Making • Life • Easier

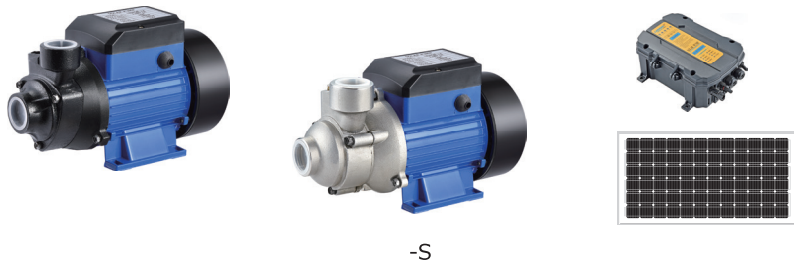BRUSHLESS QB SERIES DC SOLAR PUMP

ENGLISH MANUAL

BRUSHLESS QB SERIES DC SOLAR PUMP

Brushless QB series solar pump include LSQB, LIQB and LRQB three types. These three models belong to surface pump which can be used to move water from low level to high level place. Normally, they are used for house using water. LSQB, LIQB and LRQB water pump are DC solar pump, they can work with battery and solar panels. These three models' detailed information as following.

1. LSQB Type

This type QB is brushless motor, pump and controller is seperate. Pump body has two type material, one is iron, another one is stainless steel.
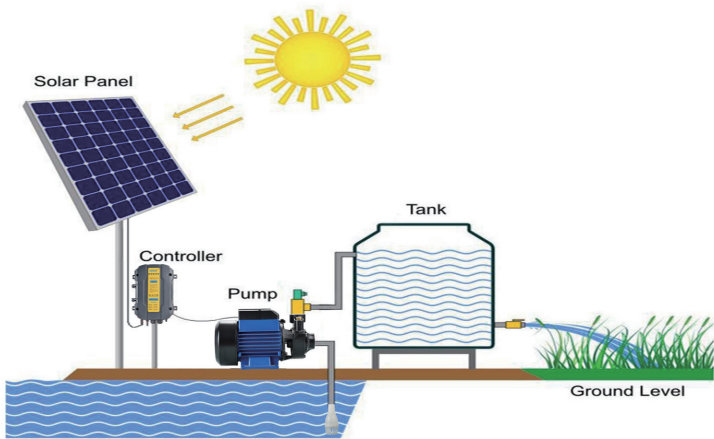
A.LSQB Pump Picture

-S

B.LSQB Pump Technical Parameter

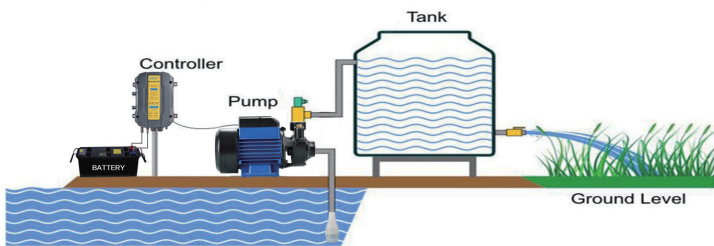| ITEM	VOLTAGE	POWER	MAX SUCT	MAX FLOW	MAX HEAD	INLET/ OUTLET
NO.	(V)	(W)	(M)	(M^3/H)	(M)	(INCH)
LSQB1.3/16-12/150	12	150	8	1.3	16	1.0"X1.0"
LSQB2.0/28-24/250	24	250	8	2.0	28	1.0"X1.0"
LSQB2.2/40-48/400	48	400	8	2.2	40	1.0"X1.0"
LSQB1.3/15-12/150-S	12	150	8	1.3	15	1.0"X1.0"
LSQB2.0/22-24/250-S	24	250	8	2.0	22	1.0"X1.0"
LSQB2.5/33-48/400-S	48	400	8	2.5	33	1.0"X1.0"

C.LSQB Pump Accessory Picture
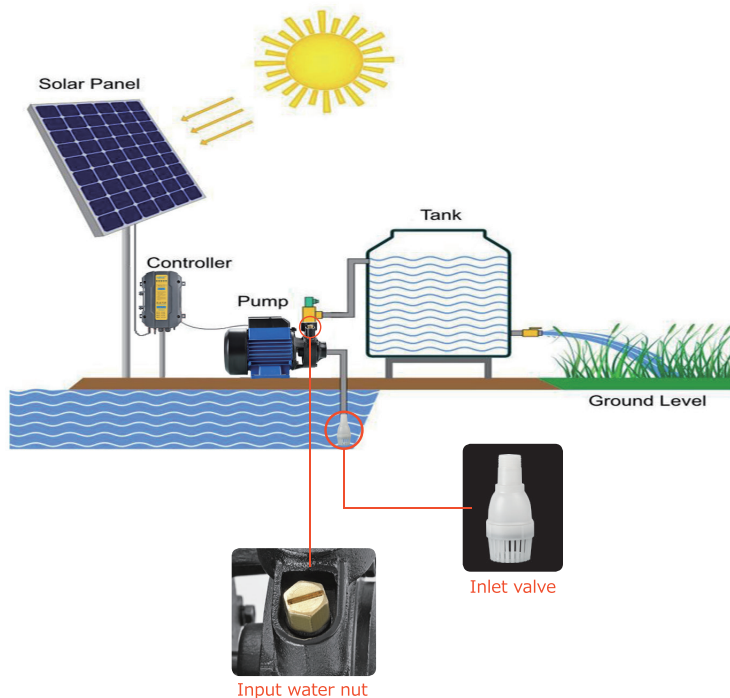

D.LSQB Pump Connection Diagram

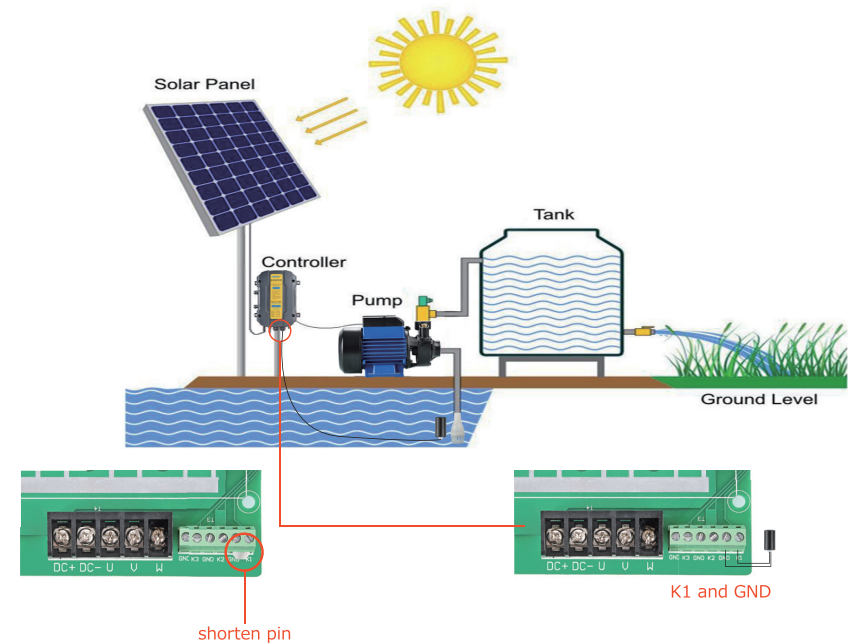working with solar panel

working with battery

If you install this pump with your water pipe to increase the water pressure, after connecting the cable, and make sure there is water in the pipe, then you can start the pump.

If you install this pump with water tank, after connecting the cable, you should make sure the **inlet valve** must be installed. As following picture. Then you should open the **input water nut**, and put water inside until the water is full, then close the input water nut. After that, you can start the pump.
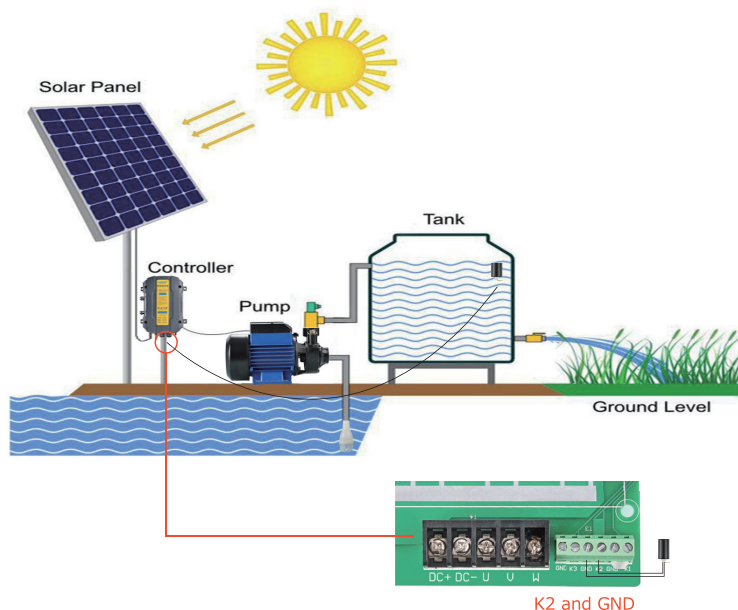

Inlet valve

Input water nut

If you want to use water level sensor to control the high water level and low water level. It can be done. When your tank is full or your well has no water, the system can stop and work again automatically.
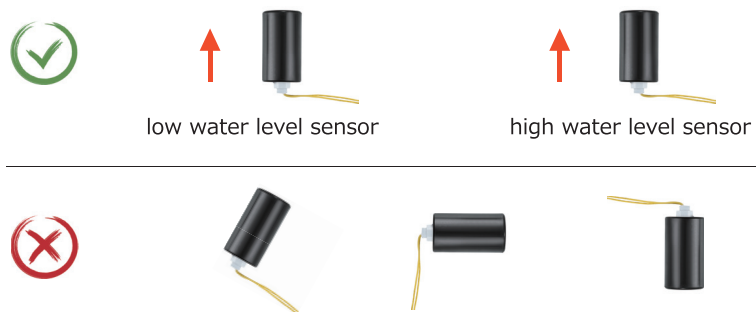
In the controller, **K1 and GND** is used to control low water level, if your well has no water, it can stop automatically and protect the pump. you can installed sensor, if the water level is lower than sensor, then the pump will stop automatically. When you connect the low water level sensor, you should take away the **shorten pin** between K1 and GND, then connect the water level sensor two feet to KI and GND. If you no need the low water level sensor, should put shorten pin between K1 and GND again, otherwise, the pump will not work. When the water level go up again, then pump will start working again after 10 munites.

K1 and GND

shorten pin

In the controller, **K2 and GND** is used to control high water level. If your tank is full, the pump will stop working automatically. you just connect the water level sensor two feet to K2 and GND. Then install the water level sensor to the location which you think is highest in the tank. If you no need the high water level sensor, you just take away the sensor two feet from K2 and GND. When the water level go down again, then the pump will start working again after 10 munites.

K2 and GND

E.Water Level Sensor Installation Position drawing

low water level sensor   high water level sensor

Note : two water level sensors are the same,can be used to anyone.

2. LIQB Type

This type QB is brushless motor, pump and controller are together, controller is inside the pump. Pump body has two type material, one is Iron, another one is stainless steel.
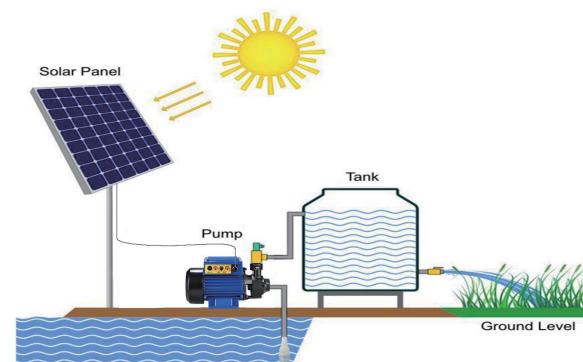
A.LIQB Pump Picture

-S

B.LIQB Pump Technical Parameter

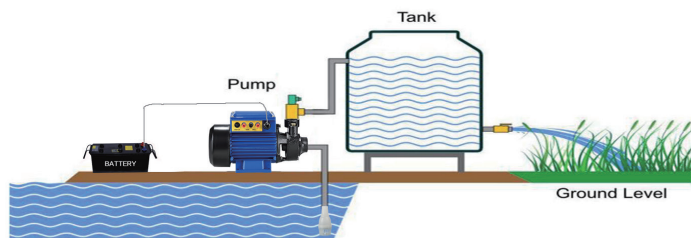| ITEM	VOLTAGE	POWER	MAX SUCT	MAX FLOW	MAX HEAD	INLET/ OUTLET
NO.	(V)	(W)	(M)	(M³/H)	(M)	(INCH)
LIQB1.3/16-12/150	12	150	8	1.3	16	1.0"X1.0"
LIQB2.0/28-24/250	24	250	8	2.0	28	1.0"X1.0"
LIQB2.2/40-48/400	48	400	8	2.2	40	1.0"X1.0"
LIQB1.3/15-12/150-S	12	150	8	1.3	15	1.0"X1.0"
LIQB2.0/22-24/250-S	24	250	8	2.0	22	1.0"X1.0"
LIQB2.5/33-48/400-S	48	400	8	2.5	33	1.0"X1.0"

C.LIQB Pump Accessory Picture

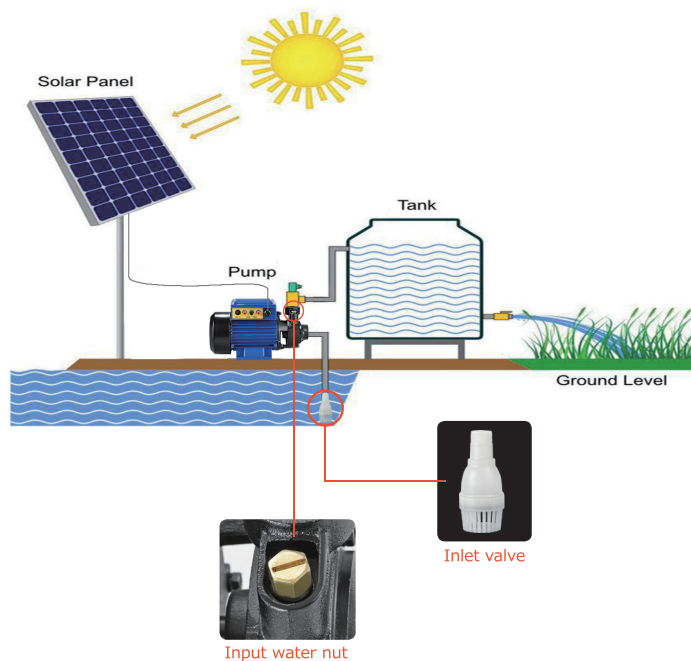## D.LIQB Pump connection diagram

working with solar panel
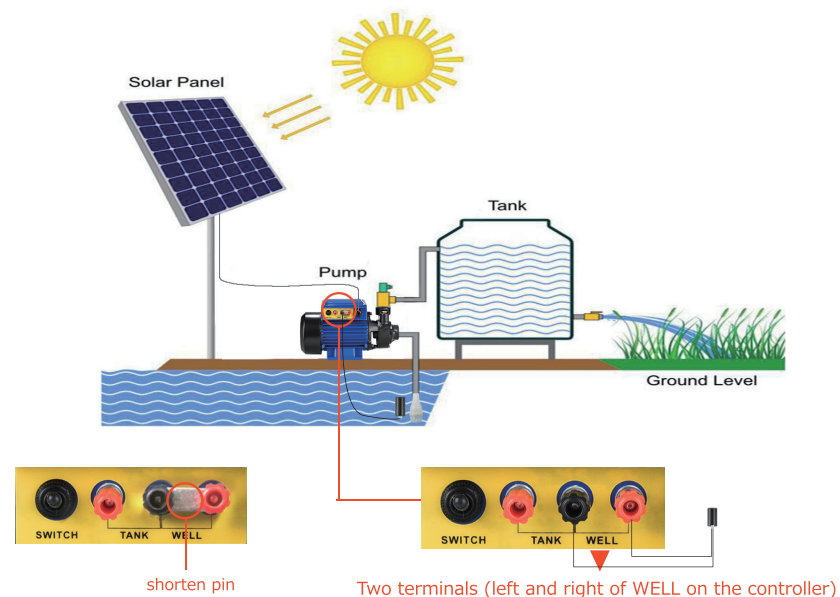
working with battery

If you install this pump with your water pipe to increase the water pressure, after connecting the cable, and make sure there is water in the pipe, then you can start the pump.

If you install this pump with water tank, after connecting the cable, you should make sure the inlet valve must be installed. As following picture. Then you should open the input water nut, and put water inside until the water is full, then close the input water nut. After that, you can start the pump.
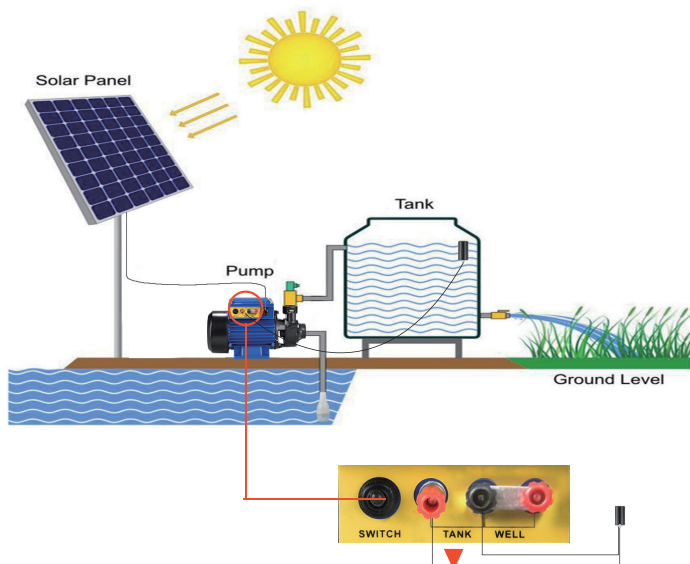

Inlet valve

Input water nut

If you want to use water level sensor to control the high water level and low water level. It can be done. When tank is full or well has no water, the pump can stop working automatically.

Two terminals (left and right of WELL on the controller) are used to control low water level, if your well has no water, it can stop automatically and protect the pump. you can installed with low water sensor , if the water level is lower than low water sensor, then the pump will stop automatically. When you connect the low water level sensor, you should take away the Two terminals' (left and right of WELL on the controller) shorten pin, then connect the water level sensor two feet to the Two terminals (left and right of WELL on the controller) . If you no need the low water level sensor, should put shorten pin on the Two terminals (left and right of WELL on the controller) again, otherwise, the pump will not work. When the water level go up again, then pump will start working again after 10 munites.

shorten pin

Two terminals (left and right of WELL on the controller)

Two terminals (left and right of TANK on the controller) is used to control high water level. If tank is full, the pump will stop working automatically. you just connect the water level sensor two feet to Two terminals (left and right of TANK on the controller). Then install the water level sensor to the location which you think is highest in the tank. If no need the high water level sensor, just take away the sensor two feet from Two terminals (left and right of TANK on the controller). When the water level go down again, then the pump will start working again after 10 munites.

Two terminals (left and right of TANK on the controller)
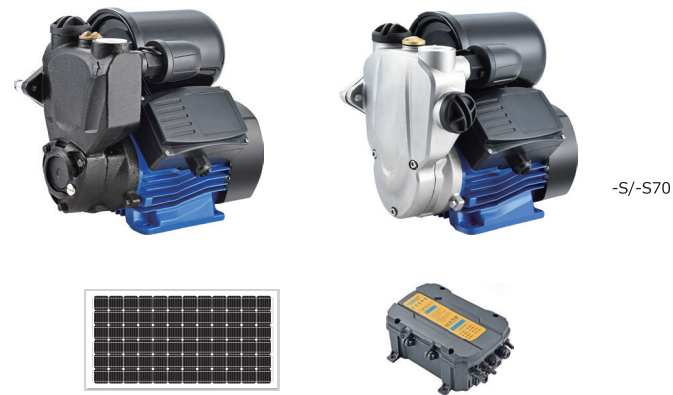
E.Water Level Sensor Installation Position drawing

low water level sensor   high water level sensor

Note : two water level sensors are the same,can be used to anyone.

3.LRQB Type

This type QB is brushless motor, pump and controller is seperate. There is pressure switch on the pump. This type QB normally work with battery. The pump can be controlled by water switch tap. When you open the water switch tap, the pump will start work. If you close the water switch tap, the pump will stop working.
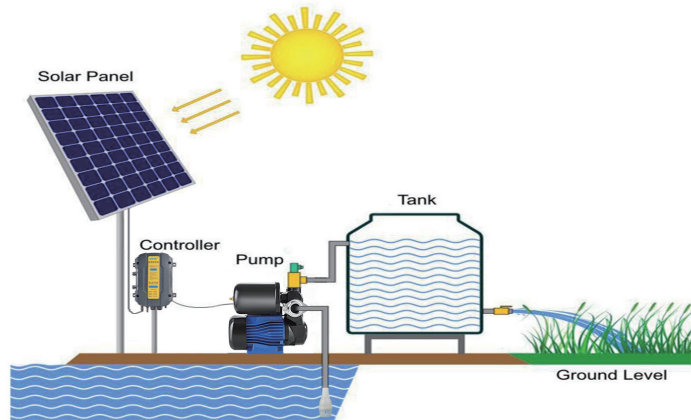
A.LRQB Pump Picture

-S/-S70

B.LRQB Pump Technical Parameter

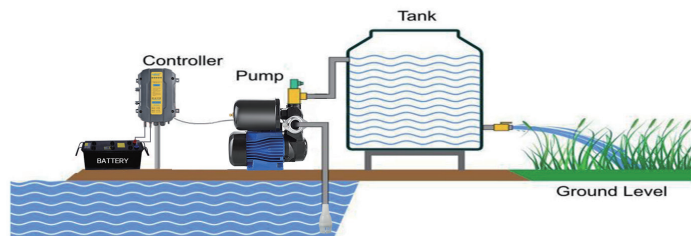| ITEM	VOLTAGE	POWER	MAX SUCT	MAX FLOW	MAX HEAD	INLET/ OUTLET
NO.	(V)	(W)	(M)	(M³/H)	(M)	(INCH)
LRQB2.0/17-24/250	24	250	8	2	17	1.0X1.0
LRQB2.5/28-48/400	48	400	8	2.5	28	1.0X1.0
LRQB1.8/22-24/250-S	24	250	8	1.8	22	1.0X1.0
LRQB2.2/30-48/400-S	48	400	8	2.2	30	1.0X1.0
LRQB3.3/40-72/600-S70	72	600	8	3.3	40	1.0X1.0
LRQB3.3/49-96/750-S70	96	750	8	3.3	49	1.0X1.0

C.LRQB Pump Accessory Picture
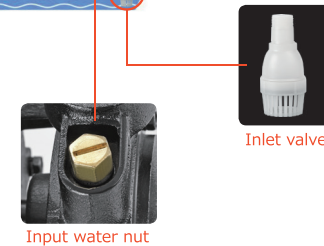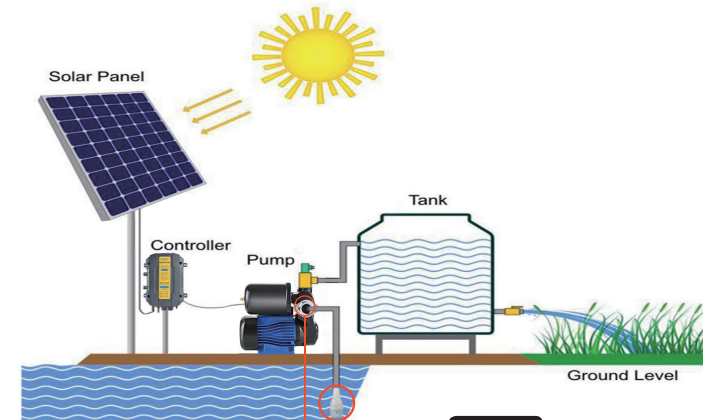
D.LRQB Pump connection diagram

working with solar panel

working with battery

If you install this pump with your water pipe to increase the water pressure, after connecting the cable, and make sure there is water in the pipe, then you can start the pump.

If you install this pump with water tank, after connecting the cable, you should make sure the inlet valve must be installed. As following picture. Then you should open the input water nut, and put water inside until the water is full, then close the input water nut. After that, you can start the pump.
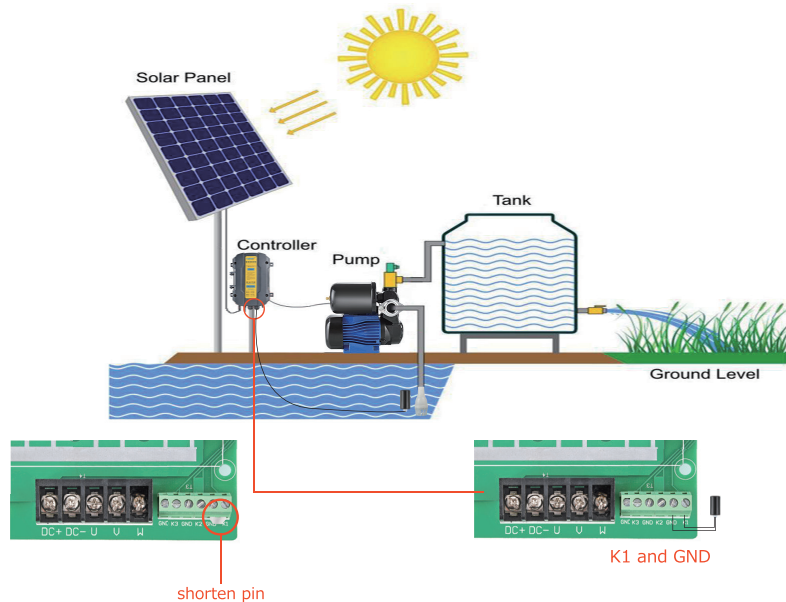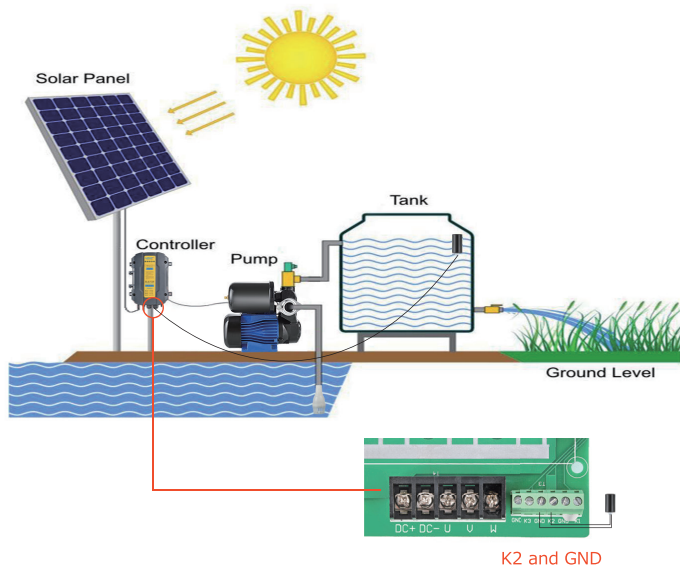

Inlet valve

Input water nut

If you want to use water level sensor to control the high water level and low water level. It can be done. When your tank is full or your well has no water, the system can stop and work again automatically.

In the controller, K1 and GND is used to control low water level, if your well has no water, it can stop automatically and protect the pump. you can installed sensor, if the water level is lower than sensor, then the pump will stop automatically. When you connect the low water level sensor, you should take away the shorten pin between K1 and GND, then connect the water level sensor two feet to KI and GND. If you no need the low water level sensor, should put shorten pin between K1 and GND again, otherwise, the pump will not work. When the water level go up again, then pump will start working again after 10 munites.

K1 and GND

shorten pin

In the controller, **K2 and GND** is used to control high water level. If your tank is full, the pump will stop working automatically. you just connect the water level sensor two feet to K2 and GND. Then install the water level sensor to the location which you think is highest in the tank. If you no need the high water level sensor, you just take away the sensor two feet from K2 and GND. When the water level go down again, then the pump will start working again after 10 munites.

K2 and GND

E.Water Level Sensor Installation Position drawing

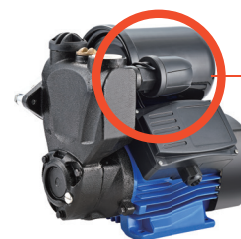low water level sensor   high water level sensor

Note : two water level sensors are the same,can be used to anyone.

F. Pressure Switch Ajustment

Normally, the pressure switch no need to be ajusted, because we have done ajustment before pump leaving factory. But it need be ajusted when the water swith tap can not control the motor stop or start,

When you close the water switch tap, the motor can not be closed, you can open the pressure switch, use the screw-driver to ajust the pressure.

+: pressure increase
-: pressure decrease