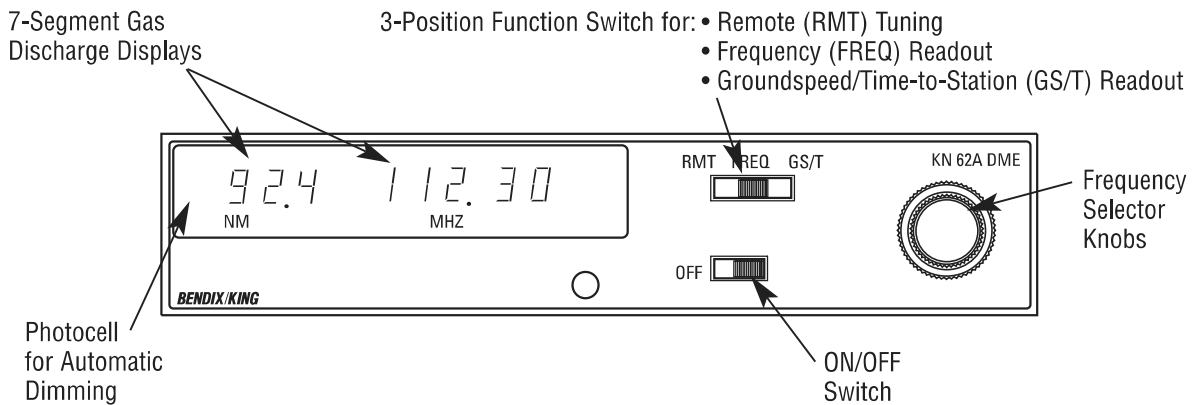


## KN 62A and KN 64 TSO'd Silver Crown Digital DMEs

### Operating the KN 62A and KN 64 DMEs



### Operation

Turn on the unit only after engine start-up. Also, turn avionics off prior to engine shut-down. These simple precautions should be practiced with all avionics. It will protect the solid-state circuitry from short duration high voltage spikes and extend the operational life of your avionics.

The 3-position function switch determines both the information displayed and the channeling source.

Place the function switch on Frequency (FREQ). The unit is channeled internally with its own two concentric frequency selection knobs. The smaller of the two knobs has an "in" and an "out" position. When in the "in" position, this smaller knob changes the 0.1 MHz digit (0.0, 0.1, 0.2, etc.). When pulled "out", it adds 0.05 MHz to the frequency and tunes in 0.1 MHz steps (0.05, 0.15, 0.25, etc.). Pushing the smaller knob "in" subtracts 0.05 MHz from the displayed frequency. The outer, larger knob changes the larger digits (1 MHz, 10 MHz). In FREQ mode, the unit will display distance and the selected frequency. (See Figure 19.)

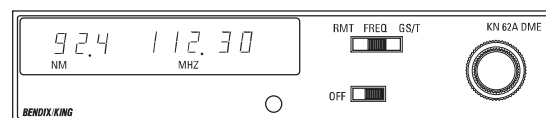


FIGURE 19.  
Distance/Freque<sup>n</sup>c. FREQ Mode.

Now move the function switch to the Groundspeed/Time-to-Station (GS/T) position. The unit will hold the internally selected frequency and will display distance, groundspeed and time-to-station. (See Figure 20.)

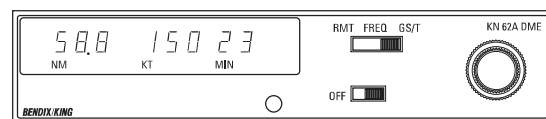
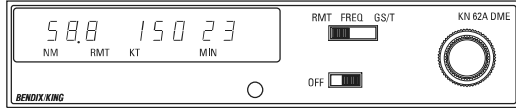


FIGURE 20.  
Distance/Groundspeed/TTS GS/T Mode.

Rotating the frequency selector will have no effect on the display, because the DME is in "Frequency Hold". This frequency hold feature in the GS/T mode prevents accidental rechanneling of the DME when the frequency is not displayed.

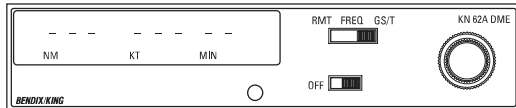
Place the function switch in the Remote\* (RMT) position, and your DME will be channeled when you

select your NAV frequency on the NAV receiver. Search time is usually about one second. When the unit locks on a ground station, it will display distance, groundspeed and time-to-station. (See Figure 21.)



*FIGURE 21.*  
*Distance/Groundspeed/TTS RMT Mode.*

Prior to lock on, “dashes” will be displayed. (See Figure 22.)



*FIGURE 22.*  
*Prior to Lock On.*

Note that you may have two frequencies available at all times (one remotely selected on the NAV receiver and one internally selected with the unit's controls).

\*Remote channeling requires wiring to the NAV receiver.

## Operational Notes

The KN 62A and KN 64 have an audio output for use in identifying the DME ground station being received. The audio level is preset at the factory, but may be easily adjusted through the top cover.

The unit electronically converts to distance the elapsed time required for signals to travel to and from the ground station. This distance is then indicated in nautical miles on the Distance/Speed/Time-to-Station display. This distance, commonly referred to as slant range distance, should not be confused with actual along-the-ground distance. The difference between actual ground distance and slant range is least at low

altitude and/or long range. If the range is three times the altitude or greater, error is negligible.

The effective range of DME depends on many factors, most important being the altitude of the aircraft. Other contributing factors are the location and elevation of the station, DME transmitter power output, and receiver sensitivity.

The groundspeed feature incorporated in the unit measures the rate of change in DME slant range distance with time. This speed is then read from 0 to 999 knots in 1 knot increments. To obtain accurate groundspeed, the aircraft must be tracking directly to or from the station. To obtain accurate time to station, the aircraft must be tracking directly to the station.