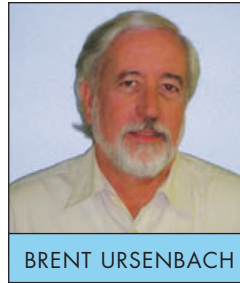


MECHANICAL CODE DISCUSSION

Appliance Access— International Residential Code



BRENT URSEBACH

BRENT URSEBACH

HVAC EDUCATOR/
EXPERT WITNESS

bursenbach@gmail.com
801-381-1449

I RECALL GOING OUT ON crawlspace “change-outs” back in the mid 1970s where the salesman’s instructions included disassembling the horizontal furnace to fit it into the crawlspace, as the access opening was too small. Many times, I would find one or more old furnaces shoved off to the side, as the previous installer did not want to take the old one apart to get it out through the small opening. I must admit, I added to the furnace graveyard in several crawlspaces.

Many of you have and will continue to encounter situations where a furnace or water heater must be removed to replace another appliance, or an attic installation without a platform or catwalk. How often do you service an appliance with a headlamp or mini-mag flashlight in your mouth so you can see, or must run an extension cord for power? Ever tried to replace a filter or pull a blower without sufficient clearance in front of the furnace? These and other conditions are regulated by the mechanical code, for the support and protection of anyone maintaining, repairing, or replacing an appliance. The following code sections from the IRC for residential construction are virtually identical those found in the IMC and the IPC.

M1305.1 Appliance access for inspection service, repair, and replacement. *Appliances shall be accessible for inspection, service,*

repair, and replacement without removing permanent construction, other appliances, or any other piping or ducts not connected to the appliance being inspected, serviced, repaired, or replaced. A level working space not less than 30 inches deep and 30 inches wide shall be provided in front of the control side to service an appliance.

Please refer to the following 2015 IRC sections in your code book for the full text on the following brief descriptions.

M1305.1.1 Furnaces and Air Handlers; requiring alcoves or compartments 12” wider than the appliance was deleted in the 2018 IRC, which we did not adopt. An inspector should allow a narrower compartment as an alternate method, as it complies with a newer, not yet adopted code.

M1305.1.2 Appliances in Rooms; while repeating the 30” clearance requirements, also requires a door not less than 24” minimum width, or larger if needed to remove a largest appliance.

M1305.1.3 Appliances in Attics; requires an access opening large enough to remove the largest appliance, with a minimum opening size of 30” by 22”. Also required is the 30” level service platform and solid flooring walkway, 30” high by 24” wide, no longer than 20’, from the access to the platform. An exception to the platform is allowed if the appliance may be serviced for the

access opening, while another exception allows 50’ from the access to the appliance, if a 6’ high passageway is provided.

M1305.1.4 Appliances under floors; contains requirements virtually identical to those for an attic, with a 30” by 22” access opening or larger if required for an appliance, 30” minimum height, within 20’ of the access. Suspended appliances must be a minimum 6” above the ground. If supported on the ground, a minimum 3” high concrete pad is required. This section also requires masonry or concrete lined walls where the passageway or service space is more than 12” deeper than the adjoining grade.

M1305.1.3.1 and **M1305.1.4.3;** detail for both attics and underfloor spaces, a required light at the appliance with a switch at the access opening, and a receptacle at or near the appliance locations.

Summarizing:

- Each appliance must be installed with an access opening allowing removal and replacement of the largest appliance.
- Space must be provided as defined, from the appliance to the access, for travel and appliance removal.
- These travel spaces do not include exceptions for crawling over and under ducts, pipe, wires, etc. →

Your Business: I am the Customer . . . Respect me

WHEN YOUR PHONE RINGS, it is me calling. I am the customer and I'm calling because I have a problem.

Usually, it's a problem I cannot fix myself. I am anxious when I call, especially if it's the 1st time I've called you. I want to trust you, but I don't know if I can. I fear you will take advantage of me.

I worry if you will be able to respond as fast as I want, or if I'll have to sit around the house all day waiting. I have things to do too! Most of all, I worry about my problem; how serious it is and how long it will take to repair? And, of course, how much it will cost?

All these things pass through my mind before I pick up the phone. When you answer, you are talking to a bundle of anxiety. I don't want to hear a machine, or a distracted voice on a mobile phone. I don't want you to promise something you can't



deliver, but don't be vague or evasive either, or I may call your competitor.

If I have to wait for your RMGA

Certified Technician to be dispatched, keep me informed. Ask me if I prefer to be updated by phone or text, and follow through. When your technician arrives, I want his truck to look professional, and for him to look

professional: clean and presentable. He should smile, look me in the eye when I'm explaining things, and treat what I say as important.

If he finds other problems besides the one I called about, he should share what he found and give me options. I like options! I rarely think about my home's furnace; it's just there, and I expect it to work. I don't think about improving it because I'm not aware it can be improved. If there are improvements or enhancements I could benefit from, I appreciate

learning about them, even if I am not ready to take action right away. It's okay to talk with me about zone systems, air purifiers, humidifiers, and more, but don't be surprised if I pass. You are planting seeds for me to think about.

Above all, I want the respect I deserve. I am the reason your company exists. I buy what you sell. I pay your bills. I am not an irritant. I am not unreasonable. I am not stupid, even if I am uninformed (it's your job to inform me). I want to work with and buy from you, that's why I called. If you treat me well, I will call again. I will tell my friends about you. If you let me know about the other things you offer that could improve my life, I will buy them...some of the time.

I want to call you "My Guy," and know you send RMGA Certified Technicians. Treat me right and I will call again and again. Treat me wrong or be indifferent and I'll call your competitor.

Written by Matt Michel. ■

These and other obstacles must be installed where they do not encroach into service access and service spaces.

- 30" wide and deep service spaces, with level platforms or surfaces must be provided in front of all sides of an appliance requiring service. See manufacturer's installation instructions.
- Where service platforms are located within insulated attics, the platform and passageways must be installed above the required insulation.
- Have you ever been tempted to leave a pull chain light on, rather than navigate back across the trusses in an attic to turn it off, then work your way back to the access

in the dark? A light and receptacle is required at each appliance location, with the light switch at the access opening.

The IRC does not require updating each of these with every appliance replacement; however, if you are working on a remodel project, do not hesitate to remind the general contractor or inspector of these important code requirements. If you are installing systems in new construction home or addition, these are mandatory in every situation.

Additionally, you cannot create a code violation in a new installation, blocking access to an existing appliance, when adding a new furnace or water heater.

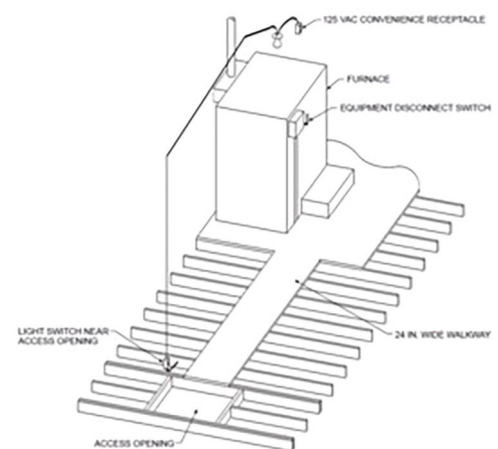


Image courtesy of International Code Council

Please feel free to contact me with your questions or comments on this or other code subjects. Thanks —Brent ■