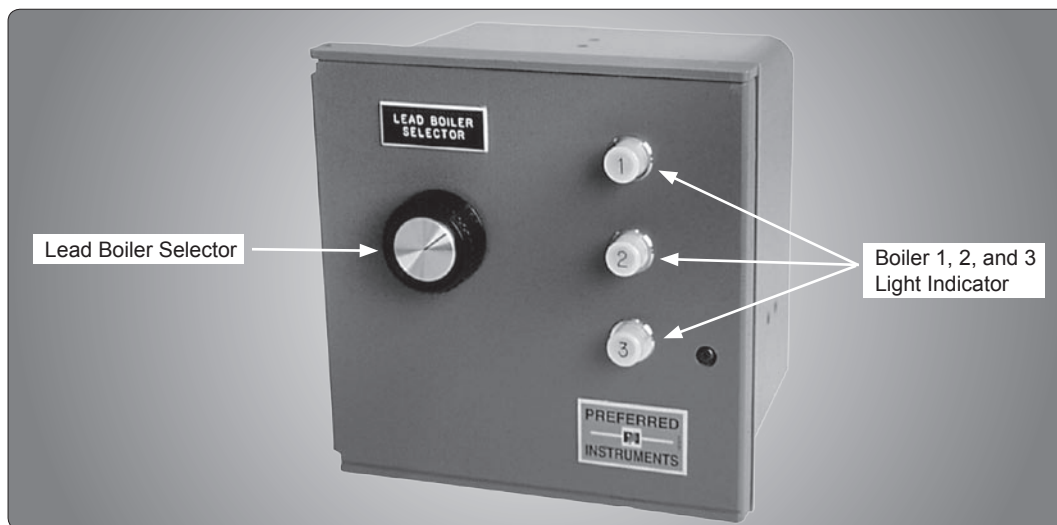


# CHIEF DISPATCHER MODEL JC-CDDF & JC-CDBF

Steam or Hot Water Boiler Lead/Lag Controller

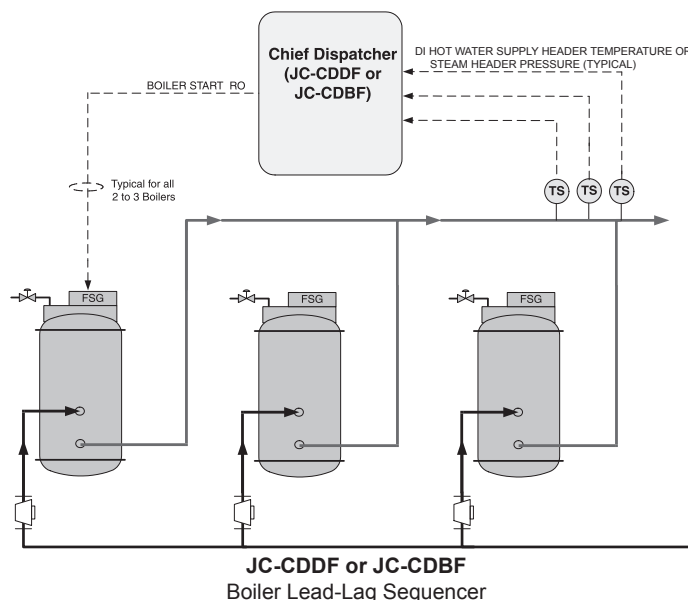


Chief Dispatcher Model JC-CDBF shown above

## Application

The Chief Dispatcher **Model JC-CDDF** and **JC-CDBF** Lead/Lag Sequencers are great lower-cost (though less robust) alternatives to the modulating version. The JC-CDDF and JC-CDBF are suitable for new or existing steam or hot water installations, irrespective of fuel type, firing rate controller, or boiler safety controls. These sequencers do not interfere with the operation of any boiler safety or firing rate controller.

- **2, 3, or 4 Boilers** – Supply header pressure or temperature is maintained by sequencing the on/off operation of up to four boilers to fulfill changing load conditions.
- **Steam or Hot Water Switch Inputs** – The temperature and pressure sensors are the standard, direct-acting on/off type.
- **Rugged Controller Housing** – The controller is housed in a die-cast aluminum case suitable for flush or surface mounting.
- **Manual Lead Boiler Selection (Basic Model JC-CDBF)** – To equalize equipment usage rate, the lead boiler is selectable at any time. Standby (lag) boilers always fire in numerical sequence.



- **Automatic Lead Boiler Alternation (Alternating Model JC-CDDF)** – When “Auto” is selected, the lead boiler is automatically rotated with each call for operation. Alternatively, the operator may select the lead boiler. Standby (lag) boilers always fire in numerical sequence.

## Ordering Information

Specify “Chief Dispatcher” Lead-Lag Sequencer Basic Model or Alternating Model:

Basic System:

Boiler Quantity	Catalog Number
2	JC-CDBF2
3	JC-CDBF3
4	JC-CDBF4

Alternating System:

Boiler Quantity	Catalog Number
2	JC-CDDF2
3	JC-CDDF3

Specify pressure or temperature sensors (one per boiler):

Catalog Number	Service	Adjustable Differential	Type
12477/16595*	2-15 PSI	1-6 PSI	SPST
12435/16595*	5-50 PSI	4-12 PSI	SPST
12471/16595*	10-150 PSI	8-16 PSI	SPST
12482/16602**	110-290° F	5°-30° F	SPST

\*Pressure sensors include syphon loop.

\*\*Temperature sensors include ½" thermowell

# CHIEF DISPATCHER MODEL JC-CDDF & JC-CDBF

## Suggested Specifications

Supply a fully integrated lead/lag sequencer to coordinate the operation of two (select up to four) steam or hot water boilers. The decision to add or delete boilers from operation will be based on boiler loading conditions. The controller shall be housed in its own dust-tight, die-cast aluminum housing, complete with gasketed hinged door for flush or surface mounting.

A rotary lead boiler selector switch shall be externally accessible and on the controller's front door. Additionally, a pilot light shall be provided for each boiler. The pilot light shall be mounted and wired so as to illuminate when the controller is calling for additional system capacity.

All connections to the lead/lag sequencer shall be electrical (i.e. no capillary tubes or pressure connections are to be connected at the control). To avoid the possibility of electrical feedbacks or cross phasing, the program control will completely isolate the individual burner control circuits.

Load demand shall be detected by (pressure or temperature) switches mounted in a common system header. Each boiler requires its own pressure or temperature sensor provided in other sections of this specification. All firing rate (high-low or modulating) and flame safeguard controls are assumed to be existing and in proper working order as required by other specification sections.

Select the following for Automatic Lead Boiler Alternating Operation, **Model JC-CDDF or JC-CDBF**

Boiler operation shall be as follows: the selected lead boiler will fire on demand. If the lead boiler is unable to satisfy the load, the lag boiler will automatically be brought on line. To avoid short cycling of the lag boiler, both boilers will operate in "Unison" (all at the same firing rate) to satisfy the demand. As the demand is satisfied, the boilers will be brought off-line in reverse sequence. With the lead boiler selector switch placed in the "Auto" position and the demand fully satisfied, on each subsequent call for operation the lead boiler designation will alternate. Should any burner fail, or be manually turned off, the next boiler will automatically be programmed to turn on if required.

Select the following for Manual Lead Boiler Selection Operation, **JC-CDDF[BF]**

Boiler operation shall be as follows: The selected lead boiler will fire on demand. If the lead boiler is unable to satisfy the load, the lag boiler(s) will be automatically brought on and off in numerical sequence as required by load conditions. Should any burner fail, or be manually turned off, the next boiler will automatically be programmed to turn on if required.

The control system shall be a Preferred Instruments, Danbury, CT, **Model JC-CDDF[BF]-x** ('x' = boiler quantity from 2 to 4).

### Specifications

#### Panel Details

Power Supply: Voltage Input: 120 VAC, 60 Hz, (240 VAC, 60 Hz optional)  
Case Size: 8" H x 8" W x 4.87" D  
Enclosure Type: Flush or Surface mounted

#### Inputs

Hot Water Header: Dry Contact, 8 FLA, ½ HP, 120 VAC (each boiler)  
Pressure Header: Dry Contact, 8 FLA, ½ HP, 120 VAC (each boiler)

#### Outputs

Boiler Start: Dry Contact, 8 FLA, ½ HP, 120 VAC (each boiler)

