

## Modifications To HT50 Software to Include DSC And Accessory Socket Options

01/12/00

The Software is to be changed from Issue 1.0 to Issue 1.1

### Software Changes

- 1) Channels 87 & 88 are to be changed to be simplex channels as default.
- 2) A keypad lock is to be introduced. This should function as follows:-
  - a) The key pad lock should be enabled by pressing and holding the "Hi/Lo" key for 2 seconds. A double bleep should be generated to indicate the lock function.
  - b) During keypad lock all keys should be ignored except for "PTT", "ON/OFF" and "Hi/Lo". "Lock" should be displayed on the LCD lower characters.
  - c) If a locked key is pressed a bleep at ~800Hz should be generated to indicate Keypad lock.
  - d) To disable the keypad lock "Hi/Lo" should be pressed and held for 2 seconds.
  - e) Turning the power off will also disable the keypad lock
- 3) The HD52 radio is to be able to transmit DSC messages including positional information. NMEA information is to be transferred into the radio from the charger cradle. The method of data transfer will be via an inductively coupled link using on/off keying of a 125KHz carrier. The data link will continuously transmit raw NMEA data.
  - a) When the radio is turned on in the charger cradle it will receive the NMEA data. The Positional information can then be extracted from the NMEA data for use with DSC transmissions.
  - b) When a new position is received a timer should be started and "PS" should be displayed on characters 4 and 5 of the LCD. (characters 6 and 7 should be cleared). This should overwrite the country ID which is normally displayed. After 1 hour the display should show "PS 1" on characters 4, 5 and 7 (character 6 should be cleared and only used when double figures are necessary. i.e. after 10 hours). This should continue to count up in hourly increments until 23 hours has elapsed. After 23 hours the position should be discarded and "PSxx" no longer displayed.
  - c) If the position is not updated within a 4 Hr period then a 5 second alarm tone should sound ( at full volume). At power down the position should be discarded.
  - d) If a key is pressed whilst "PSxx" is displayed the function should override the display.
  - e) At power down if a position is being held the turn off time should be 2 seconds. This should be accompanied by an alarm for 2 seconds (at full volume) and "PSxx" flashing. This is to warn against inadvertently powering down and losing positional data. If no position is being held the turn off time should be 2 seconds without the alarm tone.