

SFA/470/420 Series Solar Water Heater
Assembly Manual

1. Check the part list	2
2. Assemble frames	8
2.1 Assemble side parts	8
2.2 Assemble cross bars and connect them	9
2.3 Assemble horizontal bars and tie bar-1	10
2.4 Assemble tube holder and foot packing	11
3. Assemble water cylinder (water tank)	12
4. Assemble Vacuum Tubes	12
5. Assemble Water supplier	14
5.1 Top connected water supplier	14

1. Check the part list

The following is the part list of the solar water heater you've gotten. If any parts miss, please contact with the shop you bought from at once.

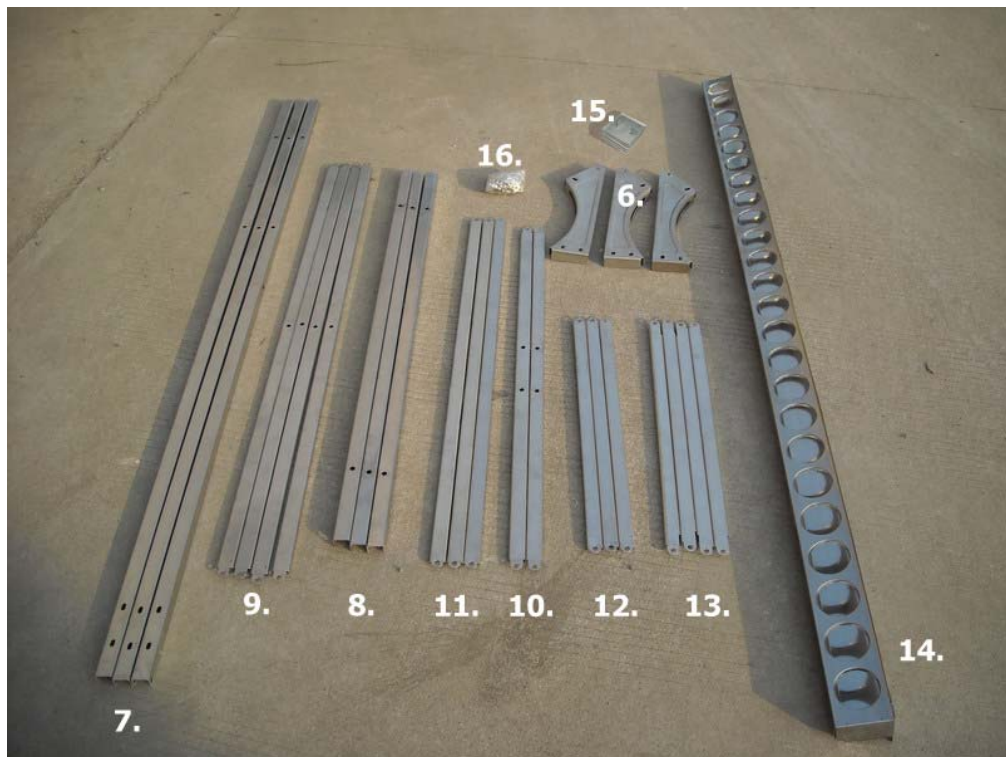


Fig. 1.1

SFA42154715					
No.	Items	Qty.(pcs)	Qty. of spare part	Total	
1	water tank	1		1	
2	evacuated tubes(∅ 47mm*1500mm)	15		15	
3	Silicon ring of tank	15	1	16	
4	decoration ring for tubes	15	1	16	
5	tube cups	15	1	16	
6	tank holder	2		2	
7	vertical bar	2		2	
8	standing bar	2		2	
9	cross bar	2		2	
10	horizontal var	1		1	
11	tie bar-3	2		2	
12	tie bar-2	2		2	
13	tie bar-1	2		2	
14	tube holder	1		1	
15	foot packing	4		4	
16	screws	M8X12	24		24
		M8X20	1		1
		M6X40	4		4
		M6X10	4		4

SFA42184715				
No.	Items	Qty.(pcs)	Qty. of spare part	Total
1	water tank	1		1
2	evacuated tubes(∅ 47mm*1500mm)	18		18
3	Silicon ring of tank	18	1	19
4	decoration ring for tubes	18	1	19
5	tube cups	18	1	19
6	tank holder	2		2
7	vertical bar	2		2
8	standing bar	2		2
9	cross bar	2		2
10	horizontal var	1		1
11	tie bar-3	2		2
12	tie bar-2	2		2
13	tie bar-1	2		2
14	tube holder	1		1
15	foot packing	4		4

16	screws	M8X12	24		24
		M8X20	1		1
		M6X40	4		4
		M6X10	4		4

SFA42204715

No.	Items	Qty.(pcs)	Qty. of spare part	Total	
1	water tank	1		1	
2	evacuated tubes(∅ 47mm*1500mm)	20		20	
3	Silicon ring of tank	20	1	21	
4	decoration ring for tubes	20	1	21	
5	tube cups	20	1	21	
6	tank holder	2		2	
7	vertical bar	2		2	
8	standing bar	2		2	
9	cross bar	2		2	
10	horizontal var	1		1	
11	tie bar-3	2		2	
12	tie bar-2	2		2	
13	tie bar-1	2		2	
14	tube holder	1		1	
15	foot packing	4		4	
16	screws	M8X12	24		24
		M8X20	1		1
		M6X40	4		4
		M6X10	4		4

SFA42244715

No.	Items	Qty.(pcs)	Qty. of spare part	Total
1	water tank	1		1
2	evacuated tubes(∅ 47mm*1500mm)	24		24
3	Silicon ring of tank	24	1	25
4	decoration ring for tubes	24	1	25
5	tube cups	24	1	25
6	tank holder	3		3
7	vertical bar	3		3
8	standing bar	3		3
9	cross bar	4		4
10	horizontal var	2		2
11	tie bar-3	3		3

12	tie bar-2	3		3
13	tie bar-1	4		2
14	tube holder	1		1
15	foot packing	6		6
16	screws	M8X12	37	37
		M8X20	2	2
		M6X40	6	6
		M6X10	6	6

SFA42304715				
No.	Items	Qty.(pcs)	Qty. of spare part	Total
1	water tank	1		1
2	evacuated tubes(\varnothing 47mm*1500mm)	30		30
3	Silicon ring of tank	30	1	31
4	decoration ring for tubes	30	1	31
5	tube cups	30	1	31
6	tank holder	3		3
7	vertical bar	3		3
8	standing bar	3		3
9	cross bar	4		4
10	horizontal var	2		2
11	tie bar-3	3		3
12	tie bar-2	3		3
13	tie bar-1	4		2
14	tube holder	1		1
15	foot packing	6		6
16	screws	M8X12	37	37
		M8X20	2	2
		M6X40	6	6
		M6X10	6	6

SFA47155818				
No.	Items	Qty.(pcs)	Qty. of spare part	Total
1	water tank	1		1
2	evacuated tubes(\varnothing 58mm*1800mm)	15		15
3	Silicon ring of tank	15	1	16
4	decoration ring for tubes	15	1	16
5	tube cups	15	1	16
6	tank holder	2		2

7	vertical bar	2		2
8	standing bar	2		2
9	cross bar	2		2
10	horizontal var	1		1
11	tie bar-3	2		2
12	tie bar-2	2		2
13	tie bar-1	2		2
14	tube holder	1		1
15	foot packing	4		4
16	screws	M8X12	24	24
		M8X20	1	1
		M6X40	4	4
		M6X10	4	4

SFA47185818				
No.	Items	Qty.(pcs)	Qty. of spare part	Total
1	water tank	1		1
2	evacuated tubes(∅ 58mm*1800mm)	18		18
3	Silicon ring of tank	18	1	19
4	decoration ring for tubes	18	1	19
5	tube cups	18	1	19
6	tank holder	2		2
7	vertical bar	2		2
8	standing bar	2		2
9	cross bar	2		2
10	horizontal var	1		1
11	tie bar-3	2		2
12	tie bar-2	2		2
13	tie bar-1	2		2
14	tube holder	1		1
15	foot packing	4		4
16	screws	M8X12	24	24
		M8X20	1	1
		M6X40	4	4
		M6X10	4	4

SFA47205818				
No.	Items	Qty.(pcs)	Qty. of spare part	Total
1	water tank	1		1
2	evacuated tubes(∅ 58mm*1800mm)	20		20

3	Silicon ring of tank		20	1	21
4	decoration ring for tubes		20	1	21
5	tube cups		20	1	21
6	tank holder		3		3
7	vertical bar		3		3
8	standing bar		3		3
9	cross bar		4		4
10	horizontal var		2		2
11	tie bar-3		3		3
12	tie bar-2		3		3
13	tie bar-1		4		2
14	tube holder		1		1
15	foot packing		6		6
16	screws	M8X12	37		37
		M8X20	2		2
		M6X40	6		6
		M6X10	6		6

SFA47245818					
No.	Items		Qty.(pcs)	Qty. of spare part	Total
1	water tank		1		1
2	evacuated tubes(∅ 58mm*1800mm)		24		24
3	Silicon ring of tank		24	1	25
4	decoration ring for tubes		24	1	25
5	tube cups		24	1	25
6	tank holder		3		3
7	vertical bar		3		3
8	standing bar		3		3
9	cross bar		4		4
10	horizontal var		2		2
11	tie bar-3		3		3
12	tie bar-2		3		3
13	tie bar-1		4		2
14	tube holder		1		1
15	foot packing		6		6
16	screws	M8X12	37		37
		M8X20	2		2
		M6X40	6		6
		M6X10	6		6

SFA47305818					
No.	Items	Qty.(pcs)	Qty. of spare part	Total	
1	water tank	1		1	
2	evacuated tubes(\varnothing 58mm*1800mm)	30		30	
3	Silicon ring of tank	30	1	31	
4	decoration ring for tubes	30	1	31	
5	tube cups	30	1	31	
6	tank holder	3		3	
7	vertical bar	3		3	
8	standing bar	3		3	
9	cross bar	4		4	
10	horizontal var	2		2	
11	tie bar-3	3		3	
12	tie bar-2	3		3	
13	tie bar-1	4		2	
14	tube holder	1		1	
15	foot packing	6		6	
16	screws	M8X12	37		37
		M8X20	2		2
		M6X40	6		6
		M6X10	6		6

2. Assemble frames

Use the pictures on the below to help identify the parts needed for each stage of the assembly.

Note: All the pictures we referred here is belong to SFA47205818(with 3 vertical bars). SFA42154715,SFA42184715,SFA42204715,SFA47155818,SFA47185818 has 2 vertical bars.Except the quantity of vertical bars and the corresponding frames,the course of assembly is the same.

2.1 Assemble side parts

Using a pair of M8×12 bolt connecting with tank holder,vertical bar,standing bar and tie bar-2,tiebar-3, forming side piece .



Fig. 2.1

2.2 Assemble cross bars and connect them

Join two crossed brace through center hole with a pair of M8×20 bolt. Connect two teams of cross bars to 3 standing bars. The two teams will overlap at the middle standing bar.

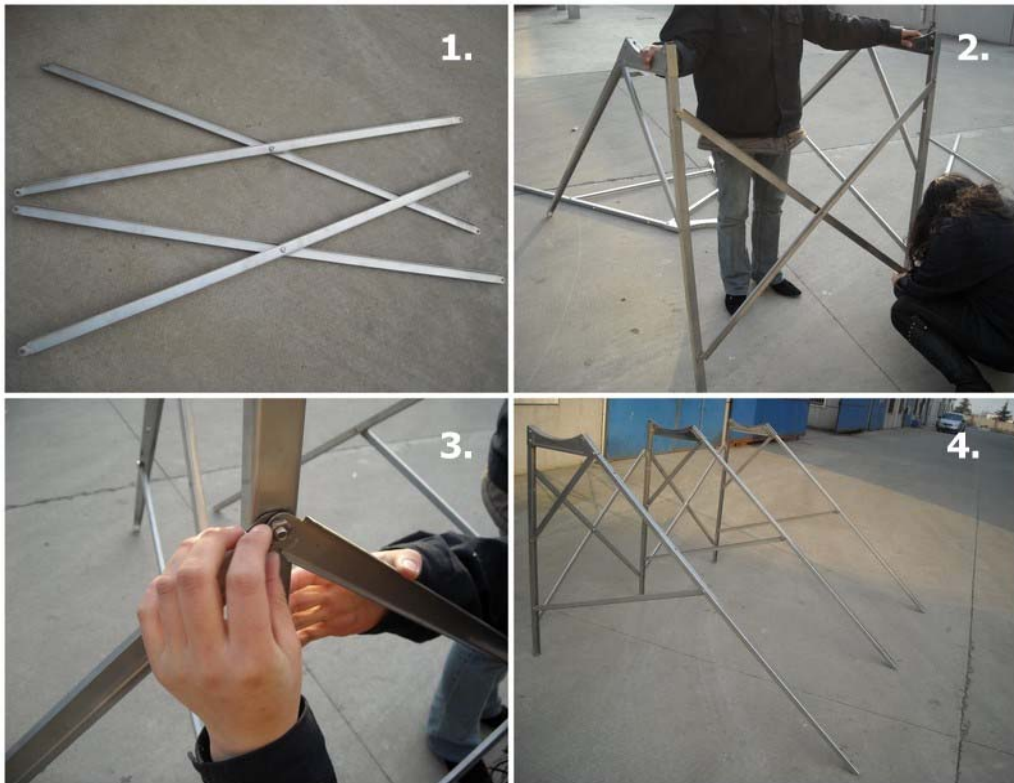


Fig. 2.2

2.3 Assemble horizontal bars and tie bar-1

Please assemble them by the following steps. The middle two tie bar-1 will overlap at the middle vertical bar.



Fig. 2.3

Join the tube holder to vertical bars by M6X10. Join the foot packing to standing bar by M6X40.

2.4 Assemble tube holder and foot packing



Fig. 2.4

The finished frame:



Fig. 2.5

3. Assemble water cylinder (water tank)

Please check the water cylinder and make sure there is nothing inside of it. If there is, please try to take it out. Put the assembled frames at level ground. Remove the nuts from the screws at the end of water tank.

Then two workers hold on the two ends of the tank, and put the tank on the tank holders carefully. Please try to let the screws can get through from the long notch of tank holder. You may need to gently turn the cylinder to achieve it.

Then screw the nuts back to screws of tank so that tank can be fixed on frame.



Fig. 3.1

4. Assemble Vacuum Tubes

Carefully unpack the vacuum tubes. Please take care all over the process of inserting the glass tubes. Because it is easy to broken and broken tubes are easily to hurt you. Fit a black decoration ring for tubes to the tubes from the open end with the round side facing down. Slide this 200mm down the tube.

Apply a smear of grease to the top 100mm of the open end of the first vacuum glass tube. Using a gentle pressure and twisting motion insert the greased tube into the locating hole until it is well inside the cylinder and the bottom end of the tube is at least 25mm far from tube holder. Now using a gentle downward pressure and twisting motion lower the tube until it fits snugly into the tube holder

Slide the black decoration ring for tubes seal up the tube until its outside edge fits flush with the

cylinder.

Repeat for the rest of the tubes.

Details:

1.Add a little of scour (such as washing-up liquid, etc.) into the water. Then the water can be used as lubricant;

2.Put the decoration ring for tubes on the opening part of the SFVA tube. Daub some lubricant referred in the above item on the opening part of the SFVA tube;



Fig. 4.1

3.Insert SFVA tube into one of the water tank's holes. Please make sure the opening part of the SFVA tube also insert into the Seal Silicon ring .It will be easier to insert by the way of twisting motion slowly;

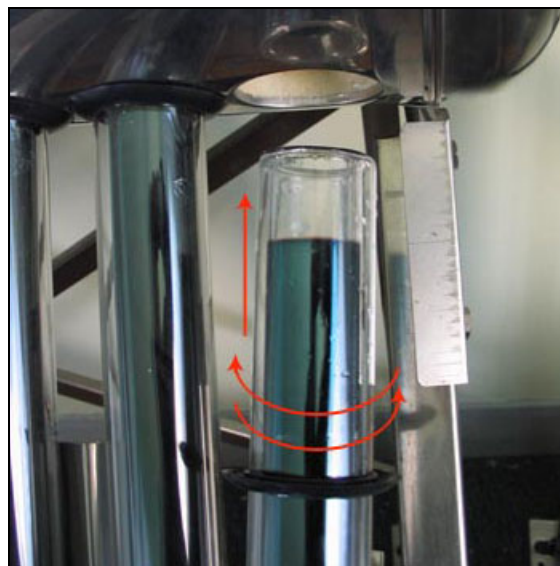


Fig. 4.2

4.After you insert the opening part of the SFVA tube into the holes of the water tank, put the end of the tube into the cup of the frame and make sure the course is twisting motion slowly.

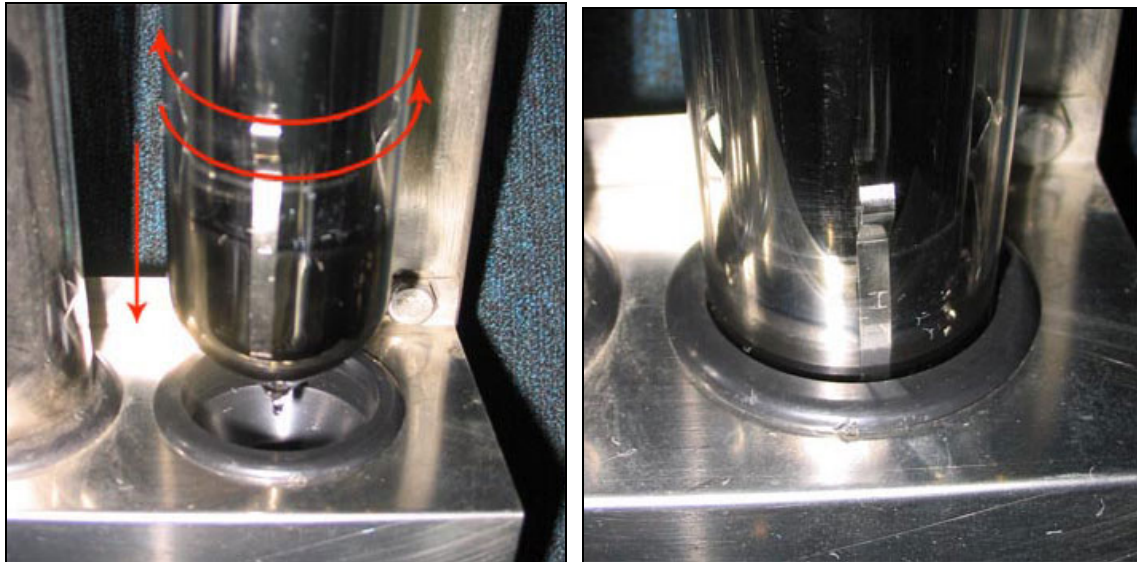


Fig. 4.3

6. Move the decoration ring for tubes to cling to Water tank. So one of the SFVA is installed.



Fig. 4.4

7. Repeat the step above, and install the other SFVA tubes. Then all the tubes are installed.
Now you can tighten all the screws all over SFA model.

5. Assemble Water supplier

5.1 Top connected water supplier

Fig 5.1 shows the structure of top connected water supplier:



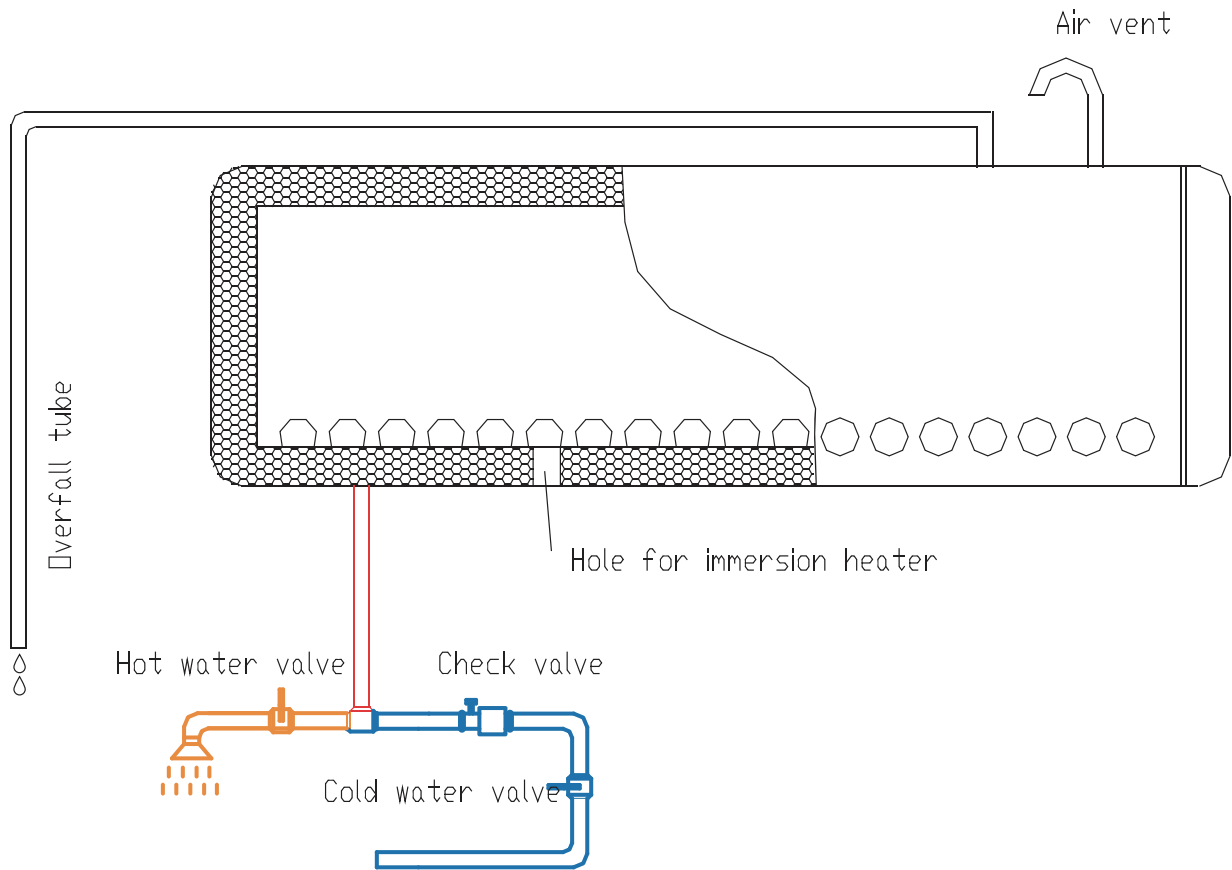
Fig 5.1

Wrap some crude material cingulum to the water inlet of solar water heater. Connect the water supplier to solar water heater's water tank by the bottom screw interface,like picture Fig5.2 .



Fig5.2

SFA installation



SFA installation with water supplier

