



How to make a backup system with
AC300+B300

Associated product(s):AC300+B300

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Declaration

- 1) It must be installed by an licensed electrician,because improper operation,incorrectly install might cause the serious damage of personal safety and property.BLUETTI will not be responsible for the direct or indirect responsibilities arising from the installation.
- 2) This document is only for reference. Please consult the local licensed electrician for details.

1. How to make a backup system with AC300+B300 for 120 Volt power system

“Single Phase” is set as the default machine type if you are operating a single AC300+B300. This is the only and correct setting if a single AC300+B300 is being used.

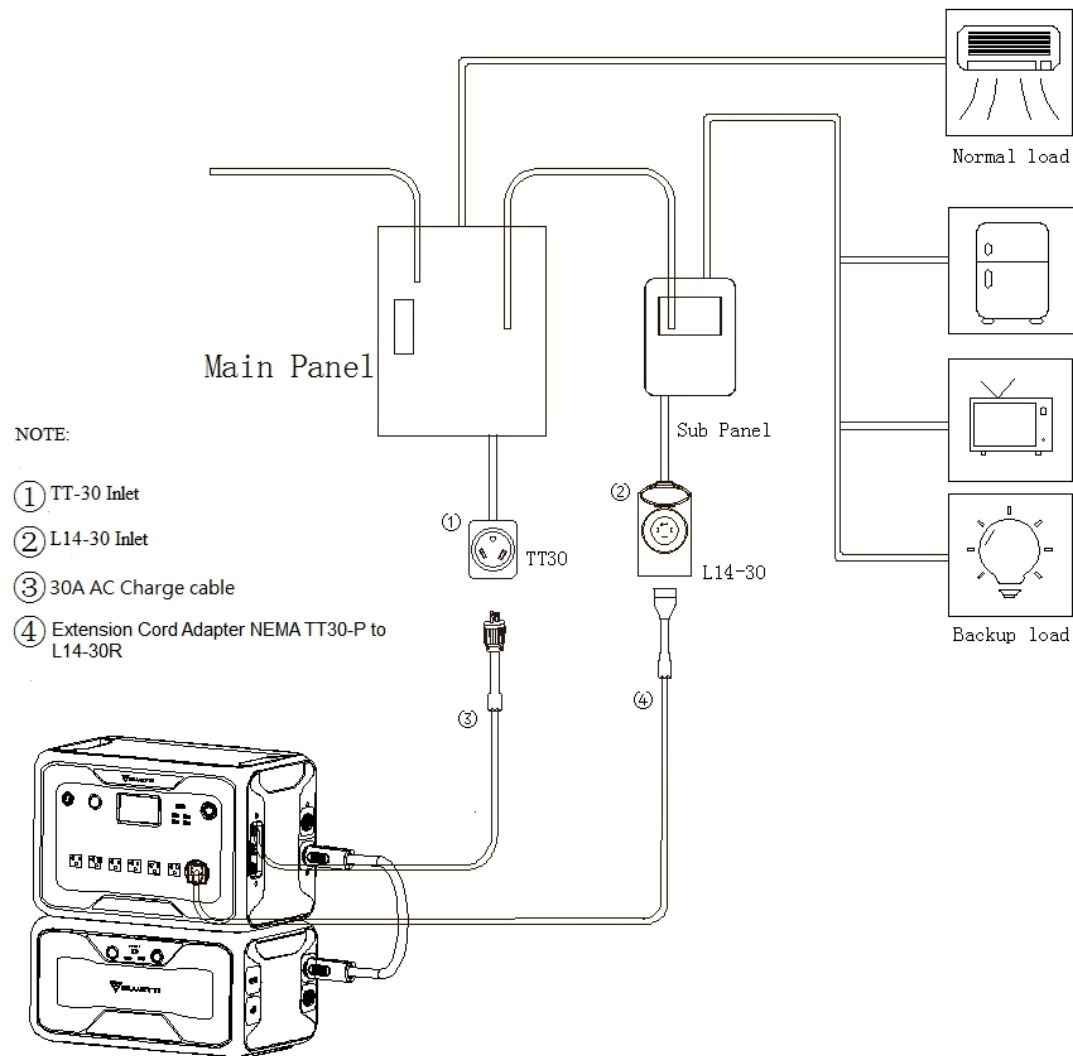
Firstly please purchase a manual transfer switch and the accessories as following:

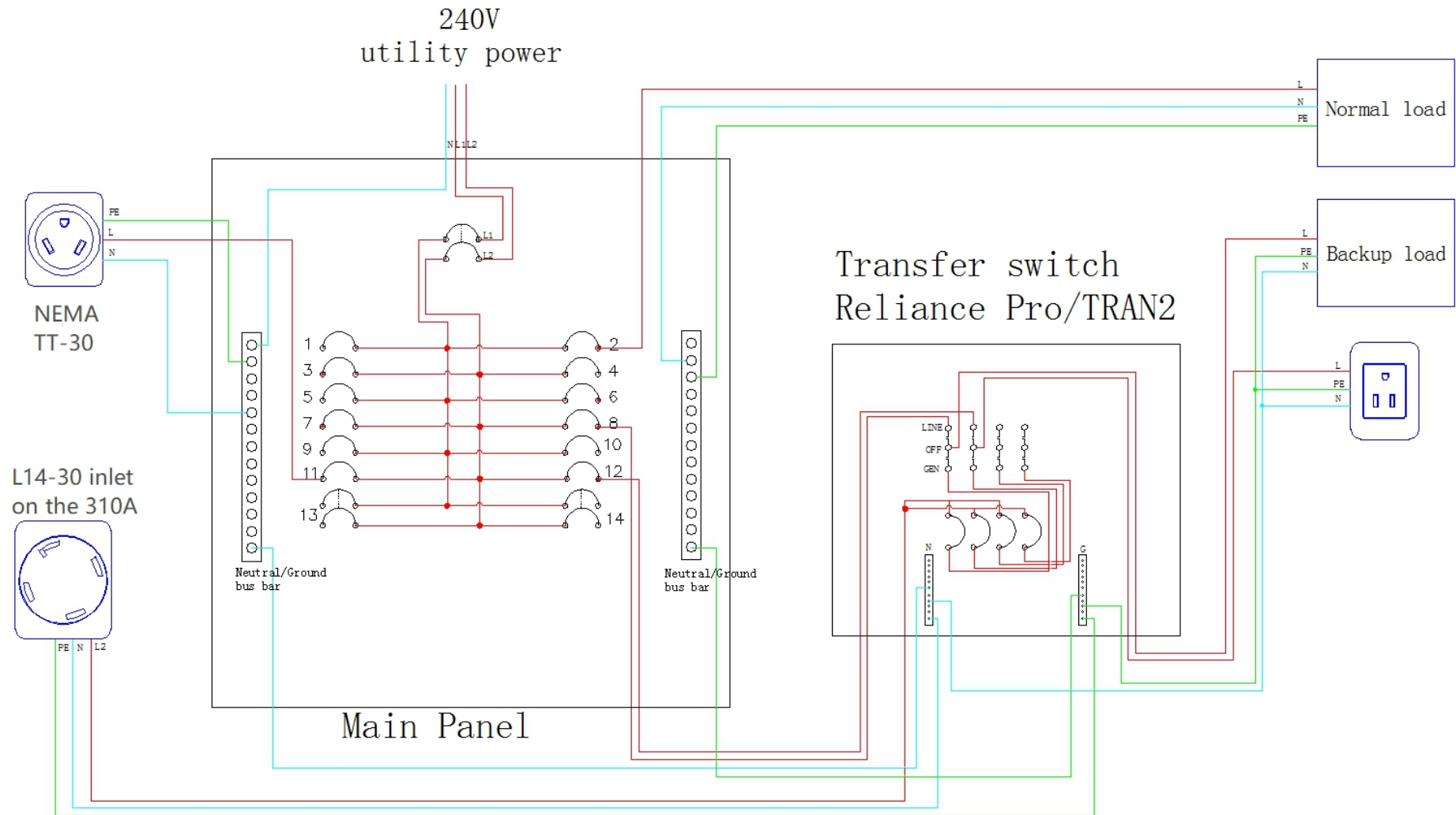
NO.	Accessories	Picture
1	Transfer switch : Reliance 310A Pro/Tran2	1
2	Extension Cord Adapter NEMA TT30-P to L14-30R	1
3	30A AC Charging cable	1

NOTE: Please read the Reliance 310A Pro/Tran2 manuals before installing.

<http://www.reliancecontrols.com/Documents/PT2%20Loadside%20Installation%20and%20Operating%20Instructions.pdf>

Then installed by the electrician refer to the example as below:





NOTE:

- 1) It must be installed by an licensed electrician
- 2) Please check the voltage of outlets before plugging in the household appliances
- 3) This is the electrical schematic, the actual wiring diagram should refer to Reliance PRO/TRAN2 installation instructions

2. How to make a backup system with AC300+B300 for 240 Volt power system

If you purchased two AC300+B300 to get the back-up power for household as 240 Volt Circuits.

Firstly, please purchase a manual transfer switch and the accessories as following:

NO.	Parts	Quantity
1.	Transfer switch : Reliance 310A Pro/Tran2	1
2.	AC300 split-phase output cable (from BLUETTI)	1
3.	NEMA L14-30R outlet	1
4.	BLUETTI 30A-AC-charging-cable	1

Secondly, please read the manuals before installing.

<http://www.reliancecontrols.com/Documents/PT2%20Loadside%20Installation%20and%20Operating%20Instructions.pdf>

Note:

(1) Please disconnect the AC charging cable for both AC300+B300 units while binding into split phase box.

(2) Certificated electrician is required to build the split phase system to connect the main panel and sub Panel.

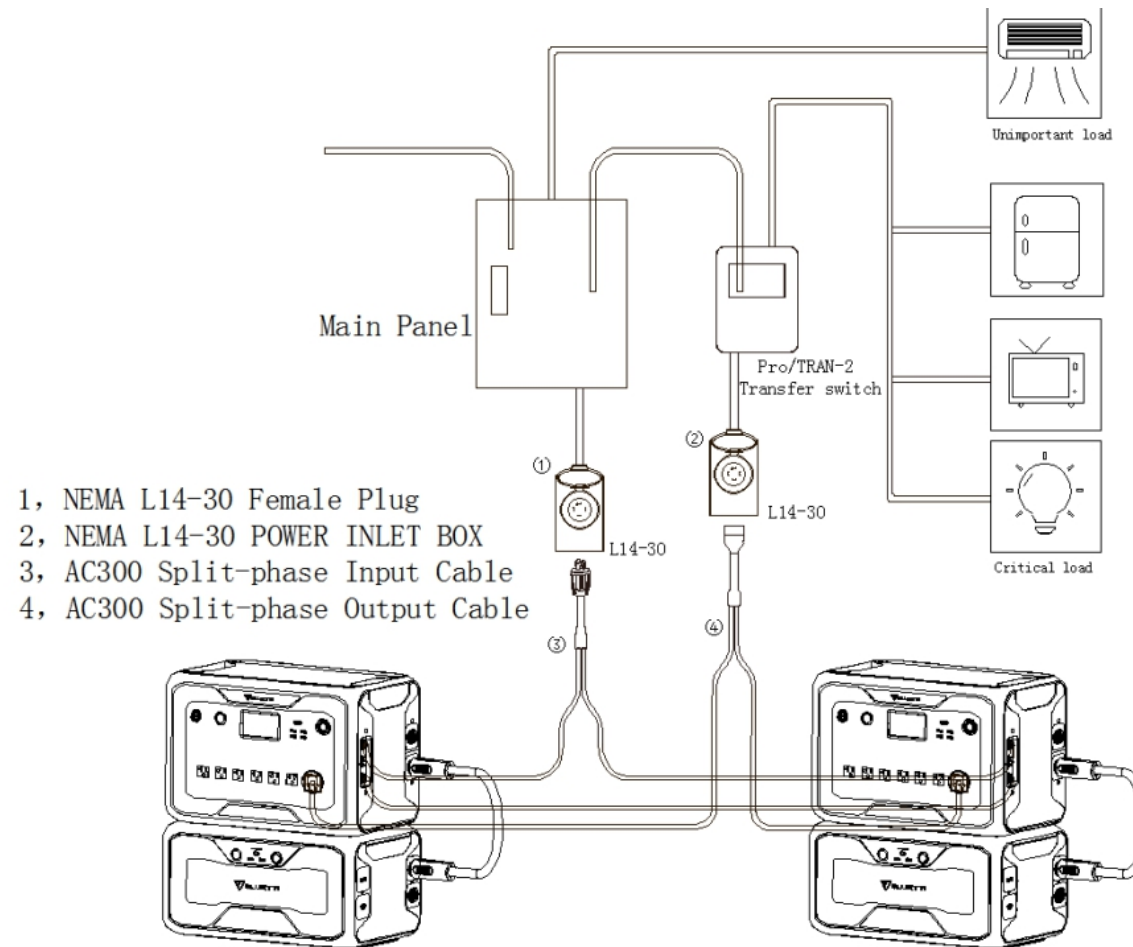
(3) The “Machine Type” setting on screen.

- Split-Phase output is achieved by bonding two AC300+B300 into one power system to double the available output power, voltage, and capacity.
- “Split Phase” is only used for connecting two AC300+B300 together (only for the 100-120V version of the AC300+B300).
- Launch Split Phase Function:

(4) Only one touchscreen will be active when two AC300+B300 units are connected in split phase system.

(5) If one of the AC300+B300 is out of power, the Split Phase Bonding function will deactivate automatically.

Split Phase Function



Warning:

If you insist to charge the AC300+B300 which has been connected into split phase box already, please make sure the L1/L2/N wires are set at the right place otherwise the AC300+B300 will be damaged. L: Live wire N: Neutral wire

How to make a backup system with AC300+B300

HOW TO CONFIGURE BOTH OF THE AC300+B300:

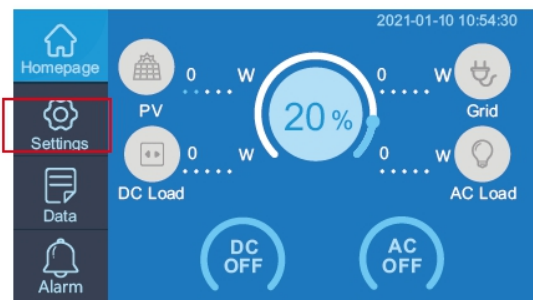
Step 1: Turn off both of **AC300+B300**.

Step 2: Plug the two TT30 plugs from AC300 split-phase output cable into both AC300+B300's outlet, and plug the *L14-30R from AC300 split-phase output cable* into the L14-30 inlet on the transfer switch : Reliance 310A Pro/Tran2

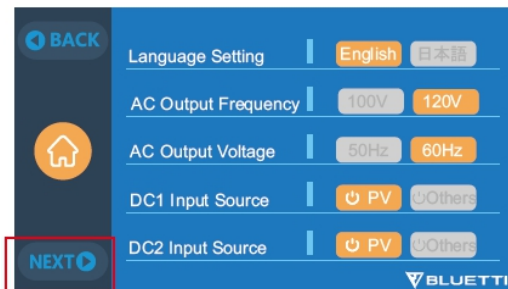
Step 3: Plug in the communication cables to each of the two AC300+B300's.

Step 4: Turn on one **AC300+B300**.

Step 5: Click the setting button on the LCD,



Step6: Click the NEXT,



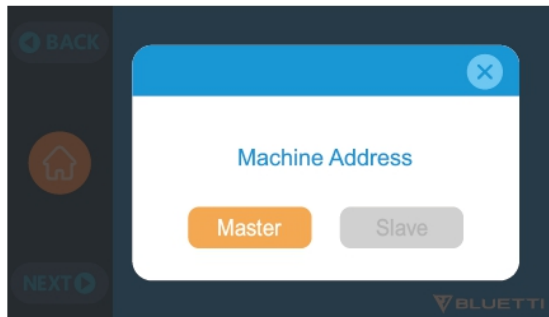
Step7: Click the “single phase” of the Machine Type setting, then click the “Split phase”

How to make a backup system with AC300+B300

- Machine Type: Select Split Phase



Step8: Click the “Master”



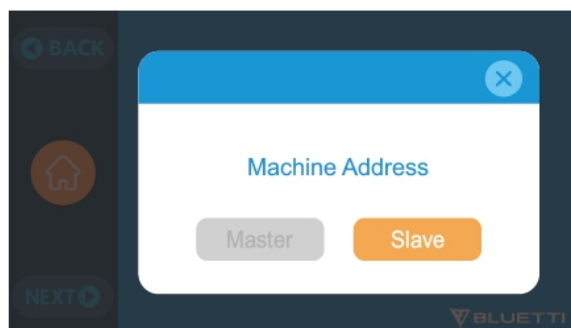
Step 9: Turn on another **AC300+B300**.

Step10: Click the setting button on the LCD.

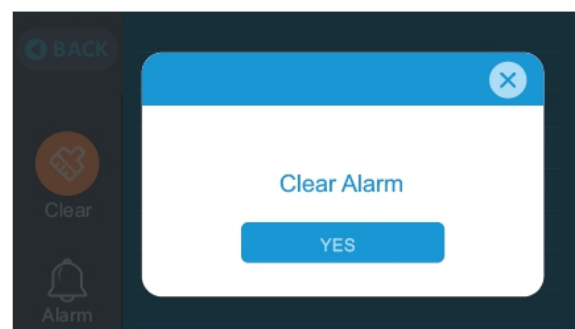
Step11: Following the Step 6- step 7: click the NEXT, then click the “single phase” and then click the “Split phase”.

Step12: Click the “Slave”

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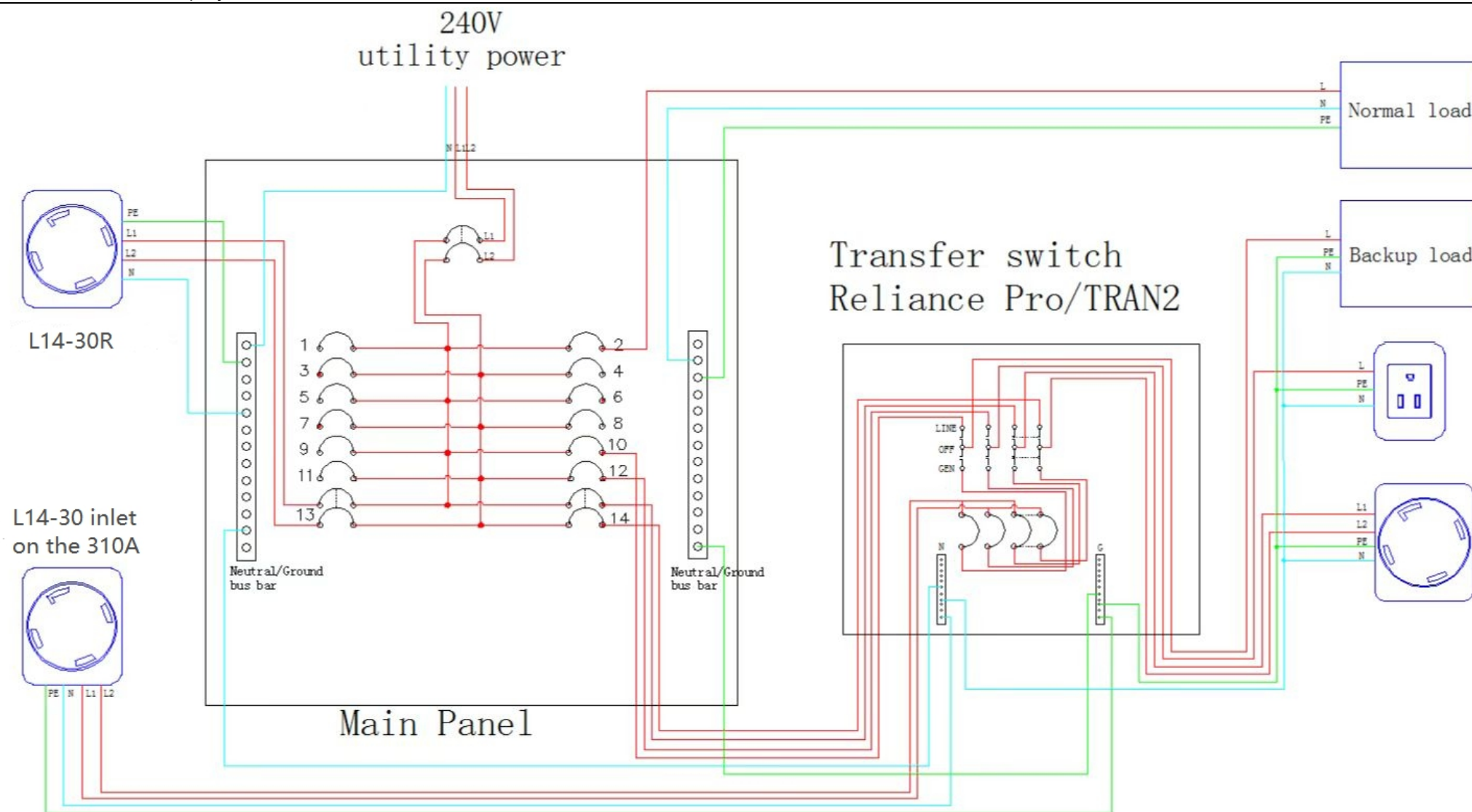
Note: click clear the alarm history if the buzzer sounded



NOTE:

- 1)The selected "Master" unit will sets the operating AC300+B300 as the one to control both two AC300+B300.
- 2) Before you begin installing your Reliance Controls transfer switch system, you need to create a plan for the appliances you choose to run during a power outage. In setting up a transfer switch to get the most power from your two power stations in split phase power system, it is desirable to “balance the load” between the two phases of your transfer switch. Devices which will consume the most of the two power stations’ wattage should be divided between the two.

Thirdly, connect the AC300+B300 to the transfer switch . Please installed by the electrician refer to the example as below:



NOTE:

- 1) It must be installed by an licensed electrician
- 2) Please check the voltage of outlets before plugging in the household appliances.

How to make a backup system with AC300+B300

3) In the main panel ,two Neutral/Ground bus bar have been connected together with copper strips

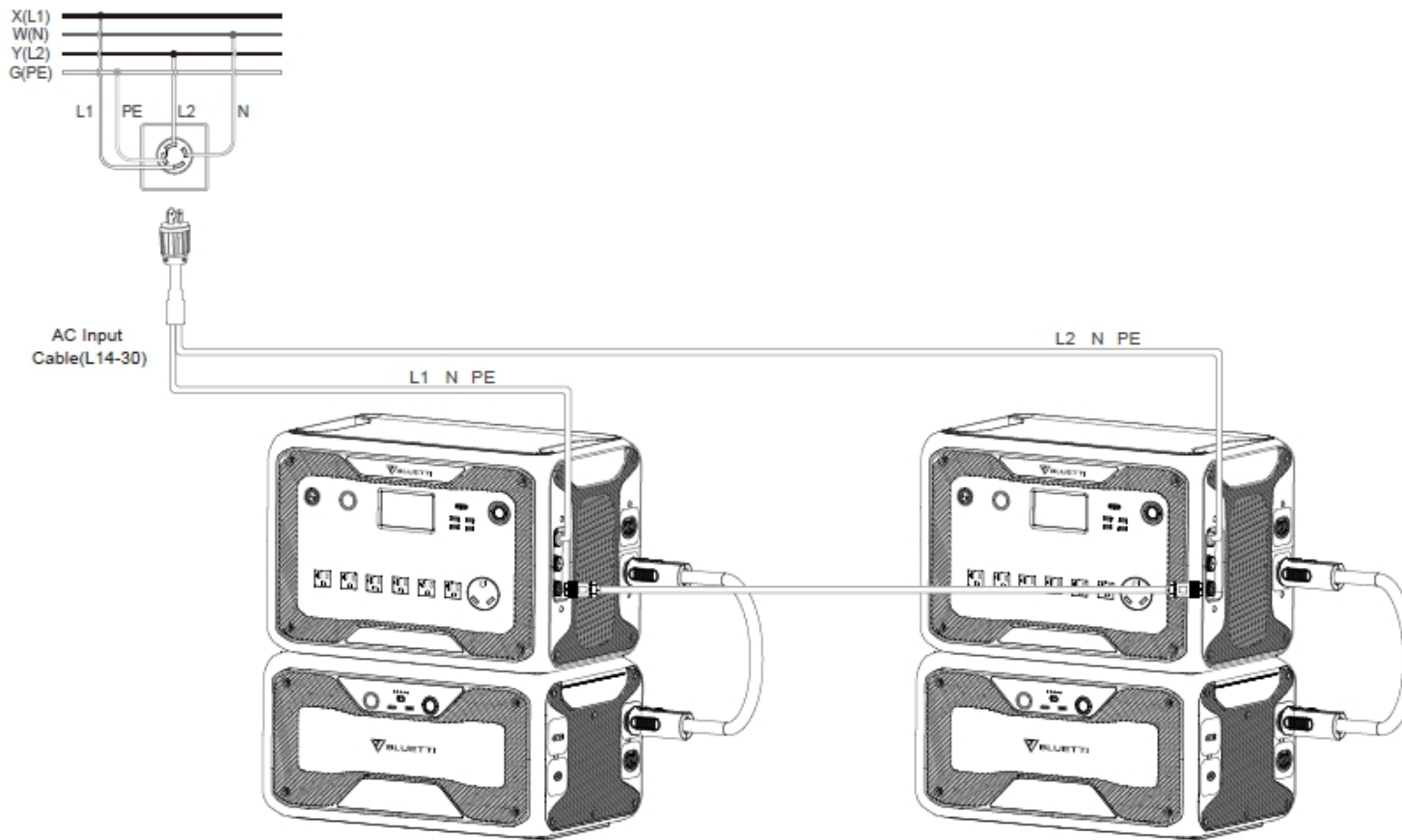
4) This is the electrical schematic, the actual wiring diagram should refer to Reliance PRO/TRAN2 installation instructions

About charge cable connection :

Machine type is just used to set for Split Phase,

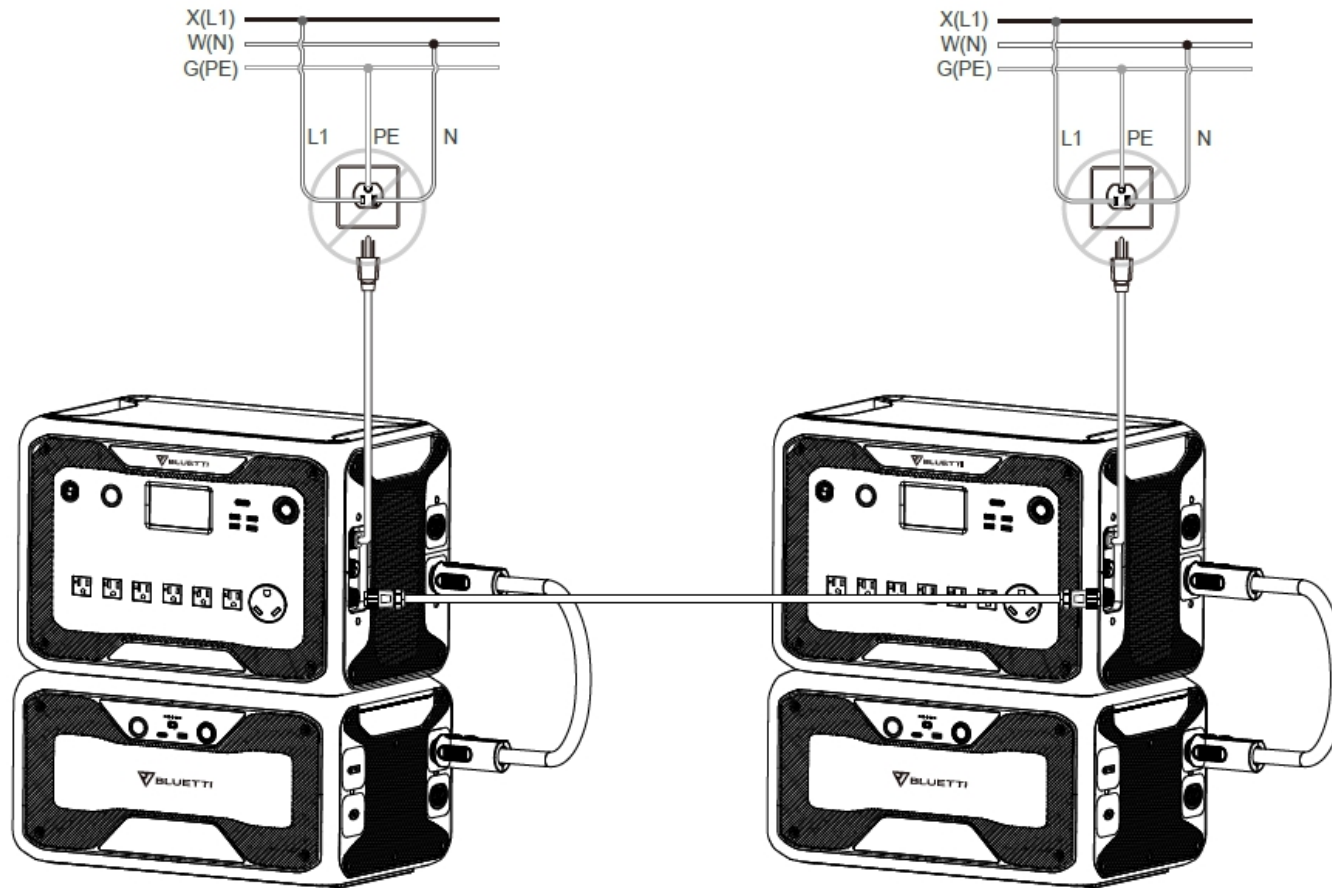
The *AC Input Cable* (Optional Purchase) is designed to match Split Phase System. One end of the cable is connected to the NEMA L14-30 socket, and the other end is connected to the AC input interface of both two units through aviation plug. it is recommended that you choose our matching AC input cable (*BLUETTI 30A-AC-charging-cable*). The AC input ports of the two machines are connected to L1, N, PE and L2, N, PE. Make sure that the phase of the two machines is correct. The current capacity of AC input plug shall be $\geq 30A$.

We need purchase a *BLUETTI 30A-AC-charging-cable* ,refer to 3.3. the connect method as following:



WRONG CONNECTION

It's forbidden to connect AC300+B300 into Split Phase System when AC charging is ON, please use AC Input Cable(Optional Purchase) to charge both of your power stations in Split Phase System. Wrong Connection will damage the battery inside the power station and your warranty will be invalid.



NOTE:

In split phase system, you can charge it via PV with the same method which you charge one of them through DC Input port on AC300. You can charge it by PV and the *BLUETTI*

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30A-AC-charging-cable simultaneously. (AC input only through the *BLUETTI 30A-AC-charging-cable* but not the *standard AC charging cable*)

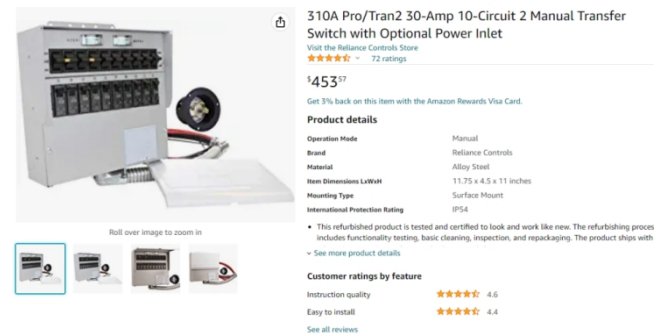
3. Accessories:

3.1 Transfer switch

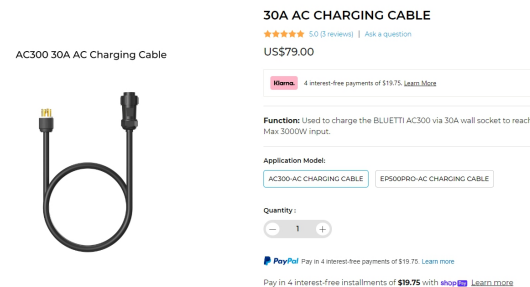
please purchase a manual transfer switch as following:

<https://www.bluettipower.com/> or

https://www.amazon.com/30-Amp-10-Circuit-Manual-Transfer-Optional/dp/B00YHLCMHM/ref=sr_1_1?crid=39Q2LGVYX2BK6&keywords=310A&qid=1666357623&qu=eyJxc2MiOilwLjAwIiwicXNhIjojMC4wMCIsInFzcCI6IjAuMDAifQ%3D%3D&srefix=310a%2Caps%2C299&sr=8-1

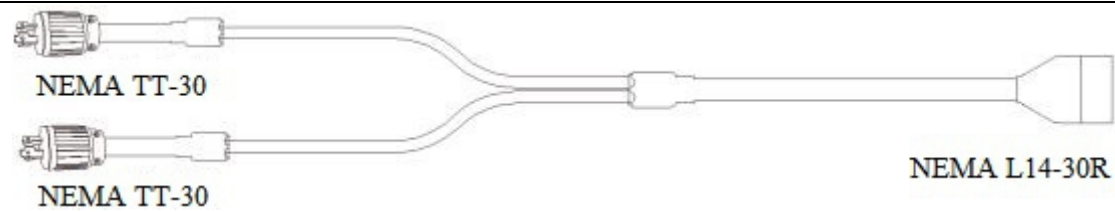


3.2 30A AC CHARGING CABLE



Purchase website: <https://www.bluettipower.com/products/ac300-30a-ac-charging-cable>

3.3 AC300 split-phase output cable (purchase from **BLUETTI**: <https://www.bluettipower.com>)



3.4 BLUETTI 30A-AC-charging-cable

If you purchased two AC300+B300 to get 240V, you need to purchase one 30A AC Charging Cable for split-phase function

Purchase address: <https://www.bluettipower.com/products/30a-ac-charging-cable-for-split-phase-function>



30A AC Charging Cable For Split-Phase Function

★★★★★ Write a review | Ask a question

US\$99.00

Klarna

4 interest-free payments of \$24.75 [Learn more](#)

Applicable Models:
AC300/EP500Pro/EP500

Quantity :
- 1 +

Pay in 4 interest-free installments of \$24.75 with [shop](#) [Learn more](#)

ADD TO CART

BUY IT NOW

3.5 Communication Cable for Split-Phase function



Communication Cable For Split-Phase Function

★★★★★ 0.0 [reviews] | Ask a question

US\$39.00

Klarna

4 interest-free payments of \$9.75 [Learn More](#)

Applicable Models:
AC300/EP500Pro/EP500/AC500
Communication Cable For Split-Phase Function

Quantity :
- 1 +

PayPal

Pay in 4 interest-free payments of \$9.75 [Learn more](#)

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Purchase address: <https://www.bluettipower.com/products/communication-cable-for-split-phase-function>

3.6 NEMA L14-30R outlet

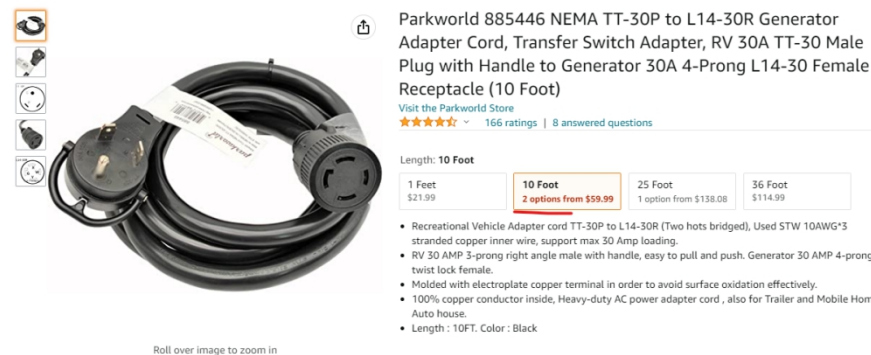
The BLUETTI 30A-AC-charging-cable need plug into a L14-30R outlet for charging both EP500 pro. The purchase address as following

https://www.amazon.com/Journeyman-Pro-Receptacle-Industrial-Grounding-Generator/dp/B07P8CGH52/ref=sr_1_7?crd=1WRMKA4V397S&keywords=l14-30r+receptacle&qid=1657944329&s=hi&sprefix=%2Ctools%2C405&sr=1-7



3.7 Extension Cord Adapter NEMA TT30-P to L14-30R

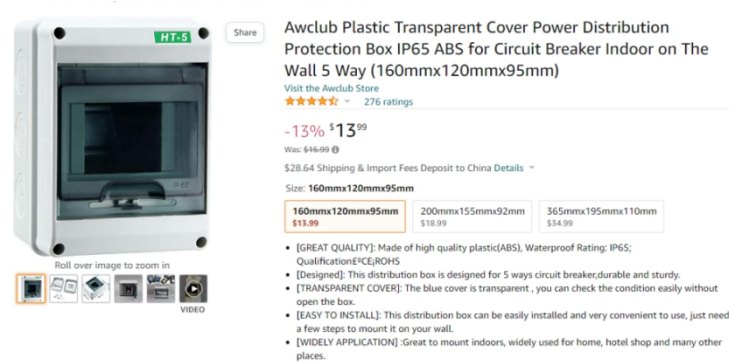
It is look like as following , please purchase on the Amazon. the length is depended on what your need.



https://www.amazon.com/Parkworld-885446-L14-30R-Generator-Receptacle/dp/B08BHVFNS7/ref=sr_1_31?crd=E1CT2MYTUF6Z&keywords=TT30-P+to+L14-30R&qid=1669196060&sprefix=tt30-p+to+l14-30r%2Caps%2C150&sr=8-31

3.8 Distribution Box for Solar PV Breaker

If you have a residential solar panel array whose voltage is above 12V and below 150V, we suggest you configure a DC circuit breaker panel to turn off or turn on.



Please visit the website as following :

https://www.amazon.com/gp/product/B07S75TV3V/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

3.9 DC breaker for Solar PV circuit

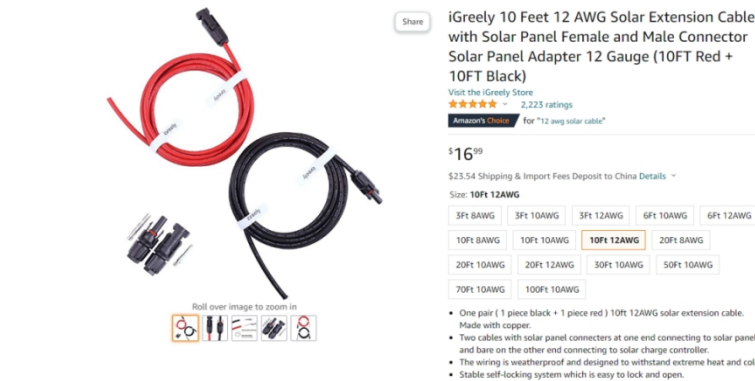


Please visit the website as following :

https://www.amazon.com/gp/product/B07GR32KCT/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

NOTE : If there are two solar panel arrays (open circuit voltage range: 12-150V.) , need two 2P 16A DC breakers.

3.10 Solar Extension cable with Solar panel female and male connector



Please visit the website as following :

https://www.amazon.com/gp/product/B08KZNTYP5/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&th=1

NOTE: The length of cable is based on the actual demand.

4. How to install Reliance Controls

Website: www.reliancecontrols.com

4.1 How to install Reliance Controls ProTran2 - Part1, Tools and Planning

<https://www.youtube.com/watch?v=xTqjw6WJ7o&list=PLpYCE0n7d22iDNwpVnOF9HULSUYBBRY86>

4.2 How to install Reliance Controls ProTran2 - Part2, Mounting

<https://www.youtube.com/watch?v=wNbBHVHgW0Y&list=PLpYCE0n7d22iDNwpVnOF9HULSUYBBRY86&index=2>

4.3 How to install Reliance Controls ProTran2 - Part3, Wiring

<https://www.youtube.com/watch?v=TKrui9BpZM8&list=PLpYCE0n7d22iDNwpVnOF9HULSUYBBRY86&index=3>

4.4 How to install Reliance Controls ProTran2 - Part4, Replacing Circuit Breakers

<https://www.youtube.com/watch?v=lkOuauT-YP8&list=PLpYCE0n7d22iDNwpVnOF9HULSUYBBRY86&index=4>

4.5 How to install Reliance Controls ProTran2 - Part5, Installing The Power Inlet Box

<https://www.youtube.com/watch?v=0M8sYRhEVPY&list=PLpYCE0n7d22iDNwpVnOF9HULSUYBBRY86&index=5>

4.6 How to install Reliance Controls ProTran2 - Part6, How To Operate

<https://www.youtube.com/watch?v=O4GA9AK8Tmo&list=PLpYCE0n7d22iDNwpVnOF9HULSUYBBRY86&index=6>

5. More information:

Website: www.bluettipower.com Email: service@bluettipower.com