

Scorpion Control Panel Installation & Operation Guide (Point and ASD Systems)



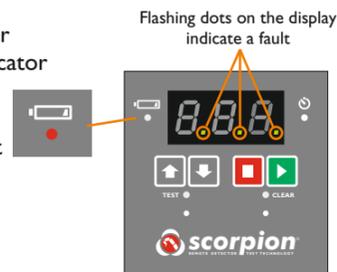
Scorpion Control Panel
SCORP 8000
(including mounting box)



Please read the Scorpion Manual
www.scorpion-tester.com/support
support@scorpion-tester.com

Warnings and Errors

- **Low Battery Indicator** - illuminates when battery power gets low. Tests cannot be made when the low battery indicator is on and the battery will need to be recharged.
- **Error** - Three (3) flashing dots on the display indicate that a fault has occurred causing the internal fuse to blow.



Service / Maintenance

Head Unit

- There are no user serviceable parts in the Scorpion Head Unit which is permanently sealed.
- Opening the Head Unit other than as shown in the Installation Guide will invalidate any warranty.

NOTE: The Head Unit is designed to be permanently installed providing in excess of 240 tests

Control Panel

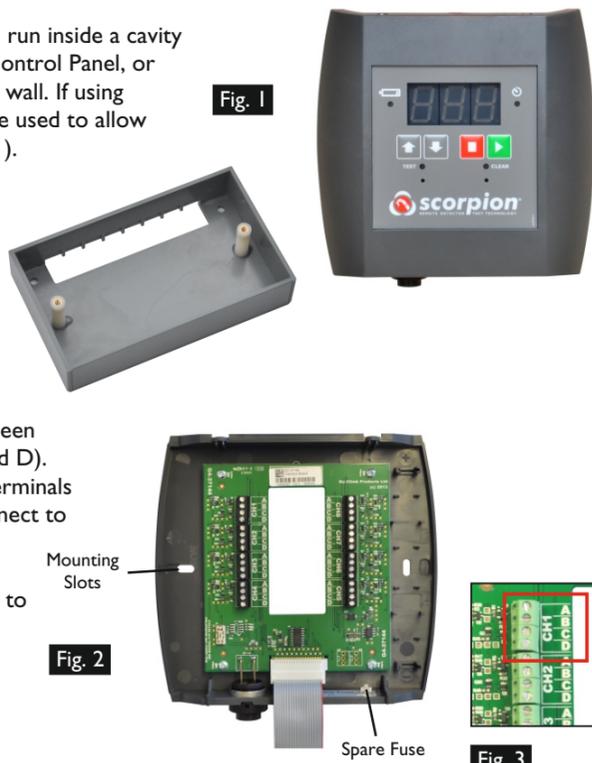
- The Control Panel contains a 500mA fuse which can be replaced if necessary (Littlefuse Surface Mount NANO2 SLO-BLO 500mA fuse, Manufacturer Part No. 0454.500, or equivalent).
- There are no other user serviceable components in the Control Panel.
- In the event of failure, any liability for No Climb Products Ltd. shall be limited to replacement of Scorpion components only.

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1. Control Panel Installation

- The Control Panel is fixed using the two M5 slots in the rear of the box.
- Cabling for the Control Panel can either be run inside a cavity wall with an exit hole directly behind the Control Panel, or can be run in conduit on the outside of the wall. If using conduit, the optional mounting box must be used to allow cable access to the sides of the panel (Fig. 1).
- Undo the two small screws at the top of the panel and carefully remove the front face, taking care not to pull the cable between the two parts (Fig. 2).
- Connect the cable for each Head Unit to the appropriate screw terminals (marked CH1 to CH8) on either side of the rear entry slot. Note which colour wires have been used for each terminal (marked A, B, C, and D). These will connect to the corresponding terminals in the Head Unit. If using 3-core cable, connect to terminals A, B, and C only (Fig. 3).

NOTE: Incorrect wiring may lead to damage to either the Control Panel or the Head Unit.



Cabling

- Scorpion can be connected using the following cables to give up to 100m distance between the Control Panel and each Head Unit:
 - a. Fire resistant cables such as FP200 1.5mm² (Lapp J-Y(ST)Y 0.5mm²), or equivalent recommended
 - b. Maximum conductor size is 1.5mm², minimum is 0.5mm²
 - c. Screened cable is not required
- The connector used in the Head Unit is intended for solid-core conductors for ease of installation in difficult areas. Stranded cable may be used but would need to be tinned (soldered) or terminated with a suitable terminal (ferrule) with an external diameter no greater than 1.5mm.
- Each Head Unit requires three (3) conductors (A, B & C). 4-core cable is recommended.
- Cabling must be installed in accordance with local wiring regulations. Scorpion uses battery power (nominal 7.2V, 2.2Ah).
- Tighten the terminal screws.

CAUTION

This product may be used at height.

Exercise great care and wear appropriate PPE (personal protective equipment) when operating above head height in order to avoid the risk of injury.

2. Control Panel Interface



	Display Indicates: - Head Unit number (1 - 8) - Timer (counting up in seconds when the green LED is on)
	Display - Three flashing dots indicates the internal fuse has blown (see Section 8)
	UP Button - Used to select Scorpion Head Unit or adjust timer - When TEST or CLEAR recessed button is pressed, the UP button increases the time
	DOWN Button - Used to select Scorpion Head Unit or adjust timer - When TEST or CLEAR recessed button is pressed, the DOWN button decreases the time

	RUN Button - Used to start test (smoke generation and/or clearing)
	STOP Button - Used to stop test (smoke generation and start clearing, or to stop clearing, or to stop timer) - Press for 3 seconds to activate or deactivate timer
	Timer Indicator - Lights up when timer is active - The display then indicates the time since smoke generation and/or clearing cycle started
	TEST Indicator - Test cycle in progress (smoke generated and /or clearing functions) - Recessed Button: Press with small pointed tool to change smoke duration
	CLEAR Indicator - Clearing (detector purging) in progress - Recessed Button: Press with small pointed tool to change clearing time
	Battery Low Indicator - Lights up when battery power is low

3. Battery Charging

- The Scorpion Battery Pack (SCORP 50) or Solo Battery Batons (SOLO 760) are used to power the Scorpion System, and must be charged before using Scorpion.
- Only the Solo 726 charger should be used for charging Scorpion Battery Packs or Solo Battery Batons (Fig. 4). Do not connect other types of batteries. Danger of explosion.
- Connect the Solo 726 charger to a mains power outlet (100/240V – 50/60Hz) or 12 volt vehicle accessory socket.
- Connect the Scorpion Battery Pack or Solo Battery Baton to the charger via the seven pin polarised connector and turn the locking ring (Fig. 5-6).
- The LED will flash from red to green for around 5 minutes whilst the battery status is checked. The LED will then turn to red to indicate fast charging, unless the battery is fully charged, in which case it may go directly to green (ready for use) (Fig. 7).
- After fast charging is complete (90 minutes for a fully discharged battery), the charge is automatically converted to a trickle charge and the LED turns to green (ready for use).
- A red flashing LED indicates a faulty battery. Disconnect the battery from the charger and replace with a new battery.
- The battery charger and battery can remain connected under a trickle charge for several hours without damage to the battery. This maintains the battery in a fully charged state, ready for use.
- **Note:** If the battery is not to be used for some time (i.e. within the next day), it is advisable to unplug the charger from the power supply.
- To stop charging, disconnect the power plug before removing the battery from the charger.
- To obtain the maximum battery life, the Scorpion Battery Pack or Solo Battery Baton should be fully discharged before recharging when possible.



	WARNING Do not attempt to use or charge the battery if either the unit or the battery connection point are damaged. Never connect AC and DC power at the same time.
	CAUTION Store charger in a dry place (indoor use only when connected to AC mains). Danger of fire and electric shock! Do not fast-charge a hot battery. Allow the Battery Baton, or Scorpion Battery Pack, to cool down naturally before starting a charge cycle. Allow the charger to cool down for at least 15 minutes after one fast charge. Stop charging if the Battery Baton, or Scorpion Battery Pack, becomes too hot during charging (>55-60°C). Do not leave unattended whilst charging. Only clean with a dry cloth. Do not attempt to open the charger. Repair permitted only by authorised dealer. Battery Batons, or Scorpion Battery Pack, must be stored and charged in accordance with stated environmental conditions. Environment: Operating temperatures: 5°C to 45°C / 40°F to 115°F Storage temperature: -10°C to 50°C / 15°F to 120°F Humidity: 0-90% RH non-condensing

4. Connecting the Battery

- With a Scorpion Battery Pack (SCORP 50), insert the connector at the end of the Battery Pack to the socket at the bottom of the Scorpion Control Panel. The connectors need to be aligned before they can push together. Once inserted, twist the collar on the battery socket clockwise to lock the battery into place.
- To remove the battery, twist the collar anti-clockwise to unlock, then pull gently to disengage.
- When using a Solo Battery Baton (SOLO 760), a Scorpion Battery Cable (SCORP 60) is required to connect the battery baton to the Scorpion Control Panel.



5. Setting TEST and CLEAR Times

- The time that is required for **TEST** (the time for which smoke is generated) and **CLEAR** (ambient air is blown through the detector chamber) can be changed depending on the system activation time.
- **TEST** (default time is 15 seconds)
- **CLEAR** (default time is 15 seconds)
- Press and hold the relevant **TEST** or **CLEAR** recessed button with a small blunt tool.
- The corresponding LED will start to flash.
- Press the **UP** button to increase the time or the **DOWN** button to decrease the time. The time is shown on the display.
- **TEST** - time range is 5 to 90 seconds
- **CLEAR** - time range is 10 to 60 seconds
- When the required time is shown, release the **TEST** or **CLEAR** recessed button. The time is now set and is saved in the Control Panel for future use. This time is used for all the Head Units connected to that panel.

NOTE: the **CLEAR** function is used to purge smoke from the detector to enable it to reset more quickly. It cannot be used to clean the internal components of the detector.

6. Enabling the Transport Timer

- The Transport Time is used in ASD systems, and is the time taken between the start of smoke generation and the event appearing on the ASD panel.
- The Timer is activated / deactivated by pressing and holding the **STOP** button for 3 seconds.
- The Timer Indicator LED flashes fast for 3 seconds to show the timer has been activated, and flashes slowly for 3 seconds when deactivated.
- During a test cycle, the Timer Indicator LED is illuminated and the display shows the time since the start of smoke generation (counting up).



7. Test Procedure

- Select the head to be tested using the **UP** and **DOWN** buttons (head number is shown on the display). The Control Panel will allow selection of up to 8 heads, even if no head is connected to that port.
- Press the **START** button to begin the test.
- The test will run based on the times set for **TEST** and **CLEAR** (see Section 5). The LED indicators on the front panel illuminate to show the stage of the test i.e. **SMOKE** or **CLEAR**. Once the test has been completed, the system will stop automatically.
- If a manual stop is needed, then press the **STOP** button. Depending on the stage of the test, the **STOP** button will have the effect shown in the table below.

		TEST STAGE				
		Button	SMOKING	CLEARING	DISPLAY	
POINT	START		Smoke ON	→	→	Shows Head Number
	STOP		Stops Smoke and starts Clearing	→	→	Shows Head Number
	STOP		→	→	→	Shows Head Number
ASD	START		Smoke ON and Timer starts	→	→	Shows time counting up
	STOP		Stops Smoke and Clock - starts Clearing	→	→	Shows stopped time
	STOP		→	→	→	Shows stopped time
	UP or DOWN		Once test has stopped (either run its course or stopped manually), any button will clear the time from the display and allow the next head to be selected	→	→	Shows Head Number