To: "Timothy R. Johnson" <tjohnson@AmericanTCB.com>
cc: Tim Johnson <tjohnson@americantcb.com>
Subject: Re: Review of FCC ID: NHVWBJ443

Dear Tim,

Thank you very much for your contact on the above application. I make a reply as follow:

1. Please see the file "Revised label".

2. As you can see on the timing chart, "16 seconds" mean that the transmission is stopped in 16 seconds maximum when Switch is kept pushing. When the user release his hand, transmission is stopped within "0.5 seconds" after he released his hand.

3. Please see the file "page 16 REVISED". Please replace the previous Page 16 with this.

4. As for the explanation for the data sent by the 312 MHz Tx in response to the 125kHz transmission, please see the file "RF response".

>Is the data sent equivalent to the data sent during manual activation?
--->> Basically, it's equivalent. During the button is pushed, same data is continuously transmitted.

>How long does the device transmit upon receiving the command?
--->> About 50mS transmission. The longest data transmission is less than 50mS.

5. Please see the last page of the file "RF response". To improve the security, the counter comprising of 20 bits is incremental by one at each LF transmission. This bit code indicates "Rolling code"

The RF response format of transmission comprises preamble of 16 bits, sync of 2 bits, start bit of 1 bit, response code of 32 bits, fixed code of 35 bits and stop bit of 1 bit. Function code and disc code in the response code are not used in this application. The Rolling code" is a part of an encryption data consisting of 20 bits in the response code and increments the data by one from "00000" to "FFFFF" every transmission or reception. When the data reaches "FFFFF", it returns "00000" again. The addition of the rolling code not only improves the transmitted data with regard to security performance but also constitutes a part of the transmitted recognition code.

1> The transmission of recognition code is not prohibited in the Section 15.231(a) due to above description with regard to the RF response format.
2> Since the transmission of recognition code automatically ceases within 0.5 second after being released the activation of the transmitter in case

of manual operation, the transmitter operation complies with 15.231(a)(1).

3> Since the transmission activated automatically ceases transmission within 0.5 second after activation, the transmitter operation complies with 15.231(a)(2).

4> Since the transmitter does not periodically operate, the transmitter operation complies with 15.231(a)(3).

As a result, this transmitter complies with all the requirements in 15.231(a).

6. Please see the file "SystemBlock" and "Schematic 2".

7. Please see the file "Revised Form 731".

Best regards,

Yukie Koyama
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--Original Message 2003/01/25 3:07:36--
Yoshiyuki/Yukie,

Attached are comments regarding review of this application. Please provide information as soon as possible.

Thank You,

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