

NVR and EMI / RFI FILTER WIRING DIAGRAM



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**INFORMATION IS SPECIFIC TO OUR PRODUCTS AND CAN CAUSE
DAMAGE IF USED WITH NONE COMPATIBLE PRODUCTS SO PLEASE
CHECK WITH YOUR SUPPLIER FOR COMPATIBILITY**

These drawings are supplied as a guide no guarantees are implied or given. Caution when wiring and check with a qualified professional if unsure. It is your responsibility to check you have complied with your local legislation as to safety requirements for your country as machines can cause injury to users.

By using these diagrams you agree to the above safety warning.

Documentation will be updated amended at the discretion of CNC4YOU Ltd.

Please Read Carefully Before Wiring Your Machine

CONDITIONS OF USE

Certain laws and regulations apply to your use of CNC machines and automated equipment and it is essential you comply with your local and any international regulations for construction and use of automated equipment.

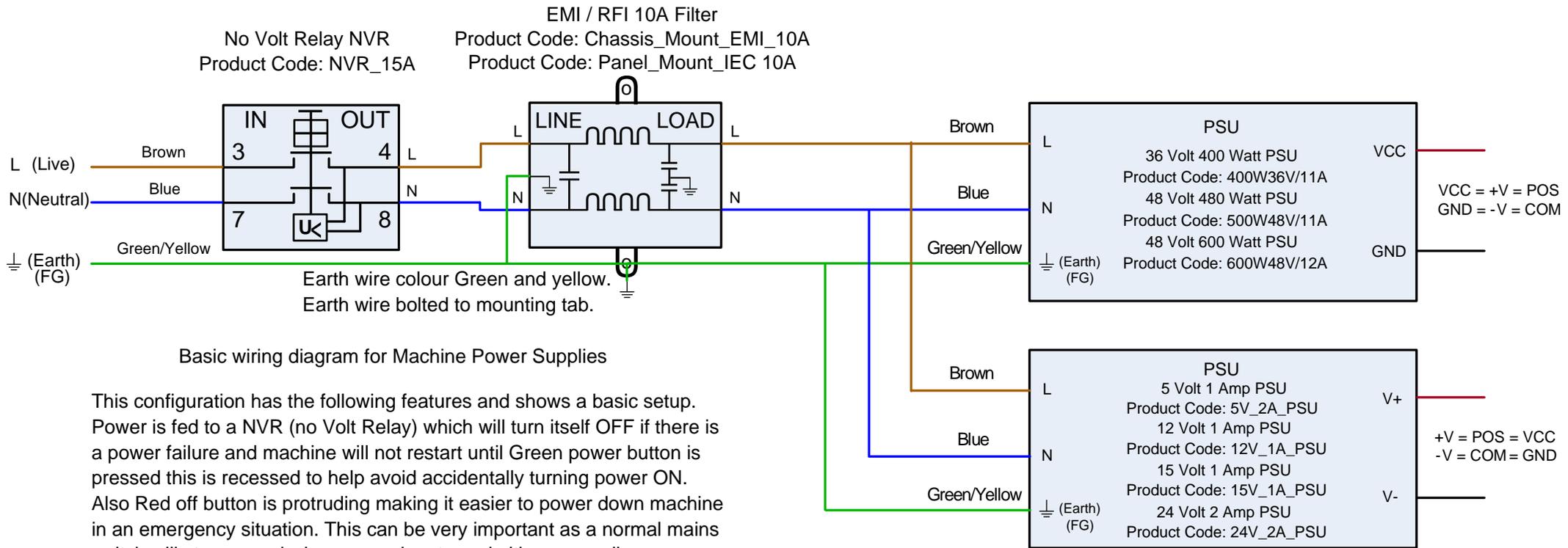
These diagrams are a guide to wiring your machine and do not constitute advice or direction to complying with your legal obligations and any health and safety requirements you must comply with. It is crucial you understand the dangers and safety implications when automating your machine or system and special care must be taken when automating your spindle or other cutting tools or equipment and we are showing a simple setup which will be amended without notice to show the complexity of automating cutting tools, but you are again responsible for meeting and understanding your specific end customer use and or meeting all necessary safety regulations and these can and do change regularly so consult your local regulations and make sure you observe all safety regulations .

You are required and agree to maintain compliance with all applicable laws and regulations. You understand and agree that you are solely liable for compliance with such laws and regulations, and under no circumstances shall CNC4YOU Ltd. be responsible or held liable for such compliance. You understand that breach of such laws and regulations may result in both criminal and civil sanctions against you. In accordance with these terms and conditions for CNC4YOU Ltd. you agree to indemnify CNC4YOU Ltd. for any violation of such laws and regulations. If in doubt seek professional advice if you are unsure of your legal obligations.

CNC4YOU Ltd assumes our equipment will be integrated into Industrial control equipment and as above integrated safely to avoid injury to yourselves or third parties. This equipment has not been designed for implicit use for life support applications or intrinsically safe designs where life threatening or critically safe use is required. Our products have not been specifically designed as fail-safe equipment. It is advisable to give adequate training and safety procedures to operators using automatic equipment.

Before using any drawings or wiring diagrams please check on our website for latest version, all wiring diagrams should have a version number if not please contact us so we can amend and issue version information.

Wiring Diagram for Power Supplies Switch Mode PSU's

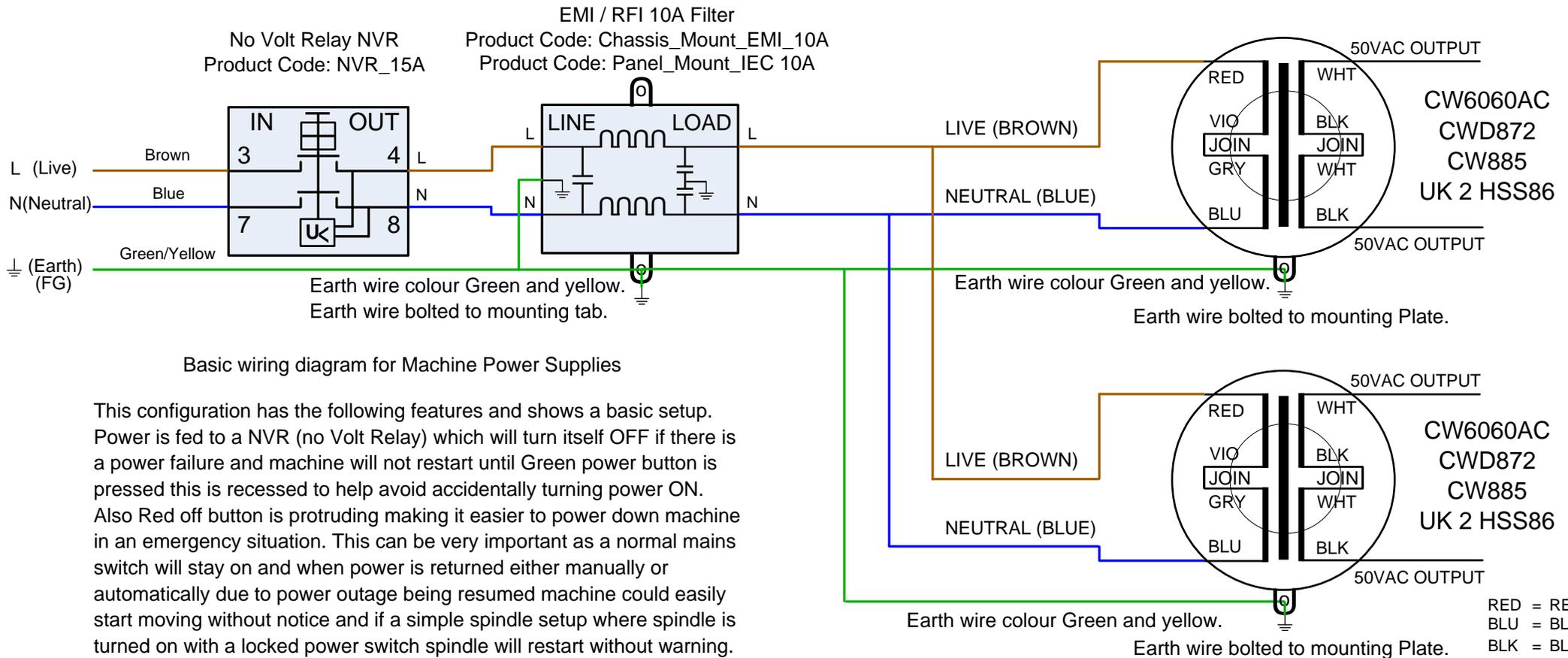


Basic wiring diagram for Machine Power Supplies

This configuration has the following features and shows a basic setup. Power is fed to a NVR (no Volt Relay) which will turn itself OFF if there is a power failure and machine will not restart until Green power button is pressed this is recessed to help avoid accidentally turning power ON. Also Red off button is protruding making it easier to power down machine in an emergency situation. This can be very important as a normal mains switch will stay on and when power is returned either manually or automatically due to power outage being resumed machine could easily start moving without notice and if a simple spindle setup where spindle is turned on with a locked power switch spindle will restart without warning. This can be a real problem when using a Laptop as internal battery can allow Mach 3 or other software to still be running if suitable precautions aren't observed to stop software when power has been lost, this also applies to computers running from an UPS (uninterruptable power unit).

EMI / RFI filter will help prevent external mains noise causing noise in your system which can result in transients causing spurious steps or triggering limit switch or E-Stop signals, in very noisy environments or industrial premises it can help reduce transients capable of damaging your electronics. Noise generated by Plasma cutters etc. will require filtering to allow stable operation of your CNC or automated machinery.

Wiring Diagram for Power Supplies Toroidal Transformer Type 1



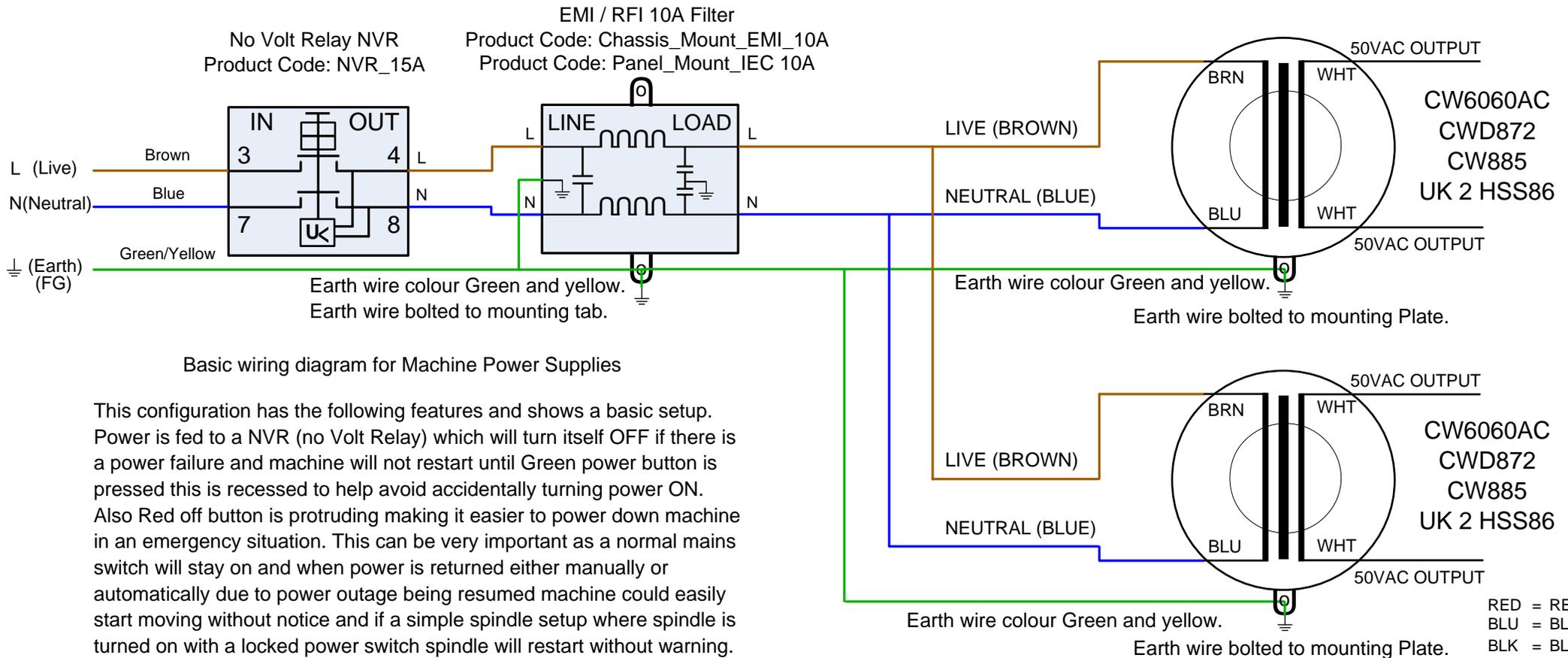
For 240VAC operation and 50VAC output connect as below.

Connect Grey and Violet together on Input primary side.
Connect Live to Red and Neutral to Blue.

Connect Middle two wires White and Black on secondary side
Connect outside White and Black to your AC input of driver.

Please Note not suitable for direct connection to DC drivers like CW5045 or CWD556

Wiring Diagram for Power Supplies Toroidal Transformer Type 2



Basic wiring diagram for Machine Power Supplies

This configuration has the following features and shows a basic setup. Power is fed to a NVR (no Volt Relay) which will turn itself OFF if there is a power failure and machine will not restart until Green power button is pressed this is recessed to help avoid accidentally turning power ON. Also Red off button is protruding making it easier to power down machine in an emergency situation. This can be very important as a normal mains switch will stay on and when power is returned either manually or automatically due to power outage being resumed machine could easily start moving without notice and if a simple spindle setup where spindle is turned on with a locked power switch spindle will restart without warning. This can be a real problem when using a Laptop as internal battery can allow Mach 3 or other software to still be running if suitable precautions aren't observed to stop software when power has been lost, this also applies to computers running from an UPS (uninterruptable power unit).

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- RED = RED
- BLU = BLUE
- BLK = BLACK
- WHT = WHITE
- BRN = BROWN
- VIO = VIOLET
- GRY = GREY