August Product Update Call

August 9, 2021



Agenda

- Furnaces
- Outdoor
- Value Products
- Residential Packaged Units
- Light Commercial
- IEQ

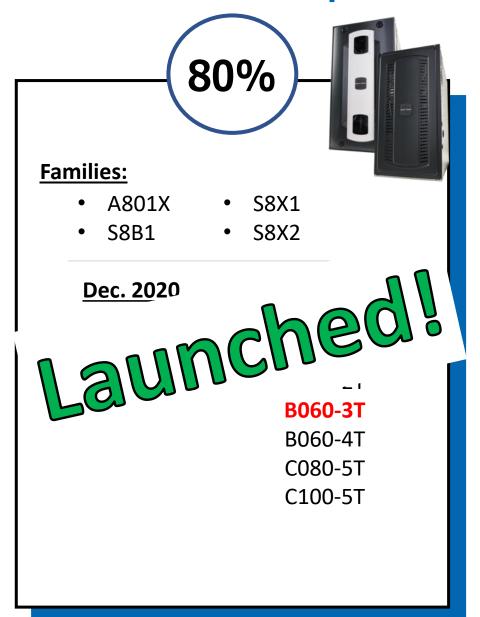


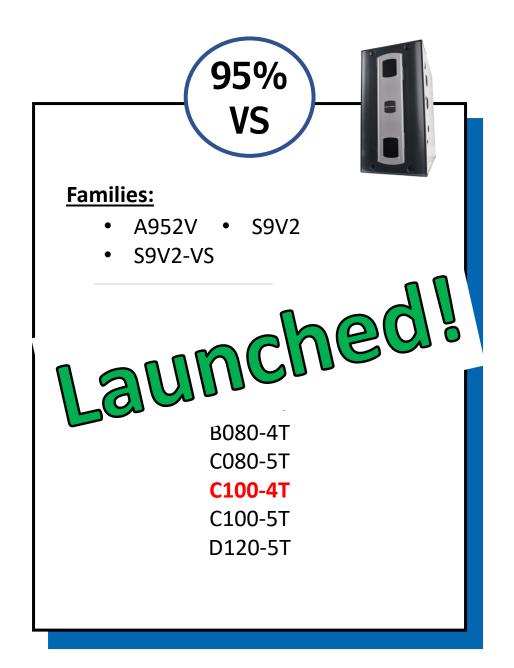
BUILT TO A HIGHER STANDARD.

Furnaces Kellie Lindenmoyer



Burner Sound Updates





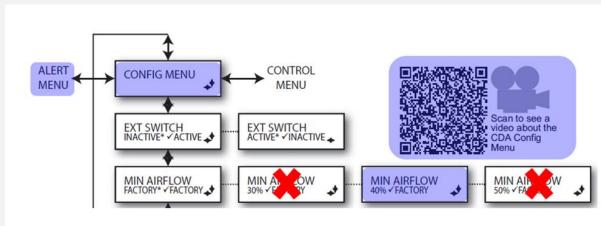
Gold 80v + VSPD Outdoor

New system matches:

- Select XV80 furnace models + VSPD outdoor units + relay panel
- Cooling OD units only
- Working on posting initial combinations
 - AHRI technical difficulty delaying postings
- OD minimum airflow must be set to 40% for appropriate dehumidification
- More pairings to come...

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Pa	air	in	g	5:

Furnace Model Number	Outdoor Tonnage Pairings
*UD2B060A9V3+RP	2 & 3 ton
*UD2B080A9V3+RP	3 ton
*UD2D120A9V5+RP	4 & 5 ton



Minimum Airflow Must Be Set to 40%





BUILT TO A HIGHER STANDARD.

Outdoor Mark Woodruff



2023 DOE Lineup

Future State Lineup: 2023



3-Phase



- Had intended to come today with launch timings and a full description of selling pre-DOE product, post January 2023.
 - Good news: We will be able to sell old inventory after January 2023 (even in the South), although with some caveats & limitations.
- New information passed from AHRI last week unfortunately could not revise the information fast enough
 - → Will cover this in the next product update call!!



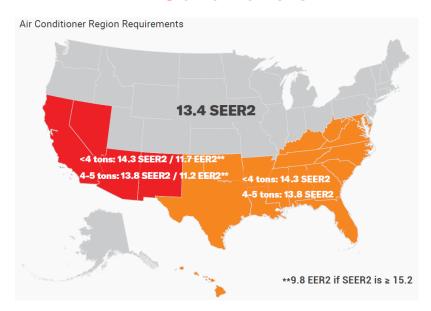
BUILT TO A HIGHER STANDARD.

Value Products Antione Ford



- Beginning Jan 2023, TT cannot produce equipment unless it meets the new minimum efficiencies.
 - 13 SEER AC's in North and Nationwide HPs → Sell Through Allowed
 - 14 SEER AC's in Southwest and Southeast → No sell through!
 - Will cover solution-approach in the next product update call

Air Conditioners



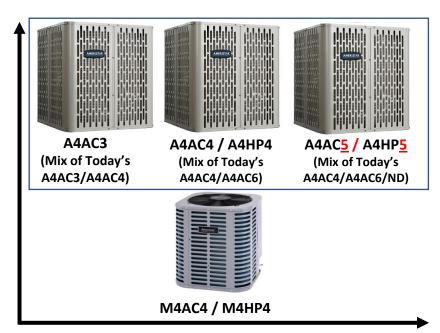
Heat Pumps



Current State Lineup: Value

Insourced Insourced **A4AC4 / A4HP4** A4AC3 **A4AC6 / A4HP6** Sourced M4AC4 / M4HP4 M4AC3

Future State: Value



Objective:

Sourced

- Maintain current state product positioning
- Minimize cost (and price) increases
- Re-use as many existing production designs as possible \rightarrow speed to market and reduce schedule risk
- Give customers time to manage their inventory ahead of the January 2023 date

Update on Rotary

- Incorporate rotary compressors in a limited number of Value AC models
 - 2.5 Ton 13/14/16 SEER AC
- Manage risk vs opportunity as part of learning plan and future implementation in 2025 Low GWP
 - If commercially successful we could expand the scope to include more models in 2025
 - Rotaries are not part of the product plan for 2023 DOE
- Maintain system matches and system ratings
- Maintain performance specs (i.e. sound, line length)
- Planned G4: 8/12/21



Key Product Information







ROTARY COMPRESSORS: DESIGNED TO PERFORM & BUILT TO LAST.

For decades, American Standard® Heating & Air Conditioning has earned a reputation for high-end, reliable engineering in heating and cooling equipment. With the American Standard® brand behind it, Ameristar® offers exactly what your customers need: Air Conditioners and Heat Pumps that are easy to install, built to last and priced to fit your budget.

SETTING THE STANDARD FOR AFFORDABLE EQUIPMENT.

TESTED TO EXTREMES

- > Exceeds all standard qualification testing for scroll compressors
- > Additional life testing added to stress the compressor in key areas of operation

READY TO RUN

- > Equipped with solenoid valve to speed up equalization
- > Eliminates need for solenoid to be installed in piping or hard-start kit
- > GBA Rotary compressors come pre-equipped with equalization valve

DURABLE

- > Long-lasting product life (equivalent to scroll compressor)
- > A system accumulator is equipped to prevent liquid slugging to the compressor
- > Time Delay relay equipped to prevent reverse rotation and prevent locked rotor starts at excessive pressure deltas

BUILT TO LAST

- > 4-foot mounting pattern (standard to scroll compressors)
- > Copper stub tubes (similar to scroll compressors)
- > Molded wiring harness created to provide similar field experience to the scroll molded plug (no point-to-point wires)
- > Wire harness has gasket and retaining nut designed to secure to the compressor
- > Equivalent to scroll in selection of line set, lift, overcharge, initial charge, ID match, expansion valves, etc.



Quick Update on System Ratings (ASDealerNet)

(Value System Ratings)

What	We've received feedback from you all that a lot of our system ratings stopped being made available in ASDealerNet for Ameristar system matches
Why	Our Technical team found an issue with ASDealerNet back-end with respect to how the brands are defined in our system and this caused some of the ratings to not appear in the tool
When	We found root-cause about 2-3 weeks ago and our technical team together with a third-party firm have been working on the solution.
Go-Forward	As of Thursday, last week, I've been notified that the issue has been corrected and that the fix has been validated. All published ratings in AHRI should now appear in ASDealerNet. Any exceptions please reach out to myself, Anna Nguru or Kaye Berry

Special Thanks: Anna Nguru, Kaye Berry, Anne Morris, Karen Pinterpe (Trane Commercial), Dennis Frey



BUILT TO A HIGHER STANDARD.

Residential Packaged Units Charles Trammell



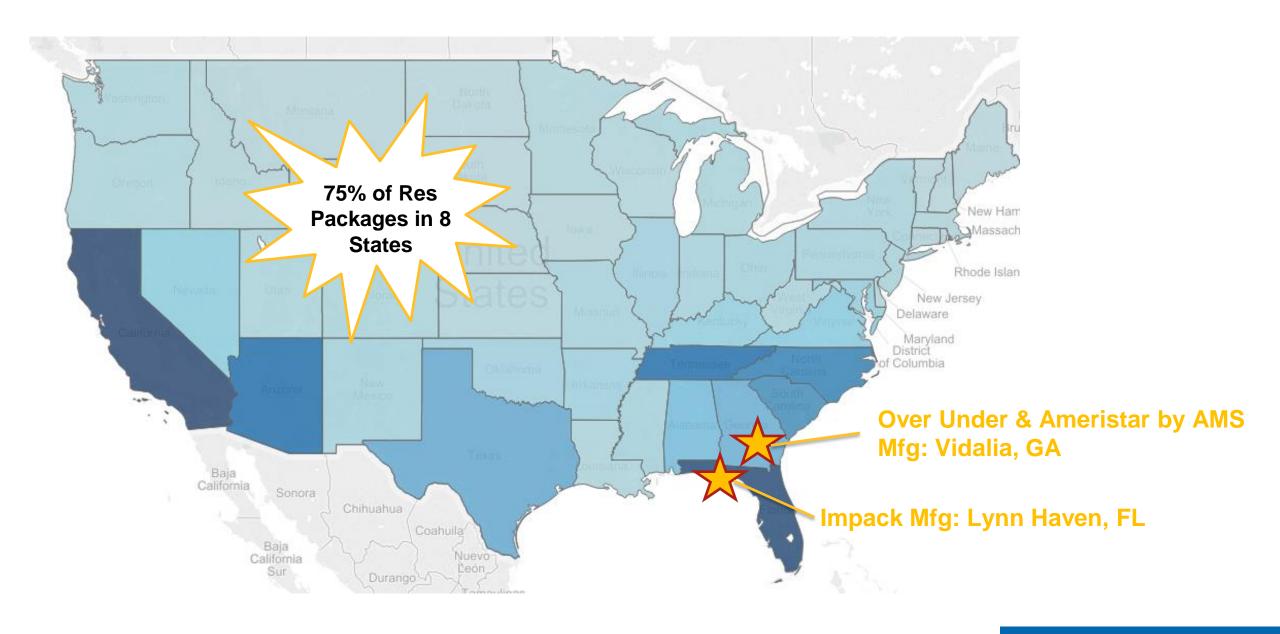
It is important to note that the new DOE standards include several changes, and have a 'double impact' on residential packaged equipment:

- 1. Minimum efficiencies are changing.
- 2. A new and more challenging test procedure was created, making it more difficult to achieve the new minimum efficiencies and reducing the ratings of existing systems. When tested using the new standard, existing equipment will not achieve the same ratings as they do today.

The table below summarizes the new DOE 2023 residential packaged unit minimum efficiencies compared to current state:

2023 DOE Minimums		Nationa	ıl	
Product	Static Test Point	SEER2	HSPF2	EER2
Air Conditioner	0.5" (was 0.1"-0.2")	13.4 (was 14)		10.6 (was 11)
Gas Electric	0.5" (was 0.1"-0.2")	13.4 (was 14)		10.6 (was 11)
Dual Fuel	0.5" (was 0.1"-0.2")	13.4 (was 14)	6.7 (was 8.0)	10.6 (was 11)
Heat Pump	0.5" (was 0.1"-0.2")	13.4 (was 14)	6.7 (was 8.0)	10.6 (was 11)

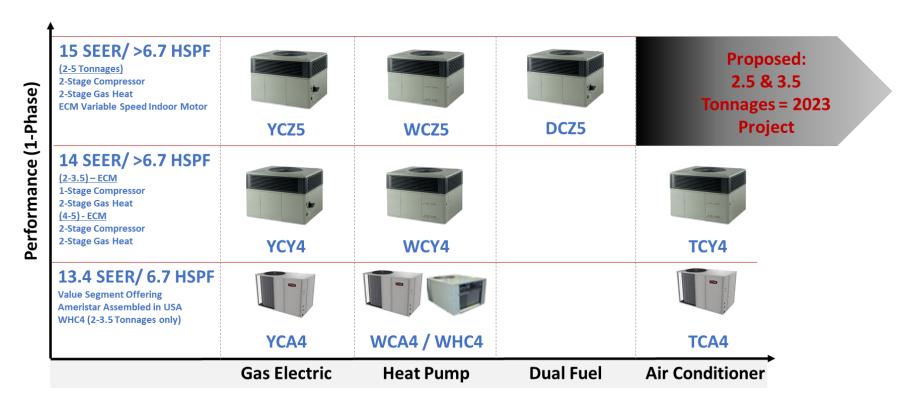






	Platinum 16 SEER 2-Stage Compressor 2-Stage Gas Heat Variable Speed Indoor Motor				
(YCZ6	WCZ6	DCZ6	
ce (1-Phase)	Gold 15 SEER 1-Stage Compressor (2-3.5 Tons) 2-Stage Compressor (4 & 5 Tons) 2-Stage Gas Heat Variable Speed Indoor Motor				
nan		YCY5	WCY5		TCY5
Performance	14 SEER Silver 1-Stage Compressor 1-Stage Gas Heat Constant Torque Indoor Motor Gold				
	2-Stage Gas Heat Variable Speed Indoor Motor	YCC4	WCC4 / 4WHC	DCY4	TCC4
	14 SEER Value Segment Offerings 4TCA4 & 4WCA4 Assembled in USA				
		M4PG4 (Ameristar)	4WCA4 (Ameristar)		4TCA4 (Ameristar)
		Gas Electric	Heat Pump	Dual Fuel	Air Conditioner





- 16 SEER Impack rolls down to become 15 SEER Impack; no further 16 SEER
- 15 SEER Impack rolls down to become 14 SEER Impack
- Current 14 SEER Impack becomes obsolete; trade-down to Crossfire (aka Ameristar by AMS) will occur
- Crossfire (aka Ameristar by AMS) and Over Under become 13.4 SEER Value Segment offering
- 2022: Completely sunset Midea Value Segment offering
- 2023: To be competitive, re-introduce 15 SEER half tonnages
- Future: Variable Speed HP and GE to become Premium offering



BUILT TO A HIGHER STANDARD.

Light Commercial Matt Bynum



Market Notes

- Market Recovery +10% vs PY in July
- Replacement Market driven
- NC Jobs Increase Continues
- Big Focus on K-12

Market Notes:

- Market growth overdrive in 3-10T continues
- Availability challenges across the market
- Carrier, Lennox and JCI all making changes
- Strength in 15-25T change outs mixed in July
- Supply chain volatility continues to mix in progress recovery
- Backlog growth linked to demand & past-due orders
- Market expansion in 2022 now +10.6%
- Look for organic growth in K-12 with \$120B stimulus
- Continues focus on IAQ
- 2023 DOE & Refrigerant Changes



American Standard。

Pricing Update: August 2021 (reminder)

	Light	Commercia			
	Package				
Product Code	Product	Percent change	Notes	Acc. Cross Family	
514	3-10T Gas/electric 3-phase Precedent	6.5%			
516	3-10T HP 3-phase Precedent	6.5%	Rep 250		
518	3-10T Cooling Only 3-phase Precedent	6.5%			
463	12.5-25T Packaged Cooling Voyager	6.5%			
465	12.5-25T Packaged HP Voyager	6.5%	Rep 250		
467	12.5-25T Packaged Gas Voyager	6.5%			
965	3- 5 Ton Package Rooftop G/E Foundation	6.5%	Don 250	13TC, 13YC, 13W	
966	3-5 Ton Package Rooftop E/E Foundation	6.5%	Rep 250	ACC, SCC2,	
1368	7.5-12.5 Ton Pkg Rooftop G/E Foundation	N/A		ODY_O	
1369	7.5-12.5 Ton Pkg Rooftop E/E Foundation	N/A			
969	15-25T Packaged Cooling Foundation	6.5%	0.050		
970	15-25T Packaged Gas Foundation	6.5%	Rep 250		
289	Precedent Accessories	6.5%	Rep 250		
390	Voyager Accessories & FIOPS	6.5%	Rep 250		
968	Foundation Accessories	6.5%	Rep 250		
1340	LCU Smart Thermostat (Pivot)	0.0%			
	•			•	
	Odyssey Split Systems		Notes		
411	Odyssey HP	6.5%			
419	Odyssey AC	6.5%	Rep 250	SSC, ACC	
416	Odyssey AH	6.5%	Nep 250	33C, ACC	
351	Odvssev Accv	6.5%			

- Trane Technologies announced a price increase effective August 7, 2021 for all Light Commercial Product.
- The last day to enter orders at current pricing will be August 6, 2021.
- The external announced increase is up to 7%. Below is the detailed breakdown of Light Commercial.

External Announcement: https://www.achrnews.com/articles/145131-trane-technologies-commercial-brands-to-increase-prices-on-select-products-in-north-america



Availability



Headlines:

- Material shortage from suppliers mixed progress
- Labor shortages continue to improve
- Managing OTS via recent changes in lead times
- Continue to aggressively forecasting
- Competition reporting similar or worse position than

our own



First Medium Foundations Orderable

PRODUCT ANNOUNCEMENT

Medium Foundation Light Commercial Rooftop Units



eAPB2107 | MARCH 22, 2021

IMPORTANT DATES

First Production:

Tonnage	Voltage	Available	
10	208-230/3/60	Q2	
7.5	208-230/3/60	Q3	
10	460/3/30	Q3	
7.5	460/3/30	Q3	
8.5	208-230/3/60	Q3	
12.5	208-230/3/60	Q3	
8.5	460/3/30	Q3	
12.5	460/3/30	Q3	

RATINGS:

AHRI ratings available at AHRIDirectory.org

For more information on the new American Standard Medium Foundation, please contact your local American



Carry Away the Competition- Install American Standard Medium Foundation

From small to large and **now medium tonnages**, American Standard has perfected the basic HVAC equipment standards in this reliable rooftop line. Designed for immediate, like-for-like retrofit applications, the new Medium Foundation matches the competitor footprints, making replacement a quick and easy win for contractors and business owners alike.

You asked for it, American Standard Delivered:

- New medium tonnages 7.5, 8.5, 10, & 12.5 Tons complete the line up (Cooling Only w/Optional Electric Heat Gas Heat)
- · Plug & play footprint Ideal for like-for-like replacement
- · All medium tonnages no curb adapter needed
- · Same easy, hassle-free installation & service features
- · Locally availability stock quick delivery

10T Units in TOPPS Now!



Medium Foundation cont.



- Working through final ordering stages with MicroMetl for fresh air accessories
- Bringing in hail guard inventory
- 7.5T 208-230 G/E & E/E in route
- 8.5T & 12.5Ts in manufacturing will work through shipping
- 10T 208-230 to be in TOPPS in August
- 2 unit limit per model lifted

Model Number	Long Model Number	Model Description
GBC120A3EHA3YX9*	GBC120A3EHA**00M000000000000000000000000000000000	10 Ton 208/230/60/3 High Heat CV
GBC120A3EMA3YX9*	GBC120A3EMA**00M00000000000000000000000000000000	10 Ton 208/230/60/3 Medium Heat CV
EBC120A3E0A3YXA*	EBC120A3E0A**07M000000000000000000000000000000000	10T, 208-230/3/60, std. Multi-Speed
GBC120A3ELA3YX9*	GBC120A3ELA**00M000000000000000000000000000000000	10 Ton 208/230/60/3 Low Heat CV
GBC120A3ELA3YXA*	GBC120A3ELA**07M0000000000000000000000000000000000	10 Ton 208/230/60/3 Low Heat MS
EBC120A3E0A3YX9*	EBC120A3E0A**00M00000000000000000000000000000000	10T, 208-230/3/60, std. CV
GBC120A3EHA3YXA*	GBC120A3EHA**07M0000000000000000000000000000000000	10 Ton 208/230/60/3 High Heat MS
GBC120A3EMA3YXA*	GBC120A3EMA**07M000000000000000000000000000000000	10 Ton 208/230/60/3 Medium Heat MS



Medium Foundation Marketing Materials



15VNE



Medium Foundation Accessories

Doc Type	Category	Product	Location	Document Number	Title
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN035*	Condensate Overflow Switch Installation - Med Foundation - BAYCOSW310*
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN037*	Roof Curb Installation - Med Foundation - BAYCURB310*
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN038*	Barometric Relief Hood - Med Foundation (Half A Size) - BAYBARO310
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN039*	Hail Guards for Medium Foundation 8.5-12.5T : BAYGARD311A (Half A size)
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN036*	Electric Heat Installation - Med Foundation
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN040*	Hail guards for Med Foundation 7.5 Ton (BAYGARD310) (Half A size)
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN041*	Fresh Air Damper for Med Foundation (Half A size) - BAYDMPR310/311
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN043*	0 to 100% Standard Economizer – Horizontal, Model BAYECON311*
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN045*	0 to 100% Low Leak Economizer – Downflow, Model BAYECON356*
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN044*	0 to 100% Low Leak Economizer – Downflow, Model BAYECON355*
Installation Instructions	Lt Comm Unitary	Medium Foundation	MONT	RT-SVN042*	0 to 100% Standard Economizer - Downflow, Model BAYECON310*

Link to e-Library: <u>Trane Commercial (tranetechnologies.com)</u>



Hail guards Standard on Precedent and Voyager 2 HE Units

For questions, contact <u>Light Commercial Product Support</u>

WHAT'S HAPPENING?

Starting August 8, 2021 (replication 250), Condenser Hail guards will be a Standard Feature on Precedent & Voyager 2 HE Units

Benefits

- Owner Provides protection from Hail, Vandals, etc.
- Contractor On/Off roof faster & Reduced coil damage & Reduced dunnage disposal
- Specifying Engineer Doesn't have to remember which products have and which don't.

Transition:

- Beginning with replication 249, (July 11th), when selecting HE or Precedent or Voyager 2 in Trane Select Assist, the system will require that condenser hail guards are also selected.
- Units selected without hail guards prior to replication 250 (August 8) will not be affected.
- Beginning with replication 250, (August 8th), all HE and e-flex units will have condenser hail guards. Orders that were configured without condenser hail guards will need to be re-selected.

WHY THIS MATTERS TO YOU/ ACTION NEEDED:

Last day to configure HE Precedent & Voyager 2 without hail guards was July 9.

Last day to order HE Precedent or Voyager 2 without hail guards is August 6.



Odyssey w/ Symbio Application and Supply Issues

WHAT'S HAPPENING:

We are experiencing installation issues on Odyssey with Symbio, particularly in replacement situations. We also have supply constraints for parts for Symbio.

Short-term:

- Return to production of Legacy Electromechanical Condensers and Air Handlers
- HUB cases covering application issues highlighted by customers now available on internal/external sites (see next slide)

Mid July: new literature shipping with equipment informing customers up front of Symbio application requirements (available electronically in Service Center)

- End of August: application-based details including wiring diagrams and job preparation guidance available in submittals
- Mid-term: developing training videos and other collateral supporting product selection, job prep, install/startup and service

(Symbio 700 app training now available at Trane Odyssey w/Symbio: App Install and Connect via Bluetooth (vimeo.com))

Long-term: exploring engineering/design change options to address inherent issues

WHY THIS MATTERS TO YOU:

Your customers could call you with questions on installations that could cause extra time and parts. The actions above is an attempt to prepare you and your customer for easier installations.

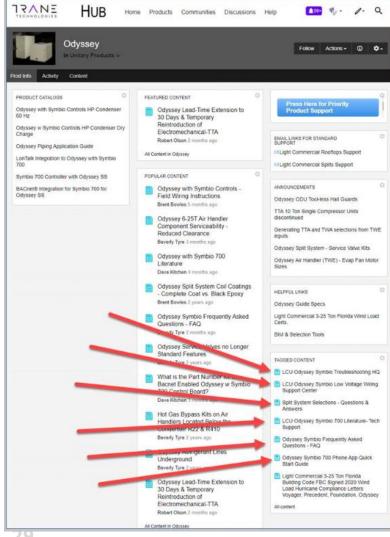
ACTION NEEDED:

- Review existing sold but not shipped Odyssey orders and forward the HUB information to your customer
- Select the Legacy Electromechanical option when available

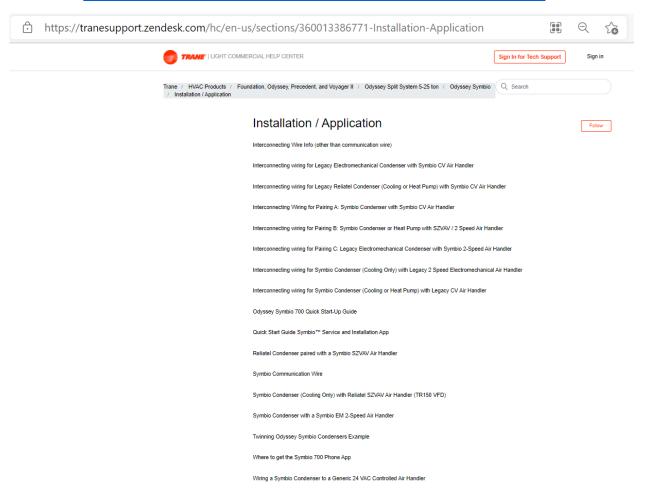


Odyssey w/ Symbio - continued

Odyssey | Hub (tranetechnologies.com)



<u>Installation / Application – Trane (zendesk.com)</u>





BUILT TO A HIGHER STANDARD.

Indoor Environmental Quality Jennie Bergman

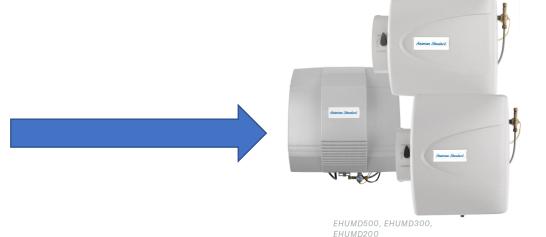


Branding Changes

- Adjusting humidity management portfolios to a three-badge strategy—no changes to equipment or model numbers
- Rolling change to inventory, managed as FIFO
- Leverage the value of our equipment brands
- Offer a cohesive system solution









EHUMD800, EHUMD800LC^
~120V application for low conductivity water









EDHUM70V1H1MDAA, EDHUM0981H1MDAA, EDHUM1201H1MDAA

Humidifier Maintenance

Water Panel Bulk Purchase Promotion

Recommended Replacement: Annually



Bulk Purchase Discounts:

Case: Qty 10 Pallet: Qty 240

Dates: 8/16-10/29

Reference sales plan for aggressive pricing

Humidifier Maintenance Kits

Recommended Replacement: Every 5 years

BAYKITO1ASMBPA

BAYKITO1ALGBPA





Dehumidifier Portfolio Updates

- Ducting options for fresh outdoor air ventilation to meet ASHRAE 62.2 ventilation requirements
- Superior MERV 13 filtration for improved indoor air quality
- Engineered for low temperature operation providing comfort year round



WATER REMOVAL*	70 PINTS/DAY 8.75 GALLONS/DAY	98 PINTS/DAY 12.25 GALLONS/DAY	121 PINTS/DAY 15.125 GALLONS/DAY
CURRENT DRAW	5.1 AMPS	5.9 AMPS	7.3 AMPS
EFFICIENCY	5.0 PINTS/KWH	6.1 PINTS/KWH	6.1 PINTS/KWH
ENERGY FACTOR	2.4 L/KWH	2.95 L/KWH	2.95 L/KWH
BLOWER	150 CFM @ 0.0" WG 140 CFM @ 0.2" WG 130 CFM @ 0.4" WG	320 CFM @ 0.0" WG 297 CFM @ 0.2" WG 215 CFM @ 0.4" WG	350 CFM @ 0.0" WG 285 CFM @ 0.2" WG 210 CFM @ 0.4" WG
AIR FILTER	MERV-13	MERV-13	MERV-13
DIMENSIONS	12.0" W 12.0" H 28.0" D	14.5" W 19.5" H 32.4" D	14.4" W 21.0" H 32.2" D
WEIGHT	55 LBS.	81 LBS.	91 LBS.
SIZING	UР ТО 1,800 FT. ²	UP TO 2,300 FT. ²	UР ТО 3,000 FT. ²

*At 80°F and 60% RH

EDHUM120

First Ship: September 2021

EDHUM07H & EDHUM098

Available Now



Questions?

Type questions into the chat window

OR

Press *6 to unmute

