PEL-3000A

Assembly Guide

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Good Will Instrument Co., Ltd.
No. 7-1, Jhongsing Rd., Tucheng Dist., New Taipei City 236, Taiwan.

ISO-9001 CERTIFIED MANUFACTURER

INTRODUCTION

Description	PEL-3000A Parallel to 9KW contains the parts below (i.e., PEL-3955A with outline Rack)

Contents

Model Name	Part Number	Quantity	Description
PEL-3111A	01EL311A00GT	1	1KW LOAD Master
PEL-3211A	01EL321A00GT	4	2KW LOAD Booster

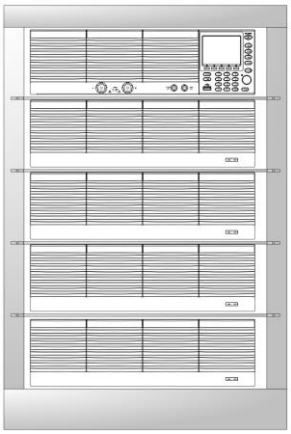
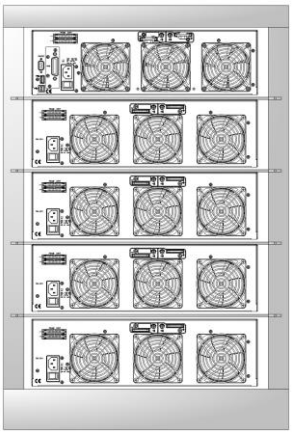
Description: Connection & Structure Accessory

Contents

Model Name	Part Number	Quantity	Description
PEL-005	11EL-00500101	1	Bus Bar Connector
PEL-006	11EL-00600101	1	Bus Bar Connector (Included PEL-005)
PEL-007	11EL-00700101	1	Bus Bar Connector (Included PEL-005)
PEL-008	11EL-00800101	1	Bus Bar Connector (Included PEL-005)
PEL-009	11EL-00900101	1	Bus Bar Connector (Included PEL-005)
GRA-413-E	01RA413E000T	4	PEL-3111 3U Frame (Optional)
GRA-414-E	01RA414E000T	1	PEL-3111 3U Frame (Optional)

⚠ Note: Refer to the PEL-3000A Series Rack Parts details_EN.doc for the other models.

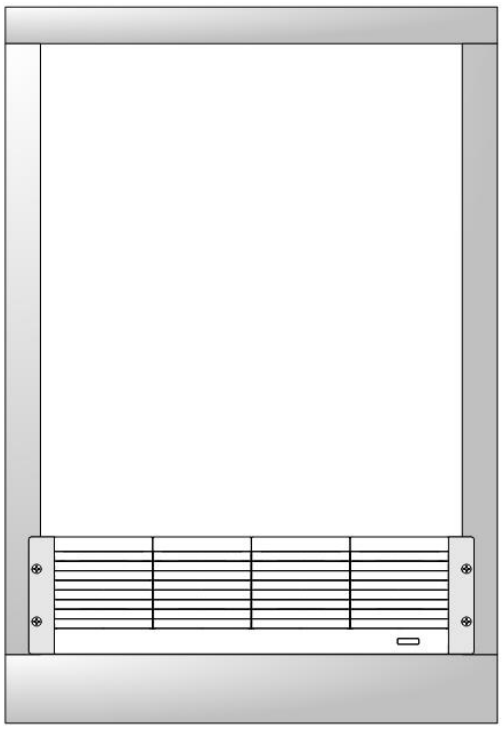
Final Assemble Result

Front View	Rear View
	

ASSEMBLE PROCEDURE

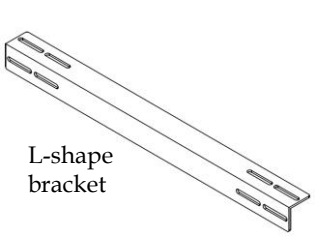
Step 1

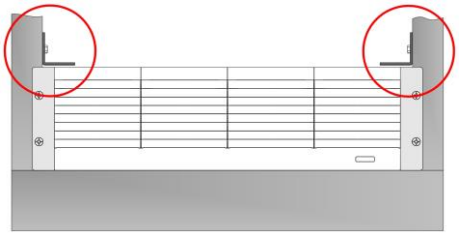
Put the 1st PEL-3211A on the bottom of the rack followed by fastening the 4 screws for side bracket in the front but not tightening them completely.



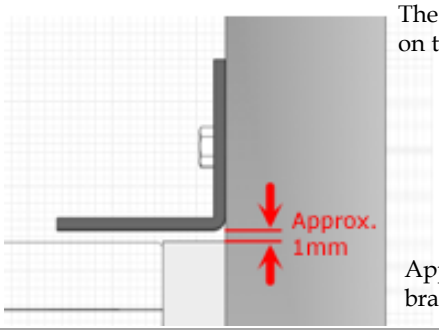
Step 2

Screw the L-shape brackets in the interior side of rack. An approx. 1mm distance between the bottom of brackets and the top of PEL-3211A is required.





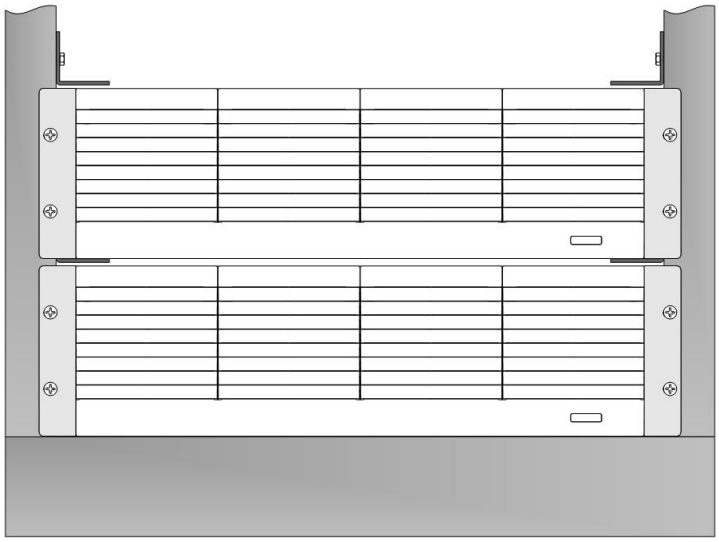
The L-shape brackets screwed on the interior side of rack



Approx. 1mm between bracket and the top of unit

Step 3

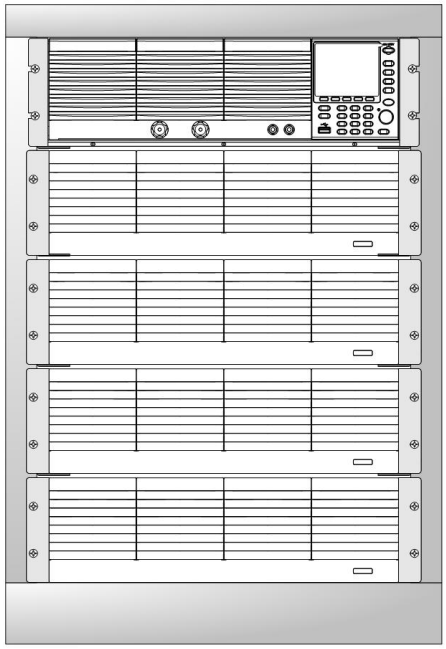
Put the 2nd PEL-3211A onto the L-shape brackets within the rack and, again, fasten the 4 screws for side bracket in the front but not tighten them fully followed by screwing another group of L-shape brackets within the interior of rack.



2nd unit installation completion

Step 4

Repeat the previous steps in order to install the rest of PEL-3211As and further install the bracket (GRA-414-3) of PEL-3111A on the upper side followed by installing the PEL-3111A onto the top of the bracket.

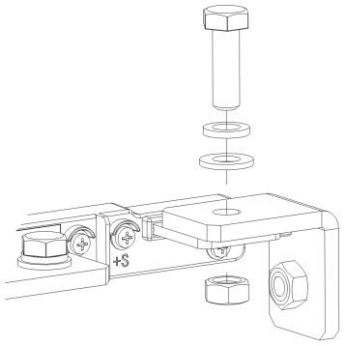


Assembly completion for 5 units

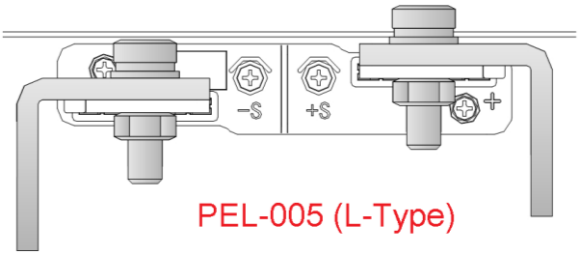
COPPER STICK ASSEMBLY

Step 1

Assemble the L-type copper stick (PEL-005) onto the output terminal in the rear side of each unit as the figure below shown.



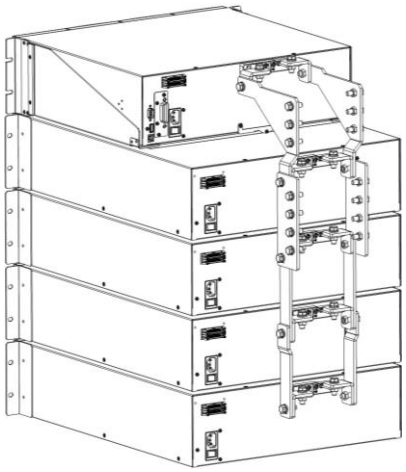
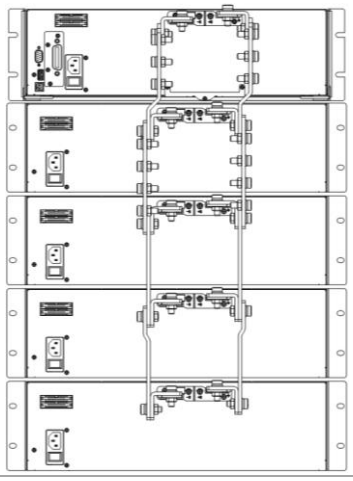
L-type copper stick assembly



L-type copper sticks assembly completion

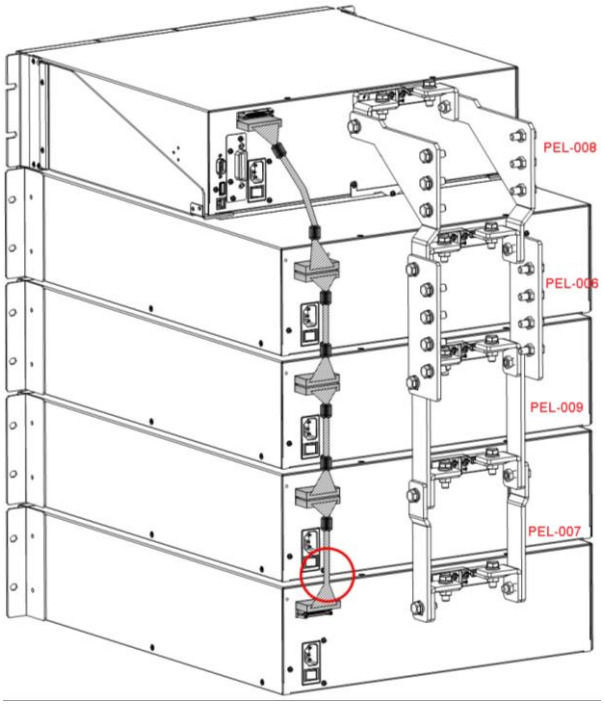
Step 2

In accordance with the figure below, assemble the copper sticks for unit conjunction followed by fastening the screws in the front of rack tightly.

Copper sticks assembly diagram	Diagram of rear side for copper sticks assembly
	

PARALLEL CABLES INSTALLATION

Step 1 Install the parallel cables in accord with the following figure.

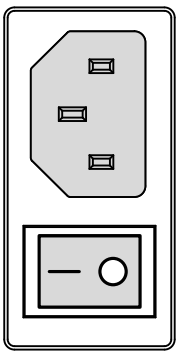


⚠ Note The last cable connecting to the last unit cannot be clipped with core. When only one PEL-3111A connects to a PEL-3211A (Booster) in parallel, the cable in the Booster end cannot be clipped with core.

CONNECT TO AC POWER CORD

Step 1

Refer to the figure below; connect the AC power cords for all units to the power sockets in the rear side individually followed by powering on the power switch that is underneath the power socket (— indicates power ON).



Step 2

Attentively check if the indicator in the front panel of all units lights up with red color:

I. Master indicator lights up as the figure below:

II. Booster indicator lights up as the figure below (STBY indicator lights up):

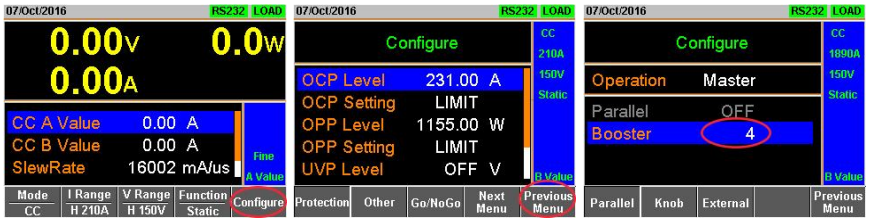
SYSTEM IN SERIAL SETTING

Step 1

Power on the power switch in the Master front panel and the indicator lights up in green as figure below shown:

Step 2

The master will automatically detect the number of Boosters connected in parallel. Please restart the system by turning off and on the power switch of the electronic load.



⚠ Note

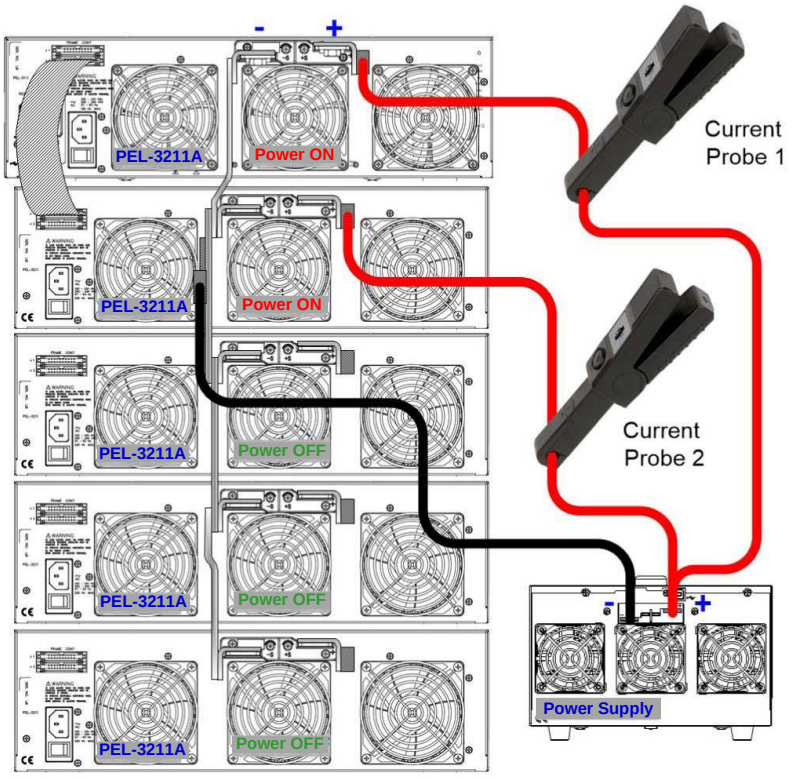
Select Booster number corresponding to the actual Booster number in parallel.

Step 3

Properly confirm if the indicator in the front panel of all PEL-3211A (Booster) lights up with LINK in green, which means the software setting connects to Booster appropriately. Refer to the figure below.

CURRENT SINK CURRENT DIVISION CHECKUP

Description	The current sink power of PEL-3111A and PEL-3211A is 1KW:2KW; therefore, the ratio of current sink will always be the exactly 1:2. E.g., PEL-3332A (3KW); when current sink is set 30A, Master (PEL-3111A) will sink current by 10A, whilst Booster (PEL-3211A) will sink current by 20A. E.g., PEL-3955A (9KW); when current sink is set 90A, Master (PEL-3111A) will sink current by 10A, whilst the rest of the 4 Booster (PEL-3211A) will sink current by 20A individually.
Step 1	First dismantle all of the positive parallel copper sticks and parallel cables in the rear output terminal of unit.
Step 2	Check the 1st Booster current: I. Connect the parallel cable to the J2 connector in the rear of PEL-3111A in one end and the J1 connector in the rear of PEL-3211A in the other end. II. Power on both PEL-3111A and the 1st PEL-3211A, while keep the rest units power-off. Set the unit PEL-3111A as the parallel mode via the following procedure: III. Based on the connection method in the figure below, connect current sink cable to the unit followed by setting current sink value for unit. Measure the currents from both the current sink cable of Master positive pole and the current sink cable of Booster positive pole, via current probe, to validate the accuracy of currents. The measured current value of Master is supposed to be 1/3 of the set value, whereas the measured current value of Booster should be 2/3 of the set value.

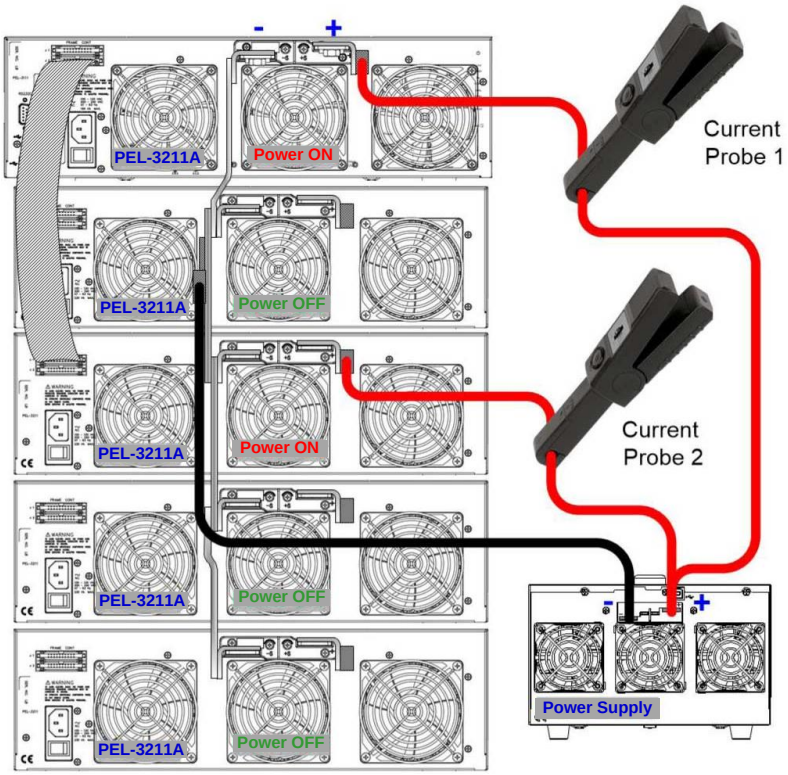


Step 3 The 2nd Booster current checkup:

I. Connect the parallel cable to the J2 connector in the rear of PEL-3111A in one end and the J1 connector in the rear of PEL-3211A in the other end.

II. Power on both PEL-3111A and the 2nd PEL-3211A, while keep the rest units power-off. Set the unit PEL-3111A as the parallel mode. The setting procedure is identical to the setting of the 1st PEL-3211A validation.

III. Based on the connection method in the figure below, connect current sink cable to the unit followed by setting current sink value for unit. Measure the currents from both the current sink cable of Master positive pole and the current sink cable of Booster positive pole, via current probe, to validate the accuracy of currents. The measured current value of Master is supposed to be 1/3 of the set value, whereas the measured current value of Booster should be 2/3 of the set value.



Step 4 Follow the previous steps to validate the 3rd and the 4th Booster respectively.

Step 5 The assembly procedure and system setting are completely finished. Press Main to return back to the main screen and the current sink test is properly ready to initiate.