



**WISDOM
INDUSTRIES, Ltd.**

IMPORTANT SAFETY BULLETIN

DATE: JUNE 1, 2004

RIDE: GRAVITRON/STARSHIP, ET. AL

**SUBJECT: INSPECTION, REPAIR & REPORTING
PROCEDURE**

❖ **This bulletin is a supplement to and supersedes the bulletin issued April 12, 2004. This bulletin addresses specific new items and clarifies some of the inspection procedures from the previous bulletin. Review this bulletin to see if you have complied in an appropriate manner to the items listed in these bulletins.**

- 1) Prior to inspection, clean the lower end of the panel with compressed air or pressure washer. To aid in inspecting the panel frame components (Drawing: Panel Inspection). Make sure the power is off to the panels if water is used.

❖ **NOTE: USE EYE PROTECTION WHEN CLEANING THE PANELS.**

- 2) Inspect the welds and steel components of the 16 panel frames (15 passengers and 1 door) for cracked or broken components. Initial repair for cracked or broken components is to be performed with 7018 Rod using good welding procedure by a certified welder. Inspect bottom strap to seat angle gussets for missing or broken gussets (Drawing: Bottom of Panel-Weld Inspection). If bottom strap to seat angle gussets are broken contact Wisdom Industries for repair information. Review attached drawing for inspection points. Inspect bottom strap.

✓ **If more than one repair is required per panel, then contact Wisdom to determine if repair or replacement is required.**

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- 2) Inspect platform hinges.
 - ✓ **Inspect the hinges for wear- when the wing is folded. Hinge bolts can be removed one at a time and the hinges checked for cracks or wear in the hinges (Drawing: Hinge Inspection).**
- 3) Inspect platform hinge bolts.

Inspect to be sure the 8 hinge bolts are in good condition. The hinge bolts must be grade 8 or better. After the ride is set up if any of the hinge bolts can be turned, that hinge bolt must be removed and the hinge bore and bolt must be inspected for wear. With the ride set up, loosen the hinge nut ½ turn. Use a torque wrench preset to release when a torque of 50 ft-lbs. is reached to turn the head of the bolt. If the bolt can be turned with a torque of less than 50 ft. lbs. remove and inspect the bolt and hinge for wear. Refer to Drawing 7W 041 for proper length of replacement bolt.

 - ✓ **Hinge bolts Grade 8 or better. Length per attached drawing showing Typical Section of Hinge and Rotated Inner Hinge Assembly.**
- 4) Check tire air pressure for 35 PSI minimum to 40 PSI maximum on all 3 idler and 1 drive tires.
- 5) Make sure that wing sag is less than ¾ inch of main table.
 - ✓ **Review attached procedure for checking wing level and shim wing if required (Procedure: Leveling Procedure for the Gravitron Turntable dated 8-12-93).**
- 6) Inspect condition of the underwing alignment bolts (table bolts).

These bolts must be 7/8 diameter and 8 inch in length.
(Drawing: Turntable Bolt Inspection).

 - ✓ **Replace on a yearly basis. If the bolt is bent during operation, contact Wisdom for instructions on possible structure concerns.**
- 7) Inspect that the 4 under wing alignment bolts are snug. If the wing has a gap at the wing to platform joint that can be pulled together by the alignment bolt, contact Wisdom Industries for possible hinge wear and repair procedure.

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- 8) Inspect condition of the fiberglass at the lower end of the panel. If a large amount of fiberglass is missing under the floor strap or on the vertical section just up from the floor this must be replaced.
- ✓ **Inspect the condition and amount of fiberglass at the bottom of the panels. Wear to the fiberglass behind the panel safety plates is acceptable. If more than 25 percent of the fiberglass that goes under the bottom panel strap is missing the fiberglass must be replaced. If more than 10 percent of the vertical surface next to the panel safety straps is broken or missing this must be replaced. Contact Wisdom Industries for the proper materials and procedure to repair or replace the fiberglass.**
 - ✓ **Inspect the fiberglass for cracking at the lower section of the panel near the floor. Cracks or torn fiberglass of more than 2 inches will need to be repaired prior to further operation.**
- 10) During operation if the platform demonstrates movement (wobble) of over 1 ½ inches, measure wing sag and shim platform.
- ✓ **Contact Wisdom Industries for additional areas to inspect.**
- 11) Review attached drawing for procedure on repair of under wing alignment hole and sleeves (Drawing: Turntable Bolt Inspection).
- 12) Follow attached “Gravitron Checklist After Setup” and “Daily Inspection Checklist.”

NOTE: This Safety and Inspection Requirements Bulletin is being announced in cooperation with the U.S. Consumer Product Safety Commission, who will monitor the effectiveness of its implementation and distribution.

Any questions about this bulletin should be directed to the manufacturer: Victor Wisdom, Wisdom Industries, Ltd. (970) 522-7515; FAX: (970) 522-2902 or Email: vwisdom@kci.net.