



The **SolarRoofs.com** “**Fireball 10-01**”  
 A New Concept, Easy Install, Solar Hot Water Collector!  
 Ideal for Residential, Small Commercial, RV, and Boat applications

**Powerful 10,000 Btu Solar Water Heating Collectors\***

\*Each Solar Water Heating Collector can heat 25 gallons of water up to 50 degrees F on a sunny day; Four collectors would heat 100 gallons up to 50 degrees F. It would take 2,000 Watts of PV to do that!

**Only  
 \$259.00!  
 Each**

**The Convenient Building Blocks to Energy Independence!**

**More Hot Water for Less Money Makes \$ense!**

This beautifully designed thermal collector is likely the easiest solar water heater to Ship and install in the World! It weighs only 19 pounds and is 20” wide by 6’ long making it easy to carry and ship by low cost UPS or FedEx ground. It features a high performance all copper absorber under tough, double wall Polycarbonate Glazing.

**The Easiest  
 Way to  
 Cut Your  
 Energy Bills!**



- **Fireball** Water Heating Collectors Have Up to **5 Times the Power Density<sup>1</sup>** of a PV panel at Less Cost and they even Weighs Less!
- The Hawaii and Florida State Energy Offices Estimate that the Average All Electric Home Uses **30%** of it's Total Electric Energy Just to **HEAT WATER!** Solar water heating is up to 90% Cheaper Saving Hundreds of Dollars Per Year!
- **Fireball** Collectors are a perfect complement to a PV Solar Electric System! Combining a Fireball system with a PV system greatly reduces the average cost of energy produced.
- The **Fireball 10-01** water heater is the ideal building block to energy independence, Start with 1 or 2 and add more as your needs grow!

\*1) On a sunny summer day in Sacramento, a Fireball 10-01 can produce over 10,000 Btu. A Btu heats 1 pound of water 1 degree and 1 gallon of water weighs 8.3 pounds. 25 gallons of water weighs about 207 pounds. So raising 25 gallons 50 degrees would be 50 X 207 or about 10,350 Btu. It would take 500 Watts of PV to produce over 10,000 Btu in Sacramento on a sunny summer day: 500 Watts = 1,706 Btu/Kw X 6hr = 10,236 Btu.

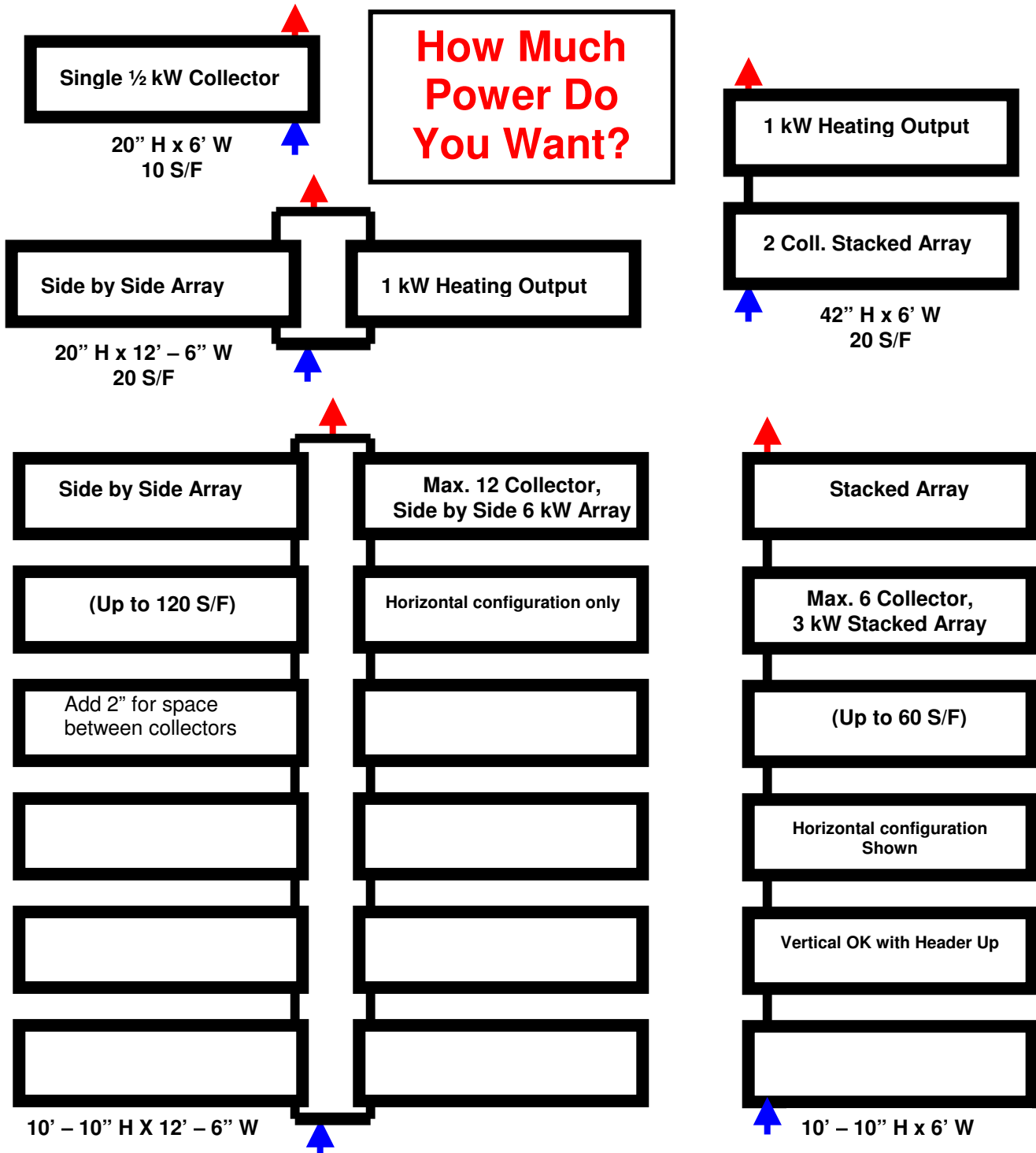
**SolarRoofs.com Inc. The Solar Water Heating Innovation Leader!**

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# Fireball "10-01" Solar Power Building Blocks: Light Weight & Easy to Install, Low Cost, Attractive and Efficient

Each **Easy Install "10-01"** collector weighs only 19 pounds  
and has the water heating output of a **1/2 kW PV system<sup>1</sup>!**



## **FIREBALL 10-01 COLLECTOR AND SYSTEM PRICING** 5/21/05

Fireball 10-01 collectors can be substituted in all SolarRoofs.com Fireball Systems 1 thru 5.

See Fireball 20-01 Price list for other options and Parts.

### **Fireball 10-01” (10 Sq/Ft, Series 01), Collector, 20” wide X 6’ long, 3’ thick**

Single collector includes 4 – 1 ½” Mounting Ell brackets, 8 color coded screws to attach mounting ells and 4 washers. Two or more collectors include compression union body for each additional stacked collector.

Trim Colors, Standard: Musket Brown, (CO101), or free option - Dove (medium) Gray (CO109) plus 25 optional colors. Default color is Musket Brown, Default configuration is Stacked (one above the other)

**Single piece unit, includes mounting ell kit (#C):** **\$259.00**

### **Collector and System Options:**

**Mounting Rails are used to lift the collector 1 inch above the roof to allow for venting and water flow.**

**(MR44)** 4 – 1” square by 4” long mounting rails + 4 lags, for 1 collector for 1” lift: **14.00**

**NOTE: SC01 requires 1 (one) MR44 kit, SSC1 requires 2 (two) MR44 kits.**

**(MR24)** add-a-collector 2 – 1” square by 4” long mounting rails + 2 lags, for 1” lift: **7.00**

**Collector installation kits contain the parts required to connect the collectors to 1/2 “ OD copper pipe.**

**(SC01) Stacked Collector Array Installation Kit:** Includes 1 compression Ell for the feed; 1 compression TEE, one 150 Lb pressure relief valve and air vent with pre-soldered adaptor 1 through roof compression Ell 2” stick of ½” OD copper for the return, 2 roof boots: **\$77.00**

**(SSC1) Side by Side Collector Array Installation Kit:** Includes 2 compression Ells, 1 compression TEE for the feed; 1 compression ell, 2 compression TEEs, one 150 Lb pressure relief valve and air vent with pre-soldered adaptor to connect to compression TEE for the return, 2 – 2” sticks of ½” OD copper, 2 roof boots: **\$108.00**

**(FV04) SC01 Open Loop Freeze Valve with installation Kit , For Light Passive freeze protection to 30F, FULLY DRAIN BEFORE HARD FREEZE!** **\$118.00**

**(FV05) SSC1 Open Loop Freeze Valve with installation Kit , For Light Passive freeze protection to 30F, FULLY DRAIN BEFORE HARD FREEZE!** **\$126.00**

**Tilt Kits** – aluminum rail, legs and feet tilt collectors approximately 18 degrees, or as specified, from existing roof angle. **Single Coll.:** (TK01): **65.00** **Two Coll.:** (TK02) **\$85.00** **Three Coll.:** (TK03) **\$115.00**

**Collector COLOR Change Option (applies to all collectors in order): (CO###):** **\$95.00**

**The Following “No Solder” Kits are very complete and save a significant amount of installation time:**

**(QC01) "Quick Connect"** open loop assembly with floating check valve, 12V Circulator, PV panel, isolation valves, 50’ ½ od coil of copper tubing, up to 48’ of ½” high temp, insulation, drain hose bibs, ½ od copper stub on return and feed side, Installation, Operations manuals and Labels: **\$899.00**

**(PR01) "POWER CELL - Quick Connect" COMPLETE FREEZE PROTECTION!** 12V Circulator, PV Panel, Pre-soldered Heat Exchanger with Expansion Tank, hose bib and isolation charging valves, 50’ ½ od coil of copper tubing, up to 48’ of ½” high temp. insulation, Check valve, and all Connections, Installation, Operations manuals and Labels: **Non-Toxic “Sierra” or equal antifreeze not supplied however it can usually be picked up at local auto or RV parts stores.** **\$1,599.00**

### **Complete Pre-soldered Kit Examples Starting with 3 collectors:**

**Add collectors (for \$259.00 + MRs) up to 1 S/F per Gallon of Storage. 50’ of tubing and Insulation Included**

**The following 2 systems easily connect to an existing or added storage tank via the tank drain valve port.**

**Open Loop, non freeze,** for very light freeze temperate climates, add freeze valve SV01.

**100113CQC: 3 10-01 Collectors + MR44 + 2 x MR24 + SC01 + QC01:** **\$1,773.00**

**Closed Loop, COMPLETE FREEZE PROTECTION** down to –54F

**100143CPR: 3 10-01 Collectors + MR44 + 2 x MR24 + SC01+ PR01:** **\$2,473.00**

Due to shifting costs, all Prices are subject to change without notice

## **FIREBALL 10-01 COLLECTOR SPECIFICATIONS:**

- **Dimension / Weight:** 72.15"x 20.1"x 3" 19 lb (1.835 m x 0.52 m x 0.076 m 8.62 Kg) 9.2 net s/f (.855 m<sup>2</sup>)
- **Trim & Frame Materials:** Finished 27 mil Aluminum Trim and Frame = Total 54 mil (1.37 mm)
- **Absorber Material:** "Black Crystal" absorber (emissivity .1, absorbtivity .95) with all copper tube
- **Glazing:** Twinwall Polycarbonate UV Treated .236" (6.0 mm). glass optional.
- **Fluid Capacity:** < .2 Gallons; Recommended Flow Rate: .20 to .35 GPM (0.946 to 1.324 L/min)
- **Maximum Working Pressure:** 150 PSI (10.21 atm). Maximum Stagnation Temp: 250 °F (121.11 °C).
- **Heat Transfer Fluid:** Potable water or Propylene glycol.
- **Standard Components:** 8, 1/4" color coded tech screws, 4 washers.
- **Connections:** 1/2" OD brass compression (nut and ring are on the collector connections, body is not supplied)