

Particle Capture System

“MUON TRAP”

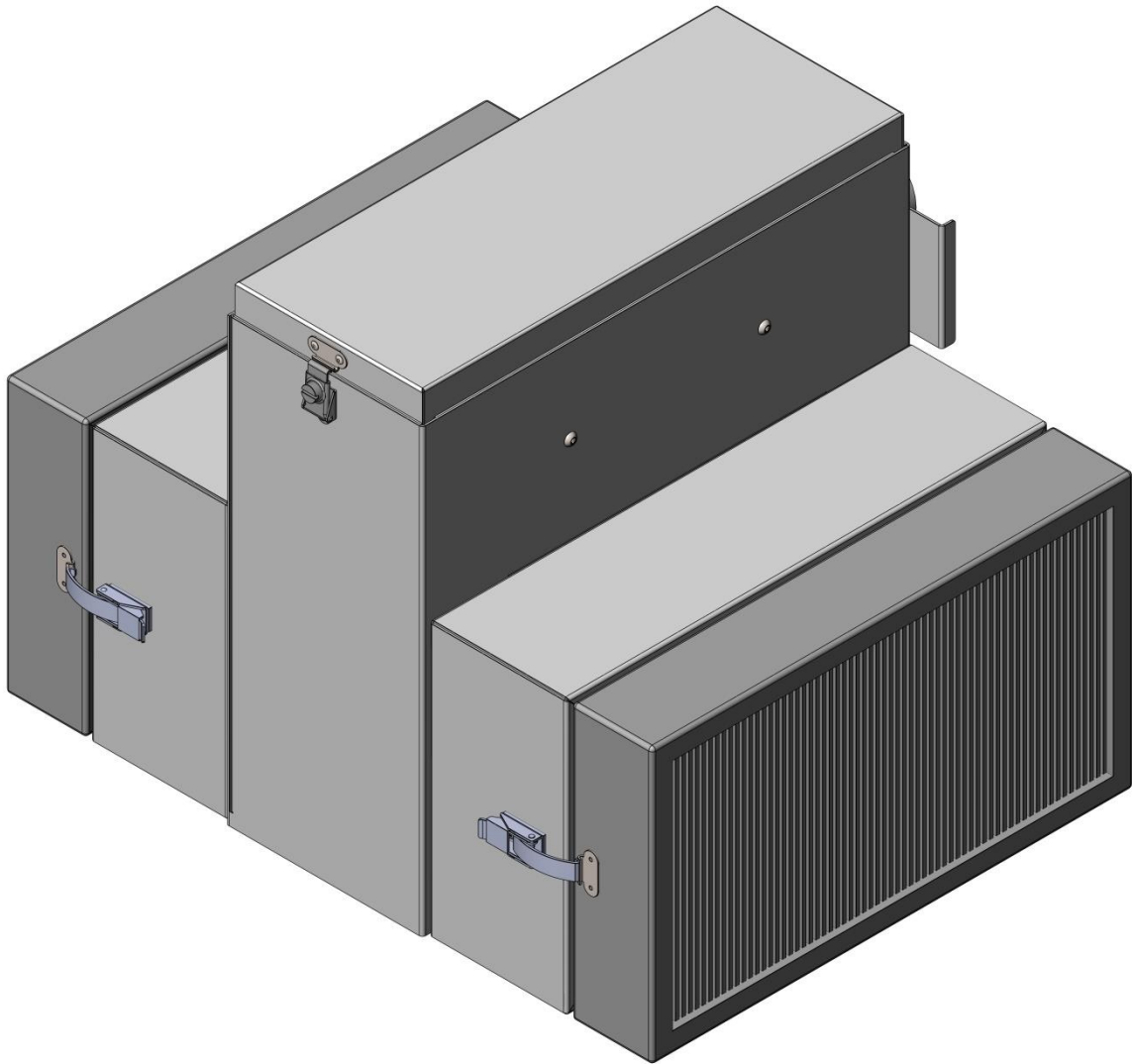
Under-Bench Mount HEPA System Version

C.C. Steven & Associates, Inc.

www.ccsteven.com

www.particlecapturesystem.com

805-658-0207



PCS-DC500

Manual Part No. 6127-1

Revision A, 08/13/2025

OPERATOR'S MANUAL
"Muon Trap" Particle Capture System

SPECIFICATIONS:

Power:	120 Volts 60 Hz fused 2 Amps 230 Volts 50 Hz fused 2 Amp
Power Draw Fan:	2 Amps.
Filter:	HEPA - 99.97 Efficiency @ 0.3 Micron
Air Flow:	520 CFM (246 l/sec) (with clean filter)
Inlet Velocity:	413 FPM (2.1 m/sec) (with clean filter)
Sound:	66 dBA
Weight:	~60 Lbs

INTENDED USE:

The “**Muon Trap**” **Under Bench Particle Capture System (PCS)** is designed to capture particles blown off your product in a clean room. A HEPA filter captures the particles and clean air is put back in the room. The **PCS** can be used with or without ionized air gun.

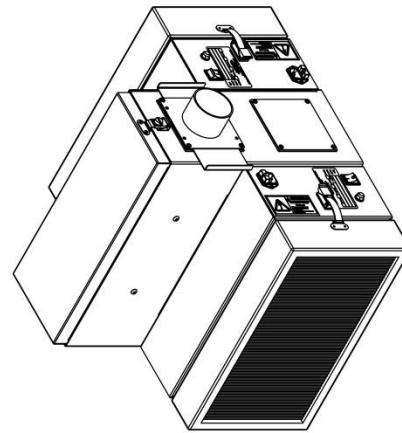
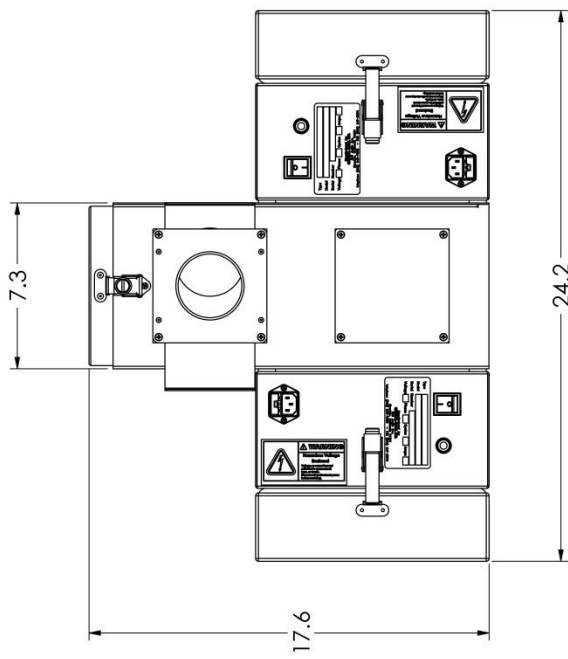
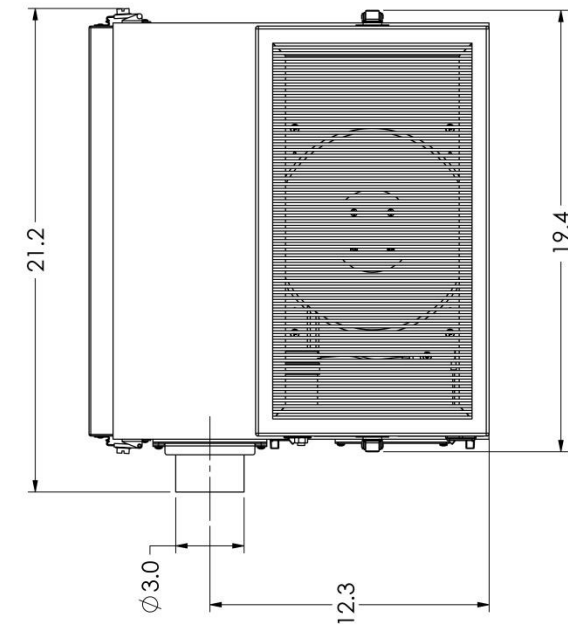
FUNCTIONAL DESCRIPTION:

Particulate debris from a part or target substrate is dislodged using compress air at high velocity, low volume. The dislodged particles and the air from the air gun are then entrained at the inlet mouth by high volume, low-velocity air created by a quiet blower pack. The dislodged particulates are then sucked through the fan and pushed/captured against the high-efficiency HEPA filter.

INSTALLATION:

Carefully remove **PCS** from its packaging and verify all parts, components are present per the assembly drawings prior to assembling. Keep packing materials in event that the unit must be returned to **C.C. Steven & Associates, Inc.**

NOTE: Product installation techniques may vary depending on the workstation used. For the demonstration, we have used common cleanroom workbench. The installation of the **PCS** can be performed with a single installer, however, it is recommended to have additional personnel available on site to assist with the installation should it be required.



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"MUON TRAP"

Exclusively Sold by:
 C.C. Steven & Associates, Inc.
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www.particlecapturesystem.com
 805-658-0207

C.C. Steven

PART NO. PCS-CT0025-3

SCALE: 1:5
 DATE: 08/13/2025

Installation of the PCS unit is very simple; for proper installations please follow the steps described below (refer to assembly drawings in appendix 1):

1. Attach "Blower Cases" to the "Vertical Plenum" using the 8x #10-32 x 3/8" pan head screws provided.
2. Attach "HEPA Filters" to the "Blower Cases" using the draw latches located on the sides of the "Blower Cases"
3. Plug in the power cords.

Your "Muon Trap" Particle Capture System is now ready to use.

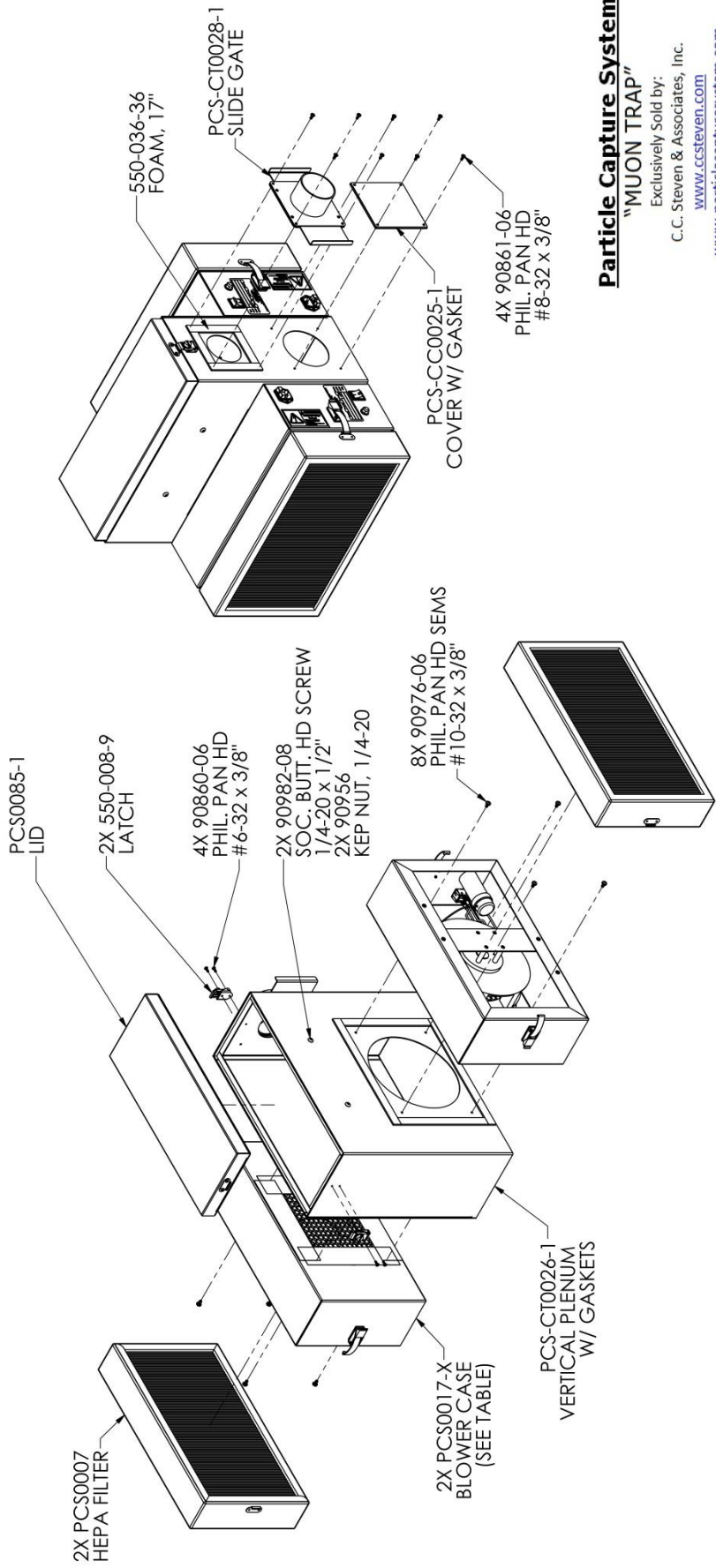
SERVICE:

- Service assistance and replacement parts are available from:

C.C. Steven & Associates, Inc.

Telephone: 805-658-0207
FAX: 805-658-2789
Email: static@ccsteven.com

Appendix 1: Assembly & Electrical Drawings



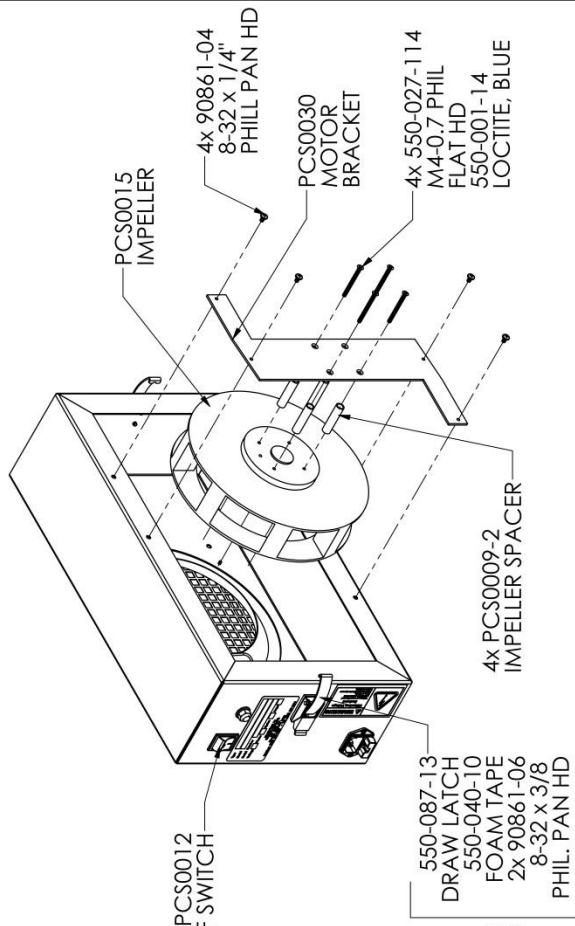
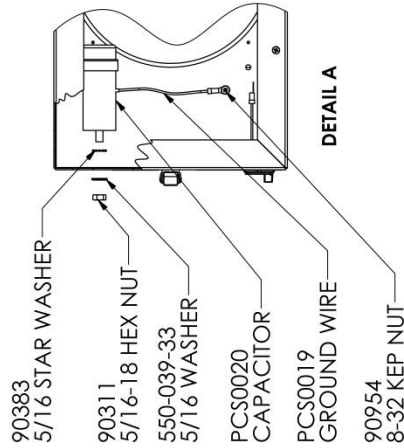
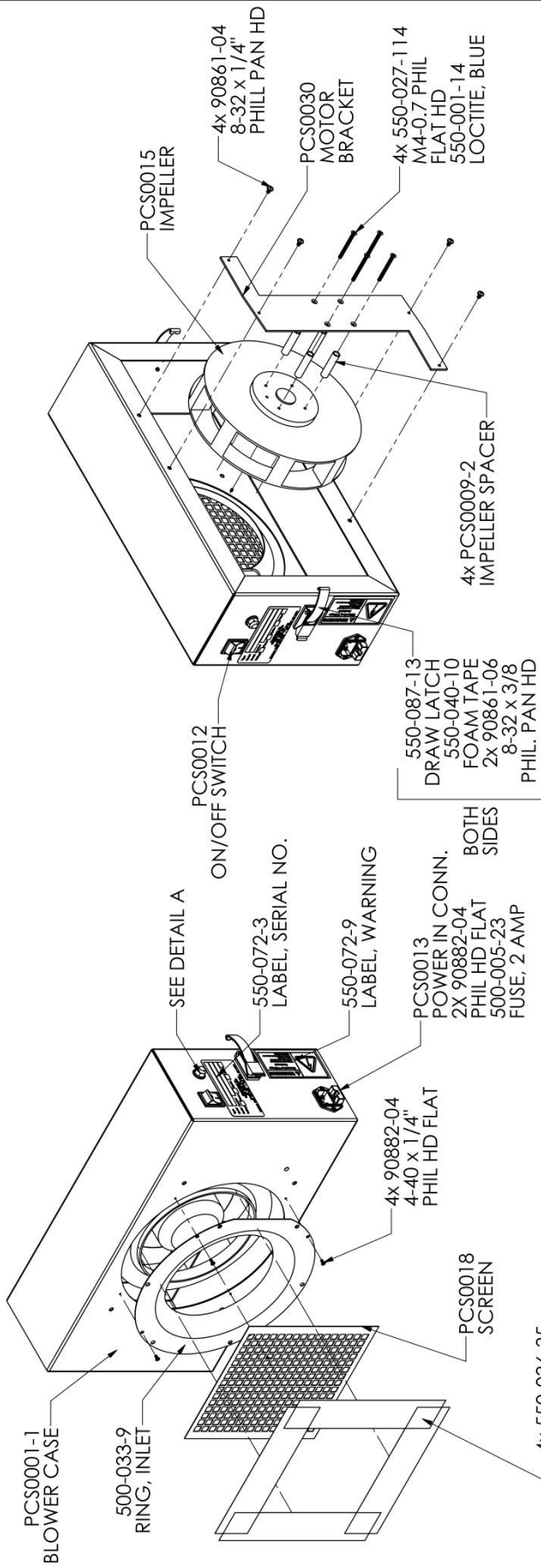
PART NO.	BLOWER CASE	POWER REQ.
PCS-CT0025-3	PCS0017-1	115V / 60 Hz
PCS-CT0025-4	PCS0017-230-50	230V / 50 Hz

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PART NO. PCS-CT0025-X

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Particle Capture System

"CLEAN STATION"

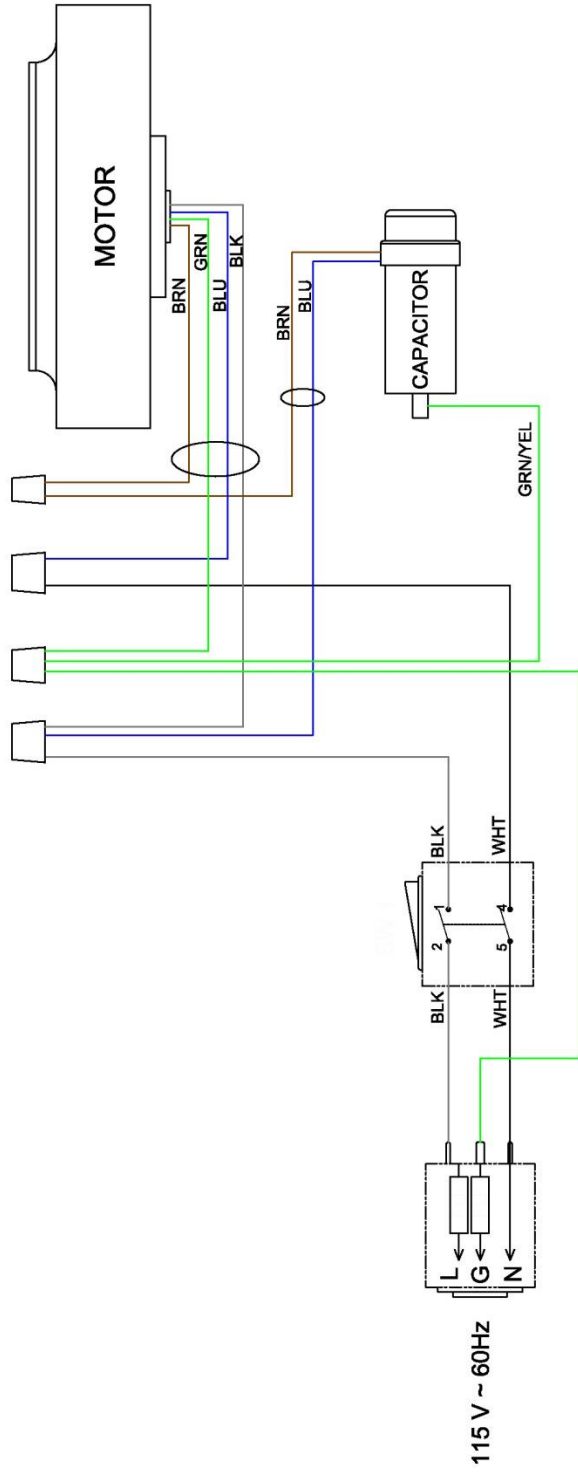
C.C. Steven & Associates, Inc
 www.ccleanstation.com
 805-658-0207
 www.particlecapturesystem.com

PART NO. PCS0017-1

ASSEMBLY

SCALE: DATE

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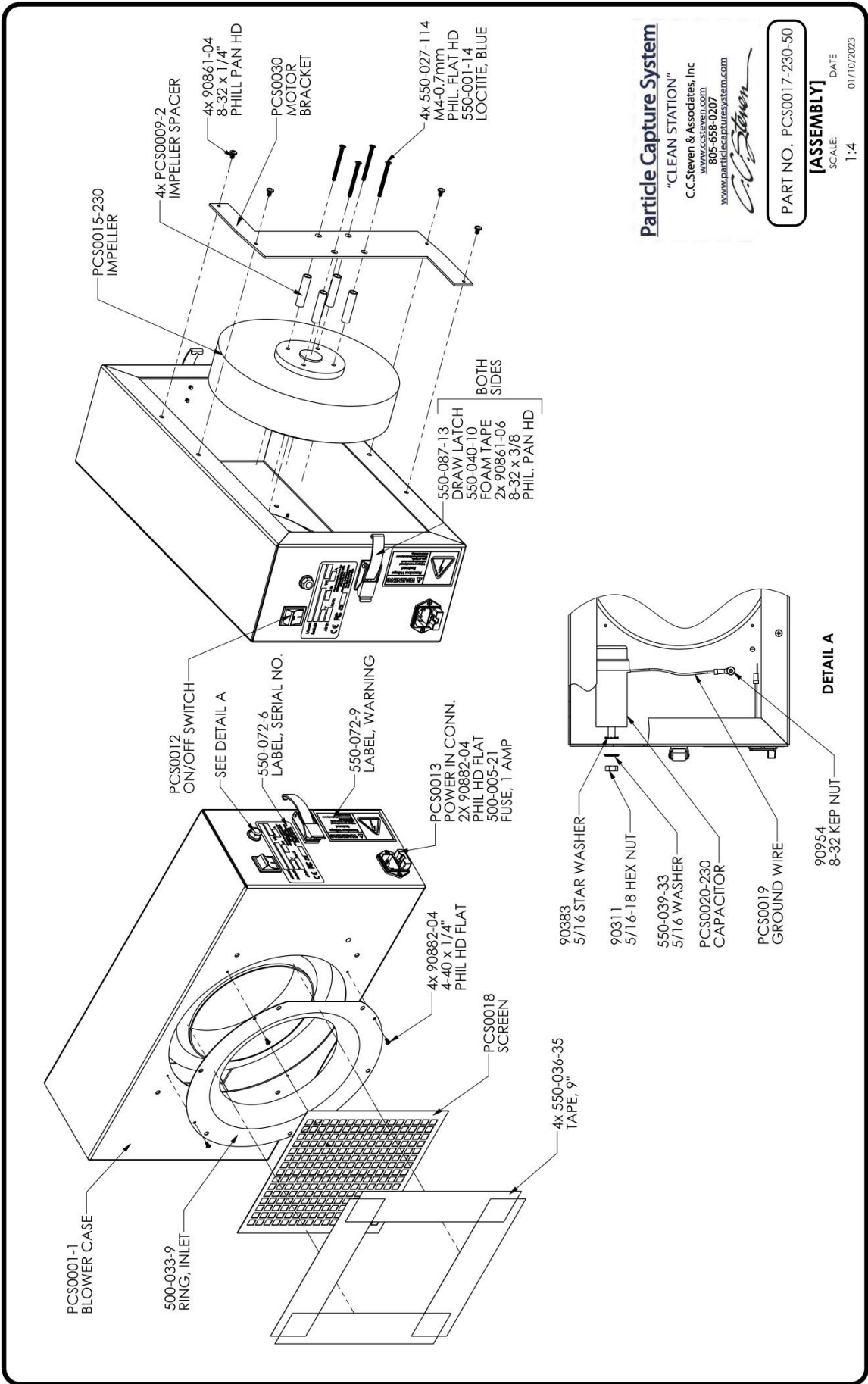


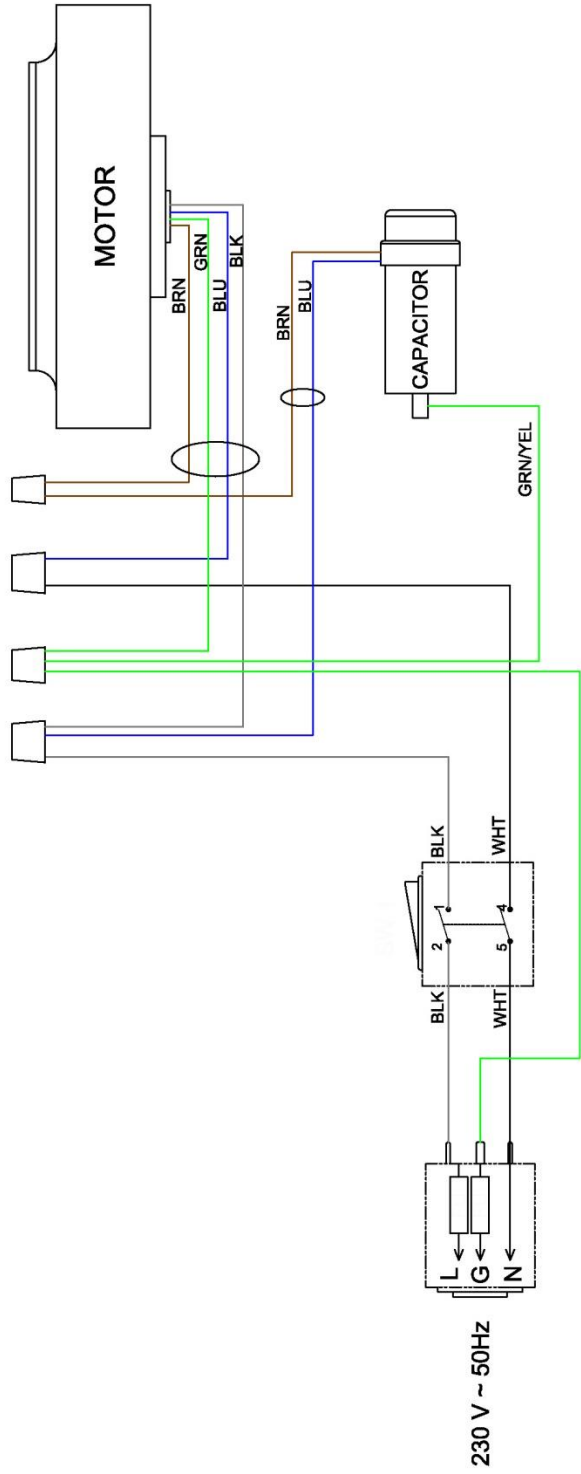
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PART NO. PCS0024-1

WIRING DIAGRAM,
 PARTICLE CAPTURE SYSTEM,
 115V/60Hz





Particle Capture System

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PART NO. PCS0024-2

WIRING DIAGRAM,
 PARTICLE CAPTURE SYSTEM,
 230V/50Hz