



ULTRA -TEK

Wind Turbine Applications

***One Comprehensive,
integrated solution:***

1. Ultra-Tek GSM4G Mobile Monitor
2. UE Systems Remote Access Sensors
3. DesCase Wind Turbine Applications
4. ATS Electro-Lube Wind Turbine Series
5. MotulTech Wind Turbine Lubricants

GSM4G



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GSM4G

by Ultra-Tek. Remote Maintenance Unit

Integration of

- *UE Systems Remote Access Sensor*
- *ATS Electro-Lube Wind Series*
- *DesCase Wind Turbine Applications*

The Ultra-Tek GSM4G™ unit sends an SMS to a nominated mobile phone when equipment reach a pre-determined trigger point. The user can dial into the secure GSM4G™ unit and view real time data on the equipment.

The signal can be live streamed and used in the UE SPECTRALYZER™ Special Analysis software for diagnosis and analysis.

Once the Ultra-Trak 750 has confirmed that the equipment is lacking lubrication an SMS instruction can be sent to the GSM4G-EL to activate the Electro-Luber to add the required amount of grease.

UE SYSTEMS ULTRASOUND

Detect changes in ultrasonic amplitude remotely

By detecting changes of ultrasonic amplitude the Ultra-Trak 750™ provides early warning of:

- Mechanical failure
- Low grease levels
- Valve leakage
- Flow disruption
- Internal arcing/partial discharge

Reap benefits from the moment you install the Ultra-Trak 750™, as it passively monitors Ultrasounds produced by operating equipment.

ATS ELECTRO- LUBE

Automatic lubricators for wind turbines

- SPONGE PINION for pitch and yaw gearing
The ATS Solution slashes the required up-tower ring gear maintenance schedule by around 50%

- MD2000 TITAN CL™ Cartridge Luber a powerful, microprocessor controlled motor-driven automatic lubricator which is refillable by simply replacing a standard grease cartridge.

- MD2000 ULTIMATE Electro-Luber™ a powerful, motor-driven automatic lubricator which is refillable using standard grease guns. ATS Electro-Lube has re-engineered the ULTIMATE Electro-Luber™ to face the challenging operating environments the wind power industry presents.

DESCASE ANALYSIS SOFTWARE

Meet wind turbine challenges through remote condition monitoring

Des-Case wind turbine applications provide proactive solutions to protect wind turbine gearbox and hydraulics.

Condition monitoring using:

- Connected Desiccant Breather
- Contamination Monitor Sensor
- Oil Quality Sensor

The connected breather provides early identification of moisture level changes in the oil and possible sources of entry making it an integral part of a holistic oil condition monitoring solution.

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Monitor and apply grease to remote or hard-to-reach equipment with the Ultra-Tek GSM4G-EL™ Remote Ultrasonic and Electro-Luber Unit

Review the condition and initiate grease application of equipment from a mobile phone

The Ultra-Tek GSM4G-EL™ unit will send an SMS to a linked mobile phone as soon as the equipment reaches a pre-determined trigger point. The user can then dial back to the GSM4G-EL™ unit and view real time data on the equipment. The signal can be live streamed for analysis in the UE SPECTRALYZER™ Special Analysis software for diagnosis. Instructions can be sent to the linked ATS Electro-Luber™ to apply grease if needed.

The Ultra-Tek GSM4G-EL™ unit uses a standard phone sim card, a UE Systems Ultra-Trak 750™ Ultrasound sensor and an ATS Electro-luber to providing 24/7 real time information and targeted lubrication . The trigger points can be remotely set and altered by sending an SMS instruction to the unit. The user can dial in at any time to see real time information on the performance of the equipment. The Electro-luber can be activated from the mobile phone. Each unit is PIN protected and multiple phones can dial in to see live data, if PIN is included.



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The Ultra-Tek GSM4G-EL™ unit can be used for the following Ultrasound readings:

Bearings:

- Lack of lubrication in bearings
- Micro damage in bearings
- Overloading of a bearing
- Failure of a bearing
- Steam Systems
- Steam trap condition

Pumps:

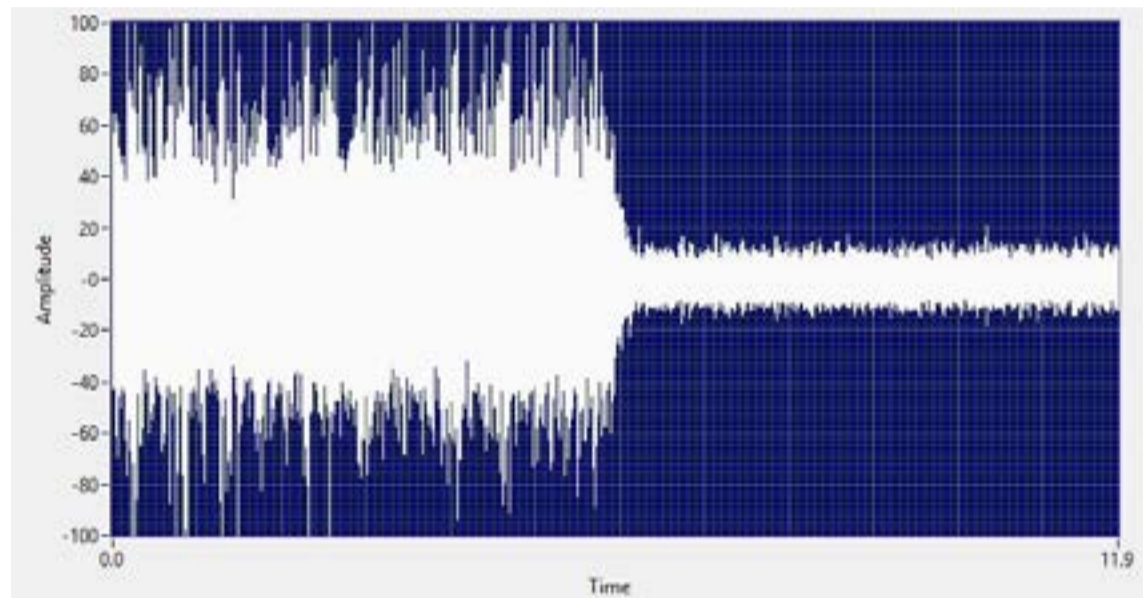
- Cavitation in pumps
- Overloading in pumps
- Condition of pump barrels

Valves:

- Passing Valves
- Isolations

Additional features of the unit include:

- Each unit is PIN protected
- Multiple devices can query to see live data
- The Ultra-Tek GSM4G™ unit can be permanently fixed to the equipment and can operate on either 24 VDC or 240 VAC power.
- The Ultra-Tek GSM4G™ unit is fixed in an IP68 weatherproof container and can also be permanently fixed to operating equipment.
- The ATS Electro-Luber is both dust proof and weather resistant.



Ultrasound recording of optimum grease application point in UE SPECTRALYZER™ Analysis Software for specialist analysis of the equipment.

GSM4G



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Specification

Remote monitoring of Ultra-Trak 750™ and ATS Electro Luber interface

Features:

- UE Ultra-Trak 750™ Interface
- Automated SMS Monitoring
- ATS Ultimate Electro-Luber™ or ATS Titan II Electro-Luber™ with interface
- ATS Titan II Electro-Luber™ can fit 2 x 450g standard grease cartages
- ATS Ultimate Electro-Luber™ is refillable with a standard grease gun and comes in 125,ml 250ml or 500ml units
- Live Monitoring
- Configuration and instructions via SMS
- Security (PIN)
- Weather proof housing

Power Supply

Option 1 : 24V DC Version

- Input Voltage Range: 18-30VDC
- Input current: 900mA max

Option 2 : 240V AC Version

- Input Voltage Range: 85-305VAC (120-430VDC)
- Frequency: 47-440Hz

Cellular Connectivity

AU Version

- 4G (LTE) B1/B2/B3/B4/B5/B7/B8/B28
- 3G (WCDMA) B1/B2/B5/B8
- 2G (GSM/EDGE) Quad-band

SIM Socket Mini-SIM 2FF

P Rating IP68



≈WIND≈ SERIES



The Kit includes:

- Ultra-Tek GSM4G-EL™ Remote Maintenance Unit
- UE Systems Ultra Trak 750™ Ultrasonic sensor
- ATS Titan Electro-Luber™ or an ATS Ultimate Electro-Luber™
- Manual
- External Antenna

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