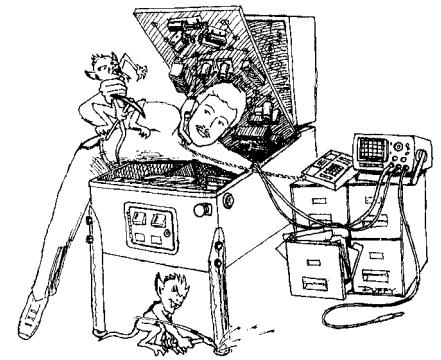


# Service Bulletin N<sup>o</sup> 103



Joe Blackwell  
Technical Support Manager

Eric Winston  
Technical Support Engineer

Doug Lemons  
Technical Support Engineer

Jay Alfer  
Technical Support Administrator

**TO:** Parts & Service Managers

**DATE:** July 14, 1997

**SUBJ:** Solid State Flipper Board, 520-5033-00 (Non-E.O.S) conversion to  
Solid State Flipper Board, 520-5080-00 (E.O.S)

## Explanation:

We no longer make the **Solid State Flipper Board (Non-E.O.S)**, Sega Part N<sup>o</sup> 520-5033-00, used in games from Playboy 35th Anniversary through Rocky & Bullwinkle & Friends. For those of you wanting or needing a replacement board, here are a couple of options:

## Options:

1. Order the **Solid State Flipper Board (E.O.S)**, Sega Part N<sup>o</sup> 520-5080-00, used in games WWF Royal Rumble, Baywatch, Apollo 13 & Golden Eye; specify to update this board to a **Solid State Flipper Board (Non-E.O.S.)**, Sega Part N<sup>o</sup> 520-5033-00 (**WE WILL** make the modifications).

*or...*

2. Use your existing stock or order a **Solid State Flipper Board (E.O.S)**, Sega Part N<sup>o</sup> 520-5080-00, and modify it yourself. Refer to procedures below.

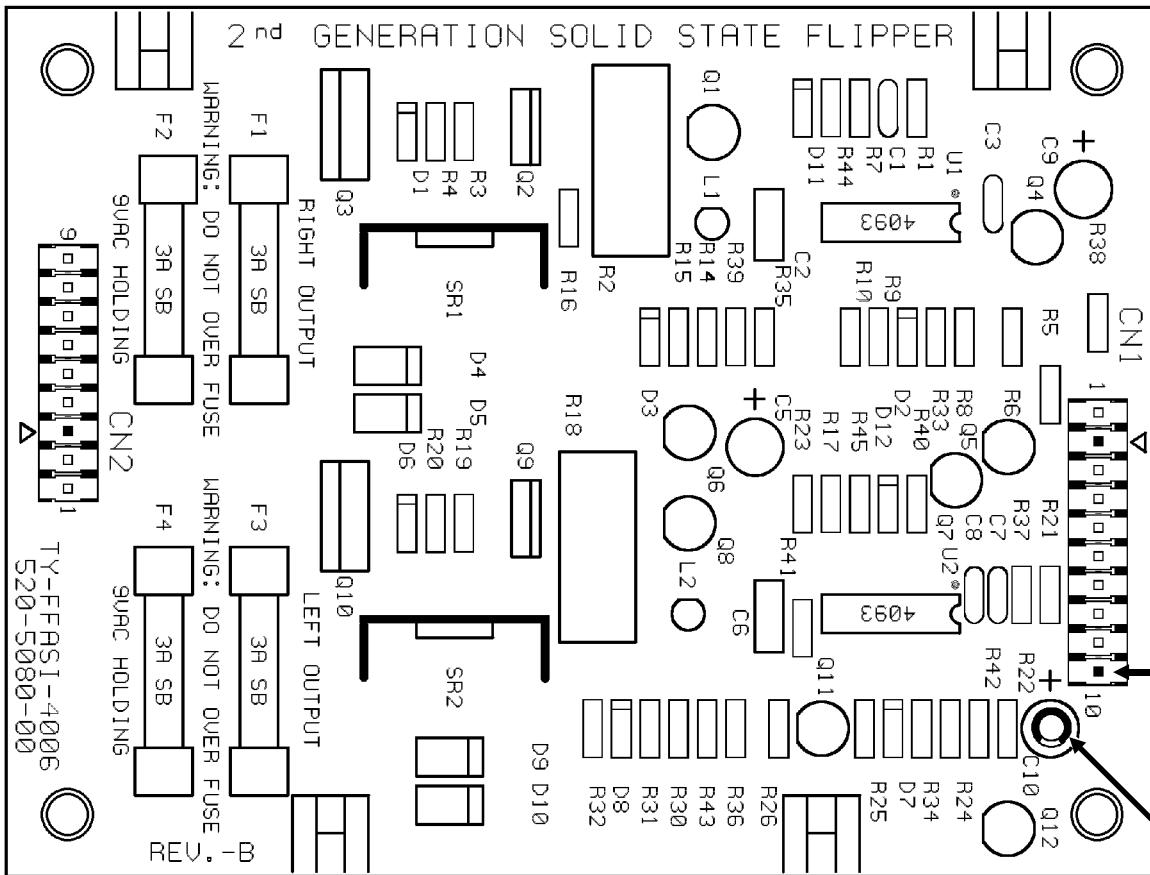
## Procedure: (Reference Figures on Page 2)

- ① Remove **Pin-10** from **Connector CN1**. We suggest you "**CUT**" the pin so as not to damage the Connector (see **Fig. 1A** for component reference).
- ② Add a Jumper Wire across the **Capacitor C10** on the "SOLDER-SIDE" (you will actually short the Capacitor rendering it useless) (see **Fig. 1B** for component reference & **Fig. 2A** for trace reference).
- ③ Add a Jumper Wire between **Pin-6 & Pin-7** and **Pin-1 & Pin-2** of **Connector CN1** respectively (see **Fig. 2B** for trace reference).
- ④ Behind **Connector CN1** (back side) **cut the trace** between **Pin-2 & Pin-7** (see **Fig. 2C** for trace reference). *Note: To properly cut the trace, use an **XACTO Knife** or a **Dremel Tool** with great care.*

**Congratulations!** You have just modified your **Solid State Flipper Board** to work in games manufactured without *End-Of-Stroke Switches*.

If you have any questions or comments please call Technical Support.

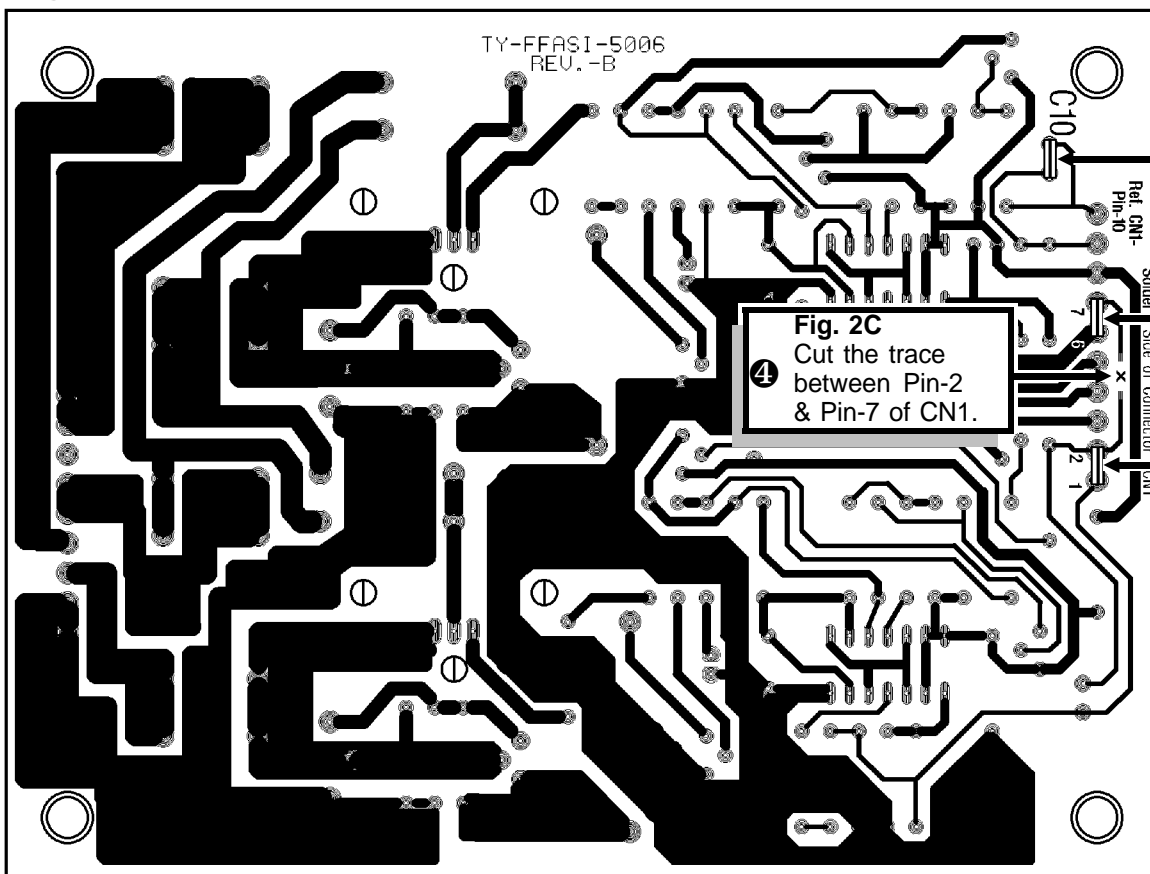
**Fig. 1 (Component / Front Side)**



**Fig. 1A**  
 1 Remove (Cut) Pin-10 from Connector CN1.

**Fig. 1B**  
 2 Reference the location of Capacitor C10.

**Fig. 2 (Solder / Back Side)**



**Fig. 2A**  
 2 Add a Jumper Wire across Capacitor C10.

**Fig. 2B**  
 3 Add a Jumper Wire across CN1 Pin-6 & Pin-7.

**Fig. 2C**  
 4 Cut the trace between Pin-2 & Pin-7 of CN1.

**Fig. 2B**  
 3 Add a Jumper Wire across CN1 Pin-1 & Pin-2.