



## PK-232 Low Power CMOS Upgrade Kit A.06135

Please read before installing this upgrade kit.

This kit will reduce the current consumption of the PK-232 by about 200 mA. The result is a cooler-running PK-232. Lower temperature operation increases the reliability of the PK-232.

This kit does NOT reduce the power supply voltage requirements of the PK-232. Your power supply must provide a minimum of 13.0 Volts D.C. under full load for proper PK-232 operation!

Some of the early PK-232 TNC's did not socket U19 and U20. If your unit is one of these do NOT replace U19 or U20. U19 and U20 are not major power consumers, so don't worry if you can not replace these two chips.

**Check your new IC's:**

U-1's replacement is a Z84C000Xpec (X = 4 or 6 or 8)

U-19's replacement is a 14C89

U-20's replacement is a 14C88

U-7's replacement is a Z85C300Xpsc (X = 4 or 6 or 8)

**Hardware upgrade procedure:**

- 1) Remove all cables and power from unit.
- 2) Remove the six screws holding the top cover on the unit.  
Remove the cover
- 3) Remove JP-1 and set aside.
- 4) Note the position of the notch on each of the IC's you are going to change.



- 5) Carefully remove U1 from the IC chip socket. This is done by placing a small flat screwdriver between the socket and the IC. Be very careful NOT to try to remove the socket from the board.
- 6) Replace the chip with the new IC supplied.
- 7) Repeat steps 4 through 6 for U7 and U20.
- 8) Before you replace U19, Check to see if your board has Q14 near U19 and U20. If Q14 is there replace U19 following steps 4 through 6 for U19.
- 9) Attach the power cable and reset the unit by cycling the unit on and off. Wait about a minute and turn the unit on. It should cycle the left four lights and then light the BAUDOT light.
- 10) Replace JP-1.
- 11) Remove power, replace the jumper and replace the top cover with the six screws from step 2.