PRODUCT SUPPORT

GradeShift Pro 2

Updated September 11, 2026



Wireless 4G dual-path signalling at any grade, with unrivalled management tools. Our dual-path signalling solution utilises a combination of two Radio paths or one Radio and one LAN path to signal an alarm. Each SIM operates on an independent network from the other for total resilience. GradeShift Pro 2 is also compatible with CSL Live (https://www.csl-group.com/resources/csl-live/) and the My Base App. (https://www.csl-group.com/resources/my-base-app-2-0/)

GradeShift Pro 2 Radio/Radio uses two active 4G WorldSIMs, each with its own radio module, one as the primary and one as the secondary path. A third standby SIM acts as a backup to the primary SIM on the primary path. GradeShift Pro 2 LAN/Radio uses LAN connectivity for its primary path and a 4G WorldSIM as its secondary path. A standby WorldSIM is also supplied.

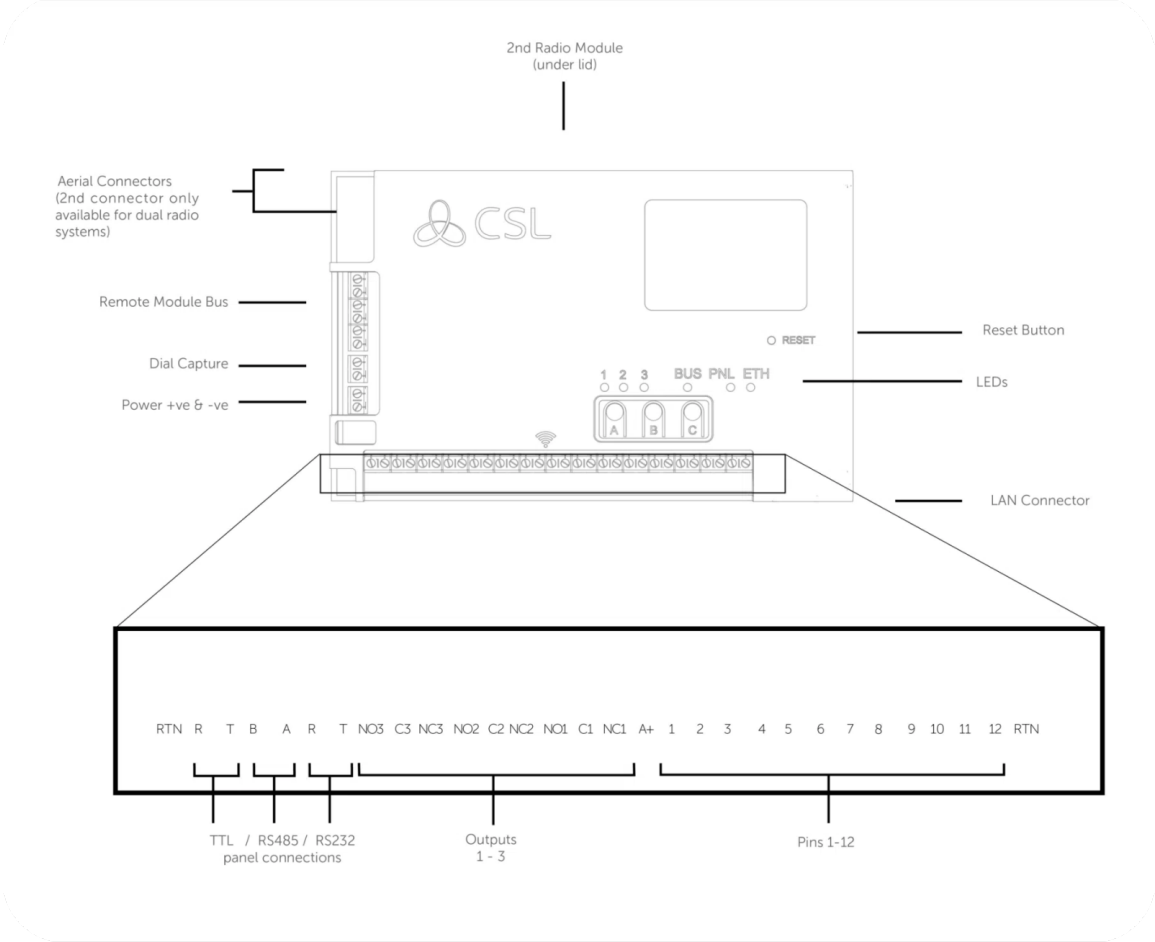
Latest information
https://www.csl-group.com/support/gradeshift-pro-2/

Quick Guide

Introduction

The DualCom Pro 2 Range offers Installers easier, faster installation of a professional signalling system with even greater resilience, plus access to CSL Live, our ordering and management portal.

Using the onboard serial connections, pins triggering or dial capture, DualCom Pro 2 is compatible with a wide range of control equipment including systems installed to EN50136 & PD6662. The range consists of DigiAir Pro 2 – our single-path solution that utilises a Radio path or LAN to signal an alarm; and GradeShift Pro 2 – our dual-path solution that utilises a combination of two Radio paths or one Radio and one LAN path to signal an alarm.



It's as Easy as 1, 2, 3

Most DualCom Pro 2 units are ready to go after these few simple steps



Wire and connect power

Refer to step 3 in the main quick guide for information on pins and serial connections



Wait 5 Minutes for LEDs 1-3 to go Green

Whilst your DualCom Pro 2 downloads its configuration



You're good to go!

For customisation use the CSL My Base App/Web Portal. For panel configuration instructions see our online guides

Need a My Base Account?

CLICK HERE TO REGISTER (https://www.csl-group.com/resources/my-base-app-2-0/)

Need One Time My Base Access?

CLICK HERE (https://mybase.csl-group.com/new-install)

Need Panel Configuration Instructions?

CLICK HERE TO FIND YOUR PANEL (https://www.csl-group.com/panel-guides/)

Need UDL Configuration & Install Instructions?

CLICK HERE TO FIND YOUR UDL GUIDE (https://www.csl-group.com/udl-guides/)

Step 1 – Site Survey

Variants with Radio

Use a CSL Signal Analyser to determine if enough base stations (2 or more) are available at the site and that they can supply sufficient signal strength (30% and above). This will determine the optimum location for the DualCom's aerial to be mounted.

If you do not have a Signal Analyser we recommend powering up the DualCom Pro 2, connecting the aerial/s, going through the commissioning process and checking the signal strength before permanently fitting the aerial. Whilst in the connectivity menu, LED 1 (for single radio systems) or 1 & 2 (for dual radio systems) should be green to show an acceptable level of Radio signal/quality. See Connectivity LED section for more information see Section 4 – Testing (Figure 11).

Variants with LAN

DualCom Pro 2 uses DHCP as default, fixed IP settings can be added/amended in the My Base App. Fit the Ethernet Cable to the device and connect to the customer's router. Ensure the customer's LAN socket is live and their network allows access to the CSL servers – the CSL Live (https://www.csl-group.com/support/csl-live/)section has more information about what is required.

The ETH LED will flash green to indicate connection.

Step 2 – Installation

DualCom Pro 2 must be installed within an enclosure suitable for the installation certification. The unit should be fixed securely using the adhesive pads supplied or via the screw fixings accessible by removing the lid.

Once fitted, ensure:

a – As required, the aerial/s are connected and/or the ethernet cable is installed

b – The alarm panel or PSU is powered down, then wire the DualCom Pro 2 in this order.

1. Neg (-) power , 2. Pos (+) power , 3. serial cable or inputs

c – If required, connect the serial cable – RS485, RS232 or TTL (panel dependent) – see Section 3 – Commissioning (Figure 6) for more information

d – Connect any hardwired alarms into the device – see Section Technical Specifications (Figure 1) for more information

e – Connect the fault output

f – Ensure that all inputs are electrically isolated

g – Restore power to the alarm panel or PSU

IN ORDER TO MAINTAIN COMPLIANCE WITH THE REQUIREMENTS FOR ELECTRICAL SAFETY THE DUALCOM PRO SHOULD BE POWERED FROM A FUSED CONNECTION WITH FOLLOWING RATING:

- **FOR A 12V DC SYSTEM (SUPPLY VOLTAGE IN THE RANGE 10VDC TO 14VDC) A FUSE RATED AT 1.25**
- **FOR A 24V DC SYSTEM (SUPPLY VOLTAGE IN THE RANGE 20VDC TO 36VDC) A FUSE RATED AT 600 MA**

IF THE POWER SOURCE IS NOT LIMITED TO THESE VALUES, THEN A FUSE WITH THE CORRECT RATING MUST BE FITTED IN LINE WITH THE POSITIVE CONNECTION FROM THE POWER SOURCE

SITING AERIAL

DO	• INSTALL VERTICALLY IN AN OPEN SPACE. • COMPLETE A SIGNAL TEST BEFORE INSTALLING IN THE FINAL POSITION.
DON'T	• INSTALL CLOSE TO METAL OR SOURCES OF INTERFERENCE, I.E. WIRING, LIGHTING, ELECTRICAL INSTALLATIONS, COMPUTERS, MONITORS, ROUTERS & OTHER EQUIPMENT

Step 3 – Commissioning

On power-up, the DualCom Pro 2 will automatically contact the Gemini Global Platform to perform its commissioning process, which will take up to 5-8 minutes. Once commissioning is complete, LED 3 will go green to indicate that the device is fully commissioned – see **Below Figure 2**.

LED 1 – Power	LED 2 – Comms Path	LED 3 – Commissioned
		

MENUS & BUTTON CONFIGURATION

All device programming can be performed using the My Base App. We strongly recommend you use this App instead of the buttons and LED menu as it provides access to various hardware and site information. You can also use the one-time access page to install a device using your mobile phone or web browser even without login details. If you cannot get online during the install you can use the LED menu system and buttons.

LED MENU SYSTEM

Once commissioned, DualCom Pro 2's menu system is divided in to 2 sections: Quiescent/Normal State and Connectivity.

BASIC BUTTON CONFIGURATION

To move between sections during installation press the A button. Whilst in quiescent/normal state, tap the C button to send a Test Call or Press and hold for 5 seconds to allow the device to perform a self-learn of the current input state.

Figure 3 – Quiescent/Normal state

LED 3 will show the device status.

- **Green** = paths and system are OK
- **Amber** = 1 path is not working
- **Red** = error

LED 1 – N/A	LED 2 – N/A	LED 3 – Device Status
		

Press button A once in quiescent/normal state to enter this menu. LEDs 1 & 2 will show the signal/connectivity status of your paths.

> LEDS BELOW SHOW FOR RADIO PATHS. ONCE PLUGGED IN, LAN CONNECTED DEVICES WILL SHOW GREEN = GOOD CONNECTION / AMBER = POWERED BUT NO DATA CONNECTION

• Solid green = good signal

• Flashing green = acceptable signal

- Flashing amber = emergency, only/low signal available (move aerial)
- Flashing red = SIM not ready/no signal available (move aerial).
- Red = error

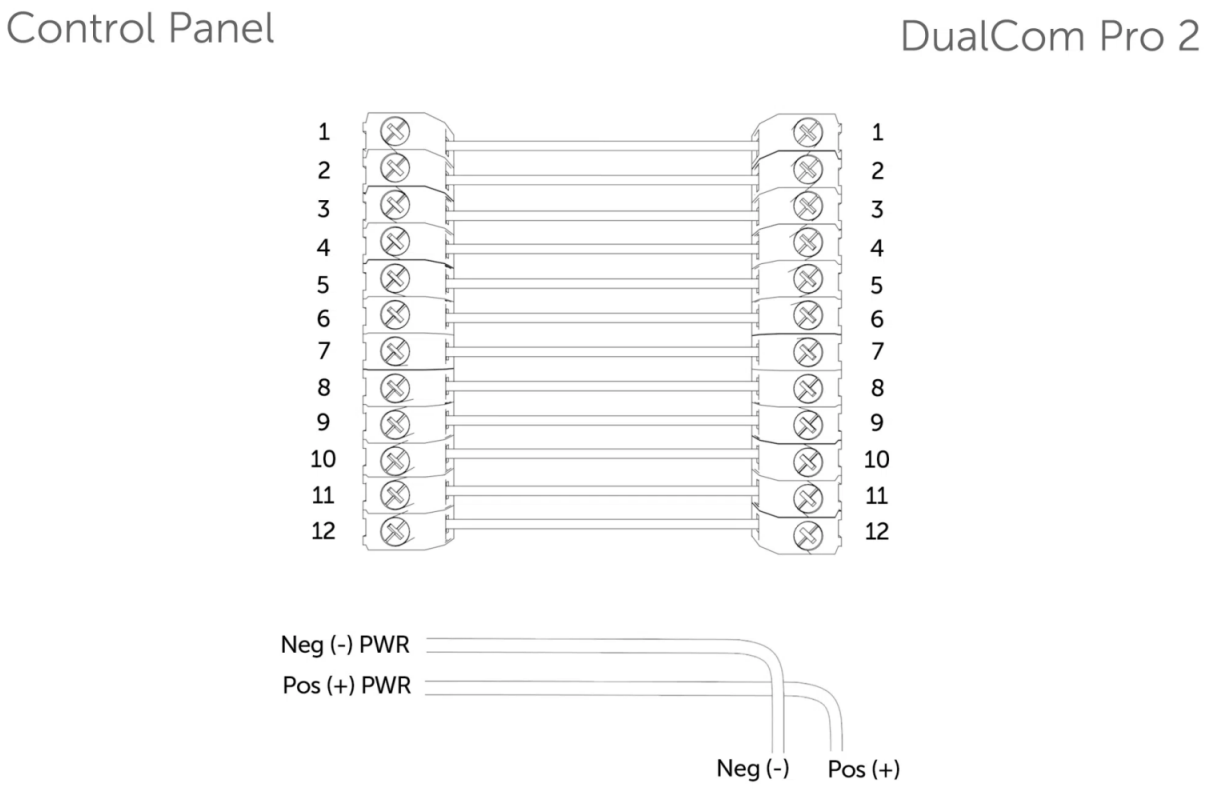
Figure 4 – Connectivity

LED 1 – Primary Path	LED 2 – Secondary Path (if Applicable)	LED 3 – N/A
		

PIN TRIGGERING

For this operation the device is triggered by removing or applying zero volts to input terminals 1-12. No external pull-up resistors will be required. This is generally achieved via the digital communicator outputs of a control panel. On receiving an input to the pins terminals the unit will signal alarm conditions and will generate the relevant messages and forward them via the Gemini Global Platform to the ARC. Installers are advised that the intended use should avoid situations where the rate of trigger exceeds the rate at which messages are received at the ARC receiver.

Figure 5 – Example of pin triggering wiring



PIN INPUT CONFIGURATION

• To self-learn the current panel input status, press button C whilst in quiescent/normal state for 5 seconds. LED 3 will flash red twice once completed.

• To change the input from negative removed or applied to positive removed or applied, change the pin bias via My Base under the Hardware menu button and use the A+ terminal instead of RTN.

IF YOU CANNOT CHANGE THE PANEL'S POLARITY AND YOU DO NOT HAVE ACCESS TO MY BASE OR THE WEBSITE, PLEASE SPEAK TO OUR TECHNICAL SUPPORT TEAM

DualCom Pro device general inputs are defined as SIA untyped alarms for pins 1-12 (excluding pin 4).

UA/UR8001 to 8012 on standard product configuration.
Example: [#123456|NUA8001|AChannel 1 Alarm]
[#123456|NUR8001|AChannel 1 Restore]
DualCom Pro device pin 4 Open / Close inputs defined as SIA alarm OP and CL

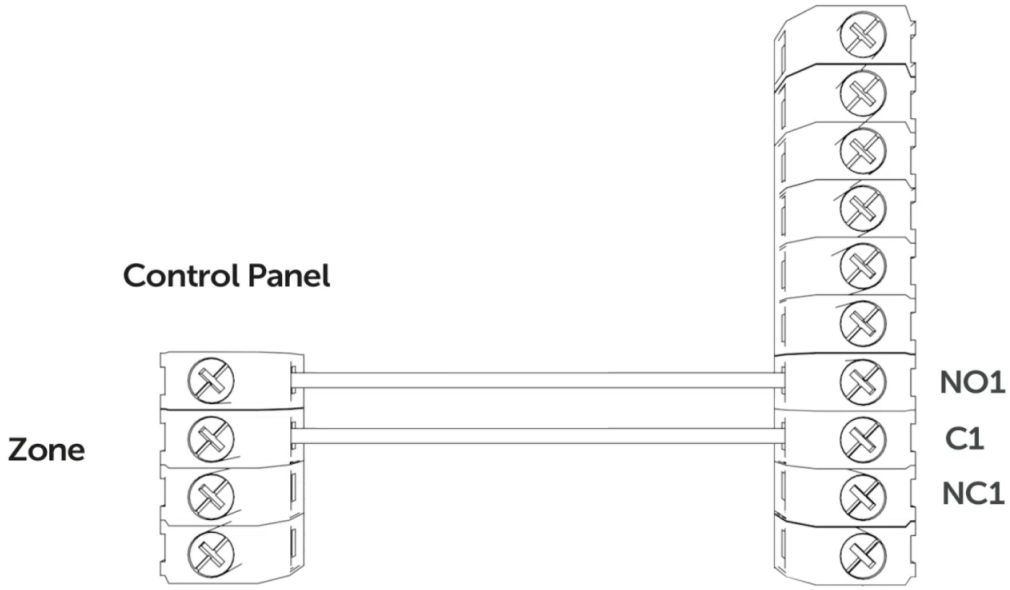
OP/CL8004 on standard product configuration.
Example: [#123456|NOP8004|ASystem Set]
[#123456|NCLR8004|ASystem Unset]

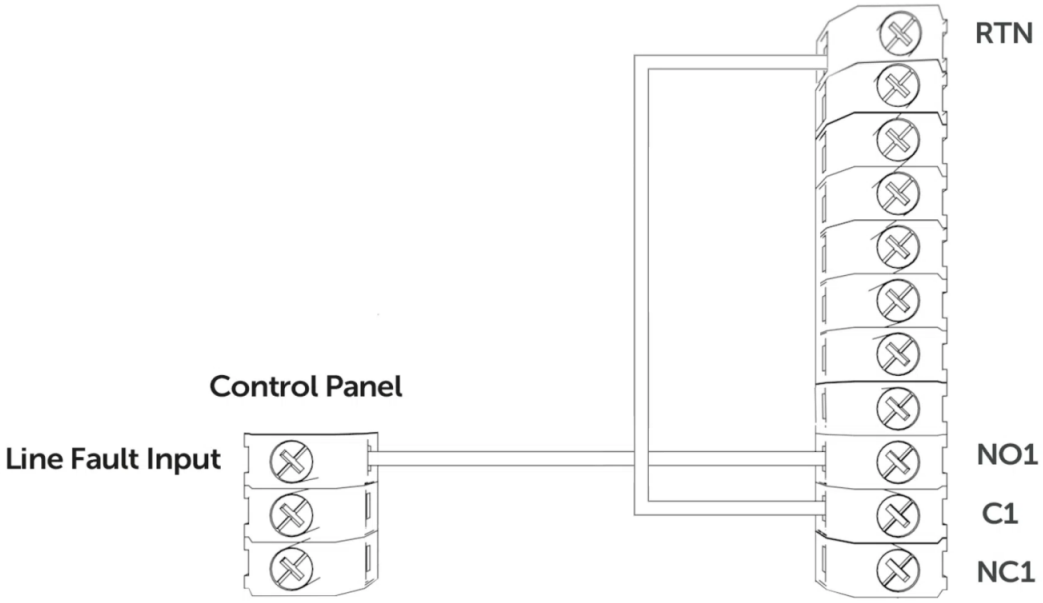
OUTPUTS

All 3 outputs can be configured as either N.O or N.C as required. Output 1 is defaulted to indicate a total path fail condition to the control panel. Output 1 can be reconfigured to indicate another path failure type, Output 2 can be configured to indicate a path fail condition or be used as a manual trigger and Output 3 can be used as a manual trigger. To make any amendments please use the My Base App.

IF THE DEVICE IS POWERED BY A 24V (FIRE PANEL), THE + TERMINAL SHOWN WILL STILL DELIVER 12V

Figure 6 – Example of Fault Output Wiring




RTN
Control Panel
Line Fault Input
NO1
C1
NC1

DIAL CAPTURE

DualCom Pro 2 simulates and replaces the phone line connection to the control panel's Digi-Modem. The control panel's Digi-Modem must use one of the following alarm formats: Fast Format*, Contact ID or SIA. In the event the control panel needs to send a signal to the ARC, DualCom Pro 2 will capture the message and forward it, via Gemini, to the ARC. The Digi-Modem must have an ARC telephone number (ie 01) and account number (ie 1234) programmed for Dial Capture to work. If you want to monitor the Dial Capture connection, you will need to connect an output configured as PSTN line fault on your control panel, to one of the DualCom's inputs. That input then needs to be designated as Dial Capture Fail at your ARC.

*Please confirm compatibility of Fast Format with DualCom Pro 2 via your ARC.

Figure 7 – Dial Capture Wiring



PANEL CONNECTION

Your device will come pre-configured without a panel connection (pins only). To enable serial connection to a control panel, go to the My Base App and select the panel type.

Panel guides can be found by clicking the panel type (after selection) via the My Base App; scanning the QR code below or by visiting the Installer Zone on our website.

SERIAL / RS232 / 485 / TTL PANEL CONNECTIONS

As standard, DualCom Pro 2 is supplied with a serial cable compatible with Honeywell (RS485), Orisec (TTL), Pyronix (RS232), Texecom (TTL) and HKC (TTL) panels. Other types may require an additional cable/plug-in that can be purchased on our Installer Shop. It is possible to use pins and serial cable together, if required.

MANUFACTURER	PANEL	CONNECTION	CABLE/PLUG ON	SUPPLIED CABLES
Honeywell	Galaxy	RS485	4 Pin (cable provided)	Green – RTN Blue – RS485-B Red – RS485-A
Orisec	All	TTL	4 Pin (cable provided)	Green – RTN Blue – TTL-T Red – TTL-R
Pyronix	Euro	RS232	6 Pin (cable provided)	Green – RTN Blue – RS232-R Red – RS232-T
Texecom	Premier/Elite	TTL	5 Pin (cable provided)	Green – RTN Blue – TTL-R Red – TTL-T
HKC	1070/10270	TTL	4 Pin (cable provided)	Green – TTL-R Blue – RTN Red – TTL-T

For RISCO, Eaton, UTC and other panels, please purchase the relevant cable from CSL Live. For other connections or further instructions on Control Panel programming, panel guides can be found by clicking the panel type (after selection) via the My Base App, by scanning the QR code below or visiting the Installer Zone of our website.

Figure 8 – Serial Cable (RS232/485/TTL)



> YOU MUST POWER DOWN THE CONTROL PANEL AND DUALCOM PRO 2 BEFORE CONNECTING THE SERIAL LEAD TO AVOID DAMAGE

Step 4 – Testing

Before leaving site you must test the DualCom Pro 2 device as per these steps.

a – Place device on test at the ARC and send a range of signals from the panel

b – Perform a path test by tapping button C whilst in quiescent/normal state

c – LED 3 will flash to show signals are being sent

d – Check signals are received at the ARC

You should also simulate path failures at part of the testing process.

a – Place device on test at the ARC

b – Whilst in the quiescent/normal state section, press button A to get to the connectivity menu. The LEDs (LED 1 = single-path, LED 1 & 2 = dual-path) will be lit

c – Hold button B for 5 seconds. Once let go, LED 1 will go red to show path 1 is in simulated fail

d – For dual-path devices, hold button C for 5 seconds. Once let go, LED 2 will go red to show path 2 is in simulated fail. Check signals are received at the ARC

e – Tap button B & C to restore each path. LEDs 1 and/or 2 will go green. Check path failure signals are received at the ARC

> IF YOU HAVE PURCHASED A DUAL-PATH DEVICE, YOU MUST ENSURE BOTH PATHS ARE CONNECTED BEFORE LEAVING SITE.

> IF YOU DISCONNECT BOTH PATHS AT THE SAME TIME, MY BASE WILL ONLY SHOW THE FIRST PATH IN FAILURE. THIS IS EXPECTED BEHAVIOUR.

LEDS & TROUBLESHOOTING

Figure 9 – Commissioning LEDs

As the DualCom Pro 2 powers up for the very first time it will run through a commissioning process. You will need to wait for LEDs 1, 2 & 3 to go green before the unit reboots.

LED 1	LED 2	LED 3
 No light = No power	 Red flashing = No comms	 Red flashing = No comms
 Red flashing = Power Start Up	 Amber solid = 1 path comms (dual-path systems)	 Amber flashing = Comms path found
 Green solid = Power On	 Green solid = All paths comms (dual-path systems)	 Amber solid = Commissioning server found. Contacting alarm server
		 Green solid = Fully Commissioned

Figure 10 – Quiescent/Normal State LEDs

Once commissioned, the unit will return to its quiescent/normal state. Only LED 3 should be visible and will show you whether the unit has any errors or is transmitting data.

LED 3
 Red solid = Error found on the device (no commissioning performed)
 Amber flashing = Only one path is working on the dual-path system and the device is currently transmitting or receiving data (pdp context active)
 Amber solid = Only one path is working on the dual-path system, however it is able to transmit & receive data
 Green flashing = No errors found and the device is currently transmitting or receiving data (pdp context active)
 Green solid = No major errors found

Figure 11 – Connectivity Section

To toggle between the connectivity section and quiescent/normal state press button A. Single-path systems will only show LED 1. Dual-path systems will show both LEDs 1 & 2. LAN data transmission is covered by the ETH LED.

LED 1	LED 2
 Red flashing = No signal / SIM not ready or LAN not connected	 Red flashing = No signal / SIM not ready or LAN not connected
 Amber flashing = Registering / Signal is unacceptable / LAN connected but cannot transmit data	 Amber flashing = Registering / Signal is unacceptable / LAN connected but cannot transmit data
 Green flashing = Signal is acceptable (3/10) but could be improved	 Green flashing = Signal is acceptable (3/10) but could be improved
 Green solid = Signal 4/10 (or above) or LAN connected	 Green solid = Signal 4/10 (or above) or LAN connected

Figure 12 – Simulate Path Fails (testing the system)

It is possible to simulate a path fail for the primary and secondary path. Once in the connectivity section, press and hold B to fail the primary path and/or C to fail the secondary path. The path will stay in fail for 15 mins unless you tap B or C again.

LED 1	LED 2
 Red flashing = Interface in fail mode	 Red flashing = Interface in fail mode
 Green flashing = Interface tx/rx data	 Green flashing = Interface tx/rx data
 Green solid = Interface out of fail mode	 Green solid = Interface out of fail mode

Figure 13 – Additional LEDs

There are 3 additional LEDs shown as BUS, PNL and ETH.

LED 1	LED 2	LED 3
BUS	RS422 connection to additional accessories (i.e remote radio module)	 Green/Amber flashing = Data is being transferred
PNL	Serial connection to panel	 Green/Amber flashing = Data is being transferred

ETH	LAN connection to customer's router	 Green/Amber flashing = Data is being transferred

RADIO TROUBLESHOOTING

How can I fail my signalling paths without having to disconnect them?

To fail each path enter the connectivity menu (see simulate path fail section – Figure 12 above). Press and hold B to fail the primary path or C to fail the secondary path. The path will stay in fail for 15 mins unless you tap B or C again to restore the applicable path.

How can I check the signal strength of each radio module?

You can check the signal strength of each radio module on a commissioned device via the My Base App. Alternatively, when in the quiescent/normal state, you can press button A to toggle to the connectivity menu. Once there, LED 1 (first path) & LED 2 (second path) will show you the signal strength. We recommend a solid green LED (40% or 4/10).

Does my unit have a roaming SIM?

Yes, all DualCom Pro 2 devices come with at least 2 Roaming 4G SIMs

My signal strength is less than 30% (3/10) or my LED is orange/red. What can I do to improve it?

For all radio variants:
- Avoid coiling the aerial cable
- Move the aerial away from electrical equipment/wiring
- Move the aerial to a higher point in the property or closer to a window/door

Fire Guide

The DualCom Pro Fire Quick Guide can be found here. (https://www.csl-group.com/support/dualcom-pro-fire/?tab=quick-guide)

4G Radio Module Installation Guide

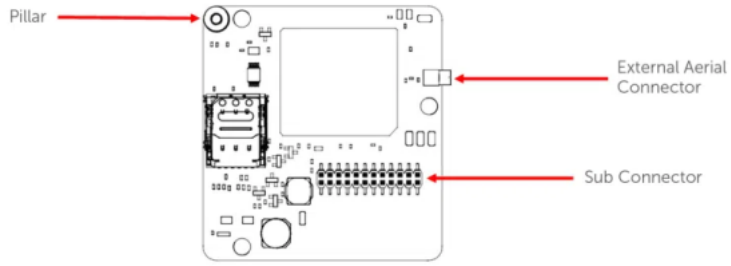
Product Description

The GradeShift Pro 2 4G Radio Module allows you to upgrade an existing/new GradeShift Pro 2 installation with an additional 4G signalling path. This Module is to be installed directly onto the GradeShift Pro 2 PCB.

When upgrading, you must ensure you follow the regrades process, as additional configuration changes are required to successfully regrade.

For further information on this process, check out this 2-minute video. (https://www.youtube.com/watch?v=aXICjc0dOMU)

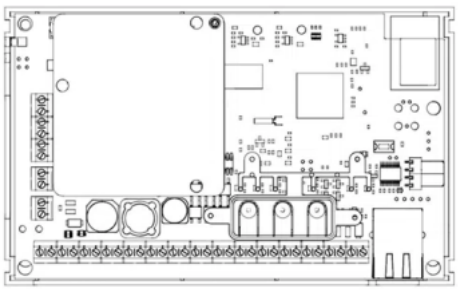
Figure 1 – Diagram for the back of the GradeShift Pro 2 4G Radio Module.



Connecting the GradeShift Pro 2 4G Radio Module directly to the device:

1. Ensure the GradeShift Pro 2 and alarm system are powered down before connecting the device.
2. Carefully remove the lid from the device.
3. Connect the 4G Radio Module to the sub connector, making sure that it is correctly aligned and fits the supplied retaining screw to hold the board in place.
4. Reattach the lid to the device.
5. Connect the aerial (see Figure 1).
6. Power up the alarm system and the GradeShift Pro 2.

Figure 2 – A GradeShift Pro 2 4G Radio Module is correctly connected to the device.



THE GRADESHIFT PRO 2 4G RADIO MODULE CAN ONLY BE CONNECTED DIRECTLY TO THE PCB.

Technical Specifications

Supply Voltage	13.5v
Current Consumption	33mA (average) 200 mA (max)
Dimension (PCB Only)	(L) 55mm x (W) 11mm x (H) 58mm
Weight (Unpackaged)	20g

Technical Specs

Technical Specifications

Dimensions	90mm (h) x 142mm (w) x 22mm (d)
Weight	189g excluding aerial
Temperature	-10 °C to + 55 °C
Humidity	0 – 90% non-condensing
Mounting	Via fixing points under main cover
Warranty	5 years
Power Requirement	10 – 35 Volts DC In order to maintain compliance with requirements for electrical safety, the Dualcom Pro should always be powered from a fused supply with the following rating: • For a 12V DC system (supply voltage in the range 10 Volts DC to 14 Volts DC), a fuse rated at 1.25 • For a 24V DC system (supply voltage in the range 20 Volts DC to 35 Volts DC), a fuse rated at 600 mA If the power source is not limited to these values, then a fuse with the correct rating must be fitted in line with the positive connection from the power source. The SPT will shut down on detecting a low supply of 7.6 Volts DC +/- 0.5 Volts DC
Current Consumption	GradeShift Pro 2 LAN Radio 12V Power Supply: 100 mA (average value) GradeShift Pro 2 LAN Radio 24V Power Supply: 63 mA (average value) GradeShift Pro 2 Dual Radio 12V Power Supply: 120 mA (average value) GradeShift Pro 2 Dual Radio 24V Power Supply: 72 mA (average value)
Radio Path	2G, 3G, 4G

Output Ratings	Maximum applied voltage = 60VMaximum current = 150mA
Aerial	50 ohms (nominal) on MMCX socket
Operation Method	Store and forward
CIE Interconnections	Input triggering (standardised parallel), RS232, RS485, TTL
RCT Protocols	SIA
Input Terminals	Max +30 Volts, Min 0 Volts DC (reference supply 0V) with a + or – 40% change for > 200ms.
Low Battery	7.6V DC +/- 0.5 VDC
User Serviceable Parts	There are no serviceable parts within the DualCom Pro Range
Applicable Standards	Suitable for use in alarm systems complying to: • EN50131-1:2006+A2:2017 • EN50136-1:2012+A1:2018 • EN 54-21 LAN (Type 1): D4, M4, T5, A4, S0, I0 • EN 54-21 GSM (Type 1): D4, M4, T3, A4, S0, I0 • PD6662:2017 • PD6669:2017 Emissions Standard – Radio Equipment Directive 2014/53/EU (RED) EN 50130-5 Environmental Class II ATS Classification EN 50136-2:2013 SP2, SP3, SP4, DP1, DP2, DP3, DP4 ATS Configuration EN 50131-10:2014 Type Y ATS Classification EN 50136-1-1:1998 • Radio D3, M3, T4, S2, I3, A4 (ATS5) • LAN D3, M3, T5, S2, I3, A4 (ATS5)

Safety Information:

This equipment is intended for professional installation only.

The **DualCom Pro 2** shall be installed within an enclosure or control panel that provides compliance with the applicable system safety standards. The device is designed to be powered from a limited power source (SELV).

Installation and operation shall be carried out in accordance with the instructions provided. Incorrect installation or operation may compromise safety and regulatory compliance.

The product contains radio transmitters. It shall be installed and operated in accordance with the instructions to ensure compliance with applicable electromagnetic field (EMF) exposure limits.

Do not attempt to open, modify, or repair this equipment.

Regulatory Compliance – Radio Equipment Directive (RED)

Hereby, CSL DualCom Ltd declares that the **DualCom Pro 2** radio equipment type is in compliance with Directive 2014/53/EU (Radio Equipment Directive).

The product fulfils the essential requirements of the Directive:

- Article 3.1(a): Health and safety
- Article 3.1(b): Electromagnetic compatibility
- Article 3.2: Effective use of the radio spectrum

The full text of the EU Declaration of Conformity is available from the manufacturer (CSL DualCom Ltd) here. (https://www.csl-group.com/contact-us/)

GRADESHIFT PRO 2

PATH	AVAILABLE GRADES	WHAT'S IN THE BOX	PART NUMBER
LAN + Radio	DP2 DP2+ DP3 DP4	GradeShift Pro 2, serial cable, single T-bar aerial, ethernet cable	CS.53.LR2 CS.53.LR2P CS.53.LR3 CS.53.LR4
Radio + Radio	DP2 DP2+ DP3	GradeShift Pro 2, secondary radio module, serial cable, dual T-bar aerial	CS.53.RR2 CS.53.RR2P CS.53.RR3

UK CA | CE

24

CS.51.HWR.02 / CS.51.HWL.02 / CS.53.HW.02 / CS.55.HW.02 / CS.40.104.02
CSL DualCom ltd. Building 4, Croxley Park, Hatters Lane, Watford, WD18 8YF
KIWA 0063-CPR-242190024 / 00
EN 54-21:2006 Fire detection and fire alarm systems / Alarm transmission and fault warning routing equipment EN 50131-10:2014 EN 50136-1:2012/A1:2018 EN 50136-2:2013 PD6662:2017 / PD6669:2017
Type of transmission system: Fire Safety – Type 1 Security – SP2, SP3, SP4, SP5, DP1, DP2, DP3, DP4 Security Grade: 1- 4 depending on the I&HAS housing in which it is installed. Environmental Class: II Certification Body:Kiwa Nederland B.V
www.csl-group.com

Panel Guides

Generic Guides
(2)
(https://www.csl-group.com/panel-guides/?guide=generic-guides)

Advanced
(2)
(https://www.csl-group.com/panel-guides/?guide=advanced)

Alphatronics
(1)
(https://www.csl-group.com/panel-guides/?guide=alphatronics)

Carrier
(12)
(https://www.csl-group.com/panel-guides/?guide=carrier)

DSC
(2)
(https://www.csl-group.com/panel-guides/?guide=dsc)

Eaton
(7)
(https://www.csl-group.com/panel-guides/?guide=eaton)

FireClass
(1)
(https://www.csl-group.com/panel-guides/?guide=fireclass)

GSD
(1)
(https://www.csl-group.com/panel-guides/?guide=gsd)

Hills
(1)
(https://www.csl-group.com/panel-guides/?guide=hills)

HKC
(3)
(https://www.csl-group.com/panel-guides/?guide=hkc)

Honeywell
(9)
(https://www.csl-group.com/panel-guides/?guide=honeywell)

IFAM
(1)
(https://www.csl-group.com/panel-guides/?guide=ifam)

Inim
(2)
(https://www.csl-group.com/panel-guides/?guide=inim)

InnerRange
(1)
(https://www.csl-group.com/panel-guides/?guide=innerrange)

Kentec
(1)
(https://www.csl-group.com/panel-guides/?guide=kentec)

Ksenia
(1)
(https://www.csl-group.com/panel-guides/?guide=ksenia)

NOX
(1)
(https://www.csl-group.com/panel-guides/?guide=nox)

Orisec
(1)
(https://www.csl-group.com/panel-guides/?guide=orisec)

Panasonic
(1)
(https://www.csl-group.com/panel-guides/?guide=panasonic)

Paradox
(1)
(https://www.csl-group.com/panel-guides/?guide=paradox)

Pyronix
(5)
(https://www.csl-group.com/panel-guides/?guide=pyronix)

RCO
(1)
(https://www.csl-group.com/panel-guides/?guide=rco)

RISCO
(5)
(https://www.csl-group.com/panel-guides/?guide=risco)

Schneider
(1)
(https://www.csl-group.com/panel-guides/?guide=schneider)

Siemens
(1)
(https://www.csl-group.com/panel-guides/?guide=siemens)

SystemHouse
(1)
(https://www.csl-group.com/panel-guides/?guide=systemhouse)

Texecom
(2)
(https://www.csl-group.com/panel-guides/?guide=texecom)

Tyco
(1)
(https://www.csl-group.com/panel-guides/?guide=tyco)

Vanderbilt
(2)
(https://www.csl-group.com/panel-guides/?guide=vanderbilt)

Visonic
(1)
(https://www.csl-group.com/panel-guides/?guide=visonic)

FAQs

What is the My Base App?

The My Base App is a self-service management platform for DualCom Pro and DualCom Pro 2 devices. The App allows you to check your signal strength, request regrades, send test alarms, view availability graphs, edit panel profiles, upgrade firmware and view alarm logs.

How do I gain access to the My Base App?

Once you've installed the My Base App from your applicable App Store, please visit the CSL Website to register for a My Base account.

For security, we'll contact you in order to authorise your request and set the appropriate permission levels for your My Base account. Once approved, we'll send you your login credentials.

Need Support? Call CSL Technical Support on +44 (0) 1895 474 444.

How do I set up Multi-Factor Authentication on the My Base App?

For security, multi-factor authentication (MFA) is now required to use the My Base App. MFA increases security on our platform and requires users to authenticate themselves via their username/password and with a time-limited code (each code expires after 60 seconds). This code is obtained via an Authenticator App, email or SMS. New authentication is required **once every 30 days**; if the user **logs out** or if we **update CSL Live.**

How it works:

1. Log in to My Base as normal with your username and password.
2. Receive a code via an Authenticator App, email or SMS.
3. Enter the code within My Base.
4. You are now securely logged in.

If you have any issues with the steps above, resetting your password will restart the authentication process. If the issue persists and you require support, call CSL Technical Support on +44 (0) 1895 474 444.

Which Authenticator Apps work with My Base?

Here is a list of commonly used authenticators approved by CSL:

- Google Authenticator
- Microsoft Authenticator
- LastPass Authenticator
- 2FA Authenticator (2FAS)
- Aegis Authenticator
- Authy
- Due Mobile
- IBM Security Verify
- Free OTP

My login credentials aren't working for the My Base App, what shall I do?

Resetting your password will restart the multi-factor authentication process and resolve most issues with logging on. If you're not receiving an email or text with your one-time access code you'll need to call CSL Technical Support to update your contact details. Please call us via +44 (0) 1895 474 444

How can I fail my signalling paths without having to disconnect them?

To fail each path enter the connectivity menu (see figure 12 on Quick Guide). Press and hold B to fail the primary path or C to fail the secondary path. The path will stay in fail for 15 mins unless you tap B or C again to restore the applicable path.

How can I check the signal strength of each radio module?

You can check the signal strength of each radio module on a commissioned device via the My Base App. Alternatively, when in the quiescent/normal state, you can press button A to toggle to the connectivity menu. Once there, LED 1 (first path) & LED 2 (second path) will show you the signal strength. We recommend a solid green LED (40% or 4/10).

Does my unit have a roaming SIM?

Yes, all DualCom Pro 2 devices come with at least 2 Roaming 4G SIMs

My signal strength is less than 30% (3/10) or my LED is orange/red. What can I do to improve it?

For all radio variants:

- **Avoid coiling the aerial cable**
- **Move the aerial away from electrical equipment/wiring**
- **Move the aerial to a higher point in the property or closer to a window/door**

What is the standard pin setup of the GradeShift Pro 2?

As standard, the device is triggered by removing or applying zero volts to input terminals 1-8. No external pull-up resistors will be required. This is usually achieved via the digital communicator outputs of a control panel.

If you need to use a positive applied/removed, you can toggle the pin bias via the My Base app or contact technical support so that they can amend the bias of the device.

Can I use the onboard serial connection as well as pin triggering at the same time with the GradeShift Pro 2?

Yes, you can.

How do I carry out the pins self-learn feature on the Gradeshift Pro 2?

- Ensure all required pins are in a restore/quiescent state and you are out of the device menu.
- Whilst in Quiescent/Normal state, press and hold the C button for 5 seconds.
- LED 3 will flash red twice once completed.

How do I add a panel to my GradeShift Pro 2?

You can add a panel profile via My Base under the “Hardware” menu and select “Edit Panel”. Please note you only need to set panel 1 (please leave panel 2 blank).

If you are not sure which panel profile to select, please search the panel guide for your specific panel on the Support Zone as the guide will confirm which panel profile you need to select.

Why are pin alarms not coming through on the alarm log?

As standard, the device is triggered by removing or applying zero volts to input terminals 1-8. If you are using a positive applied/removed to trigger the pins, you will not see any pin alarms in the alarm log until the bias of the device has been changed.

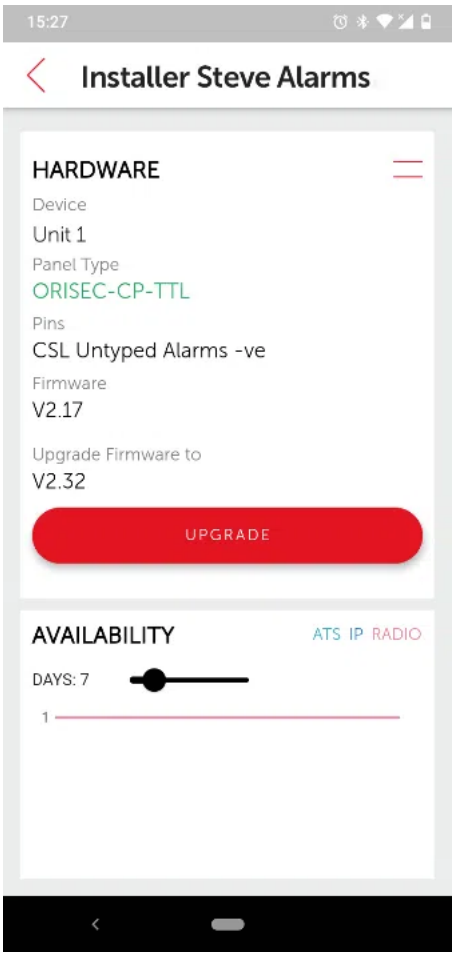
To change the input from negative removed or applied to positive removed or applied, change the pin bias via MyBase under the “Hardware” menu and use the A+ terminal instead of RTN.

Alternatively, please contact technical support for assistance.

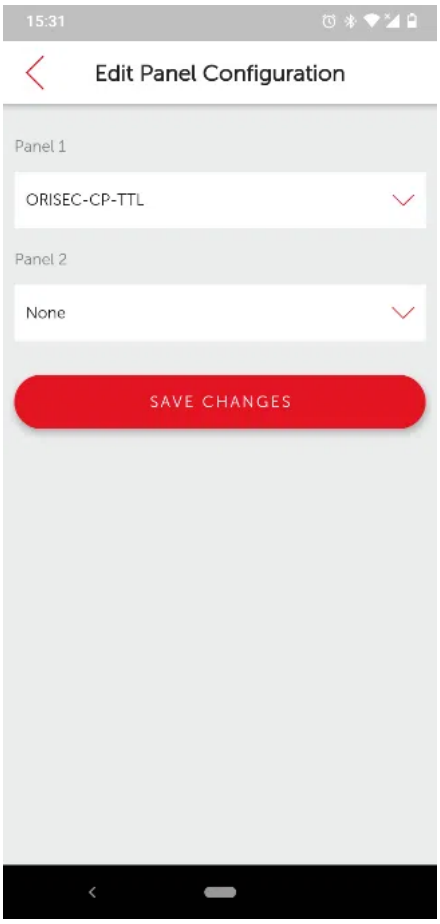
Why am I not receiving SIA signals from my panel?

Your device will come pre-configured without a panel connection type (pins only). To enable the serial connection to a control panel, go to MyBase and select the panel type. To do this, follow the below steps:

1. Go to hardware. Click on the options “hamburger” icon and select “edit panel”.



2. Select the correct panel type in panel 1 and then click on “save changes”.



3. Your device will upload its configuration and reboot. Once the reboot has taken place you should start receiving signals from the control panel.

If you are not receiving signals, make sure you have completed the panel programming steps detailed in the panel guide for that particular control panel.

Is it possible to invert the polarity of just one pin?

No, all pins either must be negative applied/removed or positive applied/removed. There cannot be a mixture of negative and positive.

How can I carry out a path test?

To perform a test of all paths, make sure your device is in Quiescent/Normal state and then tap the C button once. LED 3 will flash to show signals are being sent.

What is the standard setup of the GradeShift Pro 2 fault output?

All 3 outputs can be configured as either N.O or N.C as required.

Output 1 is defaulted to indicate a total path fail condition to the control panel (but it can be reconfigured to indicate another path failure type).

Output 2 can be used to indicate a path fail condition or be used as a manual trigger.

Output 3 can be used as a manual trigger.

To make any amendments please use the My Base app or contact technical support.

How do I know if my device has started to commission?

Once the device is powered-up, you should see activity on LEDs 1, 2 and 3. When the device has commissioned, all 3 LEDs will go green for 5 seconds. The device will then reboot.

Once the device has completed its commissioning process, only LED 3 (device status) will be active whilst in Quiescent/Normal state.

You can also check the status of your device on the My Base App.

Do I need to use the resistors provided in the box?

You should only use the resistors provided if the installation needs to be EN-54 compliant. If unsure, please check with your ARC.

Why do the two radio paths of the same device show different signal strength and quality readings?

It is normal for two radio modules using different SIMs to show opposite values for signal strength and signal quality—even when located in the same physical spot. Here's why:

1. Network Provider Differences

- Each SIM may connect to a different mobile network operator (e.g. Vodafone vs O2), and those networks may have different tower placements, signal propagation characteristics, and congestion levels.
- One network might have a nearby tower with strong signal but high interference, while the other connects to a more distant but cleaner signal.

2. Module Hardware Variability

- Even if the modules are the same model, slight differences in antenna design, shielding, or firmware can affect how they interpret and report signal metrics.
- One module might be better at filtering noise, leading to higher signal quality despite lower strength.

3. Network Technology and Band

- SIMs may connect to different technologies (e.g. 4G vs NB-IoT) or frequency bands. Lower frequencies travel farther and penetrate buildings better, but may be more congested.
- Higher frequencies may offer better quality but lower strength due to attenuation.

4. Real-Time Network Conditions

- Networks constantly adjust power levels, handovers, and load balancing. One SIM might be handed off to a congested cell while the other remains on a cleaner one.
- Temporary interference or maintenance on one network can skew results.

5. Measurement Timing

- If the modules are not measuring at exactly the same time, transient conditions (e.g. a passing vehicle, weather shift, or nearby device activation) can affect readings.

UDL Guides

CSL Remote Manager (https://www.csl-group.com/support/csl-remote-manager/)

DSC
(1)
(https://www.csl-group.com/udl-guides/?guide=dsc)

Eaton
(1)
(https://www.csl-group.com/udl-guides/?guide=eaton)

HKC
(1)
(https://www.csl-group.com/udl-guides/?guide=hkc)

Honeywell
(1)
(https://www.csl-group.com/udl-guides/?guide=honeywell)

Orisec
(1)
(https://www.csl-group.com/udl-guides/?guide=orisec)

Pyronix
(1)
(https://www.csl-group.com/udl-guides/?guide=pyronix)

RISCO
(1)
(https://www.csl-group.com/udl-guides/?guide=risco)

Texecom
(1)
(https://www.csl-group.com/udl-guides/?guide=texecom)

Useful Information

Customer IT Survey Form (https://www.csl-group.com/customer-it-survey-form/)

CSL Remote Manager (https://www.csl-group.com/support/csl-remote-manager/)

Alarm Signalling Standards (https://www.csl-group.com/alarm-signalling-standards/)

One-Time Access (https://mybase.csl-group.com/new-install)

Customer IT Survey Form

The Customer IT Survey Form (https://www.csl-group.com/customer-it-survey-form/) may be required when ordering LAN + Radio or LAN only devices.

The DualCom Pro will require an IP address to be allocated to it by the customer's network administrator.

CSL Remote Manager

More information about the CSL Remote Manager is available here. (https://www.csl-group.com/support/csl-remote-manager/)

Aerial Fitting Guide

WHEN COMPLETING AN UPGRADE OR REPLACEMENT ON AN EXISTING INSTALLATION, PLEASE ENSURE YOU ALWAYS USE THE AERIAL SUPPLIED WITH THE NEW DEVICE.

THIS WILL ENSURE THE BEST MOBILE SIGNAL FOR YOUR INSTALLATION. SOME OLDER AERIALS DO NOT PROVIDE ACCESS TO 4G AND, IF USED, COULD LEAD TO SIGNAL-RELATED ISSUES AND FAILURES.

We encourage you to complete the following steps to ensure your DualCom Pro achieves the best possible signal.

- **Step 1** – Use a Signal Analyser to determine the optimum location for the aerial/s and follow the advice from the Signal Analyser section below.
- **Step 2** – If you do not have a Signal Analyser, power up the DualCom Pro, connect the aerial/s, go through the commissioning process and check the signal strength before permanently fitting the aerial. We recommend a signal strength on the DualCom Pro of at least 3 (30%) or above.

STEPS 3 & 4 ARE ONLY FOR IF YOU ARE FITTING A DUAL RADIO AERIAL.

PLEASE SKIP TO STEP 5 IF YOU ARE FITTING A SINGLE RADIO AERIAL.

- **Step 3** – If you are using a dual radio product, make sure that both aerials are at least 2 metres apart.
- **Step 4** – If using a dual radio product, position the aerials in a vertical orientation.
- **Step 5** – Keep your devices' aerial/s cables away from high voltage cables or any other aerial cables.
- **Step 6** – Keep your aerial/s inan open space and 1 metre away from large metal objects or sources of interference (i.e. wiring, lighting, electrical installations, computers, control panels, fuse boards, routers, etc.)
- **Step 7** – Do not tightly coil any excess aerial cable. Try and make large loops if possible.

See below for examples of good and bad single & dual aerial set-ups.

Figure 1 – Single Aerial Installs Good & Bad

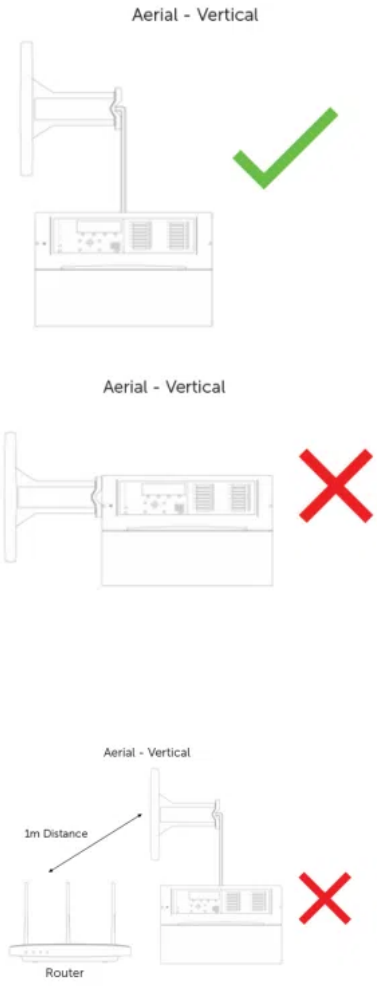
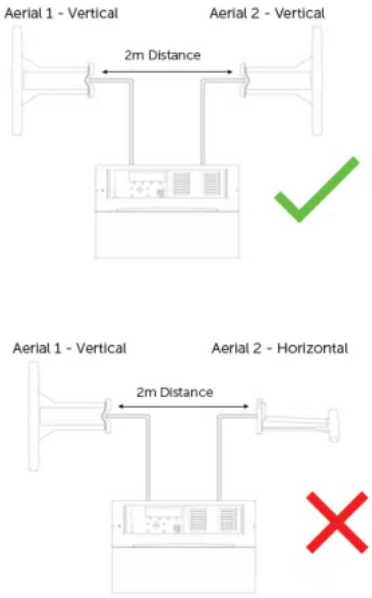


Figure 2 – Dual Aerial Installs Good & Bad



CSL SIGNAL ANALYSER – CS2389

Using a CSL Signal Analyser, (https://www.csl-group.com/support/csl-signal-analyser/) you must ensure that there are enough base stations (2 or more) available at the site and that they can supply sufficient signal strength (30% and above). This device will help determine the optimum location for the DualCom's aerials to be mounted.

LED Colour Status Guide

The LED Colour Status Guide can be found here (https://www.csl-group.com/led-colour-status-guide/).

Output Controls

BACKGROUND

With the launch of DualCom Pro 2, Installers are now able to control the three outputs available on their device via My Base. This allows the Installer to configure the line fault output to their specific requirements, along with giving full control of the manual triggering of outputs 2 and 3.

Output controls will only appear on My Base for DualCom Pro 2 devices and any future variants. For the original DualCom Pro, Installers are only able to invert the line fault output.

OUTPUTS

Output 1 is for line failure reporting to the control panel. It can be configured to trigger in the following instances:

Path fail – both paths	The line failure will be reported once both the primary and secondary interfaces are down for the given period allowed. This is the default for all dual-path systems.
Path fail – either path	The line failure will be reported once one of the primary or secondary interfaces is down for the given period allowed. It does not matter which interface is down.
Path fail – primary path	The line failure will be reported once the primary interface is down for the given period allowed. The status of the secondary interface is not reported in this mode. This is the default for all single-path systems.
Interface status mode	Do not use – This is for future use
None	Output 1 is disabled

Output 2 and 3 are used for manually operating an output. This can be used for controlling electronic equipment, such as remotely opening gates/garage doors, resetting routers, turning on/off lights, etc). Both outputs 2 and 3 can be set to the following:

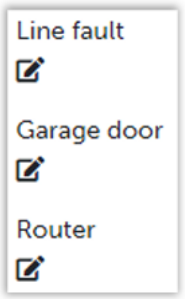
Manual	Upon clicking the N.O or N.C button, the output will change state.
None	Output 2 or 3 is disabled.

OUTPUT LABELS

Each output can be labelled individually to ensure Installers do not need to remember which output operates each function.

To edit the output name, click on the edit icon. To change the text, you must overtype the existing text and click ✔. You can exit renaming by pressing ✖.

Example of renaming outputs:



MANUAL TRIGGERING (LATCHING)

Once output controls are selected within My Base, the status of each output will be updated and shown to the user.

To trigger the output, ensure that the relevant output (2 or 3) is set to 'manual' and click on the N.O/N.C button. Clicking the button will invert the output from its current state, and stay like that until the button is clicked again (this is called latching).

It is not possible to pulse the output for a period. This is where the output inverts for a given period (e.g. 1 second) and reverts to its original state once the timer has expired.

Example of output control screen:

MANUAL TRIGGERING (LATCHING)

Once output controls are selected within My Base, the status of each output will be updated and shown to the user.

To trigger the output, ensure that the relevant output (2 or 3) is set to 'manual' and click on the N.O/N.C button. Clicking the button will invert the output from its current state and stay like that until the button is clicked again (this is called latching).

It is not possible to pulse the output for a period. This is where the output inverts for a given period (e.g. 1 second) and reverts to its original state once the timer has expired.

Example of output control screen:



If the status cannot be obtained, it will be shown on the screen. This is likely to be because the device is not currently online, or the user has pushed the N.O/N.C button several times in quick succession.

Example of failure to retrieve output state:



Alarm Signalling Standards

Significant changes have been made to alarm signalling standards and terminology. Grades 2, 3 and 4 now have Single Path (SP) and/or Dual Path (DP) equivalents. The catastrophic failure reporting times have also changed. Our Alarm Signalling Range operates to these standards and in some cases exceeds them.

Visit this page (https://www.csl-group.com/alarm-signalling-standards/) to see how the old and new standards apply to current CSL products.

Power Supplies

If you require a Power Supply Unit (PSU) for your installation, our partners, Elmdene, provide a suitable solution.

Visit their website for more information about the Li-Power PSU (https://www.elmdene.co.uk/lithium/battery-power/li-power).

CSL Live & the My Base App

Please visit the dedicated Support pages for more information about CSL Live (https://www.csl-group.com/support/csl-live/) and the My Base App (https://www.csl-group.com/support/my-base/).

4G Aerial Upgrade Kit

Instructions

Please follow the instructions below if you wish to upgrade any existing aerial cables to a Single 4G High Gain Aerial Ext/Int for the DualCom Pro Range. The kit is available to purchase via the Shop section of CSL Live. The product code is CS.1.150.

Steps:

1. Cut the wire of the existing 2/3G aerial
2. Fit the pin to the SMA male connector

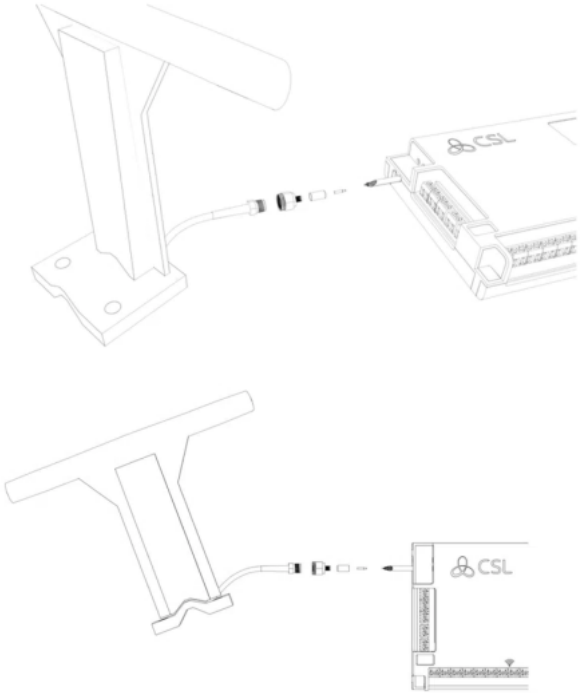
3. Connect the SMA male connector (with the pin fitted) to the existing cable
4. Crimp the SMA male connector to the existing cable
5. Screw the SMA connectors together
6. Fit the new 4G aerial to the wall

What is included in this kit?

- Separate SMA connector
- Pin
- Metal sleeve

Note – a crimping tool is not included but is recommended to use to join the cable and aerial together.

Figure 1



Technical Notes

Overview

Learn about the latest technical updates and firmware releases.

16:07:26 All Products

DualCom Pro 2 Firmware V3.6.2

Firmware V3.6.2 has now been released on My Base for DualCom Pro 2 devices.

This supersedes v3.5.7 and will be the default version for units shipping from the factory shortly.

This release provides performance improvements for the DualCom Pro 2 devices.

Enables Texecom Panels to include/in the zone description.

Adds support for AC Trouble/Restore alarms in dial capture.

Adds a SIA alarm when manual relay state is switched.

18:07:25 DualCom Pro 2

DualCom Pro 2 Firmware v3.5.7

Firmware V3.5.7 has now been released on My Base for DualCom Pro 2 devices.

This supersedes v3.3.21 and will be the default version for units shipping from the factory shortly.

This release provides performance improvements for the DualCom Pro 2 devices.

It also adds the capability to do Panel-Initiated UDL with the Pyronix Dial Capture integration.

17:06:25 DualCom Pro Fire

PinLearn Confirmed Fire

This update enables DualCom Pro devices to monitor pins 1, 2 and 3 in EOL mode.

Traditionally in the UK, Fire panels have connected up pins 1 and 2 in EOL mode for the DualCom Pro for monitoring by the ARC.

BS5839-1 2025 advises that: "*In some areas of the UK, the local fire and rescue service does not attend calls arising from the actuation of a fire detection and fire alarm system unless a fire is confirmed. Details of these policies vary from one fire and rescue service to another*".

We have introduced a new pin profile to allow the Installer to configure the DualCom Pro device to deliver these notifications.

Usage

When installing a DualCom Pro Fire, use My Base to modify the pin profile to Confirmed Fire.

The DualCom Pro will have pins 1 – 3 configured to operate in EOL mode. All other pins will continue to operate in normal mode.

If you also require pin 3 to cause output relay 1 to trigger a fault to the panel if it is tampered with, please contact Tech Support.

20:11:23 All Products

Contact ID Alarm Protocol

The DualCom Pro range supports Intruder Panels using SIA, Fast Format and Contact ID protocols.

When integrating the DualCom Pro range with an Intruder Panel, our recommendation is to use either SIA or Fast Format (6.8.1, 6.16.1 or 6.32.1) protocols.

If Contact ID is to be used to pass events to the ARC, please be aware that it will only use the least significant 4 digits of the ARC account ID. The ARC must supply this prior to installation.

If the ARC does not support this then one of the other signalling formats should be used.

For reference, please see the below breakdown of a Contact ID alarm message constructed from several fixed length message blocks.

These are defined as follows:

18AAAAQXYZGGCCC

Where:

18 – Contact ID type identifier.

AAAA signalling ID – 4-digit account number.

Q – Event type – E (new alarm event), R (new restore event) or P (previously reported alarm).

XYZ – Event number – Defines the type of event that has occurred.

GG – Area number – Set to 00 if no areas defined.

CCC – Zone or User Number – Dependent on the type of event defined by the event number.

This fixed length account number field restricts the required 6-digit account number entered in the intruder panel being presented to the Alarm Receiving Centre. Resulting in events being misinterpreted.

23:08:23 All Products

PinLearn EOL Pins 1-12

Enables DualCom Pro devices to monitor all pins in EOL mode rather than just pins 1 and 2.

Traditionally in the UK, Fire panels have connected up pins 1 and 2 in EOL mode for the DualCom Pro to monitor.

Recent changes in legislation in Scotland have resulted in requests for additional pins to be monitored to allow, for example, Confirmed Fire to be communicated to the ARC. This new pin profile enables the Installer to configure the CSL DualCom Pro device to deliver this.

Usage

When purchasing a DualCom Pro Fire, it will be configured to use a pin profile of PinLearnFire. This and PinLearnFire No-A Block are configured to put pins 1 and 2 in EOL mode.

Pin Profile PinLearn EOL Pins 1-12 is configured to put all 12 pins on a DualCom Pro 2 and all 8 pins on a DigiAir Pro 3 into EOL mode.

This does not affect the monitoring for tamper and short circuit in Fire mode which, by default, is pins 1 and 2. If you require additional pins to be monitored for tamper and short circuit then currently this needs to be configured by Tech Support.

Similarly, output relay 1 will only trigger by default if pins 1 and 2 are triggered with. If an additional pin should trigger output relay 1 then this needs to be configured by Tech Support. Making this change will also result in any additional pins reporting ARC Ack on output relay 2.