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MODEL NC404 TOUCH-TONE* ENCODER
INSTRUCTION MANUAL

INTRODUCTION

The Model NC404 is a sub-miniature Touch-Tone Encoder. The NC404 encodes all 16 standard DTMF characters and features a crystal controlled synthesized tone generator, low current drain and TX keying with interdigit delay. Circuitry by-passing and SMT designed P.C. Board both provide excellent immunity to R.F. problems commonly associated with hand-held transceiver applications.

The Model NC404 can be mounted directly to the back of an "X-Y" matrix 12 or 16 button keypad with common ground or may be wired remotely. The digitally synthesized CMOS I.C. generates both high and low group tones simultaneously upon grounding of one row and column inputs. A single tone can be generated for testing purposes by grounding two rows or two columns. The high tones are pre-emphasized by 3dB over the low tones internally in the I.C., but can be changed by adjusting the value of C1 capacitor on the P.C. Board.

GENERAL

The Model NC404 Encoder has been engineered for maximum reliability. However, should you require technical assistance or detailed information for a specific application, please contact our Customer Service Department at (530)477-8400.

SPECIFICATIONS

- SUPPLY VOLTAGE 5.5VDC TO 24VDC
SUPPLY CURRENT Quiescent - 350uA/Encoding - 2.5mA
OUTPUT LEVEL Adjustable to 560mVRMS (No Load)
OUTPUT IMPEDANCE ~5K Ohms (DC Blocked)
CODE FORMAT 2 of 7 (or) 2 of 8 (DTMF)
TWIST High Tones approximately 3dB higher than Low Tones. Adjustable by Fixed Capacitor.
OSCILLATOR 3.57Mhz Crystal
TONE ACCURACY ±0.01% Minimum, ±0.5% Maximum
OPERATING TEMPERATURE . . . -30°C to +60°C
SIZE 1.0"W x .85"L x .15"H
MOUNTING Can be mounted directly to pins on back of Digitran KL series 12 or 16 button keypad or wired remotely.
INTERFACING 12" Color Coded Flying Leads

--SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE--

WARRANTY POLICY

NorComm products are unconditionally guaranteed for two (2) years on materials and labor from date of purchase.

All Warranty repairs must be performed at NorComm's Customer Service Department in Grass Valley, CA. Units under warranty can be returned for repair or replacement without prior authorization, however, a letter explaining the defect should be enclosed with the unit. Out of warranty units returned constitute Purchaser's authorization for NorComm to repair or replace equipment and to invoice Purchaser for any and all reasonable costs of repair labor, parts and freight.

NorComm shall not be obligated to repair or replace equipment rendered defective, in whole or in part, by causes external to the equipment, such as, but not limited to, catastrophe, power failure, or transients, environmental extremes, improper use, and maintenance or interfacing applications. NorComm further assumes no liability for any incidental or consequential damages which may result from the applications of its products by the Purchaser or any other party.