

AEROSTAR SERVICE BULLETIN #136

DATE OF ISSUE: January 28, 2000

SUBJECT: Aerostar Aurora Burner Mounting

PROBLEM: There is a potential for the spring loaded retaining pins which secure the burner to the uprights to become displaced during a hard landing or severe basket distortion.

DISCUSSION: During a recent accident involving an early model Aurora balloon, a high wind impact resulted in the burner leaving its normal mounting position and contacting the ground during the drag. While it is impossible to determine whether this was the result of the impact, basket distortion, or how the burner was installed for flight, the result of the burner having the potential to leave its mounting position dictates that a design modification to prevent the burners full detachment be made.

CORRECTIVE ACTION: A stainless steel hinged spring latch has been designed to be retrofitted to existing burners. These latches will act as a back-up in the event that the spring loaded pins become dislodged or were not properly engaged. This is a onetime compliance and is non-recurring.

PROCEDURE: (OWNER) Contact an Aerostar Service Center or your local repair station to schedule for the work to be performed. They will need the N-number and burner serial number for the purpose of obtaining the kit on your behalf. Please ensure that your log book is with the burner so the appropriate maintenance entries may be made. Parts and labor are provided for this service bulletin at no cost to the owner. Aerostar reserves the right to elect to use an alternate repair station.

(REPAIR STATION) Contact Aerostar Customer Service to obtain a kit for each effected balloon. Provide the name of the owner, N-number and serial number of the burner.

KIT CONTENT:

- 2- Spring Latches
- 1- Bushing
- 1- Logbook sticker showing compliance
- 1- Compliance card

- STEPS:**
- 1) Place the burner on a bench resting on the tops of the coil support brackets. Locate the square channel mount that does not incorporate the gimbal return spring.
 - 2) Using the special 90° Phillips screw driver (see Figure A) hold the ¼" gimbal screw secure while using a 7/16" wrench or socket to remove the locking nut that secures the assembly. Note: place the end of the spring pin in the recess of the 90° Phillips screw driver and apply pressure to the pin to assist in holding the gimbal screw secure.
 - 3) Retract the spring pin and remove the ¼ " gimbal screw from the frame being careful to catch the washers installed between the frame and square channel (6). Discard the ¼" washer that was located directly under the head of the screw. Install the hinged end of the latch where that washer had been located. This will place the hinge

- 4) *end of the latch under the head of the 1/4" inch screw and against the channel wall as shown in Figure B. Ensure that the hasp is oriented properly.*
- 5) *Reinstall in reverse order as above ensuring that the spacer washers are in their original orientation. Install and tighten the lock nut with moderate force. Do not over tighten. Ensure that the square channel is free to rotate.*
- 6) *Locate the square channel at the opposite end of the burner. end does incorporate the gimbal return spring.*
- 7) *Place fiber reinforced strapping tape or low elongation duct tape over the exposed portions of the gimbal mechanism as shown in Figure C. This is to prevent having to release and reinstall the gimbal spring.*
- 8) *Repeat Step 2 (above) to remove the lock nut from this end. Remove the entire channel mount/gimbal mechanism from the frame.*
- 9) *Remove the 1/4" screw and bushing together from the channel. the pin must be retracted to fully remove the screw.*
- 10) *Replace the original bushing with the bushing included in the kit and install the spring latch between the washer and the channel as shown in Figure D. Again, ensure the latch is oriented properly.*
- 11) *Reinstall in the reverse order of above. Install and tighten the lock nut. Remove the tape. Ensure that the square channel is free to gimbal and returns to its centered position when released.*

Note

In the event the spring pops free, refer to Section 6.2.13 of the Aerostar Instructions for Continued Airworthiness for reassembly procedures.

- 12) *Verify that the latches line up with the spring pin and snap in place properly.*
- 13) *Place the adhesive compliance entry together with your standard maintenance release in the aircraft logbook. Fill out the enclosed Compliance Card and return to Aerostar to receive payment for the installation.*

COMPLIANCE: *This service bulletin must be complied with within the next 10 hours of flight time or next annual inspection, whichever ever occurs first. During any flights that are conducted prior to compliance, care should be exercised to ensure that the burner is properly installed, spring loaded pins are fully engaged. Launch restraint/tethering that distorts the basket should be avoided along with high impact or hard landings. In the event that such conditions are anticipated, the service bulletin should be complied with prior to flights under those conditions.*

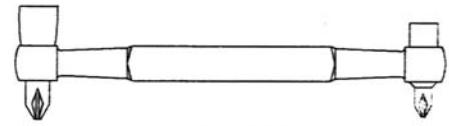


Figure A
90° Screwdriver

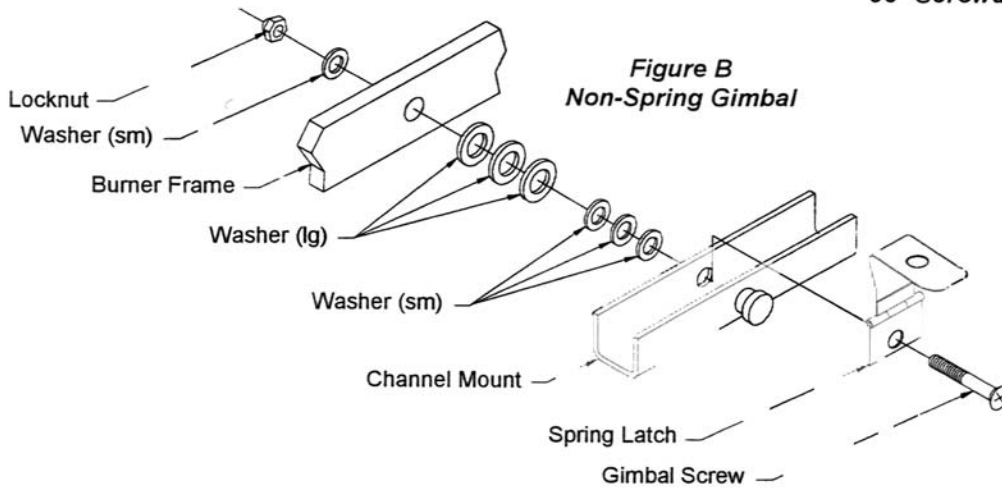


Figure B
Non-Spring Gimbal

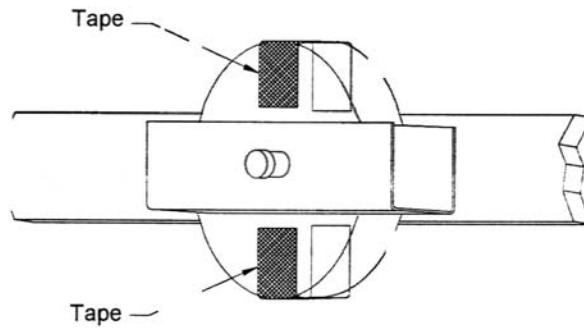


Figure C
Tape Detail

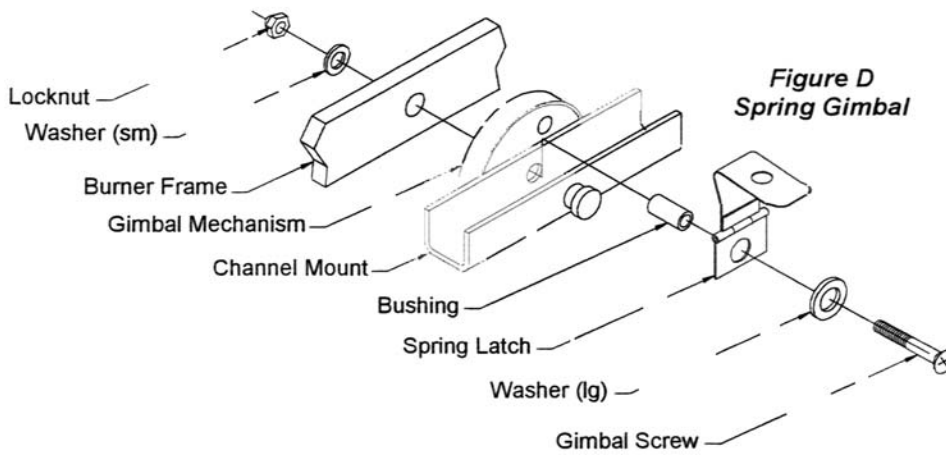


Figure D
Spring Gimbal