

# 100W\_PA Manual

## Display:

left button is - (minus)  
middle button is + (plus)  
right button is "OK or Enter"

to change limits:  
press right button once  
you get displayed: Einstell.ändern which means "change settings/limits"  
with + or - you can toggle which parameter to change:  
Abschalt-Temp. is temperature limit  
Abschalt-SWR: SWR limit  
Abschalt-Strom: current limit

Reboot: is normally not necessary  
"Zu Hauptanzeige" means "to main display mode"  
While in display mode you can toggle with + or - to additional display screens (actually only temp. display)

When pressing the OK-button (the right one) you get the currently stored limit. With + or - you can change the value, then press OK and you get the choice to store the new limit with the + button or cancel with -.

When you confirm to store the new value with + you get displayed the storage (speichere Wert).

Max. current limit is 20A  
Temp.limit is 25°C ... 100°C  
SWR limit is 1.2 .... 3.0 and no limit (keine Abschalt.)

When you have exceeded one of the stored limit values the PA switches off and stays in standby mode (display flashes) until you reset with the right (OK) button. If the limit is still exceeded you can not reset the failure status until the parameter has decreased below this limit. I.e. you have to wait until temperature has cooled down. If you have stored a temperature limit lower than the ambient temperature the control remains in failure status and you have to witch off the psu for the PA and switch on again while pressing all 3 buttons. You get displayed "Lassen Sie alle Tasten los" which means "release all buttons". You can then access the limit settings again and change the cutoff temperature to a higher value.

Temperature: the fan control switches on when a fixed temperature of 60°C is exceeded and stays on until the temperature has gone down to 50°C. You have to connect your 12V fan to J2 (2 pole header near the output BNC connector). Minus/GND is the rectangle pin (the upper one of the 2-pole connector when the output connector is on the left side) which is pulled down by a switching transistor to GND. The other pin is connected to UBAT (+12V..13,5V).

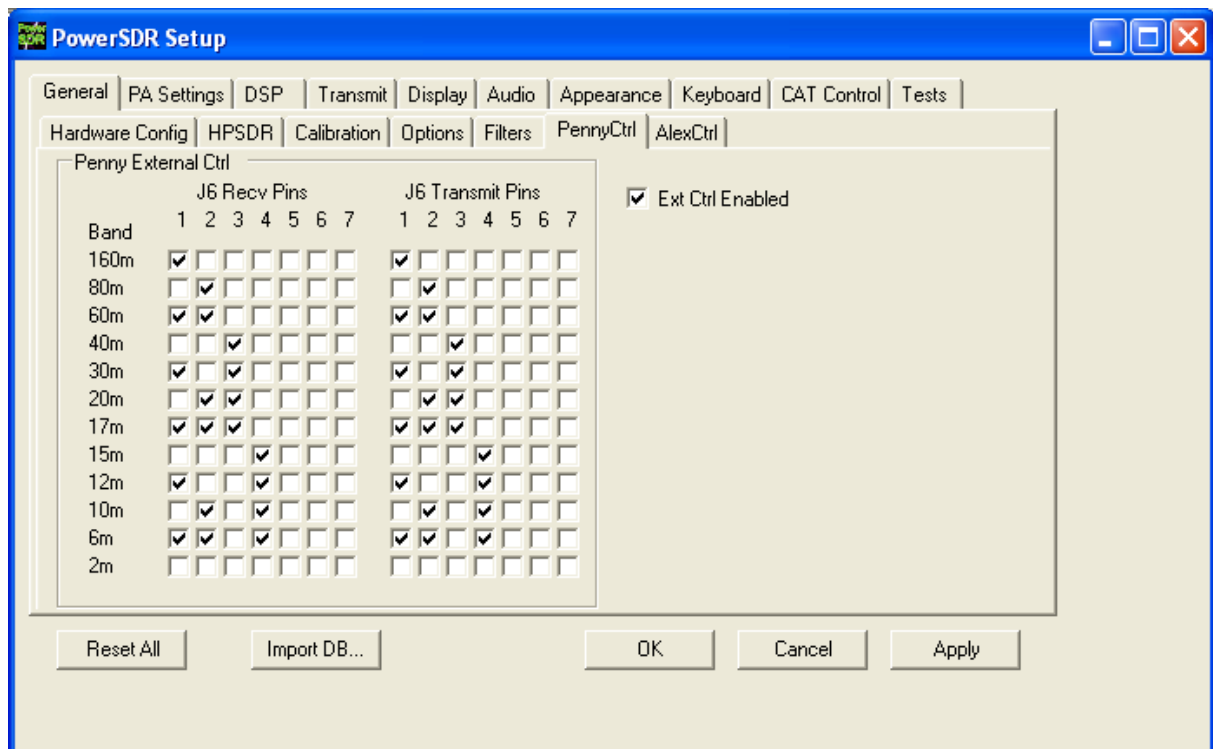
On J9 you have the OC outputs for LPF relays i.e. on a second PA.

J6 and J7 are not assembled. These are connectors provided for use as a power amplifier with the SDR1000.

## 100W\_PA Rev.2 Filter Settings in PennyCtrl

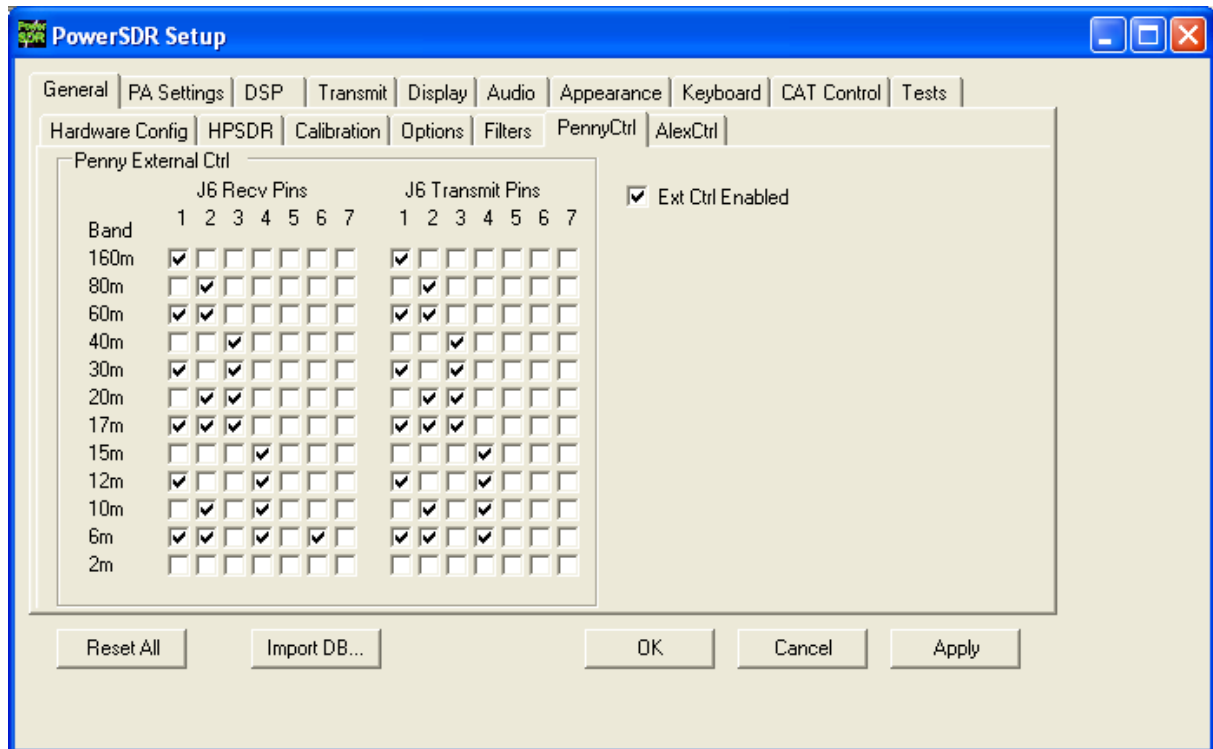
As there was a conflict with configuration of the filter settings on 10m (J6 Transmit Pin 6 was used both for the 10m LPF and the 6m LNA) the coding for the CPLD was changed to Rev.5.

When you want to use the filters in transmit and receive path you should check the settings in PennyCtrl as shown.



Outside the amateur bands the 6m LPF is always engaged. This makes it possible to receive frequencies outside the amateur bands without attenuation through the LPF.

If you have a 6m LNA with your antenna switch you may use this filter setting for engaging the LNA on 6m:



If you do not want that to use the filter in receive path you can draw the jumper JP1 next to the CPLD (IC7) and all filters are bypassed in receive mode.