

6 April, 1999

BULLETIN #157

WELDMATIC 250S
MODEL CP106-0 (240V)
MODEL CP106-1 (480V)

SOLID STATE RELAY & HEATSINK REPLACEMENT KIT

There have been several cases where the solid state relay in the Weldmatic 250s has failed due to the device being overheated. This problem only occurs when the welding load is constantly exceeding the operating duty cycle of the machine (250A @ 20%).

Through further testing, the cooling efficiency of the solid state relay has been improved by fitting a piece of heatsink to the back of the device. A thermostat has also been fitted to the heatsink to regulate the operating duty cycle of the machine. The heatsink and thermostat will be factory fitted to all Weldmatic 250s models produced as from serial number :

106039.0 onwards for model CP106-0 (240V version), and
106108.0 onwards for model CP106-1 (480V version).

In a field situation where the solid state relay has failed, a replacement kit, which includes the solid state relay, heatsink and thermostat, is now available.

For model CP106-0, WIA part number for the kit is **AM291-0**

For model CP106-1, WIA part number for the kit is **AM291-1**

Please refer to the attached instruction sheets for full fitting details.



James Chin

Technical Service Co-ordinator - Marketing

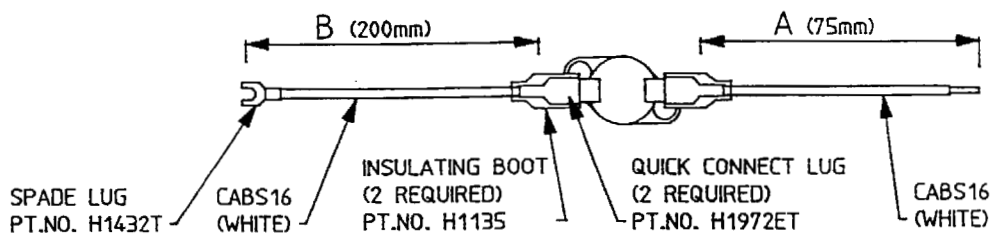
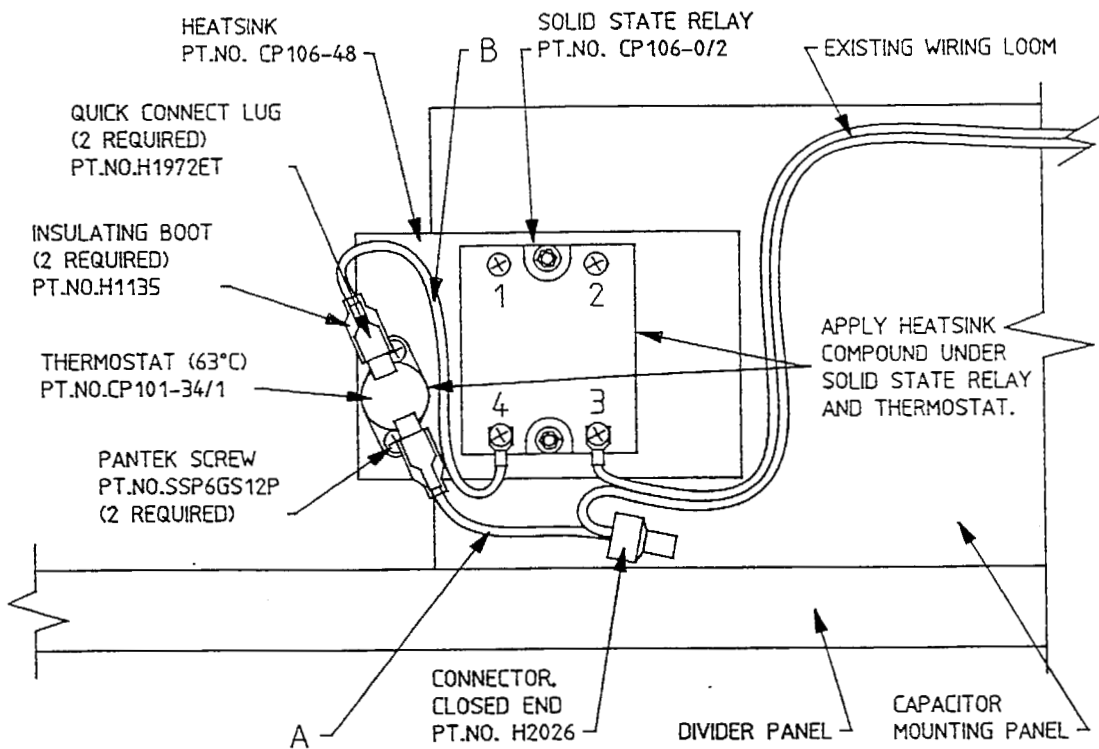
QUALITY WELDING PRODUCTS, SYSTEMS AND SERVICES

The information provided in this sheet is accurate and reliable, however no warranty of accuracy or reliability is given and no responsibility arising in any other ways by errors or omissions is accepted

Instructions for installing AM291-0, Solid State Relay and Heatsink replacement kit to CP106-0 Welding Power Source.

1. Remove existing Solid State Relay from Capacitor mounting panel. Take note of the wire colours and their corresponding terminal numbers on the solid state relay.

1 : Black	2 : Blue
3 : Grey	4 : White
2. White Heatsink Compound may be left on the exposed panel.
3. Fit new kit, including new Solid State Relay. Refer to diagram below, and also to Circuit Diagram enclosed with kit.
4. Reattach all existing wires, except for the white one.
5. From the existing white wire, remove the spade lug, strip insulation and join to white wire (A) using closed end connector as shown.
6. Attach other end of white wire (A) to Thermostat as shown.
7. Fit white wire (B) between Thermostat and terminal 4 on solid state relay as shown.
8. Secure the wiring to ensure correct segregation between control voltage wires (grey & white) and mains voltage wires (blue and black).



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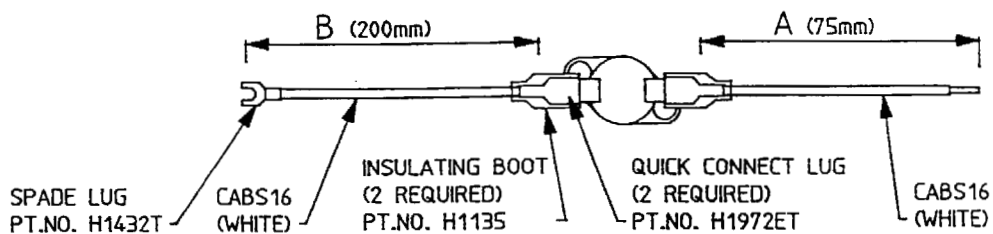
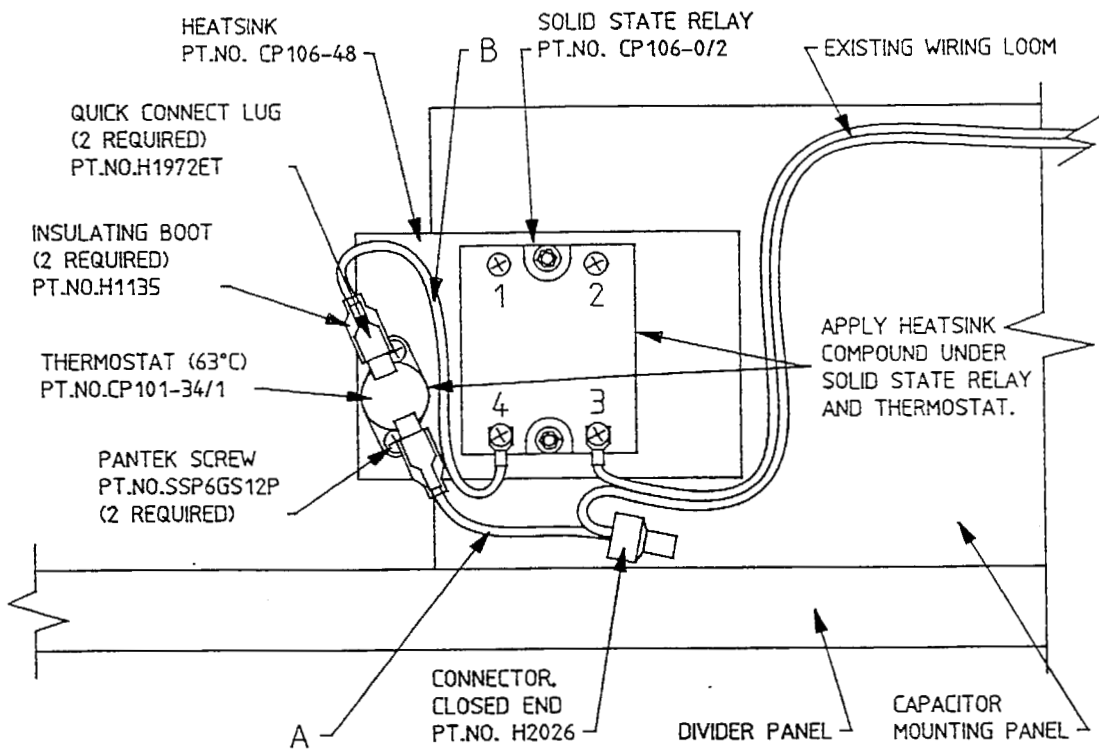
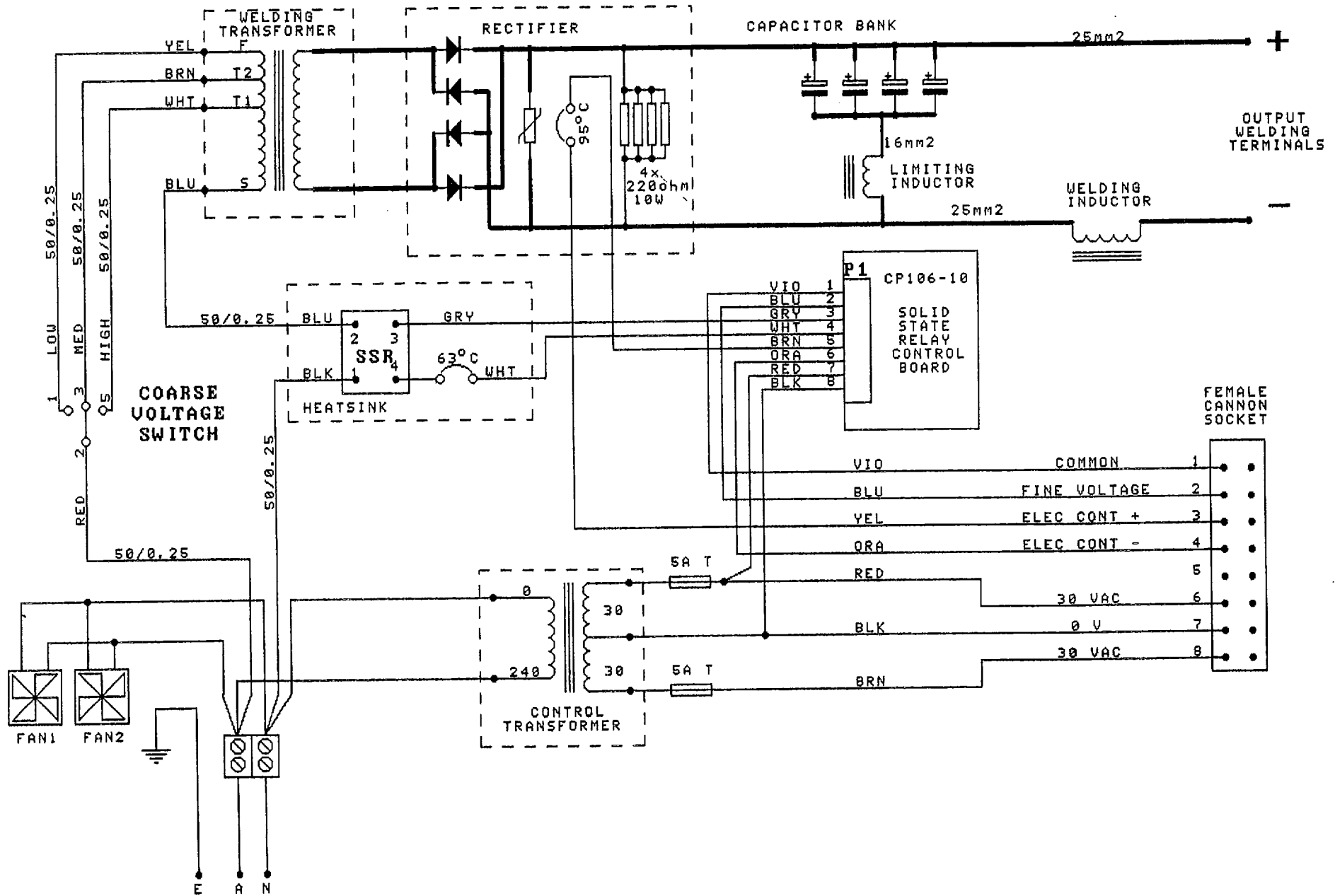


Figure 1. CP106-0 Circuit Diagram



Instructions for installing AM291-1, Solid State Relay and Heatsink replacement kit to CP106-1 Welding Power Source.

1. Remove existing Solid State Relay from Capacitor mounting panel. Take note of the wire colours and their corresponding terminal numbers on the solid state relay.

1 : Black	2 : Blue
3 : Grey	4 : White
2. Remove any remaining Heatsink Compound which may be left on the exposed panel.
3. Fit new kit, including new Solid State Relay. Refer to diagram below, and also to Circuit Diagram enclosed with kit. **Note.** Fit spacer nuts between Heatsink and mounting panel.
4. Reattach all existing wires, except for the white one.
5. From the existing white wire, remove the spade lug, strip insulation and join to white wire (A) using closed end connector as shown.
6. Attach other end of white wire (A) to Thermostat as shown.
7. Fit white wire (B) between Thermostat and terminal 4 on solid state relay as shown.
8. Secure the wiring to ensure correct segregation between control voltage wires (grey & white) and mains voltage wires (blue and black).

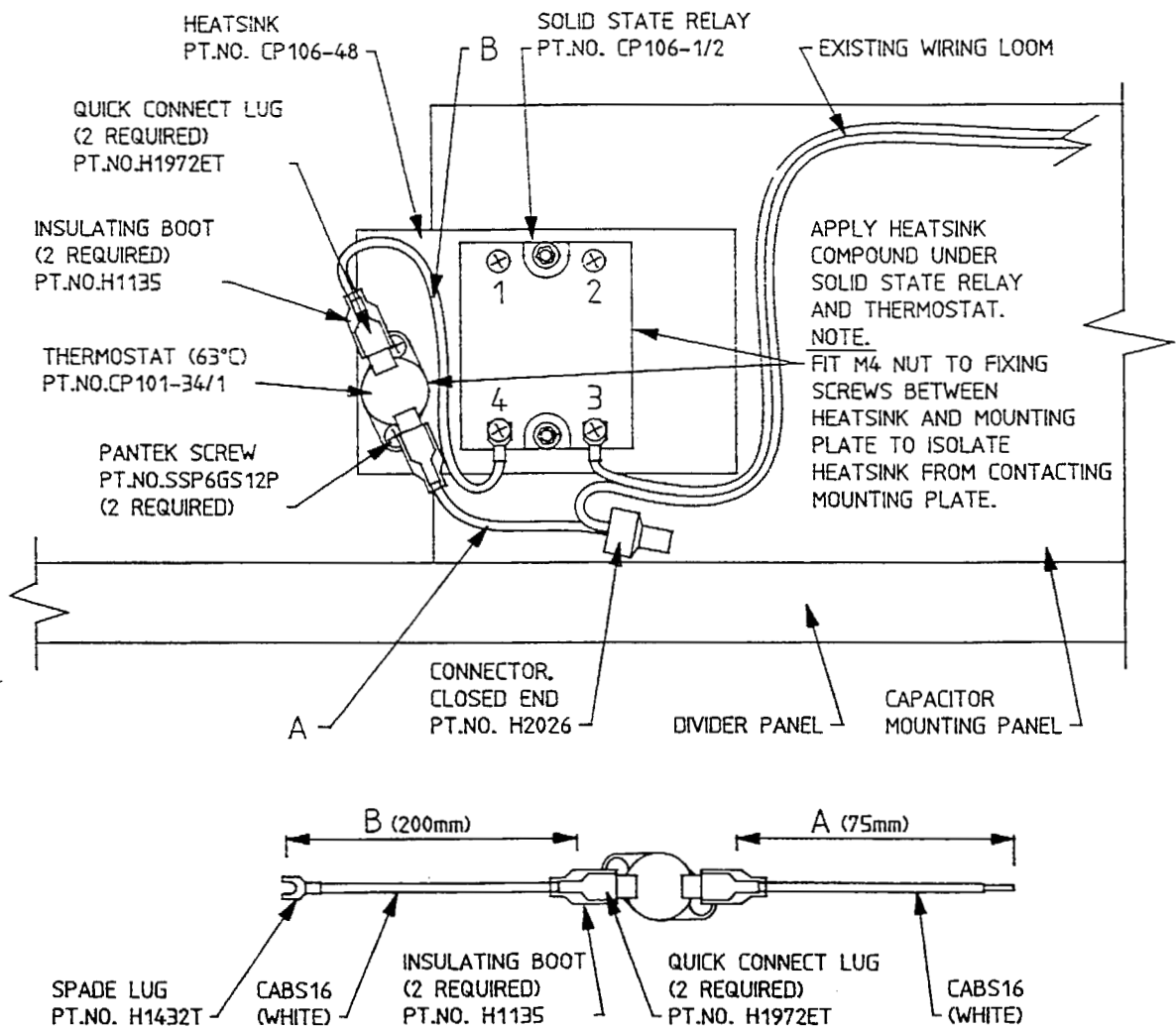


Figure 2. CP106-1 Circuit Diagram

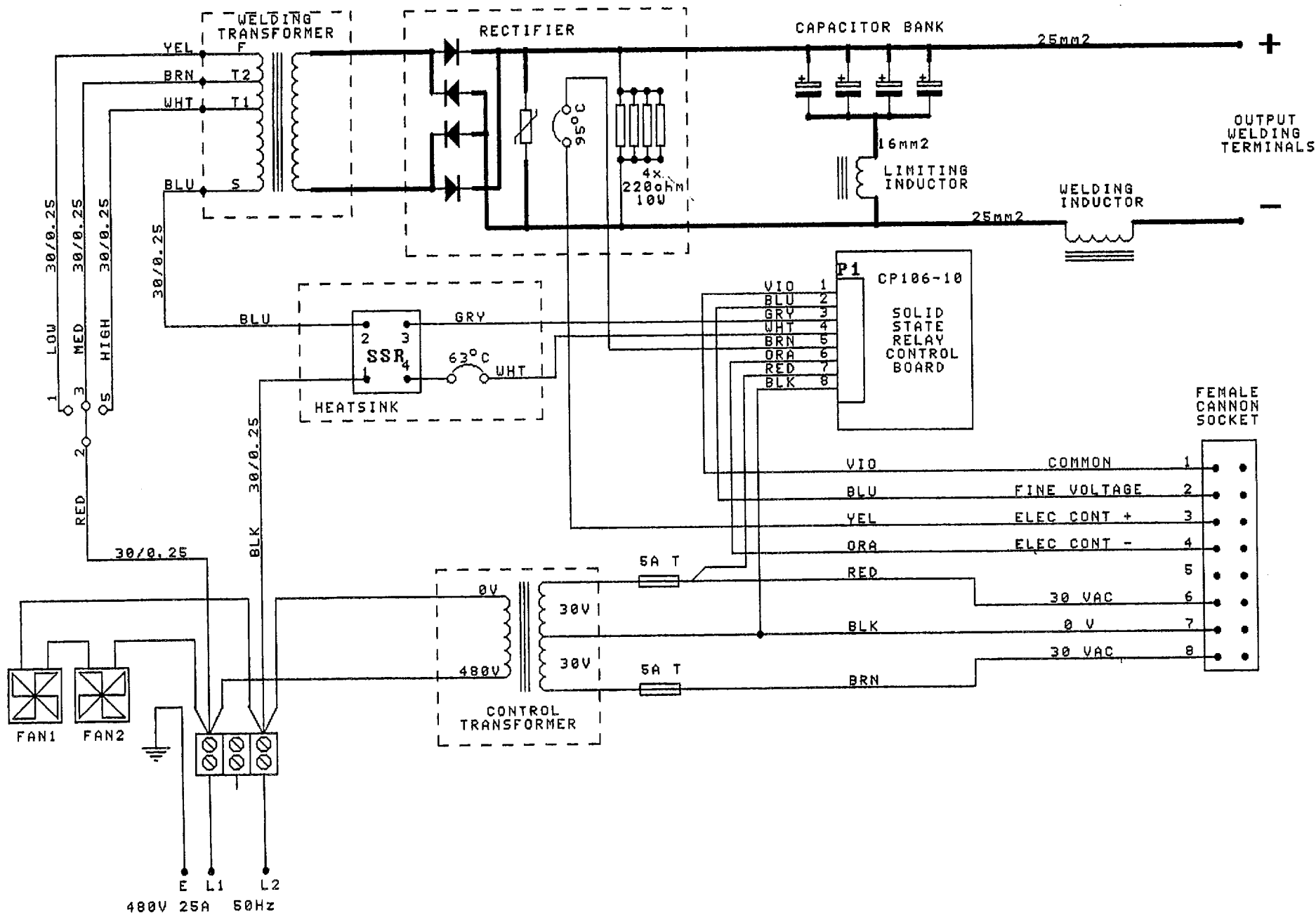
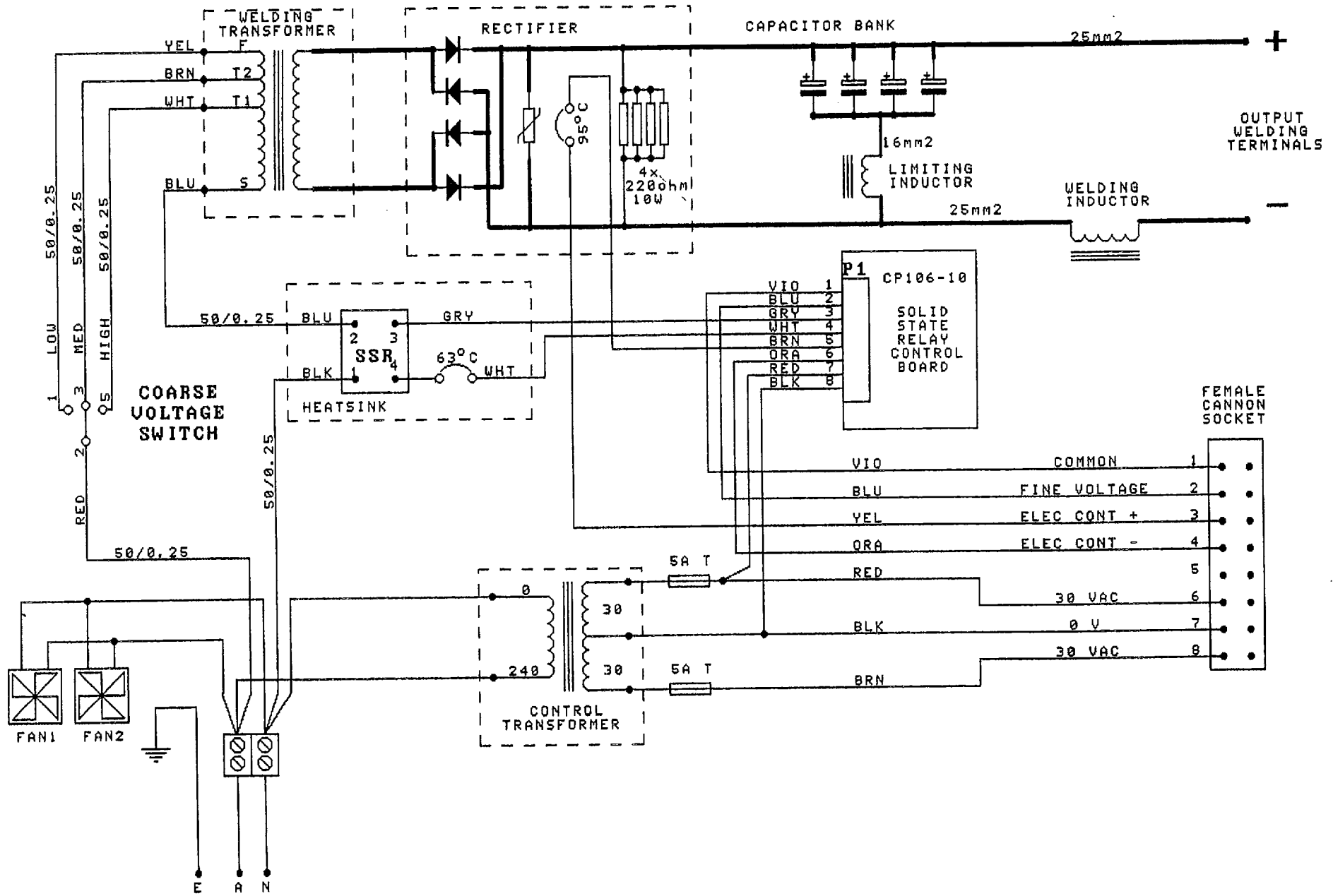


Figure 1. CP106-0 Circuit Diagram



Instructions for installing AM291-1, Solid State Relay and Heatsink replacement kit to CP106-1 Welding Power Source.

1. Remove existing Solid State Relay from Capacitor mounting panel. Take note of the wire colours and their corresponding terminal numbers on the solid state relay.

1 : Black	2 : Blue
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2. Remove any remaining Heatsink Compound which may be left on the exposed panel.
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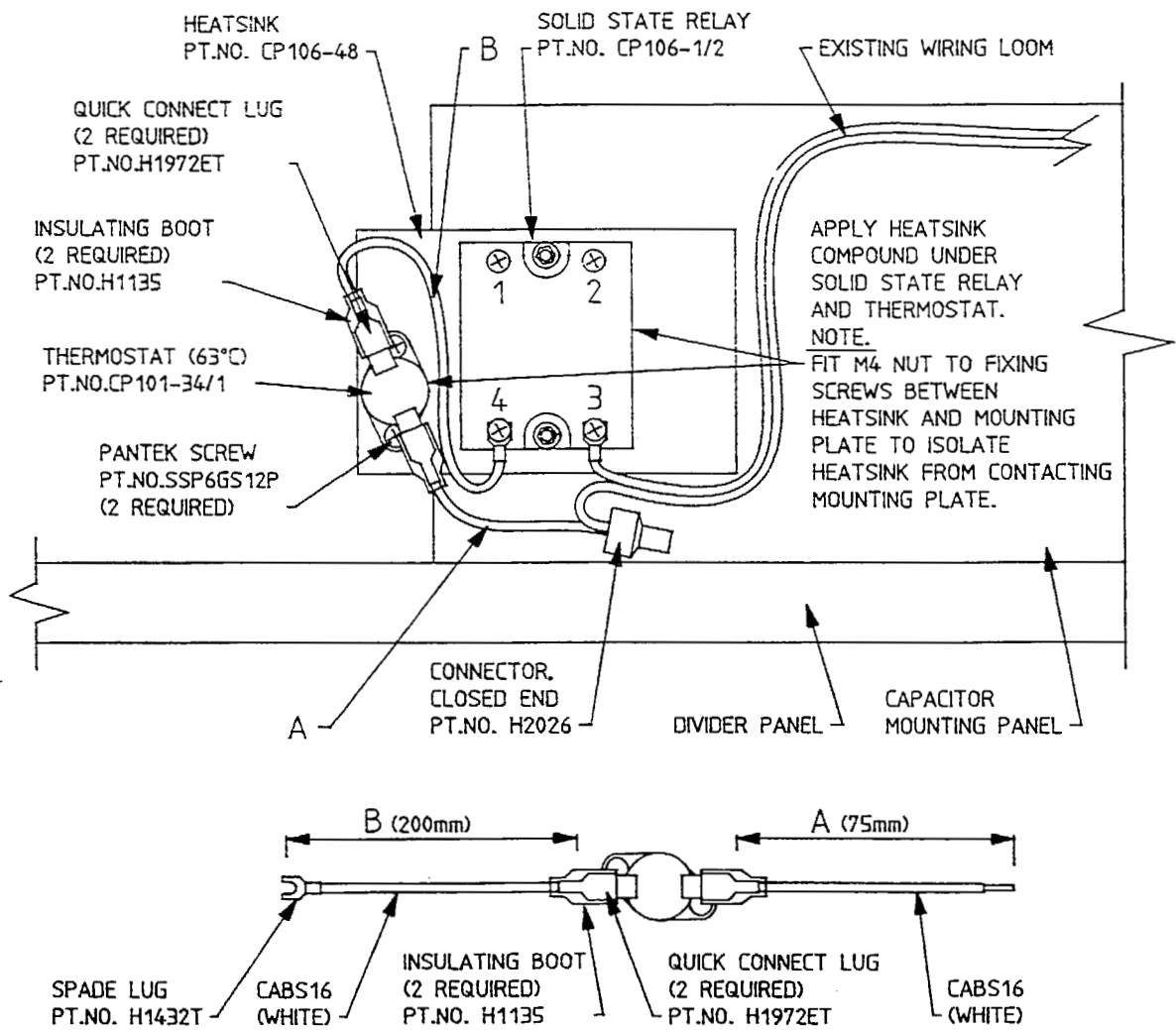


Figure 2. CP106-1 Circuit Diagram

