

## <u>Nº 119</u> SERVICE BULLETIN



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TO: Parts & Service Managers

DATE: November 8, 2000

SUBJ: P.P.M.I. - Pinball Preventative Maintenance Inspection

P.P.M.I

- ① With the POWER OFF, clean the Pinball Machine inside and out (Remove miscellaneous parts from inside cabinet & vacuum).
- ② Visually check above and below the playfield for loose or broken parts and repair as necessary; in particular, inspect the Flipper Pawls, Links & Coil Stops. Check for loose connections at connectors in cable harnesses and cold solder joints on coils & switches.
- ③ Electrical Check: Plug game into a grounded outlet (prevent overloading outlets with many games); Check for proper operation through Diagnostics, Switch, Lamp & Coil Tests. Playfield Switch Adjustments should be performed now: Check all playfield switches with a ball in Switch Test; Check all tilts and slam switches. Replace all burnt out lamps.
- ④ Clean Playfield & Ramps (recommend Novus #2 Plastic Polish). Replace worn or dirty rubbers and worn pinballs (check pinballs for rough surface or corrosion).
- S Check Coin Door (with door closed insert coins to verify proper operation).
- ⑥ Play the Pinball Game: Check for satisfactory operation.
- Or Clean both sides of the Playfield Glass prior to reinstalling.

PREDICTIVE MAINTENANCE (Concerns Items considered Wear Parts & having them already in stock)
Inspect Flipper Parts (every 2500 plays, see Audit 26 or 150,000 Flipper Hits, see Audits 52 & 53). Also, inspect Lamps and Rubbers at the same time. Check all moving parts and make any adjustments (motors, shafts, flipper bats, etc.).

Stock additional parts: SPI - Flipper Rebuild Kits (PNs: 500-6307-00 Right, 500-6307-10 Left); #44, #555, #89 Bulbs (common).

Rubber Parts: Flippers, Posts, Slingshots & a various collection of Rubber Rings (common). Refer to the Pink Section in the Game Service Manual for Game Specific Information.

## FIRST TIME SET-UP

- Install in proper area (level floor) at location.
- 2 Ensure a Service Game Manual is present and kept inside the game (contact the distributor or mfg. for a replacement if necessary).
- 3 Level the game and set the playfield pitch at 6° to 7° using an inclinometer on playfield. New games are designed with a 6.5° pitch with all four Leg Levelers turned all the way in/out assuming the floor is level.
- 4 Electrical Check: Plug into a grounded outlet and check for proper operation through Diagnostics, Switch, Lamp & Coil Tests.

Continued Next Page

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## FIRST TIME SET-UP CONTINUED

- **5** Check Coin Door (with door closed insert coins to verify proper operation).
- 6 Play the Pinball Game: Check for satisfactory operation and adjust volume.

## CHECK-UP

① Check Game Audits (in particular, replay percentage and ball time). These Audits are especially useful to the Tech in determining if there are game problems or adjustments required.

Audit	Result / Finding
Flipper Hits (Audit 52 & 53)	More than 150,000 closely inspect Coil Stop, Pawl, Link & Plunger Assembly.
Replay Percentage (Audit 19)	Ideally should be at 20-25%
Extra Ball Percentage (Audit 15)	Ideally should be at 20-25%
Ball Search (Audit 35)	If a high number, this is an indication of Ball Trap(s) on the playfield.
Ball Time (Audit 3)	Ideally should be at 50-60 seconds.
Multiball (various audits in Game Specific)	Ideally should be at 50% of Total Plays (Audit 26)

- ② Visually inspect above & below the playfield. Clean the Playfield. Visually check rubbers, lamps, and playfield condition.
- ③ Check Ball Shooter (Plunger) Tip (if used), Flipper Rubbers and Pinballs. Replace if worn.
- ① Check game for proper pitch and level.
- ⑤ Check Coin Door (with door closed insert coins to verify proper operation).
- 6 Play the Pinball Game: Check for satisfactory operation and adjust volume.

Please phone or eMail with any questions or comments at the below numbers or address.