

CLEAResult[®]

Integrated Controls

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2019 Mass Save/National Grid RI Program IC Objective:

*Reduce Green House Gas (GHG) emissions by using (ASHPs)
for 1st stage heat to provide Comfort and Economy*

Dual Fuel Thermostat: IC for Central Heat Pump (CHP) and Furnace or Air Handler

Must have Balance Point outdoor temperature sensor/sensing

Integrated Control Package:

IC for MSHPs and Boilers or Furnaces, OEM documentation

May require use of a Dual Fuel thermostat from QPL

Must Displace Entire Condenser Capacity

Multiple Strategies

Balance Point Changeover (Daikin, Fujitsu, Panasonic)

DROOP (LG with wired/wifi control, Mitsubishi with Kumo Station)

Lead/Lag (Haier using IFTTT as hub)

24 Volt Thermostat Adapter & D/F Thermostat (Carrier, Fujitsu, LG, Mitsubishi, Samsung)

Integrated Controls:

Combine Occupant Zone Temperature Sensing with First Stage/Second Stage Changeover to Central Heating for Economy, Comfort, and Green House Gas Reductions

FIRST CAME THE INSTALLATION. NOW COMES THE SAVINGS.

Your new mini-split heat pump could cut your heating and cooling costs by 30%. Here's how to get the biggest savings.

1 Fuel for thought.
Mini-splits aren't just for cooling. Today's cold-climate models can also be used as your primary heating system to reduce your overall heating costs without sacrificing comfort. If you kept your old heating system as a back-up, find your fuel type in the chart below to see how you can save the most money on heating.

YOUR OTHER HEATING SYSTEMS FUEL TYPE			
Electric	Propane	Oil	Natural gas
Use your mini-split as your primary heat source.	Use your mini-split as your primary heat source.	Use your mini-split as your primary heat source when outdoor temperature is above 25°F.	At current fuel prices, natural gas systems are more cost-effective than mini-splits.

2 Set it and forget it.
Much like how your car gets better gas mileage driving at a constant highway speed rather than stop-start traffic, your mini-split operates most efficiently when left alone. This allows its variable-speed fan to mostly stay in its lowest, most efficient setting and only power up when necessary.

CRUISE CONTROL FOR YOUR HEATING SYSTEM
To avoid wasting energy, leave the fan in auto mode and set the mini-split unit to "heat" in the winter or "cool" in the summer—and to whatever temperature you feel most comfortable. Then, walk away. The exception is when you're going away from home for a few days. Feel free to adjust the temperature to save energy while you're out.

3 Focus on your comfort, not the number.
Because a mini-split's temperature sensor is typically located in the warmer air near the ceiling, you may have to set your heating temperature a few degrees above normal to get the comfort you're used to.

TURN IT UP 74°

Logos: mass save heating & cooling, MASSACHUSETTS CLEAN ENERGY CENTER

Long-Term Monitoring of Mini-Split Ductless Heat Pumps in the Northeast

K. Ueno and H. Loomis
Building Science Corporation

November 2014

One homeowner complained of temperature unevenness; when the data were examined, it was clear that they operated their MSHP in an “on-off” manner, rather than using a fixed set point. This resulted in wide swings in interior temperature (between 60°F and 70°F+). The electricity use showed many hours with the MSHP running at maximum capacity, followed by periods with the unit shut off. When operated in this manner, the MSHP is heating at its least efficient (maximum output) state. Electricity consumption was a high consumption outlier; when compared with simulations, it was the worst-performing house (heating use 57% higher than simulation).

Contact Us

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