The Salvo Control Panel (SCP) is the main interface between the Salvo couplings and associated bay door controls. The SCP comprises of a wall mounted panel with easy to use Castell interlock key switch to allow operation of the bay. There is also panel indication of status and operation. Installation is via plug in terminals on the internally mounted PCB.

Operation

The Salvo Control Panel is designed as part of a safety system to safeguard against accidental drive aways. The Salvo Control Panel ensures that the loading bay door cannot be opened before the vehicle airline is disconnected via the Salvo Susie coupling and the key has been transferred from the coupling to the SCP.

1. **SCP with bay controls isolated, ready to receive key.**

2. **Insert key and turn clockwise.**

3. **SCP with bay controls energised, ready to open door and deploy dock leveller.**

Specifications

Temperature (Operating)	Min: -25°C, Max: +55°C
Size	232mm(W) x 302mm(H) x 172mm(D) (174mm with Mounting)
Mounting Hole	See page 22-23
Material	Enclosure – ABS/FR (R59M) UL94 5VA Rated Lock Portion – Stainless Steel 304/316
Weight	3.5 kg
Cable Entry Size	M20 knockouts x 2
Switch Approvals	IEC947-1.3 IEC947-5 BS EN60947 VDE 0660
UL Listed	TBA
Ingress Protection	IP65 Enclosure
Switch Rating	Continuous, unattended, remote
Power Supply Required	24VDC
Max Power Consumption	20VA / 20W
Power Frequency	50/60Hz
Relay Specification	Max switching voltage 240VAC 6A Max switching current 6A

Component Inputs

- SPSB (Salvo Power Supply + Beacon)
- SADL (Salvo Automatic Door Lock)
- SBDS (Salvo Bay Door Sensor)

Component Outputs

- Traffic Light
- Door Control
- Dock Leveller Control
- Amber Beacon

Precautions

Lockout/ Tagout:

Before installing and using your SCP unit, a proper lockout/ tagout procedure should be developed for this unit and related energy sources.

Training:

Only those trained in the proper use of this equipment should be allowed to install, use and maintain it.

Installation:

Proper installation will ensure safe operation and long life of this product.
Never use this product for anything other than its intended purpose.
It is recommended to route cabling via the cable gland access provided at the base of the unit. Remove knock-outs and fit cable glands provided.
Always make connections to this device in accordance with instructions set forth in this manual and any applicable electrical codes for your area.
A lockable, local disconnect is recommended to properly isolate this unit.
Constantly be aware of vehicle traffic on or near the loading bays.
ESD electrostatic discharge: circuit boards are vulnerable to damage by electrostatic discharge. Before handling any boards ensure you dissipate your body's charge.

Operation/ Maintenance:

WARNING – Disconnect Electrical Supply Before Opening Unit.

Never operate this unit with the access door open.
Never place any body parts near exposed electrical components.
Avoid poking/ prodding into unit with tools that can conduct electrical current.
Never force the electrical contacts or key solenoid to manually operate this unit.
Failure to follow this instruction could void the manufacturer's warranty

Note :

Changes or modifications not expressly approved by Castell Safety could void the user's authority to operate the equipment.
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license exempt RSS(s). Operation is subject to the following two conditions:
1. This device may not cause interference ;
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Preinstallation Check

When preparing to wire multiple devices together for a “system” configuration, it is best to ensure the correct operation of each device independently before starting, to help reduce troubleshooting time later in the event of discrepancy.

Prior to installation, when applying equipment on a new supply circuit, always ensure the correct line voltage exists and is stable. Remember to shut the power off, after this is checked and before performing any wiring of the system.

Installation 1/4

Steps for installing the SCP

Step 1: Specify location of SADL (inside / outside)
Step 2: Mount SCP
Step 3: Install multi-core cable
Step 4(1): Install Traffic Lights
Step 4(2): Install SPSB
Step 5(1): Install SADL
Step 5(2): Connect Door Close Limit Interface
Step 6: Connect Auto Door Control Interface
Step 7: Connect Dock Leveller Control Interface.
Step 8: Connect power (24VDC)

1 - Specify Location of SCP

Before carrying out installation it is extremely important to determine the location of the SCP. This would depend on the specific site requirement.

The options being:

- Mounted inside the Warehouse where the warehouse staff controls the Salvo coupling.
- Mounted Outside the Warehouse where the shunters/drivers control the Salvo coupling
- If in any doubt contact the site project manager or the Castell Product Manager.

2 - Mount SCP

Depending on site conditions, Ideally the SCP should be mounted 1.5m above floor level. If mounted outside the building, it should be mounted beneath the traffic lights.

If mounted inside the building it should be located adjacent to the dock controls.

3 - Install Multi-core Cable

Consideration should be taken on how the cables are going to run to the various peripherals.

An assessment of site conditions needs to be taken to determine the type of cable used. Armoured cable is suggested for areas of low level of protection against damage by vehicles. CY or SY cable to be used where there is a good level of protection.

The more peripherals and interface connections need, the more cores are required. Consult the wiring diagram to determine the number of cores needed. It is suggested the power cabling is run separately where practicable.

Care should be taken to route and secure all wiring to the Control PCB to avoid interference with the enclosure locking mechanism.

Installation 2/4

4 (1) - Install traffic Lights

Our standard 24VDC traffic lights are to be used (re SETL).
Connect to Connector 8 Term 7,8,9,10.

9: connect to +ve terminal of red traffic light.
7: connect to +ve terminal of green traffic light.
10 & 8: connect to -ve terminal of both red and green traffic light.

4 (2) - Install SPSB

Enclosure:

205mm(W) 242.5mm(H) 106mm(D)

Mounting Dimensions:

187mm(W) 202.5mm(H) - M4

See page 30

Connections:

Connector 1, Terminals 1, 2 & 3 (SCP)
1: Connect to +V terminal of PSU
2: Connect to –V terminal of PSU
3: Connect to Earth terminal of PSU

Connector 8, Terminals 5 & 6 (SCP)
5: Connect to + terminal of Beacon connector block
6: Connect to – terminal of Beacon connector block

4 (3) - SCP Mounting Instructions

See page 22-23 for mounting installation details (008024).

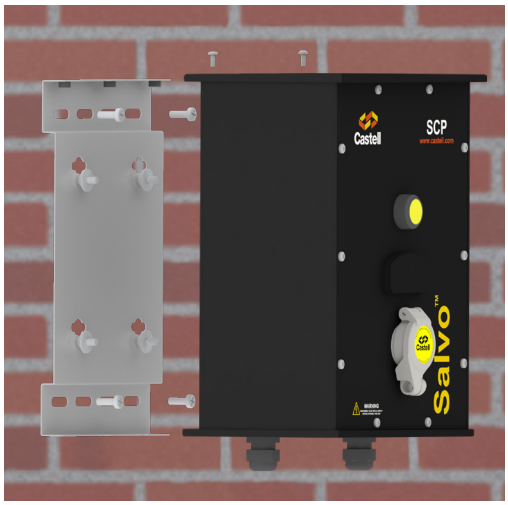
Installation 3/4

5(1) - Install SADL

Our standard 24V door locks are to be used (re SADL).
Connect to terminal 1, 2, 3 & 4 of Connector 2 and terminal 10 of Connector 8.
Connector 2: terminal 1 connect to terminal 2 of SADL (Door Lock).
Connector 2: terminal 2 connect to terminal 14 of SADL (Door Lock).
Connector 2: terminal 3 connect to terminal 4 of SADL (Door Lock).
Connector 2: Terminal 4 connect to terminal 3 of SADL(Door Lock) via additional push button contact.
Connector 8: terminal 10 connect to terminal 1 of SADL (Door Lock).

If locating the SCP outside, find a suitable route for the cable through the building wall, and drill cable hole as shown.

Typical SCP installation location outside warehouse.



Typical SCP installation location using mounting plate.

Typical SCP installation location outside warehouse on pedestal.

Installation 4/4

5(2) - Connect Door Close Limit Interface

In the case of an automatic door there is not a requirement for the SADL however there is a requirement for a signal from the door control panel to indicate the bottom limit.

Connector 2 terminal 1 & 2: connected to bottom limit volt free contacts of the Door control panel.

6 - Auto Door Control Interface

It is the case of an automatic door it is necessary to prevent opening of the door when the Castell Key is in the free position.

Connect to Connector 2 terminal 7 & 8:
The 7 & 8 terminals to be connected in series with the Door up push button wiring. OR:
The 7 & 8 terminals to be connected across the door inhibit terminal of the Door control panel.
Please note that the SCP is a failsafe device therefore if there is a failure then the door cannot be opened.

7 - Connect Dock Leveller Control Interface

It may be necessary to prevent activation of the dock leveler when the door is closed.
Connect to terminal 5 & 6 Connector 2.
The 9 & 10 terminals to be connected in series with the Dock leveler raise push button wiring. Please note that if there is a power failure, then the dock leveller cannot be raised.

8 - Power Supply Input

Connect 230/110VAC supply to SPSB (supply to be fused at 3A)
Connect Live to L (AC) terminal of PSU
Connect Neutral to N (AC) terminal of PSU
Connect Earth to Earth terminal of PSU

Means of Isolation should be located adjacent to the device and should be clearly marked and easily accessible.

9 - Check Functions

Check all Functions

10 - Fuse Replacement

The SCP internal fuse is located above the PCB, adjacent to connector TB4, marked “F/Panel Fuse”
Fuse Rating; 3Amp GSL003 Ø5 x 20mm Time-Lag Glass Tube Fuse (RS668-6007)

Function

Function	Condition
Key Free	Door de-activated SADL de-energized Traffic light green Orange beacon OFF Dock leveler de-activated Vehicle restraint de-activated SCP lights (Green if ext, Red if int)
Key Trapped, Door Closed	Door activated but not yet opened SADL energized but not yet opened Traffic light green Orange beacon ON Dock leveler de-activated Vehicle restraint activated SCP lights (Green if ext, Red if int)
Key Trapped, Door Open	Door activated and opened SADL energized and unbolted Traffic light red Orange beacon ON Dock leveler activated Vehicle restraint activated SCP lights (Red if ext, Green if int)

Wiring

Connect ID	Description	Power Rating	Cable Size
24VDC	24VDC power connections Connector 1 Term 1 & 2	20w	1.5mm²

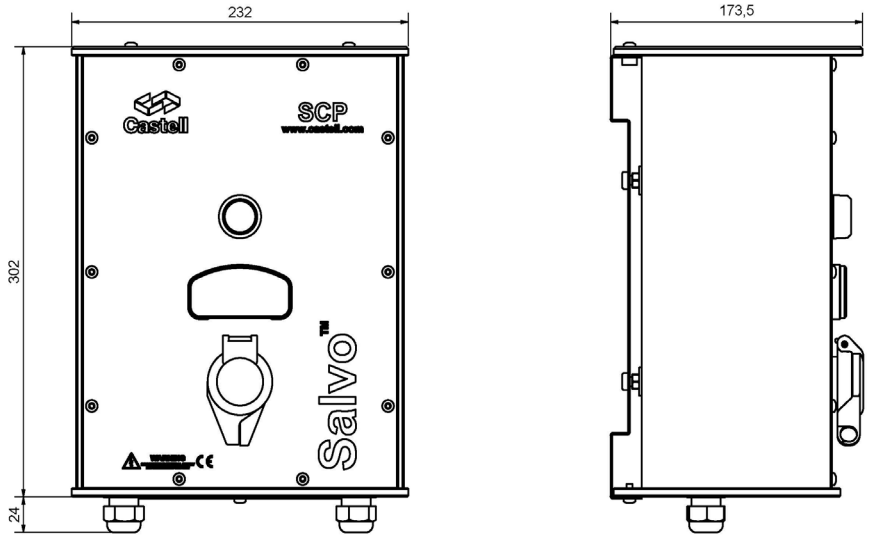
Connect ID	Description	Cable Size
SADL/Door Closed	Solenoid controlled door lock or the door closed contact in the door control panel.	1.5mm²

Connect ID	Description	Power Rating	Cable Size
Auto Door	N/O contacts to interlock with the door.	6A	1.5mm²
Dock Leveller	N/O contacts to interlock with the Dock leveller.	6A	1.5mm²
Traffic Light	Change over contacts to control the traffic lights (24VDC).	6A	1.5mm²
Beacon	N/O contacts to control beacon (24VDC).	6A	1.5mm²
Aux 1	Change over contacts to control other peripherals.	6A	1.5mm²

SCP Mounting Diagram

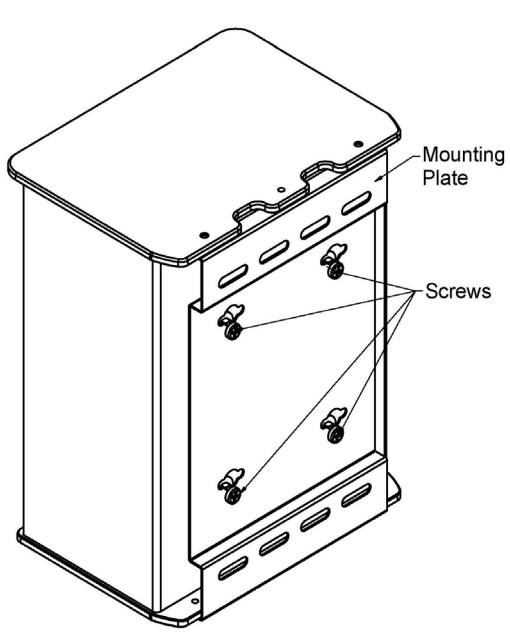
Mounting Instructions for Salvo Control Panel (SCP) and Storage Unit (Only SCP shown)

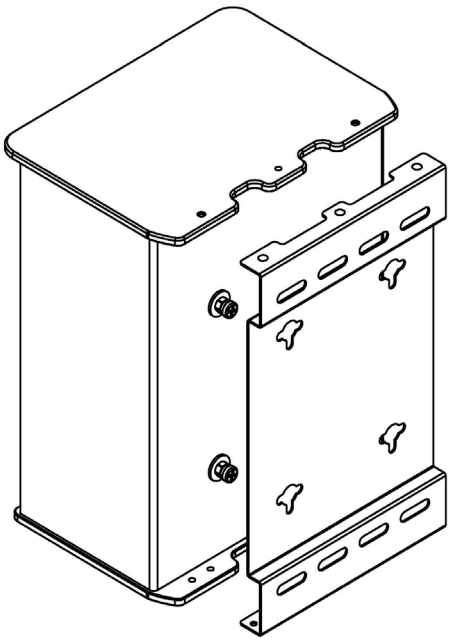
Dimensions for SCP (008000) & Storage Unit (008002)



Step 1.
Loosen screws on rear of enclosure without removing entirely.

Step 2.
Separate Mounting Plate from SCP Enclosure/Storage Unit by sliding Mounting Plate *DOWN* and *AWAY*.





Development Drawing: DDS02130

Sheet 1 of 2

ISSUE	ECN	DATE	CHECKED	APPROVED
1	3738	21/03/2019	cpatel	cpatel

UNLESS OTHERWISE SPEC TOLERANCE TO BE: METRIC
GENERAL ± 0,13 ANGULAR ± 0° 30'
DO NOT SCALE IF IN DOUBT-ASK!
MATERIAL: N/A
FINISH: N/A
SURFACE TEXTURE: UNLESS OTHERWISE STATED TO BE Ra 1.6um, REF, BS 1134 1972
REF; STANDARD BS 8888 2002

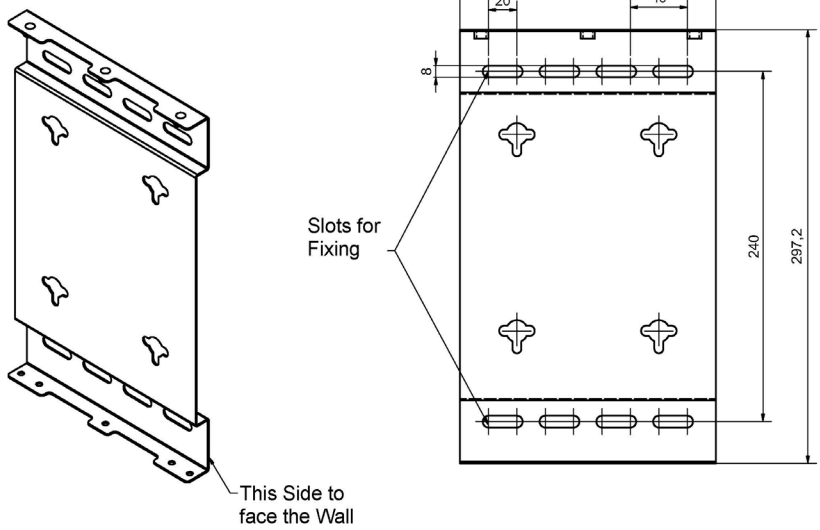
Salvo Control Panel/Storage Unit Mounting Instructions

Castell Safety International Ltd
217 Kingsbury Road
London NW9 9PQ
t; 020 8200 1200 f; 020 8205 0055
www.castell.com

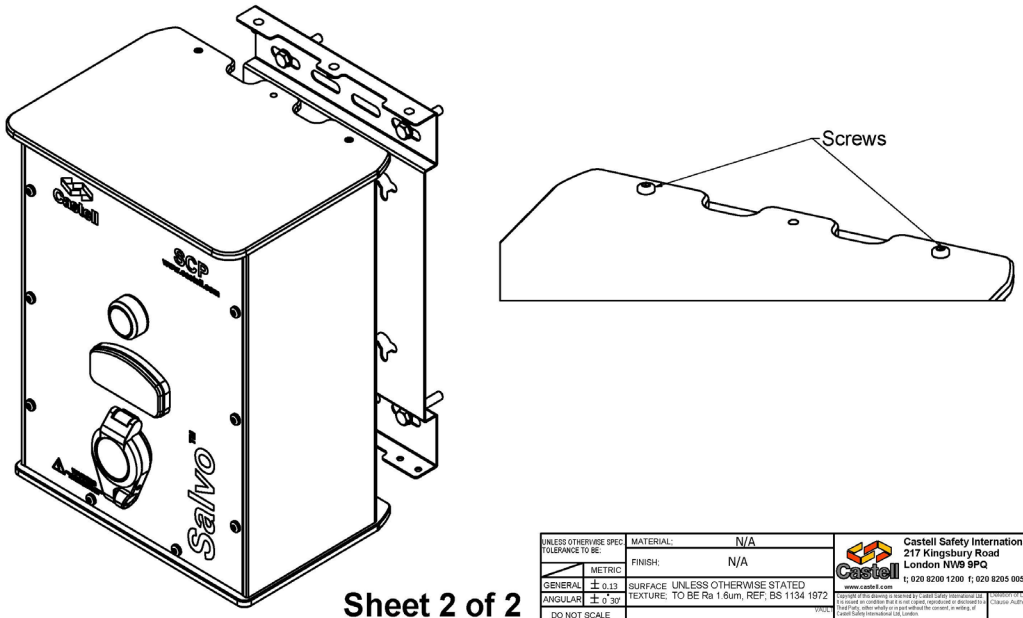
Drawn: Khara | Date: 15/02/2019 | Scale: | 1st Angle
ML No: 008024 | Issue: 1

SCP Mounting Diagram

Step 3.
Position Mounting Bracket in desired position and Fix to the Wall.
Ensure Secure Fitment.
(Bolts and Washers Not Supplied).



Step 4.
Mount SCP Enclosure to Mounting Bracket and slide *DOWN* to lock in position.
Align Fixing Holes and fasten with Screws supplied inside Enclosure.
(2 on Top & 1 on Bottom).

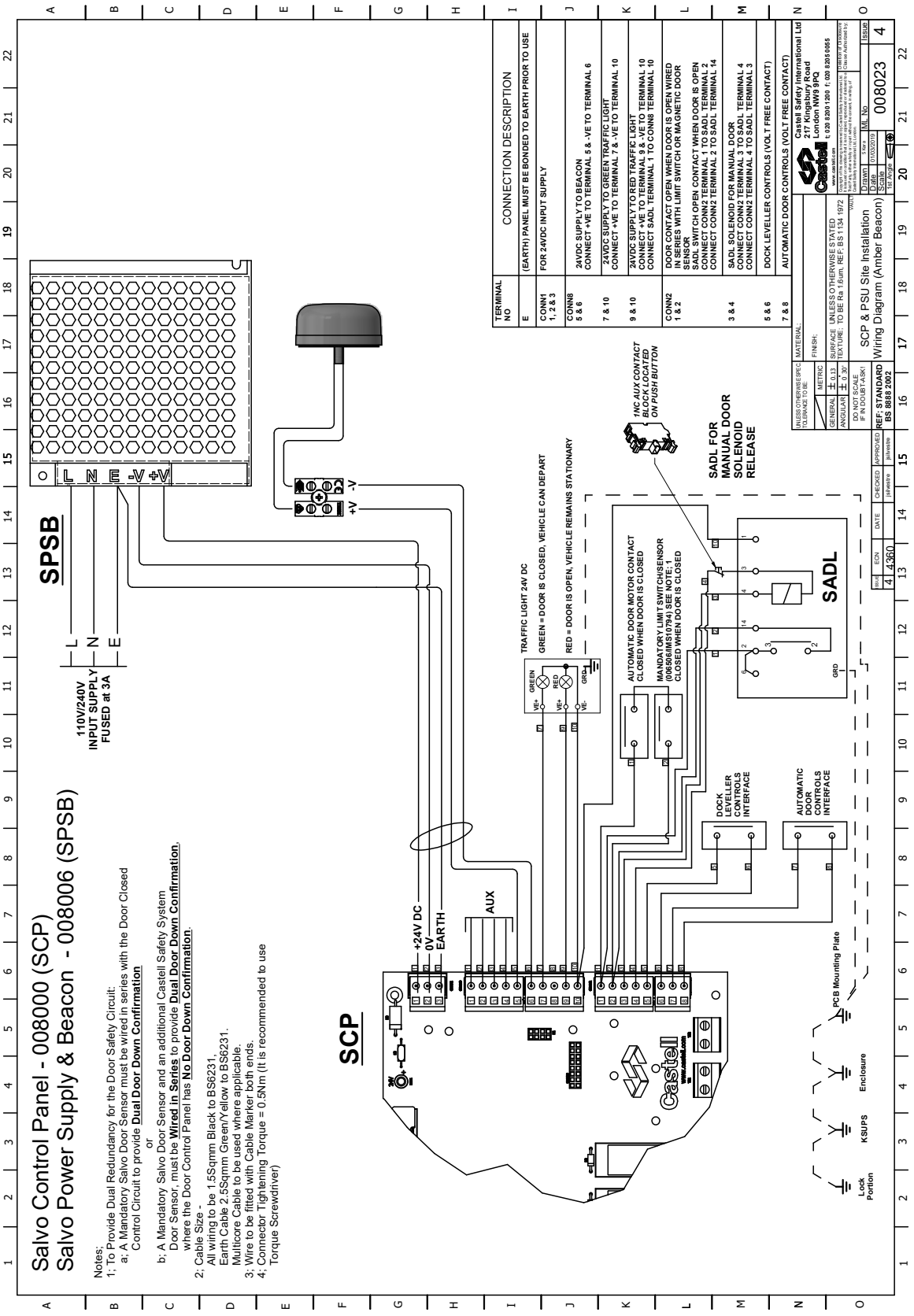


Sheet 2 of 2

UNLESS OTHERWISE SPEC TOLERANCE TO BE:	MATERIAL: N/A	Castell Safety International Ltd 217 Kingsbury Road London NW9 9PQ t: 020 8200 1200 f: 020 8205 0055		
METRIC	FINISH: N/A			
GENERAL ± 0.13	SURFACE TEXTURE: UNLESS OTHERWISE STATED TO BE Ra 1.6um, REF, BS 1134 1972			
ANGULAR ± 0 30'				
DO NOT SCALE IF IN DOUBT-ASK!	REF; STANDARD BS 8888 2002	Salvo Control Panel/Storage Unit Mounting Instructions	Drawn S Kara	ML No 008024
			Date 15/02/2019	Issue 1
			Scale	
			1st Angle	

ISSUE	ECN	DATE	CHECKED	APPROVED
1	3738	21/03/2019	cpatel	cpatel

Wiring Diagram



Order Information

Please advise part number and symbol when ordering.
(mandatory information)**

Part Number**	Symbol**
008000	please advise