

Apollo Solar Communications Gateway ACG-1 Installation and Operation Manual



Introduction

The Apollo Solar Communications Gateway is designed to allow easy monitoring of Apollo solar electronic products. It connects to multiple Apollo products such as our T80 charge controller and TSW series inverters, whether single or in parallel, and allows sending and receiving information to the Apollo devices. Key features and benefits of the Communications Gateway include:

<u>Easy Plug-n-Play Installation</u> – The Communications Gateway does not require any configuration or settings, simply connect the unit to one of the Apollo devices, connect power and an Ethernet cable and you are ready to monitor.

<u>Firewall and Router Friendly</u> – The Communications Gateway works well even if there are firewalls and routers providing security for your network.

<u>Integrated with Our Internet Monitoring</u> – The Communications Gateway connects automatically with our website, where custom pages provide you with details on the performance and health of your system.

<u>Indicator Lights Provide Easy Trouble-Shooting</u> – The indicator lights help troubleshoot communications problems.

Installation

Plug the cable that is provided with the Communications Gateway into the Gateway – the larger connector on the cable plugs into the large connector on the bottom of the Gateway. Plug the other end of the cable into a RJ45 jack (the same connector used for most Ethernet or Internet connections) on an Apollo inverter or charge Controller. To plug into an Apollo charge controller, you'll need an Apollo ASNET card. On an Apollo inverter, you want to plug the cable into one of the two connectors labeled 'ASNET'.

If you have more than one Apollo device, use a standard Ethernet cable to connect the devices together, daisy-chain style. Each Apollo device has two RJ45 connectors labeled ASNet. Simply connect all the devices together by using one of the RJ45 connectors to connect to the next device.

Connect the Communications Gateway to the Internet

If you have a wired Ethernet connection near the location where you will locate the Communications Gateway, then just ran a standard Ethernet cable from the jack or router to the Communications Gateway. If you have a wireless network and no nearby jack or cable, then consider a wireless bridge. Apollo recommends the Linksys Wireless Bridge WET54G, which provides an inexpensive way to connect the Apollo Communications Gateway to your wireless network.

Plug in Power

Plug the power supply provided with the Communications Gateway into a wall socket, and plug the barrel connector of the power supply into the Communications Gateway.

Check for Proper Operation

After power is plugged into the Communications Gateway, the unit goes though a power on sequence and various indicator slights will flash. After about 40 seconds you should see the following indicator lights:

| <u>Light</u> | <u>State</u> |
|---------------------|-----------------------------|
| Power/Ready | Solid green |
| Ethernet Connected | Solid green or solid orange |
| Ethernet Activity | Occasionally flashing |
| Transmitting serial | Occasionally flashing * |
| Receiving serial | Occasionally flashing * |

^{*} If the Communications Gateway is connected to working Apollo devices, otherwise these lights may be off.

If you do not see lights according to the description above, then see the section on troubleshooting.

Registration and Monitoring

In order to monitor your system, you will need to register by going to http://www.apollosolar.com and clicking on the 'Register' button on the right side of the webpage. After registering, send an email to techsupport@apollosolar.com with the serial numbers of your Apollo products and monitoring pages will be set up for you.

Troubleshooting

Is the Power/Ready light flashing all the time?

Make sure the switch at the top of the Gateway is pointed toward the front of the unit, away from the direction 'ON'.

Is the Ethernet Connected light not on?

The unit is not connected to an Ethernet network, check the wiring and jacks on your router.

Do the transmitting Serial and Receiving Serial lights never blink?

The Gateway is not connected to the Internet.

Does the Transmitting Serial light blink, but not the Receiving Serial light?

The Gateway is connected to the Internet, but is not connected to an Apollo device.

Does the Receiving Serial light blink, but not the Transmitting Serial light?

The Gateway Is not connected to the Internet, but is not connected to an Apollo T80 Charge Controller with serial number under 2000.

Is the Receiving Serial light on steady?

Most likely this means an ASNet card was inserted into a T80 while the T80 was powered up. This condition can be cleared by turning the breaker for the T80 off and then back on.

Technical Support

For technical support, contact Apollo:

By email: techsupport@apollosolar.com

By phone: 1-203-790-6400

Pinouts

The pinouts for cabling between Apollo devices and the Gatway are as follows:

| | | Apollo | Apollo |
|---------------|----------------|-------------|---------|
| <u>Signal</u> | <u>color</u> | <u>RJ45</u> | Gateway |
| gnd | brown w/white | 8 | 7 |
| Tx/Rx+ | blue w/white | 4 | 14 |
| TxRx- | white w/blue | 5 | 15 |
| Power + | white w/orange | 1 | 12 |

Note that Apollo T80 Charge Controllers and Apollo TSW Inverters can provide power to the Gateway through the cable, however this is not guaranteed for all future Apollo products.

Limited Warranty

Apollo Solar Inc. warrants this product against defects in materials and workmanship for a period of one (1) year. Apollo Solar's liability shall be limited to the repair or replacement of the product, at Apollo Solar's sole discretion.

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