

Honeywell

Bill Gill, ASI
23500 West 105th Street, M/S 44
Olathe, Kansas 66061

Mr. Tim Sorensen
Air Safety Investigator
National Transportation Safety Board
North Central Regional Office
31 West 775 North Avenue
West Chicago, Illinois 60185

September 25, 2008

Re: NTSB ID: DEN08MA116F, N407MJ & N407GA, Bell 407's
Equipment examination at Honeywell

Dear Mr. Sorensen,

The equipment detailed below from N407MJ and N407GA were examined at our facility in Olathe, Kansas, on September 16, 2008. FAA Inspector Marvin Trease with the Kansas City FSDO hand carried the components to the Honeywell site. Following the examination, the components were boxed for shipment and remained in the custody of the FAA.

N407MJ

1. KX 165 navcom, P/N 060-1025-25, S/N 58421, Mods 15, 16, 18, 19
2. KY 196A navcom, P/N 064-1054-30, S/N 8345, Mods 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

N407GA

3. KX 165 navcom, P/N 069-1025-25, S/N 60021, Mods 15, 16, 18, 19, 20
4. KX 165 navcom, P/N 069-1025-25, S/N 65129



N407MJ & N407GA equipment as-received at Honeywell, September 16, 2008

1. KX 165 navcom, P/N 069-1025-25, 58421, Mods 15, 16, 18, 19 (N407MJ)

The bezel and display assembly were severely damaged which precluded powering the unit. The micro-processor containing the non-volatile memory was removed from the accident unit and installed into a host unit. The following frequencies were displayed when the host unit was powered:

Comm:		Nav:	
Use	Stby	Use	Stby
125.30	122.80	117.60	108.40



uprocessor after de-soldering (accident unit, S/N 58421)



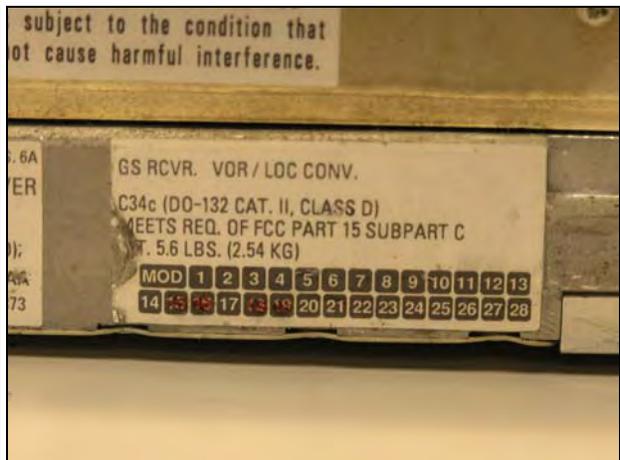
uprocessor from accident unit installed into a host unit



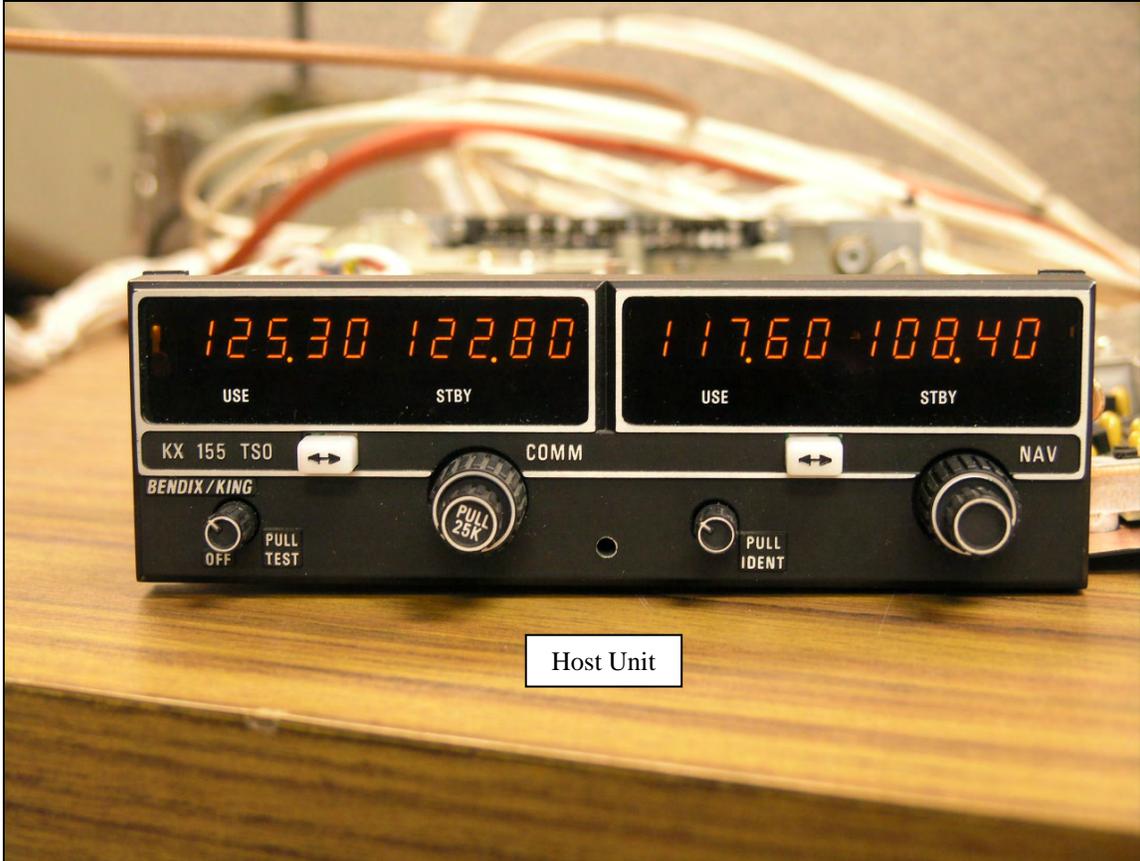
KX 165, S/N 58421: bezel and display damage



KX 165, S/N 58421: top view



KX 165, S/N 58421 dataplate



Host Unit

Host unit: frequencies displayed are those stored in the non-volatile memory from the accident unit, S/N 58421 (N407MJ)

2. **KY 196A navcom, P/N 064-1054-30, S/N 8345, Mods 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (N407MJ)**

The unit contained minor damage, including a damaged frequency flip-flop switch button – the switch functioned normally). The unit was connected to a harness and powered-up in the “as-received” condition. After unit power was applied, the following frequencies were displayed:

Comm:

Use	Stby
134.55	120.62

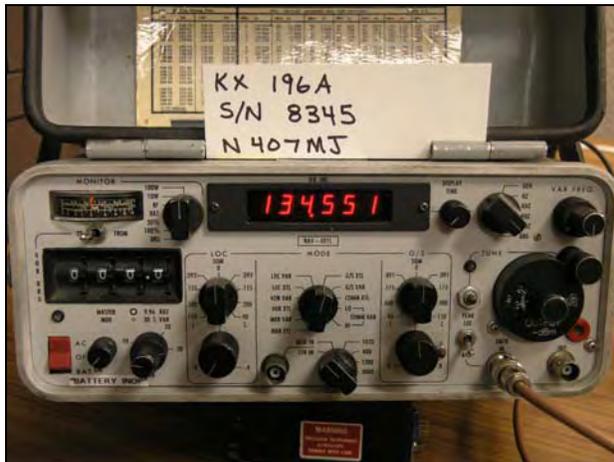
The unit was connected to an IFR 401 test set to examine receive and transmit functions. The receiver was tested satisfactory on 134.55 MHz using a 1.0 kilohertz signal. The transmitter output was acceptable at approximately 20 watts on 134.55 MHz (specification is 10 watts minimum).



KY 196A, S/N 8345: front & top view. Damaged frequency flip-flop button circled.



KY 196A, S/N 8345: frequencies displayed when unit power was applied (N407MJ)



KY 196A, S/N 8345: frequency received shown at left from unit transmitting on 134.55 MHz. The meter indication at right displays the transmitted power of slightly more than 20 watts (specification is 10 watts minimum).

3. **KX 165 navcom, P/N 069-1025-25, S/N 60021, Mods 15, 16, 18, 19, 20 (N407GA -- top navcom in stack)**
Unit bezel/knobs were fire damaged and the display was broken; minor impact damage present on unit chassis. The frequency flip-flop buttons were cut off and the volume switch knobs were removed to facilitate bezel removal. The bezel and damaged display were removed. A new display was installed. After unit power was applied, the following frequencies were displayed:

Comm:		Nav:	
Use	Stby	Use	Stby
134.55	122.75	113.85	108.75

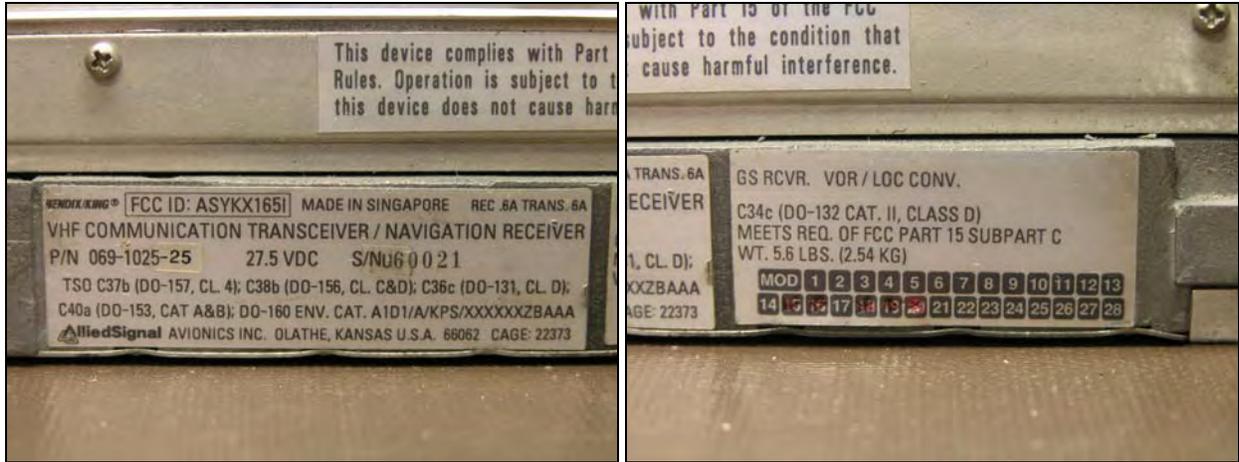
The unit was connected to an IFR 401 test set to examine receive and transmit functions. The receiver was tested satisfactory on 134.55 MHz using a 1.0 kilohertz signal. The transmitter output was acceptable at approximately 15 watts on 134.55 MHz (specification is 10 watts minimum).



KX 165, S/N 60021: Bezel & knobs fire damaged; top navcom in the stack;



NTSB photo: The radio stack in the center of the photo is shown upside down. Notice that the clear area circled on the bezel matches the bezel of the top photo on this page (top navcom).



KX 165, S/N 60021 dataplate



KX 165, S/N 60021: Frequencies displayed after power-up; unit was the top navcom in the radio stack (N407GA)



KX 165, S/N 60021: frequency received shown at left from unit transmitting on 134.55 MHz. The meter indication at right displays the transmitted power of 15 watts (specification is 10 watts minimum).

4. KX 165 navcom, P/N 069-1025-25, S/N 65129 (N407GA -- bottom navcom in stack)

Unit bezel and knobs were fire damaged and the display was broken; minor impact damage present on unit chassis. The frequency flip-flop buttons were cut off and volume switch knobs were removed to facilitate bezel removal. The bezel and damaged display were removed. A new display was installed. After unit power was applied, the following frequencies were displayed:

Comm:		Nav:	
Use	Stby	Use	Stby
123.02	136.87	116.90	113.80

Note: Honeywell photos of display and dataplate were lost – FAA photos do exist.

The unit was connected to an IFR 401 test set to examine receiver and transmitter operation. The receiver was tested satisfactory on 123.02 MHz using a 1.0 kilohertz signal. The transmitter output was acceptable at approximately 15 watts on 123.02 MHz (specification is 10 watts minimum).



KX 165, S/N 65129: frequency received shown at left from unit transmitting on 123.02 MHz. The meter indication at right displays the transmitted power of approximately 19 watts (specification is 10 watts minimum).

Thank you for inviting Honeywell to assist you with your investigation. Please contact me should you have any questions or comments regarding this report.

Sincerely,

██████████

Bill Gill
Air Safety Investigator
Honeywell Product Integrity
----- office

Cc Marvin Trease, FAA Inspector, Kansas City FSDO