

HEATING & AIR CONDITIONING

AccuComfort Variable Speed

Air Conditioners and Heat Pumps



Introducing American Standard AccuComfort[™] Variable Speed Systems

(((6)

American Standard

Platinum

Series

Variable Speed

AccuComfort - Platinum Series





- Available in 2-3-4-5 ton sizes
- Air Conditioners up to 21 SEER/14 EER
- Heat Pumps up to 20 SEER/13 EER/10 HSPF



First Order Date: April 1st "ALL Dealers"

Platinum XV 18 SEER



20 SEER

Approved Indoor Models for AccuComfort Variable Speed Systems





Models for Downflow & Horizontal Right

New Compressor Speed Display for Platinum ZV Control





Blue Speed Dial for Cooling Mode

Red Speed Dial For Heating Mode

Compressor Speed Dial Can be Disabled if Desired

Training is a Pre-Requisite to Sales for All Dealers



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Variable Speed Outdoor Systems Factory Technical Training

Interactive Hands-On Training Sessions

TOPICS COVERED INCLUDE:

- Integrated Variable Speed Control (IVCS) Board Overview
- Sequence of Operations
- System Protections
- Algorithms Overview
- Communicating Display Assembly (CDA)
- Installer Test Modes on the 950 Control
- Diagnostics and Troubleshooting
- More...

Pricing Information and Schedule Availability



Sessions led by Product Portfolio Support Specialist



All participants receive the Variable Speed Outdoor System Technical Service Manual written for Field Engineers and Service Technicians. Distributors will be responsible for training dealers prior to purchasing Variable Speed Systems and ensuring they keep a trained technician on staff full time.

Built in Diagnostics

Technician Control Menu

Forced Defrost, EEV, LSOV, Evacuation, Run Drive and Run Outdoor Fan tests are initiated and performed from the Technician Control Menu.



Note: If system is in Lockout, Unit Tests are not available.

Drive Test Notes

- Drive Diagnostics forces a shutdown and waits until compressor is completely coasted before running the drive diagnostic routine. 2. The OD system will enter a hard lockout state to ensure no other system component is attempting to run.
- to run, 3. Show "TESTING" while internal diagnostics are being performed (about 30 seconds). 4. One of five conclusions will be displayed at the end of the Drive Test as a result of running the
- 5. At the conclusion of this test, the results screen

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- 5. At the conclusion of this test, the results screen will remain displayed until power is cycled or the Exit Drive Test option is used. 6. If Drive Test option is used. 6. If Drive Test result is "Passed No Fault" the compressor will run for one minute. 7. The user will then have the ability to scroll up or down to visit an Exit Drive Test screen, Exiting the Drive Test will reset the NSC software and clear the hard lockout state.
- 8. If the Drive Diagnostic test is not exited, a 2 hour timer will be kept, and upon expiration of that timer the IVSC will automatically reset itself.



Service Facts and Installer's Guide now include guick response codes (QR) to allow service techs to go directly to helpful videos on their smart phones or devices.

> Unique refrigerant cooled inverter keeps the electronics cool using the refrigerant line, not air.





Communicating Display Assembly.

The CDA built into American Standard's variable speed units provides a wealth of diagnostic information, and the system has service modes that allow you to run system checks without waiting for the unit to respond to the thermostat.



TEST MODES

LAST 4 FAULTS

DRIVE DIAGNOSTICS



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Field Trial Deployment Map



Good geographic coverage for both A/Cs and Heat Pumps

Over 50,000 system run time hours

Phoenix 5 Ton Field Trial System ran 97% of the time for 4 days straight - 120 degrees.



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Phoenix 5 Ton Field Trial Inverter de-rate temperatures were not reached even at 120 degrees ambient!



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Competitive Control Box Designs



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Nordyne – IQ Drive



Carrier – Greenspeed

AS-AccuComfort

Streamlined Design reduces the "Fear Factor" for technicians

AccuComfort Consumer Value Proposition



A HEATING AND COOLING SYSTEM WITH REMARKABLE SELF-CONTROL.

We've taken your home comfort to new levels with the American Standard AccuComfort[™] system. You can expect to do nothing other than just set it. It takes over from there as it automatically adjusts itself to run at a more efficient speed to maintain your ideal comfort level and control the humidity in your home, no matter what the weather is like outside.

"Efficient, Affordable and Reliable Comfort"

CONSUMERS WANT THE MOST EFFICIENT PRODUCT THEY CAN AFFORD.

The American Standard AccuComfort[™] variable speed line of air conditioners and heat pumps will revolutionize the 17+ SEER market by providing exactly that for 4 million U.S. households for which this product is a fit. And we're just getting started.

System Efficiency Rating

System	Туре	Efficiency Rating
Platinum ZV	Air Conditioner	up to 20 SEER
Platinum ZV	Heat Pump	up to 19.75 SEER/10 HSPF
Platinum XV	Air Conditioner	up to 18 SEER
Platinum XV	Heat Pump	up to 18 SEER/10 HSPF

System efficiency is measured in SEER, (Seasonal Energy Efficiency Ratio) and HSPF (Heating Seasonal Performance Factor). The higher the SEER and HSPF, the greater the system's energy efficiency, and the lower the overall carbon footprint of your household.

• Wider operating range.

Allows an AccuComfort[™] system to remain operating when competition's products are cycling on and off.

Platinum ZV

Platinum XV

The American Standard AccuComfort[™] variable speed air conditioners and heat pumps are the quietest at 4dB below nearest competitor's minimum.

Platinum Heat Pump Efficiency Level Comparison



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	SEER / EER / HSPF					
	Current 2-Sta	age Systems	AccuComfort V	ariable Speed		
Tonnage	Platinum XM 4A6H7	Platinum ZM 4A6Z0	Platinum XV 4A6V8	Platinum ZV 4A6V0		
2 Ton	17.25/13.25/9.5	19/14/10	18/13/10	19.25/13.75/10		
3 Ton	18/13/9.5	19/13/10	18/13/10	20.00/13.5/10		
4 Ton	17.25/12.5/9.5	17.25/12.25/9.2	18/12.5/10	19.25/12.5/10		
5 Ton	16/12/9.2	17.5/11.5/10	18/12.5/10	19/12.7/10		

AccuComfort Variable Speed Improves Comfort and Efficiency

AccuComfort Competitive AC Sound Level Comparison



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Air Conditioners	Sound Level dBA				
	Tonnage	Min Cool	Max Cool		
AS Platinum XV18/ZV20	2	57	66		
Lennox XC25	2	59	70		
AS Platinum XV18/ZV20	3	55	70		
Lennox XC25	3	59	73		
AS Platinum XV18/ZV20	4	57	74		
Lennox XC25	4	66	74		
AS Platinum XV18/ZV20	5	62	75		
Lennox XC25	5	64	74		

Platinum Series are Clearly the Quietest!

AccuComfort Competitive HP Sound Level Comparison



CONDITIONING

Heat Pumps	Sound Level dBA					
	Tonnage	Min Cool	Max Cool	Min Heat	Max Heat	
AS Platinum XV18/ZV20	2	54	65	60	69	
Lennox XP25	2	58	68	58	68	
Carrier GreenSpeed	2	58	63	62	71	
AS Platinum XV18	3	56	70	60	74	
AS Platinum ZV20	3	59	70	60	72	
Lennox XP25	3	58	73	58	73	
Carrier GreenSpeed	3	58	65	62	75	
AS Platinum XV18/ZV20	4	61	74	62	76	
Lennox XP25	4	64	74	64	74	
Carrier GreenSpeed	4	65	70	64	76	
AS Platinum XV18/ZV20	5	57	73	61	74	
Lennox XP25	5	64	74	64	74	
Carrier GreenSpeed	5	65	72	64	76	

Platinum Series has Min Cooling and 3 ton Max Heating advantage!

New Platinum ZV & Platinum ZM AC Sound Level Comparison



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Sound Level dBA **Air Conditioners** Min Cool Max Cool Tonnage Platinum ZV20/XV18 Platinum ZM (4A6Z0) (Two Compressor)

Platinum ZV & Platinum ZM HP Sound Level Comparison



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Heat Pumps	Sound Level dBA				
neat rumps	Tonnage	Min Cool	Max Cool		
Platinum ZV20/XV18	2	54	65		
Platinum ZM (4A6Z0) (Two Compressor)	2	62	72		
Platinum XV18	3	56	70		
Platinum ZV20	3	59	70		
Platinum ZM (4A6Z0) (Two Compressor)	3	70	72		
Platinum ZV20/XV18	4	61	74		
Platinum ZM (4A6Z0) (Two Compressor)	4	71	76		
Platinum ZV20/XV18	5	57	73		
Platinum ZM (4A6Z0) (Two Compressor)	5	71	76		

8 to 14 dB quieter at low speed !!!

AccuComfort Competitive Weight Comparison (Uncrated)



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20 SEED Hoot Dump	Weight (Ibs.)					
20 SEER Heat Pump	2 Ton	3 Ton	4 Ton	5 Ton		
Platinum ZV Variable Speed	196	233	245	255		
Platinum ZM Two Compressor	330	335	420	420		
Lennox XP25	277	277	341	335		
Carrier Greenspeed	324	324	334	334		

100 to 175 lbs. Lighter than Platinum XM Two Compressor 20 SEER models

AccuComfort Systems Start Quietly and Reduce Light Flicker



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Heat Pumps			Platinum 4A Two Compre	
Tonnage	RLA	LRA	RLA	LRA
2 Ton	11.5	10.2	8.7	58
3 Ton	18.4	10.2	13.7	60
4 Ton	21.1	12.0	18.6	93.4
5 Ton	27.5	12.0	23.4	128.7

AccuComfort Systems Reduce the KW Size and Cost of a Whole House Home Generator

Have you ever been asked... "What Size Air Conditioner do I need?"



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"Dealers use a Manual J Load Calculation to Size Equipment"



Do you need 4 Tons 24 hours a Day?





No, that's why the AccuComfort systems were designed with the widest operating range on the market today!



The system that runs the longest before cycling provides the "Most Precise Comfort Control"



The Widest Operating Range Available....

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Operating Range (%) 25-100 Platinum ZV/XV HP 30-100 Platinum ZV/XV AC

Advantage 10-15% 5-10%

35-100 XP25 Lennox Heat Pump 35-100 XC25 Lennox AC



40-100 Carrier Green Speed (HP Only)

AccuComfort Technology Provides More Precise Speed Control



AccuComfort can vary speed in 1/10 of 1% increments!





AccuComfort Air Conditioners can vary output capacity 24 hours a day to precisely, quietly and efficiently match the load on the home.



Max Speed during Day – Minimum Speed at Night



Blair 3 Ton HP Field Trial-Tyler TX

Even with the Platinum XM 20 SEER 2 Stage you are Over/Undersized 90% of the time!



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50% on 1st Stage

100% on 2nd Stage

Tyler ,TX Storm Field Trial - Sep 20 4 Ton HP with AccuLink Zoning



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AccuComfort Systems with AccuLink Zoning Can Eliminate Those Hot Summer Nights!



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If you like to sleep with a blanket... now you can!

AccuComfort 25 to 100% Capacity Allows Improves Temperature Control in Smaller Zones



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System	Fan Status	Air Flow	Pre Filter Status	Collection Cell Status
Status Cooling Stage 1	On	30%	40% 24 days left	54% 97 days left
Zone Name	Zone Mode	Fan	Mode	Damper Position
olf Room	Cooling		luto	0%
iving Room	Cooling		Auto	0%
Bedrooms	Cooling		Auto	80%





AccuLink Zoning Storm Field Trial - September 10th 2013 All Zones set for 75 Degrees Cooling



Zone	1	Zone	2	Zone	3	
Time	950	Time	940	Time	940	
12:00:54 AM	74.7	12:00:54 AM	75.0	12:00:54 AM	74.5	
1:00:54 AM	74.3	1:00:54 AM	75.3	1:00:54 AM	74.9	
2:00:54 AM	75.1	2:00:54 AM	74.6	2:00:54 AM	75.0	
3:00:54 AM	74.9	3:00:54 AM	75.1	3:00:54 AM	75.1	
4:00:54 AM	75.2	4:00:54 AM	74.3	4:00:54 AM	74.9	
5:00:54 AM	75.5	5:00:54 AM	74.1	5:00:54 AM	75.0	
6:00:54 AM	75.4	6:00:54 AM	75.2	6:00:54 AM	75.3	
7:00:54 AM	74.7	7:00:54 AM	74.7	7:00:54 AM	74.9	
8:00:54 AM	74.4	8:00:54 AM	75.0	8:00:54 AM	75.2	
9:00:54 AM	75.5	9:00:54 AM	75.3	9:00:54 AM	75.3	
10:00:54 AM	74.5	10:00:54 AM	74.9	10:00:54 AM	75.1	
11:00:54 AM	75.5	11:00:54 AM	75.2	11:00:54 AM	75.1	
12:00:54 PM	75.1	12:00:54 PM	74.8	12:00:54 PM	74.9	
1:00:54 PM	75.1	1:00:54 PM	74.9	1:00:54 PM	75.1	
2:00:54 PM	74.9	2:00:54 PM	75.1	2:00:54 PM	75.0	
3:00:54 PM	75.0	3:00:54 PM	74.9	3:00:54 PM	75.0	
4:00:54 PM	74.9	4:00:54 PM	75.0	4:00:54 PM	75.0	
5:00:54 PM	74.9	5:00:54 PM	74.9	5:00:54 PM	75.0	
6:00:54 PM	75.1	6:00:54 PM	75.0	6:00:54 PM	75.0	
7:00:54 PM	75.0	7:00:54 PM	75.1	7:00:54 PM	75.0	
8:00:54 PM	75.1	8:00:54 PM	74.8	8:00:54 PM	74.8	
9:00:54 PM	75.3	9:00:54 PM	75.3	9:00:54 PM	74.9	
10:00:54 PM	75.7	10:00:54 PM	75.3	10:00:54 PM	74.3	
11:00:54 PM	75.5	11:00:54 PM	74.6	11:00:54 PM	74.8	

Now that's Precise Temperature Control!

Platinum ZM Phase Out Plan (2 – Compressor)



Platinum ZM (4A7Z0/4A6Z0)

- The Platinum ZM AC/HP families will be phased out in 2014
- Last Order date will be in August for Distributors
- Now is the time to start selling AccuComfort Systems!



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SALES AND MARKETING MATERIALS

AccuComfort Variable Speed Launch for Non-Customer Care Dealers



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Platinum ZV/XV AC / HP First Order Date: April 1st

- Improved Personal Use Program for dealer associates
- \$350 dealer rebate extended through June 30th
 - Can be used in conjunction with other programs



Platinum XV

Are your technicians and sales professionals ready to go?

Variable Speed Launch Kits



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Pub No. 14-8269-01

Pub No. 15-4187-03

Pub No. 10-1190-02



Additional Dealer Launch Kits are available for purchase on ASDealerNet[™] using the following publication number:

American Standard AccuComfort[™] Variable Speed Kit-DEALER Version, Pub No. 015-4189-02KIT

Windshield Wisdom Audio CD



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American Standard. HEATING & AIR CONDITIONING Windshield Wisdom[™] AccuComfort[™] Variable Speed Air Conditioners and Heat Pumps

Pub. No. 14-8269-CD

www.amstdleamingles

Track Info

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Track 1: Introduction to AccuComfort Track 2: Benefits and Features Track 3: Zoning and Variable Speed Track 4: 950 Controls, Nexia^{**} and Variable Speed Track 5: Variable Speed Warranty Return Process Track 6: Frequently Asked Questions for Variable Speed Outdoor Units Track 7: Conclusion Track 8: Field Trial Testimonies

AccuComfort Variable Speed Audio and Video Sales Training Now Available for Viewing or Download



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American Standard.

Variable Speed Outdoor Products Windshield Wisdom

Click on the files below to listen to the different tracks on Variable Speed Air Conditioners and Heat Pumps. These are audio files so they may take a few minutes to load. Make sure your volume is turned up on your computer.

- Introduction to AccuComfort
- Benefits and Features
- Zoning and Variable Speed
- Platinum ZV Controls, Nexia and Variable Speed
- Variable Speed Warranty Return Process
- Field Trial Testimonies
- Frequently Asked Questions
- Conclusion

■ PRODUCT INFO	WideScreen Wisdom™ And Windshield Wisdom™
■ TECH SUPPORT	Variable Speed Outdoor Products WideScreen Wisdom
AMSTDNET	
ADMIN CENTER	Variable Speed Outdoor Products Windshield Wisdom
	Air Handlers WideScreen Wisdom

AccuComfort eLearning Now Available!



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Variable Speed eLearning Course

American Standard AccuComfort[™] Variable Speed

Learning Resources is proud to announce the release of our newest eLearning course available on our Learning Management System: American Standard AccuComfort[™] Variable Speed.

In this course, you will learn the features and benefits of the AccuComfort[™] Variable Speed Outdoor Equipment as well as how to explain how variable speed works with zoning and the Platinum ZV control.

After completing this course, you will be able to:

- Describe the benefits and features of AccuComfort[™] Variable Speed Outdoor Equipment
- · Explain how variable speed works with zoning
- Explain how variable speed works with the Platinum ZV control and Nexia[™]
- Identify the steps in the variable speed warranty return process

Log in to the <u>American Standard Learning Management System</u> and search for Variable Speed.

How Do I Log In to the Learning Management System (LMS)?

Log in to <u>ASDealerNet</u>[™] and select Training Center from the left menu. To be automatically signed in to the LMS, click the American Standard LMS - Single Sign On link. Click <u>here</u> to download the LMS user guide.

Log in to <u>www.amstdlearningresources.com</u> and enter your ASDealerNet username and welcome as your password. You can update the password once you have logged in.



AccuComfort Single Page Quick Hit "Sales" Summary



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American Standard		
Select a Portal View	Set As Default	Welcome Tim Storm
Source State S		
■ PARTS & SUPPLIES	Variable Speed Quick Hits	
≥ FINANCIAL CENTER		
MARKETING CENTER	AccuComfort Dealer Quick Hits	
■ WARRANTY CENTER		
■ TRAINING CENTER	< back	
■ NEXIA HOME INTELLIGENCE	Trane eBusiness © 2013 Trane All rights reserved	
PRODUCT INFO		
≌ TECH SUPPORT		
≌ AMSTDNET		
→ ADMIN CENTER		

Quick Hits for Dealers

Americam

American Standard AccuComfort[™] Variable Speed Quick Hits

Platinum ZV

Gos Fumace

AccuClean³

Use this as a tool to recap important information with your employees and customers

Key Selling Points

 AccuComfort systems operate like the cruise control in your car, continually adjusting speed/capacity to maintain your desired indoor comfort levels

✓ 100% capacity or speed is only required on the hottest or coldest days

 AccuComfort systems have the widest operating range available on the market

 The ability to operate at lower output capacity provides sound levels 4 dB quieter than the nearest competitor

 Moisture removal and air filtration effectiveness also improve with longer run times at reduced capacity

 Having an AccuComfort system is like having 700-750 air conditioners or heat pumps in your back yard that the 950 thermostat can choose to operate

 This provides homeowners with the guietest and most economical operation for year round comfort

- AccuLink[®] communicating control board Maintains consistent comfort and efficiency by powering the compressor and controlling communication between all components of the system.
 - Duration" variable speed compressor Automatically makes constant, minute adjustments to avoid temperature ewings in your home and maintain consistent comfort and optimal efficiency.
 - Compressor sound insulator Reduce operating noise for a quieter home environment
 - All-aluminum Spine Fin[™] coil transferring heat, and highly resistant to corrosion.
 - O Durabase[™] basepan Built to resist cracks, rust and corrosion
 - O Variable-speed fan mator Adjusts speed based on cooling and heating requirements for high efficiency and quieter operation.
 - Simplified two-wire connection structural modifications.
 - Heavy-duty steel louvered panels providing substantial airflow.
 - Appliance-grade finish corrosion, eliminate sharp edges and provide years of lasting protection.
 - For corrosion resistance and longer life SermaGuard" screws are Zinc-coated.

AccuComfort Advantages

AccuLink™ Platinum ZV

Platinum ZV

Air Hondler

- 18 and 20 SEER AC/HP families
- 4 dB quieter than nearest competitor
- ✓ Widest operating range available
- ✓ 700-750 speeds (10 X more)
- Liquid cooled Inverter drive

- An exclusive design makes it extremely efficient at
- Offers easier installation, reducing the need for
- Protect the coil from dirt and damage while still
- Durable powder-painted louvers resist rust and
- SermaGuard[®] rust-resistant screws



Platinum ZV Air Conditional up to 21 SEER Patrum ZV Heat Pump 10 to 20 SEEB/10 HD AR COMPANY up to 18 DEED



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What's Next

First order Date is April 1

- Are your technicians certified?
- ~ e-Learning course completed?
- ~ Consumer literature on hand?
- Ready to sell AccuComfort systems?

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Thank You for Your Time and Happy Selling in 2014!

