

## BASIC SETTING FOR KANTRONICS KPC-3 (not KPC-3+)

There are 122 commands in a Kantronics KPC-3, but to get started you only need a few. If you have a different model there may be additional parameters to set.

To get started you need the TNC, a computer, and an interconnection. The interconnection will vary depending on the ports on the TNC and computer.

Next you need a communications program on your computer. There are many available, but in our EOCs we use Outpost PMM [Outpost Downloads \(outpostpm.org\)](http://outpostpm.org) It is free and easy to use.

When you have installed the program, start the IPSerial program. Open settings and make sure it is set to Max speed 9600, 8 bits, No parity and 1 stop bit. Flow control is usually NONE. A comm port should be displayed. If not, your computer likely has not recognized the comm port.

Assuming all is well, turn on your TNC and select CONNECT in the program.

If the TNC initially came back with the `cmd:` prompt, it was previously set up. If you are unsure about the correctness of the settings, you can type `RESTORE D` to reset all parameters, and then start the setup as shown below. I find this is easier than trying to find a bad entry.

If this is the first time the TNC has been used or you just restored it to factory settings, you will see strange characters and then `PRESS * to connect`.

Press the `*` key and the TNC should return `ENTER YOUR CALLSIGN=>`. Do that.

The program should return `cmd:` .

Now is when you will enter a few basic commands.

Type `INTERFACE TERMINAL` The TNC will return: `INTFACE was NEWUSER`

Type `CD SOFTWARE` The TNC will return: `CD was INTERNAL`

Your TNC is now fully functional.

Set the clock with the command `DAYTIME YYMMDDHHMMSS` Date and time must be in this format.

If you want to advertise your station type `BEACON EVERY 59`

When your TNC and radio is transmitting, listen on another radio and adjust as needed to make it sound like other stations. The KPC-3 has a small trimmer pot, unlike the KPC-3+ that is adjusted via software.

There are many other parameters you can change, and now that you know how to clear everything out, experiment with the commands below.

Note that the call you entered will be displayed instead of N0CALL as shown

Have fun

W6RH

| COMMAND          | DEFAULT            | EXPLANATION   |
|------------------|--------------------|---|
| cmd:display      |                    | {ASYNC   CHAR   ID   LINK   MONITOR   PBBS   TIMING}                |
| 8BITCONV         | ON                 | If on, 8th bit used in CONVERS mode                                 |
| AX25L2V2         | ON                 | If on, AX25 version 2 protocol used                                 |
| ABAUD            | 9600               | RS232 terminal baud rate  |
| AUTOLF           | ON                 | LF sent to terminal after CR  |
| AXDELAY          | 0                  | Time added to TXDELAY for repeaters (10 msec)                       |
| AXHANG           | 0                  | Hang time of repeater to inhibit AXDELAY (10 msec)                  |
| BEACON EVERY     | 0 (disabled)       | [{EVERY   AFTER}] time (1 min)                                      |
| BKONDEL          | ON                 | If on, DELETE will backspace; else \                                |
| BTEXT            |                    | Text sent to BEACON in UI packet                                    |
| BUDLIST          | OFF                | {OFF   TO   FROM   BOTH} If on, only monitor stations in BUDCALLS   |
| BUDCALLS         | NONE               | Callsigns of stations to be monitored                               |
| A Link state is: | DISCONNECTED       | Show status of streams  |
| CANLINE          | \$18 (CTRL-X)      | Char used to cancel a partial line                                  |
| CANPAC           | \$19 (CTRL-Y)      | Toggle char use to send output from TNC to bit bucket               |
| CD               | INTERNAL           | {INTERNAL   EXTERNAL   SOFTWARE} carrier detect                     |
| CHECK            | 0 (disabled)       | No activity time before protocol checks on link (10 sec)            |
| CMDTIME          | 1 (1 sec)          | Timing spec to get out of transparent mode (sec)                    |
| CMSG             | OFF                | {ON   OFF   DISC   PBBS}  |
| COMMAND          | \$03 (CTRL-C)      | Char used to return to command mode                                 |
| CONLIST          | OFF                | If on, only responds to stations in BUDCALLS                        |
| CONMODE          | CONVERS            | {CONVERS   TRANS}   |
| CONOK            | ON                 | Enables connections to MYCALL                                       |
| CPACTIME         | OFF                | Enables PACTIME use in conversational mode                          |
| CR               | ON                 | SENDPAC char appended to packets formed by SENDPAC                  |
| CRSUP            | OFF                | If on, removes every other consecutive CR received                  |
| CSTAMP           | OFF                | Time stamp connects and disconnects                                 |
| CTEXT            |                    | Text sent first to someone else connecting to MYCALL                |
| CWID             | EVERY 0 (disabled) | [{EVERY   AFTER}] time (1 min)                                      |
| CWIDTEXT         | DE N0CALL          | Text sent during CW IDs   |
| DAYTIME          | 00/00/00 00:00:33  | yymmddhhmmss  |
| DAYTWEAK         | 8                  | Fine tune software 24hr clk   |
| DAYSTR           | mm/dd/yy hh:mm:ss  | time format   |
| DBLDISC          | OFF                | Forces a true disconnect sequence after DISC while awaiting connect |
| DELETE           | \$08 (CTRL-H)      | Char used to delete last char in line                               |
| DIGIPEAT         | ON                 | Allows digipeating through MYCALL                                   |
| DWAIT            | 0                  | Time to allow digipeaters first acces to channel (10 msec)          |
| ECHO             | ON                 | Characters from terminal are echoed back                            |
| ESCAPE           | OFF                | If on, received ESCAPE characters printed as \$                     |
| FLOW             | ON                 | TNC will not send data to terminal until input line complete        |
| FILTER           | OFF                | If on, removes most control codes from received packets             |

|           |                      |  |
|-----------|----------------------|--|
| FRACK     | 4 (4 sec)            | Time to wait for ack to packets (FRACK*(2*d+1) sec)                    |
| FULLDUP   | OFF                  | Allows transmitting while receiving                                    |
| HBAUD     | 1200                 | {300   400   600   1200} baud using Bell 202 tones                     |
| HEADERLN  | ON                   | If on, prints a CR between monitored header and data                   |
| HID       | ON                   | Auto ID every 9.5 min if TNC is digipeating                            |
| HTEXT     |                      | Hier info  |
| INTERFACE | NEWUSER              | {TERMINAL   NEWUSER   BBS   KISS   HOST}                               |
| KNTIMER   | 15 min               | KNODE idle timer (1 min)   |
| LEDS      | ON                   | Enables front panel LEDS   |
| LCOK      | ON                   | If on, allows lower case characters to be sent to terminal             |
| LCSTREAM  | ON                   | If on, allows lower case characters to be used in stream switching     |
| LFADD     | OFF                  | LF char added to each CR char sent in packet                           |
| LFSUP     | OFF                  | If on, received LFs are not printed                                    |
| LLIST     | OFF                  | If on, stations listed in SUPCALLS are completely ignored              |
| MONITOR   | ON                   | Master switch for monitoring packets                                   |
| MALL      | ON                   | If on, allows monitoring of connected data between other stations      |
| MAXFRAME  | 4                    | Maximum number of unacknowledged I frames outstanding                  |
| MAXUSERS  | 10                   | Maximum number of connections allowed                                  |
| MBEACON   | ON                   | If on, monitors packets addressed to BEACON and ID                     |
| MCON      | OFF                  | If on, allows monitoring to continue while connected                   |
| MCOM      | ON                   | If on, monitors SABM (<C>), DISC, DM, and UA frames                    |
| MRESP     | ON                   | If on, monitors RR, RNR, REJ frames                                    |
| MRPT      | ON                   | If on, digipeater paths are displayed in header                        |
| MSTAMP    | OFF                  | If on, monitored packets are time stamped                              |
| MXMIT     | ON                   | If on, transmitted packets are monitored                               |
| MYCALL    | N0CALL               | This station's callsign {call[-n]}                                     |
| MYALIAS   |                      | Allows digipeating with alias callsign                                 |
| MYNODE    | N0CALL-7             | Callsign used for KA-NODES   |
| MYPBBS    | N0CALL-1             | Callsign used for access to personal mail box                          |
| MYREMOTE  |                      | Callsign allows access to remote control                               |
| NDWILD    | OFF                  | Allows connection to any ssid of MYNODE                                |
| NEWMODE   | ON                   | If on, returns to command mode when DISC received on current stream    |
| NOMODE    | OFF                  | If on, does not automatically change modes between CONV, TRANS, or CMD |
| NTEXT     |                      | Text sent to someone connecting to KA-NODE                             |
| NUCR      | 0                    | Number of nulls sent to terminal after CR                              |
| NULF      | 0                    | Number of nulls sent to terminal after LF                              |
| NUMNODES  | 0                    | Number of KA-NODE channels   |
| PACLEN    | 128                  | Maximum size of data in I frame  |
| PACTIME   | AFTER 10 (1000 msec) | [{EVERY   AFTER}] time (.1 sec) when to form packets in trans mode     |
| PARITY    | NONE                 | Function of 8th data bit between terminal and TNC                      |
| PASS      | \$16 (CTRL-V)        | Char used to pass special characters as data                           |
| PASSALL   | OFF                  | Allows packets with incorrect CRCs to be processed                     |

|          |                         |  |
|----------|-------------------------|--|
| PBBS     | 100                     | Amount of memory (1K increments) set aside for PBBS messages           |
| PBFORWRD | NONE EVERY 0 (disabled) | [bbscall [vias]] [{EVERY AFTER} n] starts auto forwarding              |
| PBHEADER | ON                      | Saves routing information in messages                                  |
| PBHOLD   | ON                      | Incoming messages to PBBS are marked HOLD                              |
| PBKILLFW | OFF                     | Kill Personal and Traffic msgs after forwarding                        |
| PBLO     | NEW VARIABLE            | [{OLD   NEW}] [{FIXED   VARIABLE}] PBBS listing order                  |
| PBPERSON | OFF                     | Restricts PBBS messages addressed to MYCALL and MYPBBS                 |
| PBREVERS | ON                      | Accepts messages after AutoForwarding                                  |
| PERSIST  | 63 (25%)                | Probability of transmitting during slot time (0-255)                   |
| PID      | OFF                     | If on, allows monitoring of all packets regardless of PID              |
| PTEXT    |                         | Initial text sent when someone connects to PBBS                        |
| REDISPLA | \$12 (CTRL-R)           | Char used to redisplay partial line                                    |
| RELINK   | OFF                     | Version 2 will try to reconnect after retrying out                     |
| RESPTIME | 5 (500 msec)            | Time to wait before acking data packets (100 msec)                     |
| RETRY    | 10                      | Number of retries before aborting                                      |
| RING     | ON                      | 3 bells sent to terminal upon incoming connect                         |
| RNRTIME  | 0 (disabled)            | TNC will disconnect after receiving RNRs for specified time (x10 sec)  |
| RTEXT    |                         | Text string used for remote authorization                              |
| SCREENL  | 0                       | CR printed if none received after n characters                         |
| SENDPAC  | \$0D (CTRL-M)           | Char used to form packets in convers mode                              |
| SLOTTIME | 10 (100 msec)           | Time between successive tries of persistence algorithm (10 msec)       |
| START    | \$11 (CTRL-Q)           | Char to restart output from TNC to terminal                            |
| STATSHRT | ON                      | If on, STATUS command only lists connected and current streams         |
| STOP     | \$13 (CTRL-S)           | Char to stop output from TNC to terminal                               |
| STREAMSW | \$7C ( )                | Char used to change streams  |
| STREAMCA | OFF                     | Show callsigns with stream switch                                      |
| STREAMEV | OFF                     | Show stream switch with every packet                                   |
| SUPLIST  | OFF                     | {OFF   TO   FROM   BOTH} If on, stations in SUPCALLS are not monitored |
| SUPCALLS | NONE                    | Callsigns of stations for use with SUPLIST and LLIST                   |
| SWP      | 17,17,108               | Allows fine tuning of SOFTWARE CD                                      |
| TRACE    | OFF                     | Dump out received packets in hex                                       |
| TRFLOW   | OFF                     | If on, allows software flow control in TRANS receive mode              |
| TRIES    | 10                      | Number of retries on current packet                                    |
| TXDELAY  | 30 (300 msec)           | Time delay between PTT and radio data out (10 msec)                    |
| TXFLOW   | OFF                     | If on, allows software flow control in TRANS transmit mode             |
| UNPROTO  | CQ                      | {call [via calls]} path for UI data frames                             |
| USERS    | 1                       | Specifies streams to be used by incoming connects                      |
| XFLOW    | ON                      | Master switch for software flow control                                |
| XMITOK   | ON                      | If on, allows TNC to key transmitter                                   |
| XOFF     | \$13 (CTRL-S)           | Char to stop input from terminal to TNC                                |
| XON      | \$11 (CTRL-Q)           | Char to restart input from terminal to TNC                             |