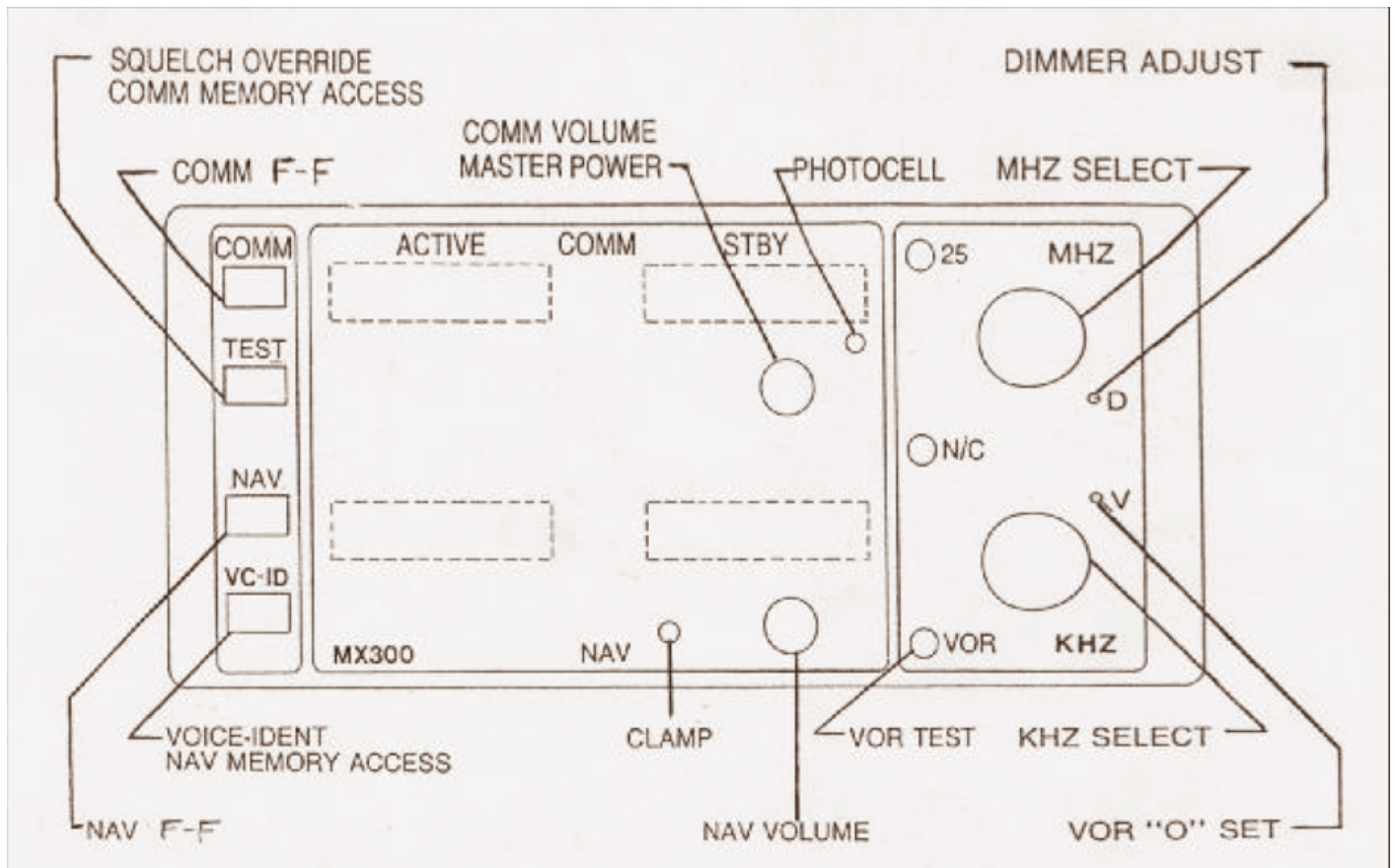


MX300 NAV - COMM

TKM, INC

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EQUIPMENT DESCRIPTION

The unit features digital (LED) displays for active (yellow) frequency channel and standby (red) frequency channel for both COMM and NAV.

For channel selection a MHz knob and a KHz knob are provided. For 25 KHz increments in COMM, a 25 KHz button is provided. ⌚ To activate COMM or NAV frequency selection, an N/C button is provided; a "tic" * appears in the selected standby channel display.

⌚ When in 25 KHz mode you will see the second digit other than a 0 or 5. You will NOT see the 3 digit because the display is only capable of 2 digits to the right of the decimal. Just know that 123.62 is 123.625 and 122.77 is actually 122.775.

Channel selection operates on the standby channel only. When the desired channel is indicated in the standby display it may be placed into the active position by depressing the "Flip-flop" button located to the left of the displays (labeled COMM and NAV) the active channel is then placed into the standby position.

The NAV receiver features a AC/ID button to permit selection of voice or ident reception. In the Ident condition a "tic" is displayed on the active NAV channel display.

The COMM transceiver features a test button which overrides the squelch to verify proper receiver operation and to allow reception of weak signals. Also provided on the active COMM display, is a "tic" * to indicate transmitter power output.

A VOR test button is provided on the front panel to inject a 0 degree FROM bearing into the Navigation converter circuits when a solid VOR signal is being received; a bearing adjustment can then be made through the adjustment hole by the KHz switch.

The adjustment hole by the MHz switch permits operator adjustment of the display dimmer range for optimum nighttime brightness.

- *The "tic" is the upper half of "1" and is found to the left of the 100's digit.*

OPERATING INSTRUCTIONS

Operating controls for the MX300 are located on the unit front panel or are remote inputs thru the rear panel.

The unit front panel is shown in figure 1. The left hand COMM readout indicates the active COMM frequency and the right hand COMM readout indicates the standby COMM frequency. The left hand NAV readout indicates the active NAV frequency and the right hand NAV readout indicates the standby NAV frequency. A "tic" readout is provided on the upper left hand corner of the first digit of each of the four frequency readouts.

The active COMM "Tic" indicates the presence of transmitter power.

The standby COMM "Tic" indicates that the Frequency Selection knobs will control COMM standby frequency

The active NAV "Tic" indicates that the NAV receiver is in the Ident Mode.

The standby NAV "Tic" indicates that the Frequency Selector knobs will control NAV standby frequency.

Power Application. The COMM volume control contains the master power switch and activates both the NAV and COMM functions.

Frequency Selection. The N/C button is used to activate either the COMM or the NAV frequency selection as indicated by the appropriate "Tic" display. The MHz and KHz controls can then be used to select a desired standby channel. In COMM the 112511 button is used to advance the frequency by 25 KHz.

After the desired standby frequency is selected it may be transferred to the activate position by pressing the flip-flop button to the left of the ACTIVE display. The active and standby channels will be interchanged each time the button is pressed.

Ident/Voice Selection. The ID/VC button can be used to select a tone filter in order to receive voice signals on the NAV receiver. The switch is also used for frequency storage as described below.

Test. The TEST button is a dual function switch. In normal operation, it is used to override the squelch to verify receiver operation and to receive weak signals. The switch is also used for frequency storage as described below.

Frequency Storage. Up to 100 frequencies may be stored in the unit's memory. A COMM frequency selected in the standby display may be transferred to memory by pressing and holding TEST while pressing the flip-flop button. When a frequency is inserted into memory the next available frequency is taken from memory and placed into standby. If no frequencies are in memory the standby will indicate 10000. A NAV frequency selected in the standby display may be transferred to memory by pressing and holding VC/ID while pressing the NAV flip-flop button. When 10000 is present in the standby display, a new channel can be selected and placed into memory in the manner previously described. In the group of frequencies stored in memory, there will always be one and only one 10000. At the upper or lower end of the NAV or COMM frequency ranges, a 10000 display will be available. To delete a channel from memory, it must be sequenced to the standby display and set to 10000 by the frequency selector switches; transferring of the 10000 to storage will then eliminate the undesired frequency.

Transmit. The transmit mode on the transceiver is selected by pressing the transmit button on the microphone.

Channel Reset. If it is desired to clear memory, a system reset may be accomplished by turning off the main power switch, pressing and holding TEST button and then turning on the main power switch; after reset the COMM. Active will read 121.5 and the COMM standby will read 120.0. The Nav Active will read 108.0, NAV standby 112.0.

VOR OBS Adjustment. OBS test can be made by tuning in a solid VOR station and depressing the VOR button. The L-R needle should be centered with a bearing of 0 degrees FROM or 180 degrees TO. if an error exists the VOR bearing may be adjusted through the hole in the front panel by the KHz switch marked V.

Display Dimmer Adjustment. The dark end of the automatic display dimmer range is adjustable through the front panel hole by the MHz switch marked D.