

WhisperKOOL Pocket Glossary & Spec-Sheet Decoder

The 58 wine cellar cooling terms beginners ask about most, in plain English, from WhisperKOOL manuals and U.S. government sources.

COOLING BASICS

BTU: Heat needed to raise 1 lb of water by 1°F (U.S. EIA).

BTU/h: Heat a unit removes per hour, rated at a stated condenser air temp (usually 85°F).

Heat load: All the heat entering the cellar: walls, glass, door, lights, people, leaks.

Sensible / latent: Sensible lowers air temp; latent removes moisture. Total = both.

Cellar size rating: Cubic feet a unit can cool, assuming full insulation and a vapor barrier.

Setpoint: Target temp. WhisperKOOL ships at 55°F; adjustable 50–67°F.

Relative humidity: Moisture vs. the maximum air can hold. Cellars: about 50–70% RH.

Dew point: Temp at which air hits 100% RH and moisture condenses (NWS).

Ambient temperature: Air temp around the unit, often the space it exhausts into.

SYSTEM TYPES

Self-contained: All refrigeration parts in one unit (SC PRO, Slimline LS, Extreme, Phantom).

Split system: Evaporator in the cellar, condensing unit up to 100 line-ft away.

Through-the-wall: Mounts in a wall; exhausts heat into the room behind it.

Ducted: Air moves through ducts (up to about 25 ft) so equipment hides.

Blow-Through: Concealed split for soffits and millwork: plenum, deflector or hybrid.

Twin: Two evaporators for very large cellars.

CONTROLS

Bottle probe: Sensor in a bottle of water; unit reacts to liquid temp.

Anti-short cycle: Compressor waits a few minutes before restarting (3–5 min in WhisperKOOL manuals).

Anti-frost cycle: Auto defrost. SC PRO: 26°F for 5 min, ends at 40°F or 10 min.

Fdc: Fans run after the compressor stops to return moisture. Preset 1 min; never 0. Extreme ti uses Fon.

PARTS

Evaporator: Cold coil that absorbs cellar heat; condensate forms on it.

Condenser: Hot coil that releases the heat elsewhere.

Compressor: Pumps refrigerant; 5-yr warranty on self-contained units.

TXV: Valve that meters refrigerant into the evaporator (split systems).

Drain line: Carries condensate away. Must always be connected.

Condensate evaporator: SC PRO heater that evaporates about 3 oz of water per working hour.

Condensate pump: Lifts condensate up to 20 ft when gravity can't.

Cold weather start kit: Lets split systems run down to -20°F; standard on splits made after Feb. 1, 2019.

Pan tabs: Drip-tray tablets for Extreme, Phantom and Quantum. Never on SC PRO or Slimline LS.

REFRIGERANT & INSTALL

R-134a: Refrigerant listed in WhisperKOOL manuals.

Line set: Liquid + suction copper lines joining a split system.

Evacuation: Vacuum to 250 microns or less before charging.

Superheat: Set to 8–25°F at the suction service valve.

Subcooling: 3–12°F required for split warranty approval.

HVAC-R tech: Required for all split installs; NATE or equivalent recommended.

ELECTRICAL & BUILD

Dedicated circuit: Only the cooling unit on it. No GFI. Surge protector recommended.

Circuit amps: SC PRO 2000–4000: 15A. SC PRO 8000, Extreme, Phantom: 20A.

LRA: Startup surge when the compressor starts.

Vapor barrier: Plastic on the warm side of insulation, every wall and ceiling. Required.

R-value: Resistance to heat flow. R-13 min; R-19 walls; R-30 ceilings.

Intake limit: SC PRO / Slimline LS: 85°F. Extreme / Phantom: 110°F.

Full definitions for 95+ terms: winecellarcoolingunits.com/blogs/news/wine-cellar-cooling-glossary. Always follow the manual for your exact model.

Spec-Sheet Decoder & More Terms

Read any WhisperKOOL spec sheet with confidence, and hand this page to your contractor or electrician.

MORE TERMS YOU'LL SEE

Evaporator unit: Indoor half of a split system (also called the fan coil unit).

Condensing unit: Remote half of a split: compressor, condenser coil and fan.

Sight glass: Refrigerant window; should show no bubbles and a "dry" indicator.

Micron: Unit for measuring a deep vacuum; lower is drier.

Pressure test: Nitrogen leak test at about 225 psi, held at least 10 minutes.

Flare connection: Flared copper pipe end that seals the line set airtight.

Voltage: Supply must match the unit's specification label.

GFI: Ground fault interrupter. WhisperKOOL says never use one for the unit.

110V H.E. OMEGA: Split condenser option rated -20°F to 110°F.

220V Advanced H.E.: Split condenser option rated -20°F to 120°F, about 45 dBA.

Airflow (CFM): Cubic feet per minute. Each 90° Blow-Through duct bend costs about 13 CFM.

dBA: Loudness as people hear it. Quiet night 35 dBA; dishwasher next room 55 dBA.

MERV: Air filter rating. Ducted Quantum: MERV 4 or better.

UV-C lighting: Optional accessory that kills mold and bacteria inside the unit.

Exterior condenser housing: Galvanized cabinet protecting an outdoor condenser.

Warranty checklist: Split-system startup form WhisperKOOL must approve to activate coverage.

Installation grace period: Up to 6 months (self-contained) or 1 year (split) to install.

24V conversion kit: Lets Extreme tiR and fully ducted Platinum Split units use a 24V thermostat.

SEEING AN ALARM CODE?

Codes differ by controller, so an E1 on one WhisperKOOL series is not always an E1 on another. See our **WhisperKOOL Alarm Codes guide** for every code, verified series by series: winecellarcoolingunits.com/blogs/news/whisperkool-alarm-codes

DECODE YOUR SPEC SHEET

1	BTU/h rating (85°F condenser air)	1,453–4,241
2	Cellar size	300–2,000 cu. ft.
3	Refrigerant	R-134a
4	Voltage rating	115V · 15A / 20A
5	Running amps	3.2 / 3.7 / 4.7 / 10.9
6	Drain line	1/2" ID tubing

Example: WhisperKOOL SC PRO series (2000 / 3000 / 4000 / 8000)

- Capacity** at a stated condenser air temp. Hotter exhaust space = less real capacity.
- Best case:** assumes full insulation and a vapor barrier. Glass needs a heat-load calc.
- Refrigerant** your technician needs.
- Dedicated circuit:** 15A for 2000–4000, 20A for 8000. No GFI.
- Current draw** while running, for your electrician.
- Keep it connected** and accessible; brush it on schedule.

NUMBERS TO KNOW

55°F

Factory setpoint (range 50–67°F)

50–70%

Typical cellar relative humidity

R-13 / 19 / 30

Minimum / interior walls / ceilings

85°F · 110°F

Intake limit: SC PRO · Extreme & Phantom

25 ft

Typical maximum duct run

100 line-ft

Max split condenser distance (Platinum, Ceiling Mount, Quantum)

250 microns

Required vacuum before charging a split

3–12°F

Subcooling for split warranty approval

Sources: WhisperKOOL owner's manuals and product sheets; U.S. Energy Information Administration (BTU); National Weather Service (dew point); U.S. Department of Energy (R-value). WhisperKOOL is a trademark of its owner; WineCellarCoolingUnits.com is an independent authorized dealer.