

PERTRONIC INDUSTRIES PTY LTD

PIC-DMK: In-Ceiling Detector Mount Kit
PIC-DMP: In-Ceiling Detector Mount Pole
PIC-DRI: In-Ceiling Detector Remote Indicator



INSTALLATION NOTE

Overview

The Pertronic In-Ceiling Detector Mount Kit and Detector Mount Pole together provide a convenient method to allow detector coverage in an above-ceiling location where the mandatory access to the detector would be difficult otherwise. Either conventional or analogue detectors may be used with their respective detector bases. A universal detector base bracket allows the user to mount a base from most detector manufacturers. An available Remote Indicator provides visual alarm indication at the ceiling for a concealed detector.

Features

A Mount Kit and (separately ordered) Mount Pole/s include the following major parts:

1. A bracket on which to mount the detector (including 2 bolts and 2 nuts),
2. One or more 1-metre poles that support the mounted detector above the Pole Base,
3. A Pole Base, which is secured to the ceiling by its attachment to a Ceiling Bracket with 3 short screws,
4. A Ceiling Bracket, mounted in a 145-155 mm hole in the ceiling with 3 clamps and long screws, and
5. A Cover Plate that covers the ceiling opening, and has a hole for an optional Remote Indicator's LED to penetrate the cover.

An optional, separately ordered, Remote Indicator (RI) attaches to the Pole Base, and is wired to the detector inside the concealed ceiling area. The RI circuit board can be wired to use a choice of current limiting resistance, depending on the remote LED output of the detector used.

Specification

Ceiling aperture: 145 - 155mm (145mm recommended)
Cover diameter: 183mm
Weight (basic kit): 1.1kg
Weight (1m pole): 0.02kg

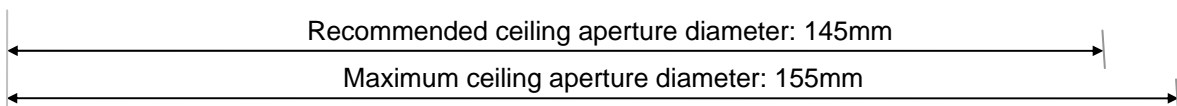
Installation Instructions

Preparation (at ground level):

- a) Secure the detector mounting base to the *detector mounting bracket*, using the two nuts and bolts provided.
- b) Determine the length of pole required for your specific needs; consider the following:
If your detector needs to be mounted higher than the 1-metre pole provides for, the additional length can be added by joining a full or reduced portion of another standard 1m pole.
NOTE: If *only part of a pole length* more is needed, the additional length must be made from the **upper end** of another pole. Cut off and discard the lower end (the end with the threads.) The remaining pipe section will fit snugly onto the top of the original pole, and the top end of the new portion will accept the *Detector Mounting Bracket*. See diagram on the next page. A sharp knock may be required to join two poles together using the joiner. If joining poles, it is recommended that a 3.2mm-wide cable tie be used at their junction, both to secure the poles together and prevent them from rotating, utilising the two 3.5mm holes in the poles.
- c) Locate the *Pole Base Bracket*, and secure your pole to it using the furnished spanner and the two nuts provided for that purpose.

Warning: Ensure the nuts do not become cross threaded on the pole. If using a remote indicator, locate the plastic mounting pillar supplied with it, and push it through the smaller of the two holes in the middle of the *Pole Base*, from the lower face upwards. Push firmly until the pillar is locked in place.

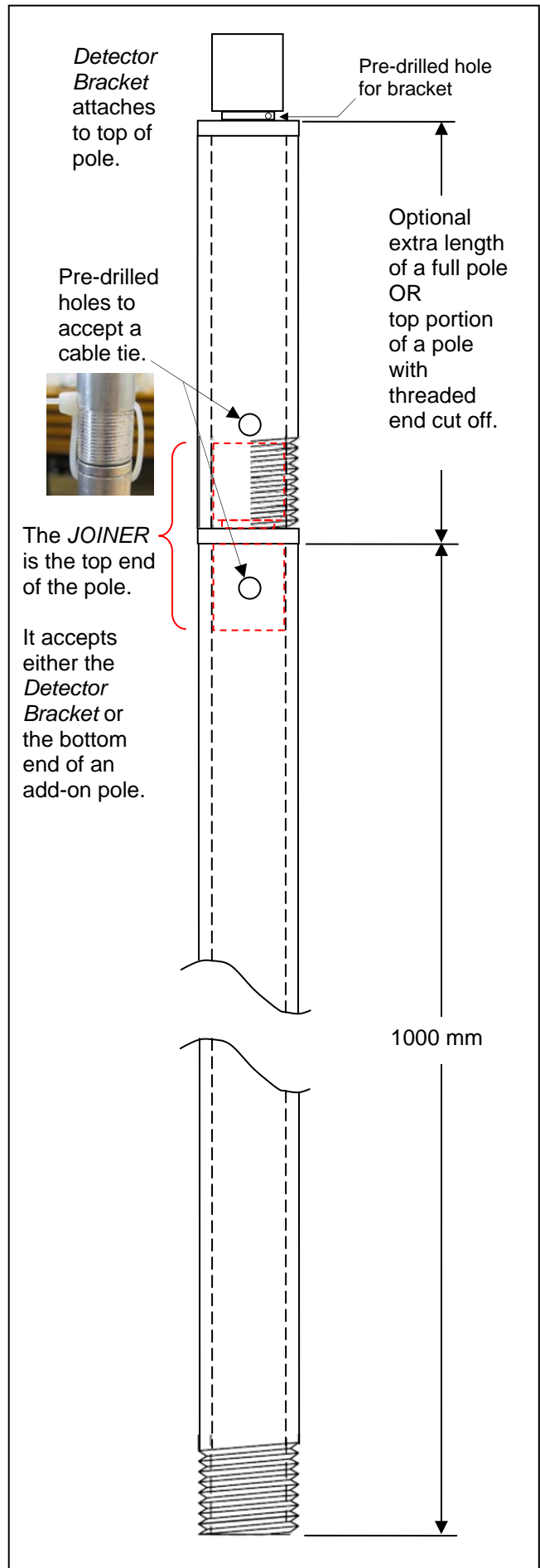
- d) Peel off and discard the centre circle from the relevant cover label, and then peel off and fit the label itself to the centre of the *Cover Plate*. Use the **FIRE ALARM** label if using a remote indicator, and **FIRE DETECTOR** label if not. If using a remote indicator, remove and discard the plastic bung in the centre of the *Cover Plate*.



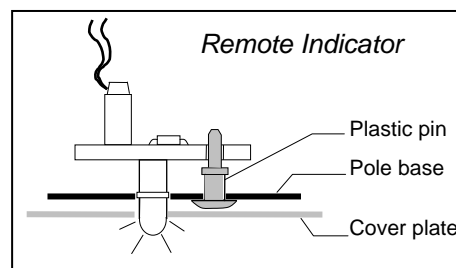
Verify circle size above by measurement—printers may alter the scaling of this Installation Note.

Installation (at ceiling level):

1. Determine the location for the *Ceiling Bracket* opening, and mark it clearly on the ceiling. The diameter dimension on the page above can be used as a guide.
2. Carefully cut out the hole. The recommended size of 145 mm. diameter will provide a snug fit for the Ceiling Bracket but a standard 152mm holesaw is perfectly adequate.
3. Locate the three Clamp Brackets and the three long screws. Insert one Clamp Bracket into any one of the vertical tabs that will penetrate the ceiling opening; secure it loosely in the slot with a screw. See the diagram for its placement.
4. Carefully place the *Ceiling Bracket* into the ceiling opening with the single *Clamp Bracket* on top of the ceiling material. Insert the two remaining *Clamp Brackets*, and use the supplied long screws to secure all three *Clamp Brackets* snugly into place and the *Ceiling Bracket* tight to the ceiling.
5. Locate the field cabling in the ceiling space and pull a short length through the centre of the *Ceiling Bracket*. Cut and strip as required.
6. Attach the field cabling to the detector base, passing the cables through the cable access hole in the *detector mounting bracket* and then to the base itself.
7. If using the optional *Remote Indicator*, attach the remote wiring to the detector base, passing the cables through the cable access hole in the *detector mounting bracket*. Allow for enough wire to go down the length of the pole to reach the remote LED at the ceiling.
8. Retrieve the *pole* and *pole base bracket* assembly.
9. Insert the top of your pole into the keyhole of the *Detector Mounting Bracket*, and slide the two parts together. Rotate the Detector Mounting Bracket, so the small locating key fits into the pre-drilled hole in the pole.
10. With pliers, bend the notched end of the bracket down past 90° to meet the pole—this will lock the *Mounting Bracket* to the *Pole* and stop the *detector mounting bracket* from swivelling around the pole.
11. Fit the required detector to the detector base.
12. Raise the assembly through the *Ceiling Bracket*, detector end first. The assembly may need to be held at an angle in order to feed the detector assembly through the aperture. Large holes in the *pole base plate* facilitate the insertion of fingers and thumb to help hold the assembly vertical for this step.
13. As the assembly is raised within the ceiling cavity, attach cable ties or similar to attach the field and remote indicator wiring to the pole as desired.



14. If using the optional *Remote Indicator*, and before the *pole base bracket* assembly meets the *ceiling bracket*, attach the remote's wiring to the small circuit board, once the correct cable length has been ascertained. See *Wiring Details* below.
15. Attach the *Remote Indicator* circuit board to the plastic pillar in the middle of the *Pole Base Bracket*, pressing it on firmly and ensuring the LED protrudes through the hole provided in the centre of the bracket, as shown in the diagram →.
16. Note if there is an obvious air movement direction within the ceiling cavity. If so, it is important to ensure the detector is positioned upwind of the pole so that the path of the air to the detector is not impaired by the pole itself.
17. Offer up the complete assembly to the ceiling bracket, aligning the three locking tabs of the *Ceiling Bracket* with the relevant tapered slots in the *Pole Base* to accept them, and ensuring the detector is upwind of the pole.
18. Rotate the pole assembly clockwise slightly until the three locking tabs are all fully engaged in the tapered slots. At this point, the three holes for locking screws should all be aligned with those in the plate behind.
19. Insert and tighten at least one of the supplied short *self tapping screws* through the *Pole Base* into the hole in the *Ceiling Bracket* to firmly secure the assembly to the ceiling and to prevent the base from disengaging from the *Tab Locks*. (Three short screws and three pairs of aligned holes are provided.)
20. Align the three spring clips of the *cover plate* to three of the five large holes in the *Pole Base Plate* that match them, and press the cover plate upwards. It will clip in tightly to the ceiling, and (if used) the *Remote Indicator's* LED will penetrate the cover for easy visibility.



Wiring Details

Detector bases should be field wired according to the manufacturer's documentation.

PIC-DRI Remote Indicators provide a common –ve and a choice of 3 positive terminals. The choice of positive terminals will depend on the remote LED output voltage and current limiting capabilities of the detector base used. For example, System Sensor analogue detectors should use terminal 2 and –ve, whereas series 100 conventional detectors should use terminal 1 and –ve. Ensure the correct terminals are used else damage can result.

Terminal 1 provides 2k5 current limiting resistance

Terminal 2 provides 330R of current limiting resistance

Terminal 3 does not provide any current limiting capabilities

Too high a current limiting resistance will result in the remote alarm LED being too dim, whereas too low a value could result in failure of the LED due to too high a current. Suitably approved detectors should not be damaged by an incorrect value being used.

Order Code

Product	Order Code
Pertronic In-ceiling Detector Mount Kit	PIC-DMK
Pertronic In-ceiling Detector Mount Pole (1 metre)	PIC-DMP
Pertronic In-ceiling Detector Remote Indicator	PIC-DRI

Illustration

