TG-24

Solar Tracking Racking

Automatic sun tracking, eight-point damping

WZPV-SZTZ-24



TG-24 WZPV-SZTZ-24

After-Sales Intake and Issue Closure

Locate the problem through device information and site evidence, decide the treatment plan, then carry out the

repair; complete motion re-verification and leave a closure record.

After-sales contact: sales@lianstor.com. Suggested subject line: "TG-24 repair request, project name, device ID, fault symptom". The site installer can help provide wiring, commissioning and maintenance records.

Stage	What must be completed
Submit a repair request	Provide device model and serial number, project location, fault onset time, current mode, photos and safely obtainable video.
Verification and diagnosis	Compare the fault log, recent commands, feedback and site connections; identify whether the issue is mechanical, electrical, control or communication.
Decide the treatment plan	Confirm spare model, site work conditions, remote support authorization, costs and warranty coverage; create a service work order.
Repair and re-verification	Implement the approved plan; re-verify connections, zero position, limits, feedback, two-axis motion and protection functions.
Closure	Record replaced parts, parameter changes, verification results and the device's restored state; both parties confirm open items.

Warranty period, liability scope, on-site service, transport and spare-part costs follow the

Identify the Operating Mode First

A stationary device may be following a normal strategy or may have failed. Check the mode, data freshness, permission conditions and site posture to avoid mistaking a protective action for mechanical failure.

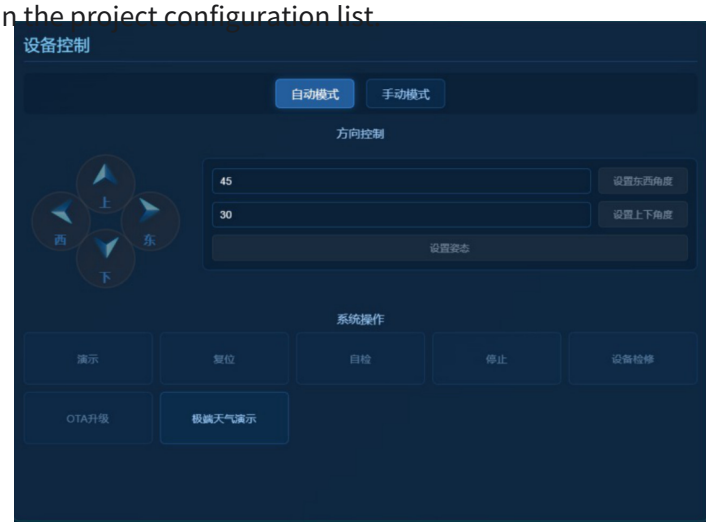
Mode or state	Operator's check tasks
Automatic tracking	Confirm time and location inputs, target angle, current angle and valid feedback; watch for persistent deviation, abnormal vibration or repeated alarms.
Manual positioning	Confirm site clearance and authorization; jog within the permitted range. Record the current axis, direction and feedback; never overrun limits with continuous motion.
Night sleep	Check the approved night posture and recovery conditions; temporary stillness is not by itself a fault.
High-wind protection	Check wind-speed input, protection trigger state, target posture and motion completion; judge entry and exit conditions against the project setting table.
Snow or cleaning	Check cleaning zones, permitted postures and personnel exclusion; apply the delivered strategy - never widen the tilt range on your own.
Self-check or reset	Confirm the function's action path, stop conditions and authorization; save the original fault information before addressing the cause.
Fault or stop	Confirm the stop reason, site hazards and unfinished motions; do not repeatedly reset before the cause is identified.

Organizing Operating Checks with Monitoring Data

First confirm which device you are viewing and whether the data is current, then judge motions and alarms. Remote commands must be coordinated with site work status.

Check field	Judgment and action
Device identity and time	Verify device ID, project grouping, last update time and communication status to prevent operating the wrong unit or using stale data.
Angle and motion feedback	View target angle, current angle and direction; check Hall counts at the device or maintenance interface - count changes alone cannot substitute for mechanical position verification.
Limits and operating mode	Confirm permitted angles, upper and lower limits, protection or sleep state; locate the cause before anything else in an abnormal state.
Commands and permissions	Distinguish command sent, device acknowledgment and actual motion; keep records of operator, time and parameter changes.
Connected energy data	Energy and power come from connected meters, inverters or other metering devices - they cannot be derived from motor Hall pulses.

The PC console is for centralized checks and authorized operations, the mini program for on-site verification, and the dashboard for summary display. Enabled functions, account permissions, communication and metering data sources are recorded in the project configuration list.



What to Inspect During Site Walkdowns

Observe from outside the motion zone; before approaching, disassembling or touching moving mechanisms, stop the unit and complete electrical isolation and mechanical support.

Check point	Inspection content and anomaly criteria
Column and foundation	Check visible tilt, foundation cracks or scour, loose anchoring, settlement and connection changes. Stop the unit and request a structural review if a load-bearing anomaly is found.
Main beams, cross beams, purlins, braces	Check deformation, cracks, looseness, corrosion and contact interference; tightening follows the unit's approved tightening table.
Central slew drive	Watch for unusual noise, uneven running, visible clearance changes, drive connections and harness condition; never assume any posture is operable based on the maximum output torque.
Two rear actuators	Check rods, articulation, cables, waterproof breather valves and feedback; stop on desynchronization, jamming, bending or water ingress.
Eight dampers	Check terminations, rod-end orientation, leakage, rod damage and stroke margin unit by unit; do not skip hard-to-see rear positions.
Power distribution and control interfaces	Check sealing, water ingress marks, grounding, cable pinching and motion margin; have electrical personnel isolate before handling.
Surrounding motion space	Look for new obstacles, vegetation, debris, neighbouring equipment and maintenance-corridor changes; verify clearance across all postures.

Maintenance Focus for Drive and Damper Components

Maintenance must keep connections, lubrication, stroke and feedback effective. Changing component models, termination dimensions or lubrication schedules without authorization can alter the whole mechanism's operating conditions.

Component	What to verify during maintenance and replacement
SDE17A slew drive and motor	Verify nameplate, drive connections, approved grease grade and regreasing interval; check the motor harness and rotation clearance. After disassembly, re-verify zero position, direction and permitted range at both ends.
Y817W linear actuator	Verify the 300 ± 3 mm stroke, 800 ± 3 mm minimum centre distance, articulation-end dimensions and feedback specification; the 50 kN static load applies only at half stroke and cannot be extrapolated to full-stroke static capacity.
Actuator duty cycle	Keep the 10% maximum duty cycle and list the supplier-confirmed cycle and longest continuous motion time in the commissioning or maintenance plan. Continuous jogging must not bypass the duty cycle.
S30-535QQ dampers	Keep rod ends up, spherical joints moving freely and stroke within limits in all postures; verify the 535 mm stroke, 738 ± 5 mm minimum centre distance and 1273 ± 5 mm maximum centre distance.
Spherical joints and fastened connections	Verify the component's termination structure, pins, locking parts and tightening requirements; the S30 revision's ball-pin connection requires >= 25 N·m and must not be applied to all bolts.

The maintenance plan should state the frequency of each check, lubrication grade and quantity, stop conditions and record sheets. When models, component revisions or supplier requirements change, verify the corresponding documentation before proceeding.

Motion and Mechanical Fault Location

Save the mode, posture, feedback and last commands from before the stop. Review observable information first, then schedule on-site checks after isolation.

Symptom	Information to check first	Site handling and recovery conditions
No motion after command	Supply, mode, limits, protection state, command acknowledgment and fault codes.	Electrical personnel verify wiring and supply; after confirming no mechanical jam, verify with jog motion.
Wrong azimuth direction	Device ID, direction parameters, angle datums, drive wiring and feedback count direction.	Correct the confirmed cause, recalibrate, and verify forward and reverse motion within the permitted range.
Stroke deviation between actuators	Counts on both sides, calibration, termination dimensions, mechanism posture and allowable deviation.	Stop tilt motion, support the array, inspect both mechanisms and feedback; recover after companion commissioning passes.
Feedback frozen or jumping	Hall A/B supply, wiring, interfaces, pulses and data update time.	Check the feedback chain and count settings; never keep running on estimated position.
Noise, shaking or jamming	Posture at onset, wind conditions, connections, stroke margin and recent maintenance records.	Stop, isolate and support; check load-bearing connections, terminations, lubrication and mechanical interference.
Damper leakage or damage	Specific damper number, mounting direction, terminations and centre distance at the extreme posture.	Stop the related motion, use approved replacements; re-check all eight connections and the full operating envelope.

Telling Communication Problems from Device Problems

An offline interface, zero readings or abnormal parameter display does not necessarily mean the mechanism cannot move. Check the communication, control and metering chains separately.

Symptom	Verification method
Device offline	Check control power, gateway, communication lines, network and platform device binding; review last communication time and the site control state.
Page angle not updating	Compare device-side feedback, network transmission and page timestamps; rule out caching, the wrong unit or stale data.
Parameter change not taking effect	Check account permissions, the save operation, device acknowledgment and read-back; record values before and after to avoid overwriting twice.
Power or energy shown as zero	Check whether the metering source is enabled, inverter or meter status, communication mapping and time - never derive generation from Hall pulses.
Protection state will not exit	Compare trigger inputs, delays, recovery conditions and the setting table; rule out input anomalies first, then recover per the approved process.
Alarm returns after reset	Keep the original logs and both trigger records; locate the unresolved cause. Never keep the unit running by repeated resets.

Before remote service, agree on the device scope, authorized personnel, authorized time

Rechecks After Weather Events and Maintenance

After high wind, snow, impact, shutdown for service or part replacement, confirm the mechanisms and protection functions still work before resuming automatic operation.

Before motion tests, confirm load-bearing connections are restored and remove temporary supports and tools that would obstruct testing per the approved plan; conduct jog and motion verification only after personnel leave the motion zone.

Recheck stage	Check requirements	Release records
Operating observation	Device online, data updating, mode correct, angle and feedback plausible; no persistent alarms.	Time, device ID, operating state and anomaly notes.
On-site mechanical recheck	Foundation, column, load-bearing frame, both actuators, eight dampers and cables free of damage, looseness or interference.	Areas checked, photos, corrective actions and inspector.
Servicing under isolation	Perform the approved tightening, lubrication, inspection or replacement plan; record part numbers and quantities.	Work order, spare model and batch, maintenance plan and actual execution.
Permitted envelope verification	Verify zero position, direction, limits, both actuators' allowable deviation and stroke margin in all postures.	Test postures, feedback results, permitted values and pass status.
Protection and	Test the delivered protection	

Spare-Part Replacement and Return to Service

Select spares by model, interface and feedback consistency. A similar appearance does not prove interchangeability, and completing the replacement does not mean automatic tracking can resume directly.

1 Identify the replacement: device serial number, original nameplate, supplier model, drawing revision, termination dimensions, stroke, electrical and feedback specifications.

2 Arrange the work: confirm the approved replacement plan, stop posture, electrical isolation, mechanical support, lifting and site clearance.

3 Record disassembly and reassembly: photograph the original wiring and mounting orientation, tag interfaces; assemble per the drawings and verify tightening and thread locking.

4 Re-verify the mechanism: confirm the two actuators' mounting relationship, the eight dampers' orientation and stroke margin in all postures; rule out cable pulling and interference.

5 Re-verify control: validate zero position, forward and reverse direction, counts, limits, both actuators' allowable deviation and the duty cycle.

6 Prepare for testing: before motion tests, confirm load-bearing connections are restored and remove temporary supports and tools per the approved plan; conduct jog and motion verification only after personnel leave the motion zone.

7 Verify and release: complete single-axis, coordinated and delivered protection function checks, save the results, and restore automatic operation with authorization.

Recommended spare-part records	Content to record
Mechanical drive parts	Slew drive, motor, actuator and damper models with their drawing revisions.
Terminations and fasteners	Spherical joints, pins, locking parts, specifications and approved tightening requirements.

After-Sales Repair Request Form

Complete the device information and fault evidence, then submit to sales@lianstor.com. Note the reason for any item that cannot be safely obtained; after-sales will arrange further checks.

Record field	Content
Project and site location	
Device model Serial no. ID	
Contract or delivery record no.	
Contact and details	
Fault onset time Wind Posture	
Current mode Alarm codes	
Last commands and operator	
Angles Limits Both-side feedback	
Recent repairs or parameter changes	
Photos Video Log attachments	
Site isolation and support	

Maintenance and Return-to-Service Record Form

Every inspection or repair produces one record. Items needing follow-up must state the owner and planned completion date - never just "handled".

Record field	Content
Device ID Date Personnel	
Work order and maintenance plan no.	
Pre-work state and isolation	
Areas inspected and findings	
Corrective actions and documents used	
Spare model Batch Original part disposal	
Tightening and lubrication records	
Zero position Range Feedback Direction recheck	
Two actuators and eight dampers, all-posture check	
Stop Protection Communication recheck	

LIANSTOR ENERGY

Lianstor Energy Technology (Hebei) Co., Ltd.

www.lianstor.com

sales@lianstor.com

C L E A N

Certified | Long-lasting | Efficient | Affordable | Net-positive