



# TEXAS DEPARTMENT OF LICENSING AND REGULATION

Regulatory Program Management Division/Industrialized Housing & Buildings Program

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## Industrialized Housing and Buildings

### Technical Bulletin

#### IHB TB 18-02 – Single-Package Vertical Air Conditioners (SPVAC) and Heat Pumps (SPVHP)

Applicable Code: 2015 International Energy Conservation Code (IECC) and COMcheck

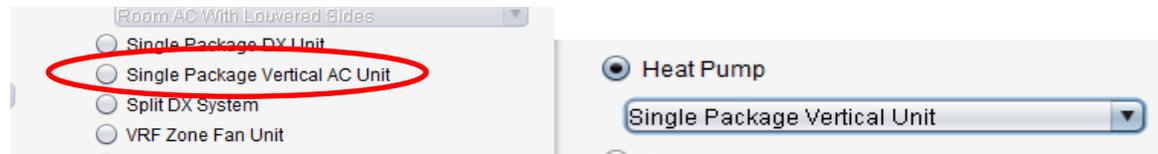
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Many manufacturers that use wall hung vertical air conditioners or heat pumps, such as those commonly manufactured by \*Bard, in the construction of commercial modular units are not identifying this equipment correctly, either on the plans or in COMcheck. Single-package vertical air-conditioners (SPVAC) and heat pumps (SPVHP) are commercial air conditioning and heating equipment with the main components arranged in a vertical fashion. These systems are used extensively in modular construction.

The tables for efficiency requirements of SPVAC and SPVHP systems were not included in the 2009 edition of the IECC, nor were they available in the drop-down box for equipment type in COMcheck. That doesn't mean that there were no efficiency requirements for these systems. The *National Appliance Energy Conservation Act* of 1987 included energy efficiency requirements for both SPVAC and SPVHP systems and the efficiency tables of the ASHRAE 90.1-2007 also included these systems. However, at that time you had to choose "Other" as the equipment type in COMcheck and enter the efficiency required manually if you were checking for compliance to the 2009 IECC.

**Manufacturers and DRAs must verify that these systems are properly identified on the plans and in COMcheck for the 2015 IECC and the ASHRAE 90.1-2013. DO NOT CHOOSE "OTHER" AS THE EQUIPMENT TYPE.**

Table C403.2.3(3) of the 2015 IECC now includes the efficiency requirements for these systems. These systems are also included in COMcheck. See the equipment drop-down box on the mechanical tab as shown here.



If you are using a SPVHP unit, then you will also need to show the size in kBtu/h for both the heating and cooling modes as shown here.

2	Heating	Heating mode		12	kBtu/h				0.00	COP	3.00 COP
3	Cooling	Cooling mode		55	kBtu/h		Air Economizer ...		0.00	EER	9.00 EER

If you are using a SPVAC system, then you also need to show the size of the system in kBtu/h and if it is an air-, water-, or evaporatively-cooled system.

4	HVAC System 2	HVAC System	1				Single zone system	SelectF...			
5	Cooling equipment	Single Package Vertical ...	1	55	kBtu/h		Air-Cooled	Air Economizer ...	0.00	EER	9.00 EER

Any questions or comments should be directed to [ihbtech@tdlr.texas.gov](mailto:ihbtech@tdlr.texas.gov)

\*Bard is not the only manufacturer of this type of system