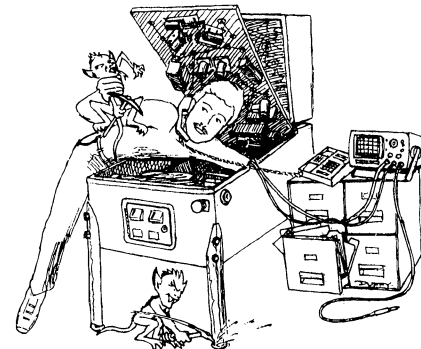




Nº 113 SERVICE BULLETIN



Joe Blackwell
Director, Parts Sales &
Technical Support

Susan Molitor
Parts Sales
Manager

Patty Schraps
Parts Stockroom
Manager

James E. Thornton
Technical Support
Engineer

Jay Alfer
Technical Support Doc.
Administrator

TO: Parts & Service Managers

DATE: December 10, 1999

SUBJ: H-D® Ball Guide Wire Form (OPTO Protect) and
Butyrate -16 (Plastic) Support Plate Kit (SPI Nº 500-6408-67)

**We will be shipping kits under Warranty
to Distributors who have received games
with the serial numbers referenced.**



Tools/Items Required for Procedures 1 & 2

- Pliers • Hammer • Short Length of 1" X 1" Wood Block (recommended for tapping in Ball Guide) • Soft Cloth
- 5/16" Nut Driver • Phillips Screw Driver • Drill • 3/16" Drill Bit • Pencil, Marker or Pen

Kit (SPI Nº 500-6408-67) Contents for Procedures 1 & 2

- Two (2) new revised **Ball Guides (5/8")** with the Flanged Ends, SPI Nº 535-5356-19 (for Procedure 1 only) • Support Plate with Decal, SPI Nº 515-8636-67, • #8-32 X 5/16" PPH Mach. Screw, SPI Nº 237-5613-00, • #6 X 3/8" HWH Screw, SPI Nº 234-5000-00, • Mini-Jewel Post (Clear), SPI Nº 550-5052-01, & this **Service Bulletin Nº 113 / Instruction Sheet**.

Explanation 1:

We have discovered through field testing & operator input, that some early production Harley-Davidson® Pinball Games have 5/8" Ball Guides that **DO NOT** have "stamped flange" ends (see, **Fig. 1A**). Constant pounding from the pinball can cause the Ball Guides to be hammered into the playfield (see, **Fig. 1B & 1C**). With the correct flanged ends (see, **Fig. 1D**) however, the pinball cannot hammer the Ball Guide through. These Ball Guides are positioned at these locations (see **Fig. 1**) to protect the OPTO Switches at the Motorcycle entrance from being hit with the ball.

Your game *may already have the correct* Ball Guides, **please verify by Game Serial Number**.

Games affected are within the following Serial Number range: 148598 - 149648.

If your game *Serial Number falls between 148598-149648* and the Ball Guides appear to be positioned correctly, it is still recommended to replace them with the below simple procedure (1).

† Note: Ball Guide description measurements are based on width from the center point of each side (left to right) not the height (see **Fig. 1A**).

Solution 1:

Replace Ball Guides.

Procedure 1:

Step 1 Locate the existing two (2) Ball Guides (5/8") protecting the OPTO Switches at the left and right of the entrance to the Motorcycle (see **Fig. 1**). Remove these Ball Guides using a Pair of Pliers (use a soft cloth to prevent playfield marring or scratching).

Step 2 Set the new Ball Guides (with flanges) included in the kit into the existing holes.

Step 3 Use a short length of a 1" X 1" Wood Block and a hammer to **TAP** the Ball Guide into the playfield. **TAP** in *just enough* to achieve the **desired height of 5/8" from the playfield to the top of the Ball Guide** (see **Fig. 1A**). Recheck the measurement after each tap to ensure the Ball Guide will be set at the right height. The center of the pinball should make contact evenly of the top of the Ball Guide.

Note: Figures 1, 1A, 1B, 1C & 1D are on the following page for your reference.

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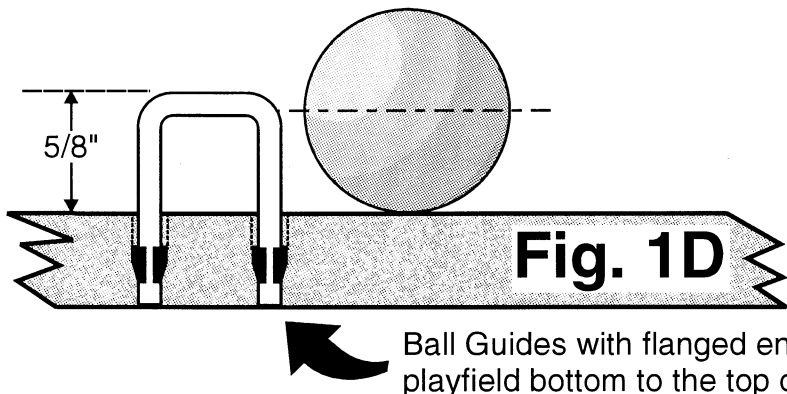
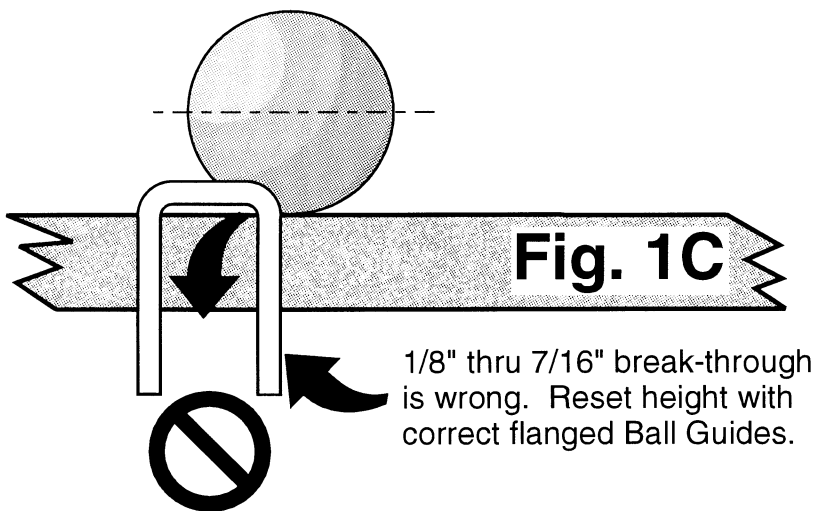
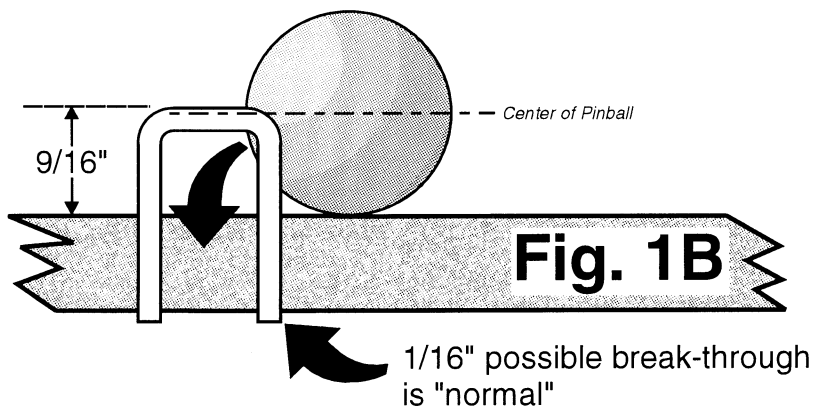
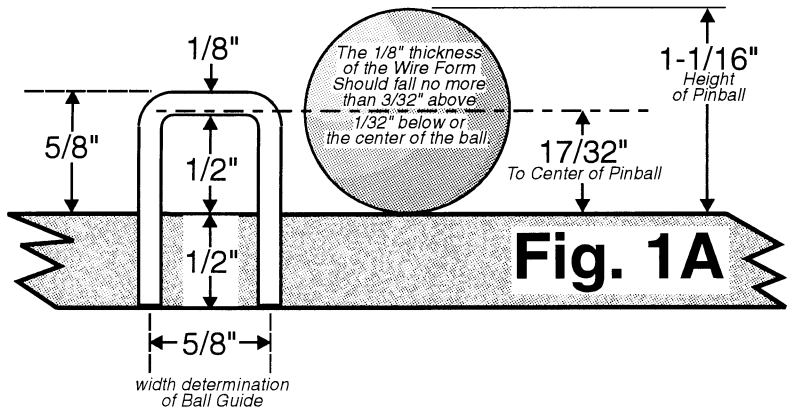


Fig. 1



It has also come to our attention that at some locations where game play is extreme, the Butyrate -16 (Plastic) cracks and breaks at the peninsula over the Right Stand-Up Target in front of the Motorcycle (see **Fig. 2**). Current production games include a Support Plate ① **under** the plastic to prevent possible breakage. *Reference all pictorial views below.*

Solution 2:

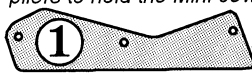
For games already in the field, this Support Plate ① should be added to the game ***whether the piece has broken or not.***

The following procedure is for **"above"** installation over the Buty. 16 piece ***whether broken or not***. If desired, installation **"below"** can be done (**no drilling required**) for pieces which have not broke (*see the below graphic in the shadowed box*).

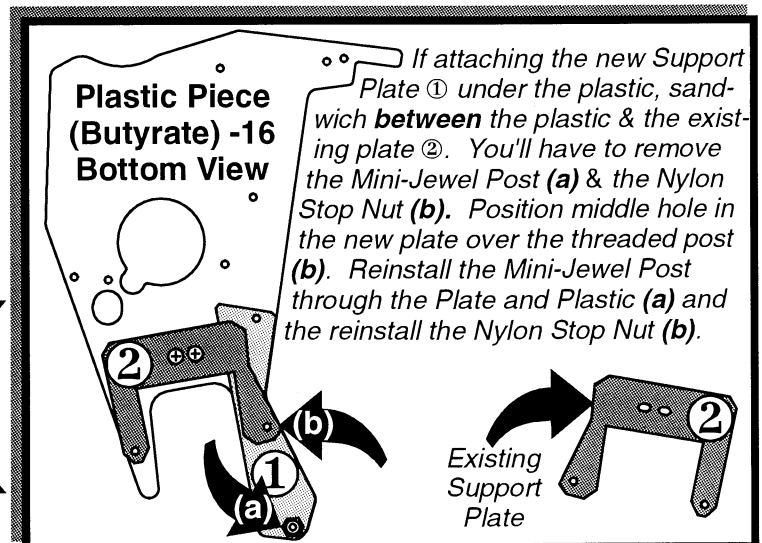
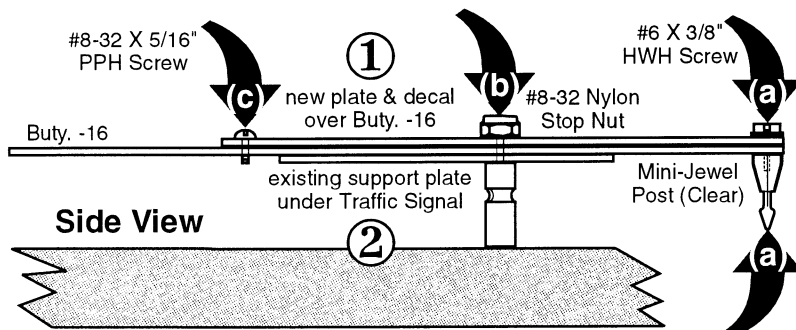
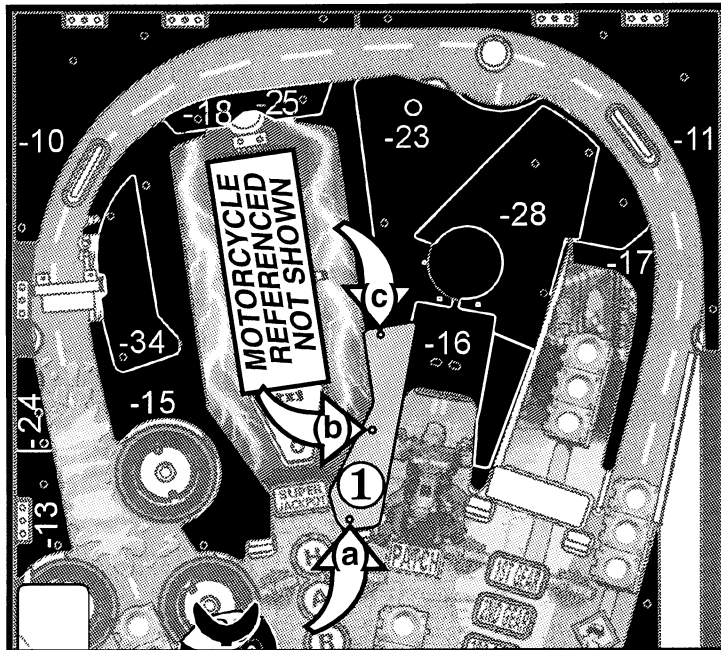
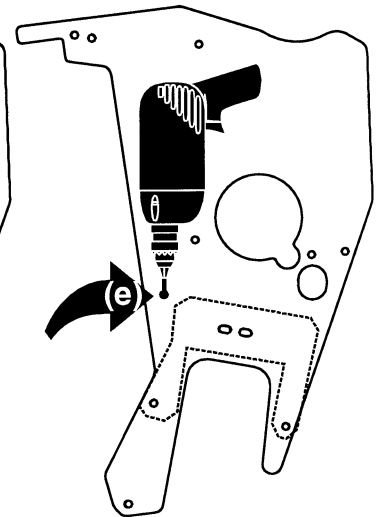
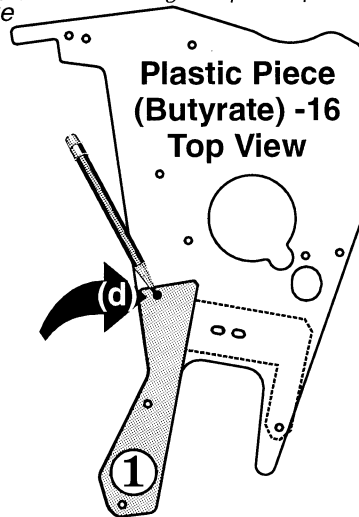
Step 2 Remove the existing #8-32 Nylon Stop Nut **(b)** with your 5/16" Nut Driver. Place the new Support Plate with Decal ① on the threaded post **(b)** and flush the plate along the left side of the Buty. -16 plastic. Mark the top hole **(d)** with a pencil, marker or pen. Set the Support Plate with Decal ① temporarily aside.

Step 3 Drill marked spot **(e)** using your 3/16" Drill Bit *(be careful not to let the drill bit hit the playfield)*. Take the new Plate With Decal ① and screw in a #8-32 X 5/16" Screw **provided** at the top through the decal-side **(c)**. Place Plate ① over the threaded post **(b)** & the top screw into the hole just drilled. Reattach the Mini-Jewel Post using the #6 X 3/8" Screw **(a)**.
Note: Use your pliers to hold the Mini-Jewel Post while screwing in the #6 X 3/8" Screw through the plate & plastic.

Fig. 2



▶ **New Support Plate**
with decal to add
over Buty. -16.



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