FTS

Axiom F6
Datalogger / DCP

EXTREME ENVIRONMENTS. EXTREMELY RELIABLE.

The FTS Axiom™ F6 Datalogger

No laptop, no programming required.

The Axiom is the first and only fire RAWS datalogger to offer a waterproof, industrial-grade, daylight-readable, color **integrated touch screen.** We integrated the computer and software right into the datalogger, eliminating the need for field laptops and cables.
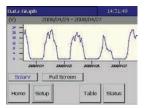
③ No more wind and rain damage, low battery or "where do I put the laptop?" hassles.

③ No complex software to install, maintain or learn.

③ Graph sensor data, view current readings, profile battery performance, change annual rain count, and more...**in any weather condition.**

Create graphs of any parameter from any range of dates, to spot data anomalies.

View and export data in tabular format.

Reset the annual rain count with a couple of taps.

Leave the laptop at the office.

③ No more wind and rain damage, low battery or "where do I put the laptop?" hassles.

③ No complex software to install, configure, maintain or learn.

③ No interface cables to mess with.

Built like a tank.

If you can't tell by looking at it, go ahead and pick it up, or submerge it in water. This datalogger is built to last. It delivers extremely low total cost of ownership.

Real simple.

Clever design in both hardware and the integrated software makes life easier for everyone who interacts with the datalogger. So you can focus on the data and not on ensuring you get it.

Tough on the outside. Clever on the inside.

Engineered to be rugged. Designed to be simple.

The Digital Advantage

The Axiom F6 datalogger has two independent SDI-12 ports which can accommodate a wide variety of current and future digital sensors.

More and more sensors are being designed to take advantage of the digital SDI-12 (Serial Digital Interface) protocol, which offers many advantages over analog sensors. The Axiom's dual SDI-12 ports and upgradable software allows any future sensor compatible with the SDI-12 protocol to be added to the site. Some of the advantages of SDI-12 include:

③ Unique and complex self calibration algorithms can be done in microprocessor based sensors.

③ Sensors can be interchanged without reprogramming the data recorder with calibration or other information.

③ Power is supplied to sensors through the interface.

③ Personnel trained in SDI-12 will have skills to work with a variety of SDI-12 data recorders and SDI-12 sensors.

Extreme reliability

The SDI ports use FTS' positive-locking, fully waterproof, corrosion-resistant military style bayonet connectors. This unique design **eliminates the most probable point of failure** in a weather station. Like all other ports on the Axiom datalogger, they are keyed and color-coded, so it's impossible to connect sensors incorrectly. They make the installation of new sensors extremely simple and quick, and ensures that the connections are reliable for years, regardless of who does it.

Extreme expansion

Having two SDI ports provides not only **virtually unlimited expansion** (up to 61 digital sensors), but also provides **more responsive data throughput** when connecting multiple sensors. Because each SDI port is independent of the other, the datalogger can drive 2 sets of sensors without having to wait for the first to respond before polling the second.

Rapid site visits

By embedding the software and user interface right into our sixth-generation datalogger, we were able to meet our customers' predominant desire: less time spent doing site visit tasks.

③ Download years worth of data within seconds via any standard USB flash memory stick. Review on your PC later.

③ Electronic site visit reports eliminate manual report writing. All activity during the site visit is recorded (including sensor serial number changes), and a full set of quality control documentation is completely automated. The file can be easily sent to WFMI/CMMS.

Get your data to go

FTS was the first company to introduce GPS into GOES communication, and the first to offer HDR GOES data. Our fifth-generation G5 GOES transmitter is extensively field proven as the most reliable of any manufacturer, and it's integrated directly into the Axiom. In fact, FTS GOES technology forms the backbone of the National Climate Reference Station System.

③ Extremely accurate timekeeping reliably transmits hourly data for up to 28 days without a GPS fix.

③ Extremely low power requirements extend operation in situations of low power or interrupted solar panel charging.

③ Automatically calculates GOES antenna azimuth and inclination, speeding installation and eliminating errors.

③ Supports test transmissions on an alternate test channel with fixed text messages to ensure future data transmission reliability.

③ NESDIS ID testing is performed at the factory before each unit is shipped to further ensure that GOES transmissions will work perfectly.

Dual independent SDI-12 expansion ports on the Axiom F6 datalogger

Simple diagnosis

Even though the Axiom offers unprecedented reliability, we know that things can and will go wrong—it's the nature of using electronics outdoors. Our integrated power manager reduces the chance of a problem with the power system—the most common source of problems—and minimizes your time spent troubleshooting.

③ An integrated power manager adds an additional layer of intelligence to the Axiom by allowing the datalogger to directly talk to and manage the solar panel and battery.

③ The Axiom is constantly aware of parameters like solar voltage and current, battery voltage and current, battery and internal ambient temperature, and can transmit this information via any telemetry method. This allows the datalogger to provide a complete picture of power conditions for diagnosing power issues remotely, eliminating unnecessary site visits.

③ At the site, this information is readily available as a graph on the integrated touchscreen.

③ An integrated power manager also eliminates the need to buy and install an external charge regulator, and like everything else inside the waterproof housing, it's protected.

Flexibility and expandability

Any FTS RAWS can be fully customized to allow for an amazing array of configurations, allowing additional features to be added as required. Two independent SDI ports provide true plug-and-play integration of current and future digital sensors like barometric pressure, visibility, snow depth, stage and other sensors. A RAWS can also be expanded by adding virtually any analog sensor with the optional SDI-AM analog interface to SDI module.

Examples of sensors that can be easily added

③ Barometric pressure

③ Soil moisture

③ Ultrasonic wind speed direction

③ Snow depth

③ Soil temperature

③ Visibility

③ All-season precipitation

③ Snow pillow

③ Turbidity

③ Pressure transducer

③ Bubbler (water level)

③ Multisondes

Extreme ruggedness

Because reliability is paramount and any downtime means lost data and increased liability, the Axiom is engineered for long-term durability in the harshest environments.

③ Three levels of lightning protection. We have 30 years of experience building equipment for the most extreme lightning strike locations, and it's in here.

③ The entire unit — the cast aluminum alloy, O-ring sealed case and all ports—is completely impervious to the elements. Even the touchscreen. And not just splashproof: fully watertight.

③ Positive-locking, waterproof, color-coded, plated, corrosion resistant, military-style bayonet connectors.

AirTalk.
A voice you can count on.

"Alert! Alert!

Wind speed: 35.8 miles per hour, temperature 94.5 degrees Fahrenheit."

Retrieve data remotely through your handheld radio.

Access data via any DTMF-capable handheld radio. Data is broadcast to all radios on the same channel.

Weather data is converted into a phrase of real human-recorded audio (not computer-synthesized). Our new "text-to-speech" engine is 50% louder and significantly clearer than previous generations.

Touchscreen user interface makes creation and modification of alerts extremely simple.

Instant voice alerts of exceeded weather parameter thresholds provide real-time decision-making, maximizing firefighter and public safety.

Current weather conditions are available on-demand with a simple 3 or 4 digit numeric code keyed into the radio's keypad. Assign your own DTMF tones for different reports.

We are world leaders in Fire Weather Systems

For over 30 years, we've known what you need to be successful.

Approved and certified by RSFWSU.

③ Supported with existing service contracts.

③ Allows access to service from NIFC.

Every component meets or exceeds NFDRS/CFDRS standards

③ Ensures your data has value.

③ Reduces liability.

③ Ensures no-cost access to nationally-funded service contracts.

Pre-configured for fire applications and compliant with ASCADS database.

③ No need for specialized, trained staff to program, configure, verify and validate... anyone can set it up.

③ Shipped pre-programmed with NIFC fire RAWS program (US) or any other specified programming (CDN)

③ Ready to go out of the box—just turn it on and it works.

Feature-Benefit-Value Summary Matrix

We constantly solicit feedback from line operations staff and Fire Management about why they prefer FTS Fire RAWS products. They tell us it's because FTS offers the greatest operational functionality with the lowest total cost of ownership. Our customers require durable equipment that is quick and easy to set up in an emergency situation and operates with the highest level of reliability and accuracy.

FEATURE	BENEFIT	Cost Reduced	Training Reduced	Maintenance Reduced	Reliability Increased	Safety Increased
No field laptop PC required	• Reliable deployments and simplified operations. • No dependency on additional computer equipment or cables in the field. • Reduced capital expense by eliminating the need for laptop PCs at station installs and maintenance visits. • Elimination of damage to laptop PC due to weather.	✓	✓		✓	
No field tools required	• Reliable deployments and simplified operations and training. • No tools to go missing in field activities.				✓	
No programming required	• Reduced training requirements. • Improved reliability of deployments through minimized opportunity for error. • No laptop PC required in the field.	✓	✓		✓	
Intelligent power management	• Increased high reliability performance under adverse conditions. • Ensures data integrity. • Improves peripheral radio add-on options.	✓			✓	
No GOES antenna assembly or alignment	• Simplified, quick and consistent deployments. • Improved reliability through fewer failures. • Minimized maintenance through reduced in-field failures due to weather or animal damage.	✓		✓	✓	
Fire weather program accessible through integrated touchscreen	• In-the-field flexibility. • Ease of setup. • No laptop PC required. • Minimal training needs.	✓	✓			
Voice alert conditions easily set via touchscreen	• Configurable in the field to meet site and fire specific requirements.		✓			✓
High quality voice alerts based on real-time data	• Ensures field personnel and firefighting teams are made aware of changes in weather conditions immediately.					✓
Multiple touchtone access codes for radio voice alerting, configurable via touchscreen	• Minimize valuable radio airtime usage. • Ability to design site- and situation-specific voice alerting solutions. • Reduced power consumption of radio transmissions. • Increased field deployment time.	✓			✓	✓
System upgrades, updates, maintenance through USB port	• Simplified maintenance. • No field laptop PC required.	✓		✓		
Ability to set conditional logging parameters through touchscreen interface	• Allows for customized site- and situation-specific logging requirements. • e.g. very high resolution (every 5 minutes) logging for prescribed burns, vs. standard 1 hour logging for other conditions.				✓	✓
Electronic service reports generated through graphical UI	• Provides simple methods for recording and storing maintenance activities. • Eliminates manual creation and submitting of service reports.		✓	✓		
State-of-the-art-technology	• Long lifecycle. • Expansion options—upgrade path for future functionality.		✓	✓	✓	
Reliable access to FTS support and product experts	• Instant, toll-free access to expertise when issues or questions arise in remote field operations.		✓		✓	✓
Minimal training required (but easily accessible if needed—at no cost)	• Reduced training and support.		✓			