Tips and Lessons Learned

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Outdoor Location: Common Sense Helps

Avoid: snow drifts and waterfalls

Location Location Location

The winter drip problem.

Remember the coils are about 20 deg. colder than the air temperature

Defrosting:

Water & Ice

Think about it!

Pan Heaters?

Servicing circuit board is under the cover - Access?

Don’t forget about good circulation.

Better air flow = better efficiency

Access to clean the coils in the back?
Removable side panels.

A little higher off the ground?

Manufactured Sloped Topper

Exterior Wall Brackets

Some noise transfer - avoid bedroom walls.

Good defrost drainage from unit

Economical to install

Height Adjustable


GREE

A happy little heat pump out of the weather and good circulation.

BUT…

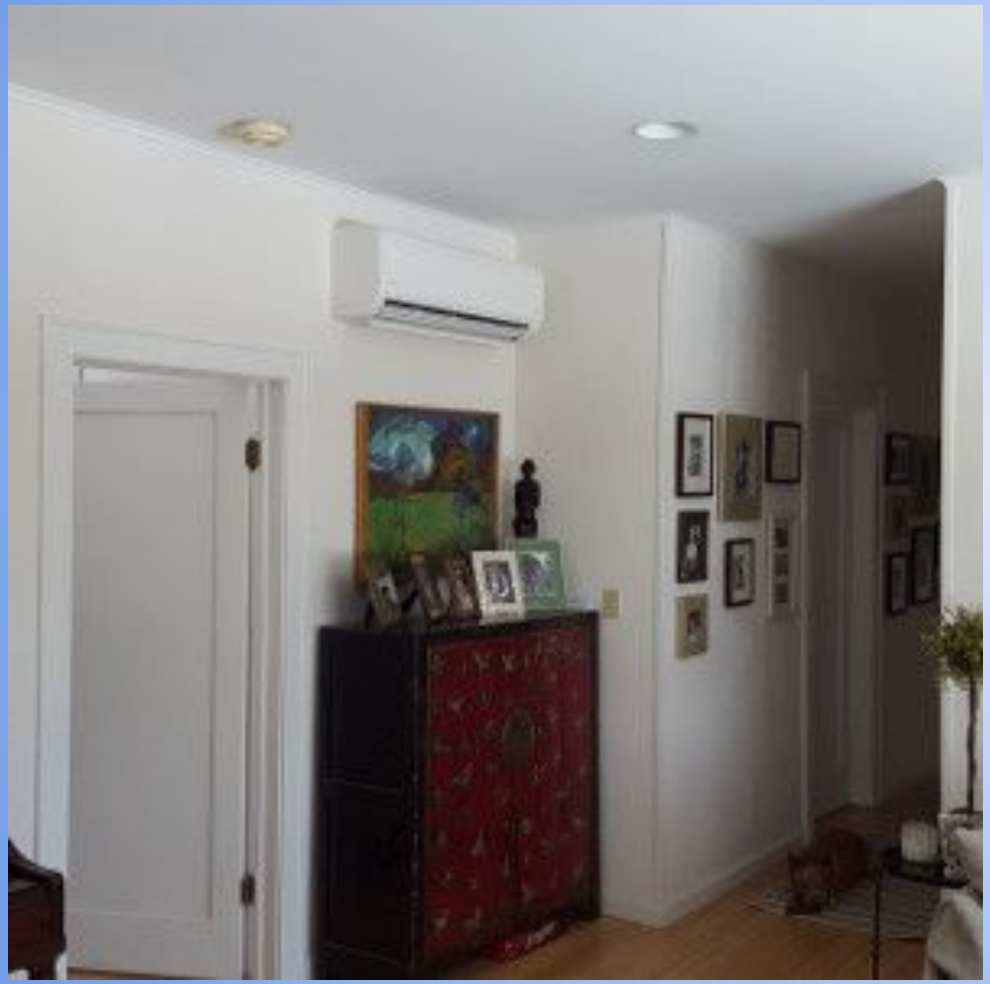
Big load for small heat pump.

Lots of frosting - water management issues?

Accessible is Good

Who’s going to clean the coils?

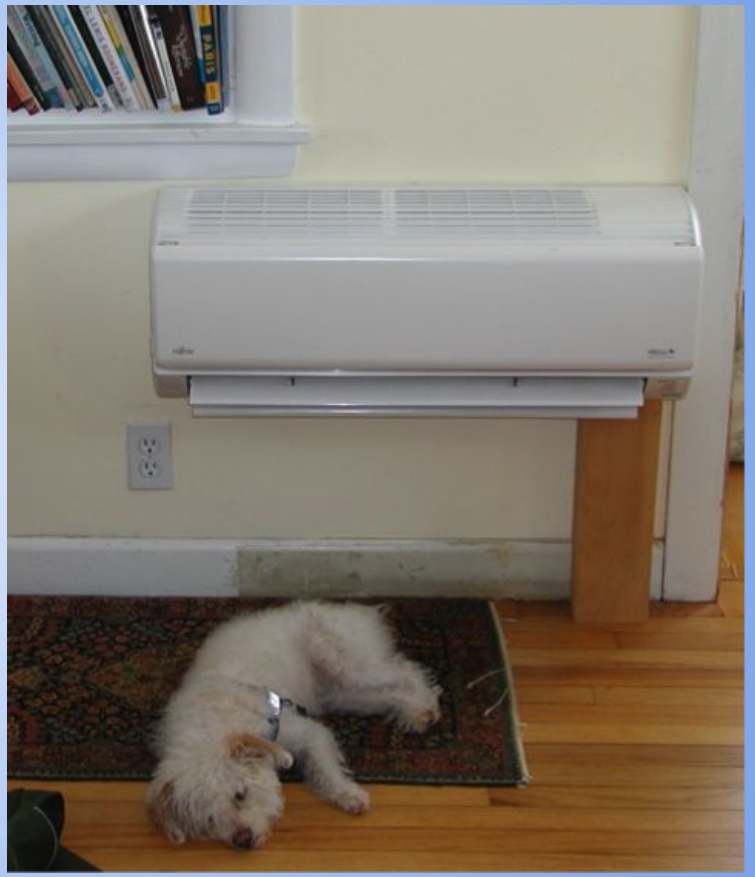
Indoor and Outdoor Noise Concerns



Wall unit mounted low:

More comfortable heating but…..

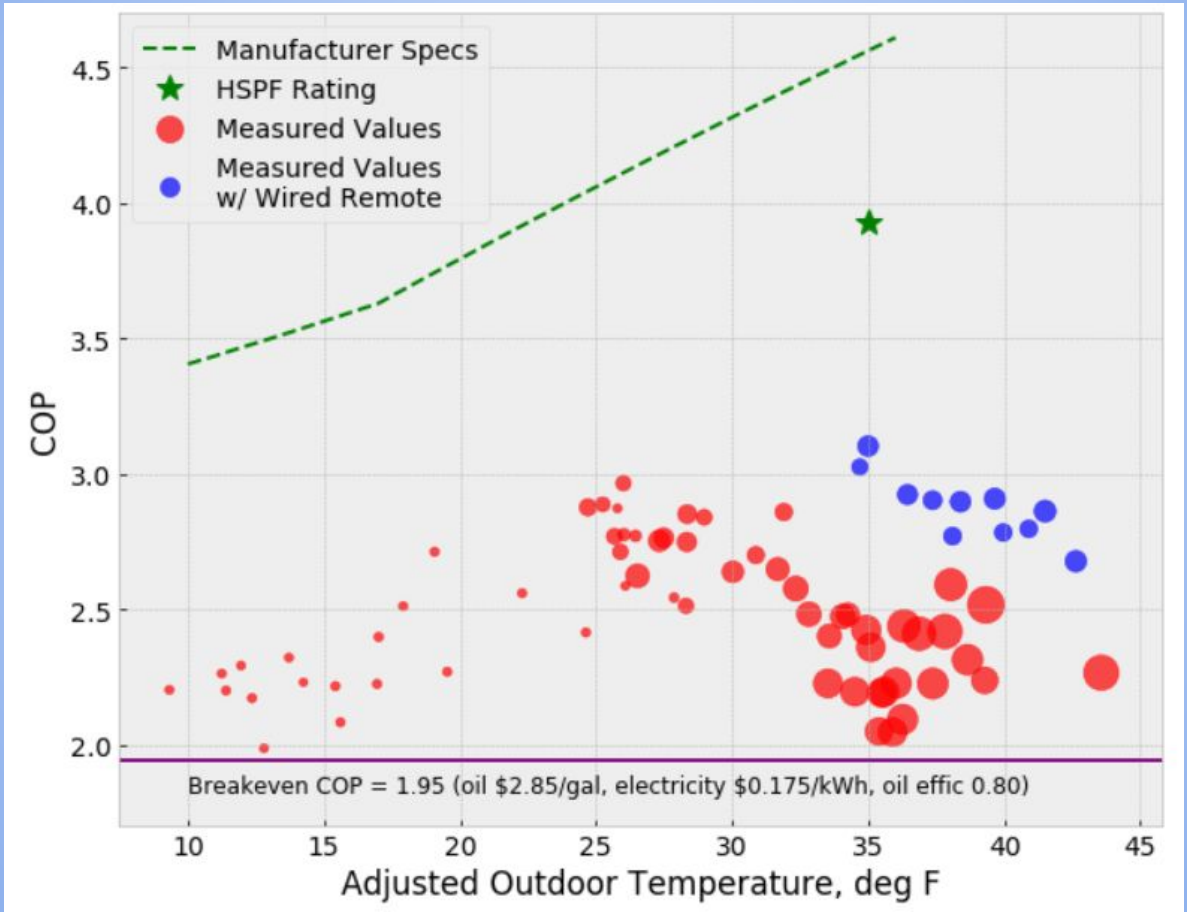
How Durable?

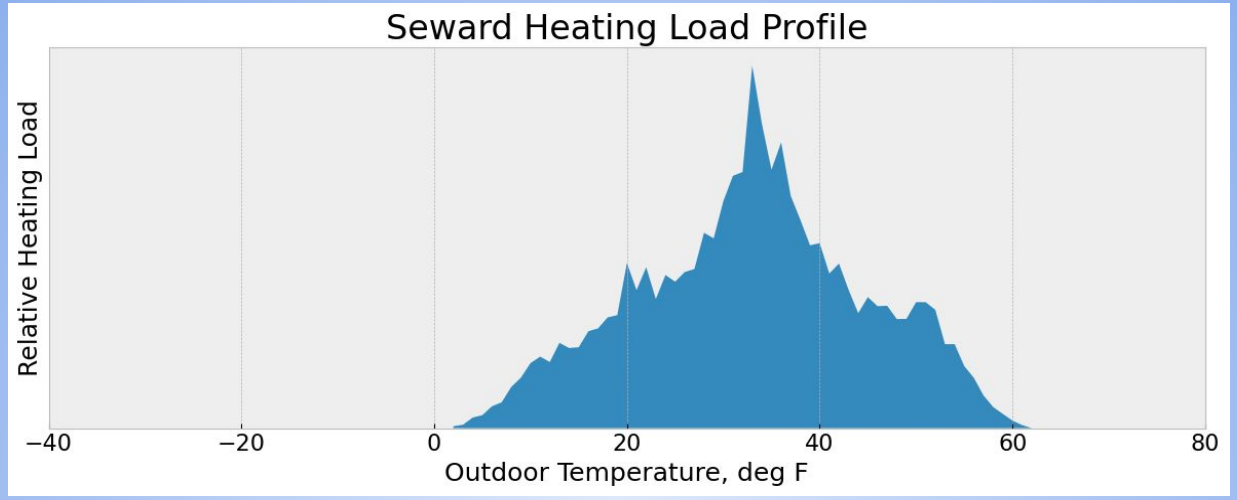


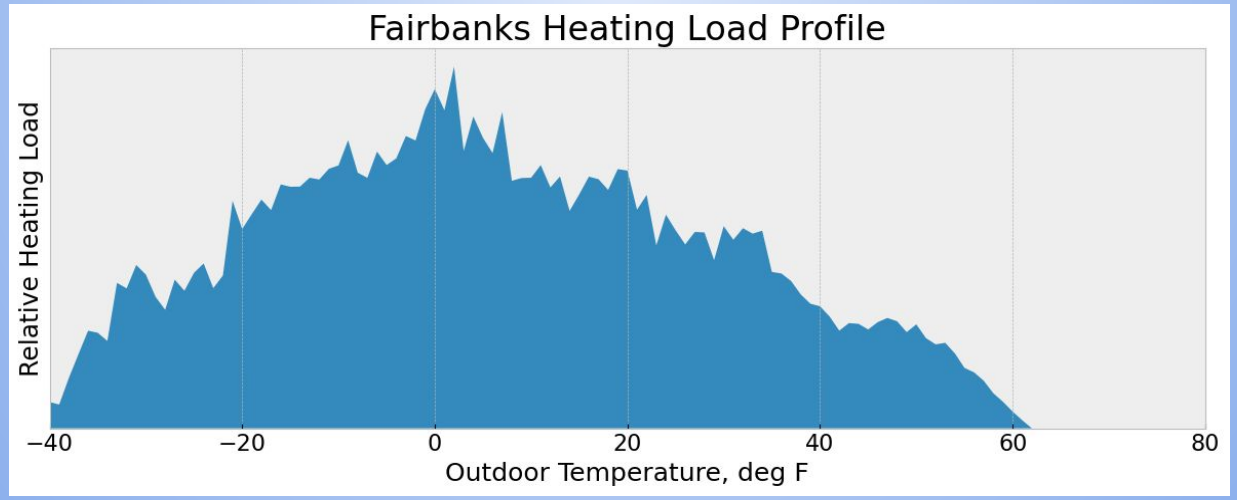
Floor Units - must be compatible with outdoor unit,

limited models - generally rated less efficient?

Kaluza Apartment Mini-Split




Seward Heating Load Profile
Relative Heating Load
−40
−20
0
20
40
60
80
Outdoor Temperature, deg F


Fairbanks Heating Load Profile
Relative Heating Load
−40
−20
0
20
40
60
80
Outdoor Temperature, deg F

Phil's Budget Sizing Rule of Thumb:

Least Cost - Most Efficient

- Size Heat Pump to 50% of Design Heat Load
  - Should provide approximately 80% or more of total space heating
  - Utilize existing heating system to cover the remaining 10% -20%
  - Reduces cycling at warmer temperatures.
  - Use the money saved to Weatherize your home
- Bedrooms are tough - small heat requirements - overheating issues
    - Ducted indoor head to serve multiple small rooms
    - Electric heat? Open doors when unoccupied?