

# Ductless Heat Pump Workshop

Thursday, June 5th, 2025  
Zoom: This meeting will be recorded.

# June 6<sup>th</sup>, 2025

- **Welcome to the workshop for the ductless systems**
- **Who is this for? Why?**
  - Currently, Phase 1 of the program is targeting the Elders of The Tribe
  - The program is fully funded by federal grants
    - We plan for future rounds of funding
    - This also means we have various loops to jump through to provide these installations



# Workshop Agenda

- **Meet the Team behind the program**
- **Program overview/ what are we doing?**
- **What is a Heat Pump?**
- **Why are we using Heat pumps?**
- **The assessment and install process**
- **How to use the system**



# Meet the Team

## Suquamish Tribe Team

Hannah Ljunggren,  
Program Manager



Jennie Harlan,  
Outreach Coordinator



Annie Smaus,  
Resilience Specialist



# Meet the Team

- **The Install Company**

- Chehalis Sheet Metal Heating, Cooling, Roofing, And Solar (CSM)
- Union installers, Electricians, Office Staff



# What Is This Program?



# What Is This Program?

- **CSM has been contracted to install Cold Climate Ductless Heat Pumps for Tribal Elders**
- **(Most) Funding is from Washington's Climate Commitment Act**
  - Reducing Climate Pollution
  - Improve Energy Efficiency



# What Is This Program?

- **What does this mean for you?**
  - Comfort
    - Temperature regulation
    - Quiet, about as loud as a refrigerator
  - Cooling
    - Each ductless indoor unit Heats and Cools
  - Efficient
    - Up to 2x - 3x more efficient than baseboard/cadet heaters
  - Simple
    - Push of a button, no firewood needed

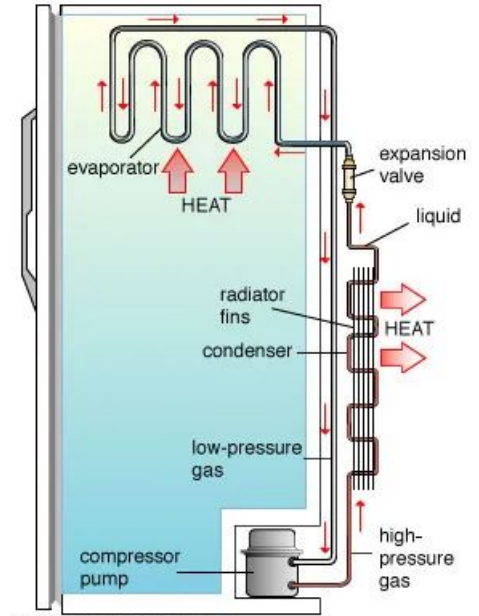


# What is a Heat Pump?



# What is a Heat Pump

- **Easiest example is a refrigerator**
  - Inside gets cold, coils on the back get hot



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# What is a Heat Pump

- **An Inverter Heat Pump is similar**
  - Can reverse refrigerant flow
  - Separate physical locations for indoor and outdoor units
  - Greater control and efficiency



# What is a Heat Pump

- **What makes these Heat Pumps Special?**
  - Cold Climate Capable
    - Greater than 70% Capacity @ 5°F
    - Mitsubishi Hyperheat's are rated for +100% Heating @ 5°F
    - Bosch IDS ultra's are rated similarly
  - Our goal is to make your home more comfortable with less effort year round



# What is a Heat Pump

- **What makes these Heat Pumps Special?**
  - Built in zoning
  - Each indoor unit can call for a different degree of heating or cooling
    - Such as a living room being warmer than a bedroom
    - THE SYSTEM CAN ONLY BE IN HEATING OR COOLING AT ONCE



# Why Heat Pumps?

- **Why are we using Heat Pumps anyway?**
  - **Federal funding specifies the equipment we install**
  - **Heat pumps are dramatically more efficient compared to electric resistant heating (baseboards, cadet heaters, plug in heaters)**
  - **Ductless heat pumps are (generally) easier to install compared to cutting in a whole new ductwork system**



# Possible downsides

- **Under insulated homes**
  - **Extra heat loss due to a lack of insulation, or open doors/windows, may cause your home to cool faster than our system can heat it**
  - The more insulated a home, the sexier our systems are
- **If you're used to burning firewood**
  - Will use more electricity than burning wood
  - Will NOT feel as warm



# Possible downsides

- **Running off a generator**
  - **Can it be done? Yes**
  - **Should it be done? No**

## **Pros:**

Heat When the power is out

## **Cons:**

Could burn out a control board and the system will not work when the power is on



# Components of a ductless

- Outdoor Unit/Heat Pump
- Indoor unit/Head
- Lineset/Refrigerant lines connecting the system
  - Line Hide covering when exposed outside



# The Assessment process

- **A trained estimator/project manager will need to have eyes on site to see where equipment is going and how much material is needed**
  - **Size (capacity) of equipment in each area**
  - **Best placement and routing**
  - **does the breaker box need to be upgraded**
- **The whole process should take between 10-30 minutes**

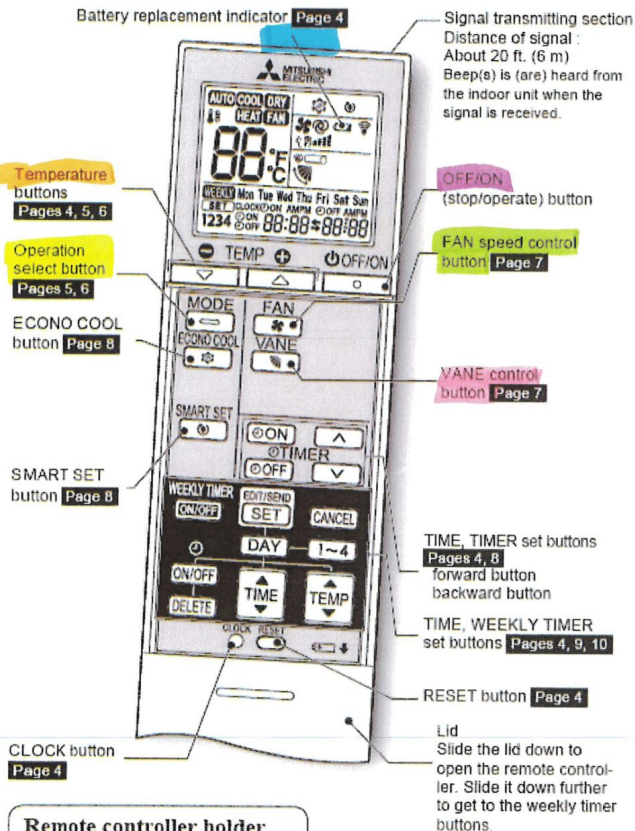


# The install process

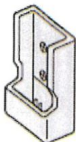
- **Scheduling**
  - **As the paperwork gets approved, our office calls you and gives you an install date and ETA that we will be showing up**
- **Single day install**
  - **We plan for each install to take a single day**
- **Power for the day**
  - **We will be running a dedicated circuit from the breaker box, we will not be turning off power to the whole house.**
- **Walkthrough**
  - **Our installers will show you how to use the system after install**



## Remote controller



### Remote controller holder



- Install the remote controller holder in a place where the signal can be received by the indoor unit.
- When the remote controller is not used, place it in this holder.

Only use the remote controller provided with the unit.  
Do not use other remote controllers.  
If two or more indoor units are installed in proximity to one another, an indoor unit that is not intended to be operated may respond to the remote controller.

# How to use the system

## Easy Guide: Mitsubishi GS Remote

1. Turn the Unit ON or OFF
    - Press the ON/OFF button (usually large or top button).
    - A beep will sound and the screen will light up.
  2. Set the Temperature
    - Use ▲ (up) or ▼ (down) buttons.
    - Cooling: 70–74°F | Heating: 68–72°F
  3. Select a Mode (Press MODE until you see one of these):
    - COOL: For cooling on hot days
    - HEAT: For warming on cold days
    - DRY: Removes moisture on humid days
    - FAN: Moves air without heating or cooling
    - AUTO: Automatically selects heat or cool
  4. Adjust the Fan Speed
    - Press FAN button to cycle: AUTO, LOW, MED, HIGH
    - AUTO is best for most users
  5. Change Air Direction (Optional)
    - Press VANE button to move airflow up/down
    - Hold it to swing continuously
  6. Use the Timer (Optional)
    - Press TIMER ON/OFF, then use ▲ or ▼ to set time
    - Good for bedtime or wake-up settings
- Tips: We suggest that you use HEAT or COOL MODE  
- AUTO mode is the easiest to use.  
- Only use ON/OFF, TEMP, and MODE for basic operation.  
- Make sure the remote points at the indoor unit.  
- Replace batteries if screen fades or stops working.

\* The backlight turns on when using the remote controller.  
The backlight goes off if the remote controller is not used for a while.

# How to take care of the system

- **Clean filter every month**
  - Wash in the sink
  - Vacuum
- **Professional Maintenance**
  - Recommended every 1-2 years
  - Can be done by any professional
- **Remote**
  - Change batteries every year



**Questions?**

**I can answer general questions now, specific questions afterwards**

