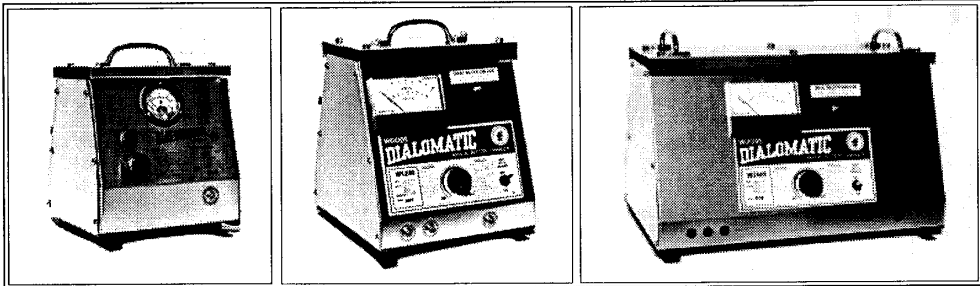
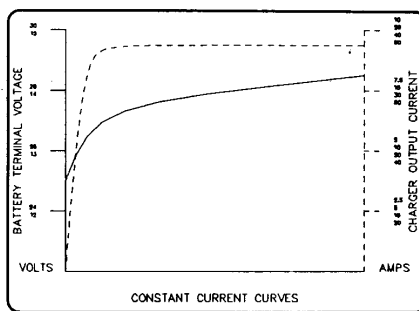
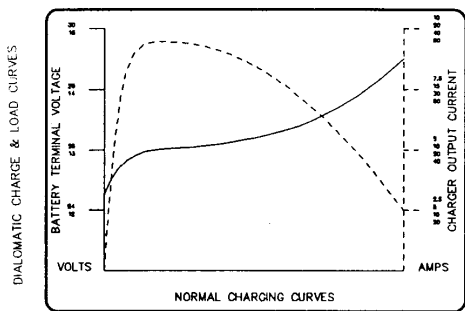


dialomatic

MANUAL BATTERY CHARGER



- The DIALOMATIC range of battery chargers are designed to provide a manually operated charging procedure. All the models in the DIALOMATIC range cover a wide range of battery voltages, with the ability to charge any size battery to its maximum rating without the need of voltage-selecting switches. The charger will match itself to the connected battery. (eg. the model W2420 suits any size battery from 2 Volts to 24 Volts.)
- The current is manually controlled by the operator via the knob on the front of the cabinet. The current can be smoothly adjusted electronically from zero to the model's maximum. An extra advantage of this system is the ability for constant current charging.
- The multi-voltage feature means that the charging current is the same at maximum voltage as it is at minimum voltage (eg. W2420 will provide 20A at 2V and 20A at 24V). The DIALOMATIC chargers will provide its maximum current rating irrespective of the voltage of the battery connected. This ensures that one battery charger can cover a wide range of charging requirements.
- All DIALOMATIC chargers employ heavy duty components to ensure trouble-free durability and long life.
- Input and output manual reset overloads provide total electrical protection.
- The large easy to read meter can be seen at a glance. The meter displays output amps and may be switched to read battery volts.
- The chargers are housed in a marine grade aluminium cabinet and is both portable and compact for ease of mobility.

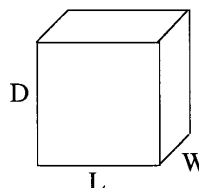


NOTE: CHARGE AND LOAD RATES ARE BASED ON BATTERY CAPACITY. ALWAYS USE THE CORRECT AMP RATES FOR YOUR BATTERY.

SPECIFICATION TABLE for DIALOMATIC Battery Chargers

	W1220	W1240	W1280	W2420	W2440	W2480	W3630	W4820	W4840
INPUT supply	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø	240VAC 50Hz1ø
V.A. max	300 VA	600 VA	1.7kVA	600 VA	1.7kVA	3.5kVA	1.7kVA	1.7kVA	3.5kVA
OUTPUT VOLTS	2 to 12V	2 to 12V	2 to 12V	2 to 24V	2 to 24V	2 to 24V	2 to 36V	2 to 48V	2 to 48V
OUTPUT AMPS	0 to 20A @ 50%	0 to 40A @ 50%	0 to 80A @ 50%	0 to 20A @ 50%	0 to 40A @ 50%	0 to 80A @ 50%	0 to 30A @ 50%	0 to 20A @ 50%	0 to 40A @ 50%
OUTPUT AMPS	12A.DC continuous	30A.DC continuous	60A.DC continuous	15A.DC continuous	30A.DC continuous	60A.DC continuous	25A.DC continuous	15A.DC continuous	30A.DC continuous
INPUT protection	5A 3AG fuse	4A MR ov'load	8A MR ov'load	4A MR ov'load	8A MR ov'load	20A MR ov'load	8A MR ov'load	8A MR ov'load	20A MR ov'load
OUTPUT protection	20A MR ov'load	2 x 26A MR ov'load	80A fuse wire	20A MR ov'load	2 x 26A MR ov'load	80A fuse wire	2 x 26A MR ov'load	20A MR ov'load	2 x 26A MR ov'load
DIM L m.m.	220	260	260	260	260	460	260	260	460
DIM W m.m.	200	290	290	290	290	290	290	290	290
DIM D m.m.	280	320	320	320	320	320	320	320	320
WEIGHT	7kg	11kg	17kg	11kg	17kg	21kg	17kg	17kg	21kg

AVAILABLE FROM:



APRIL.93 C:/WS/SERVAGENT/242TEST

**WOODS ELECTRIC
BATTERY CHARGING SYSTEMS.**

TECHNICAL INFORMATION

WOODS DIALOMATIC BATTERY CHARGERS PAGE 1.

TOPIC : COMPONENT TEST PROCEEDURE.

NOTE : Do not connect the output D.C. cable to a battery for any of the following test procedures.

PRIMARY CIRCUIT.

- * Before carrying out any electrical tests, remove both side panels [and the lid if unit is fitted with an output fuse] and visually inspect electrical wiring and connections for looseness or burning, etc.
- * Primary protection is incorporated in the switch/breaker used as the main on/off switch.
- * Test main switch for positive operation and continuity. If not O.K. replace with a new unit.

POWER CONTROLLER TEST "A".

- * Make sure dial is at zero and main switch is off.
- * Connect Multimeter probes [set at 250 V.A.C range] to both primary terminals of transformer.
- * Plug in the input cable to a 240V.A.C 50 Hz outlet and switch on. Switch on the Charger.
- * Slowly turn the dial clockwise up to maximum. The multimeter should read from approx. 20 to 240 V.A.C
- * If yes, controller o.k. If no, proceed to CONTROLLER TEST "B"

POWER CONTROLLER TEST "B"

- * Dial to zero, switch off, disconnect plug.
- * Disconnect controller from circuit and bypass it with a small jumper cable [this will apply full supply to the transformer].
- * Connect multimeter probes [set at V.A.C range] to both primary terminals of the transformer.
- * Plug in and switch on Charger. Multimeter should show a reading of approx. 220-240V.A.C.
- * If yes, the controller is faulty and must be replaced.
- * If no reading, then repeat all initial tests and check all the connections of the primary circuit.

TECHNICAL INFORMATION

WOODS DIALOMATIC BATTERY CHARGERS. Page 2.

TOPIC : Component Test Procedure.

POWER CONTROLLER TEST "C"

- * If control is erratic and pulsing the Controller is mistriggering. To stop this the transformer must carry a slight resistive load on the secondary and a resistor must be fitted to the A.C. secondary terminals in addition to the one already fitted. The value of the resistor is 220R 10W for W2420/W2440/W3630, and 47R 10W for W1220/W1240. One additional resistor should be sufficient but if the pulsing still persists, fit a second.
- * If this tuning does not stop the pulsing completely then replace the controller.

SECONDARY CIRCUIT. [To be carried out if Primary known to be ok]

- * Set multimeter range to 50 V.A.C
- * Connect one probe to the negative [centre tap] terminal on the transformer. Connect the other probe to either A.C. terminal on the transformer.
- * Plug in, switch on and dial up to maximum.
- * Multimeter should read up to a maximum of approx:-
W1220 & W1240 is 12V A.C. /W2420 & W2440 is 24V A.C.
W3630 is 32V A.C.
- * Connect same probe to other A.C. terminal on the transformer. Repeat test. Reading should be the same.
- * If yes, transformer o.k. If no, replace transformer.

- * Use ohmeter to test the rectifier. If faulty, replace.
- * Test secondary overload for continuity. If open circuit, then replace unit.
- * If the output fuse is blown, replace with fusewire of the same current rating as indicated on lid front label.

STAINLESS STEEL MODEL

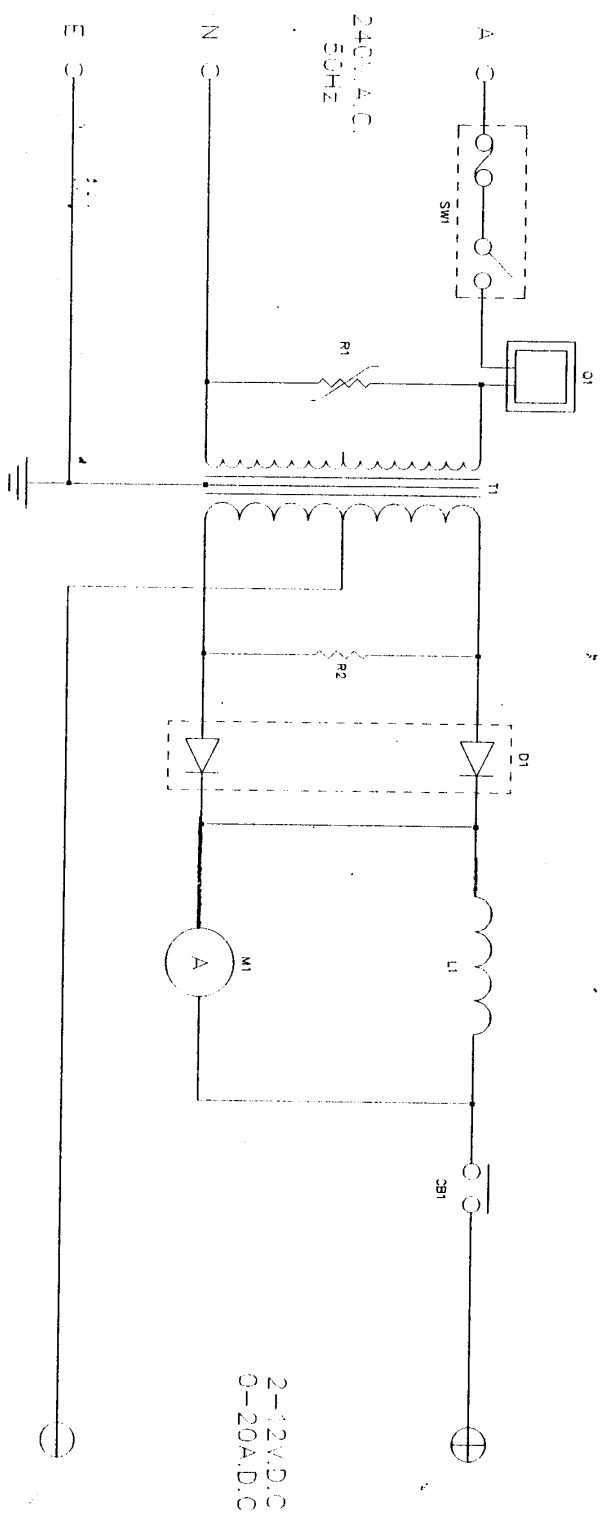
TECHNICAL INFORMATION.

WOODS DIALOMATIC BATTERY CHARGERS Page 3.

- * *** BEWARE. DO NOT APPLY CURRENT DIRECTLY THROUGH DUAL-METER***
- * Ammeter must be used in connection with correct shunt and Dual-meter Switch circuit.
- * TEST "A" Use another known-working Ammeter complete with its shunt and connect it straight across the output positive and negative leads.
- * Set dial to zero, switch power on, the output is now working in a near short circuit, so very little voltage is required to obtain current, slowly turn dial up and watch both the test meter and Dual-meter working as an Ammeter. They should read the same.
- * *** DO NOT DIAL OVERSCALE ***
- * If meter reads inaccurately, movement is sticky or does not move at all then replace meter.


- * TEST "B" With power off and the dial at zero. Connect both the POSITIVE and NEGATIVE output cables together.

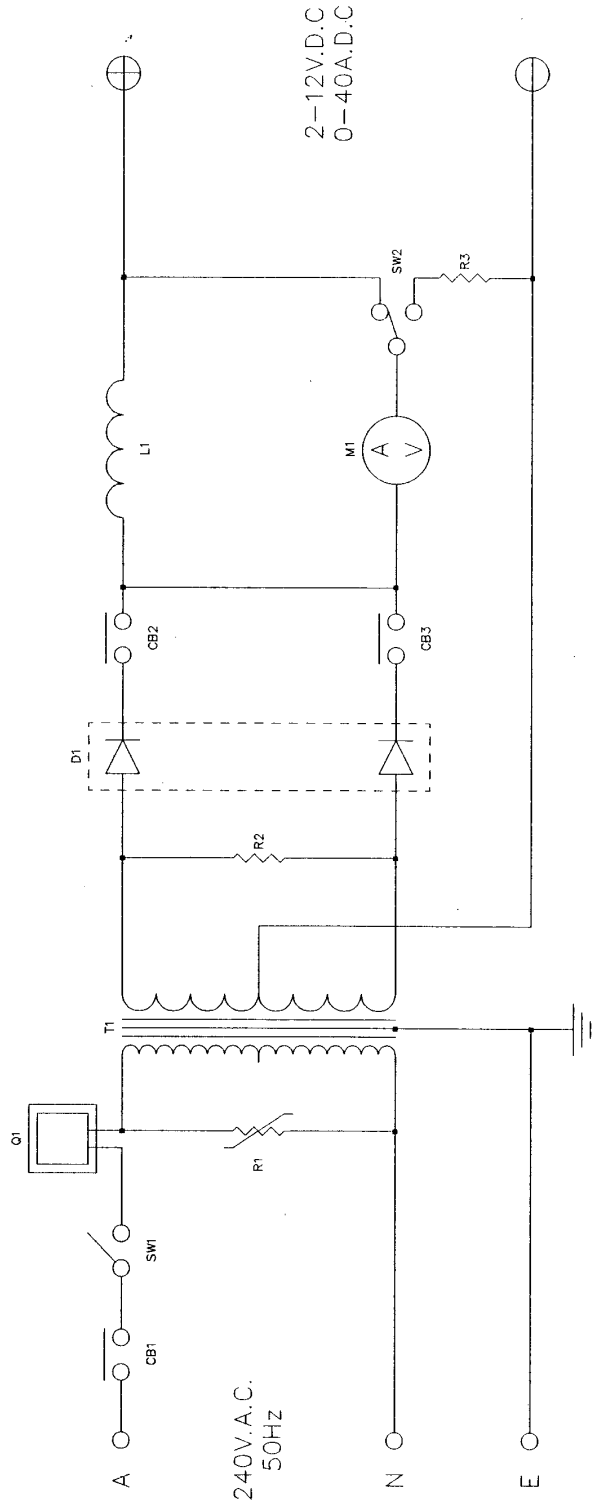
- * To test the Dual-meter, connect a Multimeter to the terminals of the rear of the Dual-meter, turn dial to zero, connect positive and negative output leads together, observe the multimeter and slowly turn the dial clockwise until the multimeter reads approx. 56 milliamps. The Dual-meter should read full scale deflection.
- * *** BEWARE *** DO NOT CONNECT REVERSE POLARITY ***
- * If meter reads inaccurately, movement is sticky or does not move at all, then replace meter.



LEGEND

- B1: Overload - Output
- D1: Rectifier
- F1: Shunt - Ammeter
- M1: Ammeter
- C1: Controller
- R1: Varistor
- R2: Resistor - Balance
- SW1: Mains Switch / Fuse
- T1: Transformer

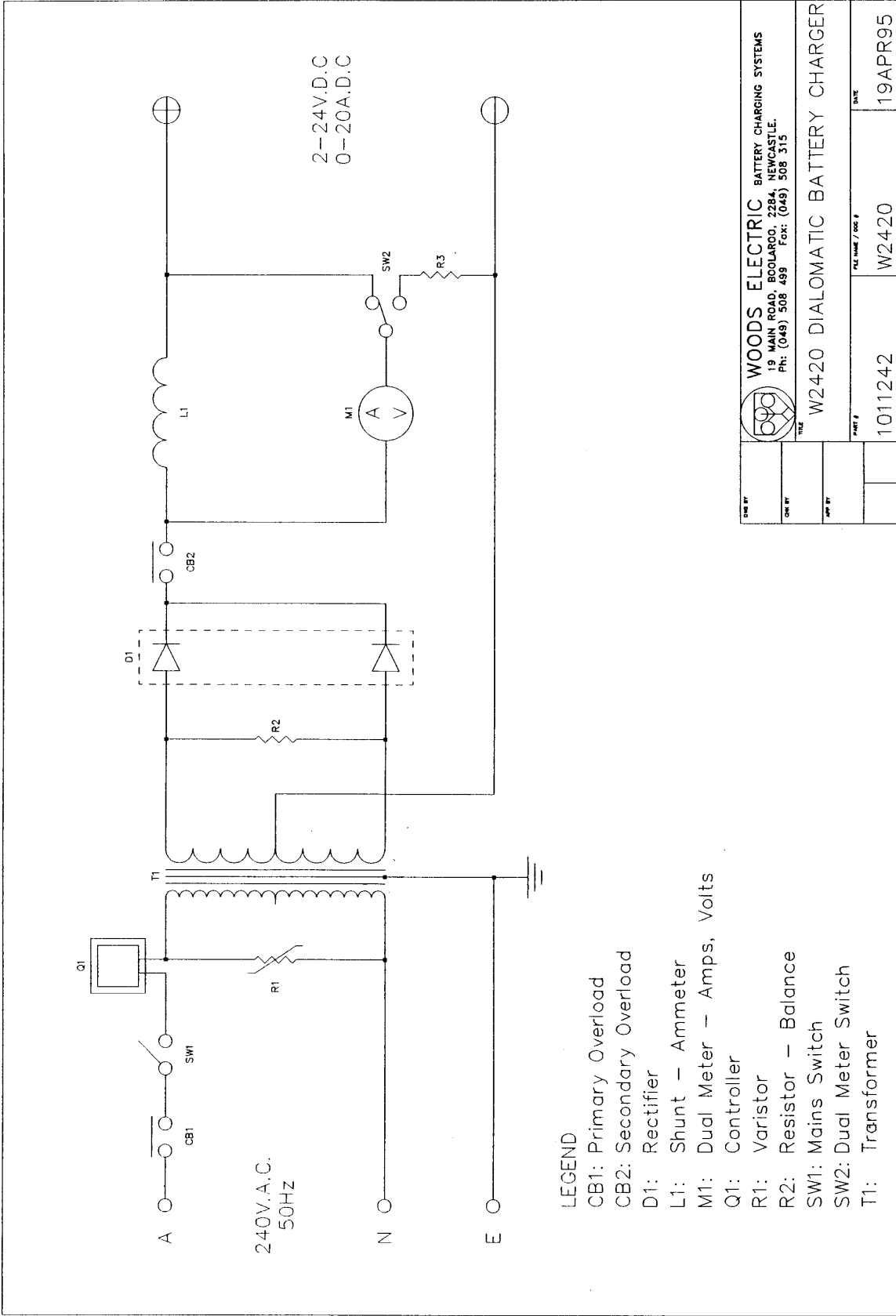
 WOODS ELECTRIC BATTERY CHARGING SYSTEMS 19 MAIN ROAD, BOULAROO, 2284, NEWCASTLE. Ph: (049) 508 499 Fax: (049) 508 315	
TITLE W1220 DIALOMATIC BATTERY CHARGER	PART # 1011122
REV. NO. / REV. # W1220	DATE 19APR95



LEGEND

- CB1: Primary Overload
- CB2, CB3: Secondary Overload
- D1: Rectifier
- L1: Shunt - Ammeter
- M1: Dual Meter - Amps, Volts
- Q1: Controller
- R1: Varistor
- R2: Resistor - Balance
- SW1: Mains Switch
- SW2: Dual Meter Switch
- T1: Transformer

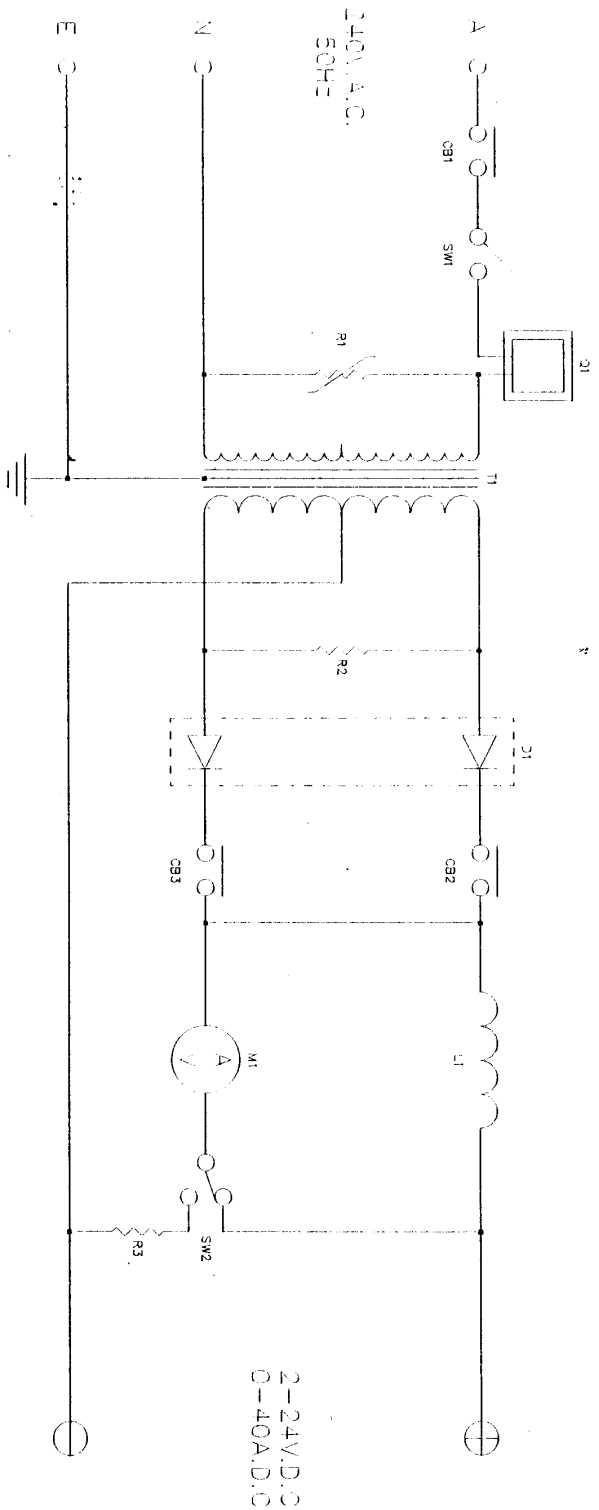
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DWG BY:	FILE NAME / DOC #	DATE	
CHK BY:	W1240	19APR95	
APP BY:	1011124		
TITLE		W1240 DIALOMATIC BATTERY CHARGER	



LEGEND


- CB1: Primary Overload
- CB2: Secondary Overload
- D1: Rectifier
- L1: Shunt - Ammeter
- M1: Dual Meter - Amps, Volts
- Q1: Controller
- R1: Varistor
- R2: Resistor - Balance
- SW1: Mains Switch
- SW2: Dual Meter Switch
- T1: Transformer

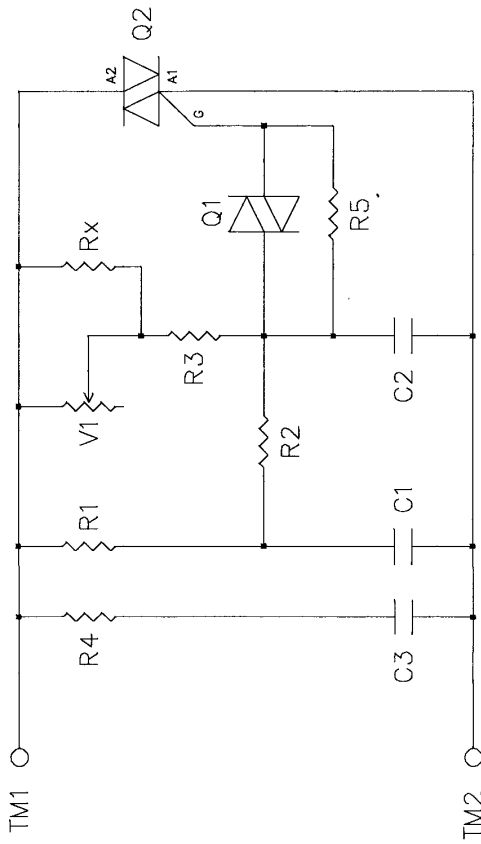
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DWG BY		FILE NAME / DOC #	DATE
		W2420	19APR95
	PART #	1011242	



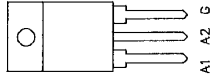
LEGEND

- CB1: Primary Overload
- CB2, CB3: Secondary Overload
- D1: Rectifier
- L1: Shunt - Ammeter
- M1: Dual Meter - Amps, Volts
- Q1: Controller
- R1: Varistor
- R2: Resistor - Balance
- SW1: Mains Switch
- SW2: Dual Meter Switch
- T1: Transformer

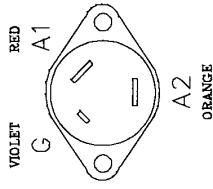
 WOODS ELECTRIC BATTERY CHARGING SYSTEMS 19 MAIN ROAD, BOOLAROO, 2284, NEWCASTLE. Ph: (049) 508 499 Fax: (049) 508 515	
W2440 DIALOMATIC BATTERY CHARGER	
PART # 1011244	THE TRADE / CODE # W2440
DATE 19APR95	



BTA24-700B



BTA40-600B



LEGEND

- C1-C3: 0u1F 400V P
- R1: 150k
- R2: 39k
- R3: 3k9
- R4: 390R 2W
- R5: 68k
- Rx: 2M2
- Q1: ST2
- Q2: 001-002; BTB24-700B, 003: BTA40-600B
- V1: 1m LIN.

DES BY	WOODS ELECTRIC BATTERY CHARGING SYSTEMS	
CHK BY	19 MAIN ROAD, BOOLAROO, 2284, NEWCASTLE.	
APP BY	Ph: (049) 508 499 Fax: (049) 508 315	
	FILE NAME / DOC #	DATE
	1411001, 2, 3 CNTRLRV4	23FEB96
	CONTROLLER - POWER - DIALO	