Goodman Communicating Controls
48C21-707 AH, 49S25-707 AC/HP,
50C51-707 IFC
2017 Launch

6/23/2017
The Target Market
Why We Are Launching Goodman Comm. Products

- Daikin/Goodman/Amana is ~ 21% Market, the #2 Brand
- Two-Stage Furnaces are now ~ 30% of the Annual Units Produced
  - Until Last Year, the IFC in this launch was Goodman’s only Two-Stage Furnace Board
    (They Have Since released a Two-Stage ECMx design)
- Specialized Controls only available through OEM today
- We Have the Products as an OEM Supplier
Defining Legacy Versus Communicating
The Goodman Boards Can Do Both

Legacy System
Complexity Increases with Features

- T-Stat to Furnace: 8 Wires
- OD Unit to Furnace: 6/7 Wires
- Dip Switch Settings: Up to 20
- Only senior techs can do wiring and set up

Traditional 24VAC Control Wiring

Communicating System
Installation the Same for All Systems

- T-Stat to Furnace: 4 Wires
- OD Unit to Furnace: 2 or 4 Wires
- Dip Switch Settings: None
- Auto-configures so all techs can be successful

R,C, Data 1, Data 2 Wiring

Thermostat kits ship with Comm. Tstat connector

Control boards ship with Legacy Tstat connector
Goodman ComfortNet™ Communicating Controls

Overview
- OEM Direct Replacement Boards for Goodman/Amana/Daikin Units from the Original OEM Supplier
- 49S25 2-stage Heat Pump / AC Control
- 50C51 2-stage Furnace Control
- 48C21 Air Handler Control
- Legacy 24V or 4-wire Communicating System Capable
- Thousands Installed Since Late 2000’s

Features
- Easy to Install
- Full Color Boxes
- Complete Cross Reference on Box
- Instruction Sheet
- Updated Fault Code Label

Competition

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White-Rodgers - Confidential
48C21-707 Air Handler Control

- Drop-in OEM Direct Replacement
- Backwards compatible with all previous versions
- No adapter harnesses or other wiring changes required
- First Launch had blink LED, then upgraded to 7-segment
  - New fault code label for 7-segment displays included
- Used on Goodman, Amana, and Daikin Products: AVPTC, MBVC, DVPTC
48C21-707 Air Handler Board Layout

Some Key Parts to be Familiar With

- Electric Heat Kit Connector
- Removeable Thermostat Connector
- Transformer 24VAC Connections
- RJ11 Connector for Factory Programming
- Optional Condensate Overflow Switch Connector
- Memory Card Connector
- Removeable Thermostat Connector
- Plastic Standoff Mounting
- CFM LED
- Memory Card Connector
- 4-Wire VS Blower Motor Connector
- Transformer 24VAC Connections
- Network Learn Button
- Fault Recall & Test Button
- CFM LED
- Option Dipswitches
- Airflow & Electric Heat
49S25-707 AC or Heat Pump Control
(Also Called UC Board or “Unitary Control”)

- Drop-in OEM Direct Replacement
- Backwards compatible with all previous versions
- No adapter harnesses or other wiring changes required
- First Launch had blink LEDs, then upgraded to 7-segment
  - New fault code label for 7-segment displays included
- Jumpers for AC or HP application
- Used on Goodman, Amana, and Daikin Products:
  ASZC, DSZC, ASXC, DSXC, DZTC, DXTC 16 & 18 SEER

Goodman offers two SKU’s: AC or Heat Pump
W-R is offering a single, configurable SKU
49S25-707 AC/HP Board Layout
Some Key Parts to be Familiar With

- Removeable Thermostat Connector
- Outdoor Fan Motor Connector
- 2-Stage Compressor Solenoid
- 7-Segment LEDs
- RV, Pressure Switch I/O
- Plastic Standoff Mounting
- Dipswitches for Time/Temp Defrost
- Fuse
- Current Transformers for Comfort Alert Diagnostics
- RUN, COMMON, START Compressor Connections
- 240VAC Line Voltage Connectors L1/L2
- Sealed Compressor Relay, like SureSwitch
- Crankcase Heater Relay & Connection
- Transducer, Liquid Line Temp Thermistor Inputs (not used today)
- Fault Recall & Test Buttons
- Memory Card Connector
- AC/HP Configuration Jumpers (cuttable wires)
- RJ11 Connector for Factory Programming
- Air, Coil Thermistor Inputs
- Network Learn Button
50C51-707 Two-Stage Hot Surface IFC

- Drop-in OEM Direct Replacement
- Backwards compatible with all previous versions
- No adapter harnesses or other wiring changes required
- Has always had 7-segment LEDs
- Used on Goodman, Amana, and Daikin Products:
  GMVC, GCVC, AMVC, ACVC, DM96VC, DC96VC
50C51-707 IFC Board Layout
Some Key Parts to be Familiar With

- Ignitor/Inducer Connector
- 4-Wire VS Blower Motor Connector
- Option Dipswitches Airflow, Delays, Staging
- 7-Segment LEDs
- Main System Harness Connector
- Memory Card Connector
- Fault Recall Button
- Removeable Thermostat Connector
- RJ11 Connector for Factory Programming
- Fuse
- Network Learn Button
- Flame Sense Connector
- Plastic Standoff Mounting
- 120V Humidifier
- 120V Air Cleaner
- Option Dipswitches Airflow, Delays, Staging
- 7-Segment LEDs
- Main System Harness Connector
- Memory Card Connector
- Fault Recall Button
- Removeable Thermostat Connector
- RJ11 Connector for Factory Programming
- Fuse
- Network Learn Button
- Flame Sense Connector
- Plastic Standoff Mounting
- 120V Humidifier
- 120V Air Cleaner

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Goodman Communicating Controls

In Summary

• #2 Market Share Equipment OEM
• A Solid, and Still Growing Installed Base Since 2010
• Direct Replacement Controls from the OEM Supplier
• ICM and Honeywell do not Offer