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**DATE:** 3/14/13

**TO: EMERSON CLIMATE TECHNOLOGIES WHOLESALERS**  
**-EXECUTIVES**  
**-PRODUCT MANAGERS**  
**-EMERSON™ TECHNICAL SPECIALISTS**  
**-BRANCH PERSONNEL**

**SUBJECT: DISCUS™ III COPELAND COMPRESSORS REPLACEMENT**

Last year we began the transition from Discus II to Discus III compressors for OEM applications using 4D and 6D models. Due to the lack of an installed base for remanufacturing we will replace failed Discus III compressors with Discus II. The primary reason for this decision is to avoid the need for wholesalers to stock two separate models for the same application. It's important to understand there will be a small number of Discus III compressor failures considering the small install base. However, it is extremely important that we support this product which is primarily used on racks at large retail accounts.

The Discus III compressor is different from the Discus II in a number of areas: the Coresense mounting bracket, the unloader valves, the head fan bracket and the Demand Cooling bracket. All other replacement considerations are the same such as inlet / outlet connections, service valves, mounting feet, terminal box footprint and unloader coil. When a technician is replacing a Discus III compressor they should pull the Coresense module and terminal box as they do today for all Discus compressors.

Here is our plan for supporting Discus III field replacements:

1. Remanufactured Discus II compressors will have a universal CoreSense Protection mounting bracket (974-1315-00) for Discus III replacements. For current wholesaler inventory we will supply these brackets at no charge.
2. If unloader(s) are being used, Wholesaler will supply the unloader valve from their inventory. Most wholesalers are stocking these valves (998-0212-00) today to reduce the number of Discus II compressors they stock. These should be kept in your branch inventory. The coil is the same for both Discus II and Discus III.
3. All low temp Discus II "800" BOM models will include a head cooling fan and Demand Cooling bracket kit. Obviously these kits will not be needed when replacing a Discus II compressor but it will ensure that technicians have these items when needed.
4. CoreSense Diagnostics make up a small percentage of sales. The CoreSense Diagnostic mounting bracket will be stocked in Mt. Comfort.
5. The new lineup will include a larger 6D displacement for increased application flexibility. The 6DU will offer 25% more capacity on average in the same compressor size. In an effort to reduce complexity throughout the supply chain, certain product variations will become obsolete. Oil cooler versions will no longer be offered, since updated Copeland application guidelines do not require oil coolers for low temperature operation. See [MB2010CC-23](#) and [AE4-1135](#) for more information on Discus oil cooler and head fan requirements. In addition, the 4DA displacement and its corresponding unloader variations (4DE and 4DN) for the next generation Discus will become obsolete for new equipment, but will still be provided for our legacy product to replace existing compressors in the field. The appropriate replacement models are identified in the attached cross reference.
6. All service replacement compressors (-800 BOM) will not change and will continue to be offered through the Emerson Climate Technologies distribution center and Copeland authorized wholesalers. In addition to the (-800 BOM), a new (-899 BOM) legacy compressor will be released for the new generation 6DJ, 6DR, OR 6DS compressors as the new generation

compressors will not come with a “Deep Sump” bottom plate. See attached “Copeland Discus™ III to Copeland Discus II cross reference matrix”.

To make this transition easier for wholesalers and contractors we have developed a number of new tools to aid in the selection of a replacement compressor and the needed kits:

- Online selection tool in the portal that allows the user to input the Discus III model and in turn shows the appropriate Discus II replacement along with needed kits.
- OPI has been populated with a replacement matrix in a PDF form for reference. This can be printed and used when there is no access to a computer.
- Available for training is a Discus III replacement video that will make service procedures easier to explain in the field.
- Our portal will include a pop-up window in “price and availability” that will give the user compressor and kit information for a Discus III replacement.
- A counter intelligence page is available for finding all the resources to support wholesalers through this change.

Since these kits are needed for compressor replacement we will supply these kits at no charge for warranty failures. This includes both one year and three year warranties. You will be reimbursed for unloader valves you provide for warranty. Out of warranty replacements will include all brackets but unloaders will be part of the customer cost of replacement. Our recommendation is to replace unloader valves anytime a compressor is being replaced.

We appreciate your help in supporting this important piece of our business. The addendum to this bulletin shows our stocking strategy for Discus III. If you have any question regarding this transition please call Customer Service, your local Emerson Technical Specialist or your Emerson District Sales Manager.



**Figure 2**  
**New Generation Discus 4D/6D**

Due to compressor design changes, UL is requiring that Emerson modify its nomenclature. The nomenclature examples below show the 4<sup>th</sup> character changing for the new Discus models.

	Current Discus	New Discus
<b>Standard</b>	4DH3R22ME-TSK-C00	4DH <u>N</u> R22ME-TSK-C00
<b>Digital</b>	4DHDR22ME-TSK-C00	4DH <u>X</u> R22ME-TSK-C00

A model cross reference and UL assistance letter are attached below to assist with the transition. Please note that certain accessory parts will change. For example; head fan, Demand Cooling valve, and CoreSense protection brackets will be assigned new part numbers. The new generation Discus to replacement legacy Discus compressors could require addition kits. Please reference attached “Copeland Discus™ III to Copeland Discus II cross reference matrix”.

Additional product performance, electrical and mechanical information can be accessed online by logging into Online Product Information available on the Emerson Climate Technologies website, [www.EmersonClimate.com](http://www.EmersonClimate.com). Please update your Product Selection Software to obtain the latest information on Copeland brand products, including the new 4D/6D models. Please contact your field sales manager, application engineer, or customer service representative for additional information.

#### 4D/6D Standard Model Lineup (R404A)

Medium Temperature (20°F Evap. 120°F Cond. 65 R.G.)			Low Temperature (-25°F Evap. 105°F Cond. 65 R.G.)		
Compressor Model	HP Rating	Capacity (Btu/hr)	Compressor Model	HP Rating	Capacity (Btu/hr)
4DBNR20ME	13.5	145,000	4DBNF54KE	8.0	52,500
4DHNR22ME	15.0	156,000	4DHNF63KE	10.0	62,500
4DHNS16ME	15.0	159,000	4DJNF76KE	12.5	75,500
4DJNR28ME	18.0	186,000	6DHNF93KE	15.0	92,500
6DHNR35ME	23.0	236,000	6DJNF11ME	17.0	105,000
6DGNR37ME	24.0	257,000	6DUNF13ME	20.0	131,000
6DJNR40ME	26.0	278,000			
6DUNR49ME	37.0	335,000			

\*New Discus III Models

### Copeland Discus 4D/6D Cross Reference

Medium Temp Models					
Type	Discus III (2012+)	Discus II (2006-2012)	Discus (Prior To 2006)	Nominal HP (MT Ref)	Nominal HP (HT A/C-Ref)
Fixed	4DBNR20M*-xxx-yyy	4DB3R20M*-xxx-yyy	4DB3A220*-xxx-yyy	13.5	17.0
	4DHNR16M*-xxx-yyy	4DH3R16M*-xxx-yyy	4DH3A150*-xxx-yyy	12.0	15.0
	4DHNR22M*-xxx-yyy	4DH3R22M*-xxx-yyy	4DH3A250*-xxx-yyy	15.0	20.0
	4DHNS16M*-xxx-yyy	4DH3S16M*-xxx-yyy		15.0	
	4DJNR19M*-xxx-yyy	4DJ3R19M*-xxx-yyy	4DJ3A200*-xxx-yyy	12.0	16.0
	4DJNR28M*-xxx-yyy	4DJ3R28M*-xxx-yyy	4DJ3A300*-xxx-yyy	18.0	25.0
	6DBNR32M*-xxx-yyy	6DB3R32M*-xxx-yyy	6DB3A300*-xxx-yyy	21.0	25.0
	6DHNR23M*-xxx-yyy	6DH3R23M*-xxx-yyy	6DH3A200*-xxx-yyy	12.0	20.0
	6DHNR35M*-xxx-yyy	6DH3R35M*-xxx-yyy	6DH3A350*-xxx-yyy	23.0	30.0
	6DGNR37M*-xxx-yyy	6DG3R37M*-xxx-yyy	6DG3A350*-xxx-yyy	24.0	30.0
	6DJNR40M*-xxx-yyy**	6DJ3R40M*-xxx-yyy	6DJ3A400*-xxx-yyy	26.0	35.0
6DUNR49M*-xxx-yyy			37.0	48.0	
1 Bank Unloader	4DCNR20M*-xxx-yyy	4DC3R20M*-xxx-yyy	4DC3A220*-xxx-yyy	13.5	17.0
	4DKNR22M*-xxx-yyy	4DK3R22M*-xxx-yyy	4DK3A250*-xxx-yyy	15.0	20.0
	4DKNS16M*-xxx-yyy	4DK3S16M*-xxx-yyy		15.0	
	4DRNR28M*-xxx-yyy	4DR3R28M*-xxx-yyy	4DR3A300*-xxx-yyy	18.0	25.0
	6DWNR32M*-xxx-yyy	6DW3R32M*-xxx-yyy	6DW3A300*-xxx-yyy	21.0	25.0
	6DKNR35M*-xxx-yyy	6DK3R35M*-xxx-yyy	6DK3A350*-xxx-yyy	23.0	30.0
	6DMNR37M*-xxx-yyy	6DM3R37M*-xxx-yyy	6DM3A350*-xxx-yyy	24.0	30.0
	6DRNR40M*-xxx-yyy**	6DR3R40M*-xxx-yyy	6DR3A400*-xxx-yyy	26.0	35.0
	6DVNR49M*-xxx-yyy			37.0	48.0
2 Bank Unloader	6DYNR32M*-xxx-yyy	6DY3R32M*-xxx-yyy	6DY3A300*-xxx-yyy	21.0	25.0
	6DPNR35M*-xxx-yyy	6DP3R35M*-xxx-yyy	6DP3A350*-xxx-yyy	23.0	30.0
	6DNNR37M*-xxx-yyy	6DN3R37M*-xxx-yyy	6DN3A350*-xxx-yyy	24.0	30.0
	6DSNR40M*-xxx-yyy**	6DS3R40M*-xxx-yyy	6DS3A400*-xxx-yyy	26.0	35.0
Digital	4DBXR20M*-xxx-yyy	4DBDR20M*-xxx-yyy		13.5	17.0
	4DHXR22M*-xxx-yyy	4DHDR22M*-xxx-yyy		15.0	20.0
	4DHXS16M*-xxx-yyy	4DHDS16M*-xxx-yyy		15.0	
	4DJXR28M*-xxx-yyy	4DJDR28M*-xxx-yyy		18.0	25.0
	6DMXR37M*-xxx-yyy	6DMDR37M*-xxx-yyy		24.0	30.0
Discus Replacement					
Fixed		4DA3R12M*-xxx-yyy	4DA3A100*-xxx-yyy	7.5	10.0
		4DA3R18M*-xxx-yyy	4DA3A200*-xxx-yyy	10	15.0
		4DA3S13M*-xxx-yyy		10	
1 Bank Unloader		4DE3R12M*-xxx-yyy	4DE3A100*-xxx-yyy	7.5	10.0
		4DE3R18M*-xxx-yyy	4DE3A200*-xxx-yyy	10	15.0
Digital		4DADR12M*-xxx-yyy		7.5	10.0
		4DADR18M*-xxx-yyy		10	15.0
		4DADS13M*-xxx-yyy		10	

Notes: \* = Oil Variation (L = Less Oil, E = POE Oil)    xxx = Voltage Code    yyy = BOM Code  
 \*\* Discus III 6DJ, 6DR, or 6DS being replaced by a Discus II must have a -899 (BOM) standard bottom plate

Low Temp Models						
Type	Discus III (2012+)	Discus II (2006-2012)	Discus Oil Cooler Version (2006-2012)	Discus (Prior To 2006)	Discus Oil Cooler Version (Prior To 2006)	Nominal HP (LT Ref.)
Fixed	4DBNF54K*-xxx-yyy					8.0
	4DHNF63K*-xxx-yyy	4DH3F63K*-xxx-yyy	4DL3F63K*-xxx-yyy		4DL3A150*-xxx-yyy	10.0
	4DJNF76K*-xxx-yyy	4DJ3F76K*-xxx-yyy	4DT3F76K*-xxx-yyy		4DT3A220*-xxx-yyy	12.5
	6DHNF93K*-xxx-yyy	6DH3F93K*-xxx-yyy	6DL3F93K*-xxx-yyy		6DL3A270*-xxx-yyy	15.0
	6DJNF11M*-xxx-yyy**	6DJ3F11M*-xxx-yyy	6DT3F11M*-xxx-yyy		6DT3A300*-xxx-yyy	17.0
	6DUNF13M*-xxx-yyy					20.0
1 Bank Unloader	4DCNF54K*-xxx-yyy					8.0
	4DKNF63K*-xxx-yyy	4DK3F63K*-xxx-yyy	4DP3F63K*-xxx-yyy		4DP3A150*-xxx-yyy	10.0
	4DRNF76K*-xxx-yyy	4DR3F76K*-xxx-yyy	4DS3F76K*-xxx-yyy		4DS3A220*-xxx-yyy	12.5
	6DKNF93K*-xxx-yyy	6DK3F93K*-xxx-yyy	6DC3F93K*-xxx-yyy		6DC3A270*-xxx-yyy	15.0
	6DRNF11M*-xxx-yyy**	6DR3F11M*-xxx-yyy	6DE3F11M*-xxx-yyy		6DE3A300*-xxx-yyy	17.0
	6DVNF13M*-xxx-yyy					20.0
2 Bank Unloader	6DPNF93K*-xxx-yyy	6DP3F93K*-xxx-yyy	6DD3F93K*-xxx-yyy		6DD3A270*-xxx-yyy	15.0
	6DSNF11M*-xxx-yyy**	6DS3F11M*-xxx-yyy	6DF3F11M*-xxx-yyy		6DF3A300*-xxx-yyy	17.0
	4DBXF54K*-xxx-yyy					8.0
Digital	4DHXF63K*-xxx-yyy	4DHDF63K*-xxx-yyy				10.0
	4DJXF76K*-xxx-yyy	4DJDF76K*-xxx-yyy				12.5
	6DKXF93K*-xxx-yyy	6DKDF93K*-xxx-yyy				15.0
Discus Replacement						
Fixed		4DA3F47K*-xxx-yyy			4DP3A101*-xxx-yyy	10.0
1 Bank Unloader		4DE3F47K*-xxx-yyy	4DN3F47K*-xxx-yyy	4DE3A101*-xxx-yyy	4DN3A101*-xxx-yyy	10.0
Digital		4DADF47K*-xxx-yyy				10.0

Notes:

\* = Oil Variation (L = Less Oil, E = POE Oil)

xxx = Voltage Code

yyy = BOM Code (Cxx = CoreSense Protection, Axx = CoreSense Diagnostics)

\*\* Discus III 6DJ, 6DR, or 6DS being replaced by a Discus II must have a -899 (BOM)

standard bottom plate