



ENVIRCO offers a complete family of control solutions providing machine intelligence to monitor and control clean room environments of all sizes - from small to very large.

Product Handbook

SMART CLEANROOM CONTROLS

Automate operations

Extend asset life

Save time

Reduce energy consumption

Lower operating expenses

Smart Cleanroom Controls

■ Introduction

ENVIRCO offers a complete family of control solutions providing machine intelligence to monitor and control clean room environments of all sizes - from small to very large.

■ Features

Various fan filter unit control options

- » Single FFUs
- » Multiple FFUs organized in a zone
- » Multiple zones, each independently managed
- » Animated ceiling grids with touchscreen displays

Simplified setup and more flexible cleanroom operation

- » Automated room-side fan speed setup and control
- » EC motor control with RPM monitoring
- » Automatic controls with integrated clock calendar
- » Closed-loop runtime fan speed monitoring and control
- » Remote control from outside cleanroom or off-site

Lowers clean room energy cost and operating expense

- » Clock calendar sequenced FFU power ON/OFF
- » Monitor and adjust airflow as needed
- » Asset life extension from smarter FFU use
- » Central monitor of particle counters, pressure transducers

■ I/O Options

ENVIRCO Consoles have multiple input and output options available for a cleanroom builder to implement at a low cost. The actual sensors are supplied by the customer.

- » Room control
 - » Occupancy sensing
 - » Remote setback
 - » Remote shutdown
 - » Alarm output to BMS
 - » Door interlock
- » Analog sensors
 - » 0-10VDC
 - » 4-20mA
 - » Lighting control
 - » Data logging
 - » Clock calendar

Controls Capability Summary

			Screen Size	Max # of FFUs	Max # of Zones	Controls FFUS via BACNET	Animated Ceiling Grid	Data Logging	Alarm Outputs	Inputs for Stop & Standby	Particle Counter Intergration	Remote Setback & Clock/Calendar	Set Speed by Zone or Global	BACNet MS/TP or IP	Sensor Intergration
Custom Consoles	ACC8152	15" Capacitive Touch	1000+	50	✓	✓	✓ ¹	✓ ¹	✓ ¹	✓ ¹	✓ ¹	✓	✓	✓ ¹	✓ ¹
	ACC7152	12" Resistive Touch	400	50		✓	✓	✓ ¹	✓ ¹	✓ ¹	✓ ¹	✓	✓	✓ ¹	✓ ¹
	ACC7072	7" Resistive Touch	400	50		✓	✓	✓ ¹	✓ ¹	✓ ¹	✓ ¹	✓	✓	✓ ¹	✓ ¹
Field Configurable	Zephyr 200	12" Resistive Touch	200	16			✓	✓	✓	✓	✓	✓	✓	✓	✓
	Zephyr 120	7" Resistive Touch	120	12			✓	✓	✓	✓	✓	✓	✓	✓ ¹	✓
	Zephyr 100	3" Resistive Touch	100	6			✓	✓	✓	✓	✓	✓	✓	✓ ¹	✓
	EOS-60		60	4			✓	✓					✓	✓	
Single Unit Remote Control	IR Remote		1	N/A					✓	Handheld remote controller compatible with MAC 10 IQ & LEDC FFUs, one at a time					
	Remote VCU		1	N/A					✓	Standalone control board and electrical control box for MAC10 IQ & LEDC FFUs					
	Remote SC		1	N/A					✓	Standalone speed control and electrical control box for MAC10 Original only FFUs					

✓¹ = Optional

■ Ethernet Options

ENVIRCO Consoles allow several Ethernet options to integrate with building management systems.

- » Modbus TCP/IP
- » OPC Server
- » Remote Operator
- » BACnet I/P (requires ACGW007)



■ Closed Loop Control Options

ENVIRCO touchscreen consoles: **ACC8152, ACC7072 and ACC7152** can provide the following:

- » Up to 24 Loops
- » Input from either:
 - » Analog sensor directly into the Console
 - » 0-10VDC
 - » 4-20mA
 - » 0-20mA
 - » Connected to AirCare Motor controller
 - » 0-5VDC

Typical sensors include but not limited to:

- » Pressure
- » Temperature
- » Humidity
- » Particle count
- » CLIMET CI-3100
- » TSI 7301 and 7501
- » LIGHTHOUSE 3104

Particle counters can also be tied using MODBUS RTU or MODBUS TCP (sensors supplied by others).

■ Panel Box Options

Consoles mounted in wall mount panel box enclosure.

■ About ENVIRCO®

ENVIRCO® is a recognized worldwide leader in clean air products for the semi-conductor, microelectronics, medical device, pharmaceutical, biotechnology, hospital and laboratory markets. For more than 50 years, ENVIRCO® has been an innovator in clean air technology, enjoying a history of developing cutting-edge product breakthroughs that continues through today. Its reputation for product innovation and high quality has positioned ENVIRCO® to be at the forefront of many industry firsts, including the first low-power Fan Filter Unit (FFU) and the first commercial cleanroom. Whether an organization's needs involves the production of medical devices, pharmaceuticals, university research, nanotechnology science, semiconductors or other advanced technologies, ENVIRCO® products provide clean air environment that ensures the integrity of a sample or material. Within a medical and/or operating room setting, ENVIRCO® continues to build upon its reputation as the industry's first manufacturer of a laminar flow surgical suite, providing infection control to hospital rooms and staff and preventing the spread of airborne contaminants.

ENVIRCO's complete product line is rigorously tested and is renowned for providing an economical and energy efficient method for implementing a cleanroom environment, boasting ease of installation, operation and maintenance. Above all, ENVIRCO® products deliver high performance.

■ Service & Support

The ENVIRCO® combination of innovation and high quality clean air products is surpassed only by the company's superior service it offers customers to ensure the ENVIRCO® product/system they purchase meets their needs. Highly trained and experienced engineers provide superior life cycle support, from system design and installation to final performance testing and follow up.

Learn how ENVIRCO® cleanroom products and air filtration systems can help companies improve their bottom line by maximizing product yield, improving patient care and hospital staff safety and ensuring the integrity of laboratory research. Call 1.800.884.0002, email info@envirco.com, or visit www.envirco.com for more information.



ENVIRCO®

101 McNeill Road | Sanford, NC 27330, USA

tel: 919.775.2201 | toll free: 800.884.0002 | fax: 800.458.2379

www.envirco.com | email: info@envirco.com

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