

North American Flame Supervisory and Control System

Bulletin 8865/8864

- **Quality and repeatability assured through modular system design**
- **Fully customized to your application and specifications**
- **UL listing optional**
- **Integrates burner management and process control**



Fully Customized:

The 8865 and 8864 Combustion Control Systems combine years of engineering knowledge with today's best tools and technology. These systems meet your needs and special requirements and are fully customized to your application and specifications. The 8865 and 8864 offer significant options with an unlimited number of burners and control loops. Optional equipment can be added, such as annunciators, recorders, totalizers and data loggers. The 8865 and 8864 are suitable for any combustion control application; aluminum, forging, steel, glass, heat treat, and ceramics.

Quality and Repeatability:

The 8865 and 8864 Combustion Control Systems are modularly designed assuring quality, repeatability, and quick delivery. Design time is reduced by use of pre-engineered CAD modules and we stock all the standard parts needed for quick assembly of these systems. Loop control, furnace pressure, oxygen trim, and auxiliary loop control can be performed with standard loop controllers. A complete documentation package of schematics, cabinet, door, field wiring diagrams, and bill of material comes with each system.

System Reliability and Flexibility:

The 8865 and 8864 provides flexible flame supervision and process control. In the 8865 system, you benefit from independent burner flame operation, which allows your system to operate even when one or more burners go out, increasing system reliability and flexibility. This system can be anything you want it to be since there are no proprietary barriers. You are not locked into using one component manufacturer. Start-up and maintenance are easier and faster with these fully tested, fully documented systems. UL listings are optional.

Standard Features

- Multi burner
- Multi firing zone
- Multi control zone
- Multi fuel
- Alarm circuit
- NEMA 12 rated
- Pilot or direct spark ignition
- FM approved purge function
- Choice of panel voltage and motor starters
- Safe low-fire light off
- Loop controllers and programmers
- Approved flame supervision equipment
- Built using standard stocked NA components

Optional Features

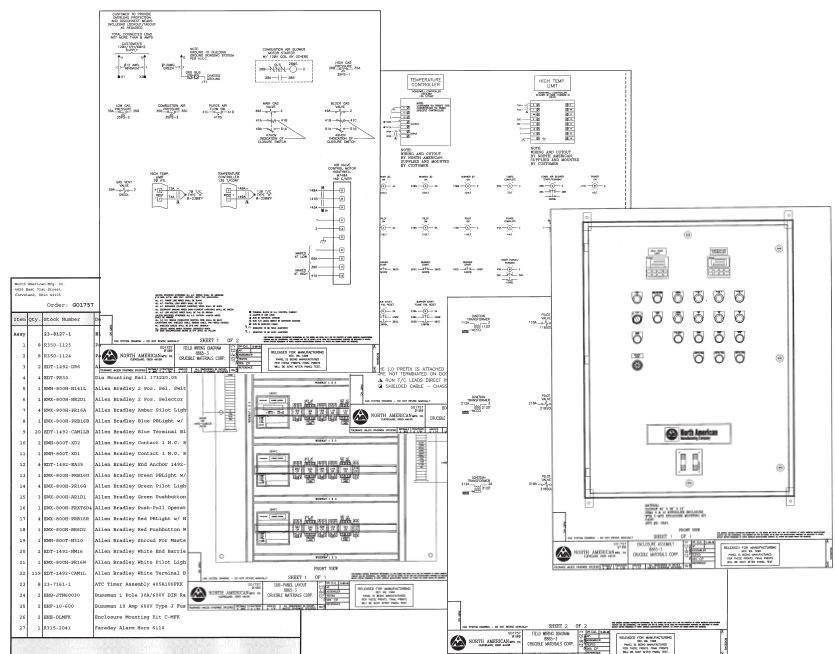
- UL listing
- NA8199 Ratio Controller
- NA8381, 8382 Intelligent Limit Controller
- Annunciation
- Recorders
- Fuel totalizing
- Data logging
- Custom control strategy
- Custom documentation
- Choice of non-standard equipment, any specifics can be changed to meet customer specifications
- NEMA 7, 4X, 4 enclosure

Standard Stocked Component Specifications

- Controllers:** Honeywell UDC330 series
Yokogawa UT550 series
Honeywell DC301 ramp/soak programmer
Yokogawa UP550
- High Temperature Limits:** Honeywell UDC230L,
Yokogawa UT350L
- Pushbuttons, Switches and Lamps:** Allen-Bradley 800H
- Timers:** ATC plug-in series 405
- Control relays:** IDEC RH3BUL (3-pole), IDEC RH2BUL (2-pole) and RH4BUL (4-pole) plug-in
- Terminal connectors:** Allen-Bradley 1492-HM3 series
- Wire:** #16 AWG, MTW, 105C
- Flame relay:** Honeywell RM7890/RM7888
- Enclosure:** Saginaw NEMA 4/12
- Alarm Horn:** Allen-Bradley 855P series
- Disconnect:** Allen Bradley Series #1494 V or equal
- Transformer:** General Electric Series #9T58 or equal
- Nameplates on panel:** Lamicoid black letters on white background
- Nameplates on sub-panel:** Veratronics heat sensitive tape--black on white
- Paint:** Exterior ANSI 61 light grey, Interior white epoxy

The following **computer-generated drawings** are provided for each panel:

- Schematic wiring diagram, JIC ladder type
- Electrical bill of material
- Door wiring diagram
- Field wiring diagram
- Sub-panel component layout drawing
- Panel assembly drawing
- Sequence of operation



WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and insurance Underwriters recommendations, and care in operation.



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