If the *Standard* is the Flame-Monitor™ ...

For the past 20 years, from the introduction through the continuous improvement of the Flame-Monitor system, Fireye has continually set new standards in the development of burner controls. With the use of microprocessors, Fireye has brought a new level of intelligence into the operation of a burner. Controls have become smarter, more accurate, and more reliable resulting in more dependable operation. Using digital signal processing techniques, the operation of a burner with a Fireye Flame-Monitor control is now less dependent on environmental conditions that can lead to wide and undesirable operating margins.

The Flame-Monitor is the benchmark by which all other burner controls are measured.

... then *Perfection* is BurnerLogix™

- Smaller footprint saves space
- Bright vacuum fluorescent display
- SMART LED's for status and diagnostics
- Keypad configurable parameters
- Expanded keypad functions
- Built-in language selection
- Plug-in programmer modules
- Expanded programmer functions
- Pigtail pre-wired wiring base available
- Din rail mount
- Enhanced communications
- International approvals

A Burner's Favorite Control

PRIMARY SAFETY CONTROLS

BurnerLogix Primary Safety Controls provide full function to basic control for all your application needs. BurnerLogix is a small and compact package filled with big features and huge benefits.

BurnerLogix™ Features Include:

- Keypad configured parameters
- Bright Vacuum Fluorescent Display
- NEM4 display mounting
- SMART LED's – provides status and lockout codes
- Keypad selectable languages
- Smaller size than E110
- Din rail mounting
- Pigtail or terminal block style wiring base
- Automatic 8 hour burn-in based on burner on time
- Valve proof of closure during standby and startup
- Enhanced communications, Adjustable baud rates
- 4-20 mA test jack signal
- Additional inputs and outputs

BurnerLogix™ Benefits Include:

- Fewer programmer modules to inventory
- Variable parameters help resolve all applications
- Reduced downtime, pinpoint diagnostics
- Cabinet mounting space reduced by 40% to 50%
- Wires pre-marked for ease of installation
- Added safety during idle or off periods
- Easily adapts into most building management systems
- Improved turndown control from Plant Master

Differentiators

1. Size – footprint reduced to 20 in^2 from 40 in^2 with pigtail wiring base
2. Size – footprint reduced to 28 in^2 from 40 in^2 with terminal block wiring base
3. Display – LCD, expanded cold temperature to -25° C
4. Display – VFD, increased brightness, operates to -40° C
5. Expanded keypad – forward and reverse keys simplifies parameter selection
6. Pre-wired base – ease of installation, no wires to cut
7. Smart LED's – provides status and lockout codes
8. 4-20 mA test jack signal
9. Keypad configurable parameters – reduced inventory
10. 8 hour burn-in based on burner on time – less chance of mistake
11. Proof of closure during standby
12. Terminal block wiring base – allows testing with control installed
13. Able to provide YP138 function
14. Additional inputs
15. Additional output for secondary valve, ignitor, etc
16. Adjustable baud rates for modbus communications

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The Combustion Control Specialists

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BL-CS1
Jan. 2005

PRIMARY SAFETY CONTROLS

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BURNERLOGIX System Components

CHASSIS/AMPLIFIER

120 VAC, 50/60 Hz
YB110UV
YB110UVSC
YB110IR
YB110FR
YB110DC

FRONT VIEW
(WITH OPTIONAL DISPLAY INSTALLED)

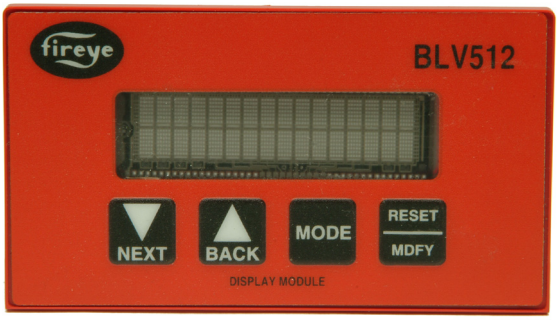
SIDE VIEW
(WITH OPTIONAL PROGRAMMER AND DISPLAY INSTALLED)

PROGRAMMER MODULE

YP100
YP102
YP200
YP202
YP300
YP302
YP113
YP138

DISPLAY MODULE

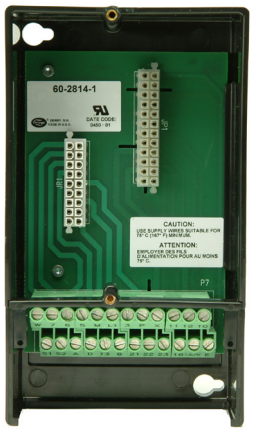
BLV512 - VACUUM FLUORESCENT
BLL510 - LIQUID CRYSTAL



WIRING BASE

60-2814-1
OPEN BOTTOM
CABINET MOUNT

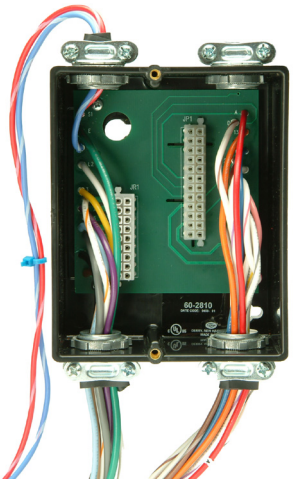
60-2812-1
CLOSED BOTTOM
CONDUIT KNOCKOUT



60-2814-1 SHOWN

WIRING BASE

60-2810-1
PRE-WIRED
4 FOOT
COLOR CODED



THINK - MAXIMUM SAFETY
THINK - SOLID DEPENDABILITY
THINK - LONG TERM RELIABILITY

Think BurnerLogix from Fireye!

With the introduction of the new Adaptive Infrared (IR) Amplifier technology, the BurnerLogix becomes one with the burner, no matter which fuel is being burned.

Built in techniques and algorithms allow the BurnerLogix to learn the characteristics of the fuel being burned and set its internal thresholds to optimize detection under all conditions. And when firing conditions change for the worse, the Adaptive IR system reacts properly and safely shuts the burner down.

The BurnerLogix has a smaller footprint than previous offerings, almost 50% less. With the keypad selectable parameters, most applications requirements are easily solved with one programmer module, resulting in less inventory of spare parts.

New features like 'revert to pilot' can increase a burner's turndown capability. The new pigtail wiring base can save time and labor at the OEM's and can make upgrading existing installations easy and quick.

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BL-CS4 1/06

BurnerLogix Adds Boiler Control to Flame Safeguard

The BurnerLogix flame safe guard burner management system is now offered with boiler control functions.

The Z model variation now directly controls the output firing rate based on either input pressure or temperature or both. Through the display, the operator programs the desired setpoint, cut in, cut out and modulating range and with PID control, the BurnerLogix controls the burner/boiler from start up through shutdown, maintaining the desired setpoint.

The user friendly commands in the menu driven display make setting the boiler parameters easy and understandable. Added features and functions make burner operation versatile, dependable and reliable.

BurnerLogix Z Model Features Include:

- All in one package – same small footprint as Y model
- Uses same YP programmers as Y model – no excess inventory
- Multiple input pressure ranges available to cover all applications
- Multiple temperature transducers with range up to 752 F
- Temperature probes available in various lengths.
- Programmable proportional band provides proper response to demanding loads
- Integral and derivative functions provide exact control over setpoint
- Dedicated 4-20 mA command rate output
- Standby water keeps boilers at the ready
- Thermal shock with low fire hold or timed override
- Multiple lead/lag inputs provide assured response and scheduled service
- Lag-to-start delay prevents premature start-up
- Lead-to-lag delay allows new lead boiler to get on line
- Outdoor temperature can be used to disable burner operation
- Auto / Manual firing rate control with bumpless transfer

- Modbus built-in
- Revert to pilot function expands burner turn down ratio
- Password protected parameters

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BL-CS5
Jan. 2006

AN INCOMPARABLE DUO

The Z model is the newest member of the BurnerLogix family. The Z model combines proven flame safeguard with boiler control in one compact package. With the Z, you can now directly control the output firing rate based on either input pressure or temperature or both.

Through the display, the operator programs the desired setpoint, cut in, cut out and modulating range and with PID control, the BurnerLogix Z controls the burner/boiler from start up through shutdown, maintaining the desired setpoint.

The user friendly commands in the menu driven display make setting the boiler parameters easy and understandable. Added features and functions make burner operation versatile, dependable and reliable.

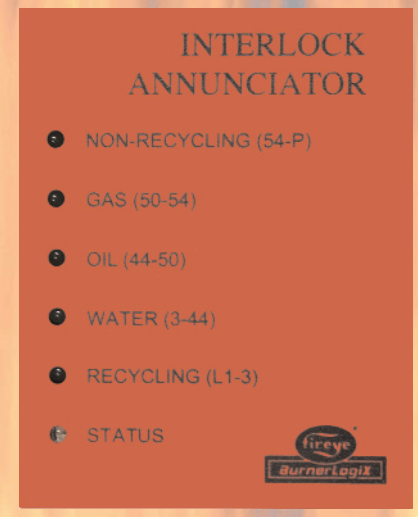
ZB110

- Dedicated 4-20 mA command rate output
- Standby water keeps boilers at the ready
- Thermal shock with low fire hold or timed override
- Integral and derivative functions provide exact control over setpoint
- Lag-to-start delay prevents premature start-up
- Programmable proportional band provides proper response to demanding loads
- Multiple lead/lag inputs provide assured response and scheduled service

A Lockout Occurs!

The display indicates 3-P INTLK OPEN. So what could it be? Low Water, Low Gas Pressure, High Gas Pressure, High Temperature, Combustion Air Flow? Now you need to go through a timely detailed checkout of each of the interlocks. And only if you have a wiring diagram! You probably just wasted a day and during this time, the boiler is down causing the customer process time or building heat.

The best solution is to connect a FIREYE YZ300 Interlock Annunciator. When a lockout occurs the exact message indicating the exact interlock is sent to the display, saving you time, money and quite possibly enhancing your reputation as a burner service technician.



YZ300

Downtime is MINIMIZED!

The YZ300 provides 4 interlocks in the recycling circuit and 16 in the non-recycling circuit. And each message is programmable either from the integrated library of messages or through the easy to use Windows based YZ300P message programmer. Each message can be up to 40 characters long. The FIREYE YZ300 Interlock Annunciator Module connects to any YB110 or ZB110 BurnerLogix chassis/amplifier by means of a cable. (P/N ED580-4, ED580-8).

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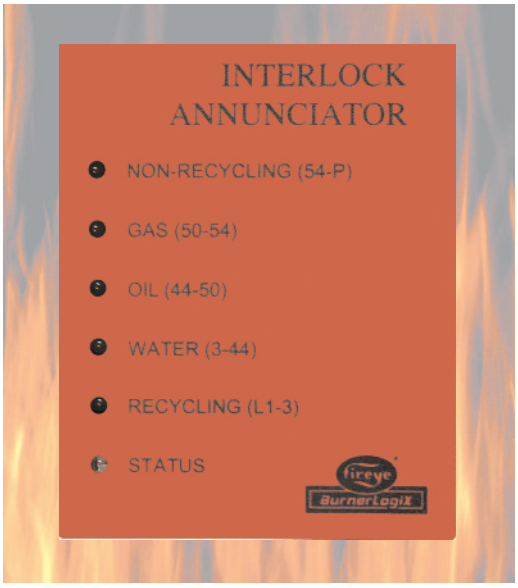
INTRODUCING

fireye BurnerLogix

YZ300 INTERLOCK ANNUNCIATOR
for all BurnerLogix Systems



The FIREYE YZ300 Interlock Annunciator Module provides increased interlock supervision capability of the BurnerLogix System. The Interlock Annunciator Module ***simply*** connects to any YB110 or ZB110 BurnerLogix chassis/amplifier by means of a low cost cable.

By wiring any of **twenty** interlock switches into the Interlock Annunciator Module, the BurnerLogix display automatically acts as a **"first-out"** annunciator. In addition, a fuel selection circuit provides full annunciation even if two fuels are fired simultaneously!

The YZ300 is shipped with default messages associated with each set of terminals. LED's are provided that will blink to indicate what section of the L1-3 and 3-P circuit is open.

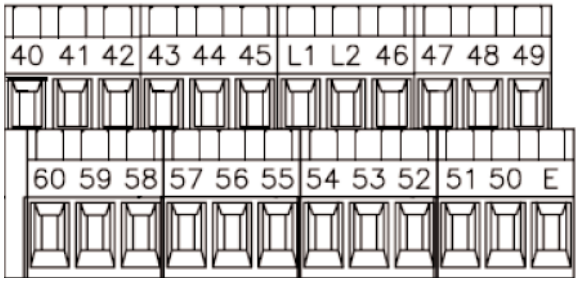
Since any interlock message can be modified, the arrangement of interlocks is your choice, making retro-fits easy!

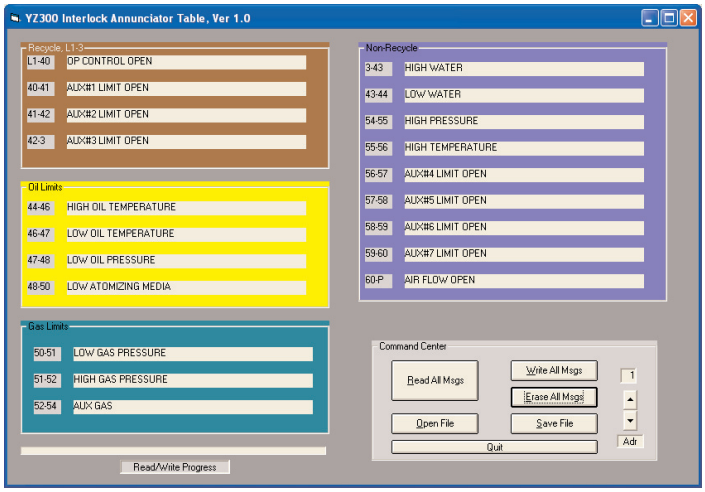
Messages are modified in one of two ways: select from a **built-in library** of messages through the display or **program** a customized message using Fireye's easy to use Windows based YZ300P program. Each custom message can be up to 40 characters in length. Program messages can be saved to the user's PC and recalled later if necessary.

All customized messages are stored in the YZ300. The YZ300 does not require connection to a BurnerLogix system to be custom programmed.

The wiring bases for the YZ300 (60-2872-1 and 60-2874-1) measure 4 in. wide by 7 in. tall, consuming a minimum amount of cabinet space. The wiring bases contain a 24 position terminal block, each position clearly numbered for easy identification.

Each terminal can accept up to 2 type 14 AWG wires and each terminal is a clamp type terminal to assure a good mechanical connection that provides sufficient pressure against the wire.





All BurnerLogix products utilize industry standard Modbus-RTU as the communications protocol. Fireye offers at ***no charge*** the YZ300P to be used for programming custom messages with any Windows based PC. (Consult Fireye on how to get it!) Simply click on any interlock position to get a pop-up dialog box, enter your custom message, click on the WRITE command and you're done!

The YZ300P is also used to upload and download messages to and from the YZ300P. Custom files can be saved and later retrieved for quick and easy programming.

The YZ300 does not require connection to a BurnerLogix system for programming.

With Modbus-RTU, each interlock position can be monitored during burner operation, giving you total control over system operation.

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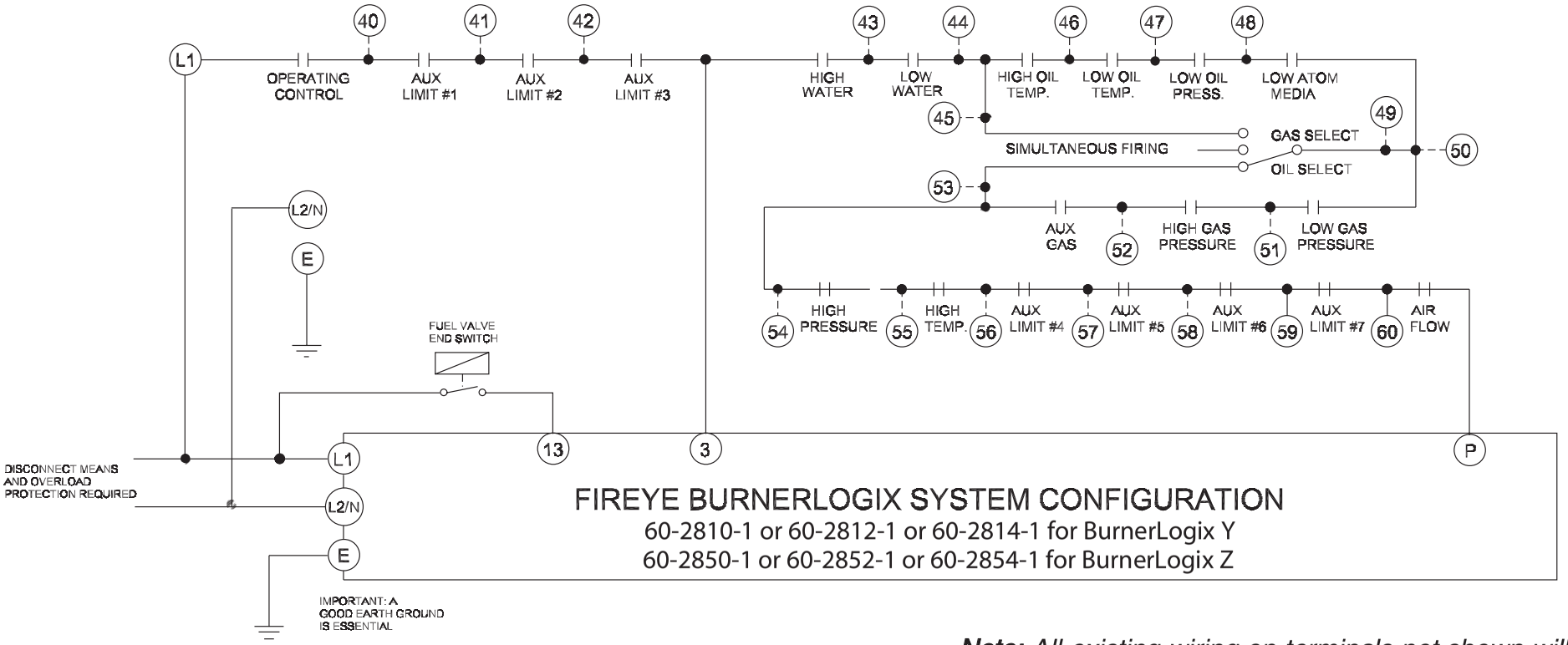
BL-CS7
Jan. 2007

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
YZ300	Interlock Annunciator Module used with the YB110 or ZB110 BurnerLogix chassis/amplifier
60-2872-1	Wiring base, terminal blocks, closed with knockouts
60-2874-1	Wiring base, terminal blocks, open end
ED580-4, -8	YB110 or ZB110 to YZ300 interconnection cable in 4' and 8' lengths
YZ300P	Windows based software for programming custom messages

WIRING DIAGRAM FOR DEFAULT MESSAGES



Note: *All existing wiring on terminals not shown will be undisturbed when the YZ300 is installed.*

Remove all power from the BurnerLogix control and the YZ300 before wiring.

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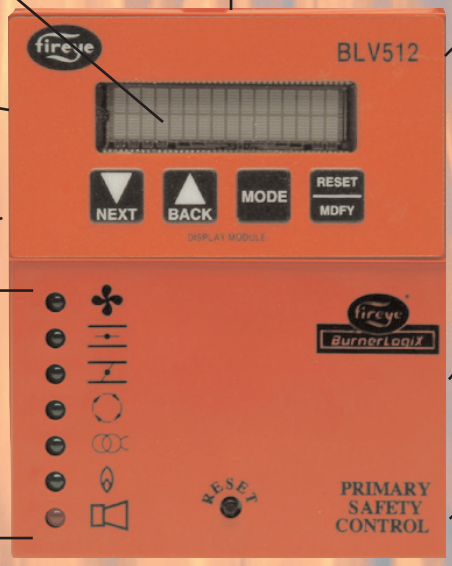
fireye BurnerLogiX

Single Point Modulation

VFD or LCD Displays

Smallest Package Size

Plug-in Programmers



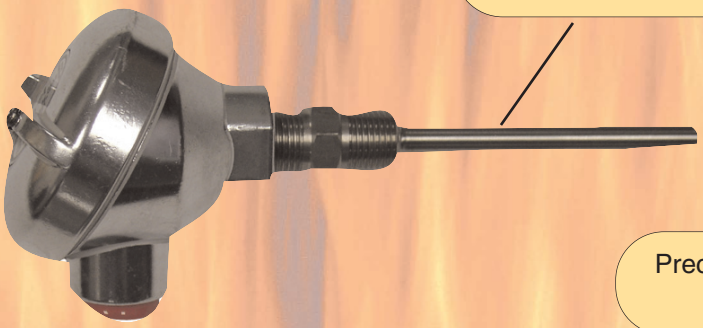
Total Control Integration
- Built-in Flame Safeguard
- Complete Boiler Control
- PID Control
- Built-in MODBUS-RTU

Best system for CB-HAWK or BCS7700 UPGRADES

YZ300 Interlock Annunciator Connection Port

SMART LED's show status and alarms

Precision Temperature Transducers (Thermowells included)



Precision Pressure Transducers (15, 30, 200, 300 psig)

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BL-CS8
February 2007