

PV\_CTRL-1, Photovoltaic controller  
Morningstar SunSaver 10 amp

SOL-1, Solar panel, 60-80 watt  
Campbell Scientific, Model No. SP70-L  
SOL-2, Solar panel, 60-80 watt  
Campbell Scientific, Model No. SP70-L

BATTERY-1, 12 VDC  
Optima, Model No. D34/78 or DM34, AGM Type, 75 AH  
BATTERY-2, 12 VDC  
Optima, Model No. D34/78 or DM34, AGM Type, 75 AH  
CB-1, Circuit breaker for entire system

TEMP-1, PC box temperature sensor, -55 to 150C  
Analog Devices, Model No. AD590JH  
TEMP-2, Modem box temperature sensor, -55 to 150C  
Analog Devices, Model No. AD590JH  
TEMP-3, Ambient temperature sensor, -55 to 150C  
Analog Devices, Model No. AD590JH

RTU-1, Remote terminal unit  
Rugid Computers, Model No. RUG3

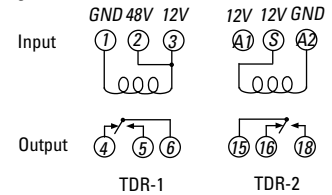
CABLE-1, Female DB9 To RJ45 4-Wire  
Rugid Computers, Part # CBLR3PGM, 14 ft.

MB-1, Manual power override button (power up the system on site)

SW-2, Switch for the modem circuit  
FU-2, Fuse for the modem circuit

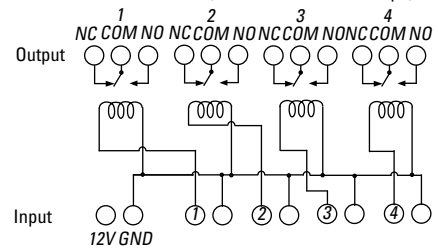
TDR-1, Time delay relay  
Durant-Eaton Corp. Model # E42DP55 (Contact rated to 10 amps)

TDR-2, Time delay relay  
Magnecraft, Part # 821TDR10HUNI (Contact rated to 16 amps)



SW-1, Switch for the computer circuit  
FU-1, Fuse for the computer circuit

RLY104-12V, Relay board  
Winford Model # RLY104-12V (Contacts rated to 15 amps)



PC-1, Small form 12 VDC factor personal computer  
Logisys 400 MHz, Celeron, 512 MB, Windows XP, Service Pack 2

USB Pinouts  
Pin 1 VCC, +5V  
Pin 3 USB Pn  
Pin 2 USB Pn#  
Pin 4 GND  
Pin 5 Chassis GND

COM-1 Pinouts  
Pin 1 Received Line Signal Detector Data Carrier Detect (DCD)  
Pin 2 Receive Data (RX): to RUG PGM Port  
Pin 3 Transmit Data (TX): to RUG PGM Port  
Pin 4 Data Terminal Ready (DTR)  
Pin 5 Signal Ground (GRD): to RUG PGM Port  
Pin 6 Data Set Ready (DSR)  
Pin 7 Request To Send (RTS)  
Pin 8 Clear To Send (CTS)  
Pin 9 Ring Indicator  
To handshake-loop short 1,6,4

INVERTER-1, DC to AC 400 watt inverter

CABLE-2, Male USB-A 2.0 to Male USB-B 2.0

SERIAL-1, USB to 8-Port serial adapter  
Qualtech, Model # ESU2-100

30 Mile	60 Mile	87 Mile
Port 1: YSI trigger	YSI trigger	LISST-100
Port 2: empty	LISST-100	empty
Port 3: 1-MHz ADP	1-MHz ADP	1-MHz ADP
Port 4: 2-MHz ADP	2-MHz ADP	2-MHz ADP
Port 5: ISCO A	ISCO A	600-kHz ADP
Port 6: ISCO B	ISCO B	ISCO
Port 7: YSI A	YSI A	YSI
Port 8: YSI B	YSI B	Loopback plug

NOTE Port 1 on Serial-1 is Com 3 on PC-1

MODEM-1, Satellite modem  
Manufacturer, Starband, Model #360

ANT-1, Broadband satellite antenna & LNB  
Manufacturer, Channel Master #3041221