

## S<sup>3</sup> Mark II - Data and Installation Conventional Sounder and Sounder Strobe Units



These instructions cover the following conventional S<sup>3</sup> products, which are suitable for installation in Conventional fire alarm systems.

	Sounder		Sounder Strobe	
	Deep base	Shallow base	Deep base	Shallow base
White	C3IP-SN-W	C3-SN-W	C3IP-SN-ST-WR	C3-SN-ST-WR
Red	C3IP-SN-R	C3-SN-R	C3IP-SN-ST-RR	C3-SN-ST-RR

The Sounder function is LPCB approved

These products are not visual alarm devices and does not meet EN 54-23.

The Strobe and Speech functions are not LPCB approved.

The low power **Conventional Sounder** and combined **Strobe** products provide audible and visual alarm signals for use with fire alarms, internal security alarms and other hazard warning systems operating over a voltage range of 10.8V– 28.8V DC.

The sounders provide a range of 32 distinctive audio-visual signals and are available as a combined Sounder/Strobe or Sounder only with deep base (40mm) and shallow base (25mm) options offering IP55C and IP31C ratings respectively.

In addition to the products covered in this leaflet there are Speech, Sounder and Strobe only variants available. For more information contact your supplier.

The S<sup>3</sup> product range incorporates innovative design features protected by Patents GB2388994, GB2388995 and GB2388916. The product design has also been registered.

### Do's and Don'ts

#### Do's

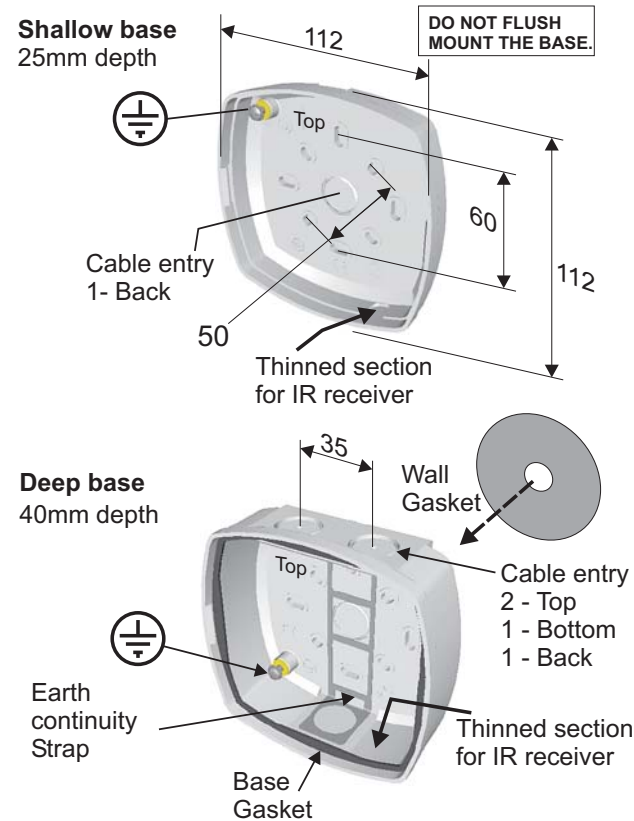
- Use correct method to open and close the unit
- Mount the unit in correct orientation with 'TOP' uppermost, to allow remote control operation
- Fit the **wall gasket** first when installing the deep base if IP55C protection is required
- Ensure the **transparent cover** is in place over the board
- Configure the switch for desired tone and light outputs before closing the assembly
- Ensure the **earth continuity strap** is in place to the deep base

#### Don'ts

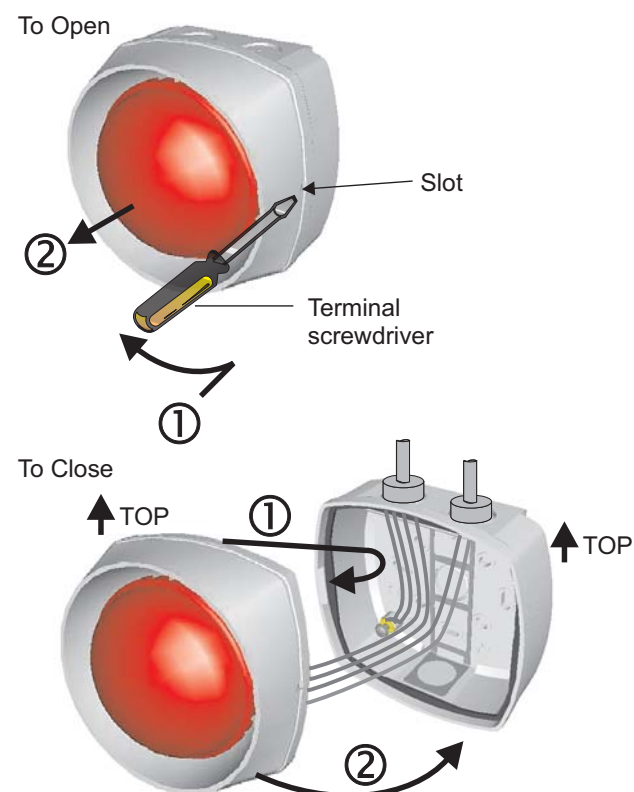
- Don't flush mount the base
- Don't have excessive incoming cable slack
- Don't locate unit such that the audible and visual outputs are obstructed
- Don't mount the unit above obstructions, such as shelves, that can prevent its operation with the IR remote control
- Don't paint the unit enclosure

**Note:** Avoid operating the S<sup>3</sup> by fast pulsing the power to the unit.

### Bases



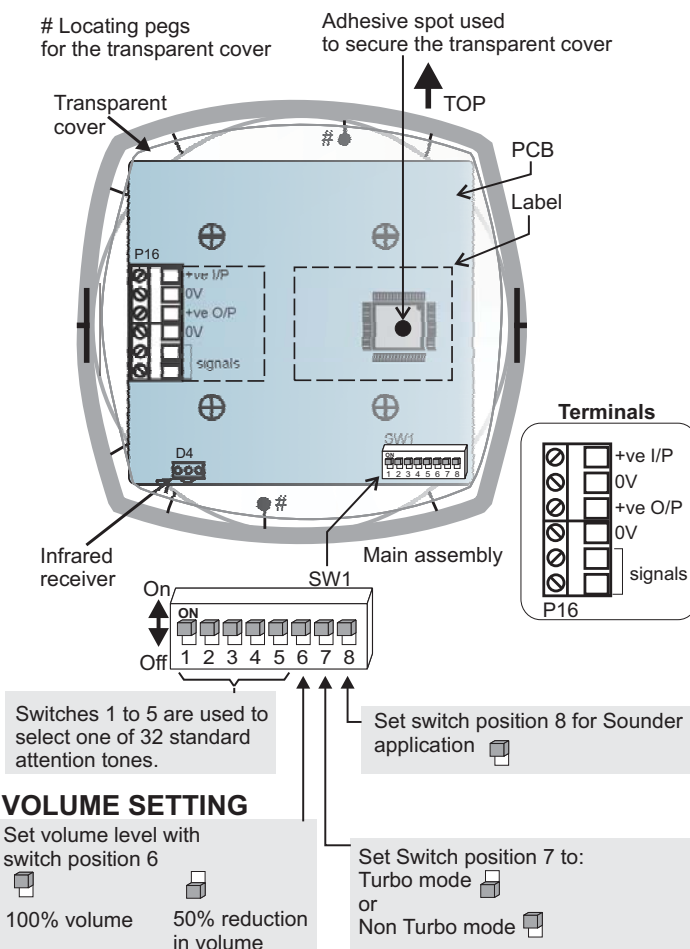
### How to open and close the assembly



### Installation

- Drill or knockout the required cable entry points on the **Base**.
- If using the deep base option and IP55C protection is required, then stick the circular **wall gasket** on to the centre back of the **base**.
- Secure the Base to the wall whilst ensuring Top of the Base is in correct orientation.
- Terminate the cable at the entry point leaving no more than 10cm (4") tail wire length for connection.
- Ensure the **transparent cover** is in place over the **PCB**. Connect the wires to the terminal block, see Wiring.
- Select the required tone by setting the switch SW1, see tone selection table over leaf.
- Lock the main assembly to the base.
- If necessary you can reselect the volume and tone by making adjustment to the SW1 switch settings. As an alternative you can use a Remote control to configure the S<sup>3</sup> product, contact your supplier for further information.

**Note:** When making adjustment to tone/speech and volume level using a remote control, the settings of switch SW1 will be superseded. If subsequently the settings of switch SW1 are changed, then the settings made using the remote control are superseded.

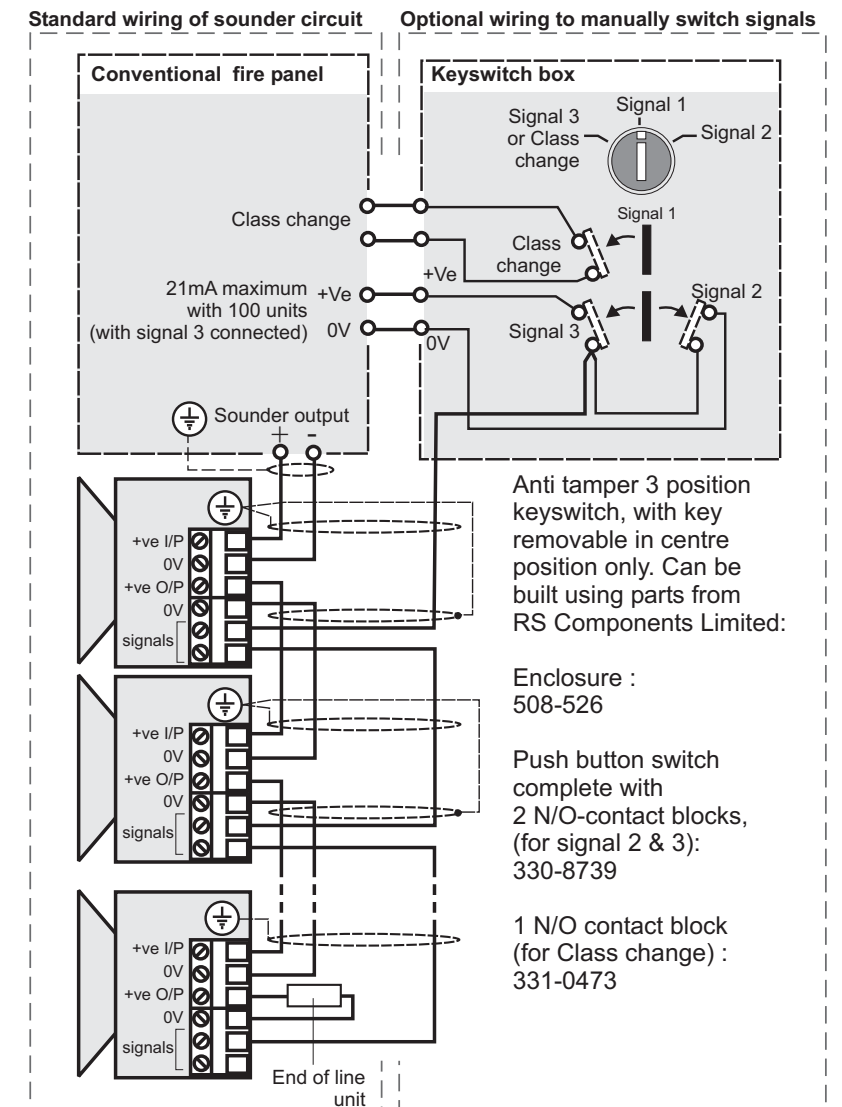


### Wiring

The audible sound and strobe outputs can be manually switched by wiring a keyswitch. The keyswitch box and contacts can be purchased from a supplier like RS components Limited.

**Note:** Avoid operating the S<sup>3</sup> by fast pulsing the power to the unit. This type of pulsed operation will affect the strobe output.

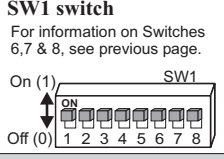
For example with the arrangement shown below you can manually activate the Signals 2 or 3 tones during *alarm condition* by operating the keyswitch. With an optional contact set for class change you can output Signal 3 during *non alarm condition*.



## How to select from a range of attention tones


You can configure the S-Cube to output from a range of standard attention tones, to do this select the attention tones required for Signals 1,2 and 3 using the table and set the DIL switches accordingly.

Note: The current and dB value stated in the table are for **non turbo** setting, that is with switch SW1 position 7 set to ON.


Signal 1	Strobe	Description	SW1 switch For information on Switches 6,7 & 8, see previous page. On (1)  Off (0)	Graphical representation	12V dBA @ 1m	with Strobe mA	without Strobe mA	24V dBA @ 1m	with Strobe mA	without Strobe mA	Signal 2	Strobe	Signal 3	Strobe
Tone 1*	1Hz	Alternating tone 800/970Hz @ 2Hz - FP 1063.1 Telecoms BS5839:Part 1	1 1 1 1 1 1 1 1		96.0	16.5	7.4	96.6	9.5	3.4	Tone 3	0.5Hz	Tone 6	1Hz
Tone 2	1Hz	Alternating tone 800/970Hz @ 1Hz - BS5839:Part 1	0 1 1 1 1 1 1 1		101.7	16.5	7.3	101.7	9.5	3.4	Tone 3	0.5Hz	Tone 6	1Hz
Tone 3*	1Hz	Intermittent tone 970Hz @ 1Hz LF back up alarm - BS5839:Part 1	1 0 1 1 1 1 1 1		92.3	15.5	4.5	96.6	8.2	2.0	Tone 5	0.8Hz	Tone 6	1Hz
Tone 4	1Hz	Intermittent tone 2850Hz @ 1Hz HF back up alarm - 2nd tone BS5839:Part 1	0 0 1 1 1 1 1 1		103.7	15.8	5.5	103.7	8.5	2.5	Tone 3	0.5Hz	Tone 6	1Hz
Tone 5	0.8Hz	Intermittent tone 970Hz 0.25s on, 1s off - BS5839:Part 1	1 1 0 1 1 1 1 1		101.2	12.0	2.0	101.4	6.0	1.0	Tone 2	0.5Hz	Tone 6	1Hz
Tone 6*	1Hz	Continuous @ 970Hz - BS5839:Part 1	0 1 0 1 1 1 1 1		96.5	16.5	8.0	97	9.8	3.7	Tone 3	0.5Hz	Tone 1	1Hz
Tone 7	0.5Hz	Slow Sweep 300Hz-1200Hz over 2s	1 0 0 1 1 1 1 1		99.3	13.0	7.9	99.3	7.0	3.7	Tone 3	0.5Hz	Tone 6	1Hz
Tone 8	1Hz	Fast sweep 800Hz - 970Hz @ 7Hz - BS5839:Part 1	0 0 0 1 1 1 1 1		93.5	16.3	8.2	93.7	9.4	3.7	Tone 3	0.5Hz	Tone 6	1Hz
Tone 9	1Hz	Medium sweep 800Hz - 970Hz @ 1Hz - BS5839:Part 1	1 1 1 0 1 1 1 1		94.1	16.5	8.7	94.3	9.5	4.0	Tone 3	0.5Hz	Tone 6	1Hz
Tone 10	1Hz	Continuous @ 2850Hz	0 1 1 0 1 1 1 1		104.4	16.5	9.7	104.7	10.2	4.4	Tone 3	0.5Hz	Tone 6	1Hz
Tone 11	1Hz	Sweep 2400 - 2850Hz @ 7Hz	1 0 1 0 1 1 1 1		100.2	16.5	11.2	100.8	10.6	5.4	Tone 12	0.5Hz	Tone 10	1Hz
Tone 12	1Hz	Sweep 2400 - 2850Hz @ 1Hz	0 0 1 0 1 1 1 1		101.9	16.5	12.0	102.7	11.5	5.8	Tone 3	0.5Hz	Tone 10	1Hz
Tone 13	0.86Hz	Slow Whoop 500Hz - 1200Hz over 3s with 0.5s off	1 1 0 0 1 1 1 1		98.8	15.5	7.5	99.2	8.7	3.5	Tone 3	0.5Hz	Tone 6	1Hz
Tone 14	1Hz	Sweep 1200Hz @ - 500Hz @ 1Hz with 10ms silence - German DIN tone Evacuate	0 1 0 0 1 1 1 1		96.6	16.2	7.3	98.1	9.5	3.5	Tone 3	0.5Hz	Tone 6	1Hz
Tone 15	1Hz	Alternating tone 2400/2850Hz @ 2Hz	1 0 0 0 1 1 1 1		101.7	16.5	12.0	102.5	11.8	6.2	Tone 12	0.5Hz	Tone 10	1Hz
Tone 16	1Hz	Alternating tone 554Hz for 100ms then 440Hz for 400ms - French AFNOR tone	0 0 0 0 1 1 1 1		89.3	15.8	5.2	89.6	8.7	2.5	Tone 3	0.5Hz	Tone 6	1Hz
Tone 17	1Hz	Alternating tone 440Hz / 554Hz @ 2Hz - Turn out Sweden	1 1 1 1 0 1 1 1		90.1	15.8	5.7	90.3	8.9	2.8	Tone 19	0.5Hz	Tone 18	1Hz
Tone 18	1Hz	Continuous 700Hz - All clear Sweden	0 1 1 1 0 1 1 1		95.9	16.2	7.0	96.3	9.8	3.3	Tone 1	0.5Hz	Tone 3	1Hz
Tone 19	1Hz - 6s Off - 12s	Intermittent tone 700Hz 6s On 12s Off - Pre-vital message Sweden	1 0 1 1 0 1 1 1		95.9	6.1	4.0	96.3	5.0	2.3	Tone 17	0.5Hz	Tone 18	1Hz
Tone 20	1Hz	Intermittent tone 1000Hz @ 1Hz - Local warning Sweden	0 0 1 1 0 1 1 1		100.6	15.5	5.8	101.0	8.5	2.7	Tone 17	0.5Hz	Tone 25	1Hz
Tone 21	1Hz	Rising 1s, constant 4s, fall 1s @ 1000Hz - Industrial alarm Germany	1 1 0 1 0 1 1 1		100.9	16.0	10.0	101.2	10.0	4.0	Tone 3	0.5Hz	Tone 6	1Hz
Tone 22	1Hz - 4s Off - 4s	Intermittent Tone 700Hz 4s On , 4s Off - Industrial alarm Germany	0 1 0 1 0 1 1 1		101.4	8.7	5.7	101.9	6.4	3.0	Tone 19	0.5Hz-16s Off - 12s	Tone 6	1Hz
Tone 23	Sync. pulses	US Temporal tone @ 2850Hz to ISO 8201	1 0 0 1 0 1 1 1		104.0	12.0	4.0	104.5	6.0	1.5	Tone 3	0.5Hz	Tone 6	1Hz
Tone 24	1Hz	Slow Whoop 500Hz - 1000Hz over 4.5s - Evacuate Netherlands	0 0 0 1 0 1 1 1		99.6	16.0	7.2	100.2	9.5	3.4	Tone 3	0.5Hz	Tone 6	1Hz
Tone 25	1Hz	Siren (ramp up from 500Hz - 1200Hz in 3s then ramp down 1200Hz - 500Hz in 3s)	1 1 1 0 0 1 1 1		98.2	16.0	7.5	98.5	9.5	3.5	Tone 3	0.5Hz	Tone 6	1Hz
Tone 26	1Hz	Fast Whoop 500Hz - 1000Hz @ 7Hz	0 1 1 0 0 1 1 1		95.8	15.8	7.0	96.0	8.7	3.3	Tone 24	0.5Hz	Tone 25	1Hz
Tone 27	Sync. pulses	US Temporal Tone HF to ISO 8201	1 0 1 0 0 1 1 1		100.6	12.0	3.0	100.6	5.5	1.0	Tone 3	0.5Hz	Tone 6	1Hz
Tone 28	Sync. pulses	Alternating tone 800-970Hz @ 2Hz	0 0 1 0 0 1 1 1		99.0	11.8	2.5	99.0	5.3	0.8	Tone 4	0.5Hz	Tone 6	1Hz
Tone 29	1Hz	LF Buzz 800Hz-970Hz @ 50Hz	1 1 0 0 0 1 1 1		98.8	16.3	9.4	99.2	10.0	4.3	Tone 3	0.5Hz	Tone 6	1Hz
Tone 30	1Hz	Alternate 2500/3100 @ 2Hz, Security alarm	0 1 0 0 0 1 1 1		101.6	16.5	13.0	102.2	10.8	6.4	Tone 3	0.5Hz	Tone 31	1Hz
Tone 31	1Hz	Alternate 2500 / 3100 @ 4Hz	1 0 0 0 0 1 1 1		101.2	16.5	13.0	102.0	10.8	6.4	Tone 3	0.5Hz	Tone 8	1Hz
Tone 32	1Hz	Special tone programmed in EEPROM during manufacture	0 0 0 0 0 1 1 1		98.8	16.0	7.5	99.2	9.5	3.5	Tone 3	0.5Hz	Tone 6	1Hz

The **current data** in the table are for Red strobe only.  
Note also the **nominal sound frequencies** stated in the table are based on the resonance frequency of the transducer.

The Tones marked with an \* are LPCB Approved.

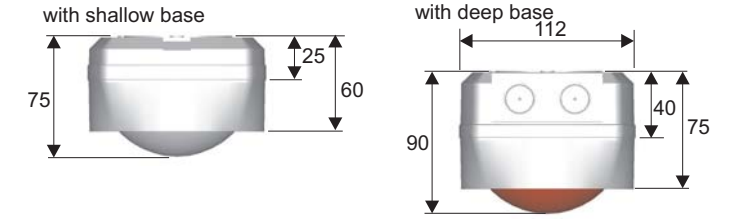


**At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre and in accordance with national or local legislation.**



**WEEE Directive:**  
At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre. Do not dispose of with your normal household waste. Do not burn.

## Technical data




**Note:** If you have a sounder only product then ignore the strobe information given.

Standard	EN54 : 3 : 2001
Tones	see table #
Strobe flash rate	see table
Strobe light output with red lens	equivalent to 3W Xenon flasher
Operating voltage	range 10.8V to 28.8V
Maximum reverse voltage (used for monitoring sounders)	30V <1µA
Terminal size	2.5mm <sup>2</sup> - maximum
IP rating	with deep base IP55C with shallow base IP31C
Enclosure colour	White and Red (Standard Strobe option has a red translucent cover)
Enclosure material	Flame retardant ABS (Strobe cover is polycarbonate)
Weight	0.3Kg approximate
Operating temperature	-10°C to 50°C
Storage temperature	-20°C to 70°C
Relative humidity (non condensing)	up to 90%
IR operating distance (used for setting volume and tone)	3m

# Minimum volume setting a Sound Pressure Level (SPL) of above 65dB(A) is achieved in at least one direction in all operational modes.  
**Information on minimum sound output levels to include polar dispersion is covered in technical note TECH6310-029, available on request from manufacturer.**

**Note:** The S<sup>3</sup> Units when installed on the same circuit will provide sound and strobe light synchronisation better than +/-30mS over 20 minutes.



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Gent by Honeywell (Novar Systems Limited)  
Manufactured by: Honeywell Life Safety Systems,  
140 Waterside Road, Hamilton Industrial Park,  
Leicester, LE5 1TN, United Kingdom

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DoP	Product No.	DoP	Product No.
044-CPR-2013	C3-SN-R	047-CPR-2013	C3IP-SN-ST-RR
044-CPR-2013	C3-SN-W	047-CPR-2013	C3IP-SN-ST-WR
045-CPR-2013	C3IP-SN-R	048-CPR-2013	C3-VP-ST-RR
045-CPR-2013	C3IP-SN-W	048-CPR-2013	C3-VP-ST-WR
046-CPR-2013	C3-SN-ST-RR		
046-CPR-2013	C3-SN-ST-WR		

EN54-3: 2001 +A1: 2002 +A2: 2005

C3-SN-R	(EN54-3)	C3-SN-ST-WR	(EN54-3)
C3-SN-W	(EN54-3)	C3IP-SN-ST-RR	(EN54-3)
C3IP-SN-R	(EN54-3)	C3IP-SN-ST-WR	(EN54-3)
C3IP-SN-W	(EN54-3)	C3-VP-ST-RR	(EN54-3)
C3-SN-ST-RR	(EN54-3)	C3-VP-ST-WR	(EN54-3)

Intended for use in fire detection and fire alarm systems in and around buildings

Refer to 044-CPR-2013, 045-CPR-2013, 046-CPR-2013, 047-CPR-2013, 048-CPR-2013, for level or class of performance declared, for details see website [www.gent.co.uk](http://www.gent.co.uk)

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