil Support Bracket	535-7356-00	1
H Coil Stop Sub-Assy.	515-6308-01	1
I Flipper Return Spring	265-5035-00	1
J EOS Switch	180-5149-00	1

COMPLETE RT. FLIPPER (SEGA STYLE) REBUILD KIT SPI Part N^o: 500-6306-00 which contains:

Description	SPI Part N ^o	Qty.
A Plunger Link & Pawl Assy. <u>Right</u>	515-6518-00	1
B Flipper Bushing	545-5594-00	1
C #10-32 X 3/8" HWH Swage	237-5985-00	2
D #8-32 X 3/8" HWH TF Swage	237-5975-00	2
E #10 Lock Washer	246-5002-00	2
F Coil Sleeve	545-5388-00	1
G Coil Support Bracket	535-7356-00	1
H Coil Stop Sub-Assy.	515-6308-01	1
I Flipper Return Spring	265-5035-00	1
J EOS Switch	180-5149-00	1

If you do not need to rebuild the entire Sega Style Flipper but just need to replace the Plunger Link & Pawl Assy., Coil Sleeve & Coil Stop Sub-Assy. ask for the Left and/or Right Flipper "Field" Rebuild Kit:

LEFT FLIPPER FIELD (SEGA STYLE) REBUILD KIT SPI Part N^o: 500-6307-10 which contains:

Description	SPI Part N ^o	Qty.
A Plunger Link & Pawl Assy. <u>Left</u>	515-6518-01	1
F Coil Sleeve	545-5388-00	1
H Coil Stop Sub-Assy.	515-6308-01	1

RIGHT FLIPPER FIELD (SEGA STYLE) REBUILD KIT SPI Part N^o: 500-6307-00 which contains:

Description	SPI Part N ^o	Qty.
A Plunger Link & Pawl Assy. <u>Right</u>	515-6518-00	1
F Coil Sleeve	545-5388-00	1
H Coil Stop Sub-Assy.	515-6308-01	1

If you have the Data East Pinball Style Flippers (early production Batman Forever & prior) ask for the Data East Pinball Flipper Rebuild Kit (this kit works for both Left & Right Data East Pinball Flippers):

FLIPPER (DATA EAST STYLE) REBUILD KIT SPI Part N^o: 500-6306-20 which contains:

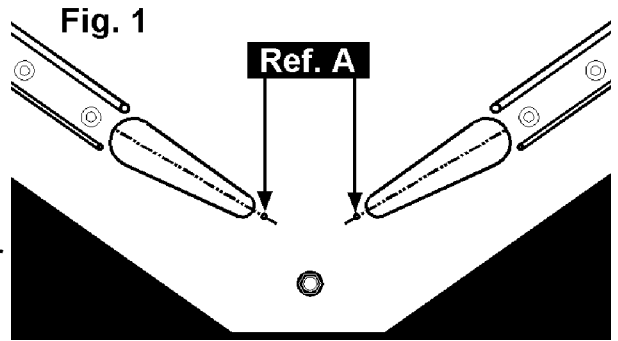
Description	SPI Part N ^o	Qty.	Description	SPI Part N ^o	Qty.
A Plunger Link	515-5822-00	1	I EOS Switch	180-5124-01	1
B Pawl	530-5070-00	1	J Spring Washer	269-5002-00	1
C Bushing	530-5139-00	1	K 1/4-20 Soc. Hd. X .38	237-5861-00	2
D Flipper Bushing	545-5070-00	1	L #10-32 Soc. Hd. X .75 Lg.	237-5966-00	1
E Coil Sleeve	545-5388-00	1	M #10-32 Soc. Hd. Shoulder Bolt	237-5019-00	1
F Coil Support Bracket	535-6453-00	1	N #10-32 Elastic Stop Nut	240-5203-00	1
G Coil Stop Sub-Assy.	515-5346-00	1	O Plastic Cap	545-5084-00	1
H Flipper Return Spring	265-5029-02	1			

View the next page for Flipper Alignment hints (Sega Style Flipper is shown in the Side View (Fig. 2) & the Top View (Fig. 4) and Data East Pinball Style is shown in the Top View (Fig. 3). **Please Note:** Some variances occur for the Data East Pinball Style Flippers.

Flipper Bat Aligning after installing your rebuild kits:

Flipper Alignment Spots. Starting with our game **Lethal Weapon 3** thru our current games, we had added two (2) spotting holes to help the technician ensure the flippers are aligned correctly. There is one (1) small spotting hole at the front end of each flipper bat (see **Fig. 1, Ref. A**). Proper alignment is achieved by centering the ends of each flipper bat to each spot mark. The Flipper Bats can become out of alignment with excessive use or if the assembly was removed / loosened for servicing.

Please Note: If you are trying to align flipper bats on games **Laser War** thru **Hook**, determine the imaginary center line of the bat with the center of the ball guides on either side.)



Procedure:

- 1 Lift playfield and support.
- 2 Loosen the Hex Nut* and Socket Head Screw (tightens / loosens Pawl to shaft) just enough so that the Flipper Bat & Shaft moves with some resistance (see **Fig. 2 or 3, Ref. B**).
- 3 Center the end of each Flipper Bat to each spot mark (see **Fig. 1, Ref. A**).
- 4 Retighten the Socket Head & Hex Nut* (closing the Pawl onto the Flipper Shaft) ensuring the Flipper Bat is now in the correct position.

* Early Production *Batman Forever* Games and prior which used the *Data East Style* Flippers did not use Hex Nuts.

Please Also Note: Ensure there is minimal up & down movement of the Flipper Shaft and Pawl. The space between the Pawl and the Flipper Bushing (white plastic) should be no more than a 1/32" (see **Fig. 2, Ref. C**). Any more or less may cause premature failure to *Flipper Assembly Components*. If there is too much up & down movement, refer back to the above procedure steps & adjust accordingly.

Fig. 2 Note: Our current *Sega Style Flipper* is shown above (used in *Batman Forever* through our current games).

Fig. 3 Note: Below is the *Top View of the Data East Pinball Style Flipper* (when using above procedure, disregard ref. to the Hex Nut).

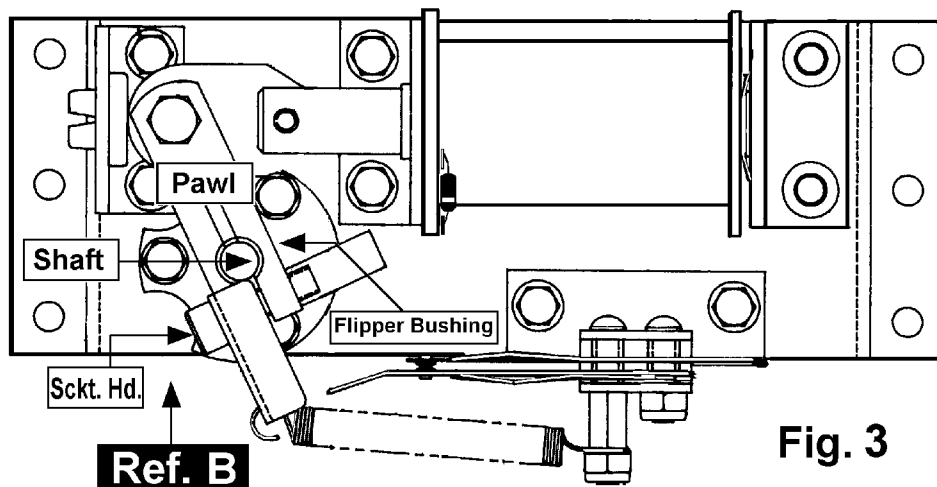
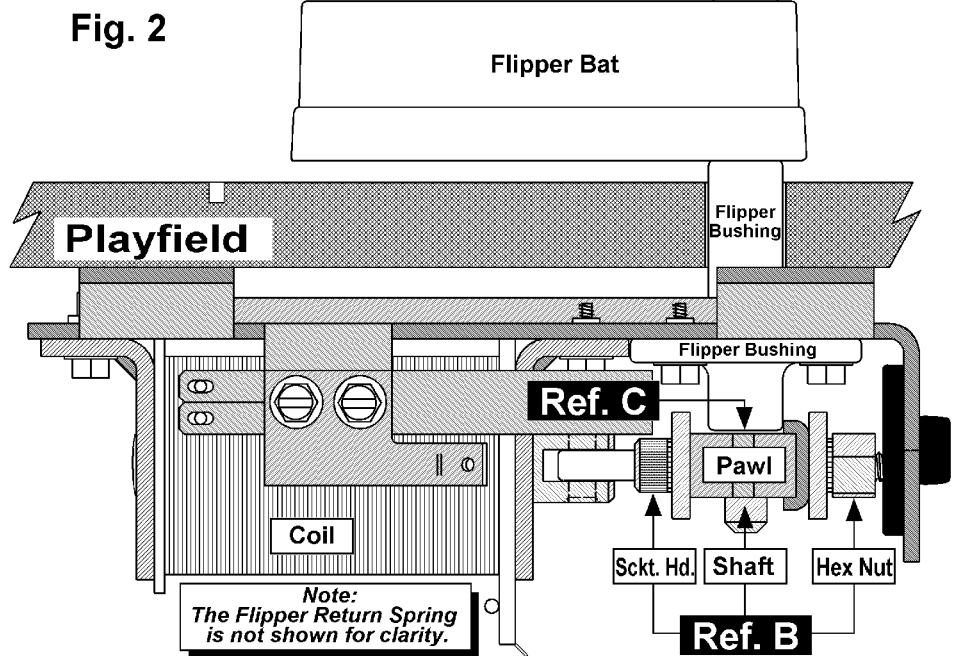
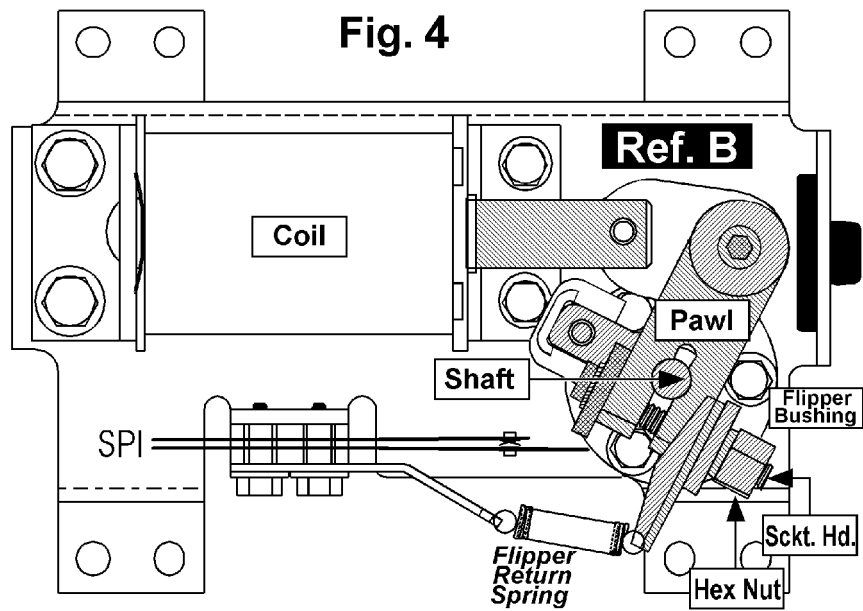


Fig. 4 Note: On the next page is the *Top View of the Sega Style Flipper*.

Fig. 4 Note: Below is the Top View of the Sega Style Flipper.



Any questions or concerns please contact Technical Support at the below numbers.