

Series 7000 Frequently Asked Questions

Features

[How do I access the event logs?](#)
[How do I set the transfer time delays?](#)
[How do I communicate with the ATS?](#)
[How do I prevent or inhibit the ATS from transferring?](#)
[How do I set the engine exerciser?](#)
[Is the clock engine exerciser accurate? What is an in-phase monitor?](#)
[How do I specify the ATS?](#)
[What auxiliary features does the ATS offer?](#)
[How does the engine exerciser work?](#)
[Where can I get load shed signals?](#)
[Where can I get pre-transfer and post-transfer signals?](#)
[Where can I get source availability signals?](#)
[Where can I get source availability signals?](#)
[Where can I get switch position contacts?](#)
[Where can I send remote transfer signals?](#)
[What is the default password?](#)

Operation

[Can I adjust the sensing of the controller?](#)
[How do I change the password?](#)
[How do I perform a transfer test?](#)
[How does the ATS work?](#)
[How does the engine exerciser work?](#)
[Is there a preferred source?](#)
[What is the operating temperature of the ATS?](#)

Others

[Literature Request](#)
[Parts Inquiry](#)
[Warranty Issues](#)

Product Installation

[Can the ATS switch between different voltages?](#)
[How do I configure the ATS controller?](#)
[How do I install an ATS?](#)
[What is the maximum length of the control line?](#)
[Where can I get the weight and dimensions of the ATS?](#)
[What size cable or wire can I use for the power connections of the ATS?](#)
[When do I need to connect the neutral?](#)
[How do I specify the type of neutral?](#)
[What is the WCR of the ATS?](#)
[Which breakers are tested with an ASCO transfer switch?](#)

Service

[Can I modify the voltage rating of the ATS?](#)
[How can I extend the feature 1C timer?](#)
[How do I contact a service technician?](#)
[How do I convert an ACTS to an ATS? How do I convert an ATS to an ADTS?](#)
[How do I convert the ATS from 1 \$\Phi\$ to 3 \$\Phi\$?](#)
[How will I know if the controller is damaged?](#)
[What does this alarm message mean?](#)
[What should I do if the indicator lights are faulty?](#)
[Why won't the ATS retransfer to normal?](#)
[Why won't the ATS start the generator?](#)
[Why won't the ATS transfer to Emergency?](#)
[Why won't the engine exerciser work properly?](#)
[Why won't the generator shut-off?](#)

Wiring

[Where do I connect the engine start wires?](#)
[How can I re-wire my power manager connections?](#)

Features

How do I access the event logs?

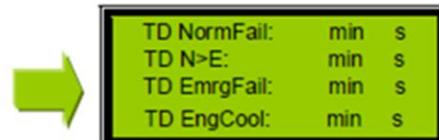
To access the event logs:

1. Go to the Group 5 controller and press the **ESC** button until the display shows
2. Press **Enter/Save Settings**, then **Menu Scroll** until the display shows
3. Press **Enter/Save Settings**, then **Menu Scroll** to view the events.



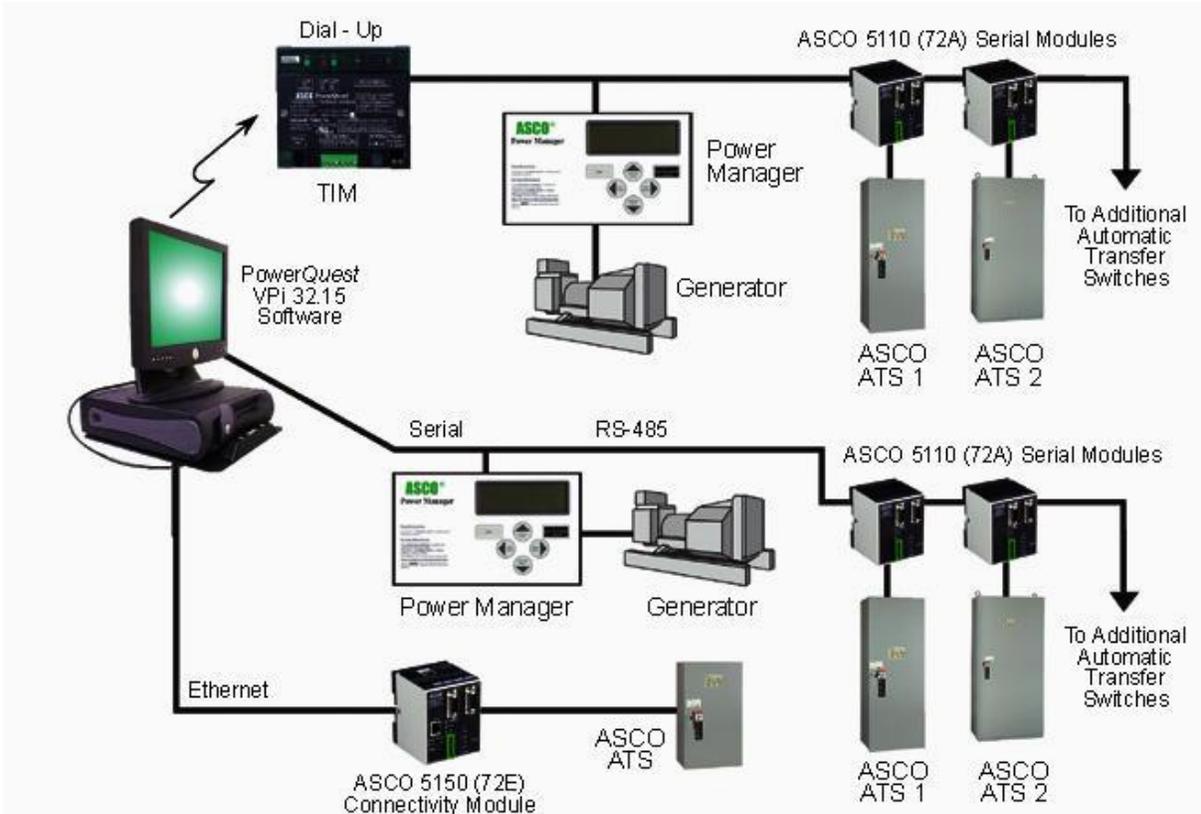
How do I set the transfer time delays?

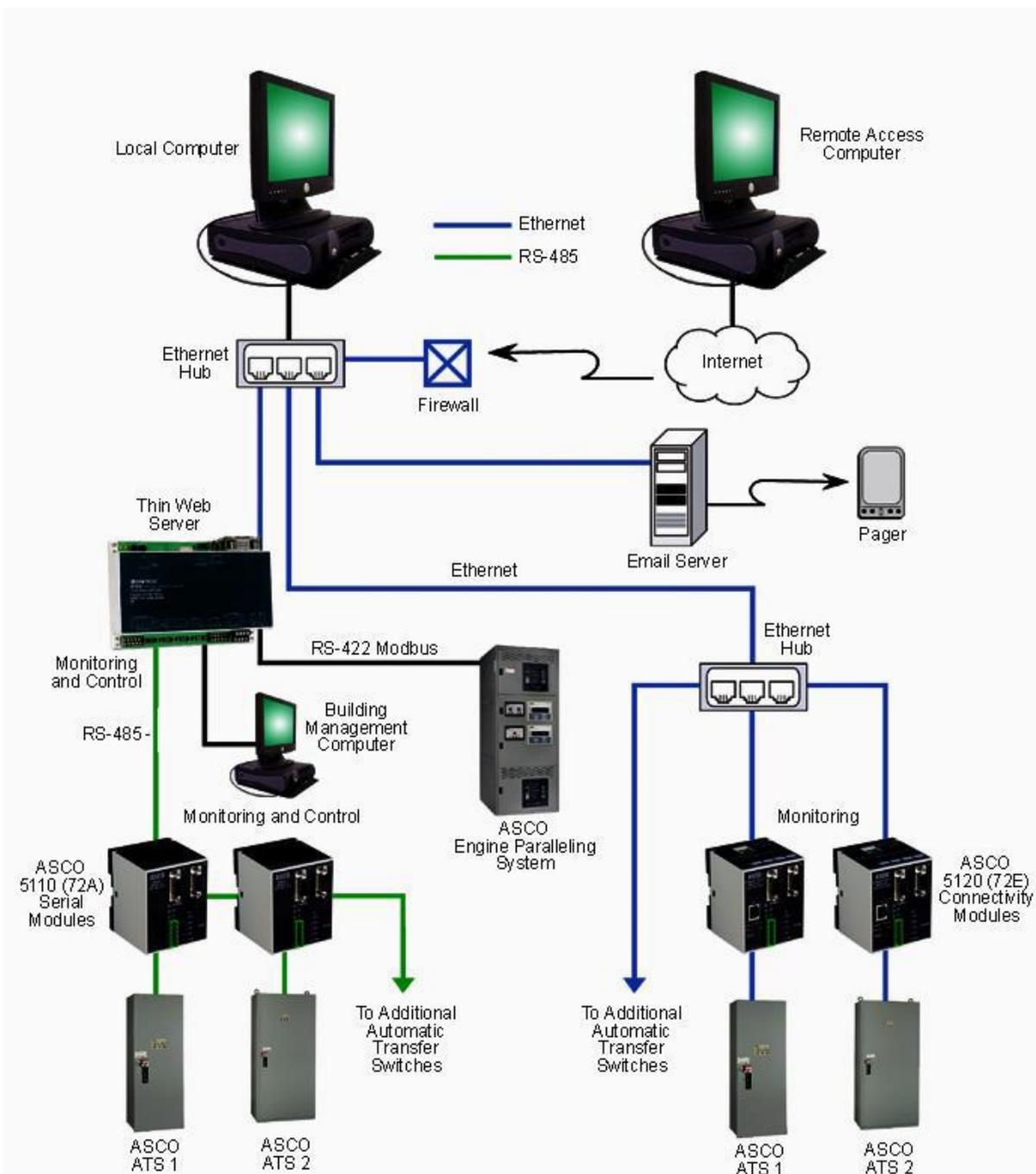
1. Go to the Group 5 controller and press the **ESC** button until the display shows (with normal power available and the load connected to normal)
2. Press **Enter/Save Settings**. Then press *Menu Scroll* until the display shows
3. Press **Enter/Save Settings**. Then press *Menu Scroll* until the display shows the time delay you want to adjust
4. Press **Enter/Save Settings** and change the entry using the *Increase Value* buttons. Press **Enter/Save Settings** to save the entry.



How do I communicate with the ATS?

To communicate with the Series 7000 group 5 controller you will need accessory 72E communication module. With this you can access the group 5 controller to communicate through MODBUS RTU, MODBUS TCP protocols at 9600 and 19.2K-baud rates. For a detailed discussion regarding Communication products and application, go to [Communications Products FAQ's](#).





How do I configure the inhibit transfer signal?

Inhibit features are included in the Factory Selectable Features program of the Group 5 controller, therefore it cannot be modified by the end user. These optional accessories are usually specified by the customer to be included in the ATS's upon ordering. If requested for ATS Site, contact ASCO Services by Dialing 1-800-800-ASCO to arrange a service call.

How do I set the engine exerciser?

To set the exerciser, follow the procedures below:

Engine Exerciser Settings

Unless otherwise specified on the order, the controller engine exerciser settings are set at the factory to the default values. If a setting must be changed, follow the procedure on the next page. Some settings may require a password (if the controller is set up for one).

⚠ CAUTION

Any indiscriminate change in these settings may affect the normal operation of the Automatic Transfer Switch. This change could allow the load circuits to remain connected to an inadequate source

| Parameter | Default Setting | Adjustment Range | Display Screen (see next page) |
|---|-----------------|---|-------------------------------------|
| month | JAN | JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC | PRESENT DATE/TIME Date |
| day | 1 | 1 to 31 | PRESENT DATE/TIME Date |
| year * | 1 | 00 to 99 | PRESENT DATE/TIME Date |
| hour | 1 | 0 to 23 | PRESENT DATE/TIME Time |
| minute | 1 | 0 to 59 | PRESENT DATE/TIME Time |
| engine exerciser enable (P1 to P7) | no | yes or no | P1 ENGINE EXERCISER Enable |
| engine exerciser transfer load (P1 to P7) | no | yes or no | P1 ENGINE EXERCISER wLoad |
| engine exerciser start hour (P1 to P7) | 0 | 0 to 23 | P1 ENGINE EXERCISER Start h |
| engine exerciser start minute (P1 to P7) | 0 | 0 to 59 | P1 ENGINE EXERCISER Start min |
| engine exerciser run week (P1 to P7) | all | all, alternate, first, second, third, fourth, or fifth | |
| engine exerciser run day (P1 to P7) | SUN | SUN, MON, TUE, WED, THU, FRI, SAT | |
| engine exerciser duration hours (P1 to P7) | 0 | 0 to 23 | P1 ENGINE EXERCISER Run Time h |
| engine exerciser duration minutes (P1 to P7) | 0 | 0 to 59 | P1 ENGINE EXERCISER Run Time min |

* For the year 2000, enter 00.

Engine Exerciser Settings

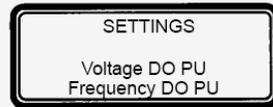
The controller (CP) engine exerciser setting can be displayed and changed from the keypad. Some settings may require a password (if the controller is set up for one).



1



1 From any of the **Status** displays, press **Enter/Save Settings** ↵ key to move to the **Settings** level of menus.



2 Press the **right arrow** ► key to move to **Setting Time Delays** menu.

2

3



4

5



3 Press the **right arrow** ► key again to move to **Settings Features** menu.

4 Press the **right arrow** ► key again to move to **Settings General** menu.



5 Press the **right arrow** ► key again to move to **Settings Engine Exerciser**.

6



6 Now press **Enter/Save Settings** ↵ key to move to the first **Engine Exerciser** menu.



7 You can press the **right arrow** ► key to see the other **Engine Exerciser** menus (as shown below). An overview explanation of each setting is listed below.

8 Engine Exerciser Settings Menus (last menu loops back to first)

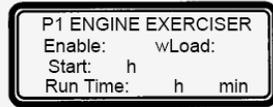
7



Present Date/Time

see page 2-1

This display allows the user to change the controller date and time.



P(1—7) Engine Exerciser(s)

see page 2-1

These displays (P1 through P7) allow the user to set the controller's seven independent engine exerciser routines. Each routine functions in the same manner. Six parameters need to be configured for each routine (P1, P2, P3, P4, P5, P6, P7 — not all have to be used).

Enable — YES enables the routine; NO turns it off.

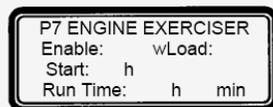
wLoad — YES transfers load to Emergency; NO = no transfer.

Start — when the routine will start the generator

- time (hour, minute)
- week (all, alternate, 1st, 2nd, 3rd, 4th, or 5th week)
- day of the week (mon, tue, wed, thu, fri, sat, sun)

Run Time — duration (length of time) that the generator will run.

Set the seven independent engine exercise routines, if desired.



Is the clock of the engine exerciser accurate?

The engine exerciser clock is moderately accurate. If the generator exercises out of schedule check the following:

- Verify on the event log that the event recorded was an engine exercise.
- The **PRESENT DATE/TIME** setting under the engine exerciser menu should be synchronized with the present date and time.
- The event of engine exercise should fall within any of the enabled P1 to P7 settings.
- The generator should not have its own exerciser program.

After checking all of the above and the problem is still there, contact an ASI service technician.

What is an in-phase monitor?

An In-phase monitor is a motor load transfer feature that monitors the voltage and frequency of the two sources. It ensures that the voltage and the frequency of the two sources are within acceptable phase angles (in electrical degrees) before the ATS transfers the load between two live sources to avoid nuisance tripping on the breakers or physical damage to motors.

How do I specify an ATS?

To specify the ATS, just follow the catalog no. format below:

NOTE: For the series 7000 suggested specifications [click here](#).

Ordering Information

To order an ASCO 7000 Series Power Transfer Switch, complete the following catalog number:

| Product | | | | Neutral Code ⁽¹⁾ | | Phase Poles | Amperes | Voltage Code | | Group Code | Cabinet | | | | |
|---------|-------------------|------------------------|---------------------------|-----------------------------|---------------------|---------------------------|--------------------|--------------------|-----|---|----------------------------|--|-------------------|---|-------------------|
| A | Automatic | TS | Conventional 2 Position | --- | No Neutral | 2 | 30 | A | 115 | 5 | --- | No Cabinet | | | |
| | | | | | | | 70 | B | 120 | | C | Type 1 enclosure | | | |
| | | 100 | C | | | 208 | E | Type 2 enclosure | | | | | | | |
| | TB | Open Transition Bypass | A | | | Solid Neutral | 3 | 150 | D | 220 | 5X Optional accessories | F | Type 3R enclosure | | |
| | | | | | | | | 200 ⁽²⁾ | E | 230 | | G | Type 4 enclosure | | |
| | | | | | | | 230 ⁽²⁾ | F | 240 | H | | Type 4X ⁽³⁾ enclosure (stainless steel) | | | |
| N | Non-Automatic | CTB | | Closed Transition Bypass | B | | Switched Neutral | 4 | 260 | H | | 380 | - | K | Type 7 enclosure |
| | | | | | | | | | 400 | J | | 400 | | L | Type 12 enclosure |
| | | 600 | | K | | | | 415 | M | Type 3R Secure double door | | | | | |
| | 800 | L | 440 | N | | Type 4 Secure double door | | | | | | | | | |
| | DTS | Delayed Transition | 1000 | M | | 460 | | P | | Type 4X ⁽³⁾ Secure double door | | | | | |
| | | | 1200 | N | | 480 | | Q | | Type 12 Secure double door | | | | | |
| M | Manually Operated | DTB | Delayed Transition Bypass | C | Overlapping Neutral | - | 1600 | P | 550 | - | - | - | | | |
| | | | | | | | 2000 | Q | 575 | | | | | | |
| | | 3000 | R | | | 600 | | | | | | | | | |
| | | 4000 | - | | | - | | | | | | | | | |

*NOTE:

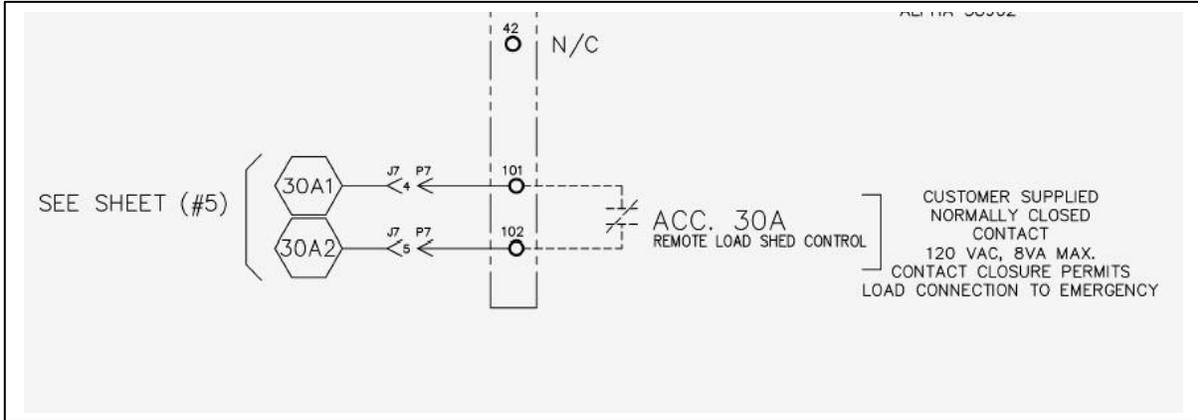
- For 4 pole applications on switches rated 260 to 400 amps (Bypass configurations only) and 4000 amps, specify overlapping switched neutral (optional). Conventional switch neutral is provided on delayed transition transfer products when specified.
- 200 and 230 amp switch limited to 480 volts maximum.
- Type 304 Stainless Steel is standard. Suitable for indoor or outdoor use where there may be caustic or alkali chemicals in use. To provide an improved reduction in corrosion of salt and some chemicals, optional Type 316 Stainless Steel is recommended. This is a preferred choice for marine environments.

What auxiliary control features does the ATS offer?

[Click here](#) to view the list of optional control features that the ATB offer.

Where can I get load shed signals?

A load shed signal is provided by an external source. It is then accepted through accessory 30A or 30B as an add-on circuit that matches the generator capacity with the load. It sends a signal to the ATS to transfer the load back to the alternate source regardless of its availability. It can be signaled by a removal of a voltage or contact closure.



Where can I get pre and post transfer signals on the ATS?

Accessory 31Z is a selective load disconnect that sends a pre-transfer and post transfer signal. The length of the pre and post transfer delays can be set to 0-5 minutes. Refer to your units wiring diagram for reference to the correct points on the customer block.

You can get pre-transfer and post transfer signals from an accessory 31Z (Selective load disconnect contacts) if the transfer switch came with the feature. Refer to the transfer switch wiring diagram and it should look like figure A (but not exactly the same). If you don't have this feature on your switch, contact an ASI technician so they can set-up the feature or call 1-800-800-ASCO (2726) option 1.

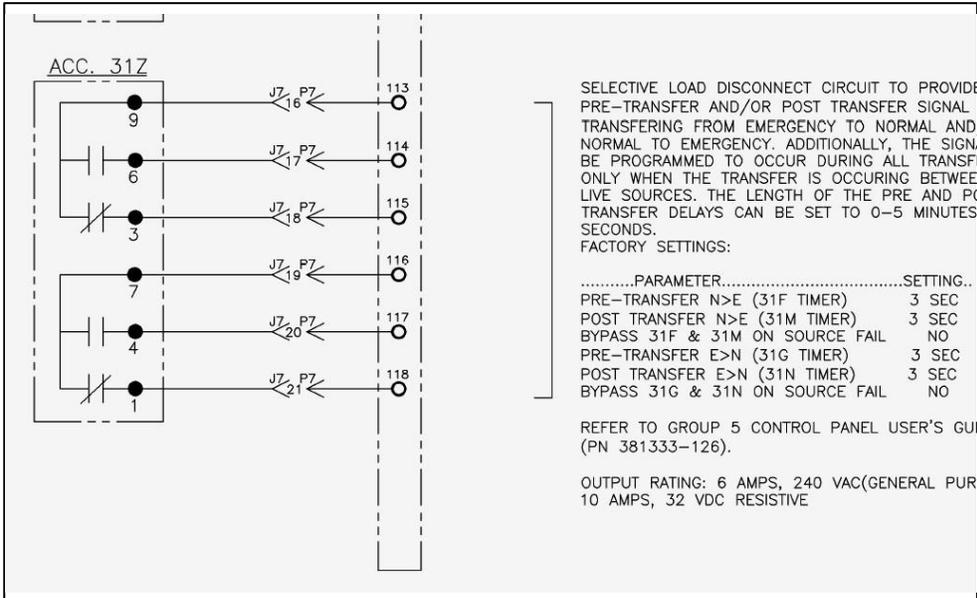


Figure A. Selective load disconnect terminal connections

Where can I get source availability signals?

Accessory 18B/18G or source availability contacts are customer contacts added as optional accessory for the ATS to indicate separate source availability on utility/emergency source regardless of the switch position. Refer to diagram for example.

You can get source availability signals through an accessory 18B or 18G. The terminal connection would look like the one shown on Figure B (but not exactly the same). If you don't have this feature installed on your switch you may contact an ASI technician or 1-800-800-ASCO (2726) option 1 to have it set-up.

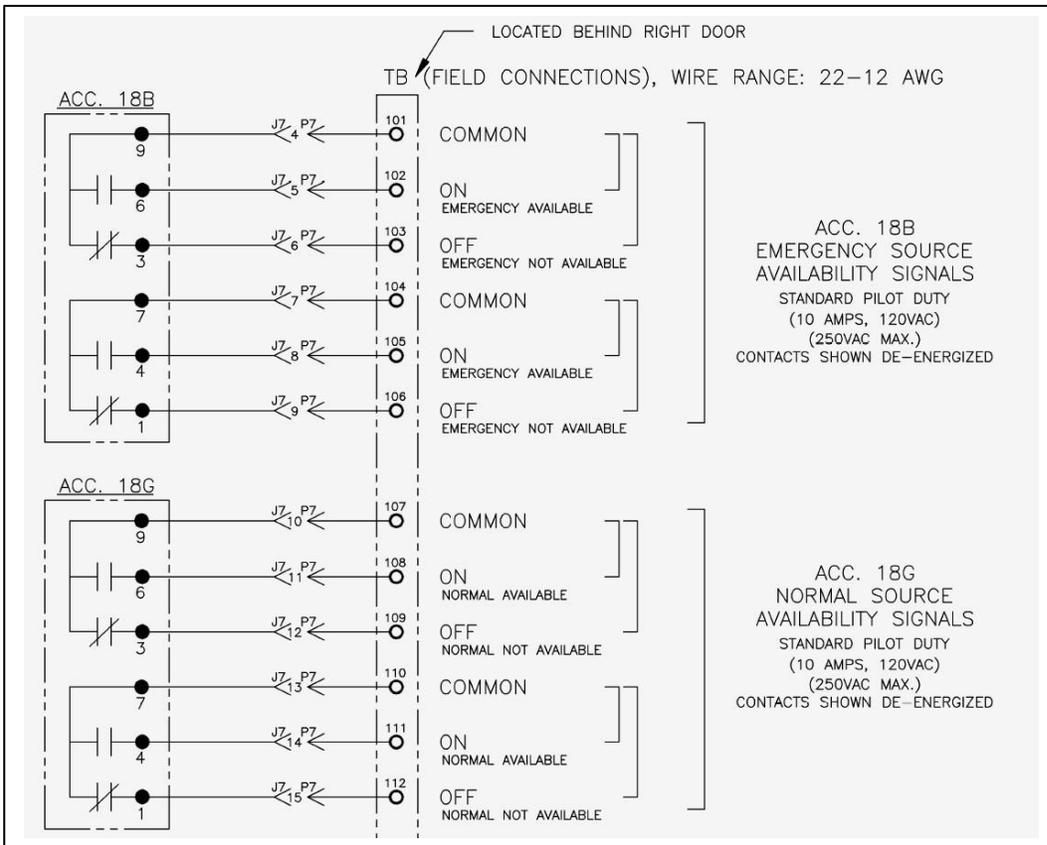


Figure B. Acc. 18B and 18G source availability contacts terminal connections

Where can I get switch position contacts?

Accessory 14 is an additional auxiliary contact to indicate switch position. Two sets are standard (14A/14B). Specify total number of sets if more are required.

Refer to the transfer switch wiring diagram and the terminals connections would look like figure C (But not exactly the same)

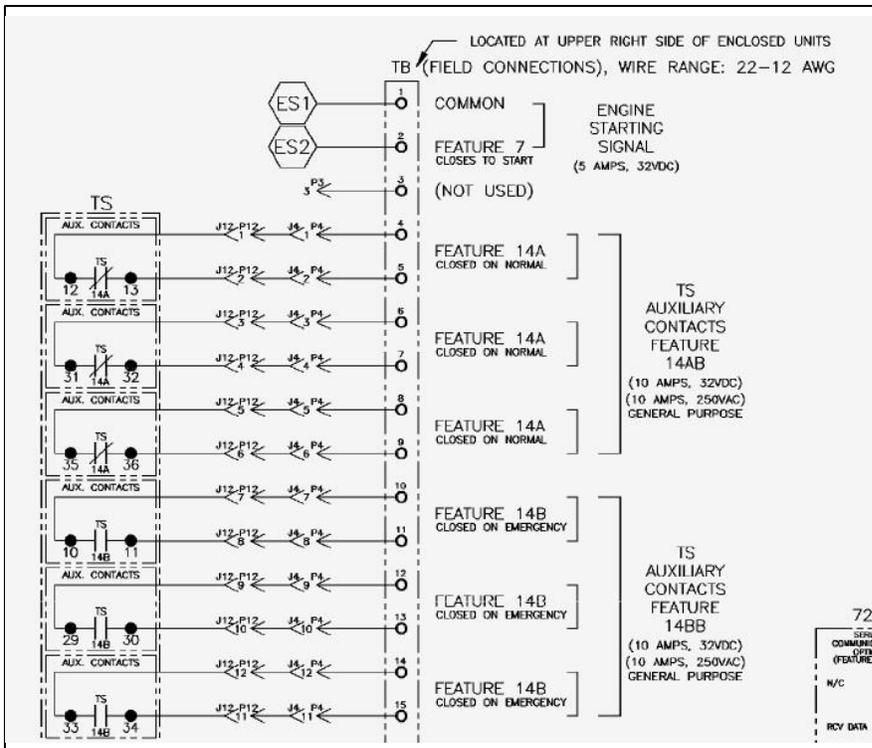


Figure C. Acc. 14A and 14B auxiliary contacts terminal connections

Where can I send remote transfer signals?

Feature 17 or a “remote transfer to emergency feature” is a terminal provision for a remote contact that closes to signal the automatic transfer to emergency and stay in that position while the contact is kept closed. The transfer switch will retransfer to normal if emergency fails and normal source is available.

What is the default password?

The default password for the Group 5 controller is “1111”. [Click here](#) to see how to change the password.

Frequency of Sources

DIP switch actuator 7 selects either 50 or 60 Hz source frequency. See Table C.

Table C. Source Frequency — DIP actuator 7.

| DIP switch actuator | 50 Hz | 60 Hz |
|---------------------|-------|-------|
| 7 | ← | → |

Phases of Normal & Emergency Sources

DIP switch actuators 8 and 9 select either 1 phase or 3 phase for the Normal and Emergency sources. See Tables D and E.

Table D. Normal Source Phases — DIP actuator 8.

| DIP switch actuator | 1 Phase | 3 Phase |
|---------------------|---------|---------|
| 8 | ← | → |

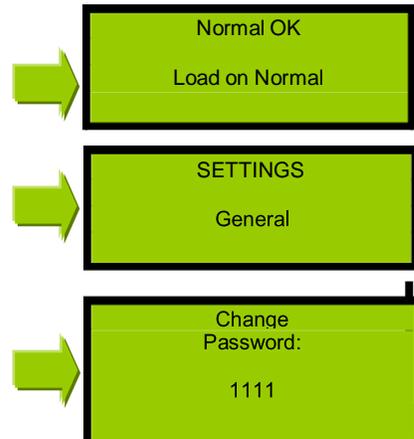
Table E. Emergency S. Phases — DIP actuator 9.

| DIP switch actuator | 1 Phase | 3 Phase |
|---------------------|---------|---------|
| 9 | ← | → |

How do I change the password?

To change the password, follow the steps below.

1. Go to the Group 5 controller and press the **ESC** button until the display shows (with normal power available and the load connected to normal)
2. Press **Enter/Save Settings**. Then press *Menu Scroll* until the display shows
3. Press **Enter/Save Settings**. Then press *Menu Scroll* until the display shows
4. If the password below shows “****”, you’ll need to set DIP switch actuator no. 10 to “Yes” first, before you can change the entry.
5. Press **Enter/Save Settings** and change the entry using the *Increase Value* buttons. Press **Enter/Save Settings** to save the entry.
6. After saving the entry, set actuator no. 10 back to “No” to enable the password.



1111
Table F. Lock Input — DIP actuator 10.

| DIP switch actuator | Yes | No |
|---------------------|-----|----|
| 10 | ← | → |

How do I perform a transfer test?

To perform a transfer test, flip the momentary switch to the transfer test position and hold it for 15 seconds or until the switch actually transfers over.

How does the ATS work?

When referring to an open transition transfer switch, the transfer switch main contacts moves in a quick break - before make mode transition. There is no momentary parallel connection of the two sources and no extended center-off position during transfer. The transition is quick. The ATS controller monitors the voltage and frequency of the two sources (upon re-transfer or any transfer between 2 “live” sources) and ensures that they are in-phase before the load is transferred (if enabled).

How does the engine exerciser work?

The engine exerciser works by closing the engine start contacts and keeping it closed in order to crank and run the generator. The engine start contacts are kept closed until the exerciser operation timer expires (approximately 20 minutes). Controller signals the engine start contacts to open up and shut the generator down completely (after the 5 minute engine cool down period).

For more information please refer to the [User Guide](#).

Engine Exerciser Settings

Unless otherwise specified on the order, the controller engine exerciser settings are set at the factory to the default values. If a setting must be changed, follow the procedure on the next page. Some settings may require a password (if the controller is set up for one).

CAUTION

Any indiscriminate change in these settings may affect the normal operation of the Automatic Transfer Switch. This change could allow the load circuits to remain connected to an inadequate source

| Parameter | Default Setting | Adjustment Range | Display Screen (see next page) |
|---|-----------------|---|-------------------------------------|
| month | JAN | JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC | PRESENT DATE/TIME Date |
| day | 1 | 1 to 31 | PRESENT DATE/TIME Date |
| year * | 1 | 00 to 99 | PRESENT DATE/TIME Date |
| hour | 1 | 0 to 23 | PRESENT DATE/TIME Time |
| minute | 1 | 0 to 59 | PRESENT DATE/TIME Time |
| engine exerciser enable (P1 to P7) | no | yes or no | P1 ENGINE EXERCISER Enable |
| engine exerciser transfer load (P1 to P7) | no | yes or no | P1 ENGINE EXERCISER wLoad |
| engine exerciser start hour (P1 to P7) | 0 | 0 to 23 | P1 ENGINE EXERCISER Start h |
| engine exerciser start minute (P1 to P7) | 0 | 0 to 59 | P1 ENGINE EXERCISER Start min |
| engine exerciser run week (P1 to P7) | all | all, alternate, first, second, third, fourth, or fifth | |
| engine exerciser run day (P1 to P7) | SUN | SUN, MON, TUE, WED, THU, FRI, SAT | |
| engine exerciser duration hours (P1 to P7) | 0 | 0 to 23 | P1 ENGINE EXERCISER Run Time h |
| engine exerciser duration minutes (P1 to P7) | 0 | 0 to 59 | P1 ENGINE EXERCISER Run Time min |

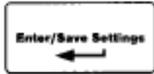
* For the year 2000, enter 00.

Engine Exerciser Settings

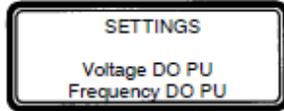
The controller (CP) engine exerciser setting can be displayed and changed from the keypad. Some settings may require a password (if the controller is set up for one).



①



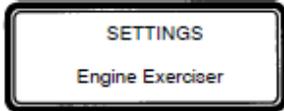
① From any of the Status displays, press Enter/Save Settings key to move to the Settings level of menus.



② Press the right arrow > key to move to Setting Time Delays menu.



③ Press the right arrow > key again to move to Settings Features menu.

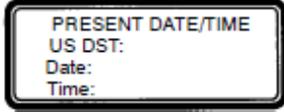


④ Press the right arrow > key again to move to Settings General menu.

⑤ Press the right arrow > key again to move to Settings Engine Exerciser.



⑥ Now press Enter/Save Settings key to move to the first Engine Exerciser menu.

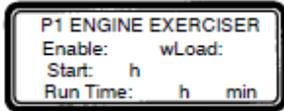


⑦ You can press the right arrow > key to see the other Engine Exerciser menus (as shown below). An overview explanation of each setting is listed below.

8 Engine Exerciser Settings Menus (last menu loops back to first)



Present Date/Time see page 2-1
This display allows the user to change the controller date and time.



US DST — US Daylight Saving Time. APR – OCT, MAR – NOV, or OFF.
MAR – NOV begins in 2007.

P(1—7) Engine Exerciser(s) see page 2-1

These displays (P1 through P7) allow the user to set the controller's seven independent engine exerciser routines. Each routine functions in the same manner. Six parameters need to be configured for each routine (P1, P2, P3, P4, P5, P6, P7 — not all have to be used).

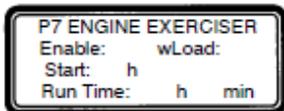
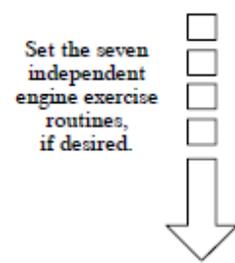


Enable — YES enables the routine; NO turns it off.

wLoad — YES transfers load to Emergency; NO = no transfer.

Start — when the routine will start the generator
– time (hour, minute)
– week (all, alternate, 1st, 2nd, 3rd, 4th, or 5th week)
– day of the week (mon, tue, wed, thu, fri, sat, sun)

Run Time — duration (length of time) that the generator will run.



Is there a preferred source?

Yes, normal (utility) source is considered preferred.

What is the operating temperature of the ATS?

The operating temperature of the 7000 series ATS is 25°C/ 77°F.

Others

Literature Request

[Click here](#) to view the literatures.

Parts Inquiry

For parts inquiry you may log on at <http://www.ascoparts.com/> or dial 1-800-800-ASCO (2726) option 22

Warranty Inquiry

For warranty inquiries, please refer to the standard *Warranty* published on the website or call 1-800-800-ASCO (2726) option 23. (For after sale issues, be sure to take note of the serial no. and catalog no., for a faster response.) Or contact your local distributor.

Product Installation

Can the ATS switch between different voltages?

No. The ATS is designed to get the supply from the source that the transfer switch is connected to. The switch should get the same voltage coming from Normal and Emergency since the same supply is fed to the solenoid operator (which has a specific voltage rating). This is the standard design of a 7ATS. If the switch is to be installed on a facility with different voltage supplied from Normal and Emergency, a customized design can be done on the factory to meet this requirement.

If it is pre-sale application, contact Application Engineering at 1-800-800- ASCO (2726) option 32. If it is post sale application, contact ASI at 1-800-800-ASCO (2726) option 23.

How do I configure the ATS controller?

The controller configuration depends on the specifications of the switch. Once you've verified the specification based on the Bill Of Materials (BOM), Catalog no. or Serial no., and then you may refer to the *Group 5 User's Guide* for the corresponding adjustments.

How do I install an ATS?

To install the ATS you just need to follow the installation procedures on the [Operator's Manual](#) and the [Outline and Mounting Diagrams](#).

Operator's Manual

| Type | Design Series | AMPS | Manual Number |
|-------|---------------|-------------|-----------------------------|
| 7ATS | D | 30 - 230 | 381333-229E |
| | E | 260 - 400 | 381333-127G |
| | J | 260 - 600 | 381333-283B |
| | H | 600 - 1200 | 381333-202C |
| | G | 1000 - 4000 | 381333-414A |
| 7ACTS | E | 150 - 400 | 381333-128E |
| | J | 150 - 600 | 381333-284A |
| | H | 600 - 1200 | 381333-203D |
| | G | 1000 - 4000 | 381333-414A |
| 7ADTS | E | 150 - 400 | 381333-129C |
| | J | 150 - 600 | 381333-285A |
| | H | 600 - 1200 | 381333-204B |
| | G | 1000 - 4000 | 381333-414A |

| Type | Manual Number |
|------|-----------------------------|
| 7MTS | 381333-205A |
| 7NTS | 381333-151B |

| AMPS | 7ATB Manual Numbers | 7ACTB Manual Numbers | 7ADTB Manual Numbers |
|-------------|-----------------------------|-----------------------------|-----------------------------|
| 150 - 600 | 381333-307A | 381333-308A | 381333-309 |
| 800 - 1200 | 381333-193C | 381333-194B | 381333-195A |
| 1600 - 4000 | 381333-132F | 381333-136E | 381333-140D |

Outlines and Mounting Diagrams

| Product Type | Design Series | Frame Size amps | Outline Type | Drawing |
|--|---------------|-----------------|--|----------------------------|
| 7ATS, 7NTS Open Type & Enclosed (Type 1/3R/12/4) with or without Overlapping neutral pole | D | 30-230 | Open Type | 719687-001 |
| | | 30-230 | Enclosed (Type 1) | 719687 |
| | | 30-230 | Enclosed (Type 3R, 4, 12) | 719687-002 |
| | | 30-230 | Secured Enclosed (Type 3R, 4, 12) | 623188-011 |
| | | 30-230 | Enclosed (Type 1, Acc. 35, 7MTS) | 719687-003 |
| | | 30-230 | Open Type (Acc. 35, 7MTS) | 719687-007 |
| | J | 260-400 | Open Type | 780142 |
| | | 260-400 | Enclosed (Type 1) | 780145 |
| | | 150-600 | Enclosed (3R, 12) | 780147 |
| | | 150-600 | Secured Enclosed (3R, 4, 4X, 12) | 780148 |
| | | 150-600 | Enclosed (Type 4, 4X) | 780149 |
| | E | 260-400 | Open Type (Acc. 35, 7MTS) | 621165-004 |
| | | 260-400 | Enclosed (Type 1, Acc. 35, 7MTS) | 621165-002 |
| | | 260-400 | Enclosed (Type 3R, 4, 12, Acc. 35, 7MTS) | 623188-002 |
| | J | 600 | Open Type | 780143 |
| | | 600 | Enclosed (Type 1) | 780146 |
| | H | 600-1000 | Enclosed (Type 1) | 713200 |
| | | 600-1000 | Enclosed (3R/12) | 713200-004 |
| | | 600-1000 | Secured Enclosed (3R, 4, 4X, 12) | 713200-008 |
| | | 600-1000 | Enclosed (Acc.35 & 7MTS) | 713200-003 |
| | | 600-1200 | Open Type | 713200-002 |
| | G | 1000-1600 | Enclosed (3R, 4, 12) Front Connected | 619586-002 |
| | | 1000-2000 | Secured Enclosed (Type 3R) Front Connected | 609798-006 |
| | | 1000-2000 | Secured Enclosed (Type 3R) Rear Connected | 609798-003 |

| | | | |
|---|-----------|---|----------------------------|
| H | 1200 | Enclosed (Type 1) Front Connected | 713201 |
| | 1200 | Enclosed (3R/12) Front Connected | 713201-004 |
| | 1200 | Secured Enclosed (Type 3R) Front Connected | 713201-005 |
| | 1200 | Enclosed (Acc.35 & 7MTS) Front Connected | 713201-003 |
| G | 1000-2000 | Open Type | 619590 |
| | 1000-2000 | Open Type Front Connected | 609589 |
| | 1000-2000 | Open Type (Acc. 35, 7MTS) | 619590-001 |
| | 1000-2000 | Open Type (Acc. 35, 7MTS) | 619590-002 |
| | 1000-2000 | Enclosed (Type 1) Rear Connected | 619587 |
| | 1000-2000 | Enclosed (Type 1) Front Connected | 619586 |
| | 1000-1600 | Enclosed (Type 1) Front Connected (Acc. 35, 7MTS) | 619413-001 |
| | 1600-2000 | Enclosed (Acc. 35, 7MTS) | 619587-001 |
| | 3000 | Enclosed (Type 1) | 725400 |
| | 3000 | Enclosed (Type 1) Rear Connected | 725400-009 |
| | 3000 | Open Type | 725400-001 |
| | 3000 | Secured Enclosed (Type 3R) | 725400-003 |

What is the maximum length of control line run?

The maximum length of a control line run depends on what type and size of control wire is used. The NEC requirements still rule on this case.

Where can I get the weight and dimensions of the ATS?

Click [here](#) to get the standard shipping weights of the ATS. For more detailed info, refer to the [Outline and Mounting Diagrams](#)

What size cable or wire can I use for the power connections of the ATS?

[Click here](#) for the recommended wire sizes. You may also refer to the [Outline and Mounting Diagrams](#) for more information.

When do I need to connect the neutral?

You need to connect the neutral:

- If it is required by the local code on the installation.
- If the ATB is switching line to neutral loads.
- If the transfer switch is installed for service entrance.

NOTE: All local code requirements should always be followed.

How do I specify the type of neutral?

A **Solid Neutral** means that the system neutral conductors (load, emergency and utility) are solidly bonded to a common lug and a copper plate. The connection of the 3 neutral conductors is fixed to the common lug. It is denoted by an A2 (2 pole) or A3 (3 pole) in the catalog.

A **Switched Neutral** means that the load neutral conductor connection is switched between the emergency neutral and the utility neutral. It is denoted by a B2 (2 pole) or B3 (3 pole) in the catalog number string.

An **Overlapping Neutral** means that the load neutral conductor is connected to both the normal and emergency neutrals before the transfer and then remains in the position where the switch transferred to. It is a make before break neutral design. It is denoted by a C2 (2 pole) or C3 (3 pole) in the catalog number string.

What is the Withstand Current Rating (WCR) of my transfer switch?

Refer to [Publication 1128-R14](#).

Which breakers are tested with an ASCO transfer switch?

Refer to [Publication 1128-R14](#) for tested breakers for ASCO switches.

Service

Can I modify the voltage rating of the ATS?

To modify the voltage rating of the ATS, you'll need to replace the coil kit and set the factory jumpers of the control panel. Contact ASCO Services for a service technician (1-800-800-ASCO).

How can I extend feature 1C timer?

You can extend the time delay before engine start with any backup power accessory. The feature needs to be set-up by an ASCO Service technician.

How do I contact a service technician?

Call 1-800-800-ASCO (2726) and choose option 2 then 3.

How can I convert an ACTS to an ATS?

Contact ASCO Services (1-800-800-ASCO).

How do I convert an ATS to an ADTS?

This is not possible on the field. You may have the switch shipped to the factory for the modification or you may opt to replace the ATS for practical reasons.

How do I convert the ATS from 1Φ to 3Φ?

Preferably contact ASCO Services to review wiring (1-800-800-ASCO).

How will I know if the controller is damaged?

- If the display doesn't work.
- If there are extensive signs of burns on the PC board.
- If the OP and NR relays are damaged.

What does this alarm message mean?

Below are the definitions of the alarm messages that pop-up on the controller display.

Display Messages and their Meaning

The following messages (in alphabetical order) can appear on the CP display:

| Display Message | Meaning or Explanation | Also Refer To |
|----------------------------------|--|-----------------------------------|
| ATS LOCKED OUT! | An error condition has occurred and the controller has locked out all further attempts to transfer the load. Press the Alarm Reset pushbutton to clear this message. | Transfer Switch Operator's Manual |
| EMERG SOURCE | The emergency status display shows the emergency voltages, voltage unbalance (if enabled), and frequency. | page 3-1 |
| ENGINE EXERCISE WITH LOAD | The engine exerciser is running the engine-generator set with load (the transfer switch transfers the load to the generator). | pages 2-10, 2-11 |
| ENGINE EXERCISE WITHOUT LOAD | The engine exerciser is running the engine-generator set without load (the transfer switch does <u>not</u> transfer the load to the generator). | pages 2-10, 2-11 |
| Enter Password: | A password is required to proceed further in the change process. Enter the correct password to continue or press the Esc key to clear this message. | pages 2-1, 2-8 |
| FAILURE TO SYNCHRONIZE ALARM | The failure to synchronize time delay has expired. This alarm occurs when the sources fail to synchronize within the specified time. Press the Alarm Reset pushbutton to clear this message. (ACTS, 7ACTB) | pages 4-4, 4-5 |
| Load Disconnected | The load is disconnected (7ADTS, 7ADTB) | pages 4-6, 4-7 |
| Load on Emerg | The load is connected to the emergency source. | |
| Load on Normal | The load is connected to the normal source. | |
| LOAD SHED FROM EMERG | The load shed signal is active and the load has been shed from the emergency source. | page 2-6 |
| LOAD SHED FROM NORMAL | The load shed signal is active and the load has been shed from the normal source. | page 2-6 |
| NORMAL FAILED | The normal source is not acceptable. | page 3-1 |
| NORMAL OK | The normal source is accepted. | page 3-1 |
| NORMAL SOURCE | The normal status display shows the normal source voltages, voltage unbalance (if enabled), and frequency. | page 3-1 |
| POWER-UP INHIBIT <i>stays on</i> | The controller has powered up and has recognized an error condition. | Contact ASI |
| TD Emerg>Normal: | The emergency to normal load transfer time delay (Feature 3A) is running. The amount of time remaining is shown. | page 2-4 |

Display Messages and their Meaning (continued)

The following messages (in alphabetical order) can appear on the CP display:

| Display Message | Meaning or Explanation | Also Refer To |
|------------------------------|---|-----------------------------------|
| TD Normal Fail: | The normal source failure time delay (Feature 1C) is running. The amount of time remaining is shown. | page 2-4 |
| TD Normal>Emerg: | The normal to emergency load transfer time delay (Feature 2B) is running. The amount of time remaining is shown. | page 2-4 |
| TD Post Transfer | The post-transfer time delay (Feature 31M or 31N) is running. The amount of time remaining is shown. | page 2-4 |
| TD Pre Transfer | The pre-transfer time delay (Feature 31F or 31G) is running. The amount of time remaining is shown. | page 2-4 |
| TEST MODE SERIAL COMM | A test has been initiated via the serial communications port. | page 2-13 |
| TEST MODE TEST CIRCUIT 5 | Test circuit Feature 5 is active (Transfer Test). | Transfer Switch Operator's Manual |
| TEST MODE TEST CIRCUIT 17 | Test circuit Feature 17 is active (remote test). | page 2-6 |
| Transfer to Emerg Inhibited | Load transfer to emergency is inhibited. | |
| Transfer to Normal Inhibited | Load transfer to normal source is inhibited. | |
| Waiting for Emerg Acceptable | The controller is waiting for the emergency source to become acceptable so that it can continue in the transfer sequence. | page 3-1 |
| Waiting for In-Phase | The controller is waiting for the sources to come in phase so that it can make an in phase load transfer. The phase angle and frequency difference are also displayed. This message will be displayed until the sources come in phase. (7ATS, 7ATB) | pages 4-1, 4-2 |
| Waiting for In-Sync | The controller is waiting for the sources to come into synchronism so that it can make a closed-transition load transfer. The three parameters required for synchronization (phase angle, frequency difference, and voltage difference) are also displayed. If the sources do not have the same rotation, this will also be displayed. (7ACTS, 7ACTB) | pages 4-4, 4-5 |
| WRONG PASSWORD !!! | An incorrect password has been entered. | page 2-1 |
| XTD PARALLEL ALARM | The extended parallel time delay has expired, which indicates that the sources have been paralleled for longer than the specified extended parallel time. Press the Alarm Reset pushbutton to clear this message. (7ACTS, 7ACTB) | pages 4-4, 4-5 |
| PARM CHCKSUM ERROR | An internal memory error has been detected. On occurrence of this error message, memory is cleared and all parameters need to be reset. | Contact ASI |
| UNKNOWN ERROR | System error. | Contact ASI |

What should I do if the indicator lights are faulty?

- Check the wires to the door controls for any signs of burns.
- Check if there is voltage across the pilot lamp terminals.
 - If there is no supply, disconnect the gray plug on J10 of the Group 5 PC board and reconnect it again to ensure proper fitting.
 - If there is voltage across the pilot lamp terminals, order a replacement door mounted control. If there is none, check the control panel for possible errors.
- Check if the voltage reading on the Group 5 control panel is correct.
 - Check the readings with the voltage rating of the ATS.
 - If there's none, check the voltage across the lugs. If the correct voltage is supplied, check the harness. If it is not the harness then the problem is on the controller.

Why won't the ATS retransfer to normal?

- Normal is unavailable
- The retransfer to normal inhibit is activated. (Check the wiring diagram for feature 34A terminals. The jumper could be loose or disconnected)
- The solenoid operator is damaged.
- Emergency source voltage is not correct.
- The ATS has feature 6C and 6D enabled on the switch.
- The time delay hasn't lapsed yet.
- Control panel error
- Mechanical problem

Why won't the ATS start the generator?

- There is incorrect wiring of the engine start.
- The control wires are loose.
- The generator is not set to auto.
- There is an active alarm on the generator.
- The NR relay failed (Control panel error)

Why won't the ATS transfer to Emergency?

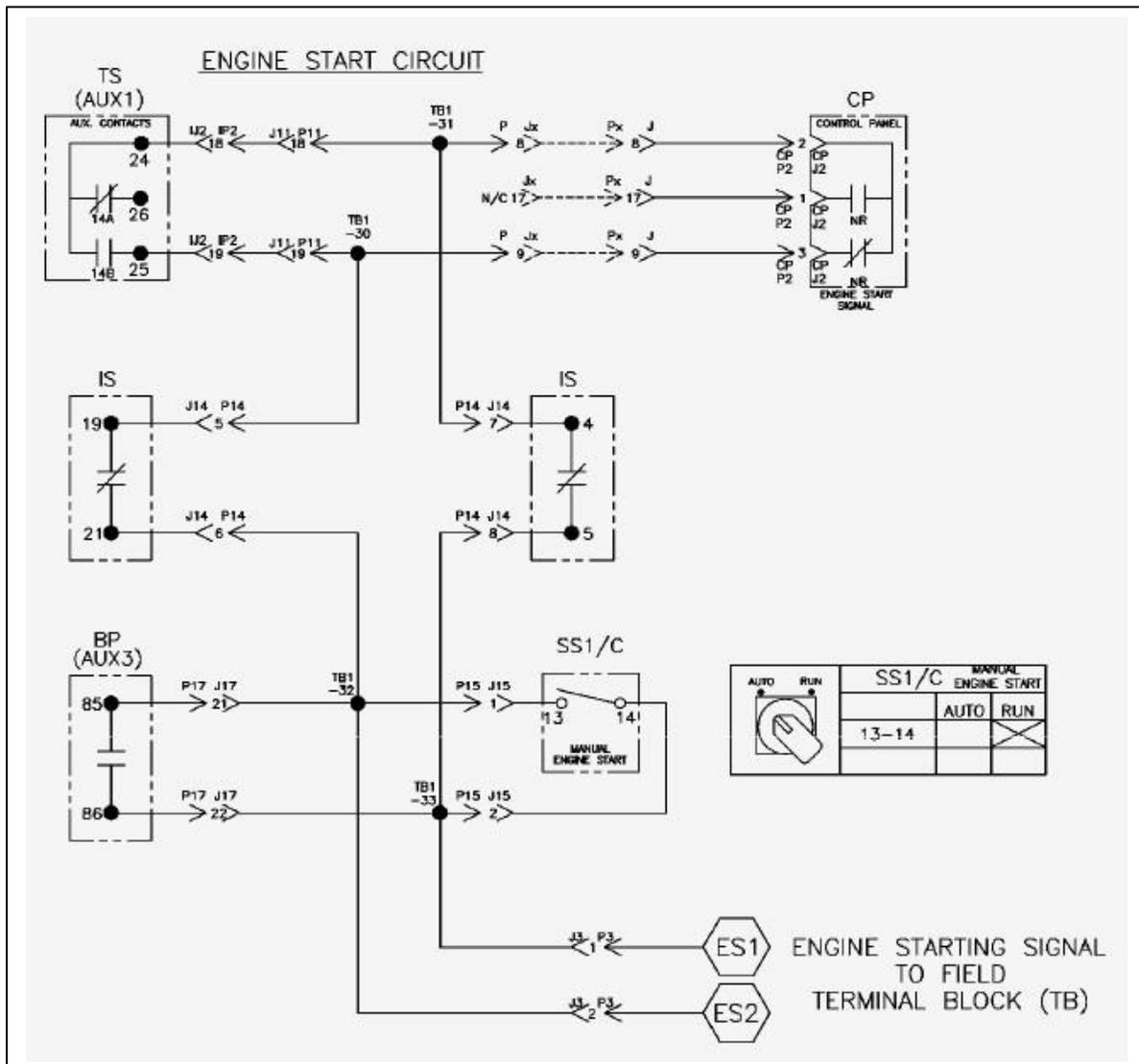
- Emergency is unavailable.
- The Transfer to Emergency Inhibit is activated.
- The Load Shed from Emergency feature is activated
- The solenoid operator is damaged
- The ER relay is damaged
- The controller is damaged
- There is mechanical failure.

Why won't the engine exerciser work?

- The Engine Exerciser settings are not configured properly (Refer to the *Group 5 User's Guide*)
- The Generator has a built-in engine exerciser
- The Controller firmware needs to be upgraded

Why won't the generator shut-off?

- Normal is unavailable (Check if the right voltage is supplied on the Normal lugs or if Normal Accepted light is ON)
- The generator is in cool down mode. Wait until the cool down timer times out.
- The selector switch for manual engine start is set to run. Switch it to AUTO.
- The TS (AUX1) auxiliary contact for engine start is stuck-up. Contact a service technician to calibrate the cam switches.
- The NR relay is damaged. Replace the Group 5 controller.
- There is a problem on the generator.



Wiring

Where do I connect the engine start wires?

The engine start contacts are also known as feature 7 and 8.

Feature 7 – Contact that closes to send an engine start signal

Feature 8 – Contact that opens to send an engine start signal

Refer to the transfer switch wiring diagram for the terminal connections. To request for a wiring diagram, take note of the Serial number, BOM number, and the Catalog number of the transfer switch and call 1-800-800-ASCO (2726) option 33.

How can I re-wire my power manager connections?

Follow the wiring diagram attached on the Power Manager's *Operator's Manual*.