MxPro⁵

Hochiki Devices

This document lists the Hochiki devices that are compatible with the **MxPro⁵** Range of Fire Alarm Control Panels.

It also highlights any specific requirements and technical information.

The operation and functions described in this manual are available from Software Version 5000-054-07 onwards.

Version History

Revision	Implemented by	Revision Date	Approved by	Approval Date	Reason for update
3	P Danforth	10 Feb 2020	L Bailey	10 Feb 2020	RFC 957
4	G Howe	14 Dec 2021	P Bell	14 Dec 2021	NPP 1134 and PAR 1049

Hochiki Devices

This document lists the Hochiki devices that are compatible with the MxPro⁵ range of Fire Alarm Control Panels (FACP).

It highlights any specific requirements and technical information.

Disclaimer

Every care has been taken by Advanced Electronics in compilation of the data contained herein and in verification of its accuracy and compliance when published, however the content of this manual is subject to change. This publication should, therefore, be checked against the Advanced Electronics publications database to make sure that it contains the latest data. For example, the products referred to in this publication are continually improved through further research and development, this may cause information contained in this manual to be altered or discontinued.

Copyright

Table of Contents

1 Compatible Devices

All part numbers are Hochiki numbers unless indicated otherwise.

Item	Description	Comments	SW
Detection			
AIC-E	Smoke Detector - Ionization		050-13
AIE-E	Smoke Detector - Ionization		050-13
ALE-E	Smoke Detector - Optical		050-13
ALG-E	Smoke Detector - Optical		050-13
ATD-E	Heat Detector		050-13
ATG-E	Heat Detector		050-13
ACA-E	Multi Detector – Optical / Heat		050-13
ACC-EN	Multi Detector – Optical / Heat	Use ACA-E on PC TOOL	050-13
ACB-E	Heat Detector – Rate of Rise		050-13
ACD-E	CO Multi Detector	Requires loop driver software V3.13 or later Supported in PC TOOL v7.58 or later	054-07
ATJ-EN	Heat Detector – Rate of Rise	Use ACB-E on PC TOOL	050-13
ALK-E/ALG-EN	Smoke Detector - Optical		050-13
ALN-EN	Smoke Detector - Optical	Use ALK-E on PC TOOL	050-13
FB-1	FIREbeam Detector	Use CHQ-POM on PC TOOL	
CHQ-CP	Call Point Module		050-13
MCP-E	Manual Call Point		050-13
HCP-E	Manual Call Point		050-13
HCP-E(SCI)	Manual Call Point with Isolator		050-13
Modules			
CHQ-B	Dual Sounder Controller		050-13
CHQ-B/DIN	Dual Sounder Controller / DIN Mount		050-13
CHQ-DSC	Dual Sounder Controller		050-13
CHQ-DSC/DIN	Dual Sounder Controller / DIN Mount		050-13
CHQ-S	Dual Switch Monitor		050-13
CHQ-S/DIN	Dual Switch Monitor / DIN Mount		050-13
CHQ-DIM	Dual Switch Monitor		050-13
CHQ-DIM/DIN	Dual Switch Monitor / DIN Mount		050-13
CHQ-Z	Zone Monitor Module		050-13
CHQ-DZM	Zone Monitor Module	Earth fault to input-1 terminals may cause input to activate on CHQ-DZM Module. Do not use this input for EN54 mandatory functions such as Fire/ Fault etc.	050-13
CHQ-MZ	Mini Zone Monitor Module		050-13
CHQ-MZ/DIN	Mini Zone Monitor Module / DIN Mount		050-13
CHQ-SZM	Mini Zone Monitor Module		050-13
CHQ-SZM/DIN	Mini Zone Monitor Module / DIN Mount		050-13
CHQ-R	I/O Module – 2 OUT / 1 IN		050-13
CHQ-R/DIN	I/O Module – 2 OUT / 1 IN / DIN Mount		050-13
CHQ-DRC	I/O Module – 2 OUT / 1 IN		050-13
CHQ-DRC/DIN	I/O Module – 2 OUT / 1 IN / DIN Mount		050-13
CHQ-FIO	I/O Module – 8 OUT / 8 IN		050-13

Item	Description	Comments	SW
CHQ-SIO	I/O Module – 1 OUT / 1 IN		050-13
CHQ-MRC	I/O Module – 1 OUT / 1 IN	Use CHQ-SIO on PC TOOL	050-13
CHQ-MRC2	I/O Module – 1 OUT / 1 IN	Use CHQ-SIO on PC TOOL	050-13
CHQ-POM	Powered Output Module		050-13
CHQ-SIM	Single Input Module		050-13
YCA-RL/3H2	Addressable Base (Single)		050-13
YCA-RL/5H2	Addressable Base (Master)		050-13
CHQ-PCM	Plant Control Module	Group Control is not Supported	050-13
CHQ-PCM/DIN (SCI)	Plant Control Module	Group Control is not Supported	050-13
CHQ-SOM	Supervised Output Module		051-07b
Alarm Devices			
CHQ-BS	Wall Sounder		050-13
YBO-BS	Base Sounder		050-13
YBO-BSB	Base Sounder – Beacon		050-13
YBO-BSB2	Base Sounder – Beacon	Use YBO-BSB on PC TOOL	050-13
CHQ-WS	Wall Sounder		050-13
CHQ-WS2	Wall Sounder		050-13
CHQ-AB	Beacon		050-13
CHQ-ARI	Remote Indicator		050-13
CHQ-WSB	Wall Sounder - Beacon		050-13
CHQ-WSB2	Wall Sounder - Beacon	Use CHQ-WSB on PC TOOL	050-13
CHQ-CB	Ceiling Beacon	Use CHQ-AB on PC TOOL	050-13

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice

2 Sensitivity Settings

Reference: Product Manual 680-165 Section 3.3.2.8

The following are the protocol / device specific information relating to Hochiki devices.

2.1 Mode

This is applicable to Multi-sensor devices only:

ACA-E Multi Smoke - Heat

- Mode 0:   (Default) Combined optical & heat detectors
- Mode 1:   Optical mode only
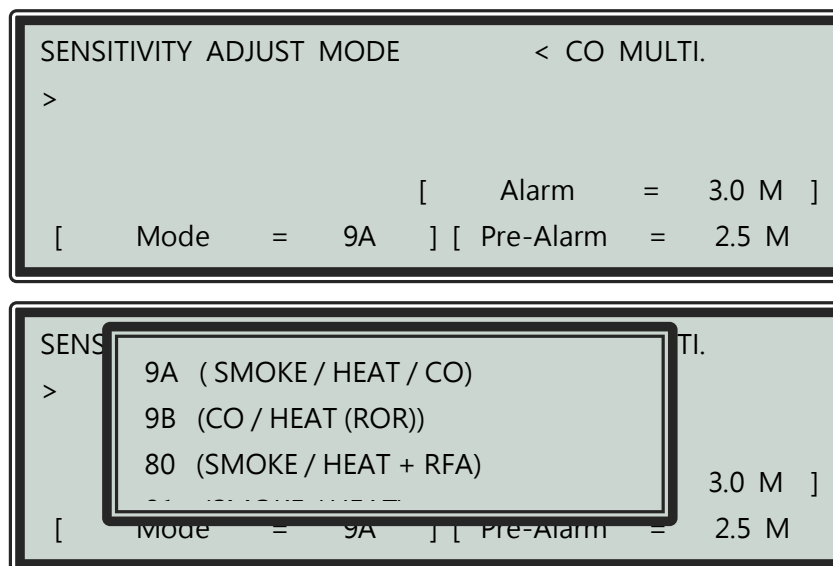- Mode 2:   Heat mode only

ACB-E Multi Heat

The mode of operation can be selected to include adjustable temperature and specific EN54-5 standard classes as follows:

- Mode 0:   (Default)   Temperature 60C (adjustable), no ROR
- Mode 1:   Combined Mode   Temperature 60C (adjustable), ROR @25C/Min
- Mode 2:   Class A1 – Fixed   Temperature 60C, ROR @ 25C/Min
- Mode 3:   Class A1R – Fixed   Temperature 60C, ROR @ 14C/Min
- Mode 4:   Class A1S – Fixed   Temperature 60C, no ROR
- Mode 5:   Class B – Fixed   Temperature 78C, ROR @ 25C/Min
- Mode 6:   Class BR – Fixed   Temperature 78C, ROR @ 16C/Min
- Mode 7:   Class BS – Fixed   Temperature 78C, no ROR
- Mode 8:   Class C – Fixed   Temperature 88C, ROR @ 25C/Min
- Mode 9:   Class CR – Fixed   Temperature 88C, ROR @ 16C/Min
- Mode 10:   Class CS – Fixed   Temperature 88C, no ROR
- Mode 11:   Combined Mode   Temperature 60C (adjustable), ROR @16C/Min
- Mode 12:   Combined Mode   Temperature 60C (adjustable), ROR @14C/Min

ACD-E CO Multi Sensor

The mode of operation can be selected to change the mode of the detector

- Mode 0   9A   Smoke/Heat/Co Combine (Default Mode)
- Mode 1   9B   Co/Heat combine, Heat (RoR)
- Mode 2   80   Co/Heat combine, Heat (RoR)
- Mode 3   81   Smoke/Heat combine
- Mode 4   82   Smoke (Reduce false alarm function)
- Mode 5   83   Smoke
- Mode 6   87   Heat (FT) Heat (RoR) (Fixed Level 1 - Class A1)
- Mode 7   88   Heat (FT) Heat (RoR) (Fixed Level 2 - Class A1R)
- Mode 8   89   Heat (FT) (Fixed Level 3 - Class A1S)
- Mode 9   8A   Heat (FT) Heat (RoR) (Fixed Level 4 - Class C)
- Mode 10   8B   Heat (FT) Heat (RoR) (Fixed Level 5 - Class CR)
- Mode 11   8C   Heat (FT) (Fixed Level 6 - Class CS)
- Mode 12   8D   Smoke, Co, Heat (FT), Heat (RoR), COHb
- Mode 13   8E   Smoke/Heat Combine, COHb (Reduce false alarm function)
- Mode 14   8F   Smoke, COHb (Reduce false alarm function)
- Mode 15   93   Heat (FT), Heat (RoR), COHb (Fixed Level 1 - Class A1) +COHb
- Mode 16   94   Heat (FT), Heat (RoR), COHb (Fixed Level 2 - Class A1R) +COHb
- Mode 17   95   Heat (FT), COHb (Fixed Level 3 - Class A1S) +COHb
- Mode 18   96   Heat (FT), Heat (RoR), COHb (Fixed Level 4 - Class C) +COHb
- Mode 19   97   Heat (FT), Heat (RoR), COHb (Fixed Level 5 - Class CR) +COHb
- Mode 20   98   Heat (FT), COHb (Fixed Level 6 - Class CS) +COHb
- Mode 21   99   Smoke/Heat/CO Combine, Smoke, CO/Heat Combine, Heat (FT), Heat (RoR), COHb (Reduce false alarm function)
- Mode 22   9C   COHb
- Mode 23   9D   CO

```
SENSITIVITY  ADJUST  MODE              <  CO  MULTI.

>


                              [       Alarm      =     3.0  M   ]
    [      Mode      =      9A      ]  [  Pre-Alarm     =     2.5  M
```

```
SENS                                      TI.
>           9A   ( SMOKE / HEAT / CO)

            9B   (CO / HEAT (ROR))

            80   (SMOKE / HEAT + RFA)
                                              3.0  M   ]
    [      Mode      =      9A      ]  [  Pre-Alarm     =     2.5  M
```

2.2   Alarm Level

The Alarm Level of the Analogue value returned by the detector at which the panel will enter a fire condition is set to Hochiki Alarm thresholds (expressed as a % value) This is normally 3% for Multi-sensor & Optical devices. Refer to Hochiki OEM Data Sheets for further information.

ACD-E

The Alarm levels (High / Pre / Low) of ACD-E devices are applicable for the following modes (9A, 80 , 81, 82 , 83 , 8D , 8E , 8F , 99) and this setting will only be effective for the smoke element.

2.3   Minimum Level

If the detector analogue output falls below the minimum value programmed, the panel will enter a fault warning condition. This parameter is normally left at a value of 0 for Hochiki devices.

2.4 Additional Information

2.4.1 Unprocessed Analogue information

For most purposes the "Value" field in the View/Edit menu gives the easiest to read and the most useful information from a detector as it is scaled and displayed in standard engineering units. It is, however, possible to see the unprocessed analogue signal (AN) by moving to the Additional Info field.

```
[ Loop  1   Devices  ] <   MORE

Address          Additional  Info

   002.0              AN =  ✓

   002.1              AN =  ✓

   003.0              AN =  ✓
```

Press the ✔ button to cycle through and display the stored Calibration Zero-point (ZP) and the Calibration Fire-point (FP) and raw analogue value in the order shown below:

1.   Optical-Heat-CO Multi Analogue value
2.   Optical -Heat Multi Analogue value
3.   Optical Analogue value
4.   Fixed temperature Analogue value
5.   Rate of Raise Analogue value
6.   CO Heat Multi Analogue value
7.   CO Analogue value
8.   COHb Analogue Value

```
[ Loop  1   Devices  ] <   MORE   >

Address          Additional  Info

   0 1 0.0         AN  =  85

   027.0          AN  =  61,  61,  61,  80,  1 0

   027 .1         AN  =   7,   5,  6
```

3 Calibration

At power up the panel allows a couple of minutes for Hochiki ESP detectors to stabilise. Any detectors that the panel knows to be present will then be calibrated. The panel displays can be used normally during this time, but the fire detection response will be slower until all the calibration phases are complete. If devices are inspected during this period, they may show their state as: -

"Reset"   - panel has reset the device at power up, resetting from a fire etc.

"Calibrating"   - checking ESP "Zero Point" and "Fire Points"

"Initialising"   - loading detection thresholds, sounder volumes etc.

Calibration can be manually initiated any time at access level 3, forcing all the devices on the selected loop to be calibrated. Transferring new device information from a PC to the panel will also cause the effected devices to be re-calibrated.

Periodic re-calibration can be performed at levels 1 & 2 under control of one of the 7-day time clocks. The time clock settings are configured from PC program.

4 Sounder Programming & Group Control

Sounder functions for the CHQ-BS, CHQ-WS, CHQ-WS2, YBO-BS, YBO-BSB. Unlike standard sounders, these loop-driven sounders can be programmed to give out many different tones and be individually programmed to adjust the sound output. When programmed from the panel they will default to turn on at 85dB. Use one of the many tones available from the PC instead of the standard "Pulse" option if any special ringing is required.

The panel utilises the "group" features of the sounders, so that when a command is sent to turn one device on, all other sounder devices within the same group will turn on at virtually the same time from the same command (and likewise when they are silenced). Allocate unique "Output Groups" to these devices, with no other device types using that group.

Note: *Where devices that support group commands are used, it may be necessary to split them into further output groups. Devices in the same output group must all share the same settings for the following parameters: May Silence, May Walk Test.*

5 Loop Output Drive Capability

The following information is applicable per loop. All loops can be loaded to the maximum (500mA per loop).

Provision has been made to allow for a typical loading of detectors and inputs (30mA).

Volume	Number of Loop Powered Sounder Bases
98db	29
or	
95db	42
or	
94db	47
or	
93db	58
or	
90db	72
or	
88db	104
or	
85db	127

WARNING

THE NUMBER OF DEVICES SHOWN IS REPRESENTATIVE FOR SPECIFIC LOOP ARRANGEMENTS. IF THERE IS A MIXTURE OF SOUNDER TYPES OR SOUNDER VOLUMES ON THE INSTALLATION OR IF THE OTHER DEVICES ON THE LOOP TAKE MORE THAN 30MA IN QUIESCENT OR ALARM, THEN CALCULATE THE ACTUAL CURRENT LOAD IN ALARM USING THE CURRENT CONSUMPTION FIGURES QUOTED IN THE DEVICE DATA SHEETS AND MAKE SURE THAT THIS DOES NOT EXCEED THE MAXIMUM OUTPUT FOR THE LOOP.
REFER TO PRODUCT MANUAL 680-165 SECTION 5.2.1 AND TO HOCHIKI LOOP CALCULATORS FOR FURTHER INFORMATION ON CALCULATING LOOP LOADING, CABLE CROSS SECTIONAL AREA AND LOOP DISTANCE.

6 Specific Device Details

ACD-E

ACD-E will auto learn with 2 points, a primary address, and a sub address. The primary address is used to represent the device fire alarms and the sub address represents the CO element. It will be treated as CO-Alarm no output will be activated by default.

i *Note:*	*The sub address state will display as "NOT IN USE", if the selected mode does not permit the COHb element.* *CO-Alarms are not reported by the Touch-10 and the IP Gateway.*

The CO life fault is reported on the panel when the device CO element has been in operation for 10 years.

Doc Number: 680-168
Revision: 04