

NOTICE

This product is intended for use with the FarmBot 24V vacuum pump.

It is designed to mitigate WiFi signal degradation while the vacuum pump is operating.

For more information on FarmBot, please visit www.farm.bot

This revision (X1) is a prototype release. It is not fully tested or qualified.

INSTALLATION INSTRUCTIONS

1. Remove the plastic shroud from the vacuum pump.
2. Disconnect the leads from the vacuum pump, noting the polarity.
3. Slide the hose clamp around the vacuum pump from the bottom.
4. Insert the EMI Filter onto the vacuum pump with the missing spoke of the EMI Filter PCB oriented toward the vacuum pump mounting plate. Ensure the pin headers slide around the body of the vacuum pump. Align the quick connect terminals and gently push the EMI Filter until it is fully seated. See Figure A for detail.
5. Hand tighten the hose clamp with a flat-head screwdriver or socket driver until snug.
6. Connect the leads to the EMI Filter quick connect tabs, noting the polarity.
7. Re-install the plastic shroud over the vacuum pump.



Figure A

TECHNICAL DATA

Absolute Maximum Ratings

	Min	Max	Unit
Operating Voltage		40	V
Continuous Current		2	A
Operating Temperature	-40	85	°C

Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device.
Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

Recommended Operating Conditions

	Min	Max	Unit
Operating Voltage	8	24	V
Continuous Current		0.5	A
Operating Temperature	-40	60	°C

Electrical Characteristics

At 24VDC, 0.5A, 25°C unless otherwise noted.

	Typ.	Unit
DC Series Resistance	0.25	Ω
Differential-Mode Corner Frequency (-3dB)	7k	Hz
Differential-Mode Attenuation	40	-dB/decade
Differential-Mode Peaking	0.5 @ 1.7k	dB @ Hz
Common-Mode Corner Frequency (-3dB)	11k	Hz
Common-Mode Attenuation	40	-dB/decade
Common-Mode Peaking	2.3 @ 4k	dB @ Hz

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