

An S&C Automated Switching System is a fully self-contained and self-powered automated-distribution switching installation that contains two components: an integer-style load interrupting switch and a control unit that provides an interface between the switch and the master-station computer. Control power and tripping power for the switch is provided by two series-connected 12-volt, 5 ampere-hour battery packs that are charged by an S&C-designed and manufactured constant-voltage battery charger. A 20-volt-ampere 120-volt 60-Hz voltage source for the charger is included as a standard feature on the automated switch. The battery charger and battery packs are located in the control unit.

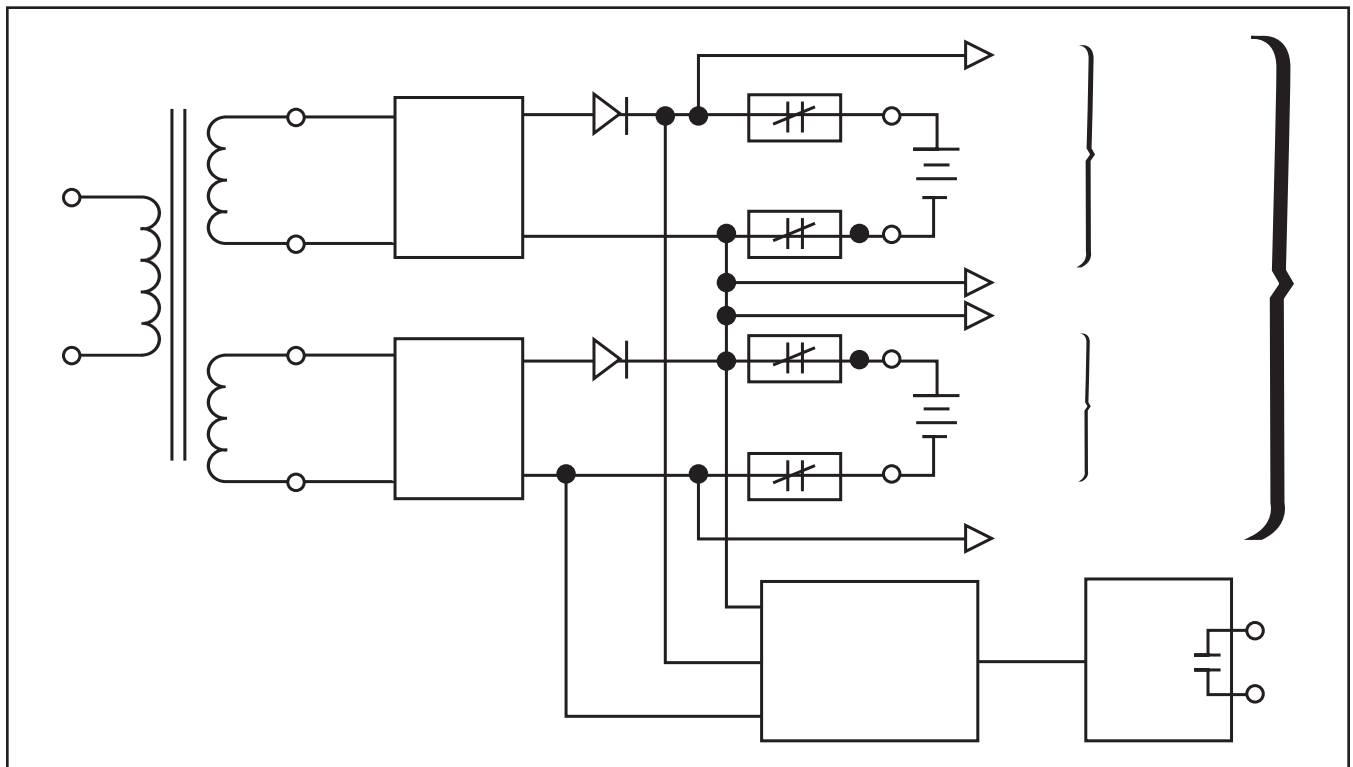
The battery charger features dual 12-volt dc outputs to power the applicable remote terminal units and transceiv-

ers when the ac source is present. Upon loss of the ac source, the battery packs—if fully charged—will provide power to the complete automated switching system for the operating times shown on page 2.

The battery charger is fully temperature compensated and features integral load-disconnect circuitry to prevent deep-discharge of the batteries on loss of ac source, and alarms for loss of ac source (field selectable), battery low-voltage, or charger overvoltage.

The battery packs are manufactured by Hawker Energy Products, and the batteries are of starved-electrolyte sealed-lead construction.

Specifications for the battery charger and the battery packs are listed on page 2.



S&C Battery Charger.



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S&C Battery Charger

Manufacturer.....S&C Electric Company
TypeConstant-Voltage Temperature Compensated
Operating Temperature Range -40°C (-40°F) to
+70°C (158°F)
Input Voltage 120 volts, 50/60 Hz
Number of Battery Charging Outputs.....2
Float Charge Voltage13.5 volts at +25°C (77°F)
Low-Voltage Load Disconnect...11.8 volts at +25°C (77°F)
Low-Voltage Alarm-Contact Opening..... 12.1 volts at
+25°C (77°F)
Charger Overvoltage Alarm-Contact Opening. . . 15.5 volts
at +25°C (77°F)
Loss of Ac Source Alarm●
(Field Selectable, Shipped Disabled) 0.0 volts
Maximum Time to Recharge Battery Packs
Upon Return of Ac Source 24 hours
Dc Output Fuse Type 3 AG, 10 A
Ac Input FuseType 3 AG, 3/8 A

Monobloc Battery Packs in Plastic Outer Case

Manufacturer.....Hawker Energy Products
TypeRechargeable, sealed-lead, starved-electrolyte
Part Number0809-0016 (S&C # 9931-267)
Number of Packs Required2
Nominal Voltage (each battery pack)..... 12 volts dc
at +25°C (77°F)
Rated Capacity (10-Hour Rate)..... 5 ampere-hour
at +25°C (77°F)

Operating Temperature Range -40°C (-40°F) to
+40°C (104°F)
Life Expectancy■ 2-6 years
Maximum Recommended Interval
Between Charge6 months
Deep Discharge Limit (12-volt pack) 10.2 volts
Deep Discharge Limit (24-volt pack) 21.6 volts
Maximum Storage Temperature +40°C (104°F)

Operating Time▲ (when disconnected from ac source)

For 1-Watt Radio at -40°C (-40°F) 7 hours
For 1-Watt Radio at +25°C (77°F) 13 hours
For 5-Watt Radio at -40°C (-40°F) 4 hours
For 5-Watt Radio at +25°C (77°F) 9 hours

● To enable loss of ac source alarm, remove cover from battery charger and move jumper in upper left-hand corner from position "W1" to "W2."

■ Dependent on storage conditions, charger settings, temperature, and type of load.

▲ The values shown represent the approximate length of time that S&C Automated Switching Systems will function before the low-voltage load-disconnect circuit in the battery charger operates to prevent deep discharge of the battery packs. These time values are based on continuous operation of the RTU drawing 3 watts, and occasional recharging of the switch-operating mechanism.