

# Fire Alarm Requirement Flowchart & Checklist

This flowchart/checklist is designed to guide you step-by-step in determining when a fire alarm system is required under the 2021 IBC/IFC (with references to NFPA 72 for design). Always confirm your jurisdiction's adopted edition and local amendments.

Step	Checklist Item
Step 1	Confirm Applicable Code Edition & Local Amendments (IBC/IFC Chapter 9 §907).
Step 2	Identify Occupancy Classification (IBC Chapter 3).
Step 3	Compute Occupant Load using Table 1004.5.
Step 4	Apply Mixed/Accessory/Separated Occupancy rules (§508) and Incidental Uses (§509).
Step 5	Check §907.2.x trigger for the specific occupancy group (A, B, E, F, H, I, M, R, S).
Step 6	Overlay special features (High-rise §403, Atriums §404, Malls §402, Underground §405, Amusement §907.2.12).
Step 7	Apply exceptions (sprinklered buildings may reduce manual pull stations if waterflow activates notification).
Step 8	Confirm Monitoring (§907.6.6 requires supervising station unless exception applies).
Step 9	If existing building or occupancy change → check IEBC triggers (Ch. 10 / §904.2).

## Example Scenarios

**Office Building:** Two-story, Group B, OL <500 but >100 occupants on second floor → Manual fire alarm required (§907.2.2).

**Gymnasium:** Assembly Group A-3, OL >1,000 → Manual fire alarm with EVACS (§907.2.1, §907.5.2.2).

**Apartments:** Group R-2, >16 units & ≥3 stories above discharge → Manual fire alarm required (§907.2.9).

**Ambulatory Care:** Group B with ≥4 incapable of self-preservation → Fire alarm required (§907.2.2.1).

**Retail Store:** Group M, OL >500 → Fire alarm required (§907.2.7).

**Warehouse:** Group S-1, public self-storage ≥3 stories → Fire alarm required (§907.2.10).