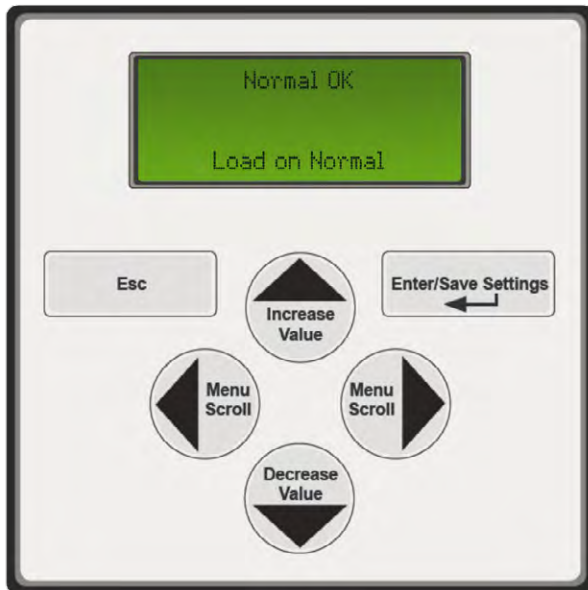


The Group 5 Controller is the most reliable and field-proven transfer switch controller in the industry.



It provides all of the voltage, frequency, control, timing, and diagnostic functions required for most emergency and standby power applications.

Because severe voltage transients are frequently encountered in industrial distribution systems, the controller's logic board is separated and isolated from its power board. This enhances electrical noise immunity and helps assure compliance with the transient suppression standards shown in the table below.

Control Features

- Touch pad programming
- Sixteen selectable operating voltages
- On-board diagnostics provide control panel and ATS status information
- Displays active timing functions
- Selectable multi-language display (English, German, Portuguese, Spanish, or French)
- Password protection to prevent unauthorized tampering of settings
- Remote monitoring and control with ASCO Critical Power Monitoring Appliances CPMA
- Load shed option for bus optimization
- Statistical ATS systems monitoring information

Voltage and Frequency Sensing

- 3-Phase under-voltage and over-voltage settings on normal and emergency sources
- Under-frequency and over-frequency settings on normal and emergency
- True RMS Voltage Sensing with +/- 1% accuracy; Frequency Sensing Accuracy is +/- 0.2%
- Selectable settings single or 3-phase voltage sensing on normal and emergency; 50 or 60Hz
- Phase sequence sensing for phase-sensitive loads
- Voltage imbalance detection between phases

ASCO Group 5 Controller

Time Delays

- Engine start time delay - 0 to 6 seconds
- Transfer to emergency delay - 0 to 60 minutes
- Emergency source stabilization delay - 0 to 6 seconds
- Retransfer to normal delay with two settings:
 - Power failure mode - 0 to 60 minutes
 - Test mode - 0 to 10 hours
- Unloaded running delay for engine cool down - 0 to 60 minutes
- Pre-transfer and post-transfer signal delay - 0 to 5 minutes. This signal can drive a customer-furnished relay, or be used for two sets of double-throw contacts. Specify ASCO optional Accessory 31BG.
- Programmable engine exerciser with seven independent routines to exercise an engine-generator, with or without loads, on a daily, weekly, bi-weekly, or monthly frequency
- Alarm signals, logic, and time delays for use with closed transition switches
 - In synch delay - 0 to 3 seconds
 - Failure to synchronize - 1 to 5 minutes
 - Extended parallel - 0.1 to 1.0 seconds
- Delayed transition load disconnect delay - 0 to 5 minutes


Status and Control Functions

- Output contact (N/O or N/C) for engine-start signals
- Selection between “commit/no-commit” on transfer to emergency when engine starts and normal restores before transfer
- Advanced inphase initiates transfer at appropriate phase angles to minimize disturbances
- Standard event log displays 99 logged events with the time and date of the event, event type and event reason
- Indicators for normal and emergency source acceptability
- Data screens provide:
 - Total number of transfers
 - Number of transfers caused by power source failure
 - Number of days ATS has been in operation
 - Total hours of normal and emergency source availability

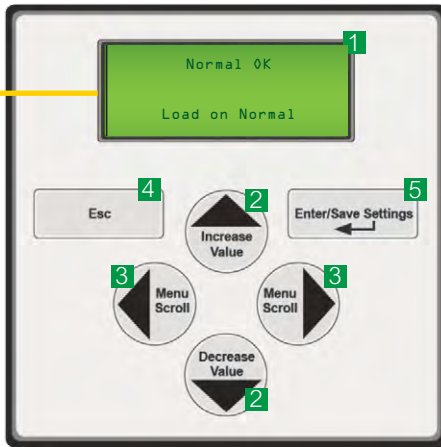
Microprocessor Controller

Emission Standard - Group 1, Class A	EN 55011
Generic Immunity Standard:	EN 50082-2
• Electrostatic Discharge (ESD) Immunity	EN 61000-4-2
• Radiated Electromagnetic Field Immunity	EN 61000-4-3
• Electrical Fast Transient (EFT) Immunity	EN 61000-4-4
• Surge Transient Immunity	EN 61000-4-5
• Conducted Radio-Frequency Field Immunity	EN 61000-4-6
• Voltage Dips, Interruptions and Variations Immunity	EN 61000-4-11

Power Knowledge

 [Timing Delays for ATS Transition Modes](#)

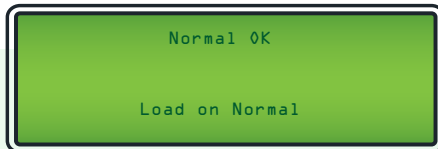
ASCO Group 5 Controller



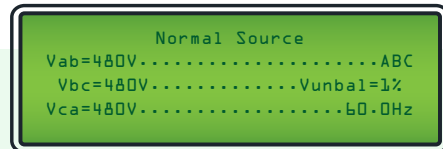
Door-Mounted Control & Display Panel

- 1 Display Screen
- 2 Scroll, Up/Down Arrows
- 3 Scroll, Left/Right Arrows
- 4 Escape Key
- 5 Enter/Save Key

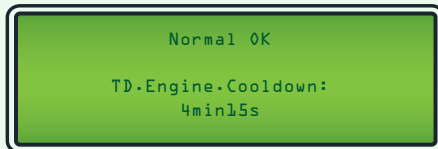
Status



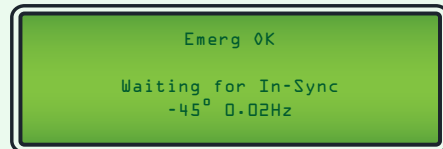
System Status. Displays system status in clear, concise language.



Source Status. Displays voltage, frequency, phase rotation, and voltage imbalance.

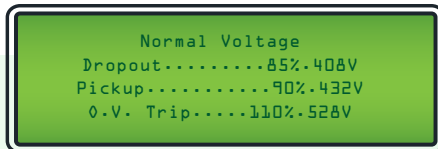


Active Time Delay Status. Displays time remaining until next control event.

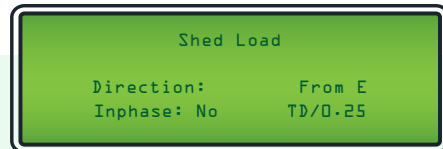


In-Phase Transfer Status. Displays the relative phase angle and frequency differences between sources.

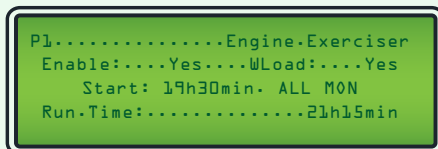
Settings



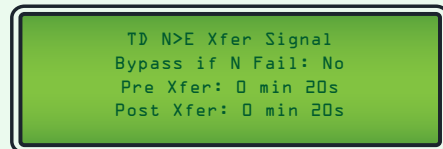
Voltage & Frequency Settings. Voltage and frequency settings for normal and emergency sources. Voltage pick-up, dropout, and trip settings shown as percentages of nominal voltage and as rms voltages.



Feature Settings. Standard features are activated with a keypad. For example, enabling the “shed load” option causes the transfer switch to transfer the load off of the specified source.

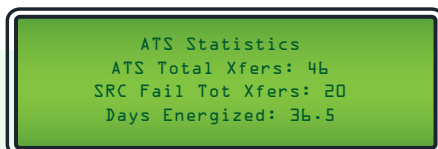


Engine Exerciser. Seven independent programs, load/no load selection, flexible run times, and daily, weekly, bi-weekly, and monthly exercise routines.

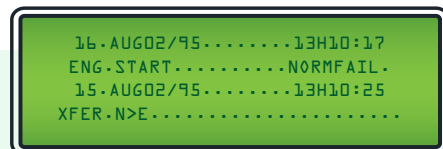


Time Delay Settings. Provides direct reading display for setting time delays.

Data Logging



ATS Statistics. Statistics on total number of transfers, transfers caused by power failures, and total days controller has been energized.



Historical Event Log. Displays detailed information for 99 events, including time of occurrence, duration, date, and reason.