

**Attachment A. 2017 HeatSmart Mass:
Pricing Proposal- Air Source Heat Pumps**

Section 1: Air Source Heat Pump Equipment & Installer Workmanship Warranty

Warranty (Clarify standard installer Workmanship Warranty and the Equipment Warranty)
New England Ductless provides a 1 year warranty on all workmanship but offers a 5 year upgrade (below). All equipment is covered by our Mitsubishi Diamond ELITE warranty which is 12 years. New England Ductless will perform warranty registration on behalf of client once job is complete.

Section 2: Air Source Heat Pump Equipment Pricing

Single-Head Ductless System

ASSUMPTIONS INCLUDED IN BASE PRICING ARE DESCRIBED BELOW. ANYTHING OUTSIDE THE SCOPE OF THESE ASSUMPTIONS CAN INCUR ADDITIONAL COSTS.

For direct comparison of single-head system pricing between installers, please assume the following in pricing provided:
 16 feet Line Hide or similar (including one 90 degree ell, one wall inlet, one end fitting);
 20 feet line set;
 brackets with vibration dampening features for models mounted on house;
 exterior units must be mounted above the level of snow drifts typically experienced at the location of the installation;
 exterior unit to be installed on same wall as interior unit;
 standard electrical permit included;
 home construction to be wood frame with clapboard or shingle siding and rain cap is not necessary

Fees associated with additional material and labor for non-standard installations (adders) should be detailed in the ASHP Cost Adders tab. Any additional non-standard cost adders beyond those provided should also be included.

Manufacturer	Model Number	Installed cost per Unit	Heating Capacity at 5°F (Btu/hr)	Cost per Ton of Heating Capacity at 5°F	Deposit Required at Contracting (if applicable)	Eligible for MassCEC Rebate?
Mitsubishi Electric	MUZ-FH12NA	\$3,929	10,900	\$4,426	50% with booking	Yes
Mitsubishi Electric	MUZ-FH12NA	\$4,136	13,600	\$3,641	50% with booking	Yes
Mitsubishi Electric	MUZ-FH15NA	\$4,418	18,000	\$2,945	50% with booking	Yes
Mitsubishi Electric	MUZ-FH15NA	\$4,652	20,800	\$2,750	50% with booking	Yes

Multi-Head Ductless System/Central Ducted System

ASSUMPTIONS INCLUDED IN BASE PRICING ARE DESCRIBED BELOW. ANYTHING OUTSIDE THE SCOPE OF THESE ASSUMPTIONS CAN INCUR ADDITIONAL COSTS.

For direct comparison of multi-head and centrally ducted system pricing between installers, please assume the following in pricing provided:
 exterior units must be mounted above the level of snow drifts typically experienced at the location of the installation;
 home construction to be wood frame with clapboard or shingle siding and rain cap is not necessary;
 GL series indoor units to be used on all multi-head systems;
 drain pan level sensors to prevent any leaks if the drains clog;
 all multi zone units have clear & straight runs;
 wall mount units located on exterior walls only;
 standard electrical permit included;

For centrally ducted units: installed onto existing ductwork, Aprilaire 5" media filter, condenser pad, heat pump legs/stand, thermostat, electrical wiring, existing ductwork, permit/inspection fees

Given the wider range of sizes and applications for multi-head systems, please indicate, for each model, indicate the number and type of indoor units that are assumed for the base or standard pricing, as well as the length of line set and line hide that is assumed for the base pricing.

Fees associated with additional material and labor for non-standard installations (adders) should be detailed in the ASHP Cost Adders tab. Any additional non-standard cost adders beyond those provided should also be included.

Manufacturer	Model Number	Base number and type of indoor heads (indicate if ducted units will be installed)	Base length of line set and line hide (feet)	Installed cost for Base System	Heating Capacity at 5°F (Btu/hr)	Cost per Ton of Heating Capacity at 5°F	Deposit Required at Contracting (if applicable)	Eligible for MassCEC Rebate? (i.e., meet efficiency requirements) if not eligible, in the notes section below, clearly reasoning for including, and whether installer considers equipment best in class
Mitsubishi	MXZ-3C24NAH22	3 Zone with (3) 9,000 BTU/h indoor units	20' pipe & 16' line-hide per unit	\$8,840.18	25,000	\$4,243.29	50% with booking	Yes
Mitsubishi	MXZ-3C30NAH22	3 Zone with (3) 9,000 BTU/h indoor units	20' pipe & 16' line-hide per unit	\$9,497.81	28,600	\$3,985.10	50% with booking	Yes
Mitsubishi	MXZ-4C36NAH22	4 Zone with (4) 9,000 BTU/h indoor units	25' pipe & 24' line-hide per unit	\$13,628.87	45,000	\$3,634.37	50% with booking	Yes
Mitsubishi	MXZ-5C45NAH22	5 Zone with (5) 9,000 BTU/h indoor units	25' pipe & 24' line-hide per unit	\$15,174.50	48,000	\$3,793.63	50% with booking	Yes
Trane	TruComfort XV20	Hyperion TAM9 ducted indoor units (with existing refrigerant lines)	25' pipe & 24' line-hide per unit	\$11,883.75	12,920	\$11,037.54	50% with booking	No
Mitsubishi	PLZ-HA36NHAS	Mitsubishi PVA-36AA7 ducted indoor units (with new refrigerant lines)	25' pipe & 24' line-hide per unit	\$13,408.31	38,000	\$4,234.20	50% with booking	No

Notes:
 (Please note any other standard assumptions for multi-head or central ducted systems, such as how the outdoor condenser will be mounted.)

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Factors	Adder (\$)	Adder units (if applicable)	High use adder? Please indicate if over 50% of systems will require this adder (Y/N)	Description of Cost Adder / Scope of Work
Electrical				
Electrical subpanel upgrade	\$950	per	N	This is a sub-panel off a full main panel with full access for electrician to do his work
Outdoor GFCI outlet	\$200	per	N	Depends on site-specific conditions. Refer to state code.
Indoor Electrical Switch	\$325	per	N	New construction only
Indoor Upgrades				
Remote/smart thermostat	\$650	per	N	This is to run the unit off a remote thermostat. Basic setup.
More expensive indoor units (e.g. floor mounted)(per indoor unit)	\$50-\$1,000	per	Y	A large portion of clients upgrade to FH units.
For multi-head systems, penetrations across basements, over roofs, and other custom line-runs.	\$100-\$1,000	per unit	N	For Multi-Head---the base price assumes all multi zone units have clear & straight runs; but, sometimes custom penetrations are needed- for instance: across basements, over roofs and other custom line-runs. All of these items will incur costs above the base pricing and they are very site-specific.
Centrally-ducted adder: Mitsubishi M-Series Air Handler	\$7,475	per system	N	If a customer wants to replace a standard indoor unit (the MXZ-4C36NAHZ2 unit) with a 2-ton ducted air handler in order to upgrade the system to be ducted, the customer will incur a fee of \$7,747 on top of the MXZ-4C36NAHZ2 base price.
Exchange air handler for gas fired furnace. If you are selecting a Trane TruComfort XV20i heat pump but need a gas-fired furnace instead of an air handler, this is the extra cost for a standard install.	\$892.50	per system	N	If a customer selects the Trane TruComfort centrally ducted heat pump system and wishes to connect it to a modulating gas furnace, then the customer would incur an additional fee.
Outdoor Upgrades				
Piping and line hide beyond base (per foot price)	\$40	ft	Y	The \$40 per foot is an average price, certain site specific conditions may incur a higher per foot cost. Most applications will use around 50' in our experience
Raised ground platform for mini split when exterior wall mounting is not possible (per outdoor unit -- describe material used)	\$350	per	Y	We recommend a ground stand (over wall mount) on each installation. They work better to isolate noise and provide a level surface on 85% of installations.
Outdoor unit mounting on roof (per outdoor unit)	\$400	per	N	Price is for a basic platform to be built. Hiring a heavy-lifting crew to hoist equipment
Projects involving installations on three or more stories (per project)	\$500-\$2,000	per	N	Where the work is at 3 stories and we have to pass through attics and such. Each job would be priced individually. Working above the third story, using a boom-lift/cherry-picker, scaffolding, or 30' ladders will be an additional cost. A less difficult install would require a 30' ladder (lower price range), but a more difficult install would require the scaffolding (higher price range).
Pan heater	\$250	per	Y	All single zone units must have a base pan heater installed
Hail guard	\$300-\$600	per	N	There is not a "rain-cap" per se, but a "hail-guard", sold by Mitsubishi and added at the customer's request only. Not normally used in day-to-day installs. Not available on all systems
General				
Mechanical permits, sheet metal permits, and other ancillary permits	\$30-1,000	per	N	Mechanical permits and sheet metal permits are not included in the base price. Ancillary permits include permits or fees that are above and beyond the typical electric permit fee; for example, if one town requires a special conduit permit.
Duct leak test	\$2,500	per	N	new construction only- \$2,500 is the average expected cost, but certain site-specific conditions may increase/decrease the cost
Extended warranty and annual maintenance	\$750	per	Y	This increases the labor warranty to 5 years. The \$750 adder includes the warranty but not the required annual maintenance in order to maintain the warranty (maintance incurs additional costs).
Maintenance	\$149 + \$99 each additional	per	Y	We offer factory tune-up services for \$149 for a single zone system and \$99 for each additional head on that same outdoor system. For example, a 3 zone system would cost \$149 + \$99 + \$99 or \$347 for the year.