

**KENWOOD**

# Digital Courtesy Tone

for  
**NXR-710/810**

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<b>Software Version</b>	<b>V1.50</b>
<b>Firmware Version</b>	<b>Refer the Revision Information</b>
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**Kenwood European Headquarters**

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## **Introduction**

This manual contains specialized features information for Kenwood NEXEDGE Repeaters (NXR-710 and NXR-810).

### **1. Feature List**

1. Courtesy Tone on Digital CH
2. Analog Repeat Disable
3. Additional AUX Output Function

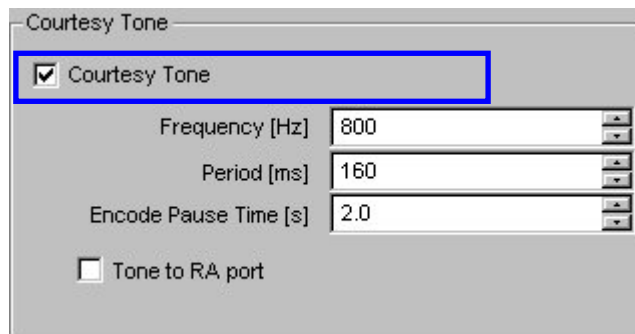
## 2. Feature Explanation

### Courtesy Tone on Digital CH

The repeater will emit a courtesy tone with digital signal at end of transmission.

When the Courtesy Tone checkbox in the Optional Features window will be enabled, the function will work with not only analog but also digital signal.

And another parameters the Tone Frequency, Period and so on will follow the analog setting.



Note:

1. The Tone Period should be configured around 160ms or more.
2. NXDN ID information will not be included in courtesy tone digital frame, so when any optional signaling will be used, Audio Control parameter should be configured "RAN" to open the speaker of the radio.

### Analog Repeat Disable

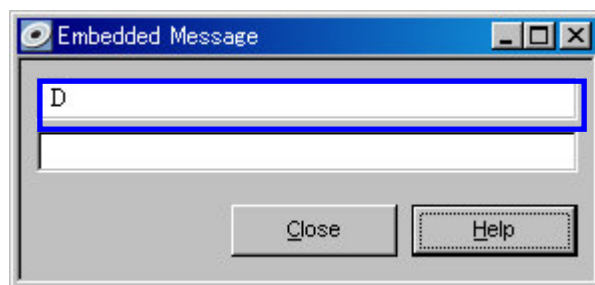
Analog repeat transmission will be disabled on the analog and Mixed channel.

Even if the carrier and signaling will be matched, the repeater does not repeat the signal and will work like a duplex channel.

When the repeater has to be controlled by external tone controller, this functionality is effective.

The repeat disable function can be invalidated by FPU data.

When 'D' will be configured on the first digit of the Embedded Message window upper line, the repeater will repeat with an analog signal.

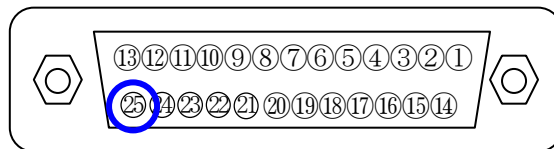


### **Additional AUX Output Function**

“Digital / Analog Signal Status” function describes which Digital or Analog signal the radio is receiving.

The function will be available when the TOR function is configured to AUX In/Out 6 Port.  
 The Pin-25 of AUX 25-pin connector is used by this function.

AUX Output		
	Function	Logic Type
AUX Out 1	None	
AUX Out 2	None	
AUX Out 3	None	
AUX Out 4	None	
AUX Out 5	None	
AUX In/Out 6	TOR	Active Low



When the radio receives the NXDN signal on Mixed CH, the “Digital / Analog Signal Status” function will be in an active status. On the other hand, when the radio receives the Analog signal, the function will be in an inactive status.

The logic type is programmable. When the “Active Low” is selected for Logic Type, if the radio receives the NXDN signal, the port will be low level.

When the Mixed CH is selected by [CH Up] Key, [CH Down] or [Channel \*] AUX Function, the port will be defined in accordance with the TX Mode configuration.

When “NXDN” is selected for TX Mode function, the port will be Active status, first.

The status of the port is continued until the Signaling Reset Timer expires. Then, the port will return to the default status.

Signaling Reset Timer [s]

**Note:**

When any “non Mixed” channel is selected except Mixed CH, the logic of the port will be defined in accordance with the CH Type and does not change.

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Kenwood has agreed to make such modifications, subject to the terms and conditions set third below.

**NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto hereby agree as follows who uses the Customized firmware:**

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“Licensee” means who uses the Customized Firmware.

“Customized Firmware” means the Firmware, as modified by Kenwood so as to enable the Radios to perform in accordance with the Customization.

“Firmware” means all computer programs that control the internal central processing unit of the Radios.

“Radios” means the Kenwood radios described in the Customization.

“Customization” means the detailed description of the desired performance characteristics of the customized Radios.

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- (b) Upon termination of this Agreement, Licensee must at its own cost, at Kenwood's option,
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  - (2) return the Customized Firmware and all copies thereof (including, without limitation, back-up files) to Kenwood.

Section 9. Execution in Counterparts.

This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which taken together shall constitute but one and the same agreement.

## Revision Information

### Documentation

Date	Revision	Description
2012/08/13	V1.00	Official Version Released
2012/08/28	V1.10	Revised

### Firmware

Version	Checksum	Date	Description
V1.57.01	CBBB	2012/08/13	Supported following three functions <ul style="list-style-type: none"> <li>- Courtesy Tone on Digital CH</li> <li>- Analog Repeat Disable</li> <li>- Additional AUX Output Function</li> </ul>
V1.57.02	0496	2012/08/28	Digital Courtesy Tone Function is improved Multiple Enc/Dec Table Problem fixed