



Solutions Document: SDPASFIRE 1904-1

Passive Fire – Penetration Register and Identification

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QBCC: 25186 – Builder-OPEN

The Problem:

Contractors and fire specialist companies have to (identify) manually place labels on each passive fire penetration and physically record details for the passive fire system for each penetration.

Further, to provide the builder / PC with a register of penetrations and systems used, the contractor or specialist needs to physically enter every penetration detail to satisfy legislative and Fire Certifier requirements.

This process is both time consuming, costly and prone to data entry error. Consider a multi-level building that can have literally thousands of penetrations that need to be labelled, documented, recorded and summarised. The expense of this process is in the tens of thousands of dollars for each service trade.

The Solution:

Construction Apps has developed a seamless and comprehensive mobile solution tailored to any contractor, builder or construction application.

Construction Apps solution will significantly reduce onerous and intensive labour requirements to complete construction passive fire compliance requirements.

Our App, that is deployed to any mobile device (iPhone, iPad, Android tablets and phones), captures label details at the source and stores the data directly to a passive fire register ready for submission.

Using smart workflow solutions, data entry into the mobile app Form (register) is minimal, saving hundreds of hours of handwriting on labels then manually entering these details into digital format for the registers.

The Process:

In accordance with AS4072.1, fire collar or penetration identification labels are produced for the job. These are a series of pre-printed heavy duty thermal labels meeting AS requirements.
(see sample label next page)

Most buildings have a specific set of penetration solutions (collars, systems) detailed for each service dependant on the material penetrated and the type of material used to go through the penetration and, of course, the FRL (fire rating for the project). All the passive fire systems details are pre-loaded into your App. This is done to save time on site and avoid any user error as the penetration system details align with the collar type and size.

To begin a record, the user opens the app and the app Form opens to the next available sequential label number. The label number MUST match the apps Form number to adequately record the location,



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manufacturer, type etc. Once the label is affixed next to the penetration, the user takes an image with the label and penetration and SAVE's the record. This detail then populates back to the master penetration register automatically.

A validation report (if required) is also emailed to the user, the certifier or whoever you choose to receive the reports.

Service Penetration & Control Joint System

FIRE BARRIER
** DO NOT PENETRATE **
to AS4072.1

(Contact installer if damaged or reinstatement is required)

Manufacturer

- Hilti
- Promat
- Snap
- Trafalgar

obsidianplumbing

Installed By: Obsidian Plumbing
Ph: 07 5568 7668 QBCC: 1314144

Instal Ref / Location ID	FRL	Date Installed
OBS - 1401	- / 120 / 120	/2021

label formatted to meet AS4072.1 Requirements

Pre-Printed Unique Sequential Labels aligned with the app

Pre-Printed FRL, or can be left blank if varied FRL's

Block out the systems manufacturer

Can have open or pre-printed install dates

Please also be aware that **the App also works offline** for when you may be in a basement or in a remote location.



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The simple and easy to follow App interface.

The screenshot displays the 'Fire Collar Form' app interface. The form includes the following fields and features:

- Passive Fire Location*:** 215-001. A callout box states: "Unique Location typed into field to match affixed label."
- Installation Date*:** 12 Apr 2019. A callout box shows a date picker with April 2019 selected.
- Penetration in Floor, Wall or Ceiling?***: Radio buttons for Floor, Wall, and Ceiling. 'Floor' is selected.
- Material Penetrated*:** Concrete. A callout box shows a list of materials with 'Concrete' selected.
- Service Type? (eg, PVC, Copper, etc)*:** PVC. A callout box shows a 'TypeID' list with 'PVC' selected.
- What is the Pipe Size?***: 150. A slider is shown at the 150 mark.
- Scan BARCODE on Label*:** SW-OPEN150-Ret. A QR code icon is present.
- Fixture*:** Stormwater - Open Outlet/Grate - Retrofi.
- Fire Protection System (Manufacturer & Model)*:** Snap HP150R.
- Is the Fitting Inside the Collar?***: Radio buttons for Yes and No. 'No' is selected.
- Test Report Pipe Only*:** FSP1601.
- Fire Resistance Level (FRL)*:** -/240/240.
- Route To Compliance*:** AS450293.111.
- Photo Insitu*:** A camera icon and a photo of the fire barrier label. A callout box states: "Take an INSITU photo of the label and Penetration system."

Callout boxes provide additional context:

- "Unique Location typed into field to match affixed label." (points to Passive Fire Location)
- "The App auto populates relevant data" (points to the TypeID list)
- "Take an INSITU photo of the label and Penetration system." (points to the Photo Insitu field)



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Once the app Form is completed, 'SAVE' is pressed and the data is streamed directly into the passive fire register with no manipulation or formatting.

PENETRATION REGISTER												
Project Name: _____						Trade: _____						
Address: _____						Builder: _____						
Install Ref / Location ID. (Location + Number eg B2-01)	Date Installed	Penetration Orientation (Wall, Floor)	Material Penetrated (Concrete, Blockwork)	Trade (Plumbing, electrical, A/C)	Penetration Material (Cable, Conduit, Pipe)	Service Material (uPVC, PVC, Pex, Copper,)	Size	Application / Used For (Waste, Stack)	Fitting Type (Retro, Cast-in)	System (Manufacturer and Model)	Route to Compliance (Test Ref)	
B3-001	23/03/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-002	23/03/2019	Floor	Concrete	Plumbing	Pipe	Copper	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-003	23/03/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-004	23/03/2019	Floor	Concrete	Plumbing	Pipe	Copper	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-005	23/03/2019	Floor	Concrete	Plumbing	Pipe	PVC	50mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-006	23/03/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-007	23/03/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-008	30/03/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-009	30/03/2019	Wall	Concrete	Plumbing	Pipe	Copper	125mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-010	30/03/2019	Wall	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-011	30/03/2019	Wall	Concrete	Plumbing	Pipe	Copper	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B3-012	30/03/2019	Wall	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-001	10/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-002	10/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-003	10/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-004	10/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-005	10/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-006	10/04/2019	Wall	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-007	10/04/2019	Wall	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B2-008	10/04/2019	Wall	Concrete	Plumbing	Pipe	Copper	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B1-001	20/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B1-002	20/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B1-003	20/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B1-004	20/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
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B1-007	20/04/2019	Wall	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
B1-008	20/04/2019	Wall	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-001	30/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-002	30/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-003	30/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-004	30/04/2019	Floor	Concrete	Plumbing	Pipe	PVC	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-005	30/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	150mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-006	30/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-007	30/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	
G-008	30/04/2019	Floor	Concrete	Plumbing	Pipe	Copper	100mm	Stack	Cast-in	Snap H100S	NCC BCA 3.15(a) a tested prototype under AS1530.4 & AS4072.1	

Any type of workflow rule can be automated to send an email notification, PDF report or a summary of each penetration validation sent to notify users, supervisors, builders or simply for record keeping purposes.

This feature is particularly handy for Hand-Over Manuals for builders, or O&M for contractors where any level of penetration detail can be produced from a register down to granular individual penetration details with images.

