KPC-9612 Jumpers

There are several jumpers in the KPC-9612 which can be used to configure various options. The jumpers are listed below in sequential order as a reference.

J1 (1200 baud equalization) This two-pin jumper is used to set the equalization for the 1200 baud modem. When placed on both posts, no equalization is selected, and when placed on one post, partial equalization is used. See the CALIBRATION/EQUALIZATION section for details. (DEFAULT: no equalization)

J2 (NOR/HT) When placed on the center post and the post marked NOR, this configures the AFSK output line of port 1 (1200 baud) for use with base radios. When placed on the center post and the post marked HT, this configures the AFSK output line to also serve as the PTT line for HT radios. (DEFAULT: nor)

J3 (9600 watchdog) This jumper enables/disables the watchdog timer for the 9600 baud modem. When placed on one post, the watchdog timer is active, and when placed on both posts, the timer is disabled. (DEFAULT: enabled)

J4 (1200 watchdog) This jumper enables/disables the watchdog timer for the 1200 baud modem. When placed on one post, the watchdog timer is active, and when placed on both posts, the timer is disabled. (DEFAULT: enabled)

J5 (1200 baud AFSK drive) This two-pin jumper selects the hi-range or low-range for the 1200 baud AFSK output level. Placing the jumper on one pin only selects the low range, and placing the jumper on both pins selects the high range. (DEFAULT: low)

J6 (9600 dc coupling) This two-pin jumper allows the transmit signal from the 9600 baud modem to be dc coupled to your radio. When placed on both pins, the transmit signal is dc coupled, and when placed on one pin only, the signal is ac coupled. (DEFAULT: ac)

J7 (9600 baud drive) This two-pin jumper selects the hi-range or low-range for the 9600 baud output level. Placing the jumper on one pin only selects the low range, and placing the jumper on both pins selects the high range. (DEFAULT: hi)

J8 (9600 equalization) This three-pin header selects fixed or variable equalization for the 9600 baud modem. When placed on the center post and 1, fixed equalization is used. When placed on the center post and 2, equalization is adjusted using resistor R-33. (NOTE: The KPC-9612 will not operate 9600 baud if this jumper is on one post only.) (DEFAULT: fixed)

J9 (9600 receive level) This two-pin jumper sets the 9600 baud modem receive level for a high-level signal from the radio or a low level signal. When placed on both pins, a low level signal is expected from the radio, and when placed on only one pin, a high level signal is expected. (DEFAULT: hi)

J10 (9600 loopback) This two-pin jumper allows you to perform a loopback test on the 9600 baud modem. When placed on both pins, the transmit signal from the 9600 baud modem is connected to the receive input of the 9600 baud modem. When placed on one pin only, the loopback is disabled. You should be sure the loopback is disabled for normal operation. NOTE: Transmit level and receive equalization have no effect in loopback mode. (DEFAULT: disabled)

J11 (RAM +5V) This jumper is not installed in amateur units. If the clock chip (U22) is not installed, this jumper must be installed to provide +5V to the RAM.

J12 (Chip Enable) This jumper is not installed in amateur units. If the clock chip (U22) is not installed, this jumper must be installed to provide the chip enable signals.

J13 (ROM size) This three-pin jumper permits the installation of different size ROMS. When placed on the center post and 1, ROMs up to 1 megabits (128K Bytes) may be installed in socket U19. When placed on the center post and 2, ROM sizes above 1 megabits can be installed in U19. (DEFAULT: 1 megabit and smaller)

J14 (RAM size) This three pin jumper allows the installation of various size static RAMs in the KPC-9612. When placed on the center post and 1, the KPC-9612 can accept up to 128K static RAM. When placed on the center post and 2, the KPC-9612 accepts a 512K static RAM. (DEFAULT: 128K or less)

J15 (Hard Reset) When this jumper is placed on both posts and power is applied to the KPC-9612, a hard reset is performed. This resets all parameters to the factory defaults and completely erases the RAM contents. When placed on one post, the KPC-9612 is set for normal operation. (DEFAULT: normal)

J16 (Serial configuration) This three-pin jumper, in conjunction with J17, provides an alternate means to supply dc power to the KPC-9612 or to perform a hard reset without opening the case. See the section on Connector Configuration for more details. (DEFAULT: center post and 2)

J17 (RESET/INPUT) This three-pin jumper, in conjunction with jumper J16, provides an alternate means to supply dc power to the KPC-9612 or to perform a hard reset without opening the case. See the section on Connector Configuration for more details. (DEFAULT: one post only)

J9 (9600 receive level) This two-pin jumper sets the 9600 baud modem receive level for a high-level signal from the radio or a low level signal. When placed on both pins, a low level signal is expected from the radio, and when placed on only one pin, a high level signal is expected. (DEFAULT: hi)

J10 (9600 loopback) This two-pin jumper allows you to perform a loopback test on the 9600 baud modem. When placed on both pins, the transmit signal from the 9600 baud modem is connected to the receive input of the 9600 baud modem. When placed on one pin only, the loopback is disabled. You should be sure the loopback is disabled for normal operation. NOTE: Transmit level and receive equalization have no effect in loopback mode. (DEFAULT: disabled)

J11 (RAM +5V) This jumper is not installed in amateur units. If the clock chip (U22) is not installed, this jumper must be installed to provide +5V to the RAM.

J12 (Chip Enable) This jumper is not installed in amateur units. If the clock chip (U22) is not installed, this jumper must be installed to provide the chip enable signals.

J13 (ROM size) This three-pin jumper permits the installation of different size ROMS. When placed on the center post and 1, ROMs up to 1 megabits (128K Bytes) may be installed in socket U19. When placed on the center post and 2, ROM sizes above 1 megabits can be installed in U19. (DEFAULT: 1 megabit and smaller)

J14 (RAM size) This three pin jumper allows the installation of various size static RAMs in the KPC-9612. When placed on the center post and 1, the KPC-9612 can accept up to 128K static RAM. When placed on the center post and 2, the KPC-9612 accepts a 512K static RAM. (DEFAULT: 128K or less)

J15 (Hard Reset) When this jumper is placed on both posts and power is applied to the KPC-9612, a hard reset is performed. This resets all parameters to the factory defaults and completely erases the RAM contents. When placed on one post, the KPC-9612 is set for normal operation. (DEFAULT: normal)

J16 (Serial configuration) This three-pin jumper, in conjunction with J17, provides an alternate means to supply dc power to the KPC-9612 or to perform a hard reset without opening the case. See the section on Connector Configuration for more details. (DEFAULT: center post and 2)

J17 (RESET/INPUT) This three-pin jumper, in conjunction with jumper J16, provides an alternate means to supply dc power to the KPC-9612 or to perform a hard reset without opening the case. See the section on Connector Configuration for more details. (DEFAULT: one post only)

J18 (Serial configuration) This jumper is not installed. It may be used to connect the CTS pin of the RS-232 port with the DSR pin and the DTR pin. See the section on Connector Configuration for more details.

J19 (Serial configuration) This jumper is not installed, but a PC board trace connects the two pads for this jumper. It is used to connect the DTR pin to the DSR pin of the RS-232 serial port.

J20 (Serial configuration) This jumper in not installed. It may be used to connect the RTS pin to the DTR pin on the RS-232 serial port. See the section on Connector Configuration for more details.

J21 (DB-9 GND/RESET) This three-pin jumper connects pin 9 of the 1200 baud radio port to ground or to the reset function. When placed on the center post and 1, pin 9 of the DB-9 connector is connected to ground. When placed on the center post and post 2, pin 9 is connected to the reset circuit in the KPC-9612. This allows you to perform a hard reset by applying a ground to pin 9 and turning on the KPC-9612. (DEFAULT: ground)

J22 (BATT disconnect) This jumper is not installed, but a PC board trace connects the pins. Cutting the PC board trace disconnects the lithium battery from the KPC-9612, disabling all battery backup functions.

Connector Configuration

1200 baud radio port (DB-9)

The DB-9 connector (1200 baud radio port) may be configured to allow you to perform a hard reset on your KPC-9612 without opening the case. To do this, place jumper J21 on the center post and the post marked 2. This connects pin 9 of the DB-9 connector to the KPC-9612 reset circuit. In this configuration, you may hard reset the KPC-9612 by placing a ground on pin 9 of the DB-9 connector and applying power to the KPC-9612.

You may also configure the KPC-9612 to receive dc power from the 1200 baud radio port. To do this, place jumper J16 on the center post and 2, and J17 on the center post and 2. Your KPC-9612 may now be powered for operation by applying 12 volts dc to pin 7 of the DB-9 connector.

WARNING: If you set jumpers J16 and J17 to provide power through the serial port or through the 1200 baud radio port, you must be very careful that this voltage is not applied to the RESET pin (jumper J17 pin 1). Failure to observe this warning will result in damage to the DS1232 reset chip.