CHAPTER 1

GENERAL DESCRIPTION

NT 150 Transmitter Exciter

INTRODUCTION

The NT 150 FM Exciter is the latest in state of the art products available from Nicom. This Transmitter is designed with high reliability components and is intended to give many years of trouble free continuous service. This unit incorporates many features including a switching power supply and a PLL frequency synthesizer.

The latest SMD technology has allowed to make a more compact unit (only 3 rack spaces) and at the same time a very light unit (only 30 lbs).

INSTALLATION

After unpacking the module, check for any mechanical damage or loose parts inside. If there is any transportation damage, inform the supplier immediately and do not put the module into operation.

The voltage is applicable from 100 to 240 Volts without needing any change.

Ensure that the station's ground system connections have a ground resistance of less than 5 ohms. The equipment's rack or cabinet must be effectively grounded.

Check that the transmitter's main switch is off.

Connect the power cord to the AC plug.

STARTING PROCEDURE

Connect the antenna cable to the 'N' connector on the back of the unit. The antenna system must be set up to operate at the transmitter's working frequency.

ATTENTION

Antenna matching is extremely crucial for FM transmitters. Operate this unit only after verifying good matching. Mismatching will decrease the communication distance and unduly stress the semiconductors.

Turn on the transmitter.

After 1 or 2 seconds the green LED "PLL LOCK" should turn on. This indicates that the frequency is locked on the programmed value.

After 1 more second the "RF ENABLE" green LED will come on. This indicates that RF power is being delivered to the output connector on the back.

Now you can input modulation. For MONO operation connect your signal to the XLR connector following the connecting instructions printed on the back of the transmitter and then regulate the input level with the apposite trimmer. For stereo input, use the BNC connector labeled "MPX". Regulate the audio with the apposite trimmer.

Note:Be sure that the modulation level is close to but not more than 75KHz. 75KHz is 100% modulation. Lower modulation level will decrease the S/N value while over-modulation (>100%) will cause distortion at the receiver and it is against current regulations.