

# Automatic Transfer & Bypass-Isolation Switches for Fire Pump Service



## Automatic Transfer & Bypass-Isolation Switches for Fire Pump Service

Firetrol® Automatic Transfer & Bypass-Isolation Switches are designed to be used with any Firetrol® Electric Fire Pump Controller (see publication DP1000-20 for information on these controllers). The entire package of Automatic Transfer & Bypass-Isolation Switch and Electric Fire Pump Controller is completely factory assembled, wired, tested and shipped as a complete unit for easy field connection to the power sources and the fire pump motor.

Automatic Transfer & Bypass-Isolation Switches are designed for critical applications where the transfer switch cannot be taken out of service for maintenance or repair purposes; these applications include health care facilities, data centers, retirement facilities and correctional institutions.

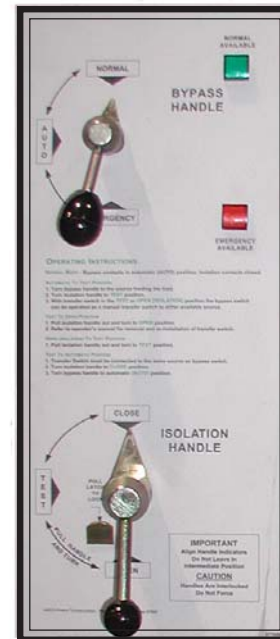
### Approvals

Firetrol Automatic Transfer & Bypass-Isolation Switches are listed by Underwriters Laboratories, Inc. for transfer switch service and also meet the requirements of NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection* and NFPA 70, *National Electrical Code*. The Automatic Transfer & Bypass-Isolation Switches are listed by Underwriters Laboratories, Inc. under UL-1008, *Automatic Transfer Switches*, as well as UL-508, *Industrial Control Equipment*. They are approved by the City of New York for fire pump service.

### Construction

The power transfer switch and the electric fire pump controller are assembled in separate but connected NEMA type 2 enclosures. All wiring between the two enclosures is completed by Firetrol. The enclosure containing the Automatic Transfer & Bypass-Isolation Switch has an externally mounted handle for operating the emergency power source isolating disconnect switch. The operating handle has a mechanical interlock so that the enclosure door cannot be

opened with the isolating disconnect switch in the ON position. The transfer switch BYPASS and ISOLATION handles are located behind a tamper-resistant glass panel door accessible from the front of the enclosure.



**Bypass and Isolation Operating Handles**

### Switch Features

- ◆ Allows bypass-isolation without load interruption.
- ◆ Bypass switch and transfer switch have identical electrical ratings.
- ◆ Heavy duty mechanical interlocks prevent undesirable operation.
- ◆ Bypass contacts carry current only during bypass mode.
- ◆ Bypass and isolation handles are permanently mounted.
- ◆ Bypass switch is fully rated for use as a manual 3-position transfer switch.
- ◆ Bypass and isolation functions are simple, requiring a total of two operating handles.
- ◆ No toggle switches, push buttons, selector switches or levers are required for bypass-isolation operation.
- ◆ Mechanical indicators show bypass and transfer switch positions.

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### Control

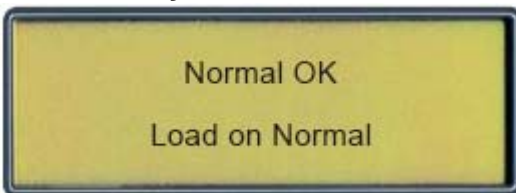
Automatic transfer switch control is provided by an ASCO® Group 5 Microprocessor based control panel. The control panel features a built-in keypad and four-line LCD display, allowing all monitoring and control functions to be done with the enclosure door closed. The six key keypad allows access to the easily navigated menu system to monitor system status or to adjust settings.



**6 Key Interface Keypad with  
4 Line Display**

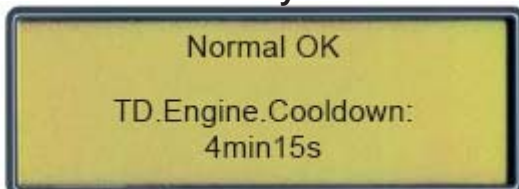
### Sample Display Screens

#### System Status



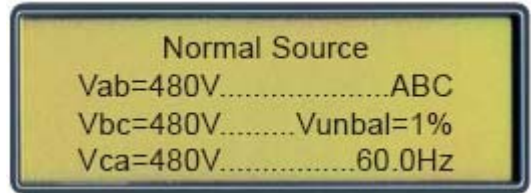
Displays system status in clear, concise language. Message shown indicates normal source is acceptable and the load is connected to the normal source.

#### Time Delay Status



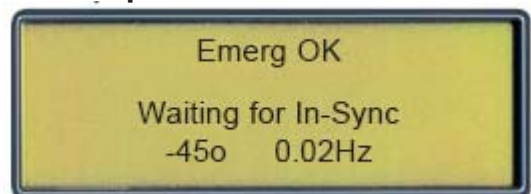
Active time delay status displays time remaining until next control event.

#### Source Status



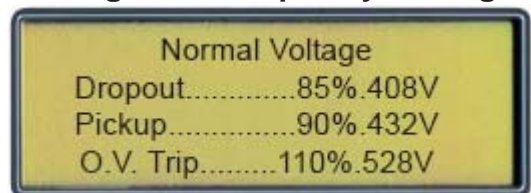
Displays voltage for each phase, frequency, phase rotation and voltage unbalance for both normal and emergency sources.

#### Inphase Transfer Mode



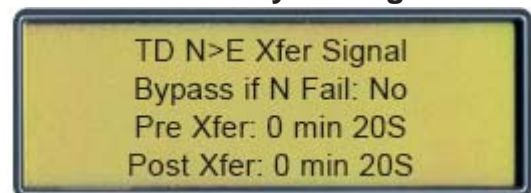
Displays the relative phase angle between sources and frequency differential to indicate the controller is awaiting an inphase condition.

#### Voltage and Frequency Settings



Provides voltage and frequency setting values for normal and emergency sources. Voltage pick-up, dropout and trip settings are set in percentage of nominal voltage and are also displayed in ms voltage values.

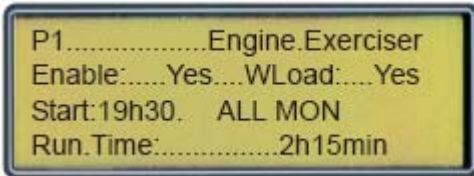
#### Time Delay Settings



Provides direct reading display for setting time delays.

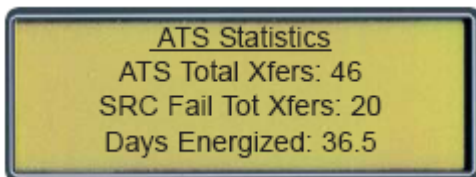
## Automatic Transfer & Bypass-Isolation Switches for Fire Pump Service

### Engine Exerciser



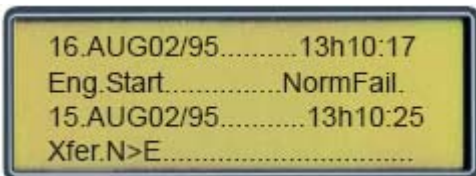
Seven independent programs, load/no load selection, flexible run times and daily, weekly, bi-weekly and monthly exercise routines.

### ATS Statistics



Instant availability of statistical information on total number of ATS transfers, number of transfers caused by power failures and total days energized, plus more.

### Historical Event Log



Displays detailed information for the last 99 events, including time of occurrence, length of event, date and reason for event.

### Configurations

Firetrol® Automatic Transfer & Bypass-Isolation Switches are available in two configurations:

FTA901 - When the emergency power source is supplied by a generator.

FTA951 - When the emergency power source is a second utility.

### Short Circuit Current Rating

The short circuit current ratings for the emergency power source side of the power transfer switch are:

#### FTA901

150-400 Amp Switch, 200-480 Volts - 35,000 ka RMS Sym.  
550-600 Volts - 22,000 ka RMS Sym.  
600-800 Amp Switch, 200-600 Volts - 50,000 ka RMS Sym.

These short circuit ratings apply when the generator set is protected by a molded case circuit breaker (supplied in the generator control panel by the generator manufacturer).

The rating of the normal power source side of the transfer switch will be the same as the rating of the fire pump controller assembled with the power transfer switch.

#### FTA951

The short circuit current rating for the normal power source and the emergency power source side of the power transfer switch will be the same as the rating of the fire pump controller assembled with the power transfer switch.

# Firetrol®

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