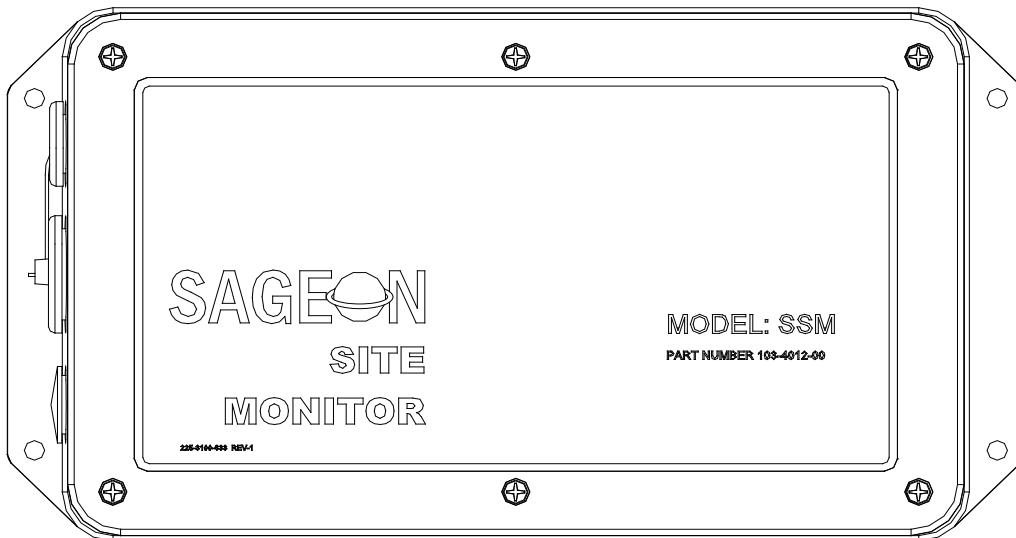




Sageon™ Site Monitor (SSM) Application Note

SAGEON



**RECEIVING INSTRUCTIONS
&
GENERAL EQUIPMENT INFORMATION**

Please Note: For your protection, the following information and the product manual should be read and thoroughly understood before unpacking, installing, or using the equipment.

UNIPOWER, LLC presents all equipment to the delivering carrier securely packed and in perfect condition. Upon acceptance of the package from us, the delivering carrier assumed responsibility for its safe arrival to you. Once you receive the equipment, it is your responsibility to document any damage the carrier may have inflicted, and to file your claim promptly and accurately.

1. PACKAGE INSPECTION

- 1.1 Examine the shipping crate or carton for any visible damage: punctures, dents, and any other signs of possible internal damage.
- 1.2 Describe any damage or shortage on the receiving documents, and have the carrier sign their full name.
- 1.3 If your receiving freight bill notes that a Tip-N-Tell is attached to your freight, locate it. If the Tip-N-Tell arrow has turned even partially blue, this means the freight has been tipped in transport. Make sure the carrier notes this on your receipt before you sign for the freight.

2. EQUIPMENT INSPECTION

- 2.1 Within fifteen days, open the crate and inspect the contents for damages. While unpacking, be careful not to discard any equipment, parts, or manuals. If any damage is detected, call the delivering carrier to determine appropriate action. They may require an inspection.

***SAVE ALL SHIPPING MATERIAL FOR THE INSPECTOR TO SEE!**

- 2.2 After the inspection has been made, call UNIPOWER. We will determine if the equipment should be returned to our plant for repair, or if some other method would be more expeditious. If it is determined that the equipment should be returned to UNIPOWER, ask the delivering carrier to send the packages back to UNIPOWER at the delivering carrier's expense.
- 2.3 If repair is necessary, we will invoice you for the repair so that you may submit the bill to the delivering carrier with your claim form.
- 2.4 It is your responsibility to file a claim with the delivering carrier. Failure to properly file a claim for shipping damages may void warranty service for any physical damages later reported for repair.

3. HANDLING

Equipment can be universally heavy or top-heavy. Use adequate manpower or equipment for handling. Until the equipment is securely mounted, be careful to prevent the equipment from being accidentally tipped over.

4. NAMEPLATE

Each piece of UNIPOWER equipment is identified by a part number on the nameplate. Please refer to this number in all correspondence with UNIPOWER.

5. INITIAL SETTINGS

All equipment is shipped from our production area *fully checked and adjusted*. Do not make any adjustments until you have referred to the technical reference or product manual.

6. SPARE PARTS

To minimize downtime during installation or operation, we suggest you purchase spare fuses, circuit boards and other recommended components as listed on the Recommended Spare Parts List in the back of the product manual. If nothing else, we strongly recommend stocking spare fuses for all systems.

Issue	Page(s) Altered	Description	Issued by / Date
3	All	Updated UNIPOWER logo & contact information. See PCO# 44448.	WD 6/26/17

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Throughout the remainder of this manual, “UNIPOWER” will mean “UNIPOWER, LLC.”

PERSONNEL REQUIREMENTS

Installation, setup, operation, and servicing of this equipment should be performed by qualified persons thoroughly familiar with this Product Manual and Applicable Local and National Codes. A copy of this manual is included with the equipment shipment.

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1.0 INTRODUCTION

The Sageon Site Monitor (SSM) is an auxiliary module for the Sageon™ DC Power Plant. The SSM provides additional I/O for the power plant enabling users to monitor the status of additional equipment through the Sageon system. The SSM includes twelve digital inputs and eight analog inputs for monitoring devices such as site security (door and window magnetic switches), AC Inverter status and alarms, Generator status (fuel level, oil pressure), and HVAC status and alarms. Also included are four voltage free (dry), Form C control output relays. The control relays can be automatically activated in response to an event on any of the SSM digital or analog input (configurable by the user), or operated manually from a PC running SageView™.

2.0 APPLICATIONS

The SSM provides a simple, integrated solution to many common application challenges eliminating the need to purchase separate monitoring equipment. Using the remote communication capabilities and SageView software, the Sageon system can be remotely monitored, allowing the appropriate response to site events.

Typical applications include:

- Integration of site alarms
- Integration of Inverter status
- Individual load monitoring
- Integration of auxiliary equipment status

3.0 EXAMPLE INSTALLATION

In this example the auxiliary site equipment is integrated into the site monitor. The I/O for this application include:

Analog Inputs

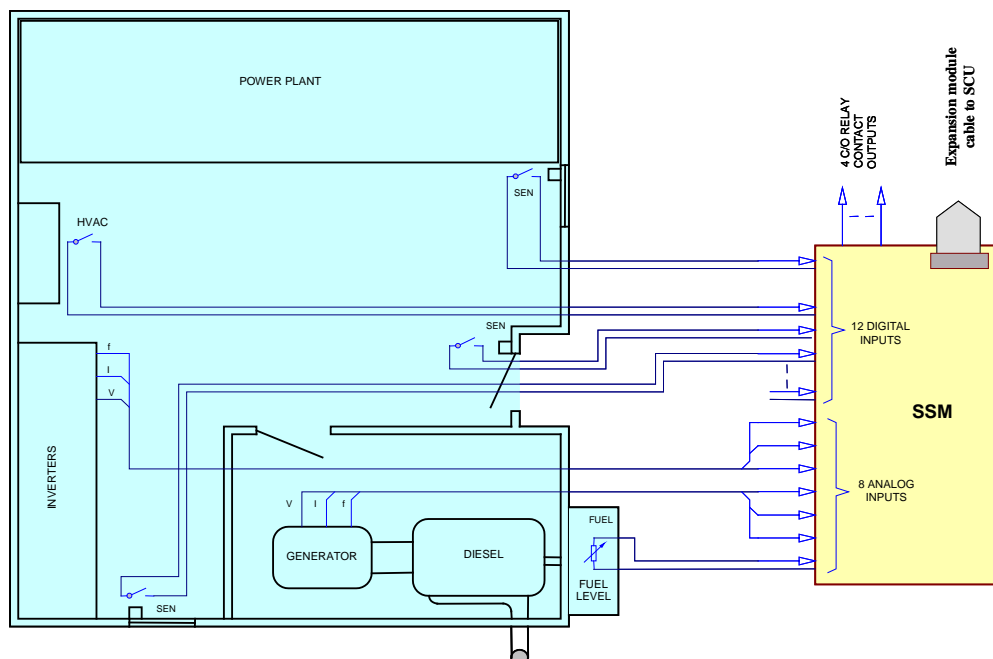
- Generator fuel level
- Generator output voltage, current, and frequency
- Inverter output voltage, current, and frequency

Digital Inputs

- Window and door opening sensors
- HVAC alarms

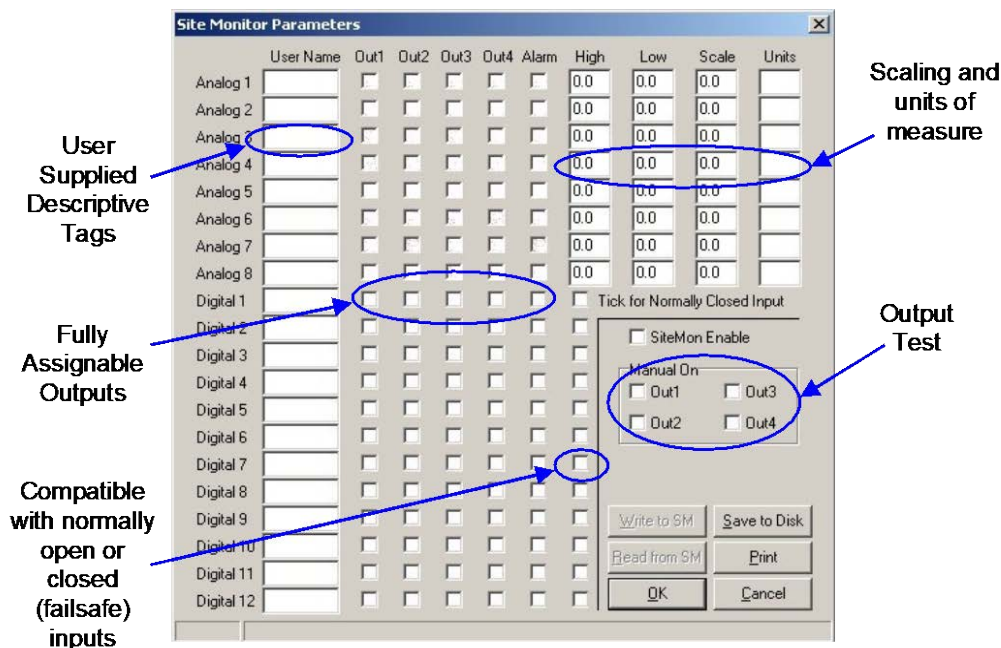
Digital Outputs

- NOC alarm generation
- Local alarms
- Strobe lights



4.0 SYSTEM CONFIGURATION

The SSM is easily configured using the SageView program included with each Sageon™ DC Power Plant. The Site Monitor configuration screen is pictured below and provides a simple, intuitive user interface.



Each input has a user-defined label field (up to 8 characters) to describe its function. If a label field is left blank, the corresponding input is treated as not used. Analog input fields also include a two-character field for the description of the units of measure as well as high and low alarm thresholds. Scaling factor for analog inputs are set-up for 0 volts (0% F.S.) to 4 volts (100% F.S.). The type of digital input source (normally open or normally closed) is user definable by selecting the appropriate check box. Each discrete output can be automatically generated based on any combination of discrete and analog inputs.

5.0 ELECTRICAL SPECIFICATION

Analog inputs

Number of inputs:	8
Input Range:	0 to +4Vdc Full Scale, Over-voltage and reverse polarity protected.
Configuration:	Scaling factor, low and high alarm levels are user programmable.
Electrical Isolation:	Non-isolated. Each analog input source must be isolated.

Digital inputs

Number of inputs:	12
Source type:	Voltage free (dry) contact closure
Active state:	User defined (active open or active closed)
Electrical Isolation:	Non-isolated. Each digital input source must be isolated.

Digital outputs

Number of outputs:	4
Output type:	Voltage free (dry) 1 Form C relay contacts
Output rating:	1A@30VDC

General

Power Source:	Self powered from the Sageon Interface Board
Plant Connection:	16 conductor cable to the Sageon Interface Board
Maximum Distance:	30 feet (9.14 meters)

6.0 PHYSICAL SPECIFICATION

Module Dimensions (approx): 5.11" x 9.37" x 3.14" (130 x 238 x 80) (DxWxH)

