



Form: Commissioning Document, 442SR

#4037

Revision: G XCO 1602

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Instructions: Complete this form during the installation of a 442SR Wind Turbine

Sales Order		System Serial Number (nine digits XXXXXXXXX)	
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Dealer/Owner/System Information

Dealer Name:		Date:	
Dealer Contact:		Status: (Running, Disabled, etc.)	
Installer Name			
Installation Company			
Installer Phone			
Installer Email			
Install Address:			
City, State/Province:			
Install Country:			
Owner Name			
Owner Address:			
City, State/Province:			
Owner Phone			
Owner Email			

Turbine Configuration			
Alternator Serial No.		Diversion load Serial No.	
Controller Serial No.		Inverter Count	
Controller Telematics Serial No.		Inverter Serial No 1.	
Blade Serial No. 1		Inverter Serial No 2.	
Blade Serial No. 2		Anemometer (Model and Serial No.)	
Blade Serial No. 3		Wind vane (Model and Serial No.)	
		XZERES Gateway ID	

Site pictures taken and emailed to warranty@xzeres.com Minimum of two pictures required:

1.	Tower and Turbine	2.	Electrical – showing Controller, Diversion Load & Inverters
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In Process:

Structural Verification Procedure (References to 3112 442SR Installation Manual)	Checked
NOTE: ALL safety requirements as indicated by warning symbols in manual must be met.	
Yawhead Flange to Tower Top bolts are fastened as specified in Manual 5.2.6 & 5.2.9	



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Tail Boom to Tail Vane bolts are fastened as specified in Manual 5.5.11 & Figure 44			
Tail Boom to Yawhead bolts are fastened as specified in Manual 5.5.11 & Figure 44			
Blade Studs to Alternator are fastened as specified in Manual 5.6.1 & 5.6.3			
Blade Bolts installed as specified in Manual 5.6.4,5.6.13, 5.6.14 & Figure 47			
Nose Cone to Outer Clamping Plate bolts as specified in Manual 5.7.2 & 5.7.3			
All Tower cable connections for ALL Applications completed and verified before tower is erected, Reference Manual 5.3			
Foundation Bolts – Installed and torqued to base of tower per manufacturer specifications			
Warning Labels placed according to instruction manual Appendix C			
System nameplate placed on Controller and Yawhead Appendix C			

Electrical Verification Procedure	Checked
Tower – Building Electronics	
Verify wire size vs. wire run of the power wires (SR1-SR3) and the brake control wires (SR5-SR8) from the Top of Tower to the Building Electronics is per Manual. (See Table 4, section 4.1)	
Verify SR4 (Ground wire) is at least 2 AWG from the Top of Tower to the Building Electronics.	
Verify SR5-SR8 are shielded with one end of the shield grounded at the Tower. (Do not ground the shield inside the Building Electronics.)	
Verify wind vane & anemometer wires are shielded and twisted with one end of the shield grounded at the Tower. (Do not ground the shield inside the Building Electronics.)	
Verify wire spacing between (SR1-SR8) and wind vane & anemometer wires is at least 8 inches from the Top of Tower to the Building Electronics.	
Verify Tower grounding is per Manual (see section 3.2.1). Use Minimum Four ground Rods bonded together with 2 AWG bare copper. Ground resistivity < 10 ohms. Follow Local Authorities Codes for grounding for lightning protections.	
Building Electronics	
Verify all electronic parts (Turbine controller, Diversion load, Inverters and Service Disconnect Box) for any defects or damage.	
Verify clearance around Turbine controller, Diversion Load and Inverters is per Manual (see Figure 6).	



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Verify Distribution Panel is connected to the Building Grounding System per Manual (see section 4.3). If necessary, install additional Ground Rods per Local Authorities Codes.			
Verify all electrical connections are done per Manual (see section 4.4)			
Verify circuit breakers and lightning protection systems are installed at the distribution panel per Manual (see section appendix A2-A16)			
Verify ALL Turbine disconnects (including the Service Disconnect Box) open the brake control wire (SR5) <ul style="list-style-type: none"> • AC Power OFF to Turbine controller and Inverters • Place ALL Disconnect Switch in the ON position • Measure Resistance from SR5 to SR6 Terminals disconnected at Turbine controller <ul style="list-style-type: none"> ○ (Resistance MUST be between 6 -12 ohms) • Measure Resistance from SR7 to SR8 Terminals disconnected at Turbine controller <ul style="list-style-type: none"> ○ (This MUST be OPEN) • For the Disconnect UNDER TEST, Place the Switch in the OFF position • Measure Resistance from SR5 to SR6 Terminals disconnected at Turbine controller <ul style="list-style-type: none"> ○ (This MUST be OPEN) 			
Verify resistance of Diversion Load is within 7 – 11 ohms (measure resistance from terminals disconnected at Turbine controller): DL1 resistance: _____ DL2 resistance: _____			
Verify Turbine controller & Inverters configuration parameters <ul style="list-style-type: none"> • AC Power ON to Turbine controller • While Turbine in ESTOP <ul style="list-style-type: none"> ○ Verify Controller Firmware Version. Revision number: _____ ○ Verify ROTOR_TYPE ROTOR_TYPE: _____ ○ Verify DL_RESISTANCE DL_RESISTANCE: _____ ○ Verify INVERTER_TYPE INVERTER_TYPE: _____ ○ Verify NUM_INVERTERS NUM_INVERTERS: _____ 			
Verify inverters are programmed with appropriate power as per #3482 Work Instruction: Inverter Programming, 442SR			
Verify setting is the current date and time.			
Verify Turbine START-UP and EMERGENCY STOP (ESTOP) <ul style="list-style-type: none"> • AC Power ON to Turbine controller and Inverters • Start the turbine as per Manual (see section 8.2.6) • Verify Turbine starts up normally • If sufficient wind, verify each Inverter exports power to the distribution panel (use the inverter display or a clamp on amps meter) • Press ESTOP and verify Turbine stops normally. 			
Verify XZERES Gateway remote connectivity (Complete Section 1 from the 7543 User Manual, Install and Setup XZERES Gateway).			



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Final:

Procedure	Checked
All State/County/City and any other Jurisdictional Parties Inspections Satisfied	
Clean Up and Final Site Inspections Satisfied by Owners	

Site Information:

Install Specific:	Install Latitude and Longitude	
	Tower Type (Monopole, Tilt Up Monopole or Lattice)	
	Tower Height	
	Tower Manufacturer	
	Foundation type	
	Wire run length (From Turbine to Disconnect/Controller)	
	Power wire size	
	Control wire size	
	Grid Type: (Single or 3-phase, 208/240/277 VAC, Frequency)	
	Anemometer (Location relative to Turbine & mounting height)	
	Wind vane (Location relative to Turbine & mounting height)	
	Sales estimated annual average wind speed	
	Installation date	
	Commissioning date	

This Inspection form must be completed and signed below

All fields must be filled in before this form will be accepted and the warranty activated

Installer Name	
Date	

By signing this document, you verify that information is correct and acknowledge that you are responsible for corrective action to bring the system to the requirements of the manual. You also acknowledge that you are responsible for at least one return visit should it be required.

If this document has been falsified and discovered that the turbine and tower was not installed properly, you will be responsible for reimbursement, and voidance of warranty coverage, until the issues are corrected and accepted by XZERES.

XZERES Acceptance Name	
Date	