COSMOS™
HEALTHY HOME SYSTEM

Specification Submittal Data / Cosmos Command Center

Description

The Cosmos™ Healthy Home system is designed to work with the Panasonic WhisperGreen® Select™, WhisperFresh Select™, and WhisperHood IAQ™ to meet ASHRAE 62.2 ventilation standards. The Cosmos Command Center includes the Cosmos HQ and Cosmos Indoor Air Quality Monitor. Cosmos HQ monitors system operations and the Cosmos Indoor Air Quality Monitor assesses air quality to determine when levels are outside the normal range. ASHRAE 62.2 ventilation algorithms are the standard parameters. Optional customized scenes are programmable via tablet or smart phone application.The application is available in iOS and Android operating systems. All Command Center components conform to FCC Communication Standards and ETL Safety Standards.

Cosmos HQ (PCHQ1):

• Monitors system operations in real time
• Aggregates data from multiple sources
• Built-in ASHRAE 62.2 standards
• LED display indicates connectivity
• HDMI, Ethernet, USB ports
• LAN RJ45 10/100M Ethernet interface
• Memory: 2GB LPDDR3 533MHz
• Storage: 8GB eMMC 4.5
• Wi-Fi IEEE 802.11 b/g/n /ac
• ZigBee Module ZICM357SP2
• DC-IN 5V -3A
• Operating System: Android 7.1
• Housing/Case Material: ABS
• Dimensions: 6.7"L x 4.2"W x 2.2"H
• Weight: 0.4 lbs

Cosmos Indoor Air Quality Monitor (FBT002100):

• Sensor to advise Cosmos HQ of current indoor air quality
  o Fine Particulates-Sensing technology: light scattering, low latency detection
    - Factory Calibration, on the fly signal processing
    - Sensibility particulate size .03 µm to 2.5 µm (PM2.5)
    - Range 0 to 1 300 µg/m³; Precision ±4µg or ±20%
  o Total Volatile Organic Compounds (VOCs)
    - MOS sensor tech. automotive industry grade
    - High reliability and stability
    - Precision ±10%
    - Low Latency detection
    - Formaldehyde, Iso-Butane, Toluene, Methane, Ammonia, Benzene etc.
  o Humidity
    - Usage range 30-85% (non-condensing)
    - Accuracy RH ±5%
  o Temperature
    - 15 to 45°; ±1°C, 59 to 113°F ; ±1.6°F
  o CO_2
    - Algorithm calculation from VOC
  o Connectivity
    - Wi-Fi 802.11 B/G/N; Security: Open/WEP/ WPA/WPA2 Personal
    - F2.4 GHz Wi-Fi router

- Store data every 5min to cloud
- On demand instant measurements
- iOS 8 minimum & Android 4.3
- Colored LED light output
• Power – non detachable USB cable (6.5ft)
  o AC-DC 5V 0.5A USB power adaptor
• ABS Glossy and rubber finish
• Dimensions: 6.7"H x 2.8"D
• Weight: 1.05 lbs.

Additional Cosmos Components, Sold Separately:
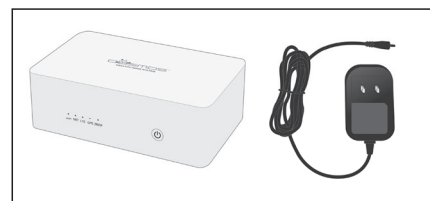
Cosmos Communication Module (PCCMZB1)

• Enables additional Cosmos components to communicate with Cosmos HQ
• 192kB FLASH
• 12kB SRAM
• Up to 23 GPIO pins
• SPI (Master/Slave), TWI, UART
• Timers, Serial Wire/JTAG Interface
• 5-channel 14-bit ADC
• TX +20dBm
• RF performance: Up to 123dB RF Link Budget
• RX Sensitivity: 103dBm (ZICM357SP2)
• Data rate: 250kbps
• Advanced Cortex-M3 processor
• 16 RF Channels
• Industry's premier ZigBee Pro stack: EmberZNet PRO™
• Integrated PCB trace antenna
• Supports Mesh networks
• AES encryption
• FCC, CE and IC certifications
• ROHS compliant

Architectural Specifications:

The Cosmos Healthy Home System is designed to meet ASHRAE 62.2 ventilation standards. Customized settings, system operation and operational history are available through an iOS or Android application. The Cosmos HQ (PCHQ1) communicates wirelessly with the Cosmos Indoor Air Quality Monitor (FBT002100). Cosmos HQ connects to the additional Cosmos components, the WhisperGreen® Select™, WhisperFresh Select™, and WhisperHood IAQ™ with 1 each of the Cosmos Communication Modules (PCCMZB1), to activate and deactivate the additional components. WhisperGreen® Select™ and the WhisperHood IAQ™ provide exhaust ventilation at various rates up to 150 CFM for WhisperGreen® Select™ depending on model, or up to 390 CFM for WhisperHood IAQ™. The WhisperFresh Select™ provides filtered outside air up to 150 CFM, or can be used to transfer and filter air from room to room using the Recessed Inlet™ as a multi-purpose exhaust or supply channel. Please note the wiring diagram for the WhisperGreen Select on page two. Failure to follow will cause improper Cosmos operation.

Cosmos Command Center (PCCC1)

Cosmos HQ (PCHQ1)

Cosmos Indoor Air Quality Monitor (FBT002100)

Cosmos Communication Module (PCCMZB1)

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Additional Panasonic Components Sold Separately.

Please refer to the submittal sheets for the following models:

WhisperGreen® Select™ Models:
- FV-0511VK2
- FV-0511VKL2
- FV-1115VK2
- FV-1115VKL2

Smart Action Motion sensor (FV-MSVK1)
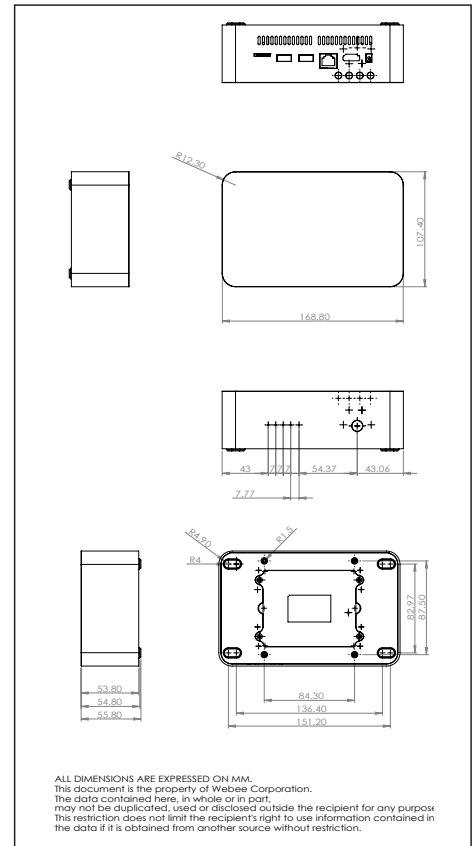
Condensation Sensor (FV-CSVK1)

WhisperFresh Select™ Fresh Air Supply Fan (FV-15NLFS1)
- Whisper Fresh Replacement Merv 8 Filter (FV-FL0815NL1)
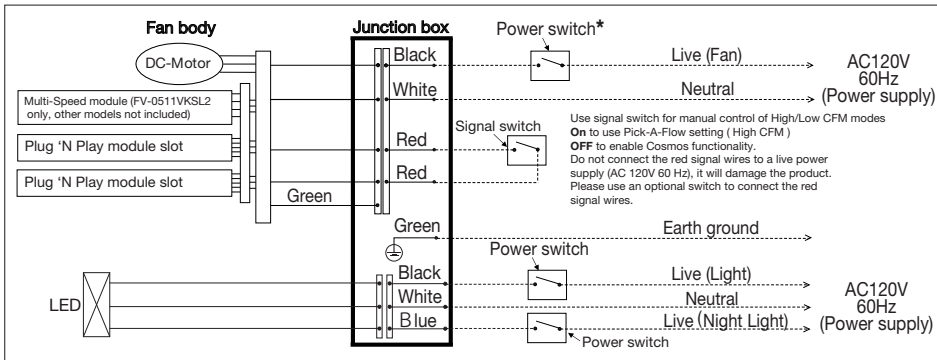- Whisper Fresh Replacement Merv 13 Filter (FV-FL1315NL1)

Recessed Inlet™ For Exhaust & Supply Inlets (FV-NLF46RES)
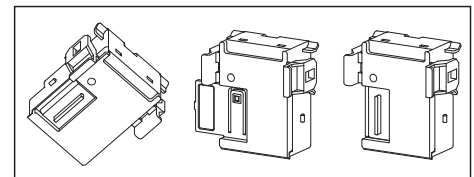
WhisperHood IAQ™ Models:
- FV-28RNQL1
- FV-30RCQL1
- FV-36RBQL1HD
- FV-36RLQL1
- FV-36RCQL1

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Cosmos HQ (PCHQ1)

Cosmos Communication Module (PCCMZB1)

WhisperGreen® Select™ Wiring Diagram

Use signal switch for manual control of High/Low CFM modes
On to use Pick-A-Flow setting (High CFM)
OFF to enable Cosmos functionality.
Do not connect the red signal wires to a live power
supply (AC 120V 60 Hz), it will damage the product.
Please use an optional switch to connect the red
signal wires.

*NOTE: Controls indoor air quality, leave on unless outdoor air quality is poor

For complete Installation Instructions visit **us.panasonic.com/ventfans**

Model	Quantity	Comments	Project:
			Location:
			Architect:
			Engineer:
			Contractor:
			Submitted by:
			Date:

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