



# Design Note

From: DEMI R & D Dept.

DN#: 033

Date: May 25, 2012

Re: Enable / Disable Sequencer in the "L" series Transverters

**PREFACE:** This document will provide information and clarity on how to enable, disable, alter timing or alter steps and functions of the sequence in the L series transverters.

**CIRCUIT AND DESCRIPTION:** All L series VHF transverters, both high and low power, are shipped with its built in sequencer enabled. This sequencer is designed into the transverter with intentions to provide all switching functions any VHF system would require. It is a 4 position sequencer with both high and low outputs on each step for a total of 8 separate outputs throughout the complete sequence. The outputs are rated by their Sinking or Sourcing current abilities. The sequencer steps are indicated on the front page of the operation manual of the transverter. Its configuration may vary depending on customer preference. A sample is shown below.

<i>Keying Option:</i>	<i>PTT-L ( to ground)</i>			<i>PTT – H ( Positive Voltage)</i>		
	<i>Transverter</i>	<i>Sequencer</i>		<i>Transverter</i>	<i>Sequencer</i>	
<i>Options:</i>	<i>IF Drive Sense</i>	<i>Negative Voltage Gen.</i>		<i>Cooling Fan</i>		
<i>Aux Connector Pin #</i>	<i>Transmit</i>			<i>Receive</i>		
<i>1 (Sequencer step 1)</i>	<i>High</i>	<i>Low</i>	<i>Open</i>	<i>High</i>	<i>Low</i>	<i>Open</i>
<i>2 (Sequencer step 2)</i>	<i>High</i>	<i>Low</i>	<i>Open</i>	<i>High</i>	<i>Low</i>	<i>Open</i>
<i>3 (Sequencer step 3)</i>	<i>High</i>	<i>Low</i>	<i>Open</i>	<i>High</i>	<i>Low</i>	<i>Open</i>

The 4th position of the sequencer is not shown because it is used to key the transverter through its separate PTT. This means, whatever keying is done in your system, the transverter is keyed last. Now, why do we do that? Having the Transverter keyed last, (and explained later in this document) is the safest way for anyone to use the transverter in any system. The reason for this document to provide the insight required to make a determination if the timing and/or stepping of the sequencer can be altered to promote enhanced operation.