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QUICK START GUIDE

# Zenith ZTX series

Enclosed ATS, 30-1200 A, 200-480 Vac



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This document is not intended to replace document 1SCC303022M0201, ZTX series O&M, which is called out in some cases for further detail. This quick start guide is intended to help the user power the ATS and make it fully operational with a few simple steps.

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## About your ZTX series ATS

### Zenith ZTX series construction

Zenith ZTX series ATS consists primarily of the TruONE™ power panel and an electrical enclosure. The TruONE Level 2 power panel integrates switch, mechanism, controller, power supply, HMI, and all connectivity accessories into one seamless unit. The construction of this transfer switch is outlined in Figure 1.

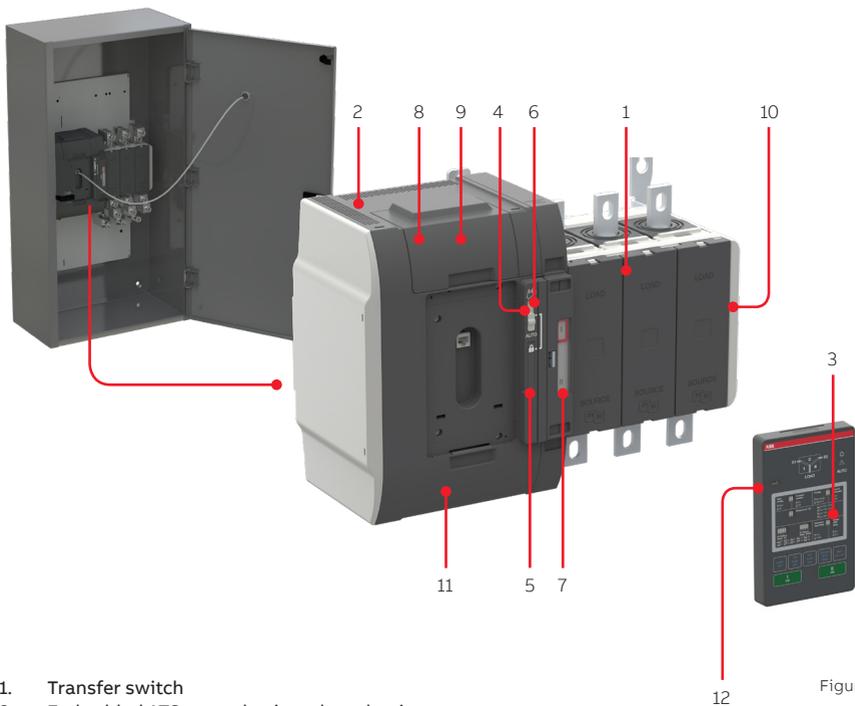


Figure 1

1. Transfer switch
2. Embedded ATS control unit and mechanism
3. Dip-switch control interface (HMI) for configuration and automatic operation
4. Slide switch (Hand - Locking - AUTO) for selection of the operation mode
5. Padlocking the automatic transfer switch to prevent automatic and manual operation.  
Remark: Slide switch (Hand - Locking - AUTO) has to be in Locking position
6. Handle for manual operation
7. Position indication
8. Terminals for control circuit connections
9. Place for Ekip-modules; communication, signaling and connectivity modules
10. Auxiliary contact block mounting location
11. The product identification label
12. Programming port, only for Ekip Programming module and Ekip Bluetooth-modules

# Using Ekip Programming and Ekip Connect

(Optional, laptop and Ekip Programming module required)

Ekip connect is not required because all programming can be done from the HMI. It is, however a valuable tool for offline programming or rapidly programming multiple ATS with the same program.

## Programming with Ekip Connect

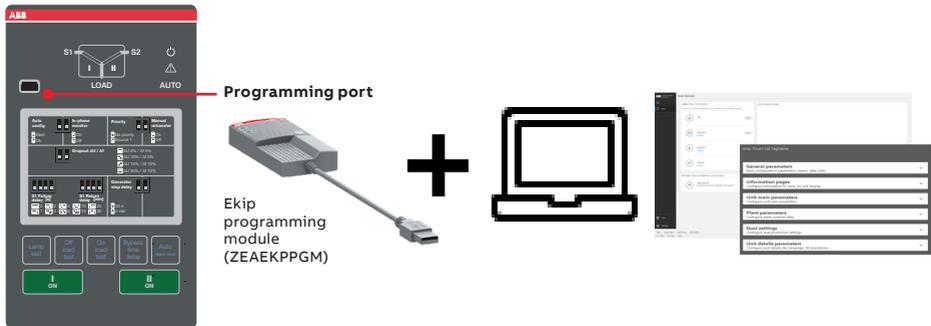


Figure 2

With Ekip Programming module and a laptop with Ekip Connect software, you can view status, set operational parameters, and configure generator exercisers on the ATS, even without any line voltage or auxiliary power connected to the panel. This USB module plugs directly to the HMI. Download the Ekip Connect software and manual from the QR code or web address at the right.



<https://library.abb.com/en/>

# Auxiliary contacts

Auxiliary contacts will be shipped loose. Use Table 1 and Figure 3 to apply A (NO) and B (NC) contacts for correct operation. Each source has two separate mounting points capable of holding up to two aux contacts each for position indication, for a total of four per source. There is no restriction on using NO, NC, or both in any location.



Note: Auxiliary contacts are very difficult to remove once applied!

## Auxiliary contact states

Position	OA1G10 (NO)	OA3G01 (NC)
<b>SOURCE 1 (S1), max 2+2</b>		
I		
O		
<b>SOURCE 2 (S2), max 2+2</b>		
I		
O		
II		

Table 1

## Auxiliary contacts installation

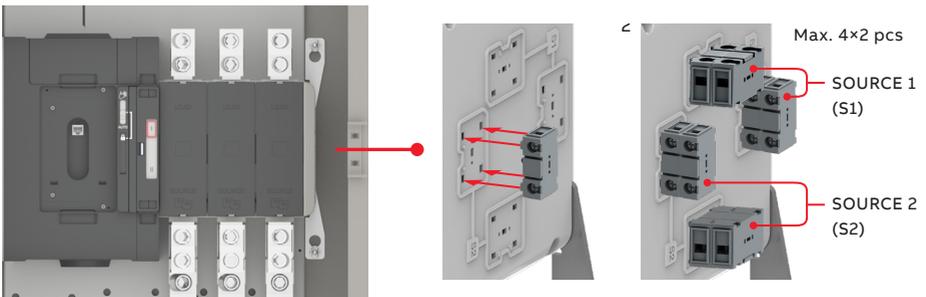


Figure 3

# Energizing

For detailed instructions on installing your enclosed ATS and installing accessories, see sections 9 and 10 of the ZTX O&M manual.

Before energizing the panel:

1. Confirm that installation has been performed by a qualified person and in accordance with NFPA 70 (NEC). Ensure this installation is properly operated and maintained in accordance with the safety practices of NFPA 70E.
2. Confirm rating label matches the installed application. For location see Figure 1, number 12.
3. Confirm that cables are connected properly and torqued according to label the ATS labeling.
4. Verify that the enclosure ground connection is properly terminated.
5. Confirm that control wiring for engine start is properly terminated to the engine start contact (located in Figure 1, number 8).
6. Additionally, connect all applicable digital I/O, communications, and auxiliary contact wiring.
7. Flip slide switch (Figure 1, number 4) to AUTO
8. Ensure that all objects and debris are removed from enclosure, and enclosure is closed and latched.

## HMI keypad operation

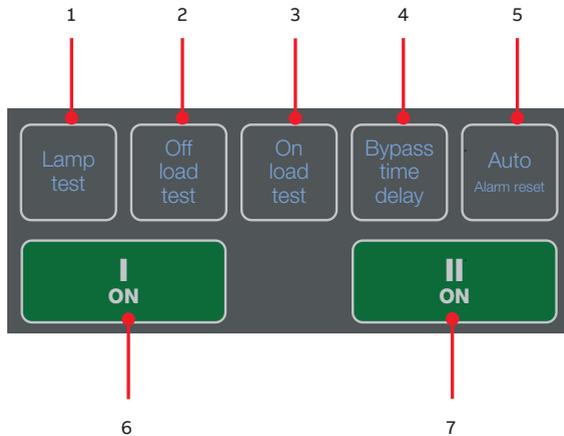


Figure 4

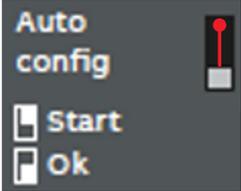
1. **Lamp test:** Turns on all LEDs simultaneously to confirm all are functional
2. **Off load test:** Start/stop off-load test (starts generator without transferring load)
3. **On load test:** Start/stop on-load test (starts generator then transfers load when source OK)
4. **Bypass time delay:** Bypasses ongoing time delay
5. **Auto (Alarm reset):** Resets alarms (if any). If no alarms, toggles between Manual and Auto modes.
6. **I ON:** Operate\* switch to I position
7. **II ON:** Operate\* switch to II position

\* Slide switch (Figure 1, number 4) must be in Auto, and controller mode (Figure 3 number 5) must be in Manual

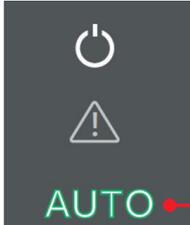
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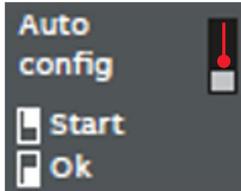
## Auto Configure

Auto configure is the first step to take after the panel is initially energized. This function recognizes the electrical system, then automatically sets all the system parameters: system voltage, frequency, and phase sequence.

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1. Auto config screen with Start and Ok buttons and a red indicator light.
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2. Power icon and a flashing red warning triangle. 5 flashes in 1 s
- 

3. Power icon, a flashing white warning triangle, and the word AUTO in green. 5 flashes in 1 s
- 

4. Auto config screen with Start and Ok buttons and a red indicator light. Complete - System settings set

Figure 5

## Settings (Optional)

Default settings on the ATS are as shown in Figure 6. To alter settings, simply adjust the position of the dip switches accordingly. Generator exercisers must be programmed through Ekip Connect 3 with Ekip Programming module

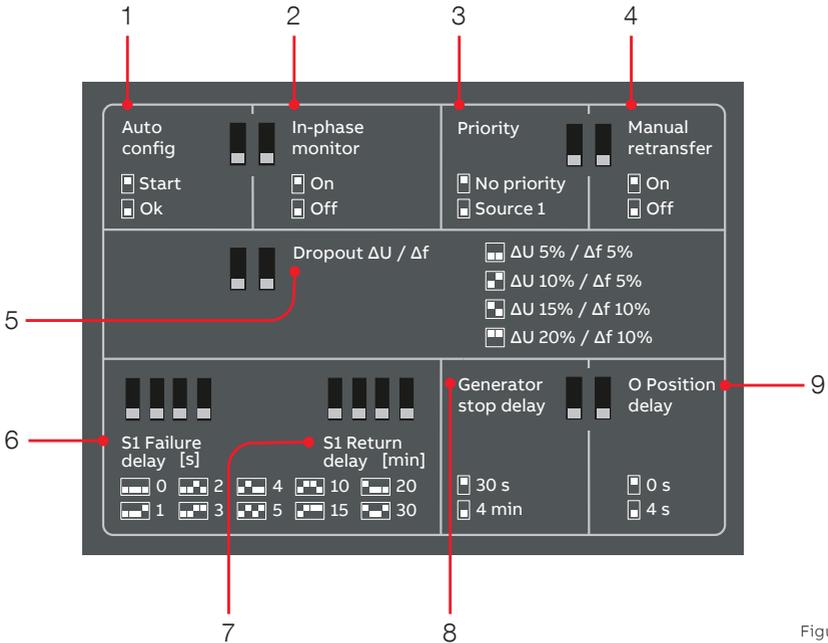


Figure 6

1. Auto config: Used to automatically set system parameters
2. In-phase monitor: Start/stop off-load test (starts generator without transferring load)
3. Priority: Assigns the priority source
4. Manual retransfer: If On, this inhibits automatic return to primary source when it becomes available
5. Dropout  $\Delta U / \Delta f$ : Dropout set point
6. S1 Failure delay [s]: Delay between S1 failure and generator start signal on
7. S1 Return delay [min]: Delay between S1 available and return transfer to S1
8. Generator stop delay: Cool down duration for generator after S1 restoration

## Confirm Automatic Operation

To put your ATS into Auto mode, confirm the slide switch is in “AUTO” before the enclosure door is closed. This slide switch overrides the Auto/Manual mode set from the HMI. To place ATS controller in auto mode, press the auto key on the HMI as in Figure 7. If already in Auto mode, pressing this key will take the switch out of Auto mode.

Confirm the ATS is in Auto mode by validating that the “AUTO” LED above and to the right of the LCD screen is solid green.

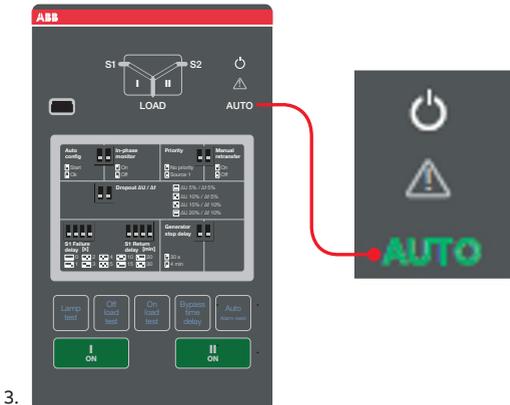
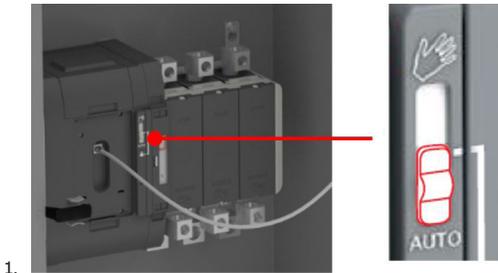


Figure 7

## Test

Run an off-load test to verify the ATS-generator control connection. Follow steps in Figure 8. Backup source (generator) should start and be indicated by solid green LED for secondary source. Repeating this sequence will turn off generator.

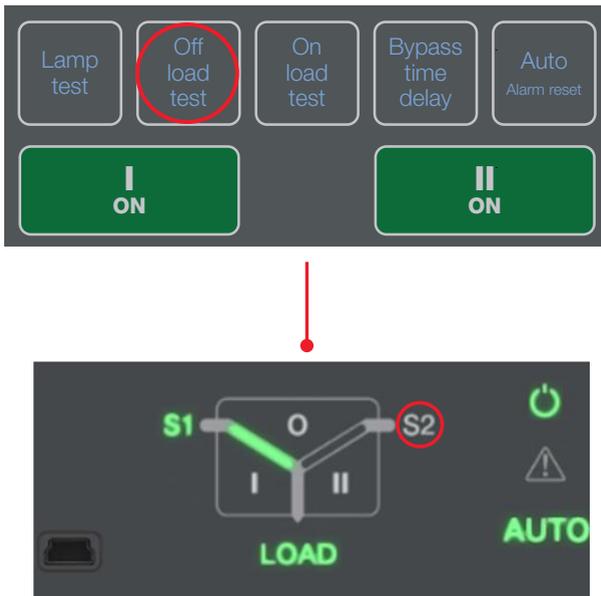


Figure 8

To test ATS-generator auto operation, while in auto mode, simulate a primary source failure by disconnecting the supply to the primary source. Verify the ATS switches to the backup source according to set-point and time delay parameters. Re-connect the supply to the primary source. If the ATS returns to primary source as expected, the ATS function in Auto is validated.

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## Additional information

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### Manual and automatic operation - TruONE ATS Video



<https://www.youtube.com/watch?v=bosvSPVi2sM>

### Installation of accessories - TruONE™ATS Video



<https://www.youtube.com/watch?v=qV2Kolv38GY>



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