

## Interlock Upgrade Instructions UEP6021 PS-STAR MPOD PCI Crate

### **!!!For Authorized, Qualified Service Personnel Only!!!!!!**

Wiener Plein and Baus, Ltd is not responsible for any damage to the power supply and / or crate or of any modules inside the crate caused by service work done by others. Any service work performed to the power supply or its associated connected equipment must be done by an authorized service personnel trained by Wiener Plein and Baus, Ltd.

Wiener Plein and Baus, Ltd or its employees, is furthermore not responsible for any personal damages or liabilities associated with repairs done by others. By doing the repairs and service to any sold product of Wiener Plein and Baus, Ltd, the end user accepts the complete liability of any harm done and shall be completely responsible for any damages, life, death and or/injury as a result of the work performed.



**Warning High Voltage, Danger, and Electrocutation Hazard!**

**Do not open or work on the power supply with the power cord connected. Whenever working with electronics always disconnect the primary AC power cord. Make sure there are no connections to outside AC or DC sources prior to dis-assembly.**



**Disconnect All AC Sources of Electric Power!!**

**Note the following:** Be aware of the size and location of screws removed from the power supply case. Screws are metric thread and the lengths are designed to create a rigid container for the power supply cabinet.

**Warning: Screws must be reinstalled in the exact same location as removed. If the incorrect screw is reinstalled in the wrong location, then damage could occur to interior pc boards and components. If there is any question as to the correct screw location, please contact Wiener Plein and Baus for assistance.**

**Description:** the UEP6021 PS, (pn#0P09.0026U, sn# 1889018), MPOD PCI Crate for STAR is a special designed crate with HV cards only. Therefore the standard interlock upgrade on \*.B series MUH is applicable and will shut down the LV rails, (HV cards), of this PS. Since 08/2009 the \*.B series MUH pcb is populated and configured for this upgrade. For earlier model PS's with \*.A series MUH, interlock upgrades will require an exterior relay control.

Note: alternatively if the PS is powering Wiener LV, (MPV), cards, then an outside controlling source that will disengage the A/C line side is required, as a 385V interlock switch is not foreseen on the UEP6021 PS.

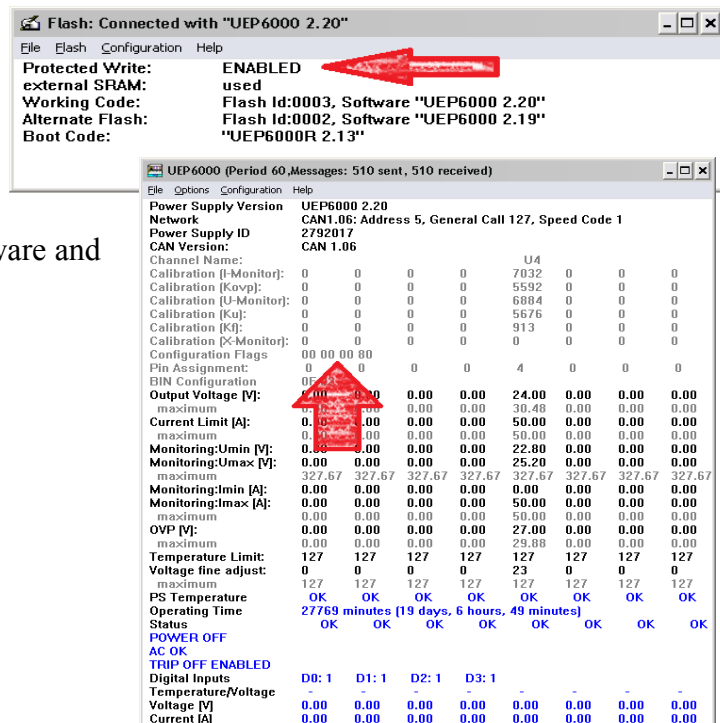
**Required items:** Interlock cable kit, (S.No.: 1460691.A2), includes: (1) 15 pol female sub-d - 20 pin to mica connector, (2) stand off screws, (2) lock washers, (2) nuts, UEP6000 and Flash6 software, (available on our website at <http://www.wiener-d.com/Support/UEP6000-20080509.ZIP>)

**Provided by others:** locktite thread locker, PC with Windows XP, 5V/20mA DC PS, 2 row-15 pol male sub-d or equal, cabling, Serial Dongle, serial cable.

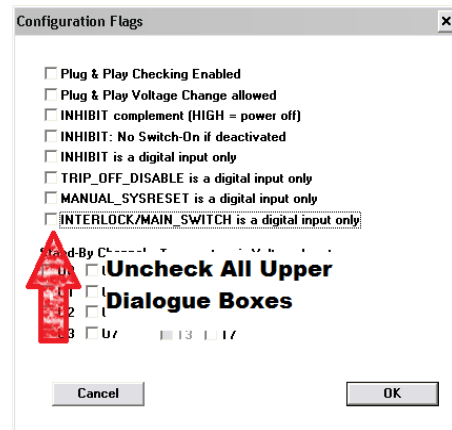
Documentation: Serial Dongle, (below), VME6000 Series User Manual, (available on our website at [http://www.wiener-d.com/Support/manuals/00501.A2\\_Series6000.pdf](http://www.wiener-d.com/Support/manuals/00501.A2_Series6000.pdf)),

**Bench top Procedure:**

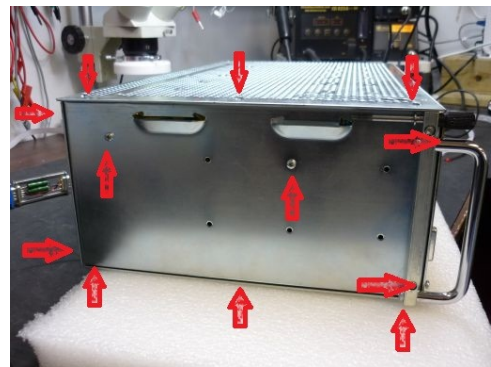
1. Extract PS from crate.
2. Elevate PS with block of wood slightly to allow air flow under unit.
3. Connect pc serial port to PS with in series dongle unit (RS232 female 9 pol sub-d, located on rear of PS). The dongle is a special voltage suppression converter to reduce pc serial ports to compatible voltage of UEP6021 PS.
4. Apply A/C power
5. Start, "Flash6", Change protected write to: "ENABLED" by clicking on Protected Write: "DISABLE"
6. Close Flash6. Do not run Flash6 software and UEP6000 software simultaneously
7. Start UEP6000 software
8. Left click on Configuration Flags



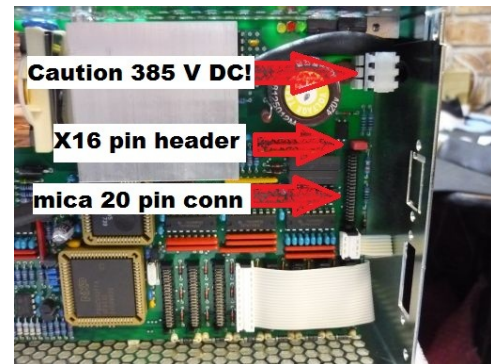
- 9. Set all check boxes, (flags) to unchecked, click OK
- 10. Close UEP6000 software
- 11. Disconnect A/C power from unit.



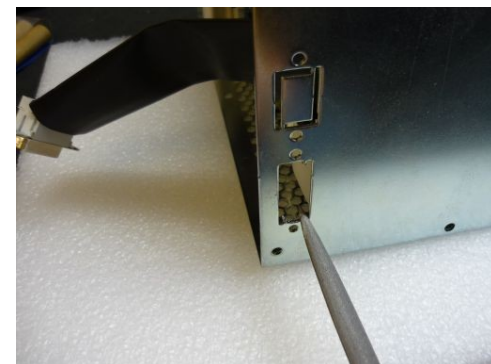
- 12. Remove unit left side panel, (12) screws.



- 13. Caution 385V DC connection, **DO NOT TOUCH!**
- 14. Remove red jumper on X16 pin header

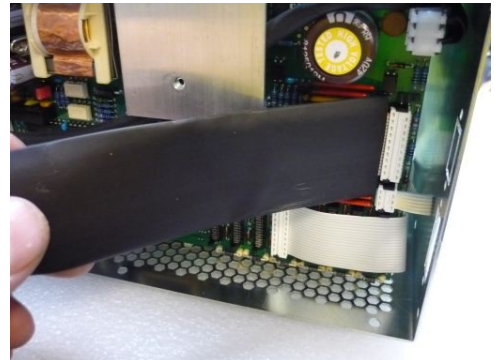


- 15. Remove large lower knockout from left front of PS, file down rough edges.



16. Install the interlock cable. Connector goes on one way only, orient properly.

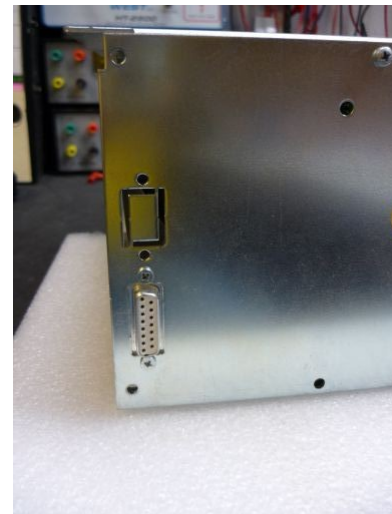
When installing 20 pin mica connector make sure the connector seats all the way and snaps in place while supporting the rear of the MUH bd. **Do not bend the MUH pcb.**



17. Install the female sub-d connector in knockout with (2) stand off screws, (2) washers, (2) nuts add locktite thread locker.

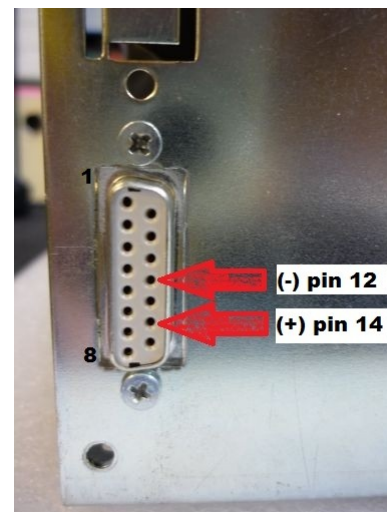
Note: actual screws shown may vary

18. Reinstall unit left side panel, (MUH side). Make sure cabling is clear of all mechanical connections and MUH heat sink. (12) screws



**Bench top Testing:**

1. Elevate PS with block of wood slightly to allow air flow under unit.
2. Connect pc serial port to PS with in series dongle unit, same as above.
3. Install mating 15pol male sub-d connector cable with (-) pin 12, (+) pin 14
4. Apply 5 VDC power supply, (current load=2mA).



5. Apply A/C power to unit and turn on w/ UEP6000 software.
6. When 5VDC is applied, Interlock is disengaged and low voltage rails come up.

Parameter	Value	Value	Value	Value	Value	Value	Value
Power Supply Version	UEP6000 2.20						
Network	CAN1.06; Address 5, General Call 127, Speed Code 1						
Power Supply ID	2792017						
CAN Version:	CAN 1.06						
Channel Name:	U4						
Calibration [I-Monitor]:	0	0	0	0	7032	0	0
Calibration [Kovp]:	0	0	0	0	5592	0	0
Calibration [U-Monitor]:	0	0	0	0	6884	0	0
Calibration [Ku]:	0	0	0	0	5676	0	0
Calibration [Kj]:	0	0	0	0	913	0	0
Calibration [X-Monitor]:	0	0	0	0	0	0	0
Configuration Flags	00 00 00 00						
Pin Assignment:	0	0	0	0	4	0	0
BIN Configuration	00 00						
Output Voltage [V]:	0.00	0.00	0.00	0.00	24.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	30.48	0.00	0.00
Current Limit [A]:	0.00	0.00	0.00	0.00	50.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	50.00	0.00	0.00
Monitoring:Umin [V]:	0.00	0.00	0.00	0.00	22.80	0.00	0.00
Monitoring:Umax [V]:	0.00	0.00	0.00	0.00	25.20	0.00	0.00
maximum	327.67	327.67	327.67	327.67	327.67	327.67	327.67
Monitoring:Imin [A]:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Monitoring:Imax [A]:	0.00	0.00	0.00	0.00	50.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	50.00	0.00	0.00
OVP [V]:	0.00	0.00	0.00	0.00	27.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	29.88	0.00	0.00
Temperature Limit:	127	127	127	127	127	127	127
Voltage fine adjust:	0	0	0	0	23	0	0
maximum	127	127	127	127	127	127	127
PS Temperature	OK	OK	OK	OK	OK	OK	OK
Operating Time	27769 minutes [19 days, 6 hours, 49 minutes]						
Status	OK	OK	OK	OK	OK	OK	OK
POWER ON							
AC OK							
TRIP OFF ENABLED							
Digital Inputs	D0: 1	D1: 1	D2: 1	D3: 1	-	-	-
Temperature/Voltage	0.00	0.00	0.00	0.00	24.06	0.00	0.00
Voltage [V]	0.00	0.00	0.00	0.00	0.13	0.00	0.00
Current [A]	0.00	0.00	0.00	0.00	0.13	0.00	0.00

7. **Test unit:** when 5 DC is removed, Interlock is activated, low voltage rails go to 0V.
8. Following successful testing reinstall PS in crate, test for correct operation.

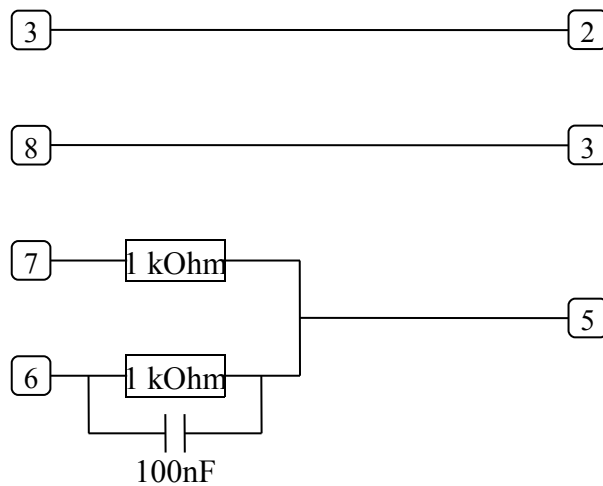
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Calibration [I-Monitor]:	0	0	0	0	7032	0	0
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Calibration [U-Monitor]:	0	0	0	0	6884	0	0
Calibration [Ku]:	0	0	0	0	5676	0	0
Calibration [Kj]:	0	0	0	0	913	0	0
Calibration [X-Monitor]:	0	0	0	0	0	0	0
Configuration Flags	00 00 00 00						
Pin Assignment:	0	0	0	0	4	0	0
BIN Configuration	15 EF						
Output Voltage [V]:	0.00	0.00	0.00	0.00	24.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	30.48	0.00	0.00
Current Limit [A]:	0.00	0.00	0.00	0.00	50.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	50.00	0.00	0.00
Monitoring:Umin [V]:	0.00	0.00	0.00	0.00	22.80	0.00	0.00
Monitoring:Umax [V]:	0.00	0.00	0.00	0.00	25.20	0.00	0.00
maximum	327.67	327.67	327.67	327.67	327.67	327.67	327.67
Monitoring:Imin [A]:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Monitoring:Imax [A]:	0.00	0.00	0.00	0.00	50.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	50.00	0.00	0.00
OVP [V]:	0.00	0.00	0.00	0.00	27.00	0.00	0.00
maximum	0.00	0.00	0.00	0.00	29.88	0.00	0.00
Temperature Limit:	127	127	127	127	127	127	127
Voltage fine adjust:	0	0	0	0	23	0	0
maximum	127	127	127	127	127	127	127
PS Temperature	OK	OK	OK	OK	OK	OK	OK
Operating Time	27769 minutes [19 days, 6 hours, 49 minutes]						
Status	OK	OK	OK	OK	UV	OK	OK
POWER OFF [Interlock/MainSwitch]							
AC OK							
TRIP OFF ENABLED							
Digital Inputs	D0: 1	D1: 1	D2: 1	D3: 0	-	-	-
Temperature/Voltage	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Voltage [V]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Current [A]	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Serial Dongle

This connection is intended for service functions only. Because of the direct connection between the PC and the power supply, the ripple and noise of the outputs will increase! Requirements are a PC running Windows, the control program UEP6 and a simple adapter (“Dongle”). The power supply is connected to the COM port of the PC. For more details, view the document \*00461.A0.

X3, 9 Pin DSUB  
male (UEP6)

9 Pin DSUB female  
(PC)



**Rear side Monitoring Connector D-SUB 15 (optional)**

Pin	Name	Pin	Name
1	STATUS	9	CAN-GND
2	STATUS-R	10	CAN-L
3	Power-INHIBIT	11	CAN-H
4	GND	12	Interlock Return
5	FANFAIL	13	Global Trip Off DISABLE
6	FANFAIL-R	14	+ 5V Interlock
7	Manual SYSRES	15	n.c.
8	n.c.	-	-

Status: zero impedance (contact closure) = power supply working correctly.  
 FANFAIL: high impedance (contact opening) fan failure.  
 Manual SYSRES: short circuit to GND  
 Global Trip Off Disable: short circuit to ground inhibits trip off for trouble shooting  
 Power Inhibit: short circuit or TTL low disables the input power relay (remote

**Interlock: +5V activates the power supply. Open circuit keeps the unit off**

**Interlock Block Diagram**

