Beginning with SN 41200000 severaI new programming features were included in these models. These new features include a programmable Monitor Switch function, OFF-HOOK Scanning. OFF-HOOK decode, Transmit Revert Channel (for off-hook scanning), and an additional Scan Resume Delay (for the transmit revert channel). This Service Bulletin is revised to include the programming procedure for these new features in the self-programming mode.  
  
Entering the self programming mode is accomplished by turning on the power switch while pressing a combination of buttons which act as an interlock. Jumper CN-8 located on the main board behind the display is in the SET position when the radio is shipped from the factory. This enables self programming. If CN-8 is moved to the USE position, which is recommended prior to delivering the radio to the customer, the self programming mode cannot be entered. ( The radio may be operated with the jumper in the set mode, but after exiting programming mode it will revert back to displaying channel numbers, not frequencies.)  
  
Prior to initial programming, you may want to perform a Memory CIear. With CN8 in the set mode: SIMULTANEOUSLY press and hold the AUX. and SCAN and D/A while turning the power switch ON". This will remove any frequencies which were factory installed for testing purposes. The radio automatically enters the Option setting mode during memory clear.  
  
To enter the Option Setting Mode without clearing memory, SIMULTANEOUSLY press and hold AUX and SCAN buttons while turning power ON (CN-8 on the main board must be in the set position).  
  
OPTION SETTING MODE  
  
(Pressing PTT between all functions stores the data and changes to next function)  
  
Function Display Rotate channel selector to select Press  
1 Band range 150.000~ 100Mhz SECTION (150-450) PTT  
2 Time out timer t OFF Off-30-60-90-120-180 Sec (default=off) PTT  
3 Busy ch lockout b On Off/on (default = on) no TX when channel is busy PTT  
4 DEL/ADD condition dA On On=user select, off=fixed see RX ch & DEL/ADD PTT  
5 Mic hook operation' H On On=scan on hook, PTT off hook, mon off hook,  
Off=no scan, ptt on or off hook, no off hook monitor PTT  
6 Priority channel P FI FI=FIXED US=user selectable (default=fixed) PTT  
Additional features from sn 41200000  
7 Monitor switch En On On=press to disable decode, hold to disable Sq.  
Off=press to disable Squelch (default =on) PTT  
8 Off hook monitor dE Off On= no off hook monitor, off=monitor off hook PTT  
9 Off hook scan sc Off On= off hook scan, off=scan on hook only PTT  
10 END END (turn off power)   
  
RECOMMENDATIONS for NEW FEATURE SELECTIONS.  
  
\* Off Hook Monitor (dE OFF) is only enabled when On-Hook Scan is selected (SC=OFF)  
  
\* The "Last Called" option in the revert channel selection is supported in units bearing SN of 50700000 and higher only. Prior to this S/N, the "Last CalIed revert feature operated according to specifications outlined for certain export models only.  
  
\* The Revert channel during On-Hook scanning is the Priority channel only. The revert channel and Resume B selection is skipped during self programming when On Hook scanning is selected.   
  
In the user mode, the display skips unprogrammed channels. During programming mode any mistakes in programming can be reprogrammed over but channels cannot be deleted once entered unless memory is cleared, and all desired information reprogrammed. When all desired tone and frequency entries are completed, continue pressing PTT (stepping across unprogrammed channels) until END is displayed. If any undesired channels were displayed prior to END, the memory must be cleared and reprogrammed. (memories may be cleared individually when using the KPG6D programming software by hitting all spaces.  
  
FREQUENCY PROGRAMMING MODE  
  
TK-705D AND TK-805D FREQUENCY, AUXILIARY & SCAN Programming  
To enter the frequency programming mode, SIMULTANEOUSLY press and hold the "AUX and "D/A buttons while turning power "'ON" (CN-8 on the main board must be in the SET position)  
  
CH1 - RX FREQ  
  
Set ch1 RX freq by turning channel selector, hold AUX key when turning to change 1mhz  
  
Press SCAN to change channel step from 10 and 12.5kc UHF or 5 and 6.25kc VHF  
  
Press D/A key to enable delete/add scan function for this channel  
  
Press REC to enable AUX switch function on this channel (selected later) PTT   
  
RX TONE TYPE  
  
Use ch selector to set RX tone type, QT (tone) or DQT (digital) DQT only on D model PTT   
  
RX TONE FREQ  
  
Display reads St for tone or S dt for digital  
  
Set receive tone or digital with ch selector=.1hz, Ch sel+AUX for 1??????s digit, REC for 10??????s digit on tone. For digital, ch selector = 1??????s, AUX +ch sel = 10??????s, REC+ch sel = 100??????s, SCAN=normal/ inverse (note that non-standard tones can be selected for both tone or digital) PTT   
  
TX FREQUENCY  
  
Note: when TX settings are being programmed the TX symbol (--^) will be displayed  
  
Use ch selector to set TX freq (or press PTT to set no tx (RX only channel), Ch sel+AUX=1mhz  
  
Use SCAN button to set step size (see above, same as RX) PTT   
  
TX TONE TYPE  
  
Set TX tone type (see above)   
  
TX TONE FREQ  
  
Set tone freq (see above) PTT  
  
-----> Repeat the above for CH2 to CH16 (bypass any channel by pressing PTT on blank "---.---"?????? channel.)   
  
AFTER CHANNEL 16, PROGRAMMING ENTERS OPTION SELECT MENU (use Channel Sel to select option) AUX Set AUX button function, DRS=digital recording (must have option board), 2tonE= two tone sequential decode, dt=DTMF, tA= talkaround. Only one AUX condition can be set for all channels, however it can be turned on or off for specific channels in operation mode. PTT  
  
RESUME A TIME  
  
Set resume scanning delay time after receiving call in .5 second steps, PTT   
  
RESUME B TIME  
  
Set delay before scanning resumes after transmitting (in off hook scan mode) .5 sec, PTT   
  
FIXED PRI CH  
  
If option setting for priority is set at FI, fixed priority, select ch number, if set at US (user selectable) this will be skipped during programming, PTT   
  
LOOKBACK A TIME  
  
This sets the time between samples when looking back at the priority channel PTT   
  
LOOKBACK B TIME  
  
This sets the time between samples when looking back at the priority channel when the priority channel is busy but the signal does not have the PL tone you have programmed into the priority channel. PTT   
  
REVERT CH (only enabled during off hook scan)  
  
Use ch sel to set the channel the transmitter will revert to when PTT is pressed during off hook scan.  
  
St = last channel selected before the scan switch was pressed  
  
P CH = priority channel  
  
CA CH = last channel a call was received on  
  
US CH = last channel used (that was tra nsmitted on) before scan switch was pressed PTT/ END   
  
In programming mode pressing the MON (SPKR symbol) button and turning the channel selector knob will take you back or forward in the menu selections in case you make a mistake or decide to make changes to previous settings while programming. In operation mode, to add/delete channels for scanning, press scan and add/delete button.  
  
Adjustment pots on theTK705D/805D, facing front of radio, left to right back row.  
  
VR4=max deviation set , VR3=Mic sensitivity set , VR7=dig waveform bal (set for squarest digital waveform as seen at output frequency on service monitor), VR6=PL tone level (500 to 750 ~), VR5=power out (set to 27W) right side of silver VCO box VR1=preset squelch level, VR2=ABTO (this is the level control when using the digital audio recording option board).  
  
TC1= frequency (TCXO) adjustment (NOTE:THIS IS ONLY ON THE 705D, THE 805D FREQUENCY ADJUSTMENT IS LOCATED ON THE TCXO MODULE WHICH IS TO THE RIGHT OF THE SILVER VCO BOX TC1 on the 805 is a RF stage alignment cap...)  
  
RA/RD jumper (CN7).  
  
Is for use when using the radio with the digital recording option. RA position is for audio that follows the squelched audio, RD position is for unsquelched audio, (noise and audio).