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**ROCK SERIES**  
Rugged Outdoor Charging Kit

The **ROCK** solar electric generators are rugged, self contained power systems designed to provide continuous, reliable power in areas where conventional electricity is non-existent or unreliable. Each **ROCK** is designed to provide steady, clean power with sufficient storage capacity to continuously operate during extended periods of inclement weather. **ROCK** systems can be pole, tower or rail mounted and come standard in a 12 volt configuration. Custom configurations are available to meet your specific requirements.

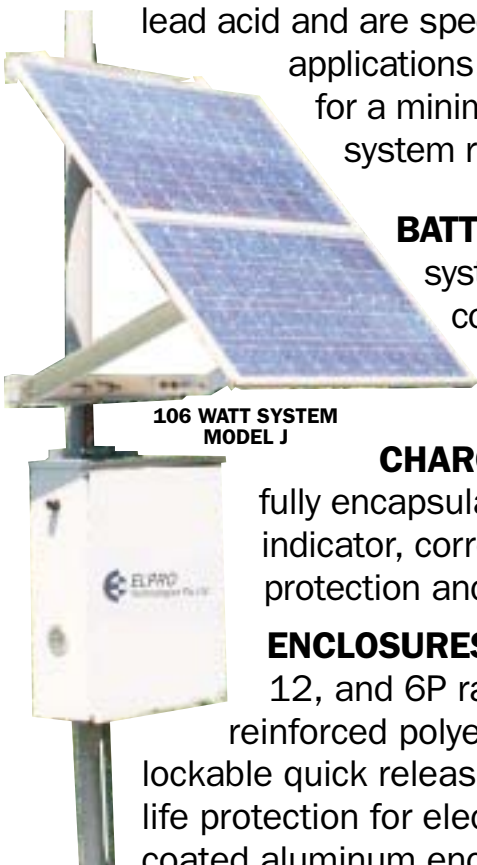


20 WATT SYSTEM  
MODEL A

## Features

**SOLAR ARRAY** - Exclusive high performance PV modules are specifically designed to exceed solar industry standards (JPL Block V) for durability in the harshest environments. They have a proven 20 year design life, along with a weatherproof J-Box and corrosion-resistant frame. **ROCK** modules are UL listed for electrical and fire safety and also FM approved for Class I and II Group D hazardous locations.

**BATTERIES** - Batteries are maintenance-free, valve regulated, sealed lead acid and are specifically designed for deep cycle photovoltaic applications. All **ROCK** systems have sufficient battery capacity to operate for a minimum of five days without charging. This assures the ultimate in system reliability for providing power to the load.



106 WATT SYSTEM  
MODEL J

**BATTERY CONDITIONER** - Unparalleled performance of the **ROCK** system is assured with the use of the patented **DeSulfator®** battery conditioner. This solid state device continually creates an environment in the battery that will not allow it to sulfate, thus ensuring long life and continuous peak operating performance.

**CHARGE CONTROLLERS** - The charge controllers are solid state and fully encapsulated. Features include temperature compensation, LED status indicator, corrosion resistant terminations, lightning protection, reverse current protection and low voltage load disconnect to ensure long battery life.

**ENCLOSURES** - The enclosures are NEMH Types 3, 4X, 12, and 6P rated. Available with a fiberglass reinforced polyester, and stainless steel hinge and pad lockable quick release latches; our enclosures provide long life protection for electronics and batteries. Optional powder coated aluminum enclosures are available.

40 WATT SYSTEM MODEL C



## Engineered For Reliability

- UL, FM Module Rating
- 20 Year Module Design Life
- Field Proven Components
- 11+ Year MTBF on Controls
- Minimum 5 Day Battery reserve
- Fully Operational Between -20° to 50°C
- Deep Cycle, Maintenance-Free Batteries
- Preassembled and Factory Tested

\*Enclosure in picture is powder coated aluminum.



### ROCK MODEL #

A	EL PU 20
B	EL PU 30
C	EL PU 40
D	EL PU 50
E	EL PU 70
F	EL PU 80
G	EL PU 100
H	EL PU 123
I	EL PU 140
J	EL PU 150
K	EL PU 160
L	EL PU 200



ELPRO MODULE 905U

### TABLE I ZONE

		5	4.5	3.5	2.5	2
D A I L Y	4.5	A	B	B	C	D
	5.15	A	B	C	C	D
	5.8	B	B	C	D	E
	6.45	B	B	C	D	E
	7.1	B	C	D	E	G
A M P	7.75	C	C	D	F	H
	8.4	C	C	E	G	J
	9.05	C	D	E	G	J
	9.7	C	D	F	H	J
	10.35	C	D	G	J	K
H O U R S	11	D	E	G	J	K
	11.65	D	E	G	J	M
	12.3	D	E	H	J	M
	12.95	K	F	J	K	M
	13.6	E	F	J	K	M
14.25	E	G	J	L	N	
15	F	H	K	L	O	

## How to Select the Right Rock

1. Locate the system site on the above US map (left) or Canadian map (right) and determine which zone it is in.
2. Determine how many amp hours per day your equipment will draw by using Elpro's module load equation from the 905u/105s manual. Module load(mA) = (85 for 905u or 45 for 105s) + (10 x No. of active DI's) + (25 x No. of active DO's) + (2 x analog loop load)

\*Example: -905u - 1 model

DI's 4\* 10mA = 40mA  
DO's 4\* 25mA = 100mA  
140mA

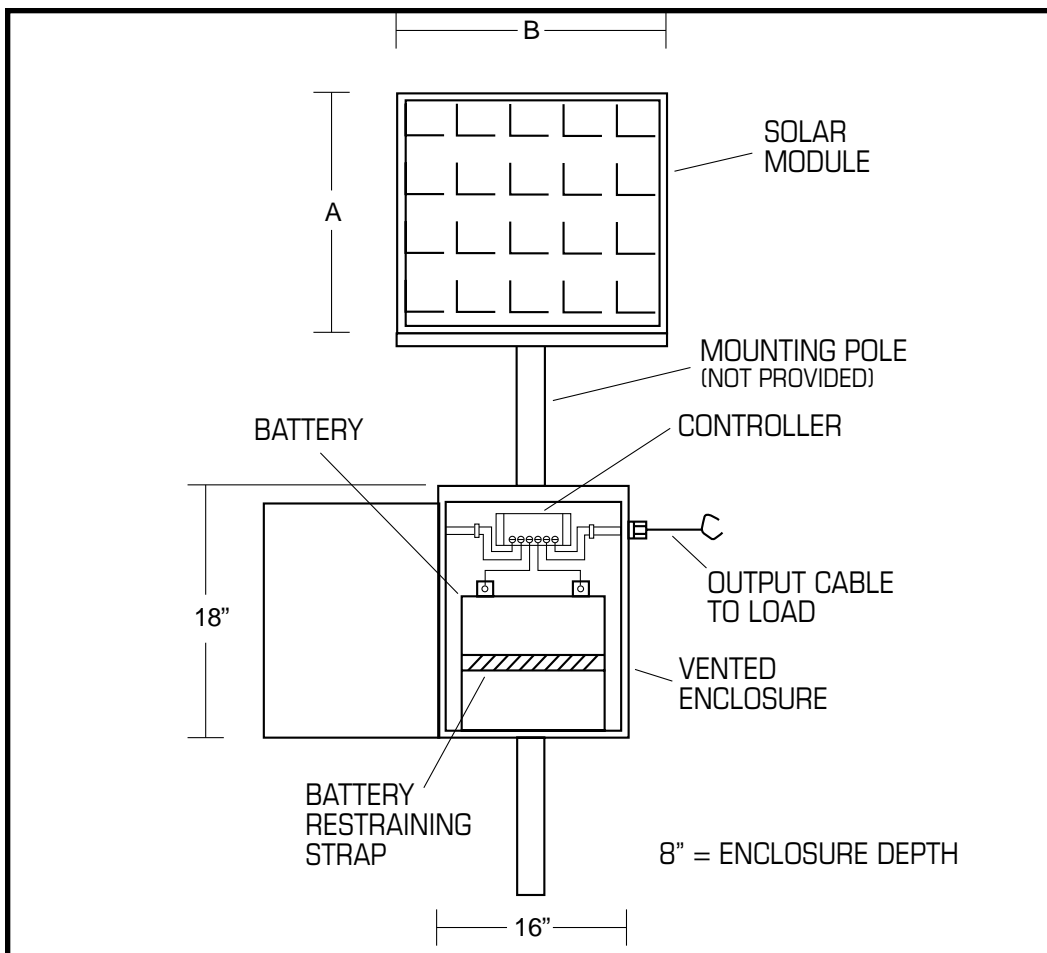
Analog Loop

-AI 2\*2\*20 = 80mA  
+AO 2\*2\*20 = 80mA  
160mA

[85mA + 140mA + 160mA] \* 24 hrs  
= 9240 mA hr divided by 1000  
= 9.24 A hrs/day

3. Go down the daily amp hour column in Table I until you reach the amp hour requirement. Go across to the appropriate zone. The letter will have a corresponding solar model # on the Rock Model # chart. For daily loads less than 9 Ahr. use the suffix 1248 after the solar model #, anything greater, use 12100. (ie EL PU 201248 or EL PU 2012100)

\*Please call for computer sizing for cities located near color zone dividing lines before ordering.



### MECHANICAL SPECIFICATIONS ROCK GENERATOR SYSTEMS

ROCK MODEL NO.	MODULE OUTPUT	MODULE (Inches)	
		A	B
EL PU 20	20 watts	19.8	16.6
EL PU 30	30 watts	19.8	23.3
EL PU 40	40 watts	19.8	30.2
EL PU 50	50 watts	19.7	36.9
EL PU 70	75 watts	19.8	57.5
EL PU 80	80 watts	19.8	57.5
EL PU 100	100 watts	39.6	36.9
EL PU 123	123 watts	39.6	43.7
EL PU 140	140 watts	39.6	57.5
EL PU 150	150 watts	39.6	57.5
EL PU 160	160 watts	39.6	57.5
EL PU 200	200 watts	79.20	36.9



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