Installation

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NOTICE

The latest 6800 Series Automatic Switch Control instruction sheets are posted as PDF files at **sandc.com/en/support/product-literature/**. 6800 Series control software (all revisions) can be downloaded at **sandc.com/en/support/sc-customer-portal/**. If needing assistance, contact **sandc.com/en/support/technical-support/** or call the S&C 24/7 support center at (888) 762-1100.

Qualified Persons

⚠ WARNING

Only qualified persons who are knowledgeable in the installation, operation, and maintenance of overhead and underground electric distribution equipment, along with all associated hazards, may install, operate, and maintain the equipment covered by this publication. A qualified person is someone who is trained and competent in:

- The skills and techniques necessary to distinguish exposed live parts from nonlive parts of electrical equipment
- The skills and techniques necessary to determine the proper approach distances corresponding to the voltages to which the qualified person will be exposed
- The proper use of special precautionary techniques, personal protective equipment, insulated and shielding materials, and insulated tools for working on or near exposed energized parts of electrical equipment

These instructions are intended ONLY for such qualified persons. They are not intended to be a substitute for adequate training and experience in safety procedures for this type of equipment.

Read this Instruction Sheet

NOTICE

Thoroughly and carefully read this instruction sheet and all materials included in the product's instruction handbook before installing or operating the 6800 Series Automatic Switch Control. Familiarize yourself with the Safety Information and Safety Precautions on pages 4 and 5. The latest version of this publication is available online in PDF format at **sandc.com/en/support/product-literature/.**

Retain this Instruction Sheet

This instruction sheet is a permanent part of your 6800 Series Automatic Switch Control. Designate a location where it can be easily retrieved and refered to.

Special Warranty Provisions

The standard warranty contained in S&C's standard conditions of sale, as set forth in Price Sheets 150 and 181, applies to the 6800 Series Automatic Switch Control, except that the first paragraph of the said warranty is replaced by the following:

(1) General: The seller warrants to the immediate purchaser or end user for a period of 10 years from the date of shipment that the equipment delivered will be of the kind and quality specified in the contract description and will be free of defects of workmanship and material. Should any failure to conform to this warranty appear under proper and normal use within 10 years after the date of shipment, the seller agrees, upon prompt notification thereof and confirmation that the equipment has been stored, installed, operated, inspected, and maintained in accordance with the recommendations of the seller and standard industry practice, to correct the nonconformity either by repairing any damaged or defective parts of the equipment or (at the seller's option) by shipment of necessary replacement parts. The seller's warranty does not apply to any equipment that has been disassembled, repaired, or altered by anyone other than the seller. This limited warranty is granted only to the immediate purchaser or, if the equipment is purchased by a third party for installation in third-party equipment, the end user of the equipment. The seller's duty to perform under any warranty may be delayed, at the seller's sole option, until the seller has been paid in full for all goods purchased by the immediate purchaser. No such delay shall extend the warranty period.

Replacement parts provided by the seller or repairs performed by the seller under the warranty for the original equipment will be covered by the above special warranty provision for its duration. Replacement parts purchased separately will be covered by the above special warranty provision.

For equipment/services packages, the seller warrants for a period of one year after commissioning that the 6800 Series Automatic Switch Control will provide automatic fault isolation and system reconfiguration per agreed-upon service levels. The remedy shall be additional system analysis and reconfiguration of the IntelliTeam SG Automatic Restoration System until the desired result is achieved.

Warranty of the 6800 Series Automatic Switch Control is contingent upon the installation, configuration, and use of the control or software in accordance with S&C's applicable instruction sheets.

This warranty does not apply to major components not manufactured by S&C, such as batteries and communication devices. However, S&C will assign to the immediate purchaser or end user all manufacturer's warranties that apply to such major components.

Warranty of equipment/services packages is contingent upon receipt of adequate information on the user's distribution system, sufficiently detailed to prepare a technical analysis. The seller is not liable if an act of nature or parties beyond S&C's control negatively impact performance of equipment/services packages; for example, new construction that impedes radio communication, or changes to the distribution system that impact protection systems, available fault currents, or system-loading characteristics.

Understanding Safety-Alert Messages

Several types of safety-alert messages may appear throughout this instruction sheet and on labels and tags attached to your 6800 Series Automatic Switch Control. Familiarize yourself with these types of messages and the importance of these various signal words:

⚠ DANGER

"DANGER" identifies the most serious and immediate hazards that will result in serious personal injury or death if instructions, including recommended precautions, are not followed.

⚠ WARNING

"WARNING" identifies hazards or unsafe practices that can result in serious personal injury or death if instructions, including recommended precautions, are not followed.

⚠ CAUTION

"CAUTION" identifies hazards or unsafe practices that can result in minor personal injury if instructions, including recommended precautions, are not followed.

NOTICE

"NOTICE" identifies important procedures or requirements that can result in product or property damage if instructions are not followed.

Following Safety Instructions

If you do not understand any portion of this instruction sheet and need assistance, contact the nearest S&C Sales Office or S&C Authorized Distributor. Their telephone numbers are listed on S&C's website **sandc.com**, or call the S&C Global Support and Monitoring Center at 1-888-762-1100.

NOTICE

Read this instruction sheet thoroughly and carefully before installing your 6800 Series Automatic Switch Control.

Replacement Instructions and Labels

If additional copies of this instruction sheet are needed, contact the nearest S&C Sales Office, S&C Authorized Distributor, S&C Headquarters, or S&C Electric Canada Ltd.

It is important that any missing, damaged, or faded labels on the equipment be replaced immediately. Replacement labels are available by contacting the nearest S&C Sales Office, S&C Authorized Distributor, S&C Headquarters, or S&C Electric Canada Ltd.

⚠ DANGER

The 6800 Series Automatic Switch Control line voltage input range is 93 to 276 Vac. Failure to observe the precautions below will result in serious personal injury or death.

Some of these precautions may differ from your company's operating procedures and rules. Where a discrepancy exists, follow your company's operating procedures and rules.

1. **QUALIFIED PERSONS**. Access to the 6800 Series Automatic Switch Control must be restricted only to qualified persons. See the "Qualified Persons" section on page 2.
2. **SAFETY PROCEDURES.** Always follow safe operating procedures and rules.
3. **PERSONAL PROTECTIVE EQUIPMENT.** Always use suitable protective equipment, such as rubber gloves, rubber mats, hard hats, safety glasses, and flash clothing, in accordance with safe operating procedures and rules.
4. **SAFETY LABELS.** Do not remove or obscure any of the "DANGER," "WARNING," "CAUTION," or "NOTICE" labels.
5. **MAINTAINING PROPER CLEARANCE.** Always maintain proper clearance from energized components.

Applicable Software

This instruction sheet is used with SG6801Installer-7.1.x and SG6802-3Installer-7.1.x. The "x" can indicate any number from 0 to 255. Other related software component version information is found on the *Setup>General>Revisions* screen.

For questions regarding the applicability of information in this chapter to future software releases, contact S&C Electric Company.

⚠ WARNING

Serious risk of personal injury or death may result from contact with electric distribution equipment when electrical isolation and grounding procedures are not followed. The equipment described in this document must be operated and maintained by qualified persons who are thoroughly trained and understand any hazards that may be involved. This document is written only for such qualified persons and is not a substitute for adequate training and experience in safety procedures for accessing high-voltage equipment.

⚠ WARNING

These instructions do not replace the need for utility operation standards. Any conflict between the information in this document and utility practices should be reviewed by appropriate utility personnel and a decision made as to the correct procedures to follow.

The 6800 Series Automatic Switch Control is connected to switchgear operating at primary voltage levels. High voltage may be present in the wiring to the switch control or the switch control itself during certain failures of the switchgear wiring or grounding system, or due to a failure of the switch itself. For this reason, access to the switch control should be treated with the same safety precautions that would be applied when accessing other high-voltage lines and equipment. Follow all locally approved safety procedures when working on or around this switch control.

Before attempting to access an existing switch installation, check carefully for visible or audible signs of electrical or physical malfunction (do this before touching or operating the switch control or any other part of the installation). These warning signs include such things as smoke, fire, open fuses, crackling noises, loud buzzing, etc. If a malfunction is suspected, treat all components of the installation, including the switch control and associated mounting hardware, as if they were elevated to primary (high) voltage.

Whenever manually reconfiguring the circuit (for example, during repairs), follow your company's operating procedures to disable automatic operation of the IntelliTeam SG system. This prevents any unexpected operation of a team member.

The IntelliTeam SG system can be disabled by pressing the Automatic Restoration CHANGE faceplate button to select the **Prohibited** state on the faceplate of any active 6800 Series team member of the team to be disabled.

Planning Your IntelliTeam SG System

The IntelliTeam SG system lets teams of controls work together to isolate faults and restore service. Whether a team consists of a few switches on a single feeder or a complex configuration with multiple alternate sources, S&C recommends mapping out the team(s) and gathering all necessary information before installing hardware in the field.

When configuring a switch control and team for normal operation, carry out a series of steps, which are shown in the flowcharts.

The values entered on each setup screen depend on the electrical distribution system and details specific to each individual switch.

Suggested Team Setup Procedure

Figures 1, 2, and 3 show the normal order for setting up an IntelliTeam II/SG system, which includes this switch control.

NOTICE

The IntelliTeam SG Automatic Restoration System requires each device used in the system to have a registered designer slot. S&C IntelliTeam® Designer software must be used to configure the system and push the Netlist to all IntelliTeam SG system controls. The IntelliTeam SG system cannot be configured by making entries on the IntelliTeam SG system configuration screens. See S&C Instruction Sheet 1044-570, "IntelliTeam® Designer: *User's Guide*."

NOTICE

These flowcharts assume the team consists entirely of S&C 6800 Series Switch Controls. If a team includes other types of controls or IntelliRupter® PulseCloser® Fault Interrupters, some of the steps may be slightly different.

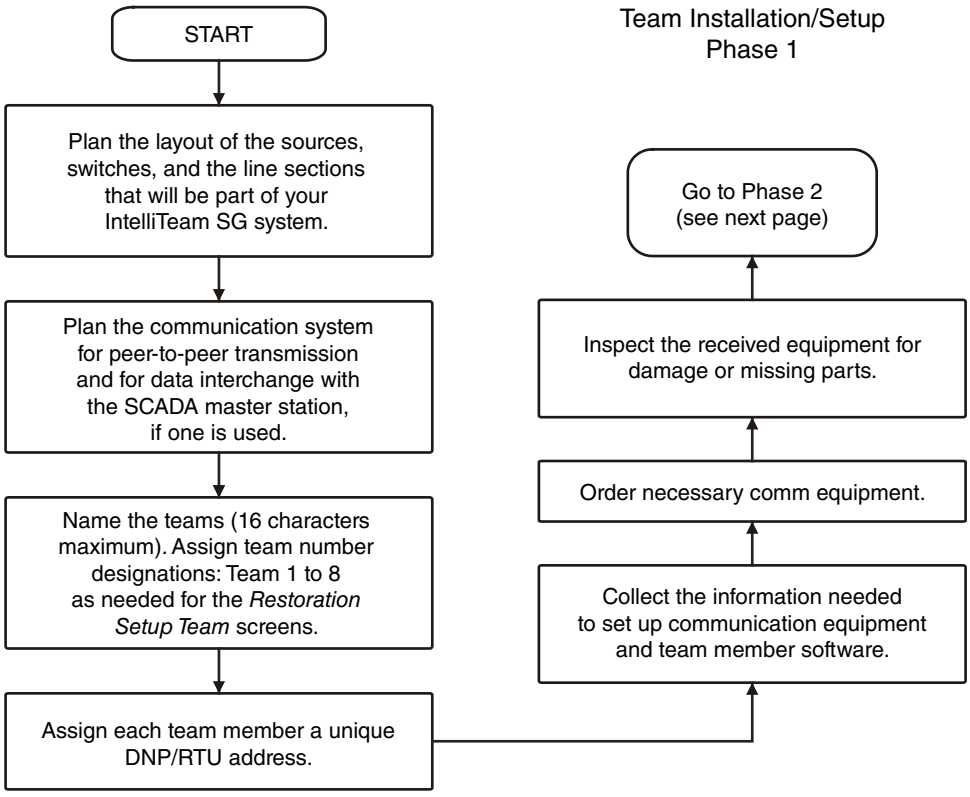


Figure 1. Suggested Team Setup—Phase 1.

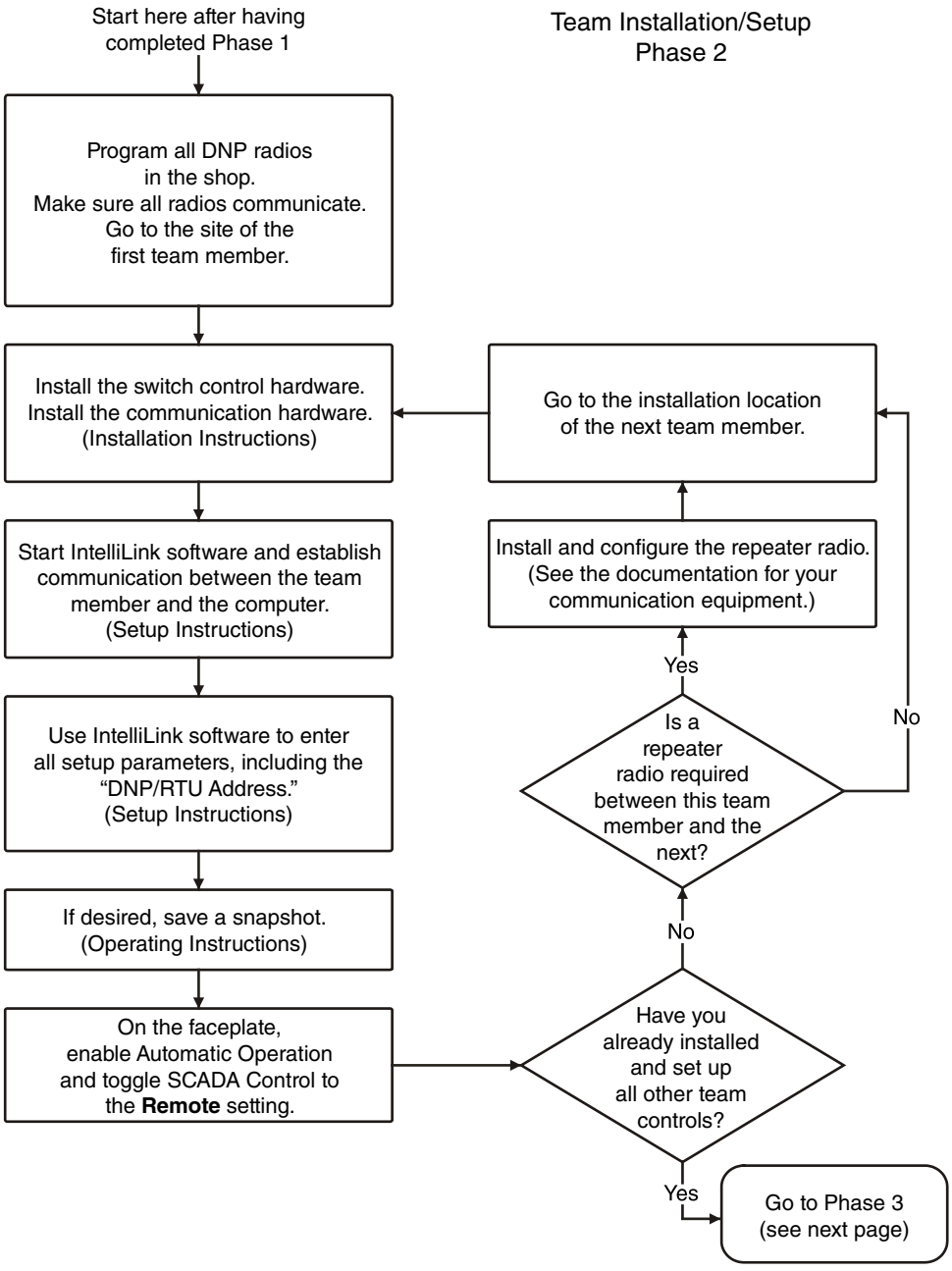


Figure 2. Suggested Team Setup—Phase 2.

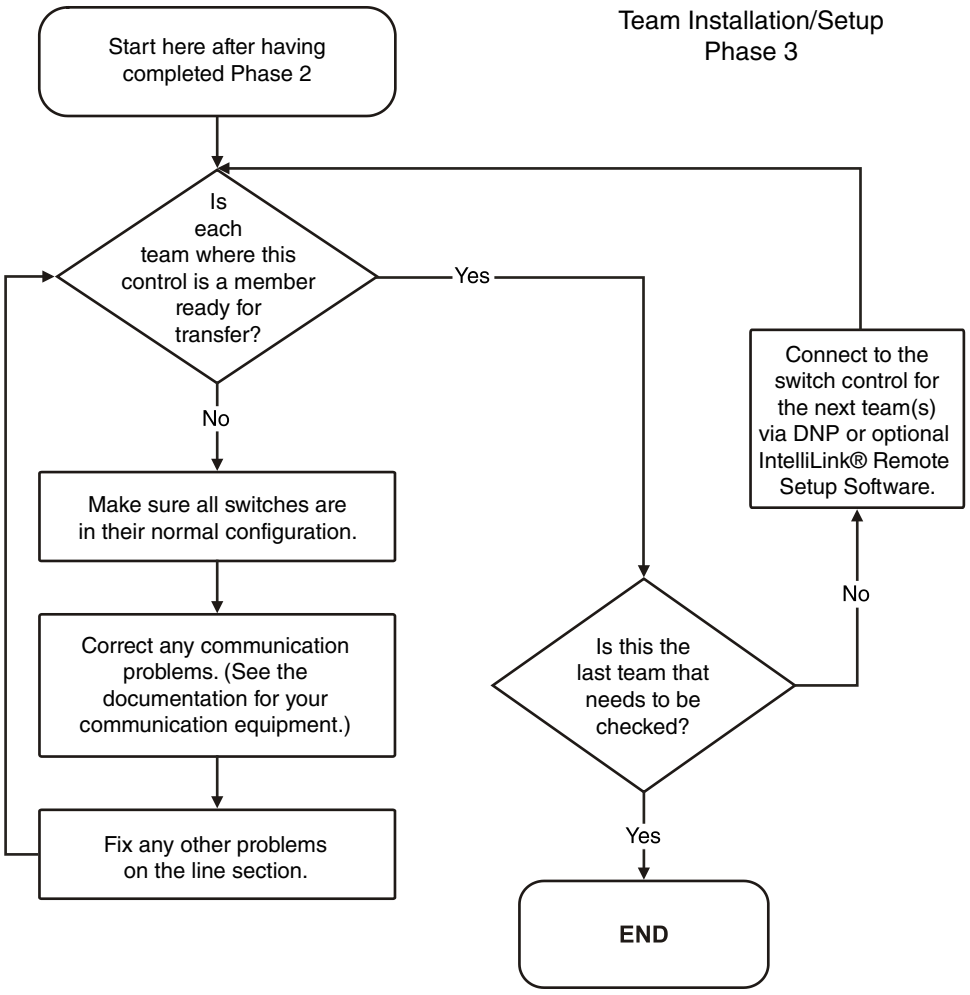


Figure 3. Suggested Team Setup—Phase 3.

IntelliTeam SG System Setup

S&C IntelliTeam Designer software can be used to automatically create an IntelliTeam SG system and propagate configuration information to the team controls. See Instruction Sheet 1044-570, IntelliTeam® Designer: *User's Guide*," for more information.

If you need to manually configure an IntelliTeam SG system, follow these instructions:

STEP 1. Create a layout of the source(s), switches, and line segments that will include teams. You can use a system map or similar diagram showing source and switch locations.

STEP 2. Plan your communication system. For more information, see the manufacturer's documentation for the communication system.

STEP 3. Identify and name the team(s). Form teams by including all automated switches that border each line segment. Choose a team name up to 16 characters. Also, assign team designations for "Team 1" to Team 8," as needed, for the *Setup>Restoration>IntelliTeam SG>Team X* screens. Teams that share a team member must have different designations.

STEP 4. Assign each team member a DNP/RTU address. Each team member requires a unique DNP/RTU address.

Enter this information on the *Setup>Restoration>IntelliTeam SG>Team Summary* screen.

STEP 5. Determine the switch/position number for each team member. Each team member is associated with a switch/position number; for example, "Sw1" for a single overhead switch. Pad-mounted switchgear may have more than two switches, and two switches can constitute a team. For example, Team 1 could include switches 1 and 2, and Team 2 could include switches 2 and 3 in the same pad-mounted gear.

Enter this information on the *Setup>Restoration>IntelliTeam SG>Team X* screen.

STEP 6. Note the **Normally Open/Closed** state for each team member.

Enter this information on the *Setup>Restoration>IntelliTeam SG>Team X* screen.

STEP 7. Determine the normal functionality for each team member. Every switch should have its sensors facing the normal source of the team.

There are six types of functionality for team members:

Functionality	Description
Closed Switches	
Source/Sub	Use this value when the normally closed source switch is the first team member after the source/substation or is an IntelliNode™ Interface Module at the source breaker relay.
Source	Use this value for one closed switch in the team through which the line segment receives power when the circuit is in its normal configuration.
Load/Tie	A team may have zero, one, or multiple closed switches through which loads on other line segments receive power. Use this value when the switch, when closed, could be used to restore power to the line segment indirectly from an alternate source.
Load	A team may have zero, one, or multiple closed switches through which loads on other line segments receive power. Use this value when the switch would not be involved when restoring power to the line segment because the other line segments have no alternate sources.
Open Switches	
Tie/Sub	Use this value when the tie switch is the first team member after the substation/source.
Tie	Use this value for zero, one, or multiple open switches in the team that restore power to the line segment directly from an alternate source when closed.

Enter this information on the *Setup>Restoration>IntelliTeam SG>Team X* screen.

STEP 8. Determine the Return-to-Normal configuration for each team.

If desired, the team members can return the circuit to its normal configuration, either automatically once a stable thee-phase voltage has been restored to the faulted line segment, or on command. For teams with one or more tie switches, you can choose **Open Transition** mode (the tie switch(es) open before the other team members return the circuit to its normal configuration) or **Closed Transition** mode (the team members close all of the switches and then the tie switch(es) open). The **Return-to-Normal** process starts at the line segments closest to the normal source, and then works outward.

You will enter this information on the *Setup>Restoration>IntelliTeam SG> Team X* screen.

STEP 9. Configure the value for the **RTN Time** setpoint.

Power must be restored to the faulted line segment for this amount of time (in minutes) before the **Return-to-Normal** process will start. Enter this information on the *Setup>Restoration>IntelliTeam SG>Team X* screen.

STEP 10. Configure the **Maximum Capacity** setpoint for each team member.

The maximum capacity is the amount of load on the most limited line section (because of conductor size, switch rating, etc.) served through a team member's location from either direction. Each member continuously subtracts its present load from its maximum capacity to determine its local capacity for transfer. The smallest local capacity for transfer encountered in a particular restoration path determines the maximum load that the involved teams can transfer, the available capacity to transfer.

You will enter this information in the **Maximum Capacity** setpoint on the *Setup>Restoration>IntelliTeam SG>Team X* screen.

STEP 11. Configure the alternate source sequence for each team.

Using the normal switch functionalities found in Step 7, set the sequence in which team members will be used to restore the line segment. This is an optional step that can be used to guide the restoration process. Regardless of whether you have configured the alternate source sequence list, restoration will progress in the following order. If the fault is downstream of the team, the coach will: 1) try the normal source switch; 2) use the alternate source sequence (if applicable); 3) try any tie switch(es); and 4) try any load-tie switch(es). If the fault is upstream of the team, the coach will: 1) use the Alternate Source Sequence (if applicable), 2) try any Tie switch(es), 3) try any Load-Tie switch(es); and 4) try the normal source switch. Enter this information in the Alternate Source Sequence setpoints on the *Setup>Restoration>IntelliTeam SG>Team X* screen.

STEP 12. Determine whether any "contracts" are required to avoid overloading a line segment.

A bifurcated circuit acting as an alternate source for teams on both legs of the bifurcation may become overloaded if those teams must act to restore load at close to or exactly the same time. This overload may occur because those teams are not directly related and do not coordinate their reconfiguration activities.

To force the coordination between these unrelated teams, set the **Contract Required** setpoint to the **Yes** setting on the *Setup>Restoration>IntelliTeam SG>Team X* screen for teams that may add load to the alternate circuit during a reconfiguration event. The contract will prevent both teams from simultaneously closing to use the alternate source. When team members encounter a line segment in a restoration path that requires a contract, they will communicate with all subsequent line segments in the direction of the alternate source to ensure the source and line segments will not be overloaded. The first team contract to arrive at the source would be approved if the team load would not overload the circuit. The second arriving contract would be approved only if it would also not cause an overload.

The extra communication transmissions required to transmit the contracts slows down the reconfiguration process. Contracts are described in S&C Instruction Sheet 1045-540, "6800 Series Automatic Switch Controls with IntelliTeam® SG Automatic Restoration System: Operation," in the "Automatic Load Transfer" and "Contracts" sections.

STEP 13. Determine whether the number of line segments restored by a team should be limited.

To limit the number of line segments a team picks up, enable the **Line Segment Limit** setpoint on the Setup>Restoration> IntelliTeam SG>Team X screen. For example, the Add 1 entry inhibits any

other line segments from being restored through a member after it restores its first line segment.

To allow the team to pick up as many line segments as capacity allows, set this value to the **N/A** entry.

Pre-Installation Checklist

Before installing the switch control in the field, carry out the following steps; this is best done in the service center before leaving for the installation site:

STEP 1. Inspect the switch control for visible damage.

On receipt of the control, make sure there is no obvious damage to the switch control enclosure or any of the internal components. Also check any switch interface connectors included with the control. If the battery will not be used immediately, disconnect it, store it in a cool dry place, and recharge it every 6 months or less.

STEP 2. Put a copy of the source, team, and line-segment information/drawing in the door pocket of the control or low voltage cabinet.

For more details, see the "Planning Your IntelliTeam II System" section on page 7.

STEP 3. Locate the items needed in order to install and set up the IntelliTeam software.

The following items are needed to install the software, set up the control, set up the communications equipment (radio, modem, etc.), and enable team operation. These items can also be used to diagnose certain hardware problems that can occur during installation.

PC Computer—Microsoft® Windows® 10, an Intel® Core™ i7 Processor with 8 GB of Ram (recommended), or a Dual-Core™ Processor with 4 GB of Ram (minimum), a wireless card (onboard or USB), an Internet browser, and access to sandc.com. An onboard Ethernet card is required for IntelliTeam® Designer software.

Serial or USB Cable—Connects the computer to the DATA PORT on the control. Use a straight-through cable, not a null-modem cable. The cable must be long enough to connect to an installed 6800 Series Control. The serial connection is RS232 with a DB9-pin connector.

NOTICE

The latest software revisions are posted at **sandc.com/en/support/sc-customer-portal/**.

NOTICE

With firmware later than version 7.3.100, the default passwords for all user accounts, including the Admin account, must be changed before the IntelliLink software can connect to and configure a control. See Instruction Sheet 1045-530, "S&C 6800 Series Automatic Switch Controls: *Setup,*" for more information.

STEP 4. Make sure all required communication equipment (radios, antennas, modems, etc.) are available for this control.

Each team member must be able to communicate with other team members—either by radio or with a modem/cable system. Depending on the location of the other team members, repeater radios to enable communication between this control and the other team members may be needed. For more details, see the manufacturer's documentation for the communications system.

STEP 5. Check the sensor conditioning module jumper(s).

The switch control sensor conditioning module is configured with a delta or wye jumper. If there are three voltage sensors, the sensor conditioning module

uses one jumper. If there are six voltage sensors, such as line side sensors on two switches in pad-mount or Vista switchgear, the sensor conditioning module requires two jumpers.

(a) Locate the installed sensor conditioning module jumper(s) and the alternate jumper(s). See Figure 4.

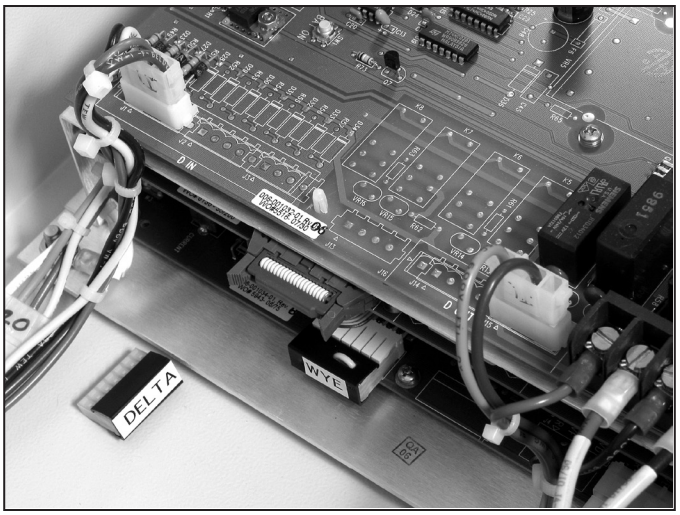
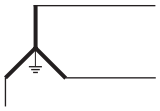


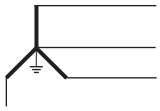
Figure 4. Inside of the switch control enclosure, showing jumper locations (6801 Control shown). The wye jumper is installed; delta is the alternate jumper.

(b) Use the following table to find which jumper is correct for your type of distribution system.

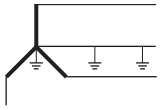
3-Wires & Grounding Type	Use
Uni-grounded wye system	Delta jumper(s)



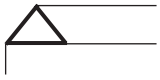
4-Wires & Grounding Type	Use
Uni-grounded wye system (Primary Neutral)	Delta jumper(s)



Multi-grounded wye system	Wye jumper(s)



Delta system	Phase-to-ground connected sensors are not normally used on ungrounded delta systems. Contact S&C for special applications.



NOTICE

For more information regarding safety issues for sensors connected phase to ground, contact the sensor manufacturer.

(c) Check that the correct jumper is in place for your type of distribution system. See Figure 5. Controls are shipped with the wye jumper installed. Make sure the side of the jumper with more wire loops (two loops for wye, three loops for delta) is facing toward the back of the enclosure.

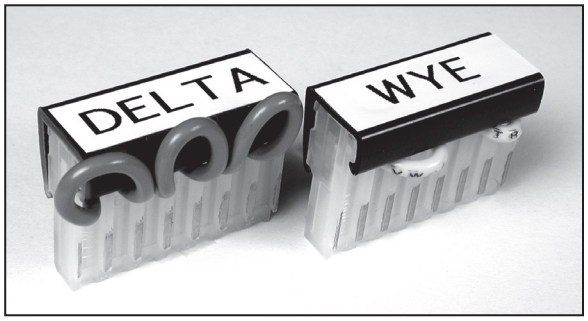


Figure 5. Delta jumper and wye jumper.

(d) If jumpers need to be changed, check the orientation of the installed jumper and then carefully pull it away from the pins. Replace that jumper with the alternate jumper. Put the removed jumper in the spare parts bag on the left side of the enclosure interior.

STEP 6. Check the battery.

A 6800 Series Switch Control is shipped with either a Hawker/Gates Monobloc 24-Vdc or 36-Vdc battery. The battery is terminated with a connector that can be connected only black-to-black and red-to-red.

(a) Check to make sure the battery is not cracked or leaking and that the connectors are not damaged.

(b) Use a voltmeter to check that voltage is at least 20 volts for a 24-Vdc battery, or 35 volts for a 36-Vdc battery. Replace the battery if measured voltage is lower.

STEP 7. For controls connected to Scada-Mate® and Automated Omni-Rupter® Switches, check the FIC cable locking collars.

Check that the collar is present and connected to the enclosure. See Figure 6. This collar will later be locked in place around the FIC (field interface connector) cable connection to provide tamper resistance.

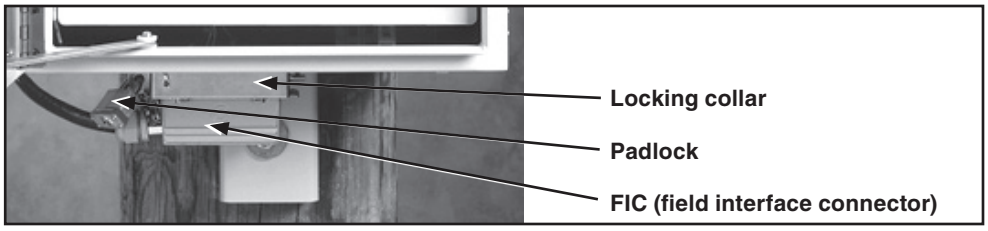


Figure 6. Bottom of switch control enclosure with FIC connector.

STEP 8. For controls connected to a Scada-Mate Switch, consider whether a 16-pin/24-pin cable adapter may be needed.

S&C provides a cable for connecting the switch to the FIC on the switch control. Early Scada-Mate Switch cables used a 16-pin connector. If retrofitting a switch control to an older Scada-Mate Switch, you may need a 16-pin/24-pin cable adapter, available from S&C. This is only necessary for early Scada-Mate Switches.

Sensor Phase Adapter Harness

The standard sensor wiring connections for the 6800 Series switch control are:

Phase A = Pole 1, Phase B = Pole 2, and Phase C = Pole 3.

When this phase scheme does not match the switch installation, sensor phase adapters can be ordered to change the phase/pole assignments. When sensor phase adapters are installed, the sensor calibration ratios must be entered on the *Setup>General>Sensor Cfg* screen. For example, if the C-B-A adapters are used, the calibration ratios for current phase and magnitude, and voltage phase and magnitude must be entered differently for the listed pole. Pole 3 must be entered in the Pole 1 column, Pole 1 ratios must be entered in the Pole 3 column. Pole 2 does not require a change.

Table 1. Phase Assignment for the Sensor Phase Adapters

Phase Arrangement	Pole 1	Pole 2	Pole 3
A-B-C (standard)	Pole 1	Pole 2	Pole 3
A-C-B adapter	Pole 1	Pole 3	Pole 2
B-A-C adapter	Pole 2	Pole 1	Pole 3
B-C-A adapter	Pole 2	Pole 3	Pole 1
C-B-A adapter	Pole 3	Pole 2	Pole 1
C-A-B adapter	Pole 3	Pole 1	Pole 2

The optional harnesses can be ordered for S&C Electric Company:

Table 2. Current Phase Change Harnesses

Phase Arrangement	Catalog Number
C-B-A adapter	007-001351-01
B-A-C adapter	007-001351-02
A-C-B adapter	007-001351-03
B-C-A adapter	007-001351-04
C-A-B adapter	007-001351-05

Table 3. Voltage Phase Change Harnesses

Phase Arrangement	Catalog Number
C-B-A adapter	007-001352-01
B-A-C adapter	007-001352-02
A-C-B adapter	007-001352-03
B-C-A adapter	007-001352-04
C-A-B adapter	007-001352-05

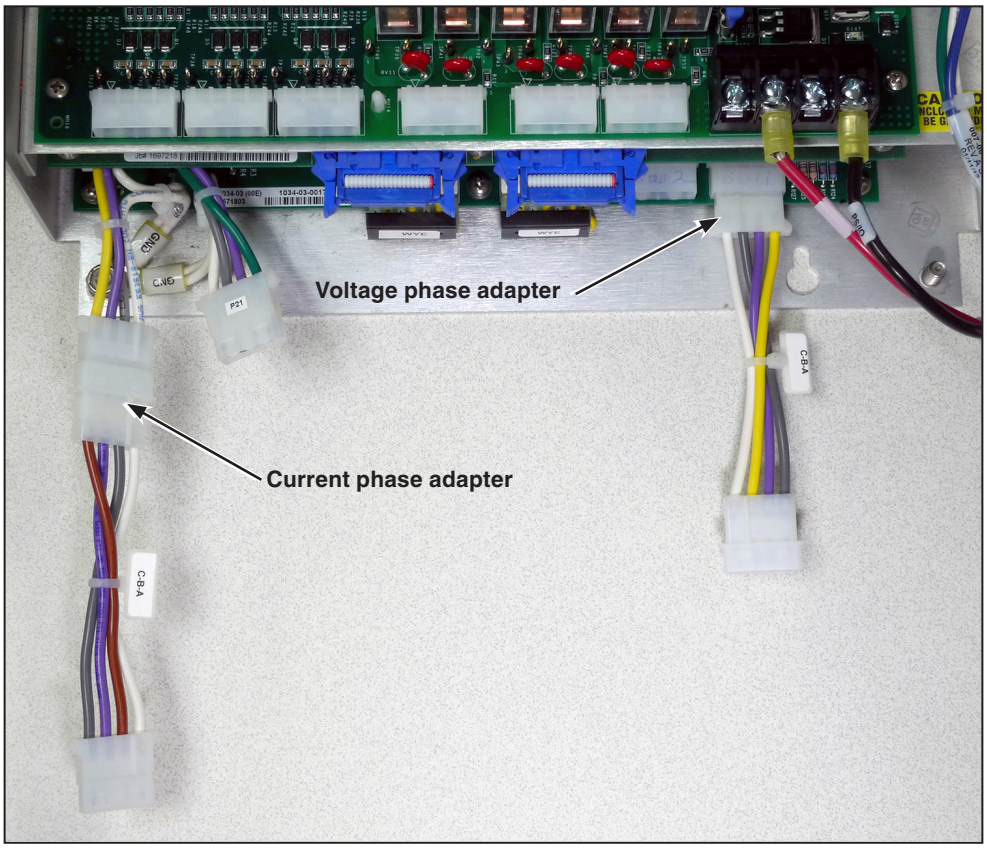


Figure 7. Installed current and voltage phase-adapter harnesses.

The sensor phase change harnesses can be easily installed in an existing 6800 Series control, by following these steps:

⚠ CAUTION

Observe electrostatic precautions when working inside the 6800 Series switch control enclosure because the printed circuit boards contain electrostatic sensivite components.

STEP 1. Remove ac and battery power from the switch control.

STEP 2. If the control is sensor powered, unplug the FIC on the bottom of the control.

STEP 3. If needed, cut the cable tie on the sensor plug to allow addtion of the harness.

STEP 4. Insert the current phase adapter between the current sensor input cable and plug 20. See Figure 7. The plugs cannot be installed incorrectly at this location.

STEP 5. Insert the voltage phase adapter between the voltage sensor input cable and jack J7 on the PCB. See Figure 7. The plugs cannot be installed incorrectly at this location.

STEP 6. If disconnected the FIC, reconnect it.

STEP 7. Restore battery and ac power to the switch control.

GPS Option

The optional GPS board is mounted on the display side of the processor board and covered by the shield on the back of the control-panel door. The GPS antenna connection is located at the top of the right side of the shield, see Figures 8 and 9.

Figure 8. The GPS antenna connection is inside the top port on the hinge side of the processor-board shield.

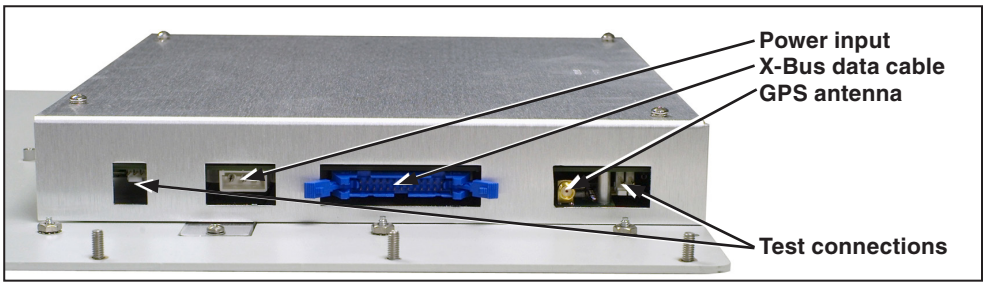


Figure 9. Processor and GPS antenna connector locations.

Wi-Fi Option

In a 6801 control enclosure, the Wi-Fi transceiver is mounted on the comm plate (Figures 10 and 14), but if there is a gateway communication option, the Wi-Fi transceiver is mounted to the enclosure. In pad-mounted gear, the Wi-Fi transceiver is mounted on the Comm Plate. See Figure 11 and Figure 14 on page 20. For a pole-mounted enclosure, the Wi-Fi antenna is mounted on the bottom, and for pad-mounted gear a dual GPS/Wi-Fi antenna is installed on the top of the low-voltage enclosure. See Figure 12 on page 20. The Wi-Fi transceiver communicates to the serial port on the control panel. See Figure 13 on page 20.

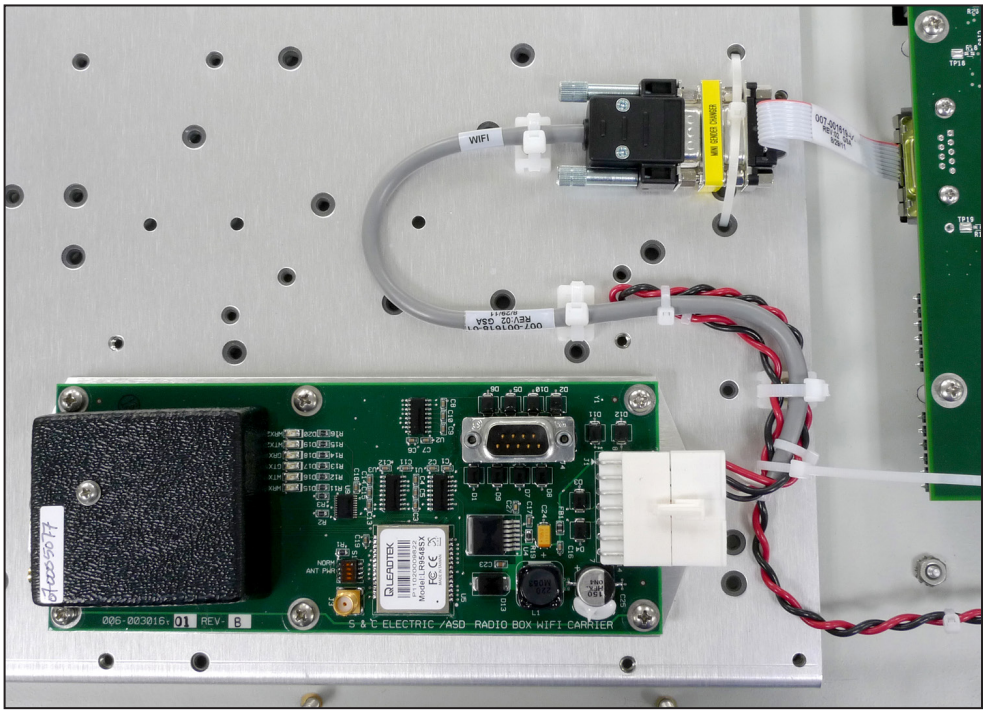


Figure 10. The Wi-Fi transceiver is connected to the same power supply as the processor board and communicates to the front panel serial connector.

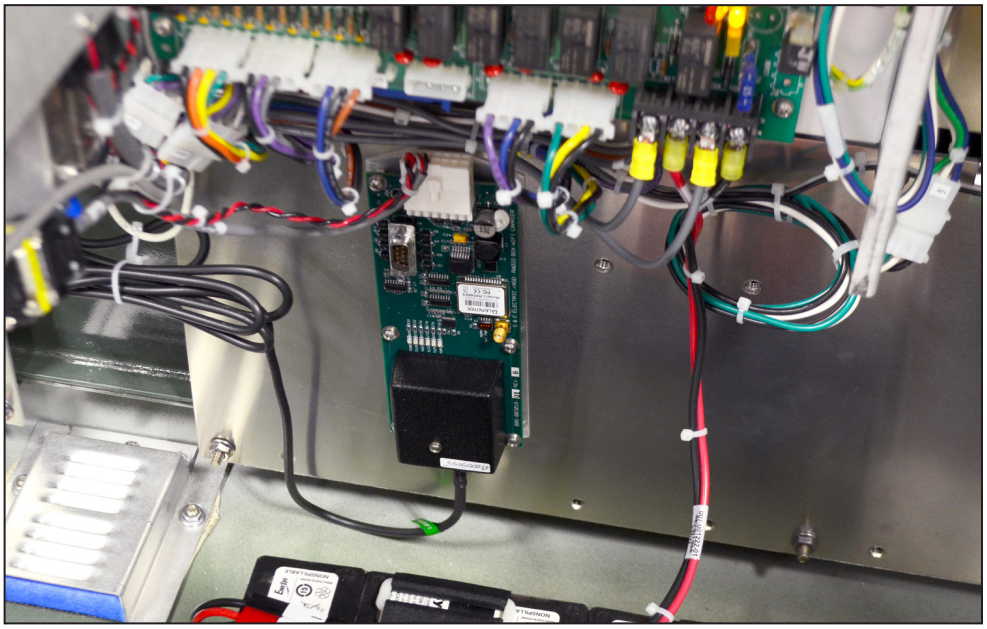


Figure 11. In pad-mounted gear, the Wi-Fi transceiver is mounted to the comm plate in the low-voltage enclosure.

Figure 12. The left antenna is used by the SCADA radio. The dual antenna for both GPS and Wi-Fi is located at the right on this pad-mounted gear enclosure.

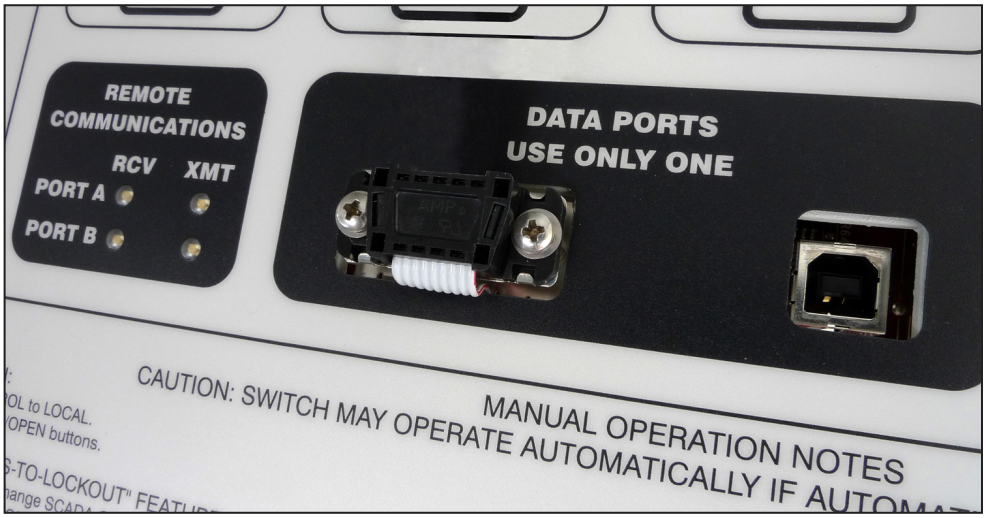


Figure 13. The Wi-Fi transceiver connects to the serial port on the control panel.

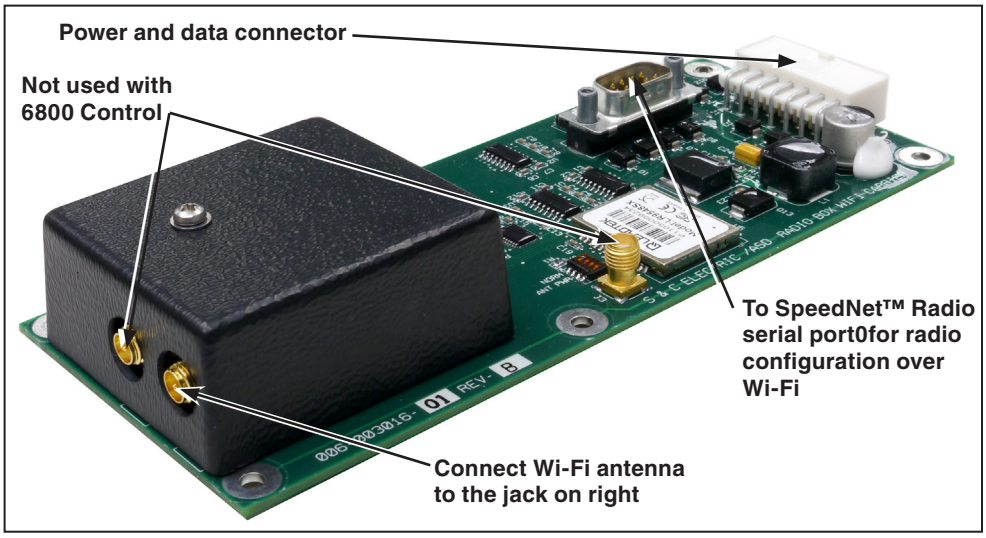


Figure 14. Connections to the Wi-Fi transceiver board; other jacks are not used.

Communication Connections

Communication data connections are at the bottom of the processor board on the back of the control panel door. The connectors shown in Figure 15 are under the shield.

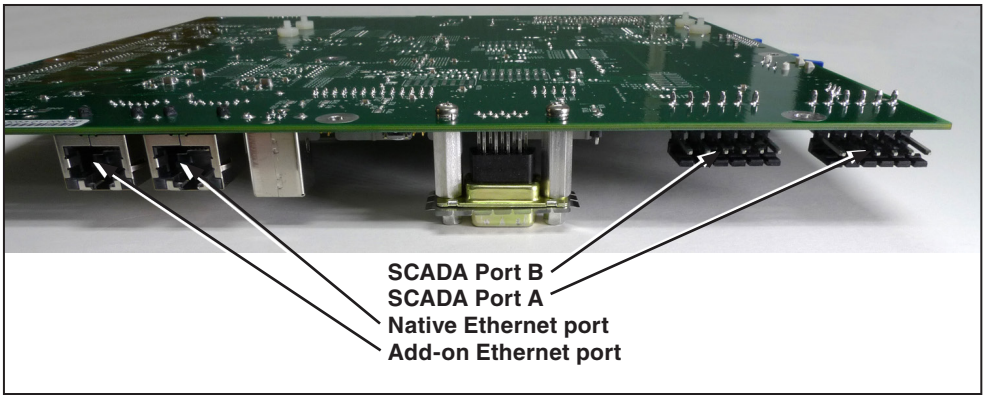


Figure 15. Communication connectors are on the bottom of the processor board.

Optional In-Shop Setup

Install the switch control at the site, and configure the equipment as described below.

The following steps can be completed in the shop or later at the installation site. The steps are summarized here and described in detail in the other IntelliTeam instruction sheets.

STEP 1. Install the IntelliLink Software on the computer.

For details, see the "Install IntelliLink Software" section in S&C Instruction Sheet 1045-530.

STEP 2. If this switch control uses a modem for communication, configure the modem.

For modem configuration instructions, see the manufacturer's documentation or contact S&C.

STEP 3. If this switch control uses a radio, configure the radio.

For radio configuration instructions, see the manufacturer's documentation or contact S&C.

STEP 4. If a repeater radio is needed to link this switch control to the other team members, configure the repeater radio.

For radio configuration instructions, see the manufacturer's documentation or contact S&C.

STEP 5. Set up the control software in this switch control.

Most of the software setup and configuration can be completed in the service center. For an explanation of how to set up the software, see the "Switch Control and Team Setup" section in S&C Instruction Sheet 1045-530.

NOTICE

DO NOT simulate the output of an S&C voltage sensor by applying voltage to the phase voltage inputs (J7) of the 6800 Series Switch Control.

Applying voltage will result in severe damage to the control.

For Scada-Mate and automated Omni-Rupter Switches, and Remote Supervisory PMH/PME Pad-Mounted Gear equipped with an S&C voltage sensor, the voltage input for the 6800 Series switch control is a CURRENT SOURCE. The S&C Voltage Sensor provides up to 200+ mA of current. If current levels over .5 ampere or a voltage source are applied to Input J7, the control voltage sensing and sensor power circuitry will be severely damaged. We recommend not trying to simulate the output of the S&C Voltage Sensor.

For Vista switchgear, the voltage signal amplifier input for the 6800 Series Switch Control is nominally 5.5 Vac with 10 mA current and a range of 0-8 Vac. Applying voltage above this level can severely damage the control voltage sensing circuitry.

S&C can supply specific sensor input information for other switch systems.

If tests must be run, contact S&C Electric Company for guidance.

Installation Steps

Switch control installation consists of several operations. The details of these operations and the order in which they must be carried out depend on the type of switch control and enclosure. The following information is specific to the 6800 Series switch control with IntelliTeam SG system functionality. These steps must be carried out at each switch control installation site.

Install the Enclosure and Connect Wiring

STEP 1. Do one of the following:

If this is a 6802/6803 control that has already been integrated into pad-mounted equipment, and the switch control is powered from the sensors only, skip the remainder of this instruction sheet and go directly to S&C Instruction Sheet 1045-530, "S&C 6800 Series Automatic Switch Control: *Setup*."

For all other switch control installations, continue with the following steps.

STEP 2. Read, and fully understand, the following warnings before beginning installation or operation of this equipment.

⚠ WARNING

These instructions do not replace utility operating standards. Any conflict between the information in this document and utility practices should be reviewed by appropriate utility personnel and a decision made as to the correct procedure to use.

Serious personal injury or death may result from contact with electric distribution equipment when electrical isolation and grounding procedures are not followed. The equipment described in this document must be operated and maintained by qualified persons who are thoroughly trained and understand any hazards that may be involved. This document is written only for such qualified persons and is not a substitute for adequate training and experience in safety procedures for accessing high voltage equipment.

This switch control is connected to switchgear operating at primary voltage levels. High voltage may be present in the wiring to the switch control or the switch control itself during certain failures of the switchgear wiring or grounding system, or due to a failure of the switch itself. For this reason, access to the switch control should be treated with the same safety precautions that would be applied when accessing other high voltage lines and equipment. Follow all locally approved safety procedures when working on or around this switch control.

⚠ WARNING

Do not plug the switch control cable into the switch control until called for in the instructions.

Do not energize the 120-Vac power source entering the switch control enclosure until called for in the instructions.

Before attempting to access an existing installation, check carefully for visible or audible signs of electrical or physical malfunction (do this before touching or operating the switch control or any other part of the installation). These warning signs include such things as smoke, fire, open fuses, crackling noises, loud buzzing, etc. If a malfunction is suspected, treat all components of the installation, including the switch control and associated mounting hardware, as if they were elevated to primary (high) voltage.

The sequence of installation steps outlined in this chapter must be followed to ensure a safe and successful switch control installation.

STEP 3. Configure the circuit or bypass the switch to avoid service interruption during the following steps.

This allows testing the line switch during installation.

STEP 4. Mount the switch control enclosure. Pole-mounted controls, attach the switch control (see Figure 16 and Figure 17 on page 24) to the pole with two ⅝-inch through bolts and flat washers as follows:

(a) Install the top bolt.

(b) Use the lifting hole on the mounting channel and appropriate lifting gear to hoist the switch control into position on the pole.

(c) Hang the switch control on the top bolt.

(d) Vertically align the switch control on the pole and install the bottom bolt.

(e) Tighten the two bolts.

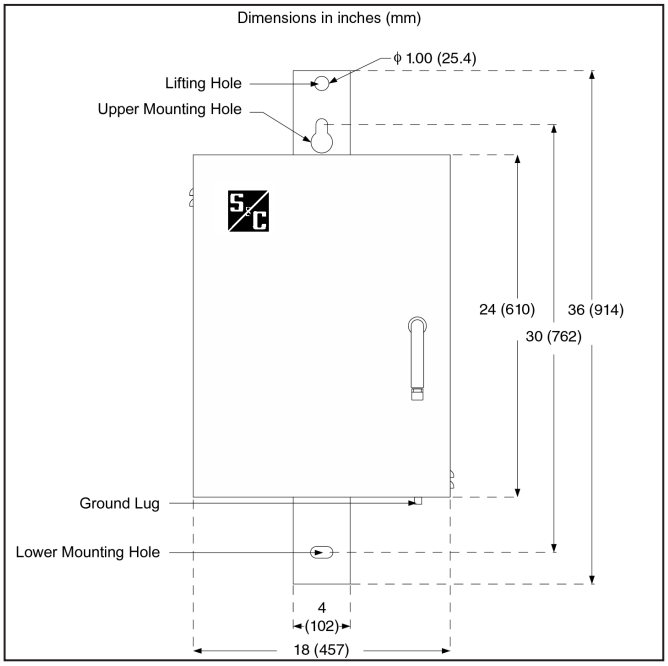


Figure 16. Front view of the switch control enclosure.

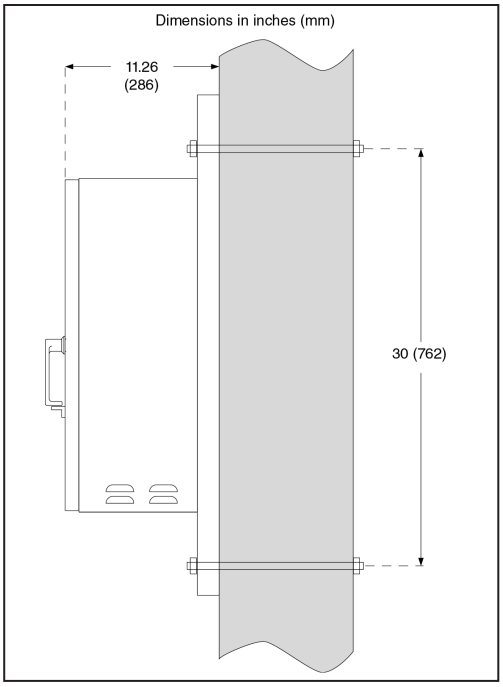


Figure 17. Side view of the switch control enclosure on the pole.

(f) Pad-mounted controls, mount the switch control chassis in the low-voltage compartment as follows:

1. Find the four studs on the wall of the low-voltage compartment.
2. Position the switch control so the four studs align with the four holes in the mounting flanges. See Figure 18.
3. Hang the switch control on the studs.
4. Secure the switch control with lock washers and nuts.

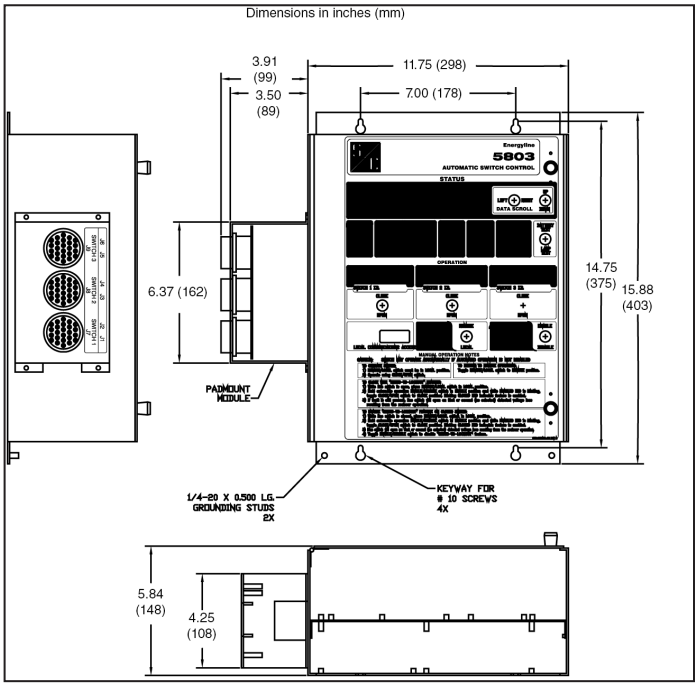


Figure 18. Switch control chassis for mounting in pad-mounted gear.

STEP 5. Ground the enclosure.

Use the ground lug located on the bottom of the enclosure to ground the switch control. See Figure 16 on page 23. The ground lug will accommodate up to #2 wire, copper or aluminum, solid or stranded.

⚠ WARNING

The switch control ground wire (#6 copper minimum) must be connected to the same pole ground that is attached to the switch frame. In addition to the standard reasons for grounding, the switch control surge suppression and power supply systems provide 20 Vac transient filtering that discharges to ground.

Ground impedance must be 25 ohms or less to properly protect the equipment.

All applicable grounding codes and requirements for your service area must be read and understood before installing this device.

STEP 6. Toggle the faceplate SCADA CONTROL switch to the **Local** setting.

The switch control includes equipment for IntelliTeam system communication and may optionally communicate with SCADA. Set the faceplate SCADA CONTROL switch to local **Local** mode to ensure the switch control does not process any remote switching commands until after the control software has been configured.

STEP 7. Remove the ac line fuse, install the ac cable, and connect the ac control power wires to the switch control terminal block. Skip this step when the control is powered only by sensors.

(a) Inside the switch control, remove the 10-ampere ac line fuse near the bottom right corner of the enclosure. See Figure 20 on page 26.

(b) Locate the conduit hole, which accepts a 1-inch conduit adapter, on the right side of the switch control enclosure floor. See Figure 19. Remove the shipping plug from the hole.

(c) Install conduit with a de-energized 120-volt ac line to the switch control enclosure.

(d) Verify neutral and connect it to the ac neutral terminal, and then connect the line to the ac line terminal. See Figure 20 on page 26.

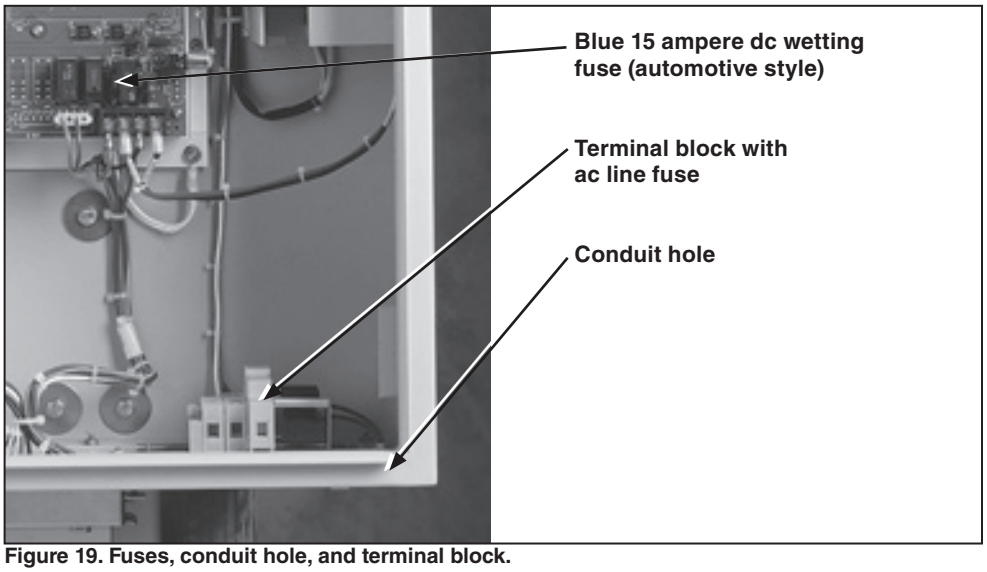


Figure 19. Fuses, conduit hole, and terminal block.

Figure 20. Connection terminal for ac control power.

NOTICE

Leave the 10-ampere ac line fuse out until instructed to replace it later in the installation process. Leave the ac control power de-energized until instructed to turn it on.

Connect the Battery

STEP 1. If necessary, install the battery.

The switch control is normally shipped with a factory-installed battery. If the control needs a new battery or the battery was shipped separately, install it now.

⚠ WARNING

If the enclosure heater was recently on, the battery bracket may be hot. Be careful not to touch a hot bracket.

The battery bracket is near the high-voltage section of the PS/IO circuit board. When installing the battery, make sure the 10-ampere ac line fuse is removed and the ac control power is de-energized. If the control is powered from the sensors, the switch interface cable(s) must also be disconnected.

The battery bracket is located on the right inside the enclosure. See Figure 21.

Figure 21. Battery and bracket on the right, inside the switch control enclosure.

(a) Unscrew the black knobs and wing nuts that attach the battery bracket, and remove the bracket. If replacing the battery, unclip the battery connector wires from the bracket and remove the old battery.

(b) Slide the new battery onto the battery shelf, with the connector facing out and the bottom of the battery toward the left.

(c) Reinstall the bracket, and secure it with the black knobs and wing nuts. Attach the battery cable to the clip on the battery bracket.

STEP 2. Connect the battery.

With the ac line fuse still removed, connect the red and black battery leads to the corresponding leads from the switch control. This will supply dc voltage to the switch control. If the BATTERY CONNECTED LED is off, press the **Battery On** button to turn on the battery circuit. See Figure 22. If the battery is bad, it will disconnect after the manual connection is made. If the control is powered only by the battery, the black **Battery On** button must be pushed to start the control.

For Scada-Mate switches, the switch operator may begin winding the spring when connecting the battery.

STEP 3. Check the ANALOG PWR and BAT ON LEDs on the Power Supply/Control I/O module.

After a 5-10 second delay, the red ANALOG POWER and the yellow BAT ON LEDs should be on. See Figure 22. If they are not on, see S&C Instruction Sheet 1045-550, "6800 Series Automatic Switch Controls: *Troubleshooting*."

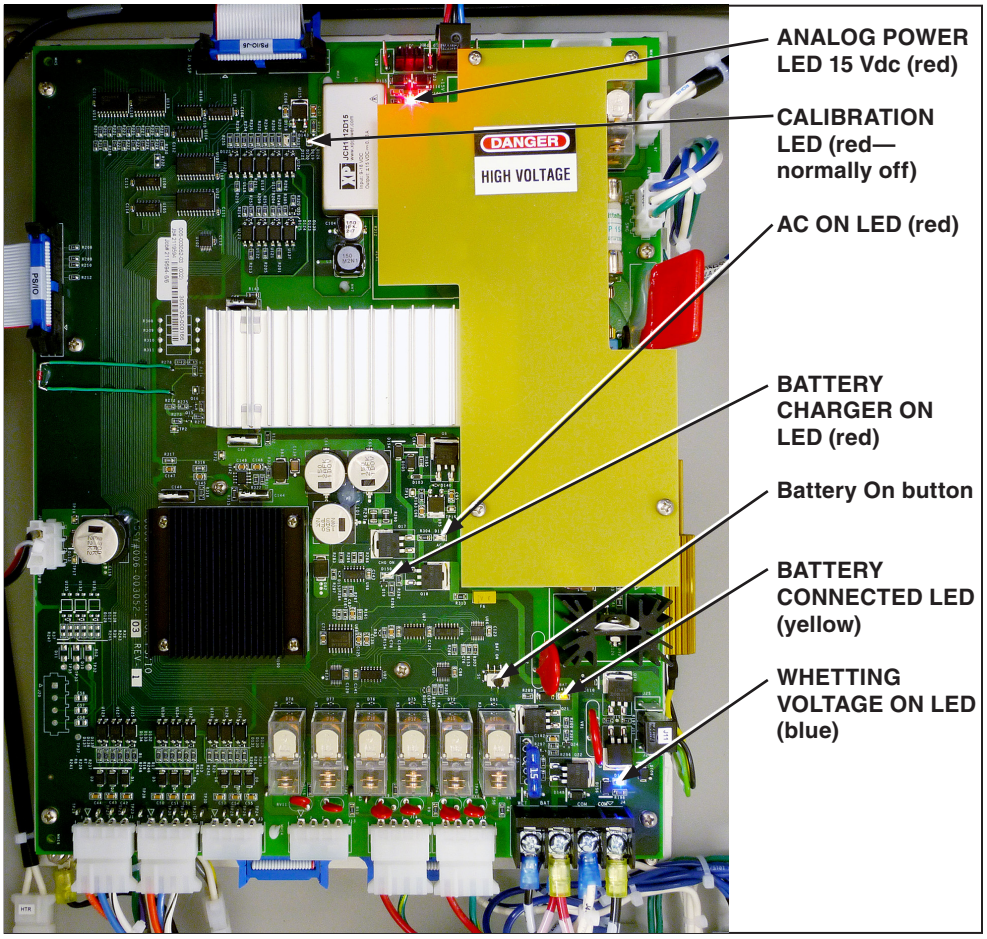


Figure 22. Power supply LEDs and the Battery On button.

Check Input Connections

Follow these steps to theck the input connections:

STEP 1. For pad-mounted controls, check that the voltage and current inputs on the switch interface module are configured correctly. Skip this step if the switch control was factory installed.

Locate the switch interface module on the left side of the chassis. Older pad-mounted controls have the interface module on the bottom of the control chassis.

For installations using six voltage sensors and six current sensors, the voltage inputs should be connected at J1 and J3, and the current inputs at J2 and J4. See Figure 23.

For installations using three voltage sensors and nine current sensors, the voltage input should be connected at J3, and the current inputs at J2, J4, and J6. See Figure 24 on page 29.

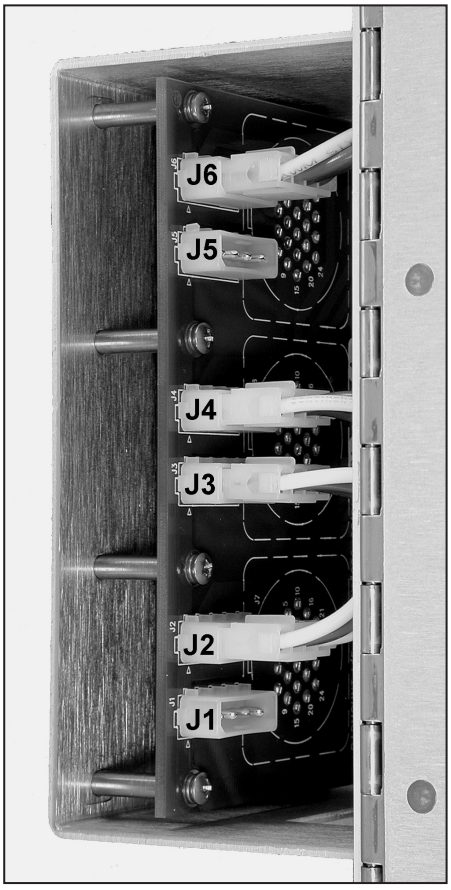


Figure 23. Voltage and current inputs on the switch interface module.

STEP 2. Connect the switch cable(s) to the switch interface connector(s).

For OEM pad-mounted controls, the connectors are labeled. See Figure 24 on page 29.

For controls connected to Scada-Mate Switches, close the locking collar over the FIC connector to lock it in place. See Figure 6 on page 15.

⚠ WARNING

When the control is sensor powered and there is voltage at the line switch sensors, the control will have ac power as soon as the FIC (field interface cable) connector is connected.

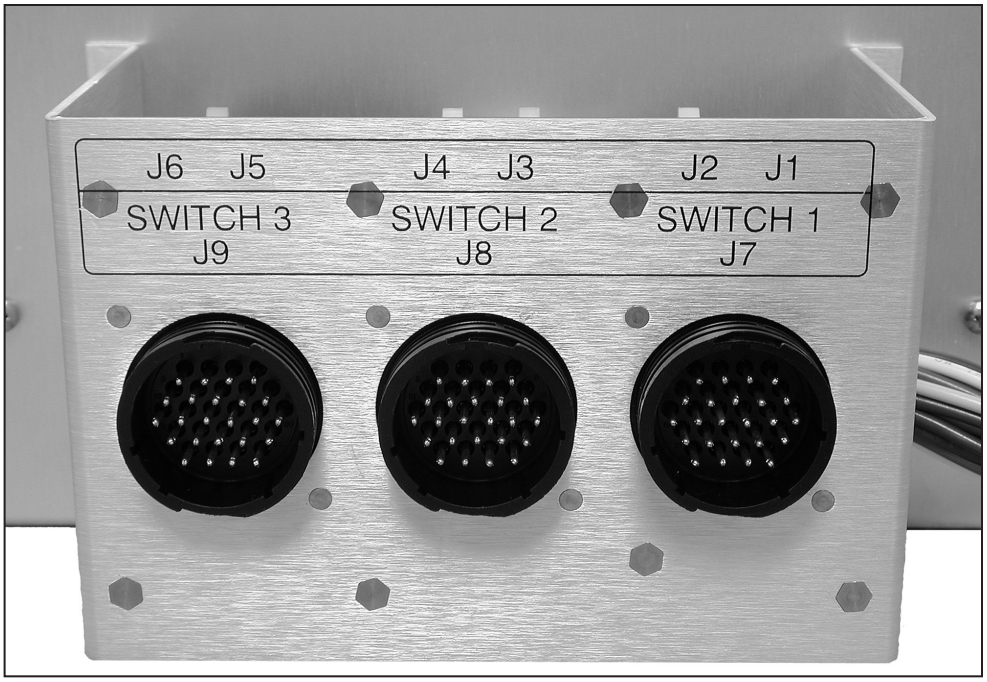


Figure 24. Switch interface connectors on pad-mounted switch controls.

Add Ac Power and Test

STEP 1. For switch controls that use ac control power, energize the ac power.

STEP 2. Check the AC ON and CHG ON LEDs.

When inserting the 10-A ac line fuse, the red AC ON and CHG ON LEDs should illuminate. See Figure 22 on page 27.

If the AC ON and CHG ON LEDs do not illuminate, check the external ac voltage source (if applicable). The ac test points are located on the terminal strip at the ac fuse housing. See Figure 20 on page 26. If ac control power is present, refer to S&C Instruction Sheet 1045-550, "6800 Series Switch Controls: *Troubleshooting*."

STEP 3. Test the faceplate functions.

At this point, most of the faceplate LEDs and switches can be tested. See Figure 25.

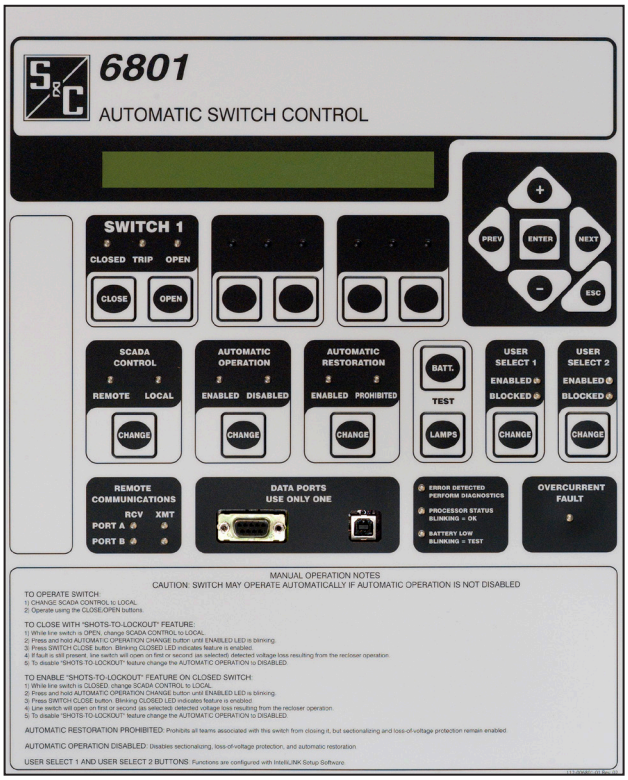


Figure 25. S&C 6801 Faceplate.

To test the LEDs and switches:

(a) Check that the PROCESSOR STATUS LED on the faceplate is blinking. If it is not blinking, see S&C Instruction Sheet 1045-550.

(b) Hold the LAMPS TEST switch and check that all the faceplate LEDs blink.

(c) Press the BATTERY TEST switch. The BATTERY LOW LED will begin blinking when releasing the switch. It will blink for approximately 1 minute. When the LED stops blinking, the LED goes off if the battery system is good. If it does not go off, see S&C Instruction Sheet 1045-550.

(d) Check that the LCD screen is backlit and data are displayed. Then, press the PREV and NEXT, + and – buttons to make sure the display will scroll in all four directions.

(e) Check that the SCADA CONTROL switch on the faceplate is set to **Local** mode. The LOCAL LED should be on.

(f) Press the Automatic Operation CHANGE button and check that the ENABLED or DISABLED LEDs light.

If the **Features Enabled** setpoint on the *Setup>Automatic Operation* screen is set to the **None** state (for either Switch 1 or Switch 2, if applicable), the DISABLED LED remains on, and the ENABLED LED remains off, when pressing the CHANGE switch. See S&C Instruction Sheet 1045-530 for details.

(g) When finished checking faceplate operation, leave the SCADA CONTROL switch in the **Local** mode, and leave the AUTOMATIC OPERATION switch in the **Disabled** mode.

⚠ WARNING

A SCADA control must be set to **Local** mode, and Automatic Operation set to **Disabled** mode to avoid unexpected operation of the switch(es) during installation and setup of the switch control.

STEP 4. Check the connection to the switch(es).

(a) Check that the faceplate OPEN and CLOSED switch LEDs correctly indicate the actual position of the line switch(es).

(b) Check that the faceplate ERROR DETECTED LED is off. This indicates, among other things, that the switch(es) and switch control are connected and that the open/close auxiliary contacts for each line switch are consistent (that is, one contact set is open while the other set is closed).

If the ERROR DETECTED LED is off, continue with Step 6.

If the ERROR DETECTED LED is on:

1. Connect the portable computer to the switch control and start the IntelliLink Setup Software. See S&C Instruction Sheet 1045-530 for details.
2. Read the message(s) on the *Diagnostics>Errors* screen, and take appropriate action to correct the problem. See S&C Instruction Sheet 1045-550 for details.
3. After correcting the error condition, continue with Step 6.

STEP 5. For S&C switches, remove the yellow Sensor Calibration sheet that came with the switch. There will be a sheet for each set of sensors. Put a copy in the door pocket of the control or low-voltage cabinet.

The Sensor Calibration sheet contains the serial number and magnitude/phase correction factors for the sensors. This information must be entered during switch control setup. S&C recommends leaving a copy of this instruction sheet in the door pocket of the control or low-voltage cabinet.

STEP 6. Verify line switch operation.

(a) Make sure that SCADA CONTROL switch is in the **Local** mode and the AUTOMATIC OPERATION switch is in the **Disabled** mode.

⚠ WARNING

Be sure that a normally closed line switch is bypassed so customer outages will not occur while testing switch operation.

Be sure you are allowed to momentarily close a normally open switch, tying two circuits together.

(b) Follow your company's operating procedure, and use the CLOSE/OPEN switch on the switch control faceplate to manually operate the line switch. Verify visually the switch can be both opened and closed. Check the switch control faceplate LEDs correctly indicate when the switch is open and closed. When testing is completed, leave the switch in its normal position (closed or open) for team operation.

(c) If this switch control operates multiple line switches, carry out Step 6b for each switch.

STEP 7. For pad-mounted controls, connect and test the door switch.

(a) Connect the switch control's 3-pin connector to the harness from the door switch of the low-voltage cabinet. This step can be skipped for factory-installed controls.

(b) Press the door switch lever, and make sure that this turns off the faceplate LED displays and the LCD screen. When releasing the lever, the LEDs and LCD screen should turn on. If they do not, see S&C Instruction Sheet 1045-550.

The switch control uses the door switch status to know when to provide power to the faceplate LEDs and the LCD screen. If the low-voltage cabinet does not have a door switch, contact the manufacturer.

Check Communication Equipment

Make sure the communications equipment is powered. For overhead switch controls, the communications equipment is on the back of the faceplate. For 6800 Series Switch ontrols installed in pad-mounted gear, the communication equipment is not mounted inside the 6800 Series chassis.

Put the Control Into Local/Non-Automatic Service

Remove any temporarily installed bypass that was applied at Step 3 on page 23.

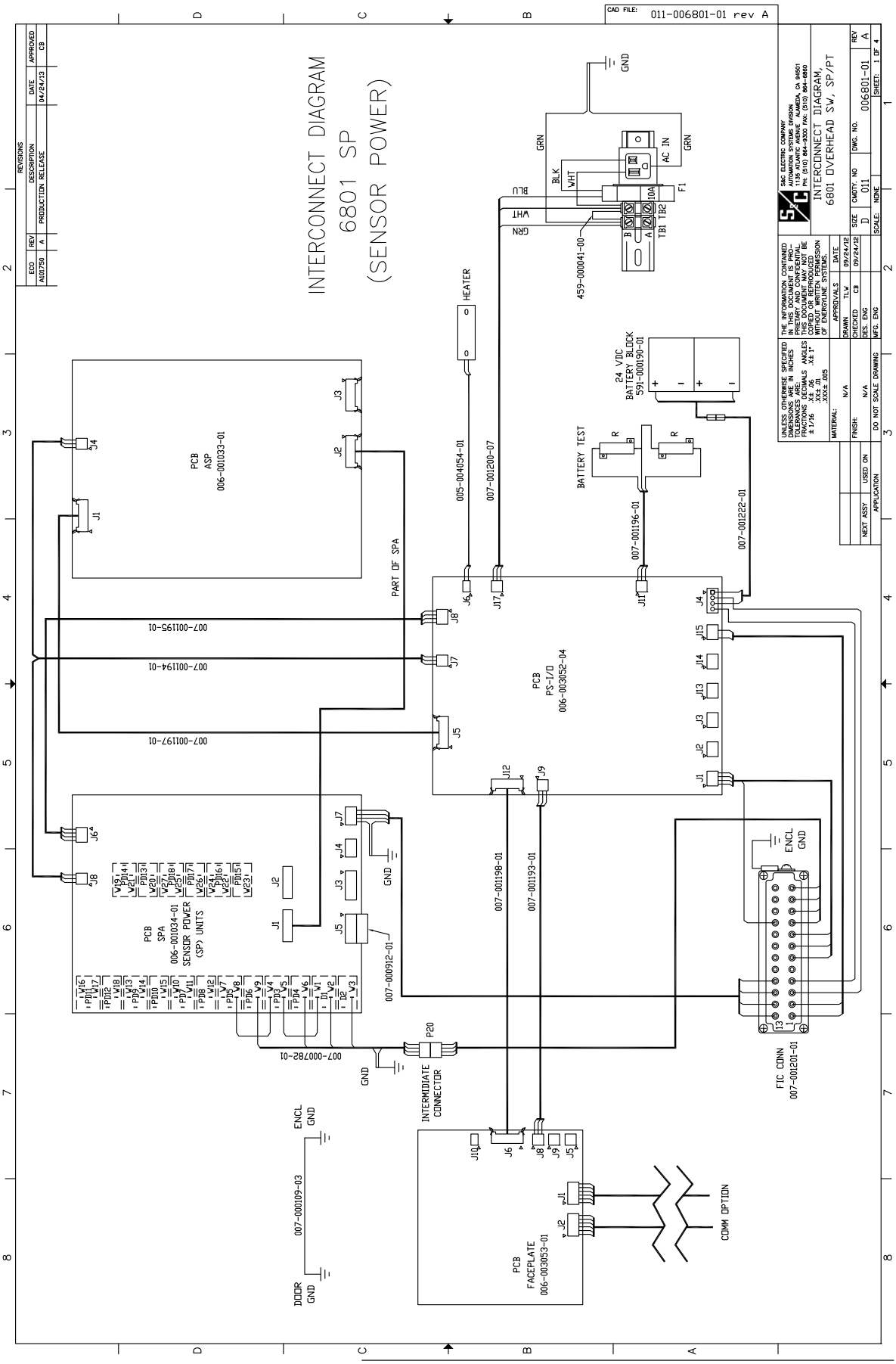
This makes the switch control available for local, non-automatic operation from the faceplate.

⚠ WARNING

To prevent unexpected operation, be sure to leave the switch control in the SCADA Control **Local** mode (not **Remote** mode) and in the Automatic Operation **Disabled** mode (not **Enabled** mode) until configuration of the software in the switch control is complete.

This completes hardware installation and testing. The following pages of this instruction sheet show installation and wiring diagrams.

Go to the S&C Instruction Sheet 1045-530, "S&C 6800 Series Automatic Switch Control: *Setup*."


INTERCONNECT DIAGRAM
6801 SP
(SENSOR POWER)
CAD FILE: 011-006801-01 rev A
REVISIONS
ECO A100750 REV A DESCRIPTION PRODUCTION RELEASE DATE 04/24/13 APPROVED CB
S&C ELECTRIC COMPANY
INTERCONNECTION INFORMATION
1135 ATLANTIC AVENUE ALAMEDA, CA 94501
PH: (510) 864-9300 FAX: (510) 864-6860
INTERCONNECT DIAGRAM,
6801 OVERHEAD SV, SP/PT
SIZE D CAGE CODE 011 DWG. NO. 006801-01 REV A
SCALE: NONE SHEET: 1 OF 4
THE INFORMATION CONTAINED HEREIN IS CONSIDERED PROPRIETARY AND CONFIDENTIAL. THIS DOCUMENT MAY NOT BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION OF ENERGYLINE SYSTEMS.
APPROVALS DATE
DRAWN TLV 09/24/12
CHECKED CB 09/24/12
DES. ENG
MFG. ENG
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± 1/16 .XX± .06 ± 1° .XXX± .01 .XXX± .005
MATERIAL: N/A
FINISH: N/A
DO NOT SCALE DRAWING
NEXT ASSY USED ON APPLICATION
PCB ASP 006-001033-01
PART OF SPA
PCB SPA 006-001034-01 SENSOR POWER (SP) UNITS
PCB PS-I/O 006-003052-04
PCB FACEPLATE 006-003053-01
HEATER
005-004054-01
007-001200-07
BATTERY TEST
24 VDC BATTERY BLOCK 591-000190-01
007-001196-01
007-001222-01
459-000041-00
TB1 TB2
F1 10A
AC IN
GRN
BLK
WHT
BLU
GRN
WHT
GRN
GND
007-001195-01
007-001194-01
007-001197-01
007-001198-01
007-001193-01
007-000912-01
007-000782-01
P20
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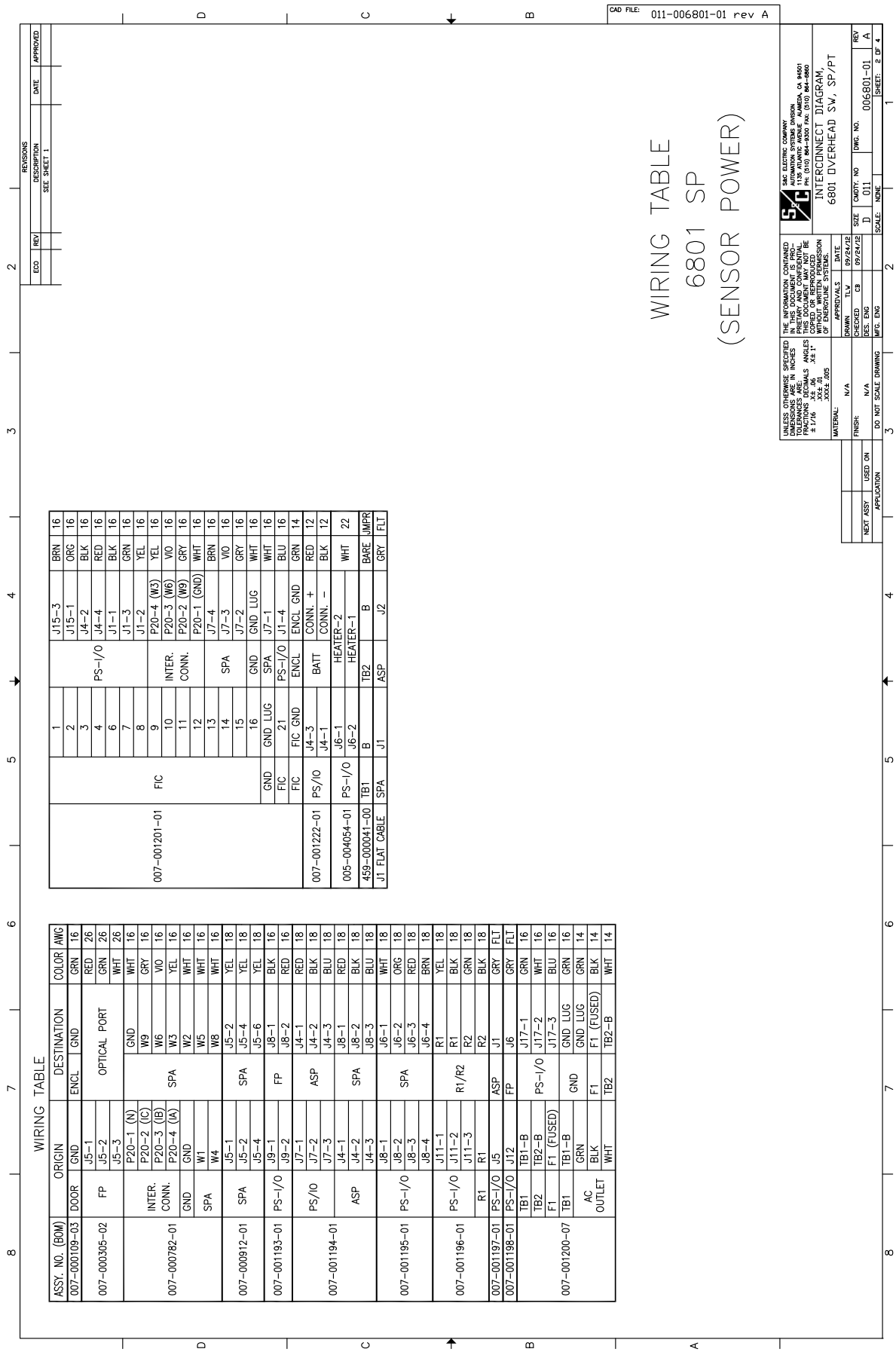
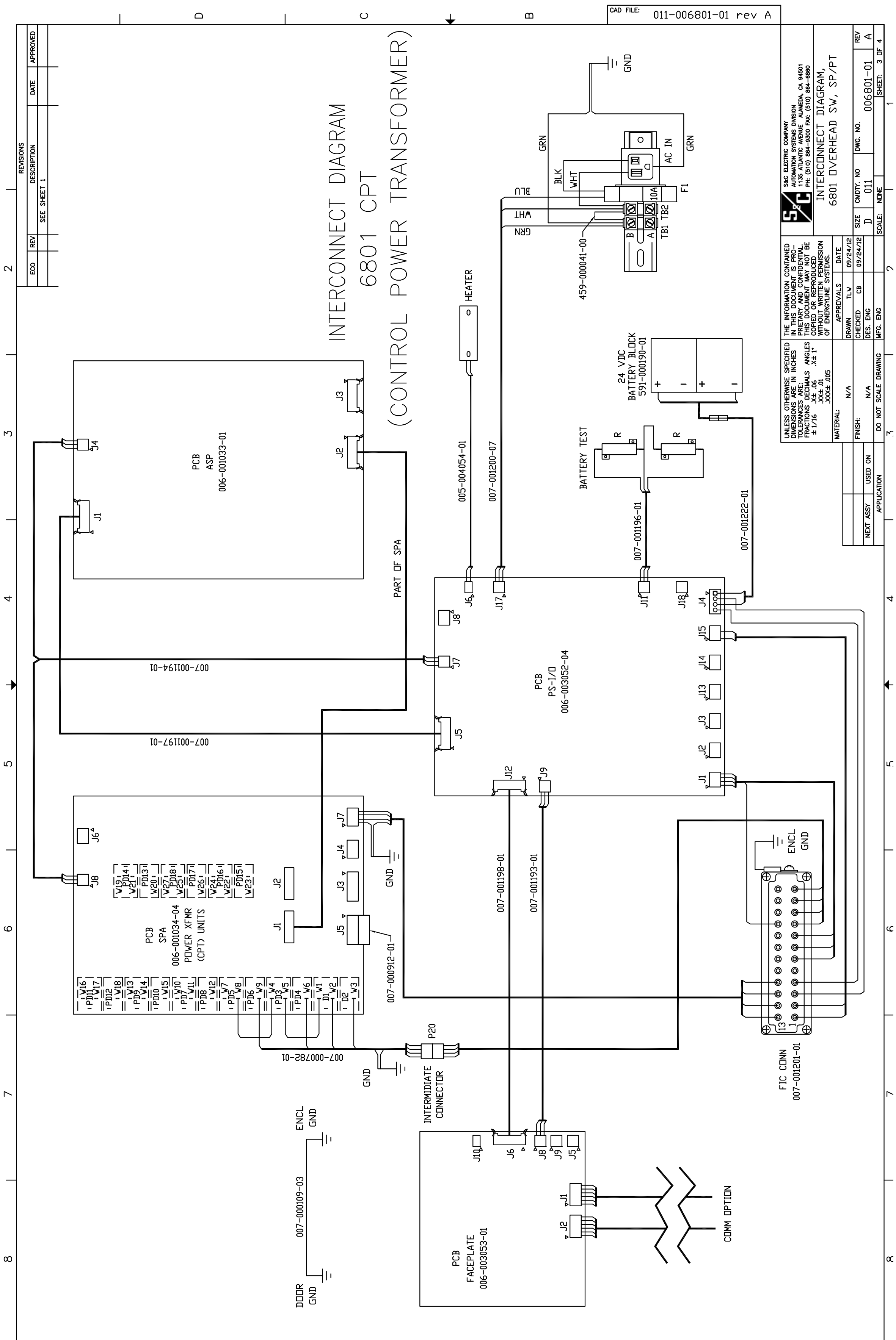
ENCL GND
FIC CONN 007-001201-01
007-000109-03
DOOR GND
COMM OPTION



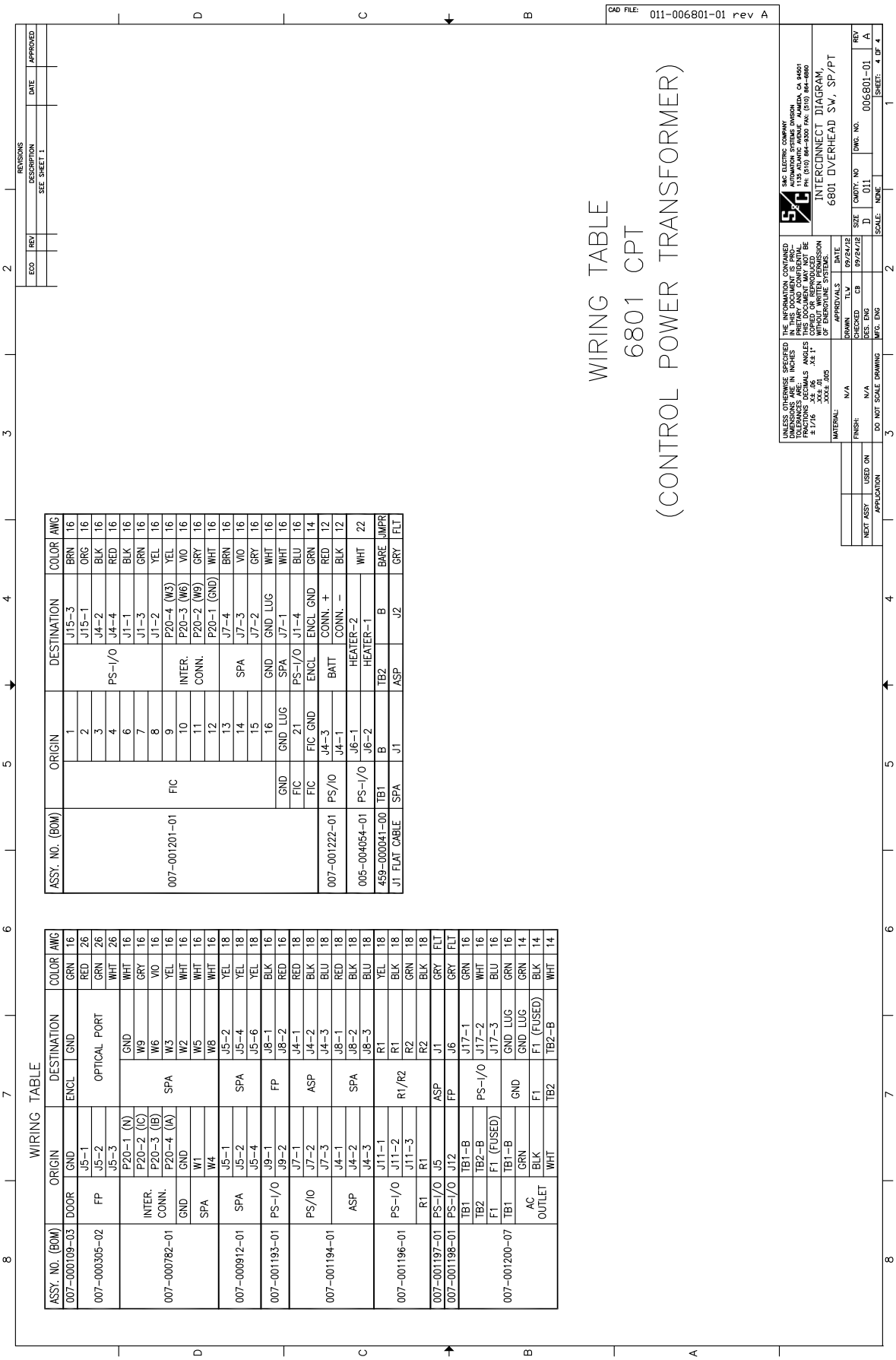
WIRING TABLE

ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-000109-03	DOOR	GND	ENCL	GND	GRN	16
007-000305-02	FP	J5-1	OPTICAL PORT		RED	26
		J5-2			GRN	26
		J5-3			WHT	26
007-000782-01	INTER. CONN.	P20-1 (N)	SPA	GND	WHT	16
		P20-2 (C)		W9	GRY	16
		P20-3 (B)		W6	VIO	16
		P20-4 (A)		W3	YEL	16
	GND	GND		W2	WHT	16
	SPA	W1		W5	WHT	16
		W4		W8	WHT	16
007-000912-01	SPA	J5-1	SPA	J5-2	YEL	18
		J5-2		J5-4	YEL	18
		J5-4		J5-6	YEL	18
007-001193-01	PS-I/O	J9-1	FP	J8-1	BLK	16
		J9-2		J8-2	RED	16
007-001194-01	PS/IO	J7-1	ASP	J4-1	RED	18
		J7-2		J4-2	BLK	18
		J7-3		J4-3	BLU	18
	ASP	J4-1	SPA	J8-1	RED	18
		J4-2		J8-2	BLK	18
		J4-3		J8-3	BLU	18
007-001195-01	PS-I/O	J8-1	SPA	J6-1	WHT	18
		J8-2		J6-2	ORG	18
		J8-3		J6-3	RED	18
		J8-4		J6-4	BRN	18
007-001196-01	PS-I/O	J11-1	R1/R2	R1	YEL	18
		J11-2		R1	BLK	18
		J11-3		R2	GRN	18
	R1	R1		R2	BLK	18
007-001197-01	PS-I/O	J5	ASP	J1	GRY	FLT
007-001198-01	PS-I/O	J12	FP	J6	GRY	FLT
007-001200-07	TB1	TB1-B	PS-I/O	J17-1	GRN	16
	TB2	TB2-B		J17-2	WHT	16
	F1	F1 (FUSED)		J17-3	BLU	16
	TB1	TB1-B	GND	GND LUG	GRN	16
	AC OUTLET	GRN		GND LUG	GRN	14
		BLK	F1	F1 (FUSED)	BLK	14
		WHT	TB2	TB2-B	WHT	14

007-001201-01	FIC	1	PS-I/O	J15-3	BRN	16
		2		J15-1	ORG	16
		3		J4-2	BLK	16
		4		J4-4	RED	16
		6		J1-1	BLK	16
		7		J1-3	GRN	16
		8		J1-2	YEL	16
		9	INTER. CONN.	P20-4 (W3)	YEL	16
		10		P20-3 (W6)	VIO	16
		11		P20-2 (W9)	GRY	16
		12		P20-1 (GND)	WHT	16
		13	SPA	J7-4	BRN	16
		14		J7-3	VIO	16
		15		J7-2	GRY	16
		16	GND	GND LUG	WHT	16
	GND	GND LUG	SPA	J7-1	WHT	16
	FIC	21	PS-I/O	J1-4	BLU	16
	FIC	FIC GND	ENCL	ENCL GND	GRN	14
007-001222-01	PS/IO	J4-3	BATT	CONN. +	RED	12
		J4-1		CONN. –	BLK	12
005-004054-01	PS-I/O	J6-1	HEATER-2		WHT	22
		J6-2	HEATER-1			
459-000041-00	TB1	B	TB2	B	BARE	JMPR
J1 FLAT CABLE	SPA	J1	ASP	J2	GRY	FLT



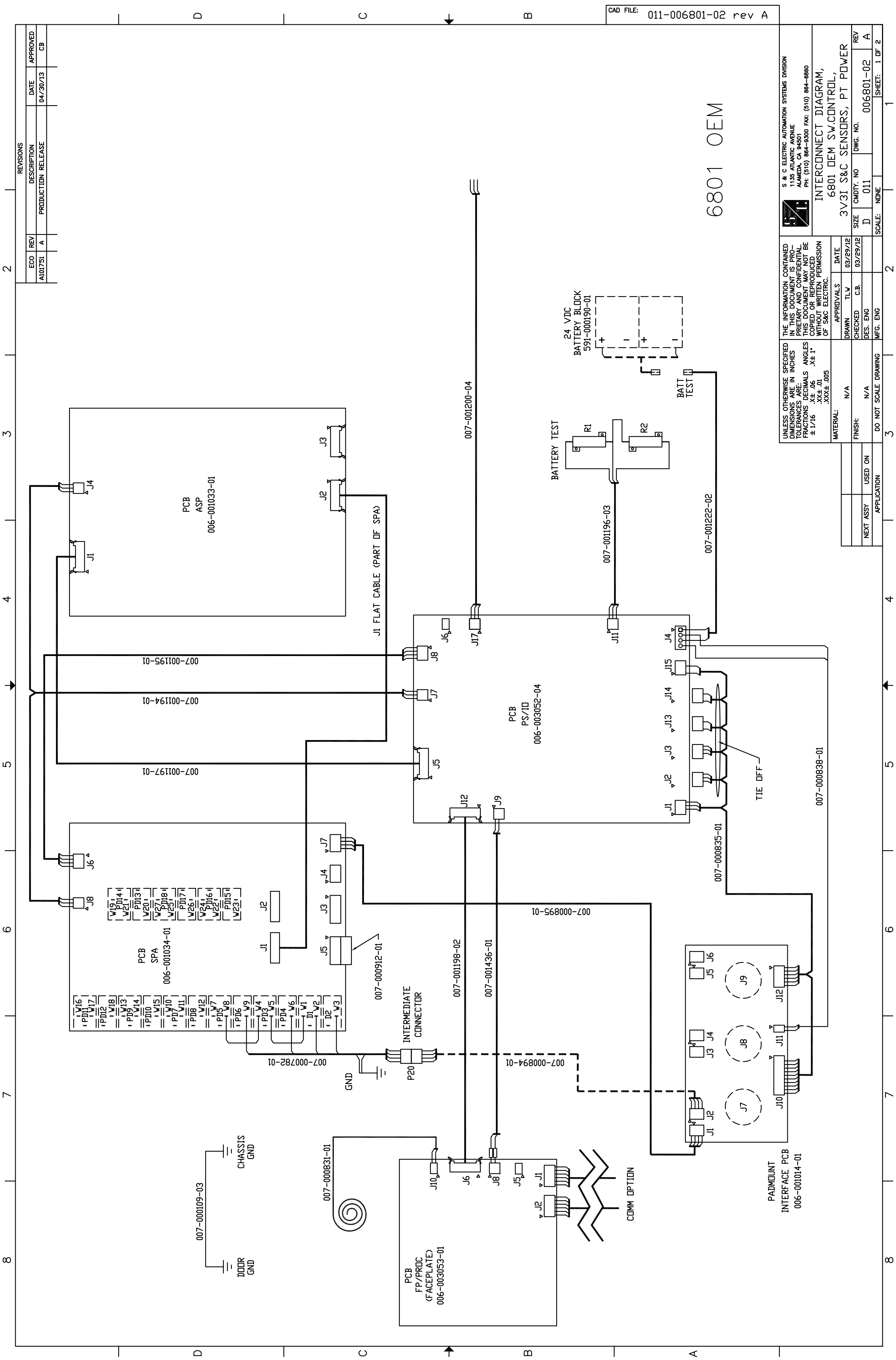
INTERCONNECT DIAGRAM
6801 CPT
(CONTROL POWER TRANSFORMER)
CAD FILE: 011-006801-01 rev A
S&C ELECTRIC COMPANY
INTERCONNECT DIAGRAM,
6801 OVERHEAD SW, SP/PT
006801-01
PCB
ASP
006-001033-01
PCB
PS-I/O
006-003052-04
PCB
SPA
006-001034-04
POWER XFMR
(CPT) UNITS
PCB
FACEPLATE
006-003053-01
PART OF SPA
HEATER
005-004054-01
007-001200-07
BATTERY TEST
007-001196-01
24 VDC
BATTERY BLOCK
591-000190-01
007-001222-01
459-000041-00
AC IN
F1
GND
007-001194-01
007-001197-01
007-001198-01
007-001193-01
007-000912-01
007-000782-01
P20
INTERMEDIATE
CONNECTOR
ENCL
GND
DOOR
GND
007-000109-03
FIC CONN
007-001201-01
COMM OPTION

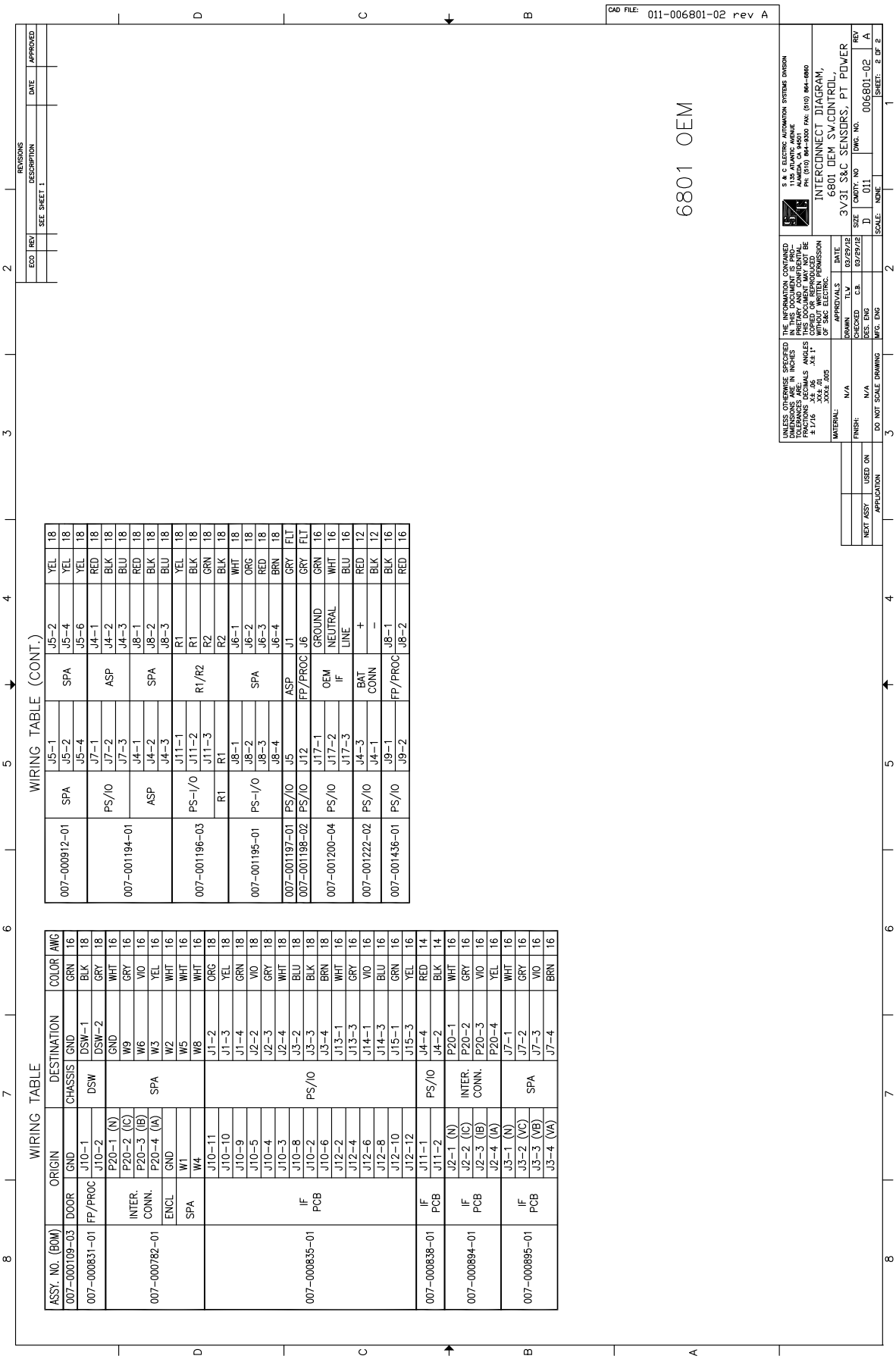


WIRING TABLE

ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-000109-03	DOOR	GND	ENCL	GND	GRN	16
007-000305-02	FP	J5-1	OPTICAL PORT		RED	26
		J5-2			GRN	26
		J5-3			WHT	26
007-000782-01	INTER. CONN.	P20-1 (N)	SPA	GND	WHT	16
		P20-2 (IC)		W9	GRY	16
		P20-3 (IB)		W6	VIO	16
		P20-4 (IA)		W3	YEL	16
	GND	GND		W2	WHT	16
	SPA	W1		W5	WHT	16
		W4		W8	WHT	16
007-000912-01	SPA	J5-1	SPA	J5-2	YEL	18
		J5-2		J5-4	YEL	18
		J5-4		J5-6	YEL	18
007-001193-01	PS-I/O	J9-1	FP	J8-1	BLK	16
		J9-2		J8-2	RED	16
007-001194-01	PS/IO	J7-1	ASP	J4-1	RED	18
		J7-2		J4-2	BLK	18
		J7-3		J4-3	BLU	18
	ASP	J4-1	SPA	J8-1	RED	18
		J4-2		J8-2	BLK	18
		J4-3		J8-3	BLU	18
007-001196-01	PS-I/O	J11-1	R1/R2	R1	YEL	18
		J11-2		R1	BLK	18
		J11-3		R2	GRN	18
	R1	R1		R2	BLK	18
007-001197-01	PS-I/O	J5	ASP	J1	GRY	FLT
007-001198-01	PS-I/O	J12	FP	J6	GRY	FLT
007-001200-07	TB1	TB1-B	PS-I/O	J17-1	GRN	16
	TB2	TB2-B		J17-2	WHT	16
	F1	F1 (FUSED)		J17-3	BLU	16
	TB1	TB1-B	GND	GND LUG	GRN	16
	AC OUTLET	GRN		GND LUG	GRN	14
		BLK		F1 (FUSED)	BLK	14
		WHT		TB2-B	WHT	14

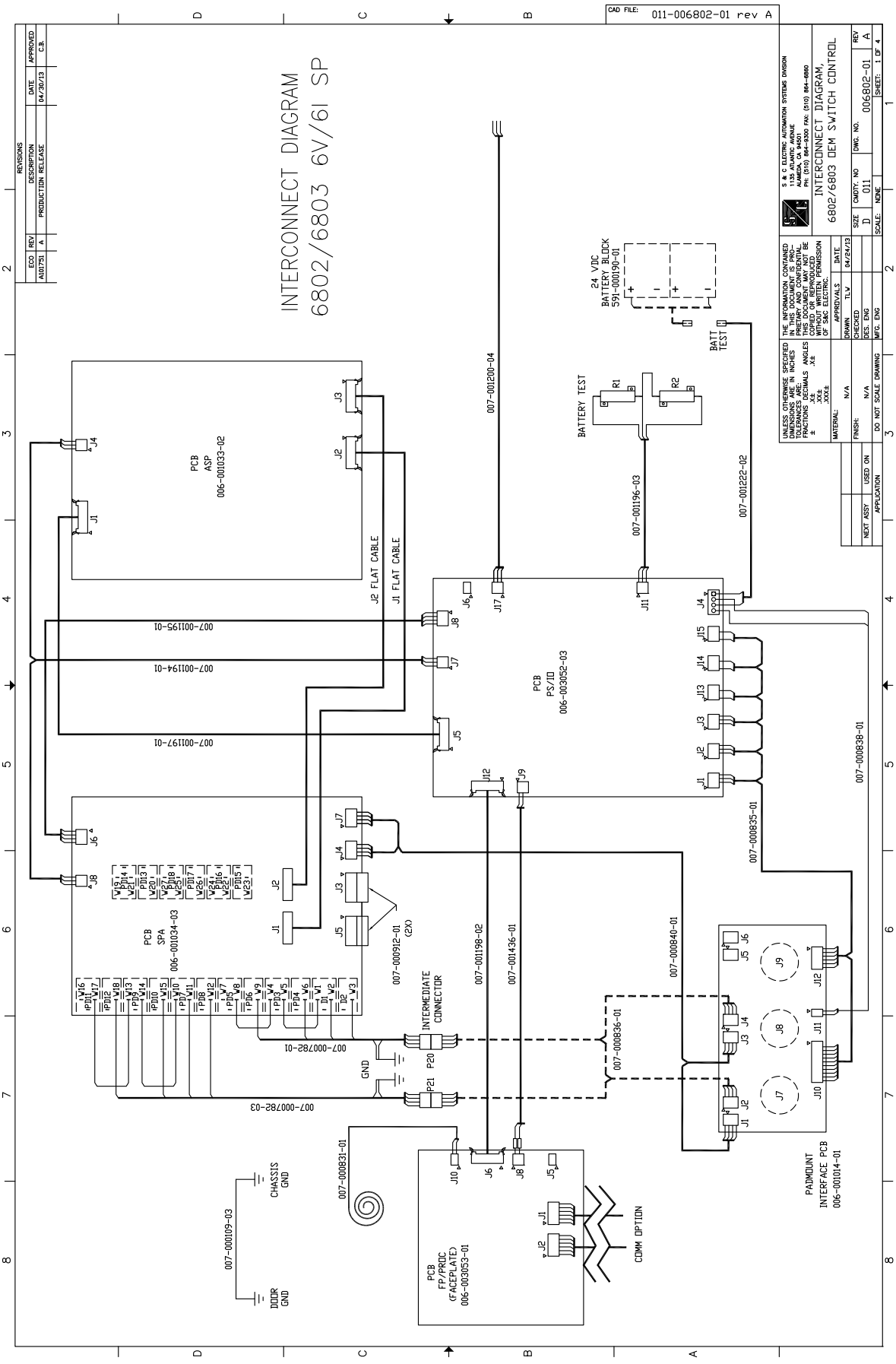
ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-001201-01	FIC	1	PS-I/O	J15-3	BRN	16
		2		J15-1	ORG	16
		3		J4-2	BLK	16
		4		J4-4	RED	16
		6		J1-1	BLK	16
		7		J1-3	GRN	16
		8		J1-2	YEL	16
		9	INTER. CONN.	P20-4 (W3)	YEL	16
		10		P20-3 (W6)	VIO	16
		11		P20-2 (W9)	GRY	16
		12		P20-1 (GND)	WHT	16
		13	SPA	J7-4	BRN	16
		14		J7-3	VIO	16
		15		J7-2	GRY	16
		16	GND	GND LUG	WHT	16
	GND	GND LUG	SPA	J7-1	WHT	16
	FIC	21	PS-I/O	J1-4	BLU	16
	FIC	FIC GND	ENCL	ENCL GND	GRN	14
007-001222-01	PS/IO	J4-3	BATT	CONN. +	RED	12
		J4-1		CONN. –	BLK	12
005-004054-01	PS-I/O	J6-1	HEATER-2		WHT	22
		J6-2	HEATER-1			
459-000041-00	TB1	B	TB2	B	BARE	JMPR
J1 FLAT CABLE	SPA	J1	ASP	J2	GRY	FLT

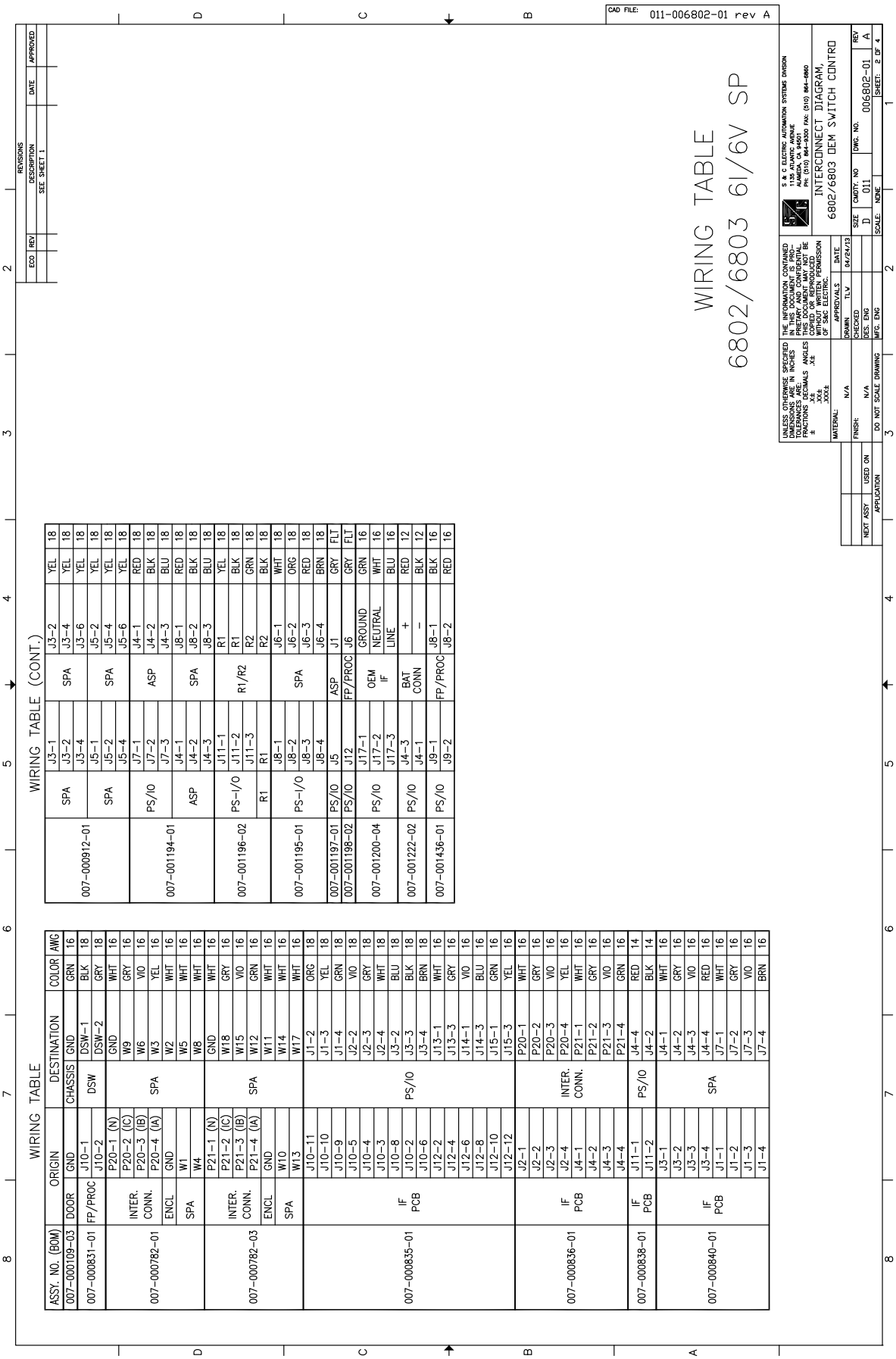

CAD FILE: 011-006801-02 rev A
6801 OEM
INTERCONNECT DIAGRAM,
6801 OEM SW.CONTROL,
3V3I S&C SENSORS, PT POWER
006801-02
REVISIONS
ECO REV DESCRIPTION DATE APPROVED
A101751 A PRODUCTION RELEASE 04/30/13 CB
PCB ASP 006-001033-01
PCB SPA 006-001034-01
PCB PS/IO 006-003052-04
PCB FP/PROC (FACEPLATE) 006-003053-01
PADMOUNT INTERFACE PCB 006-001014-01
24 VDC BATTERY BLOCK 591-000190-01
BATTERY TEST
BATT TEST
J1 FLAT CABLE (PART OF SPA)
INTERMEDIATE CONNECTOR
TIE OFF
COMM OPTION
CHASSIS GND
DOOR GND
GND
007-001195-01
007-001194-01
007-001197-01
007-001200-04
007-001196-03
007-001222-02
007-000838-01
007-000835-01
007-000895-01
007-000912-01
007-001198-02
007-001436-01
007-000782-01
007-000894-01
007-000831-01
007-000109-03



ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-000109-03	DOOR	GND	CHASSIS	GND	GRN	16
007-000831-01	FP/PROC	J10-1	DSW	DSW-1	BLK	18
		J10-2		DSW-2	GRY	18
007-000782-01	INTER. CONN.	P20-1 (N)	SPA	GND	WHT	16
		P20-2 (IC)		W9	GRY	16
		P20-3 (IB)		W6	VIO	16
		P20-4 (IA)		W3	YEL	16
	ENCL	GND		W2	WHT	16
	SPA	W1		W5	WHT	16
		W4		W8	WHT	16
007-000835-01	IF PCB	J10-11	PS/IO	J1-2	ORG	18
		J10-10		J1-3	YEL	18
		J10-9		J1-4	GRN	18
		J10-5		J2-2	VIO	18
		J10-4		J2-3	GRY	18
		J10-3		J2-4	WHT	18
		J10-8		J3-2	BLU	18
		J10-2		J3-3	BLK	18
		J10-6		J3-4	BRN	18
		J12-2		J13-1	WHT	16
		J12-4		J13-3	GRY	16
		J12-6		J14-1	VIO	16
		J12-8		J14-3	BLU	16
		J12-10		J15-1	GRN	16
		J12-12		J15-3	YEL	16
007-000838-01	IF PCB	J11-1	PS/IO	J4-4	RED	14
		J11-2		J4-2	BLK	14
007-000894-01	IF PCB	J2-1 (N)	INTER. CONN.	P20-1	WHT	16
		J2-2 (IC)		P20-2	GRY	16
		J2-3 (IB)		P20-3	VIO	16
		J2-4 (IA)		P20-4	YEL	16
007-000895-01	IF PCB	J3-1 (N)	SPA	J7-1	WHT	16
		J3-2 (VC)		J7-2	GRY	16
		J3-3 (VB)		J7-3	VIO	16
		J3-4 (VA)		J7-4	BRN	16

007-000912-01	SPA	J5-1	SPA	J5-2	YEL	18
		J5-2		J5-4	YEL	18
		J5-4		J5-6	YEL	18
007-001194-01	PS/IO	J7-1	ASP	J4-1	RED	18
		J7-2		J4-2	BLK	18
		J7-3		J4-3	BLU	18
	ASP	J4-1	SPA	J8-1	RED	18
		J4-2		J8-2	BLK	18
		J4-3		J8-3	BLU	18
007-001196-03	PS-I/O	J11-1	R1/R2	R1	YEL	18
		J11-2		R1	BLK	18
		J11-3		R2	GRN	18
	R1	R1		R2	BLK	18
007-001195-01	PS-I/O	J8-1	SPA	J6-1	WHT	18
		J8-2		J6-2	ORG	18
		J8-3		J6-3	RED	18
		J8-4		J6-4	BRN	18
007-001197-01	PS/IO	J5	ASP	J1	GRY	FLT
007-001198-02	PS/IO	J12	FP/PROC	J6	GRY	FLT
007-001200-04	PS/IO	J17-1	OEM IF	GROUND	GRN	16
		J17-2		NEUTRAL	WHT	16
		J17-3		LINE	BLU	16
007-001222-02	PS/IO	J4-3	BAT CONN	+	RED	12
		J4-1		–	BLK	12
007-001436-01	PS/IO	J9-1	FP/PROC	J8-1	BLK	16
		J9-2		J8-2	RED	16


INTERCONNECT DIAGRAM
6802/6803 6V/6I SP
CAD FILE: 011-006802-01 rev A
REVISIONS
ECO A101751 REV A DESCRIPTION PRODUCTION RELEASE DATE 04/30/13 APPROVED C.B.
S & C ELECTRIC AUTOMATION SYSTEMS DIVISION
1135 EAST ARQUES AVENUE
SUNNYVALE, CA 94085
PH: (510) 864-9300 FAX: (510) 864-6860
INTERCONNECT DIAGRAM,
6802/6803 DEM SWITCH CONTROL
SIZE D CAGE CODE: 011 DWG. NO. 006802-01 REV A
SCALE: NONE SHEET: 1 OF 4
THE INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL. THIS DOCUMENT MAY NOT BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION OF S&C ELECTRIC.
APPROVALS DATE
DRAWN TLV 04/24/13
CHECKED
DES. ENG
MFG. ENG
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± DECIMALS .XX± .XXX± ANGLES .X±
MATERIAL: N/A
FINISH: N/A
DO NOT SCALE DRAWING
NEXT ASSY USED ON
APPLICATION
24 VDC BATTERY BLOCK 591-000190-01
BATTERY TEST
R1
R2
BATT TEST
007-001200-04
007-001196-03
007-001222-02
PCB ASP 006-001033-02
J2 FLAT CABLE
J1 FLAT CABLE
007-001195-01
007-001194-01
007-001197-01
PCB PS/ID 006-003052-03
007-000838-01
007-000835-01
PCB SPA 006-001034-03
007-000912-01 (2X)
007-001198-02
007-001436-01
INTERMEDIATE CONNECTOR
007-000782-01
007-000782-03
GND
007-000840-01
007-000836-01
PADMOUNT INTERFACE PCB 006-001014-01
007-000831-01
CHASSIS GND
007-000109-03
DOOR GND
PCB FP/PROC (FACEPLATE) 006-003053-01
COMM OPTION

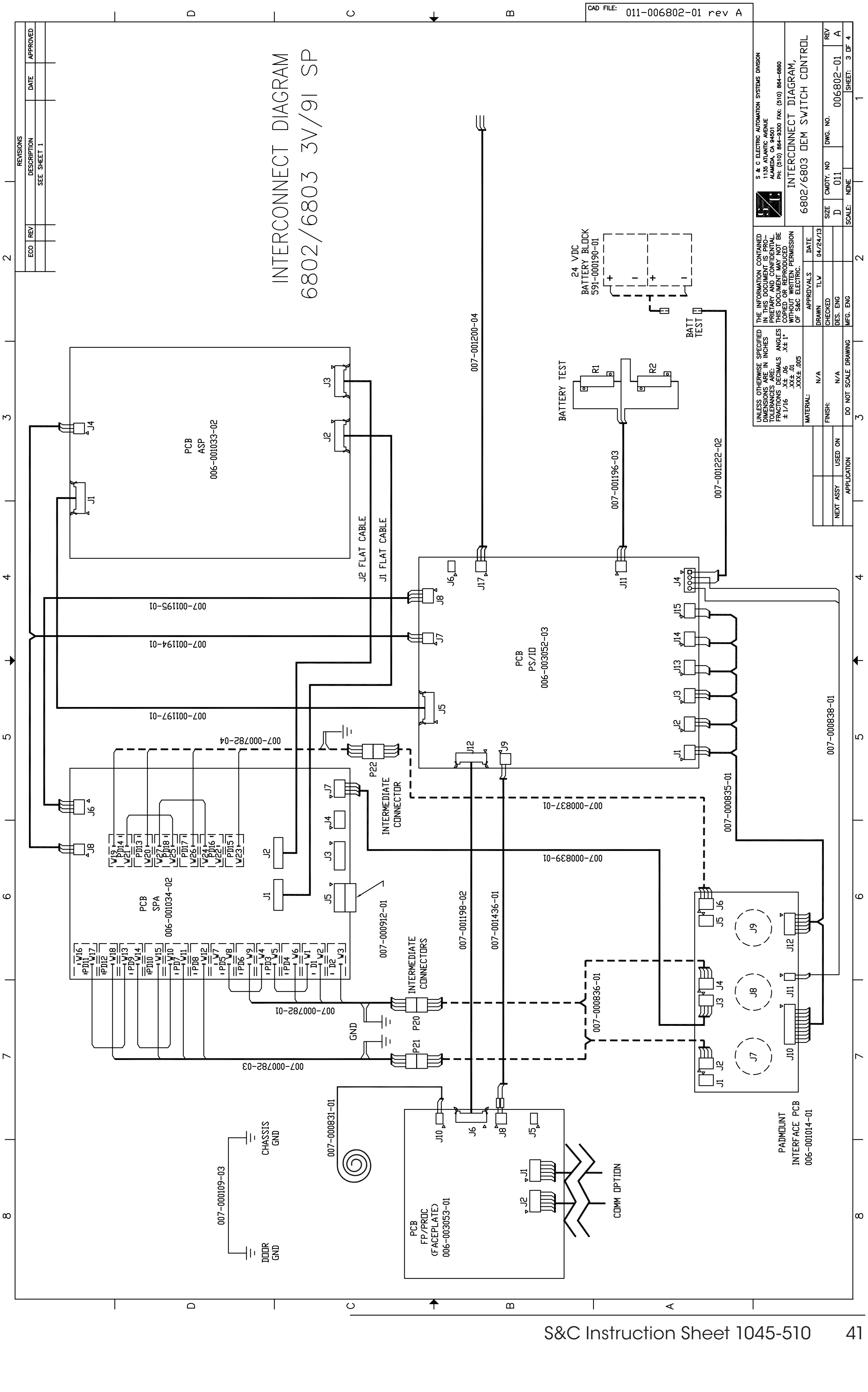


WIRING TABLE

ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-000109-03	DOOR	GND	CHASSIS	GND	GRN	16
007-000831-01	FP/PROC	J10-1	DSW	DSW-1	BLK	18
		J10-2		DSW-2	GRY	18
007-000782-01	INTER. CONN.	P20-1 (N)	SPA	GND	WHT	16
		P20-2 (IC)		W9	GRY	16
		P20-3 (IB)		W6	VIO	16
		P20-4 (IA)		W3	YEL	16
	ENCL	GND		W2	WHT	16
	SPA	W1		W5	WHT	16
		W4		W8	WHT	16
007-000782-03	INTER. CONN.	P21-1 (N)	SPA	GND	WHT	16
		P21-2 (IC)		W18	GRY	16
		P21-3 (IB)		W15	VIO	16
		P21-4 (IA)		W12	GRN	16
	ENCL	GND		W11	WHT	16
	SPA	W10		W14	WHT	16
		W13		W17	WHT	16
007-000835-01	IF PCB	J10-11	PS/IO	J1-2	ORG	18
		J10-10		J1-3	YEL	18
		J10-9		J1-4	GRN	18
		J10-5		J2-2	VIO	18
		J10-4		J2-3	GRY	18
		J10-3		J2-4	WHT	18
		J10-8		J3-2	BLU	18
		J10-2		J3-3	BLK	18
		J10-6		J3-4	BRN	18
		J12-2		J13-1	WHT	16
		J12-4		J13-3	GRY	16
		J12-6		J14-1	VIO	16
		J12-8		J14-3	BLU	16
		J12-10		J15-1	GRN	16
		J12-12		J15-3	YEL	16
007-000836-01	IF PCB	J2-1	INTER. CONN.	P20-1	WHT	16
		J2-2		P20-2	GRY	16
		J2-3		P20-3	VIO	16
		J2-4		P20-4	YEL	16
		J4-1		P21-1	WHT	16
		J4-2		P21-2	GRY	16
		J4-3		P21-3	VIO	16
		J4-4		P21-4	GRN	16
007-000838-01	IF PCB	J11-1	PS/IO	J4-4	RED	14
		J11-2		J4-2	BLK	14
007-000840-01	IF PCB	J3-1	SPA	J4-1	WHT	16
		J3-2		J4-2	GRY	16
		J3-3		J4-3	VIO	16
		J3-4		J4-4	RED	16
		J1-1		J7-1	WHT	16
		J1-2		J7-2	GRY	16
		J1-3		J7-3	VIO	16
		J1-4		J7-4	BRN	16

WIRING TABLE (CONT.)

007-000912-01	SPA	J3-1	SPA	J3-2	YEL	18
		J3-2		J3-4	YEL	18
		J3-4		J3-6	YEL	18
	SPA	J5-1	SPA	J5-2	YEL	18
		J5-2		J5-4	YEL	18
		J5-4		J5-6	YEL	18
007-001194-01	PS/IO	J7-1	ASP	J4-1	RED	18
		J7-2		J4-2	BLK	18
		J7-3		J4-3	BLU	18
	ASP	J4-1	SPA	J8-1	RED	18
		J4-2		J8-2	BLK	18
		J4-3		J8-3	BLU	18
007-001196-02	PS-I/O	J11-1	R1/R2	R1	YEL	18
		J11-2		R1	BLK	18
		J11-3		R2	GRN	18
	R1	R1		R2	BLK	18
007-001195-01	PS-I/O	J8-1	SPA	J6-1	WHT	18
		J8-2		J6-2	ORG	18
		J8-3		J6-3	RED	18
		J8-4		J6-4	BRN	18
007-001197-01	PS/IO	J5	ASP	J1	GRY	FLT
007-001198-02	PS/IO	J12	FP/PROC	J6	GRY	FLT
007-001200-04	PS/IO	J17-1	OEM IF	GROUND	GRN	16
		J17-2		NEUTRAL	WHT	16
		J17-3		LINE	BLU	16
007-001222-02	PS/IO	J4-3	BAT CONN	+	RED	12
		J4-1		–	BLK	12
007-001436-01	PS/IO	J9-1	FP/PROC	J8-1	BLK	16
		J9-2		J8-2	RED	16


CAD FILE: 011-006802-01 rev A
INTERCONNECT DIAGRAM
6802/6803 3V/9I SP
REVISIONS
ECO
REV
DESCRIPTION
DATE
APPROVED
SEE SHEET 1
PCB
ASP
006-001033-02
PCB
PS/IO
006-003052-03
PCB
SPA
006-001034-02
PCB
FP/PROC
(FACEPLATE)
006-003053-01
PADMOUNT
INTERFACE PCB
006-001014-01
24 VDC
BATTERY BLOCK
591-000190-01
BATTERY TEST
BATT
TEST
J2 FLAT CABLE
J1 FLAT CABLE
INTERMEDIATE
CONNECTOR
INTERMEDIATE
CONNECTORS
GND
CHASSIS
GND
DOOR
GND
COMM OPTION
007-001200-04
007-001196-03
007-001222-02
007-001195-01
007-001194-01
007-001197-01
007-000782-04
007-000837-01
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007-000838-01
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007-000836-01
007-000912-01
007-001198-02
007-001436-01
007-000782-01
007-000782-03
007-000831-01
007-000109-03
S & C ELECTRIC AUTOMATION SYSTEMS DIVISION
1135 ATLANTIC AVENUE
ALAMEDA, CA 94501
PH: (510) 864-9300 FAX: (510) 864-6880
INTERCONNECT DIAGRAM,
6802/6803 OEM SWITCH CONTROL
SIZE
D
CMDTY. NO
011
DWG. NO.
006802-01
REV
A
SCALE: NONE
SHEET: 3 OF 4
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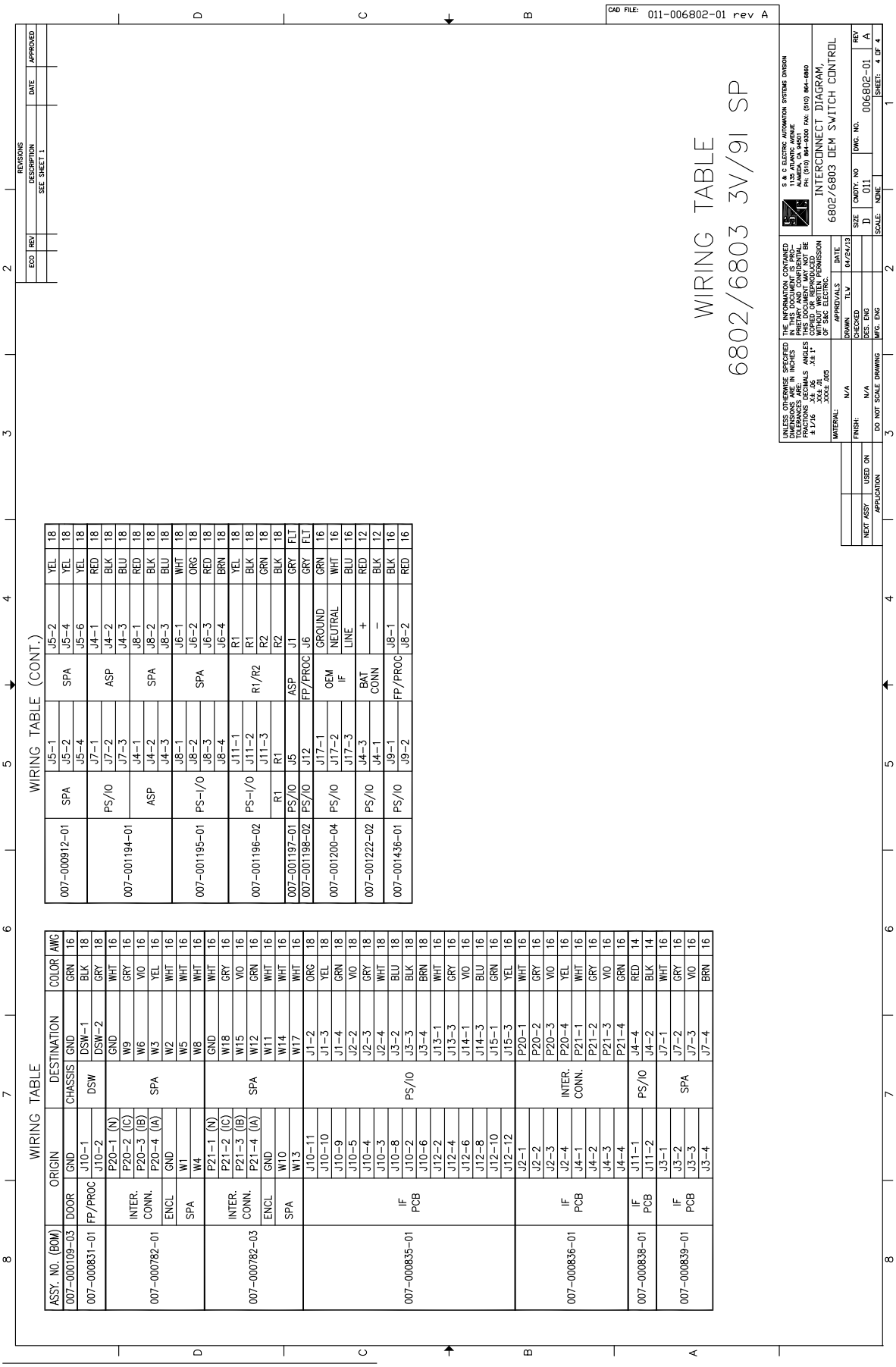
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
DRAWN TLV 04/24/13
CHECKED
DES. ENG
MFG. ENG
MATERIAL: N/A
FINISH: N/A
DO NOT SCALE DRAWING
NEXT ASSY
USED ON
APPLICATION


WIRING TABLE
6802/6803 3V/91 SP
CAD FILE: 011-006802-01 rev A
INTERCONNECT DIAGRAM,
6802/6803 DEM SWITCH CONTROL
S & C ELECTRIC AUTOMATION SYSTEMS DIVISION
1135 ATLANTIC AVENUE
ALAMEDA, CA 94501
PH: (510) 864-6800 FAX: (510) 864-6860
006802-01
SHEET: 4 OF 4
WIRING TABLE (CONT.)
007-000912-01 SPA J5-1 J5-2 SPA J5-2 YEL 18
J5-2 J5-4 J5-4 YEL 18
J5-4 J5-6 J5-6 YEL 18
007-001194-01 PS/IO J7-1 J4-1 ASP J4-1 RED 18
J7-2 J4-2 J4-2 BLK 18
J7-3 J4-3 J4-3 BLU 18
ASP J4-1 J8-1 SPA J8-1 RED 18
J4-2 J8-2 J8-2 BLK 18
J4-3 J8-3 J8-3 BLU 18
007-001195-01 PS-I/O J8-1 J6-1 SPA J6-1 WHT 18
J8-2 J6-2 J6-2 ORG 18
J8-3 J6-3 J6-3 RED 18
J8-4 J6-4 J6-4 BRN 18
007-001196-02 PS-I/O J11-1 R1 R1/R2 R1 YEL 18
J11-2 R1 R1 BLK 18
J11-3 R2 R2 GRN 18
R1 R1 R2 BLK 18
007-001197-01 PS/IO J5 ASP J1 GRY FLT
007-001198-02 PS/IO J12 FP/PROC J6 GRY FLT
007-001200-04 PS/IO J17-1 OEM IF GROUND GRN 16
J17-2 NEUTRAL WHT 16
J17-3 LINE BLU 16
007-001222-02 PS/IO J4-3 BAT CONN + RED 12
J4-1 – BLK 12
007-001436-01 PS/IO J9-1 FP/PROC J8-1 BLK 16
J9-2 J8-2 RED 16
WIRING TABLE
ASSY. NO. (BOM) ORIGIN DESTINATION COLOR AWG
007-000109-03 DOOR GND CHASSIS GND GRN 16
007-000831-01 FP/PROC J10-1 DSW DSW-1 BLK 18
J10-2 DSW-2 GRY 18
007-000782-01 INTER. CONN. P20-1 (N) SPA GND WHT 16
P20-2 (C) W9 GRY 16
P20-3 (B) W6 VIO 16
P20-4 (A) W3 YEL 16
ENCL GND W2 WHT 16
SPA W1 W5 WHT 16
W4 W8 WHT 16
007-000782-03 INTER. CONN. P21-1 (N) SPA GND W18 GRY 16
P21-2 (C) W15 VIO 16
P21-3 (B) W12 GRN 16
P21-4 (A) W11 WHT 16
ENCL GND W14 WHT 16
SPA W10 W17 WHT 16
007-000835-01 IF PCB J10-11 PS/IO J1-2 ORG 18
J10-10 J1-3 YEL 18
J10-9 J1-4 GRN 18
J10-5 J2-2 VIO 18
J10-4 J2-3 GRY 18
J10-3 J2-4 WHT 18
J10-8 J3-2 BLU 18
J10-2 J3-3 BLK 18
J10-6 J3-4 BRN 18
J12-2 J13-1 WHT 16
J12-4 J13-3 GRY 16
J12-6 J14-1 VIO 16
J12-8 J14-3 BLU 16
J12-10 J15-1 GRN 16
J12-12 J15-3 YEL 16
007-000836-01 IF PCB J2-1 INTER. CONN. P20-1 WHT 16
J2-2 P20-2 GRY 16
J2-3 P20-3 VIO 16
J2-4 P20-4 YEL 16
J4-1 P21-1 WHT 16
J4-2 P21-2 GRY 16
J4-3 P21-3 VIO 16
J4-4 P21-4 GRN 16
007-000838-01 IF PCB J11-1 PS/IO J4-4 RED 14
J11-2 J4-2 BLK 14
007-000839-01 IF PCB J3-1 SPA J7-1 WHT 16
J3-2 J7-2 GRY 16
J3-3 J7-3 VIO 16
J3-4 J7-4 BRN 16
REVISIONS
ECO REV DESCRIPTION DATE APPROVED
SEE SHEET 1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± 1/16 .XX± .06 .XX± 1° .XXX± .005
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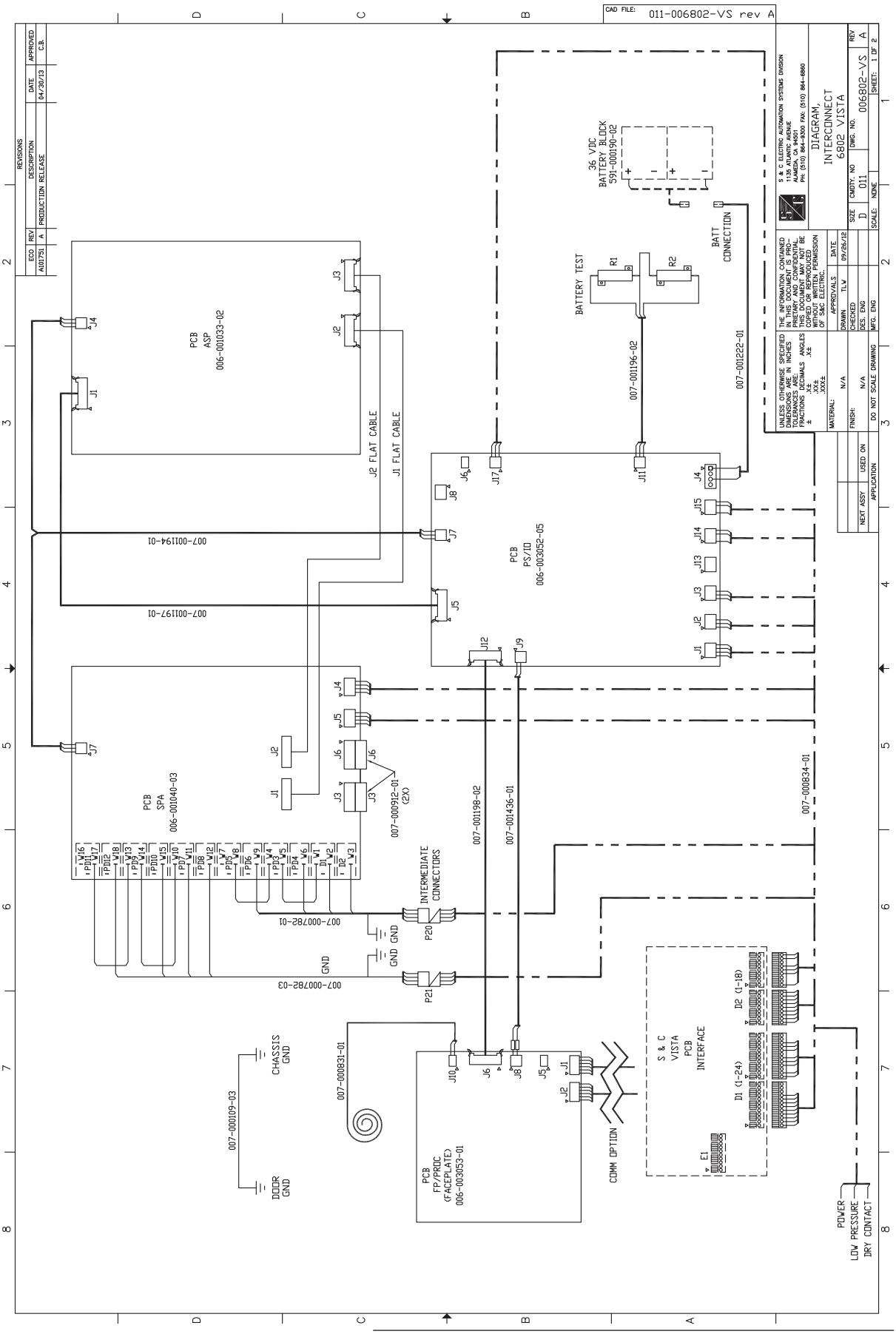
MATERIAL: N/A
FINISH: N/A
DO NOT SCALE DRAWING
APPROVALS DATE
DRAWN TLV 04/24/13
CHECKED
DES. ENG
MFG. ENG
NEXT ASSY USED ON
APPLICATION
SIZE D
CMDTY: NO 011
SCALE: NONE
REV A


CAD FILE: 011-006802-VS rev A
REVISIONS
ECO REV DESCRIPTION DATE APPROVED
A101751 A PRODUCTION RELEASE 04/30/13 C.B.
S & C ELECTRIC AUTOMATION SYSTEMS DIVISION
1135 ATLANTIC AVENUE
ALAMEDA, CA 94501
PH: (510) 864-3300 FAX: (510) 864-6860
DIAGRAM, INTERCONNECT 6802 VISTA
SIZE D
CMDTY. NO 011
DWG. NO. 006802-VS
REV A
SCALE: NONE
SHEET: 1 OF 2
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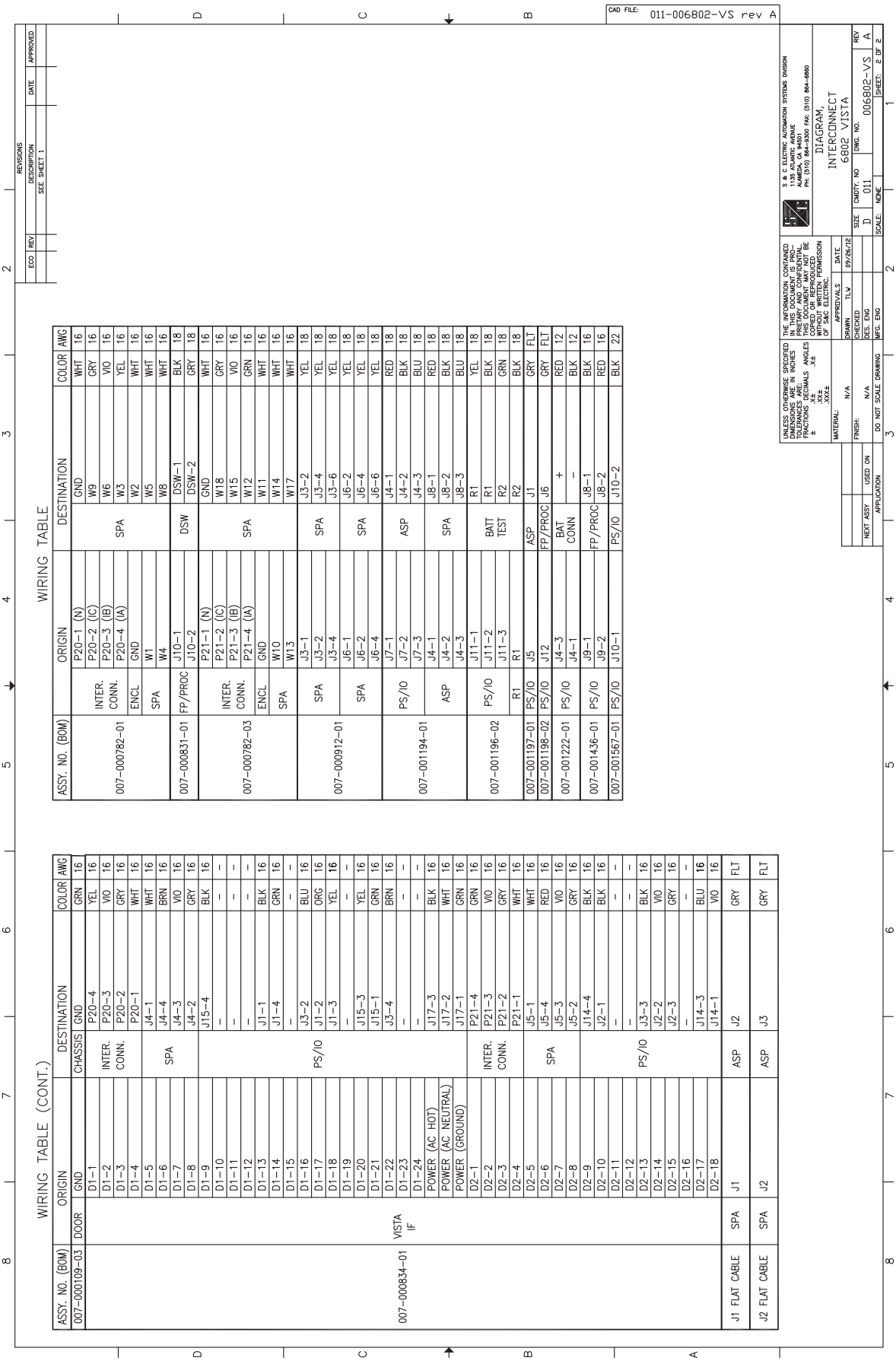
DATE 09/26/12
APPROVALS
DRAWN TLW
CHECKED
DES. ENG
MFG. ENG
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE: IN INCHES TOLERANCES ARE: FRACTIONS ±1/64 DECIMALS .X± .XX± .XXX± ANGLES X± MATERIAL: N/A FINISH: N/A DO NOT SCALE DRAWING
NEXT ASSY: USED ON APPLICATION
36 VDC BATTERY BLOCK 591-000190-02
BATT CONNECTION
BATTERY TEST
R1
R2
PCB ASP 006-001033-02
PCB PS/10 006-003052-05
PCB SPA 006-001040-03
PCB FP/PROC (FACEPLATE) 006-003053-01
S & C VISTA PCB INTERFACE
J1 FLAT CABLE
J2 FLAT CABLE
007-001222-01
007-001196-02
007-001194-01
007-001197-01
007-000912-01 (2X)
007-001198-02
007-001436-01
007-000834-01
007-000782-01
007-000782-03
007-000831-01
007-000109-03
INTERMEDIATE CONNECTORS
P20
P21
GND
CHASSIS GND
DOOR GND
COMM OPTION
D1 (1-24)
D2 (1-18)
E1
POWER
LOW PRESSURE
DRY CONTACT



WIRING TABLE (CONT.)

ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-000109-03	DOOR		CHASSIS	GND	GRN	16
007-000834-01	VISTA IF	D1-1	INTER. CONN.	P20-4	YEL	16
		D1-2		P20-3	VIO	16
		D1-3		P20-2	GRY	16
		D1-4		P20-1	WHT	16
		D1-5	SPA	J4-1	WHT	16
		D1-6		J4-4	BRN	16
		D1-7		J4-3	VIO	16
		D1-8		J4-2	GRY	16
		D1-9	PS/IO	J15-4	BLK	16
		D1-10		–	–	–
		D1-11		–	–	–
		D1-12		–	–	–
		D1-13		J1-1	BLK	16
		D1-14		J1-4	GRN	16
		D1-15		–	–	–
		D1-16		J3-2	BLU	16
		D1-17		J1-2	ORG	16
		D1-18		J1-3	YEL	16
		D1-19		–	–	–
		D1-20		J15-3	YEL	16
		D1-21		J15-1	GRN	16
		D1-22		J3-4	BRN	16
		D1-23		–	–	–
		D1-24		–	–	–
		POWER (AC HOT)		J17-3	BLK	16
		POWER (AC NEUTRAL)		J17-2	WHT	16
		POWER (GROUND)		J17-1	GRN	16
		D2-1	INTER. CONN.	P21-4	GRN	16
		D2-2		P21-3	VIO	16
		D2-3		P21-2	GRY	16
		D2-4		P21-1	WHT	16
		D2-5	SPA	J5-1	WHT	16
		D2-6		J5-4	RED	16
		D2-7		J5-3	VIO	16
		D2-8		J5-2	GRY	16
		D2-9	PS/IO	J14-4	BLK	16
		D2-10		J2-1	BLK	16
		D2-11		–	–	–
		D2-12		–	–	–
		D2-13		J3-3	BLK	16
		D2-14		J2-2	VIO	16
		D2-15		J2-3	GRY	16
		D2-16		–	–	–
		D2-17		J14-3	BLU	16
		D2-18		J14-1	VIO	16
J1 FLAT CABLE	SPA	J1	ASP	J2	GRY	FLT
J2 FLAT CABLE	SPA	J2	ASP	J3	GRY	FLT

WIRING TABLE

ASSY. NO. (BOM)	ORIGIN		DESTINATION		COLOR	AWG
007-000782-01	INTER. CONN.	P20-1 (N)	SPA	GND	WHT	16
		P20-2 (IC)		W9	GRY	16
		P20-3 (IB)		W6	VIO	16
		P20-4 (IA)		W3	YEL	16
	ENCL	GND		W2	WHT	16
	SPA	W1		W5	WHT	16
		W4		W8	WHT	16
007-000831-01	FP/PROC	J10-1	DSW	DSW-1	BLK	18
		J10-2		DSW-2	GRY	18
007-000782-03	INTER. CONN.	P21-1 (N)	SPA	GND	WHT	16
		P21-2 (IC)		W18	GRY	16
		P21-3 (IB)		W15	VIO	16
		P21-4 (IA)		W12	GRN	16
	ENCL	GND		W11	WHT	16
	SPA	W10		W14	WHT	16
		W13		W17	WHT	16
007-000912-01	SPA	J3-1	SPA	J3-2	YEL	18
		J3-2		J3-4	YEL	18
		J3-4		J3-6	YEL	18
	SPA	J6-1	SPA	J6-2	YEL	18
		J6-2		J6-4	YEL	18
		J6-4		J6-6	YEL	18
007-001194-01	PS/IO	J7-1	ASP	J4-1	RED	18
		J7-2		J4-2	BLK	18
		J7-3		J4-3	BLU	18
	ASP	J4-1	SPA	J8-1	RED	18
		J4-2		J8-2	BLK	18
		J4-3		J8-3	BLU	18
007-001196-02	PS/IO	J11-1	BATT TEST	R1	YEL	18
		J11-2		R1	BLK	18
		J11-3		R2	GRN	18
	R1	R1		R2	BLK	18
007-001197-01	PS/IO	J5	ASP	J1	GRY	FLT
007-001198-02	PS/IO	J12	FP/PROC	J6	GRY	FLT
007-001222-01	PS/IO	J4-3	BAT CONN	+	RED	12
		J4-1		–	BLK	12
007-001436-01	PS/IO	J9-1	FP/PROC	J8-1	BLK	16
		J9-2		J8-2	RED	16
007-001567-01	PS/IO	J10-1	PS/IO	J10-2	BLK	22

REVISIONS			
ECO	REV	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1		

CAD FILE: 011-006802-VS rev A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES X.± .X± ± .XX± .XXX± MATERIAL: N/A FINISH: N/A DO NOT SCALE DRAWING

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APPROVALS	DATE
DRAWN TLV	09/26/12
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DES. ENG	
MFG. ENG	

NEXT ASSY	USED ON	
APPLICATION		

S & C ELECTRIC AUTOMATION SYSTEMS DIVISION
1135 ATLANTIC AVENUE
ALAMEDA, CA 94501
PH: (510) 864-3300 FAX: (510) 864-6860

DIAGRAM, INTERCONNECT 6802 VISTA

SIZE	CMDTY: NO	DWG. NO.	REV
D	011	006802-VS	A
SCALE: NONE		SHEET: 2 OF 2	