

Fire and Security Specification

Object Styles Used

	Fire Alarm Devices	For all fire alarm devices including smoke and heat detectors		Generic Annotations	Allows for amendments of the lineweights and colours to all the linework within the symbols and leaders.
	Detector Code Lines	For detectors symbolic code lines (showing the reach of them)		Fire Symbols	
	Security Devices	For all security devices, alarm controls and alarm panels	Security Symbols		
	Specialty Equipment	For fire protection elements including fire hose reels and fire extinguishers	Symbol Leaders		
	Fire Protection				
	Sprinklers	For all fire sprinklers			
	Sprinkler Code Lines	For fire sprinklers symbolic code lines (showing the reach of the sprinkler)			

Detail Levels - all Fire and Security items

3d			The fine detail within the smaller objects (as shown in example) are created with model lines and/or model text. They will show on 3ds and elevations when the views visual style is set to wireframe, hidden, shaded, consistent colours or realistic and the detail level is set to "Fine"
Elevation			
Plan			All plan representation is as follows: Coarse detail level: Symbol only Medium detail level: Symbol and object Fine detail level: Object only
	Coarse	Medium	
	Fine		

Detail Levels - Alarm Boards

ELEVATIONS AND 3D DETAIL LEVELS

To achieve the real size solid filled representation (as shown below in Fine Mode) requires solid fill elements that show in 3d and elevation views. To turn off these elements, set the 3d and/or elevation views detail level to "Medium" (or use visibility graphic overrides). The solid filled element uses a material called "Solid fill for Boards".

Coarse: Plan annotative symbol only shown (size varies depending on view scale)	Medium: Plan annotative symbol and real size unit shown	Fine: Plan real size symbol shown

Use of Shared Symbol Families and Schedules

A lot of the symbols within the families require a certain set-up process to allow them to show on walls as well as on ceilings and also allows them to have automatic wall-ceiling symbol interchange. This set-up process requires them to be "shared" families.

One of the implications of sharing these nested families is that these symbols and light sources will schedule with the real fittings (resulting in double counting).

To counter this, all the shared symbol families have as many of their parameter values as possible assigned to "Symbol Only" - allowing you to filter them out from within your schedule so they are disregarded.

All of these symbols also appear within your project browser: their names all begin with "Symbol_"

- + Symbol_Fire Detectors
- + Symbol_Fire Horn
- + Symbol_Fire Speaker
- + Symbol_Fire Strobe

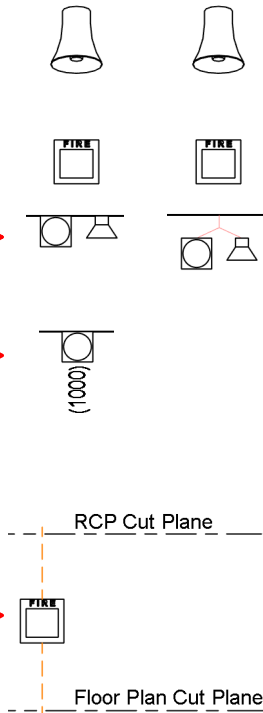
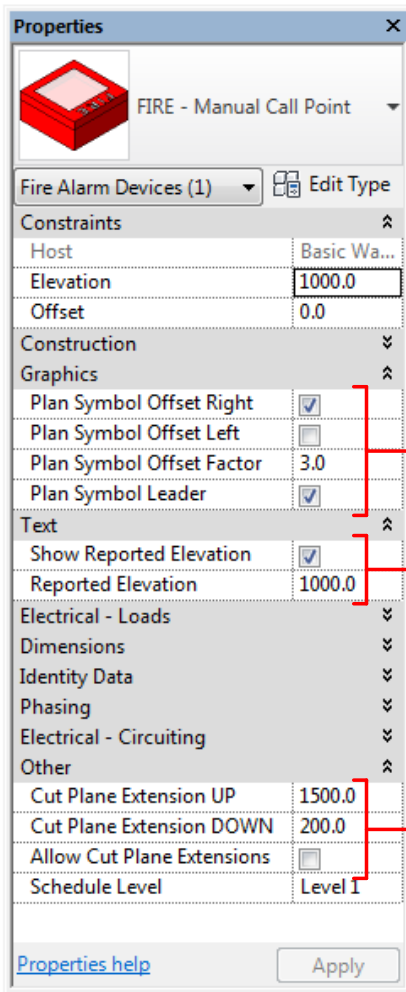
Example of shared symbol family naming

Parameter	Value
Constraints	
Identity Data	
Type Comments	SYMBOL ONLY
Model	SYMBOL ONLY
Manufacturer	SYMBOL ONLY
Description	SYMBOL ONLY

Example of shared symbol family parameter values

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Common Instance Parameters



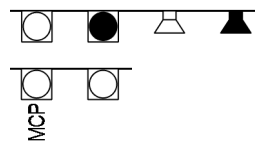
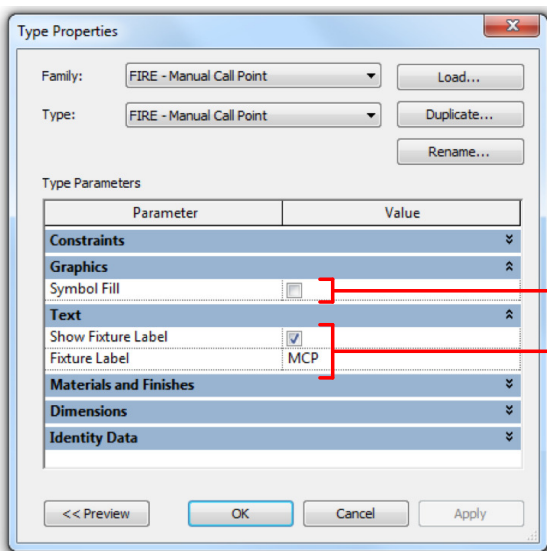
Plan Symbol Offsets and Leaders allow you to correctly document fixtures that are aligned vertically. These parameters are not available for sprinklers and fire hose reels.

The Revit standard "Elevation" parameter cannot currently be used in labels, tags or schedules. To overcome this limitation use the "Reported Elevation" parameter.

The RevitWorks Elevation Reporter add-in (Premium version only) ensures that the "Elevation" and the "Reported Elevation" parameters are always synchronised. If the add-in is not loaded you will need to manually update it.

Cut Plane Extensions allow you to show low level components on your Reflected Ceiling Plans and high level components on your Floor Plans.

Common Type Parameters



All fixtures come with symbol fill options allowing for more graphical differentiation where required.



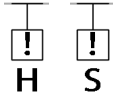

"Show Fixture Label" shows the "Fixture Label" text parameter as an annotation label within the family.

These labels are in a set position relative to the symbol and rotate with the family while staying readable.



















Alternatively, you could turn this off and tag your family which gives greater flexibility in the positioning and orientation of the label.

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Fire Alarm Devices

	3d	Wall Symbol	Ceiling Symbol
 FIRE - Detectors			
Heat Detector		H	H
Smoke Detector		S	S


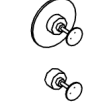



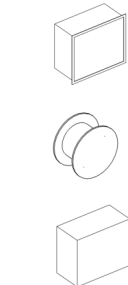

Fire Alarm Devices (Premium only)

 FIRE - Manual Call Point			
FIRE - Manual Call Point			
 FIRE - Sounder Horn			
FIRE - Sounder Horn			
 FIRE - Sounder Speaker			
136mm Diameter			
180mm Diameter			
 FIRE - Sounder Wall Plate			
FIRE - Sounder Wall Plate			
 FIRE - Strobe			
100 x90h			

Fire Controllers

	3d	Wall Symbol	Ceiling Symbol
 FIRE - Extinguisher			
FIRE - Extinguisher			

Fire Controllers (Premium only)

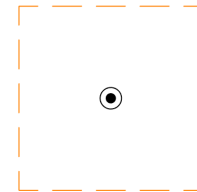
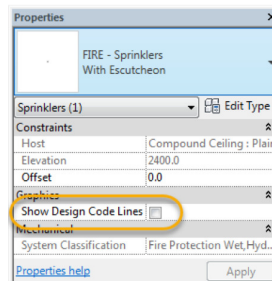
 FIRE - Sprinklers			
With Escutcheon			
Without Escutcheon			
 FIRE - FHR			
Recessed Cabinet			
Reel Only			
Surface Mounted cabinet			

NOTES!

1. 3d images as shown are in detail level "Fine mode"
2. Wall and ceiling symbols as shown are in detail level "Coarse" mode
3. All symbols can have labels added.
4. Labels as shown in images are the out-of-the-box defaults and can be easily changed or turned on/off from within the fixtures type properties (refer previous page for screenshot)

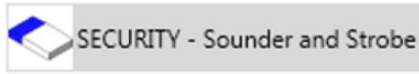
Additional Feature for Fire Sprinklers

All sprinklers have the ability to show the extent of the sprinklers reach by setting code line type parameters within the family and ticking the "Show Design Code Lines" instance parameter. These lines are on their own sub-category (as shown on page 1. "Object Styles Used") so can be turned off view-wide where required.

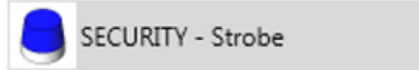


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Security Devices



SECURITY - Sounder and Strobe



100 x90h

3d



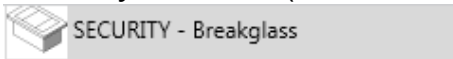
Wall Symbol



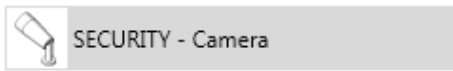
Ceiling Symbol



Security Devices (Premium only)



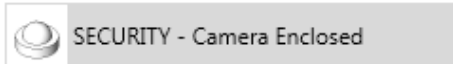
SECURITY - Breakglass



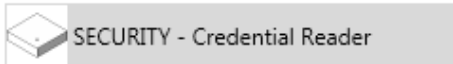
Ceiling Mounted



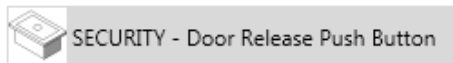
Wall Mounted



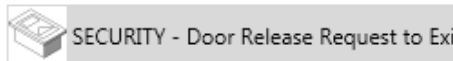
130mm



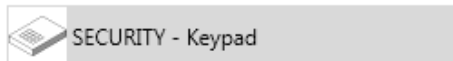
80 x80 x20d



SECURITY - Door Release Push Button



SECURITY - Door Release Request to Exit

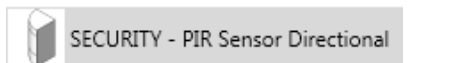


85x122hx28d

190x135hx30d

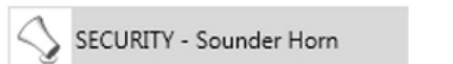


100mm

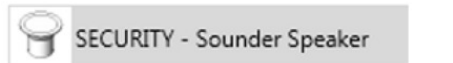


Ceiling 60w x100d

Wall 60w x100d

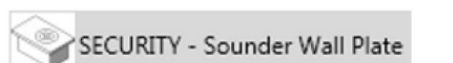


SECURITY - Sounder Horn



136mm Diameter

180mm Diameter



SECURITY - Sounder Wall Plate



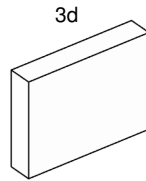
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Alarm Panels

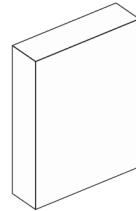
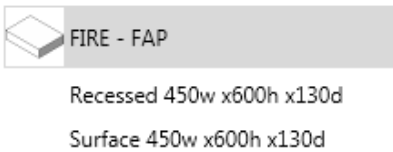
Refer page 1 for explanation of how symbols work at different detail levels.



Wall Symbol



Fire Panels (Premium only)



FAP

Alarm Controls (Premium only)

Alarm controls have no modelled elements but come with the correct security connectors and can be scheduled. To create more controls, duplicate existing type, change the label and select a square or circular border as per image



Day Time Alarm

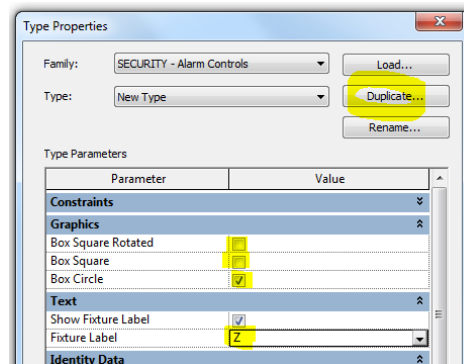
Electric Mortice

Interlock

Lock Position Switch

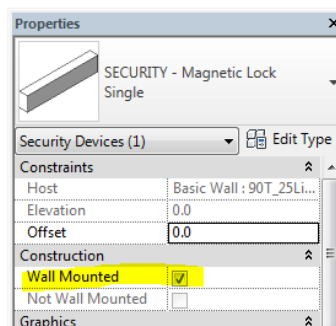
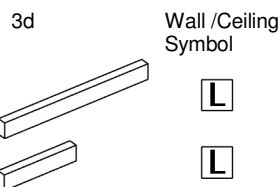
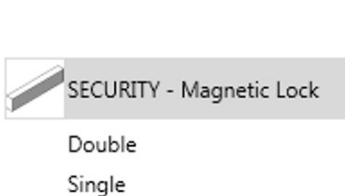
Reed Switch

Wall /Ceiling Symbol



Magnetic Locks (Premium only)

Magnetic locks have modelled elements. They can be placed on any surface. If placed on a vertical surface (i.e. a wall), ensure "Wall Mounted" tickbox is ticked as per the image to ensure that the modelled elements are in the correct orientation:



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