

Plinth Build Work Instruction: External PSU Assembly

Page: 1 of 6
Effective from: 30/04/2014
Replaced edition: None

Area of validity: **Carl Zeiss Microscopy Ltd Cambridge**

Applicable Product Range: **EVO/SIGMA/SIGMA 300/SIGMA
HD/SIGMA 500**

Approval: PO: WISBEY
PS: SHEWARD
MSR : LINDSAY

1. Work And Environment Considerations.

- Ensure correct PPE is worn at all time.
- Use ESD Controls at all time.

2. Procedure

1.1. Parts List

Part No.	Description	Quantity
354731-9095-000	EVO SWITCHED MODE PSU	1
354731-9644-000	EVO LITE EXTERNAL PSU CABLE FEEDTHROUGH	1
350050-0939-000	M3 X 12 SCREW	2
350050-0236-000	M5 SHAKE PROOF WASHER	2
000000-0054-829	M5 PLAIN WASHER	2
000000-0214-177	M5 NUT	2

1.2. Assembly Process

- 1) Carefully remove the external PSU from the protective film. Be careful not to scratch the surface of the box !



- 2) Remove the lid of the box.



- 3) Loosen the gland nut and slide along the cable loom

- 4) Remove cable feed through plate and feed wires carefully in to the PSU Box.



- 5) Refit Gland nut and replace Feed through Plate



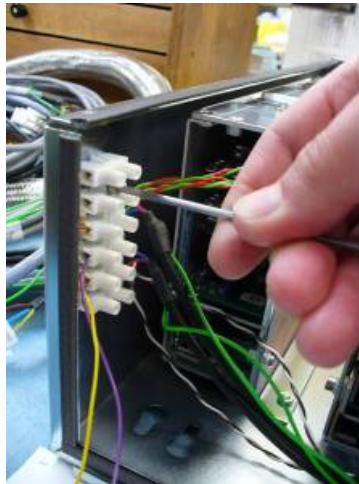
- 6) Secure Feed through plate with Screws



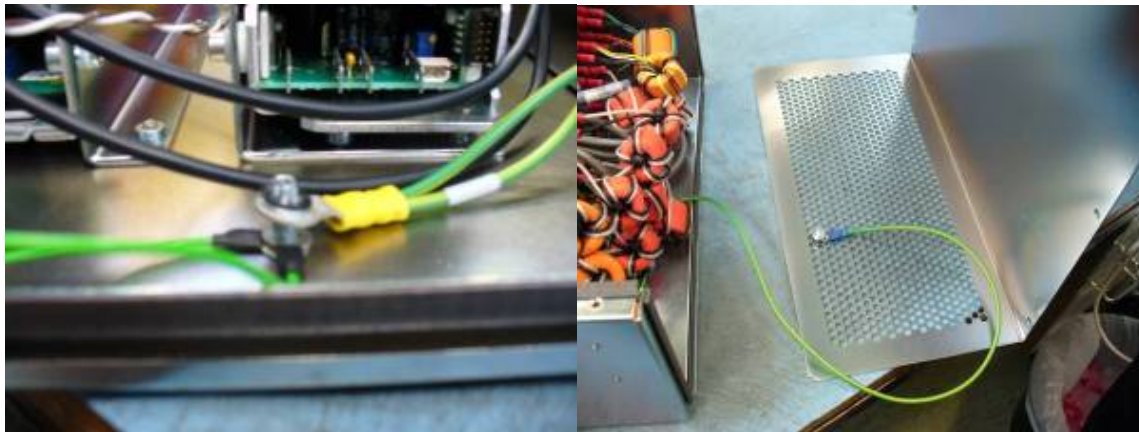
- 7) Aesthetically arrange the cables and make sure that they are not twisted.
8) Connect the power cable to the back of the power supply as show below .
9) Make sure that the SIRIUS power supply is turned on. (on the right in the picture below).



- 10) Secure the terminal side of the box at the end of the cable with 2 screws M3x12 (3500580-0939-000).



- 11) Secure the 3 internal earth cables and the cover earth cable with 1 x M5 Plain Washer (000000-0054-829) 1 x M5 Shake Proof Washer (350050-0236-000) and 1x M5 Nut (000000-0214-177) on each stud

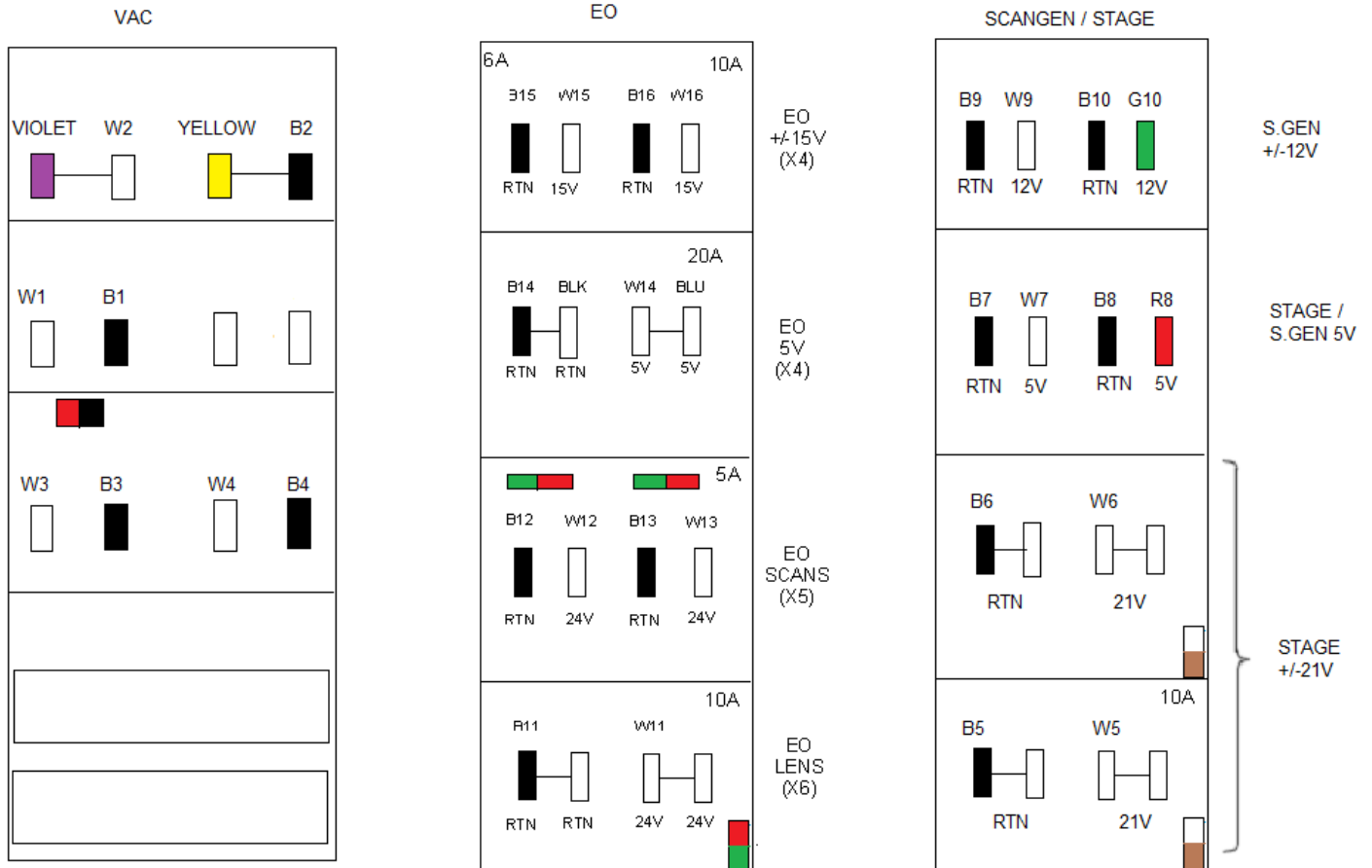




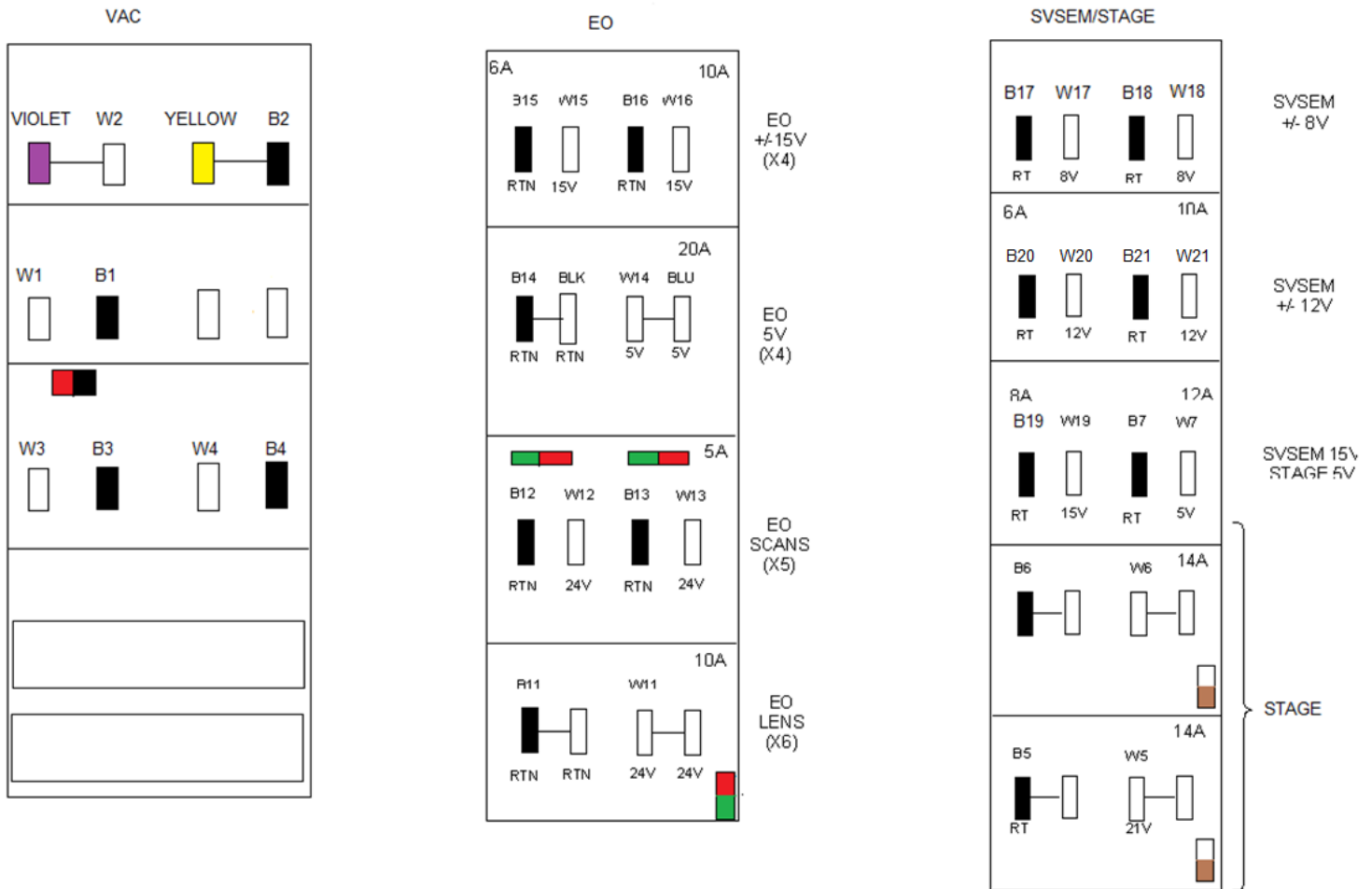
1.3. External PSU Wiring Terminations

- 1) Connect wiring as per the following diagrams
- 2) Ensure all connections are fully inserted onto the terminal lugs

SIGMA/300/EVO



SIGMA 500/HD



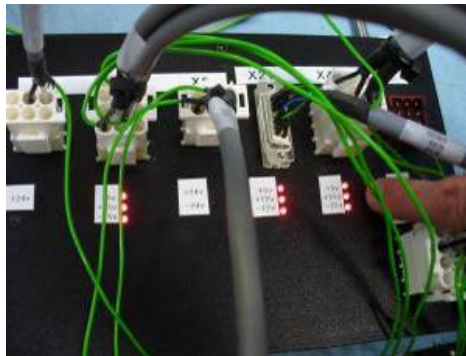
- 3) Use 2 x cable tie as per the images below to properly and secure the cables and ensure they are not damaged by the edge of the box.



1.4. External PSU Testing

Materials needed:
External PSU test box
2 x 220 V cable

- 1) Connect the test box to the External PSU cables (Use cable Indents to help identify).
- 2) Connect 2 x 220-volt plug cable to the appropriate external cable.
- 3) Apply power to the power supply, **all LED should light up**



- 4) Perform the following checks:
 - Remove the Stage cable -21 +21 V LED switches off
 - Remove the EO Cable + 24V, + 24V -24 V LED off.

All other events indicates an error.

!!!!Attention!!!!

Make sure the LED brightness is the same!

If W14 - W16 connectors are reversed , then the corresponding LED brightness is not the same.

- 5) If no errors are found, put a red dot on top of the power supply, indicating that the device has been tested off.



Edition From	Description Of Change
30/04/2014	First edition