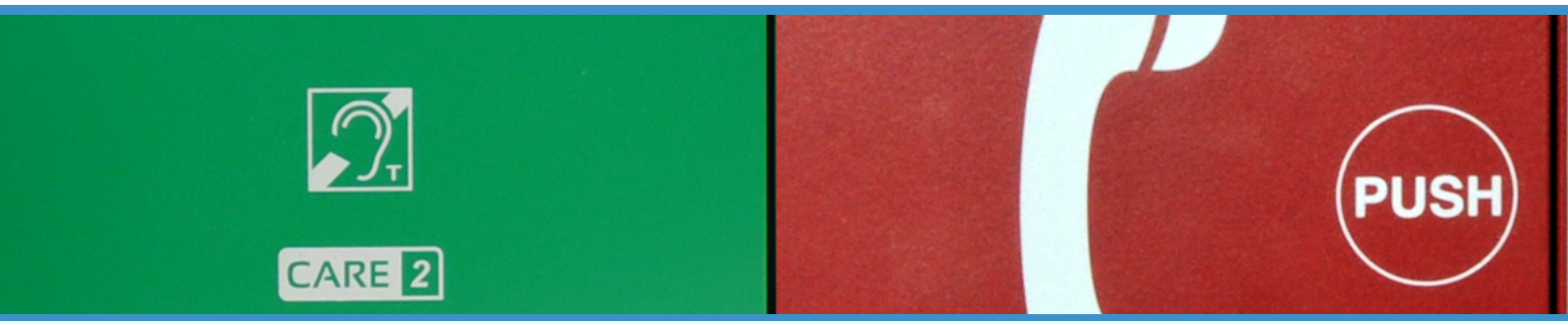
CARE 2

pas sound engineering




# Cabling & Networking

CARE2 is an emergency voice communication system that allows disabled refuge, fire fighter telephones, emergency/steward telephones and roaming telephones to be connected to one control console. CARE2 fully complies to BS5839-9:2011 and BS9999:2008.

## General Information

- There are two main components - the master control panel(s) and the remote units.
- Remote units are wired in a ring circuit configuration and are 'self-learning', with an auto-commissioning feature.
- The system utilises enhanced four-core cable plus screen ring circuit technology to allow continued operation in the event of a cable break.
- Any combination of remote units can be linked to the control panel on a single wiring loop.
- The master control panel is typically wall mounted in a central control room.
- Remote units are wall mounted in locations such as refuge areas, stairwells, fallback positions, corridors and other 'gathering' points, at a height easily reached by users (see 'MOUNTING POSITION').
- More than one master panel can be placed on the ring circuit, thus allowing control of local areas.

## System Requirements

- Fire rated enhanced four core, colour coded, cable with a screen must be used for fire fighting systems.
- Standard fire resisting cables could be considered suitable for:
  - EVC systems for use in disabled refuges but not for fire-fighting in (a) sprinklered buildings; (b) unsprinklered buildings less than 30m in height, provided that evacuation takes place in three or fewer phases.
  - Underground sections of cabling at sports and similar venues.
- Up to 200m cable run between remote units and master control panel as standard.
- A repeater unit (BVFREPEM) must be used if distance between remotes exceeds 200m.
- Disabled refuge, advance disabled refuge, fire telephone, emergency/steward telephone, combined DRS/fire telephone and toilet alarm units can be placed on the same loop.
- Typically 20-30 remotes per loop.
- Repeater units (BVFREPEM) are used to connect the toilet alarms to the system.

## Mounting Position - BS5839-9:2011

- The master control panel should have its vertical centre of controls mounted at a height of 1.4-1.5m.
- The master control panel should be installed in an area of low fire risk.
- Outstations should be placed with the vertical centre at a height of 1.3-1.4m; except in refuges where they should be located at a height of 900mm-1.2m. They should be located where background noise is normally low.
- Our combined fire telephone/disabled refuge remote has been designed to allow appropriate mounting heights for both units. With centre of the fire telephone at 1.3-1.4m, the refuge remote is at a height of 1.1-1.2m).
- Within a sports, or similar, venue no-one should have to travel more than 30m to reach the nearest outstation.

## Routine Maintenance

- We can provide routine maintenance services for all of our systems.

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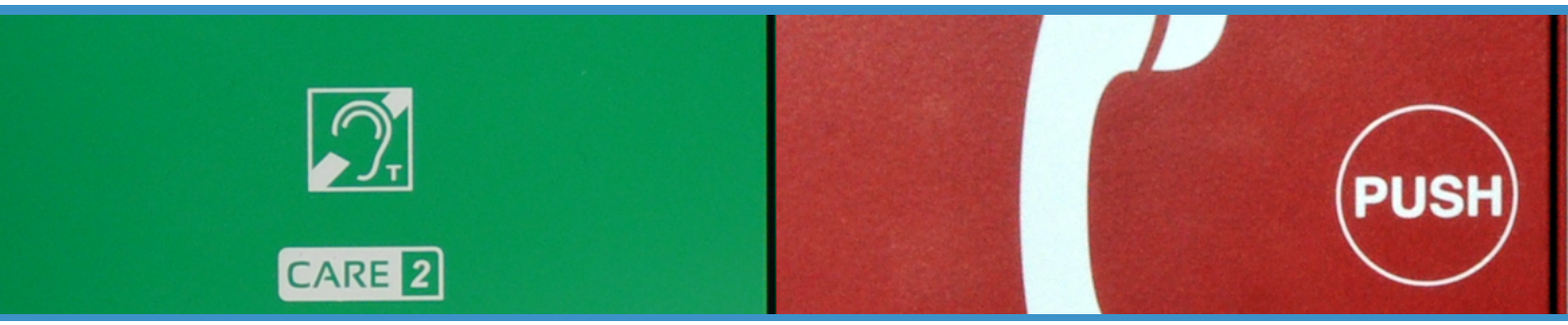
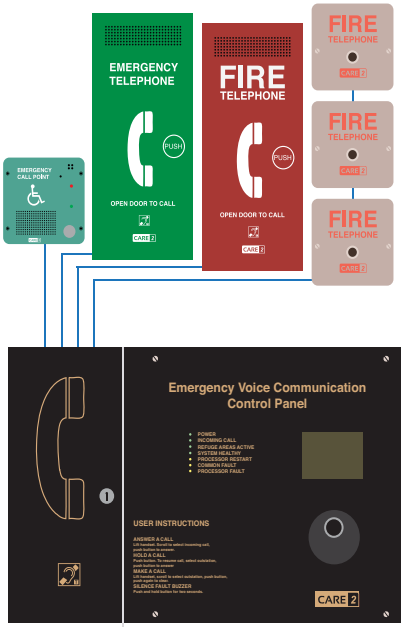
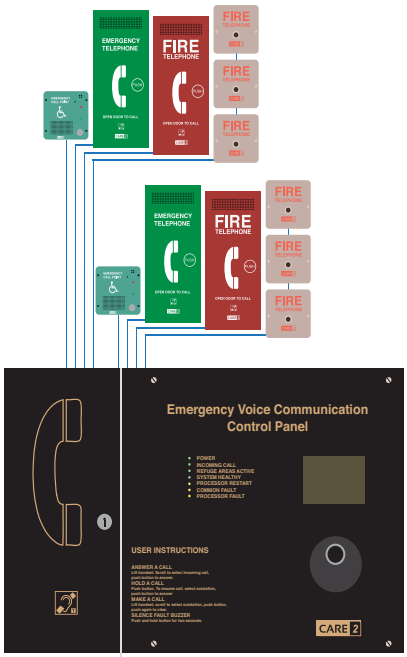



# Typical Cabling Solution

C2CB4 master console with 1 x C2CEK4 expansion kit fitted.

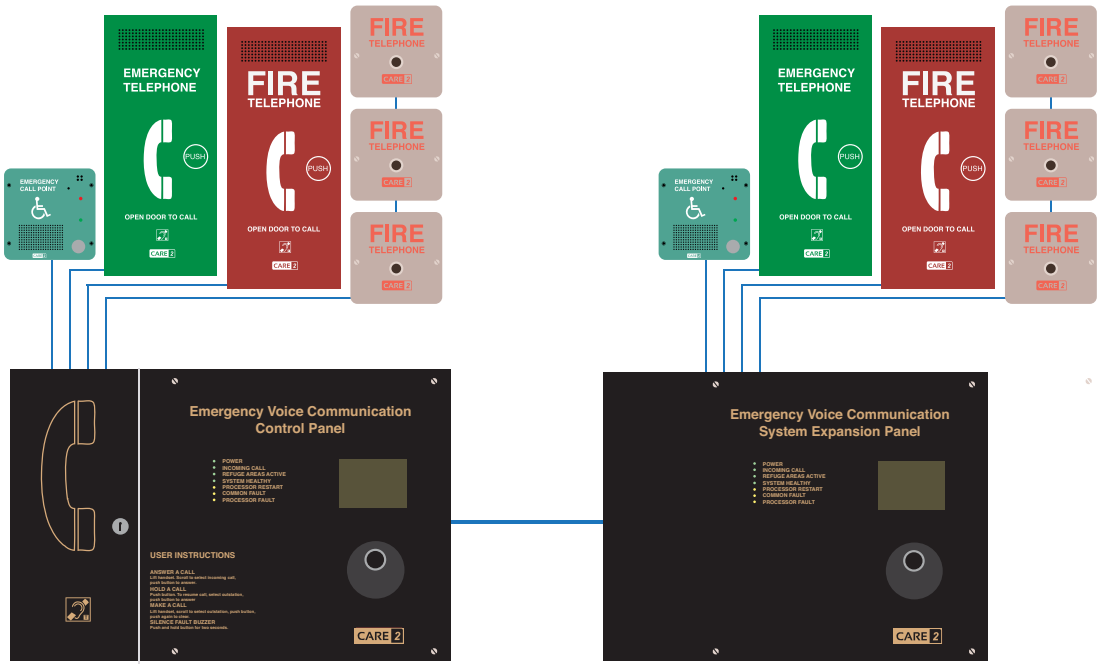



Example 4-Way System




Example 8-Way System

System Expanded Via Expansion Panel



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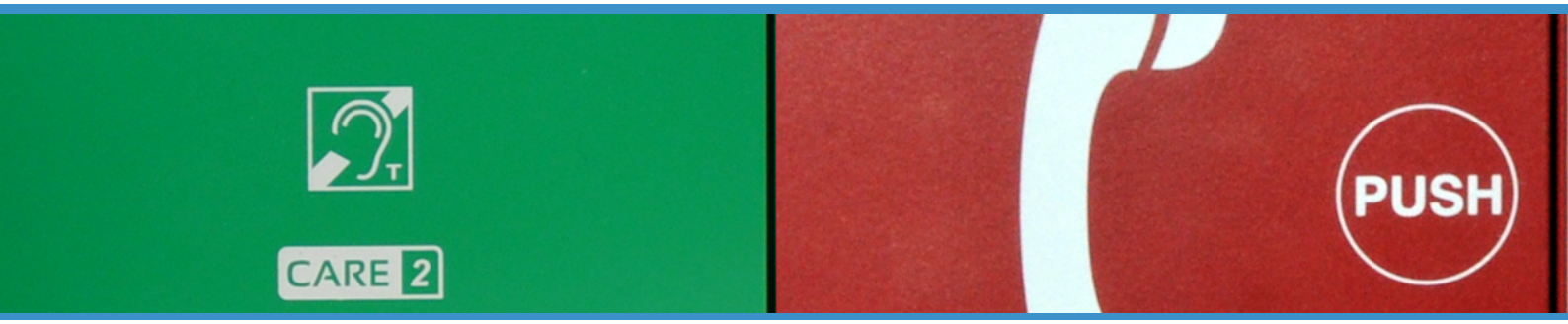


**Any combination of outstation type can be connected to a panel.**

## EXPANDED NETWORKED SYSTEM SOLUTION:


**Maximum overall length of the network is 5Km (I.e network ring length + cable length to furthest outstation = <5Km).**

**Up to 16 panels can be placed on the network (2 of these can be control panels, of of which will act as a slave unless activated as the master during an emergency)**

Two core fire resisting cables - up to 500m

2X Two core enchanced fire-rated cable

**Non-enhanced:** Disabled refuge remotes
**Enhanced:** Fire fighter/ Roaming telephones