

# Memco Panachrome Universal Controller

## Installation Guide

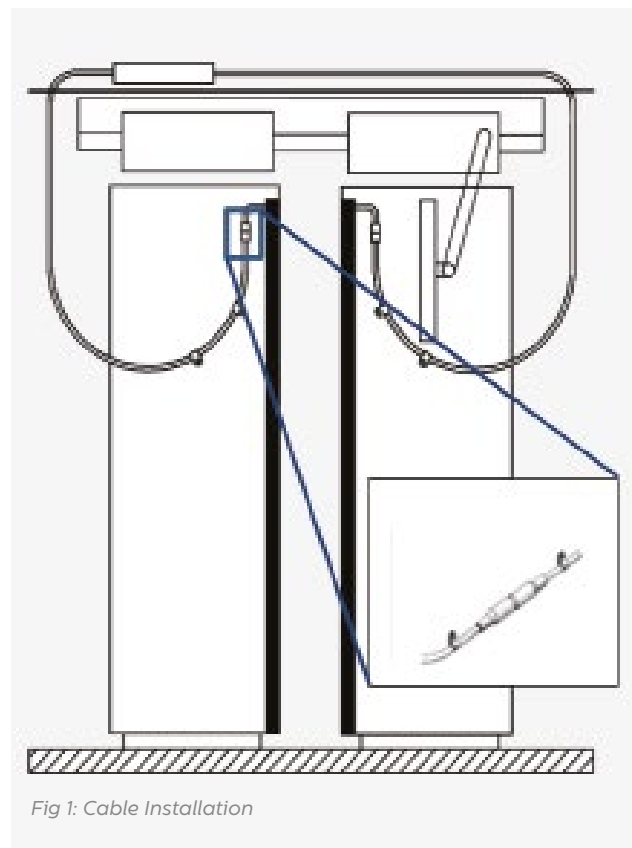
Ref No. C850 855GB Version 3

**Note: Before installing make sure units models are compatible to ensure reliable and trouble-free operation:**

1. The Panachrome 2D Controller C2850 is designed to operate with Panachrome 2D Detectors [C2510 & C2540] - Check you have the correct items.
2. The Panachrome 3D Controller C3850 is designed to operate with Panachrome 3D detectors [C3510 & C3540] - Check you have the correct items.

### 1. Installation

1. Secure Panachrome Controller in a suitable position on top of the car to avoid damage.
2. Connect the controller with the correct supply voltage & Inputs (see Instruction Label inside Lid)
3. It is important to ensure that the detector cables & travelling cables (015 455) are secured to the door & that the travelling cables are routed to the controller correctly.
4. Connect the Transmit (TX) & Receive (RX) leads into the controller sockets.
5. On completion, carefully open & shut the doors by hand. Check the travelling cable (015 455) has a smooth free movement & is not liable to snag on anything during normal operation. There is a risk of leads being damaged by the lift doors or caught up when the lift moves. See Fig 1.
6. With correct operation the display will show 3 Bars scanning up/down. If this is not observed, switch SW3 'ON' & check trouble shooting guide. Card is located on the side of the Controller Lid.
7. Green & Red Indicators will be operated by software. If required, External Signalling can be used. For quicker response time to indicate door movement (See Instruction Label inside lid).
8. Pana40 Plus Controller test tool for diagnostics is also available 840 881 - (Cross cables over for C2850 & C3850).



## 2. Set-up for 3D Controllers

To configure 3D Panachrome Controller carry out the following steps:

1. Fit the Panachrome 3D detectors [Models C3510 or C3540].
2. All 3D controllers are factory set for: 3D activates 'as Door Closing' on 'High Sensitivity'.
3. Select the 3D Operating Mode using switches 1 & 2 if necessary [See Table 2 below].
4. Adjust the 3D Sensitivity using switches 3 & 4 if necessary [See Table 3 below].
5. Note: For a C3850 SW5/8 will be switched to 'ON'

3D Operating Mode	Switch 1	Switch 2
'As Doors Close'	OFF	OFF
'At 800mm' OFF ON	OFF	ON
'3D Timeout – 20 seconds' ON OFF	ON	OFF
'3D Timeout – 10 seconds' ON ON	ON	ON

3D Sensitivity	Switch 3	Switch 4
Highest	ON	ON
Intermediate	OFF	ON
Normal	ON	OFF
3D Detection off	OFF	OFF

## 3. 3D Operating Modes

### As doors close - Switches 1&2 are both OFF

3D proximity detection will be activated as the doors begin to close. The system will allow up to three consecutive triggers on the 3D. After this, the 3D will be turned off leaving only the light curtain detection. If the light curtain is broken then three further 3D triggers are enabled.

### 3D Timeout (20 seconds) - Switch 1 ON and Switch 2 OFF

In this mode of operation the 3D proximity detection is activated when the doors have reached their fully opened position. As long as the 3D detection zone is clear the doors will be closed normally by the door operator. However, if someone is inside the 3D detection zone then the doors will be held open i.e. the door operator relay is de-energised and a timer will start. If the timer expires, the doors will close with an intermittent beep sounding as a warning. This beep will occur regardless of the 'TONE' switch position. If the 3D zone becomes clear then the timer is reset and the door operator relay is re-energised allowing the doors to close.

If the light curtain is broken at any time, the timer will then be reset and the door operator relay is de-energised which allows the doors to re-open. The 3D timer is set at 20 seconds internally.

### At 800mm (2' 8") - Switch 1 OFF & Switch 2 ON

This mode of 3D operation is similar to 'As Doors Close' but the 3D will only become active when the doors are closing and have reached a separation of 800mm (2' 8"). This mode is usually for wider doors to restrict the range of 3D detection into the landing.

### 3D Timeout (10 seconds) - Switch 1 & 2 ON

The operation is the same as in Section above. However, the 3D is set at 10 seconds internally.

### 3D Sensitivity Adjustment - Switch 3 & 4

In most cases the 3D's sensitivity will not require adjustment. However, it may need to be adjusted to overcome spurious reflections which cause erratic 3D triggering. The sensitivity should first be set to the highest level i.e. level 1. If erratic 3D triggers are experienced then select the next lower level of sensitivity. Continue lowering the sensitivity until the unit operates without any erratic 3D triggers.

## Alternative Visual Indications

### Nudging

When the Panachrome is used in Automatic mode and the elevator controller provides a nudging facility, then the nudging control signal can be connected to the Panachrome CLOSING input. This will ensure that when the doors close under nudging control the Panachrome display remains RED, even if the detectors are triggered. The polarity of the nudging control signal can be changed by setting Switch 6 Number 3 (SW6/3).

### External Signal Note

External signal activation provides the quickest response to indicate door movement but if detectors are fixed statically this is the only option to trigger the coloured Green/Red lights.

Signals are required from the door operator/lift controller to switch the LEDs to red or green. Voltages of between 12V to 230V AC/DC from the door open and door close contacts are connected to the input of the Panachrome controller DCC and DOC.

**If wiring 240V from door operator. Neutral and Live to DCC and Neutral and Live to DOC.**

**This part of connector block is isolated. Switches also need to be set depending on rise or fall of signal.**

Switch settings on Inner label:

- + SW6/2 needs to be off
- + For external signal activation:-
  - SW6/2 OFF
  - SW6/3&4 must be set according to whether the voltage will rise or fall when the signal from the controller is applied
- + Closing, External signal FALLS- SW6/3 OFF.
- + Opening, External signal FALLS-SW6/4 OFF
- + Closing, External signal RISES- SW6/3 ON
- + Opening, External signal RISES-SW6/4 ON

## 4. Troubleshooting 3D

### No 3D detection when the 3D is supposed to be active

Check that the controller is a C3850

Check 3D detectors are fitted [C3510/C3540]

Check that switches 3 & 4 are not both in the 'OFF' position

Check that switches 1 & 2 are correctly set to desired mode

### Unit false triggers as doors are closing

Make sure that the 3D detectors are mounted close to the door edge as possible

Reduce the sensitivity using switches 3 & 4 if necessary

### Cleaning of Light Curtains

Light curtains are not waterproof and their performance can deteriorate or result in complete failure if scratched or damaged. This can be caused by using abrasive cloths or inappropriate solvents.

Light curtains may be wiped down using a lightly damp cloth.

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Memco is a brand of Avire

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