VEHICLE REPORT GUIDE AND EQUIPMENT REPORT GUIDE

Safety Defect and Noncompliance Report Guide for Vehicles
PART 573 Defect and Noncompliance Report

On , March 15, 2004 Keystone RV Company decided that (a defect which relates to motor vehicle safety)(a noncompliance with Federal Motor Vehicle Safety Standard No.) exits in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: March 29, 2004

Furnish the manufacturer's identification code for this recall (if applicable):

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

Keystone RV Company

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

Deborah E. Baker; Warranty Administration Manager

Telephone Number: Fax No.:

Phone: 574-534-9430 Fax: 574-534-9057

Name and Title of Person who prepared this report.

Deborah E. Baker; Warranty Administration Manager

Mark Bullock; Director of Engineering

Signed:

Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions, please consult the complete Part 573 or contact Mr. Jon White at (202) 366-5227 or by FAX at (202) 366-7882.

I. Identify the Vehicle Models Involved in the Recall

2. Identify the Vehicles involved in the Recall, *for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide*:

Make(s): Raptor **Model Years Involved:** 2004 **Model(s):** RP3612 DS FW
Production Dates: Beginning: Ending:
VIN Range: Beginning: 850101 **Ending:** 850691
Vehicle Type: Recreational Vehicle Bodystyle: Fifth Wheel
Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

The lack of steel cross-members to support to the upper deck assembly. See attached.

Make(s): Model Years Involved: Model(s):
Production Dates: Beginning: Ending:
VIN Range: Beginning: _____ **Ending:** _____
Vehicle Type: Bodystyle:
Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

Make(s): Model Years Involved: Model(s):

Production Dates: Beginning: Ending:

VIN Range: Beginning: _____ **Ending:** _____

Vehicle Type: Bodystyle:

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period. 100%

II. Identify the Recall Population

3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.

Model	Year	Number of Vehicles Potentially Involved
RP 3612 DS FW	2004	71

Total Number Potentially Affected by the Recall:

71

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance:

94%

Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:

This is a new product line and the first models shipped exhibited problems. Investigation of these units revealed the source of the problem to be related to material specification in the frame. The spec was quickly changed. Therefore, the beginning date was the first unit built and the final date was the effectivity date of the material spec change.

III. Describe the Defect or Noncompliance

5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.

Cracking in the steel surrounding the pinbox (hitch) of the fifth wheel can occur. The cracks are specifically in the attachment welds between the pinbox and the surrounding frame structure.

Describe the cause(s) of the defect or noncompliance condition.

The materials specified for the upper deck structure of the frame were inadequate. 11 gauge steel was used where 7 gauge material is normally used for a product of this size.

Describe the consequence(s) of the defect or noncompliance condition.

Cracking in the area of the attachment of the pinbox to the surrounding frame can eventually cause partial or complete separation of the pinbox from the frame.

Identify any warning which can (a) precede or (b) occur.

Partial separation of the pinbox will alter its position on the unit.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.

Lippert Components
2766 College Avenue
Goshen, IN 46526

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

Jason D. Lippert, Inc., President & CEO

IV. Provide the Chronology in Determining the Defect/Noncompliance

If the recall is for a defect, complete item 6, otherwise item 7.

1. **6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.**

The first suspect communication was received from one of our dealerships in California (Mike Thompson's RV) on February 6, 2004. After reviewing the information, our engineering department was asked to identify the issue and the severity of the issue. Once determined, the pinbox issue was released to our dealer base in the form of Service Advisory # 04-039 on March 5, 2004. At this same point, letters were sent to each of the retail owners explaining the situation and giving them direction on how to handle this issue. A schedule of repairs was created and to date 63 of the 67 units have been corrected. See attached documents.

2. **7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.**

There were no formal tests which pointed us in the direction that we had a product issue; reports from the dealer base are what led us to investigate the structure of the unit, thus identifying the problem.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

Attached is the multi-page remedy to correct the defect. The recall condition is a typical

upper deck frame assembly but with incorrect material gauges specified. The remedy adds additional steel supports in the pinbox area and a different hitch (air-ride) than used previously.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

The most visible component is an air-ride pinbox in place of the normal pinbox. The air-ride pinbox has a shock visible from the front, the normal pinbox does not. There is also additional steel added to the upper deck assembly, but this is covered when complete.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

Production changed over to the correct material gauge in the upper deck assembly effective with serial number's 850688 – 850691 and then 850698 and on. The production remedy was to change to the correct material gauges and this was not possible to do for the recall remedy. The recall remedy involved adding additional steel to the assembly and changing the pinbox to an air-ride style.

VI. Identify the Recall Schedule

Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.

To date repairs have been completed on 63 of the 67 units involved. See attached for document schedule.

VII. Furnish Recall Communications

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. *A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.*

See attached for document samples of communication.

Note that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.

Keystone RV Company

SERVICE ADVISORY # 04-039

Pin box Attachment to Upper Deck of Frame

Models Included:

RP3612DS FW Raptors

Serial Number Range:

From 850101 to 850691 (potentially affected, 71 units)

These units were produced without required gussets which reinforce and stabilize the "Pin box" assembly in the frame. Lippert Components, the frame manufacturer, will come to the dealership and complete the preventative action needed.

What to do:

1. Schedule the appointment with the customer.
2. Contact Dori Rogers of Team Sprinter at 866-273-1452 for Pre-Authorization and with the date requested that Lippert be at the dealership to initiate the frame repairs (not the appointment date). Keystone will contact Lippert Components and make the arrangements for them to come to the dealership on the date selected to make the frame repairs. While we would appreciate approximately a week to coordinate, we will do our best to accommodate any emergency situations.
3. Prior to Lippert's arrival on the repair date, the dealership will need to remove several components to allow access for the repairs. The details are specified in the attached 3 pages. Please note it may be possible to reuse the Side & Front Aluminum extrusions and Cap moldings.
4. Lippert will initiate the frame repairs.
5. The dealership reinstalls the components as specified in the attachment.

Time allotted for completing this advisory is 4.0 hours.

Submit for reimbursement on a properly completed Keystone Warranty claim form referencing Service Advisory # 04- 039 and Operation Number #7102142A noted in the customer complaint section of the form.

If you have any questions please call our Team Sprinter at (866) 273-1452.

Keystone RV Company

3/2/04

Instructions for removal of underbelly and pin box wiring

Model: Raptor 3612DS

Tools Required:

Screw gun, Calk gun, Screwdriver

Material list:

Side aluminum extrusion = K103PD09 Keystone no. 109852

Front aluminum extrusion = K192MF12 Keystone no. 110706

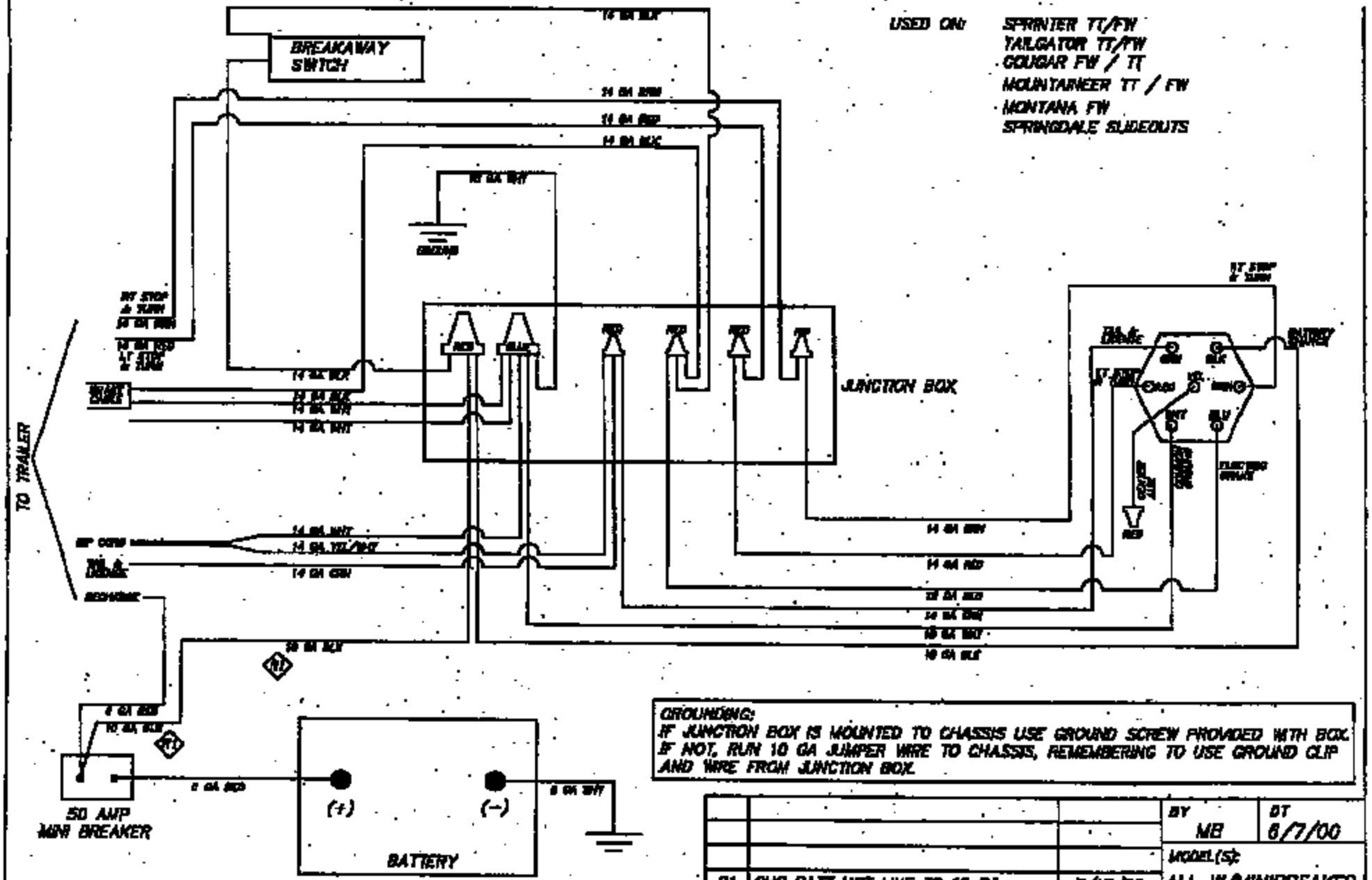
Cap Molding = V1811050 Keystone no. 110722

Black spray paint, Wire nuts, electrical tape

1) Remove plastic screw cover on all moldings at lower front wall and along the underside of the front underbelly including at the under side of the front cap.
2) Remove all screws holding the underbelly moldings and carefully remove moldings from unit back to radius.
3) Remove the screws in the underbelly and in the aluminum extrusions. Pull the extrusions away from the unit back to the radius.
4) The underbelly can be carefully pulled out from under the front cap and down. Be extremely careful when laying the underbelly down, as it will remain attached at the lower front of the unit. Watch the fiberglass area that makes the radius so that it does not crack. See photo 1
5) Remove the junction box cover where the bergman cord wire runs and remove the wires attached to the pin box.
6) Remove the junction box and the break away switch attached to the pin box.
7) Unit is now ready for welding operation.
8) After welding operation spray paint the decking area around the pin box with black spray paint. (The area that shows around the pin box notch when the fiberglass underbelly is installed)
9) The unit can be reassembled reversing the order of 1 through 8.

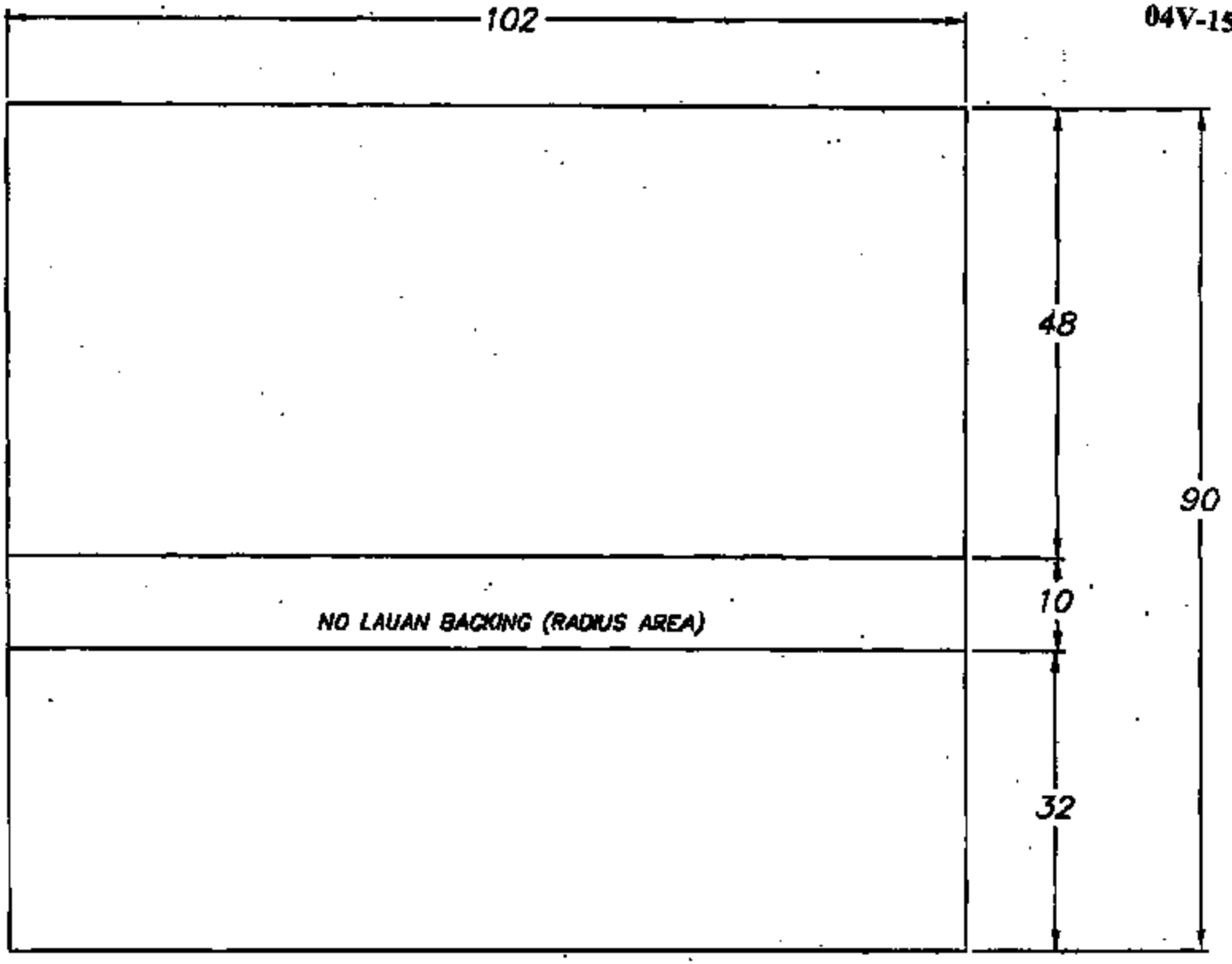
photo 1. Removing underbelly

ELECTRICAL WIRING - BARGMAN CORD



GROUNDING:
IF JUNCTION BOX IS MOUNTED TO CHASSIS USE GROUND SCREW PROVIDED WITH BOX.
IF NOT, RUN 10 GA JUMPER WIRE TO CHASSIS, REMEMBERING TO USE GROUND CLIP AND WIRE FROM JUNCTION BOX.

			BY	DT
			MB	6/7/00
			MODEL(S):	
R1	CHG BATT HOT LINE TO 10 GA	7/17/00	ALL W/MINIBREAKER	
TITLE: ELECTRICAL SCHEM – BARGMAN CORD WIRING			DWG # 02 ELECTRICAL	
KEYSTONE RV COMPANY			SHEET 1 OF 1	



UNDERBELLY LAMINATED SKIN
RAPTOR 3612DS

Keystone RV Company

February 23, 2004

Mr. & Mrs.
123 Any street
Anytown, USA

RE: Consumer Notification: 04-039CN
VIN-

Dear Mr. & Mrs. ,

It has been determined that a defect may exist with the attachment of the "Pin Box" to the upper deck frame in certain Raptor units manufactured between Vehicle Identification Number (VIN) 850101 and 850691. Our records indicate your unit falls within this range and may require preventative action. Under certain circumstances, the welds that attach the "Pin Box" to the upper frame could break leading to the surrounding frame area fracturing.

Keystone representatives have been in contact with (contact name, dealership name, phone number) regarding this situation and they stand ready to assist in addressing this condition. At your earliest convenience, please make contact with (dealership name) for an appointment and take the unit to the dealer to have this issue corrected at no charge to you. Please reference Consumer Notification 04-039CN

Continued use of the unit without having the preventative action completed could result in loss of control while driving, accident, injury or death.

We apologize for any inconvenience this situation may cause and appreciate your cooperation in this matter. As we are sure you will appreciate, the safety of our customers and the quality of our products is of the utmost importance to us. Should you have any questions or concerns regarding this correspondence, please feel free to contact one of our Customer Service Representatives at 866-425-4369.

Sincerely,

Rick Deisler
Customer Service Manager
Keystone RV Company

cc. National Highway Traffic Safety Administration (NHTSA)

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[illegible]
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Welding Repair Guidelines for Keystone Raptors

Any questions about the IMPORTANT steps below, please call Matt Hazelbaker at 574-238-1021 or Jason Falk at 574-238-1020.

ALL repairs are to be approved by Matt Hazelbaker, Jason Falk or sanctioned LCI General Managers.

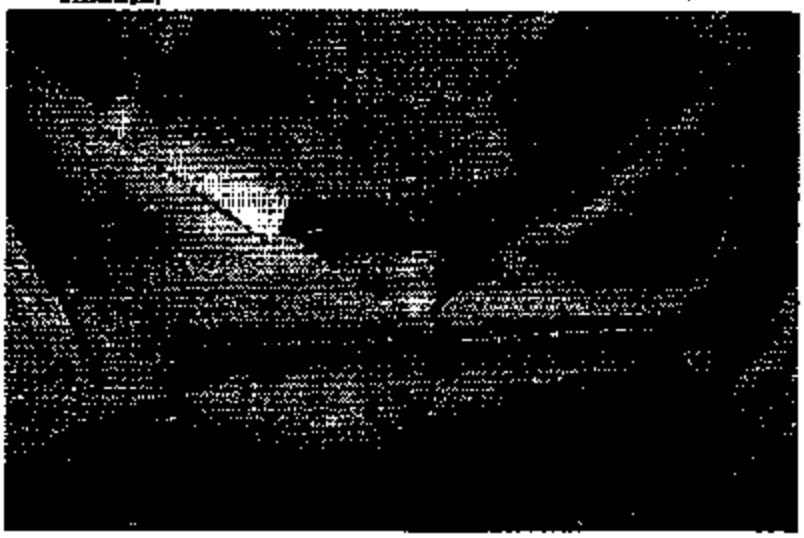
Materials List:
2 pcs—2" x 6" x ¼" tube x 94 ½"
2 pcs.—2" x 6" x ¼" tube x 16 ½"
2 pcs.—1 ½" x 1 ½" x 11ga tube x 16 ½"
2 pcs.—Pin 43 (LH & RH)
4 pcs—K-127 (3" x 5" x ¼" triangle gusset)
1 pc.—Isolator pinbox

For Raptors that have the first retrofit (4 gusset assemblies around the pinbox as well as triangular gussets on each front corner) follow the steps below.

For Raptors that do NOT have the first retrofit, the only cutting that needs to be done is to completely remove the pinbox and grind smooth. From here, you can begin at Step #3.

After the dealer has removed the skin/underside of the unit as well as the electrical wiring and box, the repairs to the upper deck are as follows (Note: Please keep a fire extinguisher with you at all times during repair; also, keep water available to keep the wood underneath the unit wet at all times):

1.) Cut out the entire pinbox assembly including the 4 gusset assemblies that are attached to the pinbox assembly. It is important that you NOT blow any holes in the existing tube. Please cut short and grind the rest off. GRIND completely smooth.

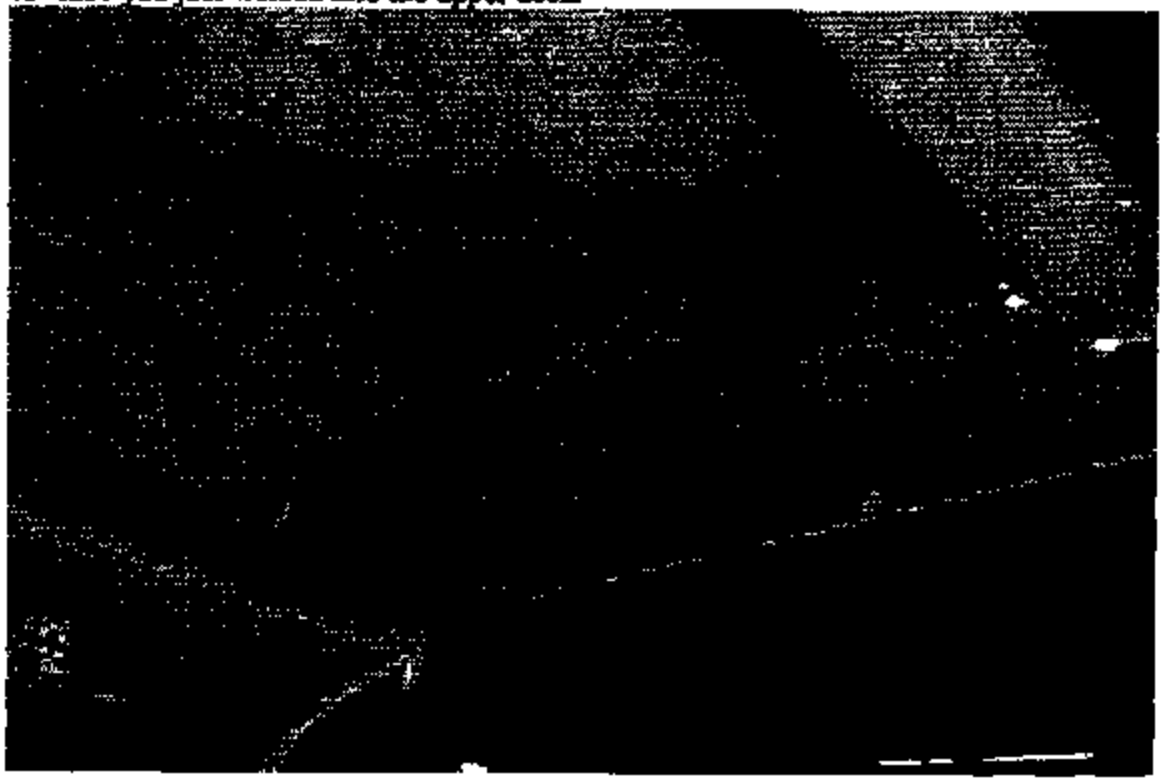


2.) Cut out the triangular gussets on each corner of the upper deck (that is welded to the upper deck front crossmember and the upper deck siderail at the front of the deck). Be sure to completely fill any holes caused by any torching. GRIND completely smooth.

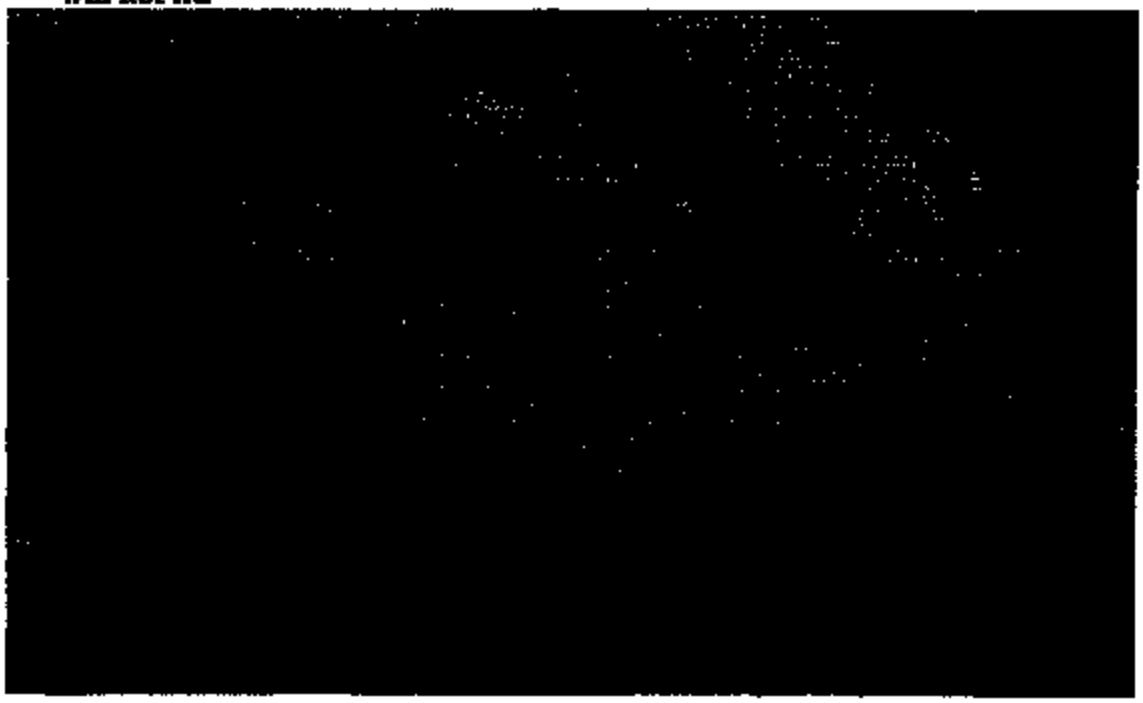
3.) Once all cut areas are ground completely smooth (and paint removed where any new welds will be placed), place one piece of 2 x 6 x ¼" tube x 94 ½" directly behind the current upper deck front tube crossmember. **Make sure the two tubes fit completely flush together before welding.** Weld this tube **solid** where it meets the upper deck siderail. (Note: The end of this 2 x 6 x ¼" x 94 ½"tube can have 1/8" 'nipped off' of one of the 6" sides to enable it to fit flush against the other tube. This "nipped" area will allow this tube to fit tightly over the existing weld). The bottom of these 2 adjoined 2 x 6 tubes needs to be stitched welded via 3" welds every 8".

4.) Take the other piece of 2 x 6 x ¼" x 94 ½" and place it in front of the 2nd tube crossmember (the 2 x 6 tube right behind the upper deck front crossmember). **Make sure the two tubes fit completely flush together before welding.** Weld this tube to the existing tube crossmember making sure it is welded solid to each of the side mainrails. (Note: The end of this 2 x 6 x ¼" x 94 ½"tube can have 1/8" 'nipped off' of one of the 6" sides to enable it to fit flush against the other tube. This "nipped" area will allow this tube to fit tightly over the existing weld). The bottom of these 2 adjoined 2 x 6 tubes needs to be stitched welded via 3" welds every 8".

5.) Next, the 1 ½" x 1 ½" x 11ga tubes x 16 ½" are welded flush to the bottom against each upper deck siderail between the two new pieces of 2 x 6 x ¼" x 94 ½" tube you just welded into the upper deck.



6.) Now you are ready to weld in the pinbox side-plate tubes (2"x 6" x 1/4" x 16 ½"): First, measure to find the centerline of the upper deck front tube crossmember. Then measure 6 5/16" to either side and make your marks (the space between these 2 marks is where the pinbox assembly will eventually be placed). These marks also designate the inside edge of where both pieces of 2 x 6 x ¼" x 16 ½" are to be placed. Just **TACK** these 2 pcs. of tube in place before welding solid. Once these tubes are tacked into place—please verify that there is enough space for the Isolator pinbox and the 2 sideplates to fit between these tubes. Also, again verify the tubes are square. Then weld these 2 pcs. of 16 ½" tube **SOLID** between the upper deck tube front crossmember and the 2nd tubing crossmember. **Be sure both of these tubes are welded in level and square...if not, the pinbox will not fit.**

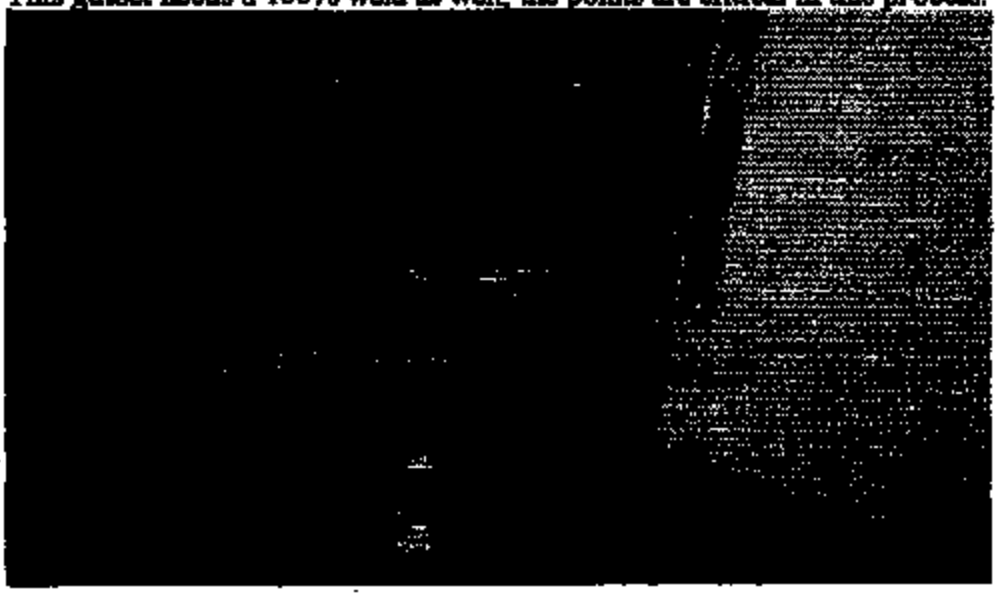


7.) Next, you'll be welding in the new pinbox sideplates. Sideplates are to be positioned with the top lip of the plates pointing INWARD towards each other. Mount each plate so that the top lips are flush to the top of the tube. Also, you need to leave ¾" space between the front edge of the sideplate and the upper deck front tube (this space allows for a good weld on the sideplate to the 16 ½" tube). Now weld in both pinbox sideplates completely solid all the way around.

**Next, you need to blow a approximately a 1 ¼" hole in the roadside pinbox support tube (2 x 6 x ¼" x 16 ½") through both sides of the tube. Match this hole up with the existing hole already in the sideplate.

8.) Bolting in the Isolator pinbox is next. You'll use the bottom 3 holes in the front and the middle two holes in the rear. This box is heavy, so have somebody nearby to help with the install. Bolts are to be torqued to 110 #'s in ensure proper install. NOTE: when you prepare the Isolator box for install, you'll need to remove the air bag first, and NOT re-install until completion, or you WON'T be able to tighten the bolts down securing the box to the side plates.

9.) Once the Isolator box is installed, you'll add the 3 x 5 x ¼" triangle gussets (4 total). These gussets need to be welded flush with the bottom of the intersection between the 2 x 6 x ¼" x 94 ½" and 2 x 6 x ¼" x 16 ½". The 5" side needs to be welded along the 94 ½" tube, leaving the 3" side to go along the 16 ½" piece. This gusset needs a 100% weld as well, the points are critical in this process.



10). Now that the Isolator box has been installed, and all gussets are welded in, it is time to double check EVERY weld in the repair. Please make sure you have NO porosity problems with your welds. Also, in addition to having 3" stitch welds on the bottom side of the two 94 ½" pieces every 8", we MUST have a solid weld on the bottom side adjoining the two 2 x 6 x ½" x 94 ½" where the 16 ½" cross tubes intersect and where the triangle gussets meet as well. This will give you approximately an 8-9" weld x 2 in front and back of the pinbox where the two 94 ½" tubes are adjoined.

11). Now it's time to button this unit back up and return to owner. Thanks for your help with this repair. It is critical that you be HIGHLY critical of your own welds and accept nothing but excellent work.

****Please call Matt or Jason upon completion and approval by an LCI GM.**