This document intended to be used in conjunction with IB140018EN.

1. Mounting
   a. See Section 4.4 of Instruction Bulletin

2. Incoming Conductors
   a. See Sections 4.5 of Instruction Bulletin

3. Control Power TFX Setting
   a. See sections 3.3 & 4.6 of Instruction Bulletin

4. Generator Start Connection and Other Interface Terminal Blocks
   See page 27 in IB & Sheet 5 of wiring diagram.
   a. Generator Start: Connect the 2 wire start form the generator to the transfer switch to Pins 1 & 2 on TB6 located on the RH panel in the ATS Contactor compartment.

5. Visual Check
   a. Make sure all plugs in the top logic compartment are tightly snapped together. A loosely connected plug can cause unexplained problems. This area is where the Transformer, relay panel, and Logic Controller LRUs (Line Replaceable Units) are located. Each are on shoulder bolts for easy removal. The back panel is also on shoulder bolts for front access if required.

6. Energize Unit
   a. Manually turn off the generator and close Main breaker, or disconnect.
   b. The ATC300/ATC900 Controller should illuminate as follows:
      ATC-300 – S1 Available, & Connected on, and Unit Status blinking. The Display showing system voltages and Time & Date.
      ATC-900 – S1 Available, Preferred, Connected, & Load Energized on, Unit Status Blinking.

CAUTION
DO NOT ATTEMPT TO SERVICE OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. FAILURE TO FOLLOW THIS WARNING COULD LEAD TO DEATH OR SEVERE INJURY. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT ON EQUIPMENT PRIOR TO SERVICING. WHILE ENERGIZED, AN ARC FLASH AND SHOCK HAZARD EXISTS. CONSULT NFPA 70E AND OSHA GUIDELINES FOR OPERATOR SAFETY PRIOR TO OPERATING, INSPECTING OR SERVICING EQUIPMENT.

b. Other Interface Terminal Blocks: As shown on page 27 if the instruction booklet, there are terminal blocks inside the unit for interface. The terminal blocks provide a set of auxiliary form C position contacts for each contactor (ATS and Bypass). Up to two more Form C position contacts are brought out (options 15G & H) then those terminal blocks will be on the options panel. There are also terminal blocks with the ATC-300 for Engine Start, Go to S2, power (line and common) for any AC required up to 7 amps continuous and other interfaces. For the ATC-900 there are also I/O terminal blocks. Below are some of the terminal blocks, please refer to the drawings depending on what controller is supplied will determine the terminal blocks used.

TB2 Reserved
TB3 AC Neutral (120 volts)
TB4 Auxiliary Contacts (ATS and Bypass)
TB6 (1 and 2) Engine Start
TB7 AC Line (120 volts)
7. The switch is a redundant switch meaning that the unit will function automatically when the unit is switched to the Bypass with the ATS in, isolated, or completely removed from the cell. The Bypass does not need to be inserted into the ATS cell if the ATS cell is vacant for any reason.

8. In a quick start-up, going from the ATS to Bypass and back, with S1 and then S2, will check 90% of the unit. See section 5.4.1 & section 5.4.2 in IB for complete operating instructions. (Manual ATS shown in Figure 3 is option 29G)

9. By pressing the Lamp Test button on the panel, the lamps (not on the controller) will all turn on. This is a great test to make sure the Logic Controller has power and is functioning. If the “ATS Locked In” green lamp is flashing when the Lamp Test button is depressed, either the Bypass or the ATS is not racked in fully and there for the unit will not function.
   a. The lamps are only used when the unit is in Bypass. Switching back to the ATS or at power up, the Lock-In and ATS green lamps will stay on for 20 seconds. There will be no lamps on when the unit is in ATS.

10. When in Bypass, putting the top switch (Bypass/Maintenance) back to ATS; if most of the lamps start flashing, then check to make sure that the Kirk-Key is in and turned and/or the ATS contactor is not fully racked in (Locked In lamp). (Figure 25 & section 5.4.1 paragraph 5 & 5.4.2 in IB)
   a. If either contactor is not fully racked in, the unit will not function.
   b. Doors must be closed and latched (Red Lamp flashing) for switch to function except, when the ATS is isolated (in Bypass), keeping the top door closed and latched. The manual testing of the ATS can be accomplished with the bottom door open since the ATS is isolated from the stabs. If manual testing of the Bypass is required then both doors need to be closed. (Section 7.1 in IB)

11. Manual Testing using the bottom two switches (Test-Manual & Manual Source Select) will require power on the system. In the ATS manual, only one source needs to be available for the toggle switch to close to S1, trip, or close S2. In the Bypass manual, the source to switch to must be available. The manual operation of the Bypass unit will result in the controller being inactive in controlling the Bypass contactor. The ATC-800 controller will show “Lockout” while the ATC-300+ controller will show “Monitor Mode” Both controllers will still follow the actions on the MIMIC bus LEDs. The Bypass/ATS light will now be flashing showing that the ATC is inactive (Figure 24 & section 5.5.2 in the IB).

12. Controller Closed Transition and other Settings
   The ATC-300 and the ATC-900 has all the I/O and options available to the user in each controller. The only item that is optional for the transfer switch is the closed transition optional feature in the ATC-900 (The ATC-300 does not have closed transition available). There are several user setpoint options for Closed Transition. Once an ATS is in the field, other uses or changes may occur that could require changes from the original requirements. One area is the closed transition type switches. An application may initially require that only a closed transition should be used and if it does not synchronize because of maybe frequency, then the switch will not switch to the other source and will show an alarm signalling this issue. If the requirements now have change, for example, and the switch must now transfer using open transition if closed does not occur; instead of sending the controller back to the factory for reprogramming as in the past, one can easily change the user setpoints to accomplish any scenario. One may go from closed transition directly to Time Delay Neutral for example. All options are available to the user.
If closed transition is available on the switch, the user will receive 47 D and all of the other options 47 C, E, F, G which can be changed by the setpoints to disable or enable the functions (see below). Screen 3 of 3 in the System Setup menu (See section 3.4.1 in the ATC-900 instruction booklet supplied with the switch) is where the user will set the transition types of the switch. If the switch can perform closed transition the user will set up the setpoints depending on the scenario required as shown below.

Closed Transition to Alarm (47D) or by changing the setpoints:
- Closed Transition > In-Phase > TDN
- Closed Transition > In-Phase > LVD
- Closed Transition > TDN
- Closed Transition > LVD

The user can disable closed transition and just use the following:
- In-Phase > TDN
- In-Phase > LVD

Also with Closed Transition and In-Phase disabled:
- TDN or LVD

In review, the user setpoints for closed transition are similar to this:
- Disabled (Closed transition not used)
- Alarm on Synchronization Fail (Will not switch and will show an alarm)
- Fallback to Open on Synchronization Fail (To in-phase, TDN, and/or LVD)

13 The switch should be automatically or manually exercised (S1 to S2 and back) at least once a month.

Figure 6.