Blue Sky ENERGY

IPN-ProRemote
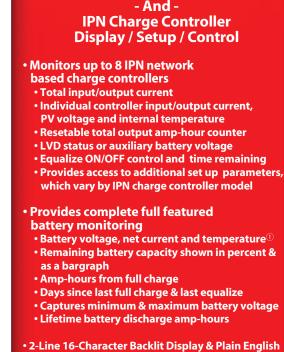*Full featured charge controller and battery system monitor*

IPN-ProRemote Display Combines Full-Featured Charge Controller and Battery System Monitoring

The IPN-ProRemote combines full-featured charge controller monitoring and battery system monitoring into a single user friendly remote display. A bright crisp backlit LCD display with plain English language text and three simple front panel keys is extremely easy to use.

With the IPN-ProRemote you no longer have to guess how much battery capacity remains. A high accuracy calculation of remaining battery capacity compensates for a variety of factors including charge/discharge current, battery size, type, temperature and how the battery was brought back to full charge. It even learns from past battery behavior to continuously improve accuracy!

The IPN-ProRemote also monitors and controls BlueSky Energy's IPN based charge controllers. It can monitor both the combined total and individual status of up to eight IPN charge controllers on a single IPN network. Depending on the particular charge controller model, certain additional parameters or settings can be accessed or modified with the IPN-ProRemote. With software version 2.00 or later the auxiliary output can also provide fully adjustable dusk to dawn[2] lighting control.

By combining an advanced battery system monitor and charge controller display into a single unit, the IPN-Pro Remote eliminates the need for a separate battery monitor. It also simplifies installation and eliminates the headaches of trying to setup and synchronize separate charge controller and battery monitor systems.

Full-Featured Battery Monitor - And - IPN Charge Controller Display / Setup / Control

- **Monitors up to 8 IPN network based charge controllers**
  - **Total input/output current**
  - **Individual controller input/output current, PV voltage and internal temperature**
  - **Resetable total output amp-hour counter**
  - **LVD status or auxiliary battery voltage**
  - **Equalize ON/OFF control and time remaining**
  - **Provides access to additional set up parameters, which vary by IPN charge controller model**

- **Provides complete full featured battery monitoring**
  - **Battery voltage, net current and temperature[1]**
  - **Remaining battery capacity shown in percent & as a bargraph**
  - **Amp-hours from full charge**
  - **Days since last full charge & last equalize**
  - **Captures minimum & maximum battery voltage**
  - **Lifetime battery discharge amp-hours**

- **2-Line 16-Character Backlit Display & Plain English Language Text For Ease Of Use**

- **Conformal Coated To Resist Corrosion**

- **Full 24 Month Limited Warranty, Optional Extended Coverage Available**

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■ What Is The IPN™ Network?

The Integrated Power Net™, or IPN™ network is a simple yet robust digital network which allows Blue Sky Energy's IPN compatible products to communicate with each other and work together. It is based on the RS-485 communication standard which is commonly used in harsh industrial environments.

Without the IPN network multiple charge controllers charging a common battery would operate as separate machines, each with their own charge parameters, display, temperature sensor and so on. While IPN compatible charge controllers work quite well alone, when multiple IPN controllers are combined they no longer behave as separate machines. They work together and operate as a single machine.

Up to 8 IPN compatible controllers can reside on a single network. No special communication hardware is required. There is simply a twisted pair cable daisychained controller-to-controller. One controller is considered to be the master and the others are slaves. Charge parameters are set only in the master, and the slaves automatically take on these settings and work with the master to behave as a single machine. They can also share a common battery temperature sensor and display, either the IPN-Pro Remote or the very low cost IPN-Remote

Lower installed cost, simplified setup and coordinated charge control are obvious advantages of the IPN network. Another key advantage is the ability to grow a system as needs change. A small system may start with a Solar Boost 3024i, an IPN-ProRemote and a battery temperature sensor. Later when more power is required another Solar Boost 3024i (or other IPN compatible charge controller) can be added.

To the installer there is no need to consider the new controller's charge parameters, or add additional displays or temperature sensors. If settings need to be changed they still reside in one place as before. To the user the system operates the same, displays through the existing IPN-ProRemote, only now the system delivers twice the power.

IPN based systems offer the best in high performance charge control, full featured monitoring and easy expandability. Get an IPN based charge controller and IPN-ProRemote for your next solar system today!

SPECIFICATIONS	IPN-ProRemote
Current Shunt	Requires current shunt in battery negative line, 50mV / 500 amp
Battery Ammeter Accuracy / Range	Range ±773.3A FS Accuracy ±1.0% FS
Other Meters	Accuracy/range of other volt/amp meters determined by IPN charge controller
Battery Size	20 – 10,000 Amp-hours
Power Consumption	0.25W Typical ● 1.0W Typical with backlight on
Remaining Battery Capacity	0 – 100% in 1% increments, based on charge/discharge amp-hour counting, self discharge rate and self tuning charge efficiency. Appropriate factors temperature compensated [1].
Amp-hours From Full	0 – 16,383 Amp-hours
Full Charge Determination	Automatically matched to IPN charge controller setup
Total Charge Amp-hours	0 – 16,383 Amp-hours, user resetable
Lifetime Battery Amp-hours	0 – 9,999,999 Amp-hours
Days Since Full Charge	0 – 255 Days
Days Since Equalize	0 – 255 Days
Backlight	Can be set to ON, OFF or AUTO (on for 1 minute following key press)
Panel Dimensions	4½"H x 4½"W x 1½"D (11.4cm x 11.4cm x 3.8cm) Fits standard duplex wall mount box
Communication, Power & Cabling	Requires IPN Network compatible charge controller. Receives communication and power from charge controller via standard 4-pin telephone cable. Charge controller cable length to 500' (152.5m) with proper cabling. Current shunt connection via twisted pair cable. Length to 300' (91.5m) with proper cabling.
Environmental	-40 – +40°C, 10 – 90% RH non-condensing

As a part of our continuous improvement process specifications are subject to change without prior notice

[1] With optional battery temperature sensor
[2] Dusk to Dawn requires software versions 2.0 or later

● Available From

● Part Numbers & Shipping Weight

IPN-ProRemote with shunt..IPNPRO-S ....1.8 lbs ... 0.82kg
IPN-ProRemote w/o shunt...IPNPRO ....1 lbs.... 0.46kg
500A / 50mV current shunt..506-0003-01.......1 lbs....0.46kg