SIMPSON MODEL 47550
DataDirect Remote Collector

Technical Description

This DataDirect Remote Collector (DDRC) receives data through a radio communication link, stores this received data and transmits to a host website at a later time. The DDRC acts like a server; where it collects data through this radio link from remote data logging products. It can be set-up to collect data from multiple remote units. The data is stored in the DDRC until it connects via the internal modem to a host website. This operating mode is set in the factory and is not modified by the user. The DDRC is supplied with the antenna and shall not be modified without approval from Simpson Electric Company. Antenna modifications can violate FCC Regulations and void users authority to operate this device. There are two magnetic mount antennae available for use; Simpson part #: 1) 06-117712, antenna with short cable, 1.5ft and 2) 06-117713 antenna with long cable, 25ft. The short cable is recommended.

The DDRC is powered with 120V$_{AC}$; which is converted to an isolated DC. This isolated DC is the internal power for the circuitry. The low side of this isolated DC is the internal ground for the circuitry, which is common to the shield of the antenna cable. This ground not electrically connected to the magnetic mount of the antenna.

There is a push-button switch on the DDRC to initialize the modem for dialing a local phone number. The modem in the DDRC is set at the factory to dial a nationwide "800" number. When the DDRC is installation is complete and this switch is depressed, the DDRC will update the phone number to dial a local phone number for all future modem communication. This is the only modification allowed by user.

SIMPSON MODEL # 47550
Block Diagram

1 Watt

902 - 928MHz

Radio Module Aerocomm AC4490-1000

OSC 1 32.768KHZ

Bi-directional data link

Microprocessor TI MSP430

JTAG Port

Bi-directional data link

OSC 2 6.000MHz

Bi-directional data link

OSC 2 4.9152MHz

Si2433 Modem

Isolation Cap

CY62128V Memory

Si3015 Line Interface

RJ11 Phone Jack

Bi-directional data link

Status LED's

Bi-directional data link

Push Button Switch

120Vac Power Cord

Trans-former

3.4V Regulator

3.4Vdc

3.3V Regulator

3.3Vdc