

## OPERATION

### ON/OFF Switch

With this switch in the ON position power is applied to the fan and control circuits.

**Warning** This switch does not isolate the unit from the mains electrical supply

Fault Lamp indicates unit overloaded.

Torch Connector

Inch Button (inside compartment) Operates wire feed only

$t_1$  - 'ON' time control for SPOT welding and STITCH 'ON' time

$t_2$  - 'OFF' time control for STITCH 'OFF' time

Wire Feed Speed (Current) Control

Mode Selection Switch Continuous / Spot / Stitch

Work Return Lead Socket (TM135, 165, 235 & 245)

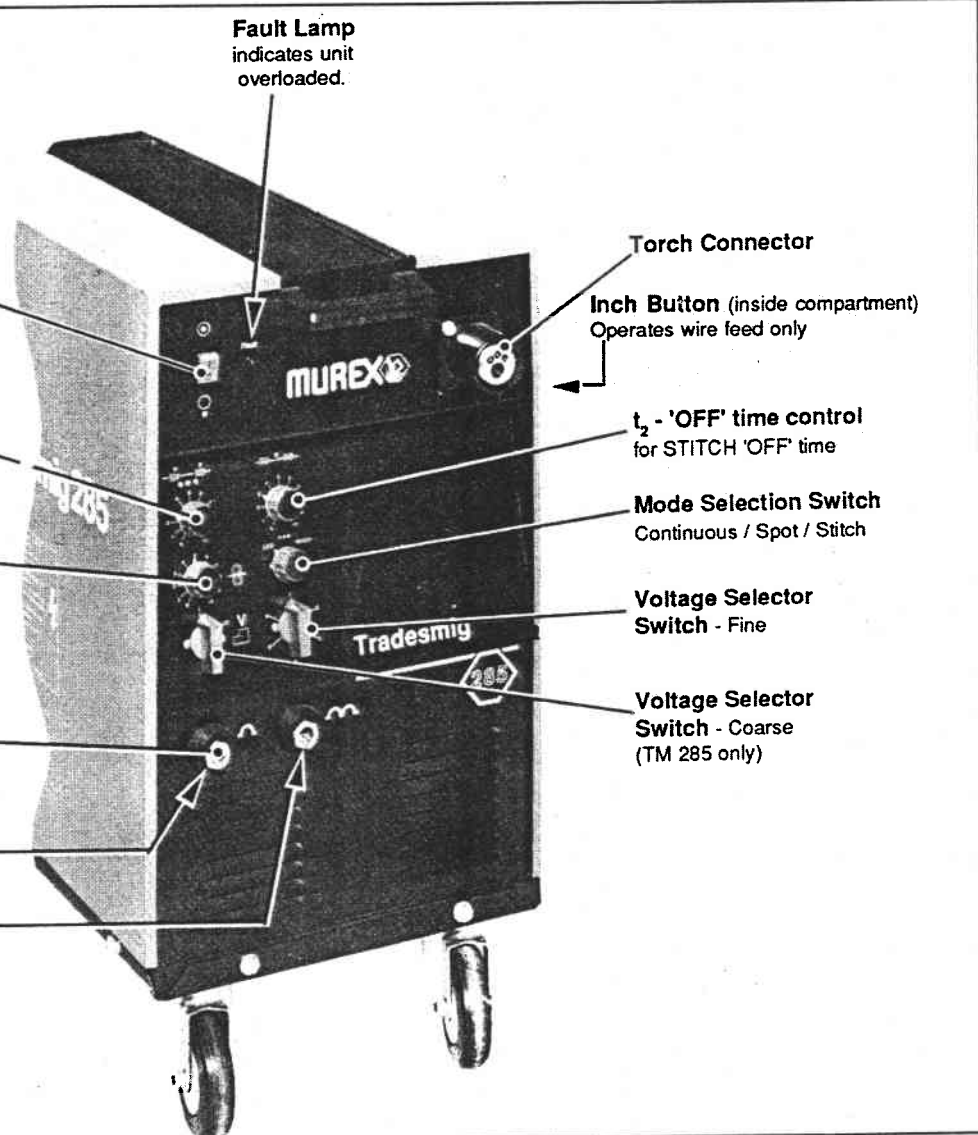
Voltage Selector Switch - Fine

Inductance Socket - Low (TM 285 only)

Voltage Selector Switch - Coarse (TM 285 only)

Inductance Socket - High (TM 285 only)

### Typical Controls

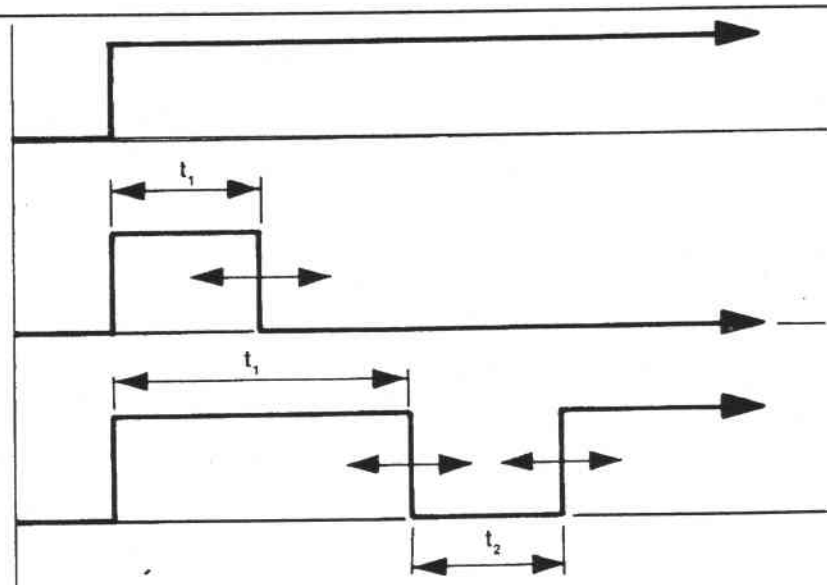


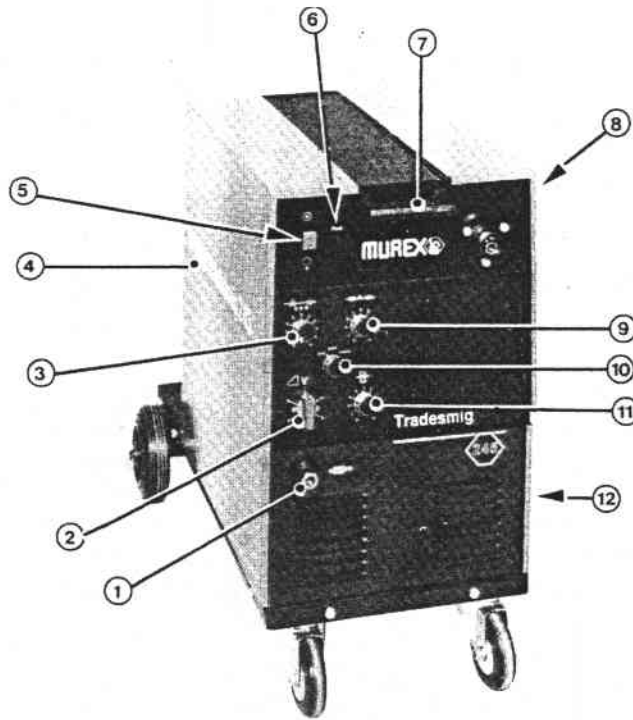
Continuous

Spot -  $t_1$

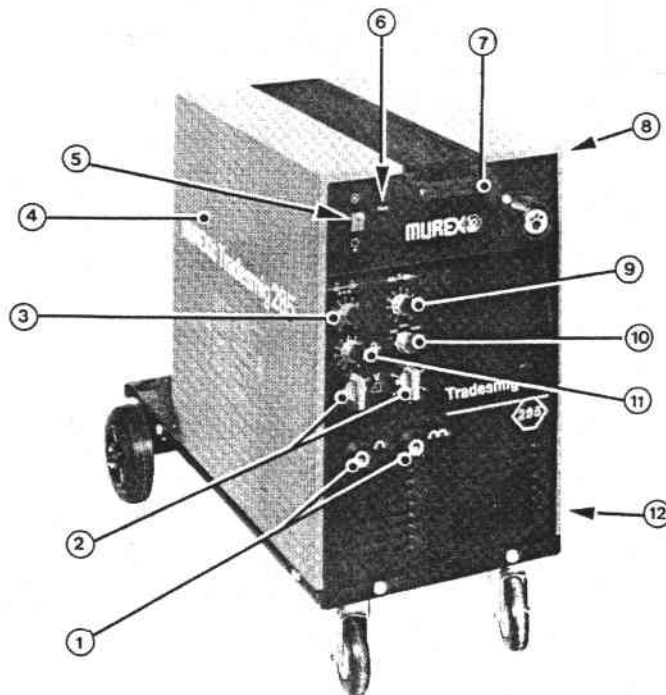
Stitch -  $t_1$  and  $t_2$

Welding Modes





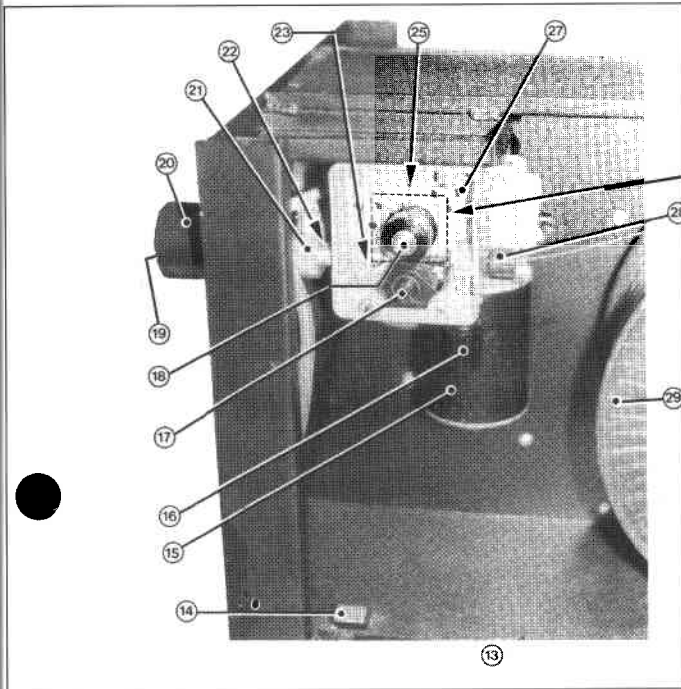
**Fig A. Tradesmig 245 (Front 3/4 view)**  
(TM165 and TM235 are similar)



**Fig B. Tradesmig 285 (Front 3/4 view)**

**Note 1:** Please note that these items must be ordered on a special order form and may be on extended delivery.

**Note 2:** Two off for TM285



Item	Description	TM 165	TM 235	TM 245	TM 285
1	Dinse socket (Note 2)	1404314	17242	17242	17242
-	Plug for item 1	1380444	1380441	1380441	1380441
2	Switch - 6 position	-	1411460	1411459	1411460
-	- 8 position	1413440	-	-	-
-	- 2 position	-	-	-	1413441
-	Knob for item 2	1413442	1413442	1413442	1413442
3 & 9	Potentiometer 470KΩ	1413443	1413443	1413443	1413443
4	Side panel left (Note 1)	1413444	1413444	1413444	1413444
5	Switch - ON/OFF	1411458	1411458	1411458	1411458
6	Lamp Fault	1413447	1413447	1413447	1413447
7	Handle	1411473	1411473	1411473	1411473
8	Side panel right - upper (Note 1)	1413445	1413445	1413445	1413445
	See item 3				
	Switch - Process select	1413448	1413448	1413448	1413448
11	Potentiometer - wire feed	1411472	1411472	1411472	1411472
12	Side panel right - lower (Note 1)	1413446	1413446	1413446	1413446
13	Feed block complete with motor	1411468	1411468	1411468	-
14	Switch - inching	1413449	1413449	1413449	1413449
15	Motor - wire feed	1413100	1413100	1413100	1413100
16	Pressure device complete	1413102	1413102	1413102	1413102
17	Pressure arm complete	1413101	1413101	1413101	1413451
18	Feed roll, retaining screw	1413104	1413104	1413104	1413104
-	Woodruff key	1411549	1411549	1411549	1411549
19	Central Adaptor	1413108	1413108	1413108	1409035
20	Central adaptor shroud	-	-	-	1408699
21	Clamp	1413453	1413453	1413453	1413453
22	Guide tube	1413454	1413454	1413454	1413455
23	Guide tube liner	1413456	1413456	1413456	1413457
24	Geared roll adaptor (285 only)	-	-	-	1413452
25	Feed roll 0.6 - 0.8	1411470	1411470	1411470	1413458
-	Feed roll 0.8 - 1.0	1411471	1411471	1411471	1413459
-	Feed roll 1.0 - 1.2S	1411489	1411489	1411489	1413460
26	Screws for item 25 (285 only)	-	-	-	1413461
27	Wire feed block	1413106	1413106	1413106	1413450
28	Inlet guide	1413103	1413103	1413103	1413103
29	Reel hub assembly	1411467	1411467	1411467	1411467

**Note:** Please note that these items must be ordered on a separate order form and may be on extended delivery.

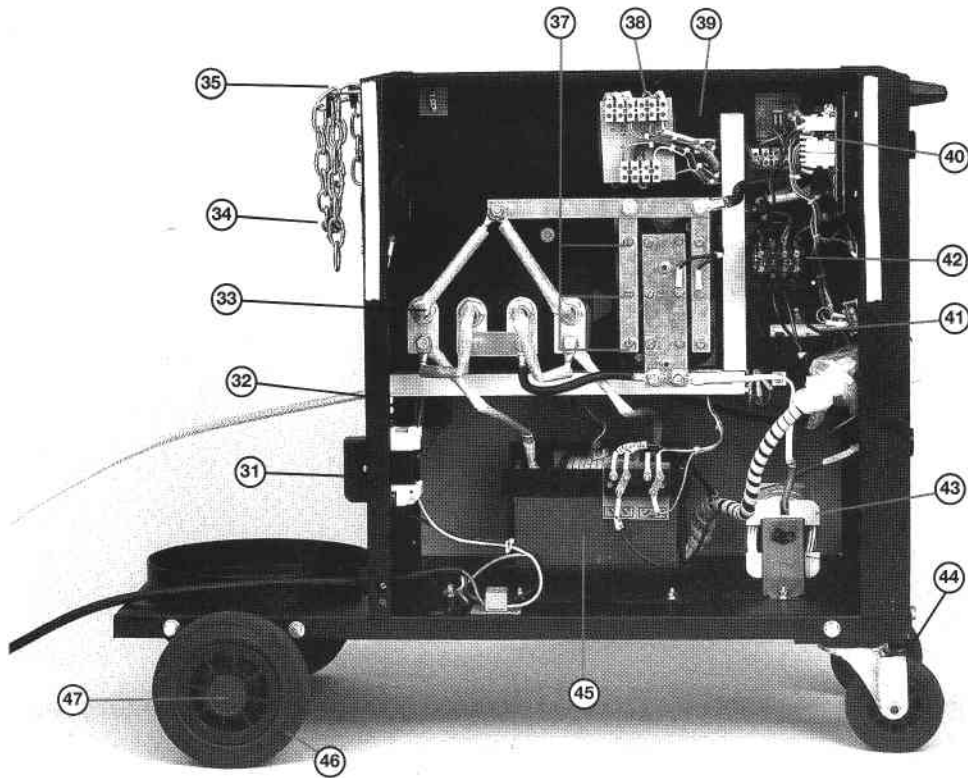


Fig D. Tradesmig 165 (Left hand side view)

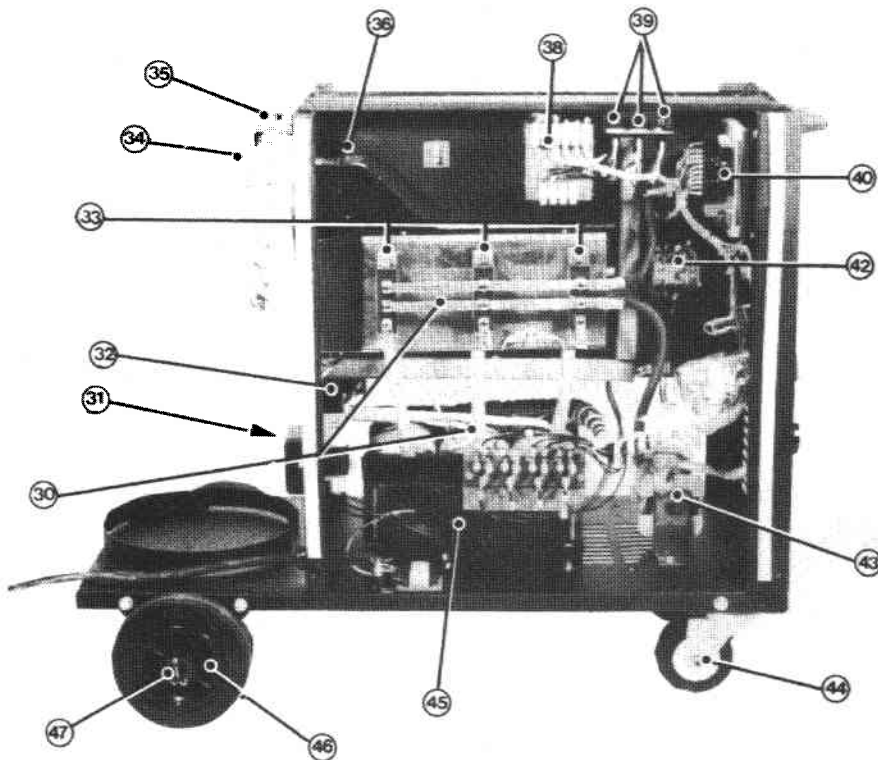
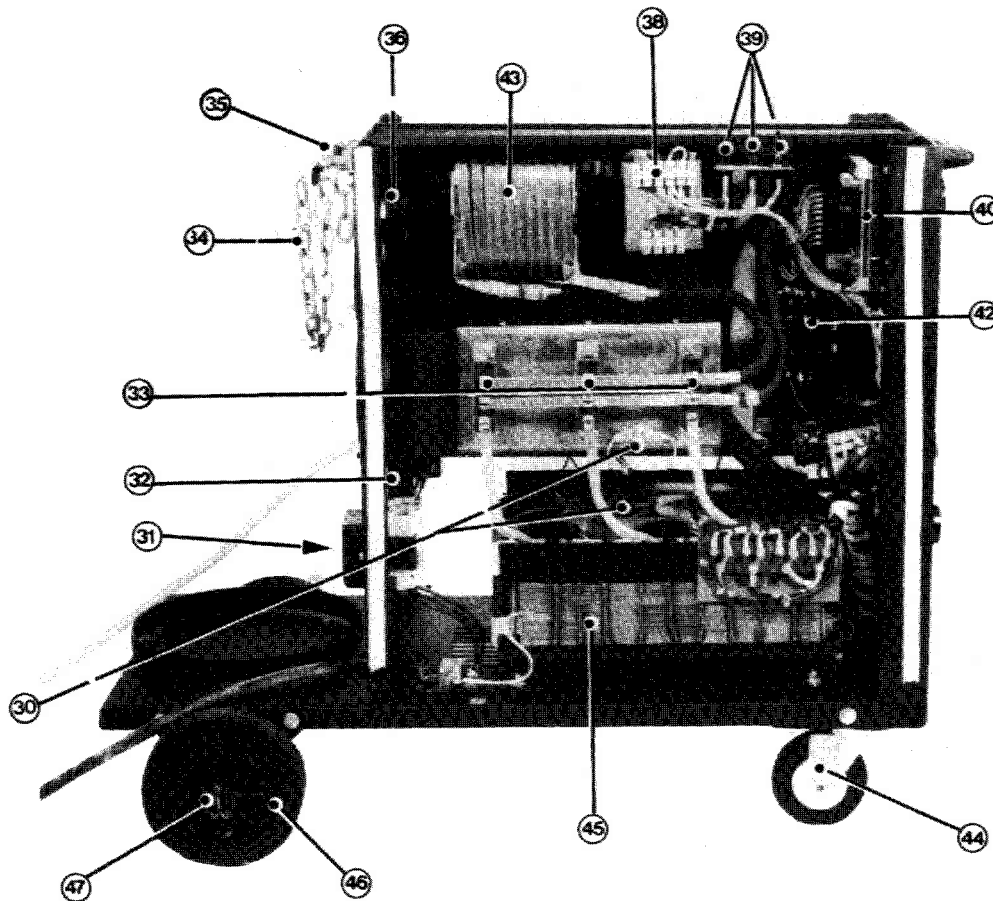


Fig E. Tradesmig 235 (Left hand side view)



**Fig F. Tradesmig 285 (Left hand side view)  
(Undergear parts are common to all units)**

Item No	Description	TM 135	TM 165	TM 165GL	TM 235	TM 245	TM 285
30	Thermostat rectifier	-	1413462	1413462	1413462	1413462	1413462
-	Thermostat transformer	1413463	1413463	1413463	1413463	1413463	1413463
31	Circuit breaker	1411475	1411476	1411476	1411476	1412464	1413464
32	Gas Valve	1411464	1411464	1411464	1411464	1411464	1411464
33	Rectifier assembly	1411462	-	-	-	-	-
-	Rectifier Diode	-	1414818	1414818	1414818	1414867	1414867
-	Heatsink	-	1414819	1414819	1414819	1414868	1414868
34	Chain	1412481	1412481	1412481	1412481	1412481	1412481
35	Cylinder Support bracket	1412480	1412480	1412480	1412480	1412480	1412480
-	Lifting eye	1413481	1413481	1413481	1413481	1413481	1413481
36	Fan	-	1411477	1411477	1411477	1411477	1411477
37	Capacitor 10,000µF	1411461	1411461	1411461	-	1411461	-
38	Auxiliary transformer	1411453	1411453	1411453	1411454	1411453	1411454
39	Fuse holder (20mm) See p. 17	-	-	-	-	-	1411516
-	Fuse 3.15A - 20mm (Pk 10)	1411486	1411486	1411486	1411486	1411486	-
-	Fuse 6.3A - 20mm (Pk 10)	-	-	-	-	-	1413466
-	Fuse holder - 30mm	-	-	-	-	-	141538?
-	Fuse 16A - 30mm	-	-	-	-	-	14150??
40	Printed circuit board	1413467	1413467	1413467	1413467	1413467	1413467
41	Resistor 15Ω, 20W	1413422	1413422	1413422	-	1413422	-
42	Main contactor	1411456	1411456	1411456	1411456	* 1413468	1413468
43	Reactor choke	1413469	1413470	1413470	1413471	1413472	1413473
-	Front dual castor tray	1413475	1413475	1413475	1413475	1413475	1413475
45	Main transformer	1413476	1413477	1413477	1413478	1413479	1413480
46	Wheel	1413488	1413488	1413488	1413488	1413488	1413488
47	Axle & rear wheel assembly	1413474	1413474	1413474	1413474	1413474	1413474

\*1413468



**Murex Welding Products Limited**  
Hertford Road, Waltham Cross,  
Herts. EN8 7RP. England  
Telephone: Lea Valley (0992)  
710000

**Pt. No. 100461**  
**Issue 4**