

Transarc OCVR AC/DC
(Refer to attached Simplified Drawing)

Non Welding State:

OCV present from relevant power source to input terminals marked in (+-), this voltage is applied through the 5A fuse to rectifier bridge BR1. The DC output of this then being supplied to the control PCB to provide the relevant voltage supplies this via the ultra fast 3.15A fuse.

At this time the contactor is not energised, the voltage at the (+-) output terminals is only 24V, this supplied via the control PCB connections PL3-11/12 via a normally closed contact on the main contactor. Also, at this time the Red LED is illuminated indicating safe working voltage at the output terminals. 14Vdc is now supplied via connections PL1-1/2 and the normally closed auxiliary contact on the main contactor to illuminate the LED.

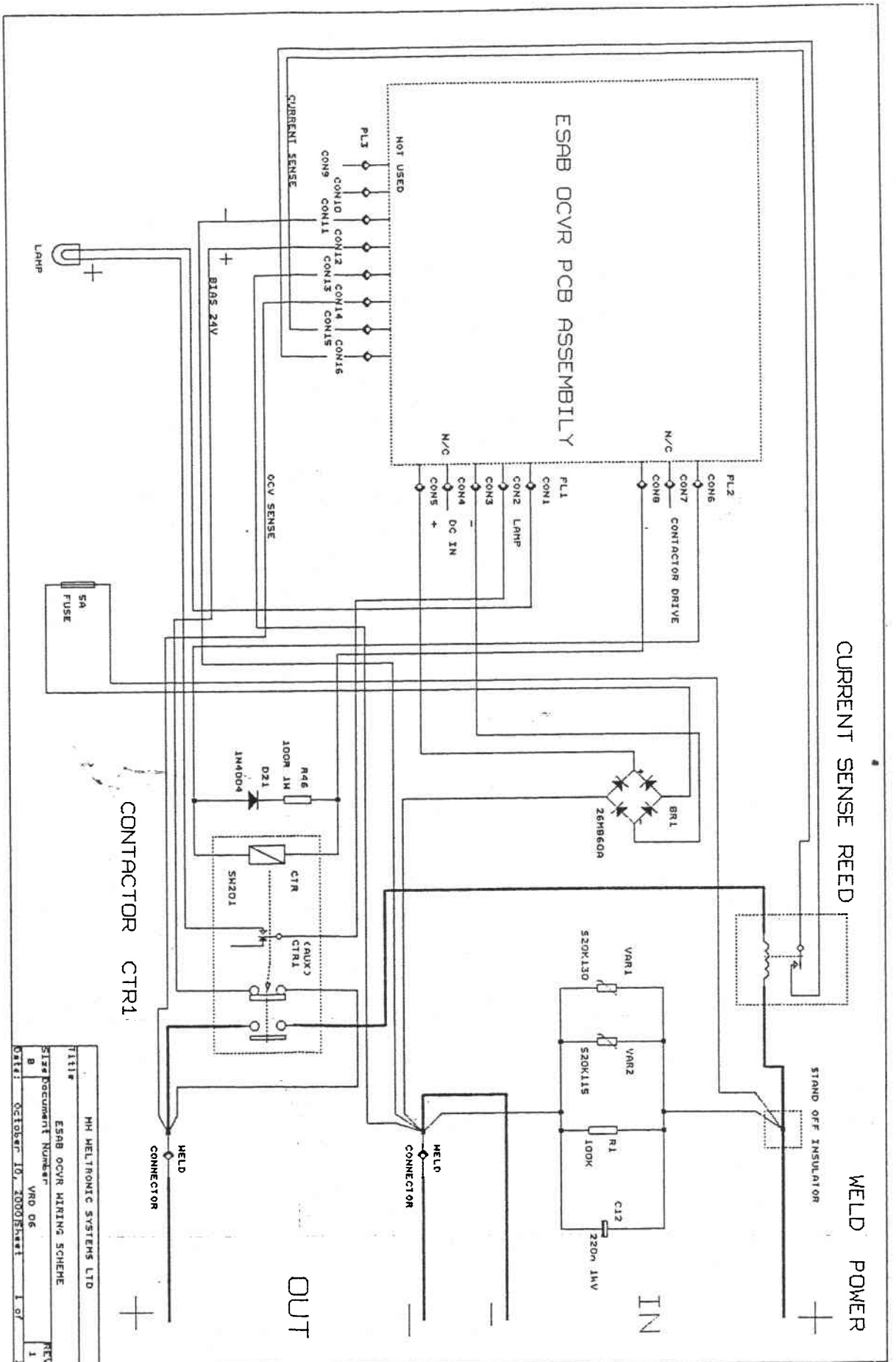
Welding State:

At arc strike current is sensed via PCB connections PL3-11/12, if the current is more than 120mA the relevant sensing circuit energises the main contactor via PCB connections PL2-6/8. Current now flows through the main contactor contact and hence the current sense reed relay, its closed contact now sending a welding current flowing signal to the control PCB ensuring the contactor remains energised and LED 21 is illuminated. If for some reason this signal is not received at the PCB before the time as set on T1 has elapsed the contactor will be de-energised.

If when welding the voltage reduces below 7 volts as sensed by PCB connections PL3-13/14 the contactor will be de-energised. This is part of the unique stall protection circuit that switches off the power if the electrode is frozen in the weldpool.

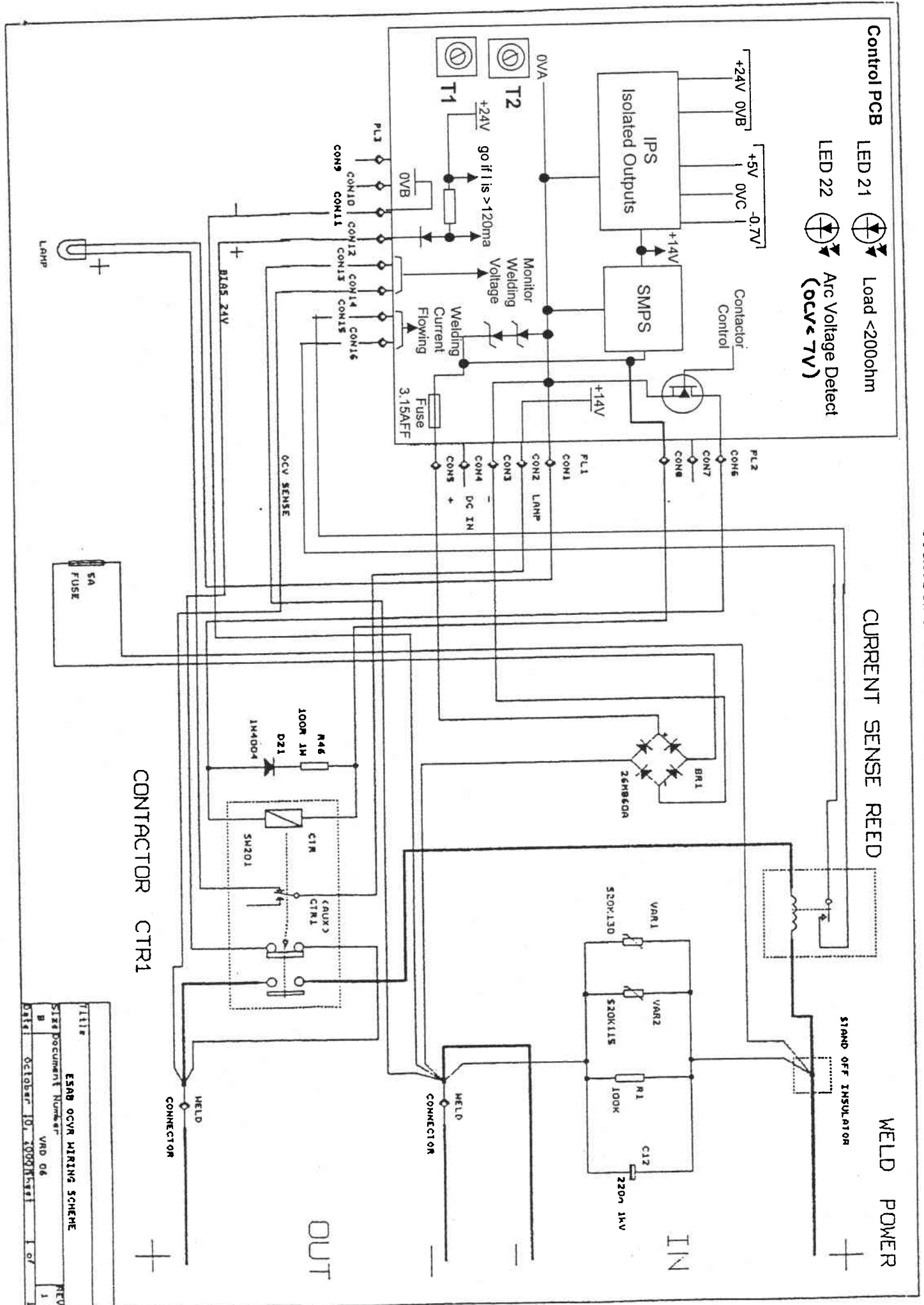
Welding Terminated:

Current no longer flows through the current sense reed relay, the contactor is now de-energised after the time as set on T2 has elapsed, the Red LED is now illuminated.



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| MH MELTRONIC SYSTEMS LTD | |
| Title: ESAB DCVR WELDING SCHEME | |
| Size: Document Number: VMD 06 | |
| Date: October 10, 2000 | Rev: 1 |
| Page: 1 of 1 | |

Transarc OCVR AC/DC



Control PCB
 LED 21 Load <200ohm
 LED 22 Arc Voltage Detect (OCV < 7V)

CURRENT SENSE REED

WELD POWER

CONTRACTOR CTR1

OUT

IN

| | |
|---------------------|-------------------------|
| FILE | ESAB OCVR WIRING SCHEME |
| SIB Document Number | VRD 06 |
| B | 1 |
| Date | October 10, 2009 |
| REV | 1 |