

September 19, 2002

## Correspondence Summary – Questions and Answers

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-----Original Message-----

From: M. Flom Associates, Inc. [mailto:general@mflom.com]

Sent: Wednesday, September 18, 2002 2:55 PM

To: Bruno Clavier

Subject: Re: TCB review / E.F. JOHNSON COMPANY - FCC ID: ATH2425326 -  
Request for additional information

Bruno:

Bruno:

This will reply, item by item, to your requests.

1. FYI, the User Manual is normally printed ahead of time. Changing the Manual now would cause a needless expense. In the past, the FCC has accepted the Statement shown in the second of last page "Mandatory Safety Instructions etc." of the EA Report. The applicant will make the change in future manuals.
2. Since the User Manual has already been printed -see item 1, the Applicant will use your comments as a guide in later printings.
3. I have attended ALL the FCC's T.C.B. and other workshops. FYI, we were told that only a label showing "Warning: See Manual" was sufficient. The applicant will apply this warning label to the bottom of the radio, next to the FCC label.
4. Please upload the diagrams to the FCC as submitted by the Applicant. If FCC has any requests concerning them, we will address this to the Applicant.
5. We are sending the internal photos with the shields removed.
6. You have our authorization to change Form 731 with Bn = 8KIFIE
7. Collector Current = 13.2A. Collector Voltage = 13.3 Vdc

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# TIMCO ENGINEERING INC.

849 NW State Road 45

Newberry, Florida 32669

<http://www.timcoengr.com>

888.472.2424 F 352.472.2030 email: [tei@timcoengr.com](mailto:tei@timcoengr.com)

September 13, 2002

MORTON FLOM

M. FLOM ASSOCIATES, INC

480-926-3100/480-926-3598

GENERAL@MFLOM.COM

SUBJECT: E.F. JOHNSON COMPANY FCC ID: ATH2425326 MODEL:

REFERENCE: JOB #: 914UC2

Dear Morton,

Based upon our review of this application we have the following questions:

1. The User Manual supplied with this radio (E.F. Johnson publication) states a minimum separation distance of 1 meter. The RF exposure evaluation was performed at a distance of 1.5 meter. That needs to be corrected before we submit this application to the FCC. Please correct and resubmit.
2. I have seen the following example used for a similar radio. You might consider using something like this in this User Manual in addition of the information already provided:
  - <triangle with exclamation mark> This radio is NOT approved for use by the general population in an uncontrolled environment. This radio is restricted to occupational use, work related operations only where radio operators must have the knowledge to control their exposure conditions and the exposure conditions of bystanders and/or passengers for satisfying the lower exposure limit allowed for General Population.
  - DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer to use with this radio.
  - DO NOT transmit for more than 50% of the total radio use time (if you transmit 10% of the time, you must be in standby 10% of the time).

Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX indicator” lights red. You can cause the radio to transmit by pressing the “PTT” switch. (Mort, verify one of the lights on the front panel does indeed light when the radio goes to transmit.)

- ALWAYS keep the antenna at least 150 cm (approximately 5 feet) away from the body when transmitting to ensure FCC RF exposures compliance requirements are not exceeded.
3. In addition, an RF exposure label “warning statement” must be affixed in a conspicuous location on the radio. It should read the following:  
“<triangle>CAUTION: Device must be restricted to Occupational Use to satisfy FCC RF Exposure Compliance. See Owner’s Manual for specific operating instructions.”  
Please submit a label sample of your design and a photograph (or drawing) showing its location.
  4. BLOCK DIAGRAM: Is there a second page for this Block Diagram? I do not see any audio circuitry or digital modulation hardware shown on the submitted diagram. Also, it is difficult to see the frequencies being generated. I would like to submit a diagram more detailed than the one submitted. Do you have anything better you can include with this submittal? What I have seems incomplete. Thank you.
  5. Internal Photos: The internal photos received are not clear. We did not receive photos of the other side of the board. Photos with shields removed are needed also. The PCB artworks provided in the schematics exhibit do not identify clearly which PCBs are for this VHF model. Either, submit new internal photos or review the schematic exhibit to better identify PCBs (top and bottom sides).
  6. Necessary Bandwidth (Bn): It appears that you did not calculate properly the necessary bandwidth on page 50/50 of the test report. The calculation shows that  $B_n = 8.5 \text{ kHz}$ . Form 731 lists 8K00. FYI. The standard for C4FM modulation specifies 8K10. Please, review accordingly and resubmit.
  7. Part 2.1033: Collector current and voltage are not listed in the user manual as specified in test report. It was not found in the operational description either. Please, submit these values.
  8. FYI. We must supply a statement with this Grant for Certification. The following statement is an example of what we expect to use. Let me know your opinion.

Output Power is conducted. This device must be restricted to work related operations in an Occupational/Controlled RF exposure Environment, not exceeding a maximum transmitting duty factor of 50%. All qualified end-users of this device must have the

knowledge to control their exposure conditions and/or duration, and the exposure conditions and/or duration of their passengers and bystanders, to comply with General Population/ Controlled MPE limit and requirements. A label, as described in this filing, must be displayed on the device to direct users to specific training information for meeting Occupational Exposure Requirements and users must be provided with the training information, antenna installation and transmitter operating conditions for satisfying RF exposure compliance. Use of any other antenna, other than the one supplied, must be addressed at the time of licensing.

**This application is on hold until these questions are resolved.** Please direct all responses to [tei@timcoengr.com](mailto:tei@timcoengr.com). **DO NOT HIT REPLY!** Responses should also contain the Reference information, as shown at the top of this message.

Sincerely,

Frank De Nuzzo

Bruno Clavier

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