GOODMAN TECHNICAL SERVICES

# GoodNews Tech Tips

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**NATE Certification**

Goodman encourages and supports HVAC contractors who earn NATE Certification. The NATE badge is a symbol recognized by an ever-increasing number of homeowners as the official mark of technician excellence.

## Modulating Furnaces

We are pleased to introduce our modulating line of furnaces. Production began the week of June 20, 2011. The modulating furnace line includes four upflow / horizontal models and three down-flow / horizontal models.

A/GMVM960603BXA
A/GMVM960805CXA
A/GMVM961005DXA
A/GMVM961155DXA
A/GCVM960604CXA
A/GCVM960805DXA
GCVM961005DXA

The modulating furnace is part of our communicating family of products using the ClimateTalk™ communicating protocol. The modulating furnace may be used with any high-quality non-communicating thermostat as well as the CTK01AA communicating thermostat. In addition, we will be introducing a new communicating-modulating thermostat –CTK02AA. This thermostat is scheduled for release this summer. It will allow the modulating furnace to operate in true heating modulation and will provide an interface to access all the features of the modulating furnace.

Burner manifold pressure is controlled by negative air pressure created by the draft inducer. Gas valve, pressure switch assembly, and induced draft blower are linked together by pneumatic tubing. The furnace features a Honeywell gas valve capable of variable gas input rates as low as 35% and up to 100% of rated gas input. Indoor air is delivered by an Emerson Ultra Tech® ECM motor which bases the CFM need off of the burner input rate.

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# CTK02AA Communicating – Modulating Thermostat

The CTK02AA is expected to be released later this summer. Like our CTK01AA thermostat, this is part of our communicating family of products using the ClimateTalk™ protocol. The thermostat features a high definition color display with easy readability. Control touch buttons are located to the right side of the screen. The main features include a 3.5" LCD screen, system auto configuration, auto changeover, selectable fan speeds, humidity control, dehumidification control, dual fuel control, and advanced diagnostics.

## Return Rate Details for Compressors

- **Confusion Over "Eighth Character" Of Serial Number**
  - **Rules Programmed Into Service Bench Call For Return If Eighth Character Is 0, 1, Or 2**
  - **Eighth Character May Be An Alpha Character Denoting Assembly Line**
- **Return Request:**
  - **Return Compressors Having Serial Numbers With <u>Rightmost</u> Numeric Characters Of 0, 1, or 2**
  - **Examples:**
    - **10A1234AL, 10BA5678L** **Should <u>Not</u> Be Returned**
    - **10A0001EL, 10BD1000L** **<u>Should</u> Be Returned**

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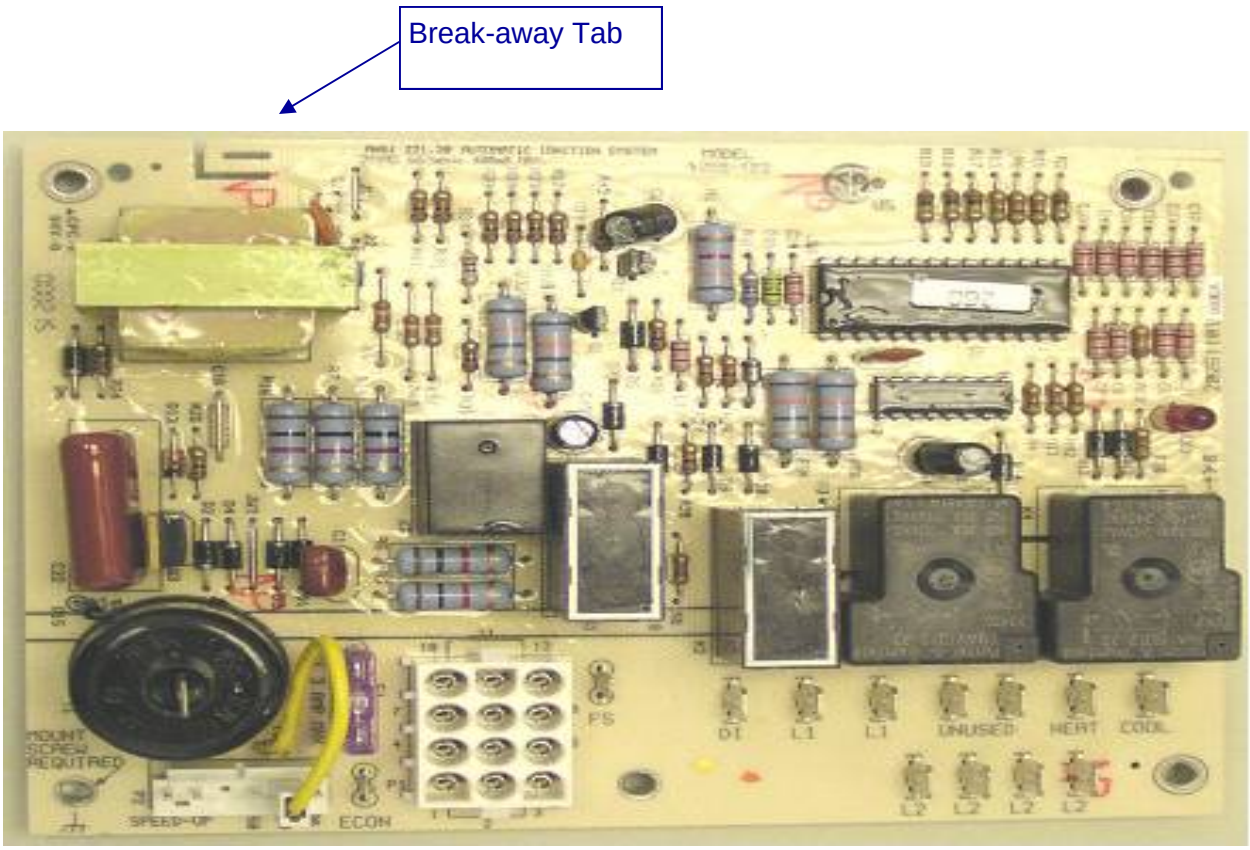
# PCBAG123 Ignition Control Board

The PCBAG 123 Ignition control is used on some residential and all commercial package equipment (CPG*) from 3 -20 ton. This control offers single-stage cooling and two-stage heating options. The control is configured with the break-away tab intact which provides a three minute anti-short cycle delay for compressor protection. If the compressor has been off for three or more minutes, the compressor immediately energizes when the control gets a cooling signal. If the compressor has not been off for at least three minutes when a call for cool occurs, the control waits until the three minutes have elapsed.

There has been some confusion on how the break-away tab functions on the control board. Breaking the tab on the control will change the boards delay features to a one minute “delay on make” signal on a call for Y1. This tab should be broken on two-stage applications where the thermostat Y1 and G circuits are not internally linked together.



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# Recent Air Handler Issues

**AWUF18/24 Dripping Water**

Goodman has received reports of AWUF18/24 air handlers wicking water out of the drain pan and blowing water up onto the insulation. The insulation eventually becomes saturated and leaks water onto the floor. This issue is caused by an out-of-spec gap between the coil and the drain pan. All the units in Goodman inventory have been re-worked to eliminate this issue. The simplest field fix is to use a piece of round poly-foam caulk to seal the gap between the drain pan and the coil as illustrated in **(Picture 1)**. This eliminates the gap between the coil and the pan preventing water from being blown on the insulation.

**Picture 1**

Dayton Quality Department and Design Engineering are working on a plan to eliminate this clearance issue in future production.

The Quality Department at the Furnace plant recently has reported two issues: ASPF3137 air handlers with motors running backwards and ACNF240816 air handlers with incorrect serial data plates. These issues have been confined to a small number of units produced and have required both models in the affected serial ranges to be put on hold pending factory re-work. Distributors with units in the serial ranges below have been notified to put these units on hold pending re-work.



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# Recent Air Handler Issues — Continued

ASPF313716CA units with serial numbers from **1105716034** thru **110579904** and **1106702784** thru **1106702963** may have a programming issue which causes the motors to run backwards. These units need to be isolated and an RMA needs to be requested from your CSR to return for re-work. Replacement inventory should be ordered from HLC. If units are installed, a service replacement motor should be ordered from Service Parts and replaced under warranty.

ACNF240816 air handlers with serial numbers from **1104018323** thru **1105622600** have an error on the serial data plate. These units should be placed on hold until a Goodman representative has replaced the incorrect serial data plate. Units that have been installed will need to have the serial plate replaced by a Goodman representative. Goodman will contact the distributor for the contact name and address for installed units to arrange field visit to replace data plate.

We regret any inconvenience these issues have caused, and we are striving to correct these issues as quickly as possible to minimize the impact on your business and customers.

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# Technical Training Programs

Well, it looks like summer is here again, and I know how busy we all can get during the summer season. We have a lot of new things that are happening in the Goodman training department. Trainers will now be assisting on the 1-800 Tech Support Line during the month of June and July to help with the increased volume of calls that we get during the Summer Season. We have also hired several people to help answer the 1-800 Tech Support Line and assign the calls to an available tech after getting basic information such as model and serial number along with system information relative to the issue being called about. This in turn is allowing us to handle the calls in a more efficient manner. The Technical Services call center continues to deliver an improved response to incoming calls. Lost call rates have fallen from 22% in 2009 to 4.2% in 2010 and are currently at 2.7% in 2011.

We have added a new member to the Goodman Technical Training Team, James Richter. James is the new Training Coordinator who will be working out of the Greengrass office in Houston. He has been with the company since August 2010 as a 1-800 Tech. He has owned and operated two HVACR companies, Lone Star Air, a residential and light commercial HVAC service company and Texas Mechanical Company, a commercial and industrial HVACR contracting company. He has served as a part time HVAC instructor for Simdex, ITT, and Corinthian College, served on the HVAC advisory board for San Jacinto College and assisted with instruction of the Dale Carnegie Program. He has also held accomplished positions as Operations Manager and Contract / Project Sales for major HVAC and refrigeration companies in the Houston area. He holds a Texas Mechanical Contractors Class A License with endorsements in both process refrigeration and comfort cooling and has been a member of trade associations ASHRAE, ACCA and RETA.

We will now be able to do more training and cover a lot more area then we have in the past. We will be doing more “Webinars” on subjects like “Troubleshooting Circuit Boards”, “Charging R410a Units by Superheat/Subcooling” and “Installation and Troubleshooting of The New Modulating Furnaces”. We will also be working with the distributors to train dealers that seem to have high warranty issues, installation and troubleshooting problems with the Goodman/Amana products. Emphasis will be on the Communicating Equipment, the New Modulating Furnace and the GMSG Mini Split Products. We invite our fellow Trainers, in the field, to share some of their great ideas for making a better education program that would benefit the dealers.

We will have the New Training Power Point for the Modulating Furnace by July to coincide with the release of these new furnaces. This training program will include Installation and Set-up of the ComfortNet HiDef Communicating Control System. This program will include.

- The flexible programing sequence for residential applications.
- ComfortNet protocol consisting of Gas or Electric Heat, Heat Pumps, and Split Systems.
- The thermostat and its features. Such as 3.5 diagonal LCD screen, auto configure, etc.
- Dual Fuel Control, advanced diagnostics, and fault codes.
- Venting and Combustion Air Installation
- Circuit Board Troubleshooting
- Furnace Installation

We all hope you have a safe and prosperous summer and we’ll be seeing you in the classroom.

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**Thank goodness for Goodman™.**

## Goodman Technical Services

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™.

**We've become one of the largest manufacturers of residential and light commercial air conditioning, heating, and indoor air quality products and systems by focusing on just one thing-building the most reliable and refreshingly affordable indoor comfort products in the market.**

**The complete line of Goodman brand products are built on the principle of founder Harold Goodman, a former air conditioning contractor.**

**Harold's goal was to manufacture air conditioning and heating equipment that:**

- **Provides industry leading product warranties**
- **Offers greater reliability and longer-lasting performance than competing products**
- **Is designed for quick., trouble-free installations**
- **Makes reliable cooling and heating as affordable as possible.**

**Building our products to Harold's standards, and protecting those products with some of the best limited warranties in the industry, has helped to make the Goodman brand widely recognized as a leading brand in the residential and light commercial heating, ventilation and air conditioning industry today.**

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