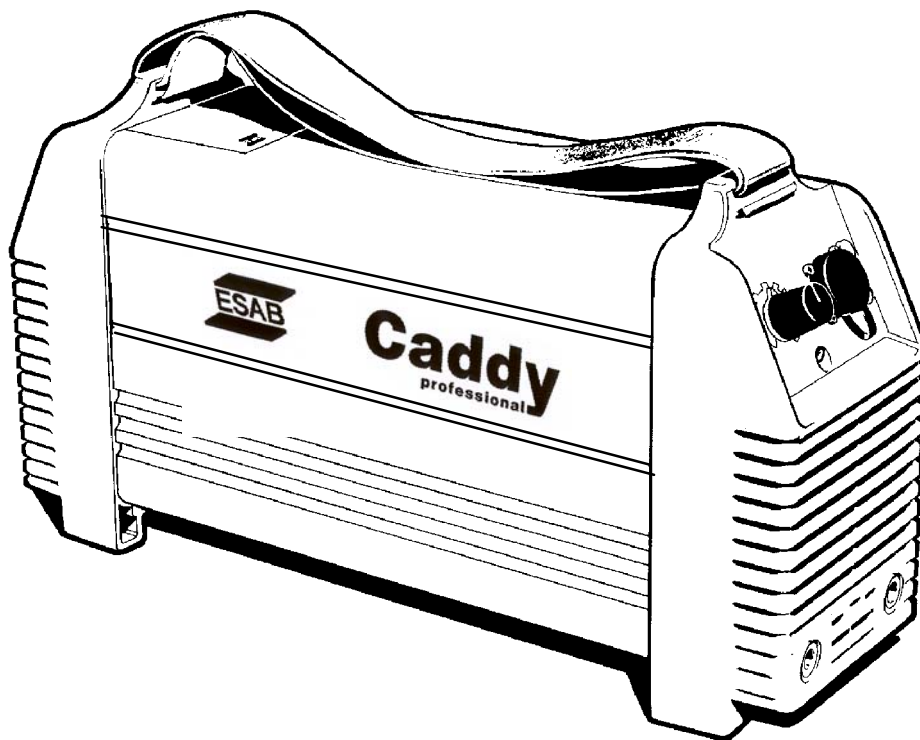


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Caddy Professional 250



Instruction manual

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1 DIRECTIVE

DECLARATION OF CONFORMITY

ESAB Welding Equipment AB, S-695 81 Laxå, Sweden, gives its unreserved guarantee that welding power source Caddy Professional 250 from serial number 417 complies with standard IEC/EN 60974-1, in accordance with the requirements of directive (73/23/EEC) and addendum (93/68/EEC) and with standard EN 50199 in accordance with the requirements of directive (89/336/EEC) and addendum (93/68/EEC).

Laxå 2004-04-19



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2 SAFETY



WARNING



ARC WELDING AND CUTTING CAN BE INJURIOUS TO YOURSELF AND OTHERS. TAKE PRECAUTIONS WHEN WELDING. ASK FOR YOUR EMPLOYER'S SAFETY PRACTICES WHICH SHOULD BE BASED ON MANUFACTURERS' HAZARD DATA.

ELECTRIC SHOCK - Can kill

- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing.
- Insulate yourself from earth and the workpiece.
- Ensure your working stance is safe.

FUMES AND GASES - Can be dangerous to health

- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to take fumes and gases away from your breathing zone and the general area.

ARC RAYS - Can injure eyes and burn skin.

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing.
- Protect bystanders with suitable screens or curtains.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby.

NOISE - Excessive noise can damage hearing

- Protect your ears. Use earmuffs or other hearing protection.
- Warn bystanders of the risk.

MALFUNCTION - Call for expert assistance in the event of malfunction.

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

PROTECT YOURSELF AND OTHERS!



This product is solely intended for arc welding.

3 INTRODUCTION

The Caddy Professional 250 are one transistor controlled welding power source designed for welding with coated electrodes and for TIG welding (touch start).

The advanced electronics provide rapid control response, low power demand and excellent welding characteristics. Inverter technology contributes to low weight and compact dimensions of the units.

The rounded slimline shape of the unit makes it comfortable to carry. The strap can be folded to serve as a carrying handle, or fully extended to serve as a shoulder strap.

4 TECHNICAL DATA

<p>Performance: at 35% duty cycle at 60% duty cycle at 100% duty cycle</p> <p>Setting range</p> <p>Open circuit voltage</p> <p>Mains supply: voltage frequency fuse mains cable, area</p> <p>Enclosure class</p> <p>Application class</p> <p>Dimensions L x W x H</p> <p>Weight</p>	<p>250 A/30 V 180 A/27 V 140 A/26 V</p> <p>continuously variable 4-250 A 50-80 V</p> <p>400 V AC 50/60 Hz 16 A* 4x1,5 mm^{2**}</p> <p>IP 23</p> <p style="text-align: center;">S</p> <p>472x142x256 11 kg</p>
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*When welding below 100 A a 10 A slow fuse is adequate..

**Power cable ratings complies with Swedish regulations..

Duty cycle

The duty cycle refers to the time as a percentage of a ten-minute period that you can weld at a certain load without overloading.

Application class

The symbol **S** indicates that the power source is designed for use in areas with increased electrical hazard.

Enclosure class

The **IP** code indicates the enclosure class, i. e. the degree of protection against penetration by solid objects or water. Equipment marked **IP23** is designed for indoor and outdoor use.

4.1 Equipment

Caddy Professional 250 is equipped with a remote control socket which activates automatically when a remote control device is connected. NOTE! The contact pins L and M must be strapped in the remote device's connection cable for automatic activation to function. The inverter is supplied with a 3 meter long mains cable.

Caddy Professional 250 is delivered with 5 meter long welding and return cables. These are attached to cable connectors allowing quick change of polarity. The manufacturer's serial number is stamped on the rating plate.

4.2 Field of application

Caddy Professional 250 supply direct current, which allows you to weld most alloyed and non-alloyed steels, stainless steels and cast iron. With the Caddy Professional 250 you can use coated electrodes from $\varnothing 1.6$ to $\varnothing 5$ mm.

Tig-welding

TIG welding is particularly useful when high quality standards are required and when welding thin sheet.

Before using the Caddy Professional 250 for TIG welding it must be equipped with a TIG torch and gas valve, a cylinder of argon, an argon regulator, tungsten electrodes and, if necessary, suitable filler metal.

The best method to use is the touch start, where you gently stroke the tungsten electrode against the workpiece to establish the arc.

5 INSTALLATION

The installation must be executed by a professional.



WARNING!

This product is intended for industrial use. In a domestic environment this product may cause radio interference. It is the user's responsibility to take adequate precautions.

5.1 Placing

Place the machine so that there is nothing to prevent the cooling air from passing through it.

5.2 Connection

To get maximum performance from the Caddy Professional 250 it must be fitted with a 16A slow fuse.

The Caddy Professional 250 have mains voltage compensation, which means that $\pm 10\%$ fluctuation in the supply voltage produces only $\pm 0.2\%$ variation in the welding voltage.

Caddy Professional 250 is intended for 400V, 3 phase supplies. It can be used with 50 Hz or 60 Hz supplies.

6 OPERATION

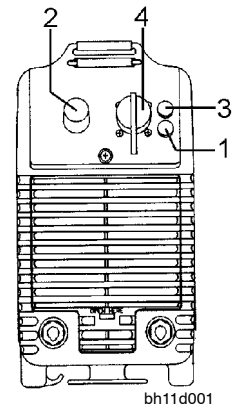
General safety regulations for the handling of the equipment can be found on page 3. Read through before you start using the equipment!

The power switch is at the rear of the Caddy Professional 250.
The white lamp on the front will glow when the power is on.

1. Yellow lamp
2. Welding current control 4-250 A
3. White lamp
4. Remote control socket

The current is adjusted using the knob on the front.

Important! Only use the accompanying welding cable and return cable, with a cross-sectional area of 35 mm². (See list of spare parts for order number).



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6.1 Overload protection

To save you worrying about overloading the Caddy Professional 250 it has a thermal cut-out that will trip before the temperature becomes too high. You can tell when the rectifier has been overloaded because the yellow light comes on and it will no longer be possible to weld.

7 MAINTENANCE

Note!

All guarantee undertakings from the supplier cease to apply if the customer himself attempts any work in the product during the guarantee period in order to rectify any faults.

7.1 Cleaning

Normally it is sufficient to blow the welding power source clean regularly using dry compressed air (reduced pressure), and to clean the filter in the front regularly.

In dusty and dirty environment the welding power source should be cleaned at shorter intervals.

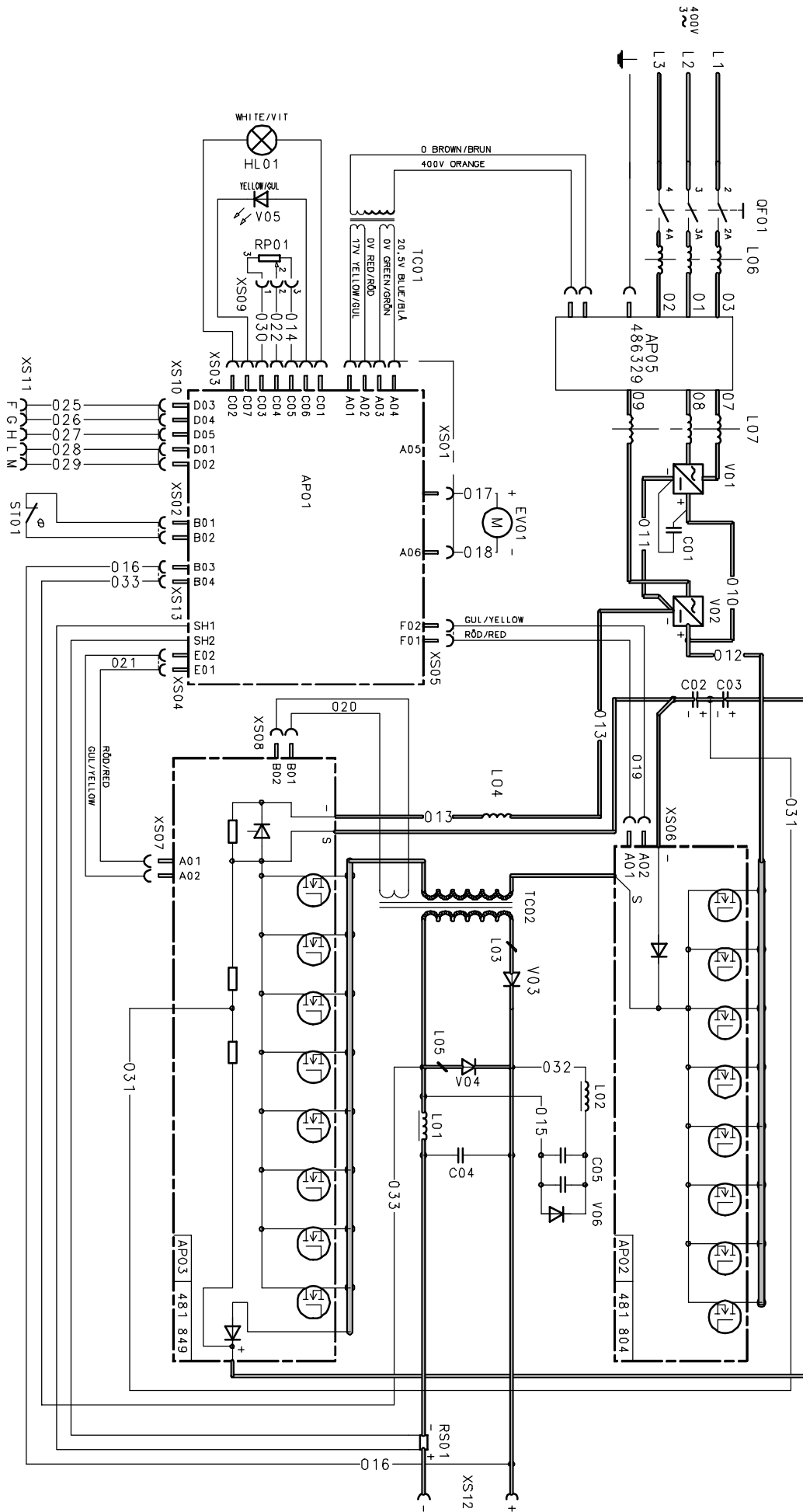
8 FAULT TRACING

Type of fault	Measure
No arc is generated by the welding power source.	<ul style="list-style-type: none"> • Make sure the mains switch is on. • Check that the welding and return cables are properly connected. • Make sure the welding current set is correct.
The welding current is interrupted in the course of welding.	<ul style="list-style-type: none"> • Check if the thermal cut-out has tripped (the orange indicating lamp on the front panel is on). • Check the mains fuse.
The thermal cut-out trips frequently.	<ul style="list-style-type: none"> • Check that the filter is not packed with dust. • Check that the ratings of the welding power source have not been exceeded (overload of the power source).
Poor welding result.	<ul style="list-style-type: none"> • Check that the welding and return cables are properly connected. • Make sure the welding current set is correct. • Check that there is nothing wrong with the electrodes.

9 ORDERING OF SPARE PARTS

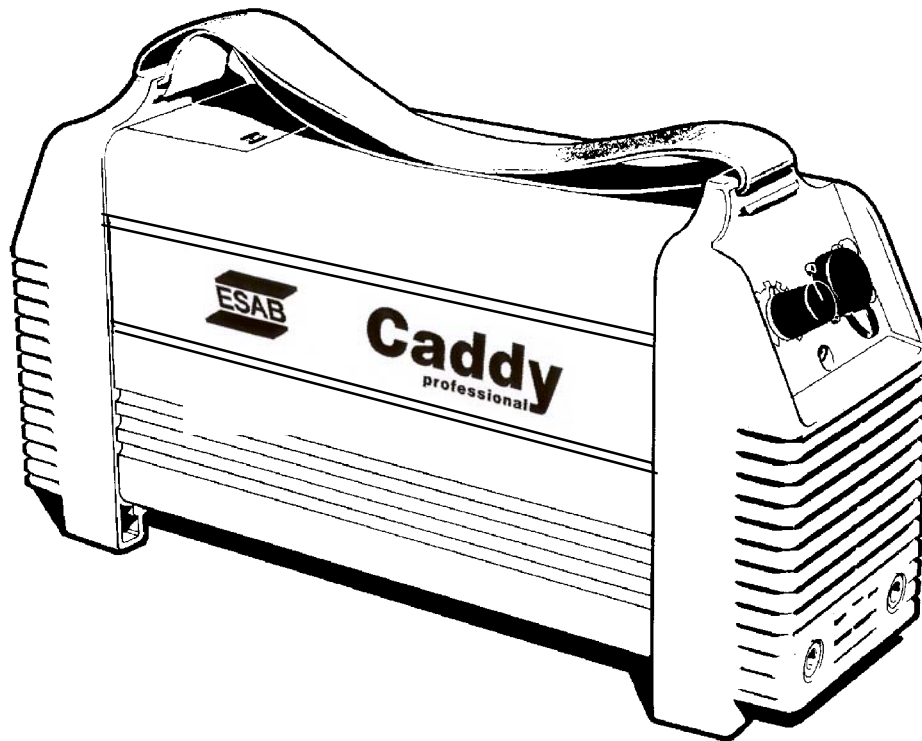
Spare parts may be ordered through your nearest ESAB dealer, see the last page of this publication.

Diagram



Caddy Professional 250

Ordering number

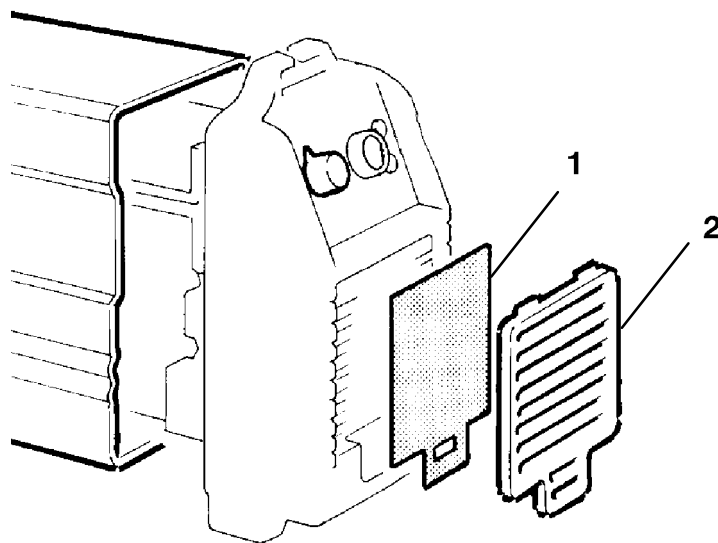


Ordering no.	Denomination	Type
0457 516 880	Welding power source	Caddy Professional 250
0457 552 990	Spare parts list	Caddy Professional 250

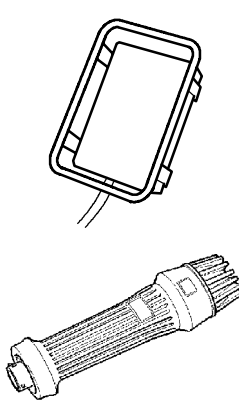
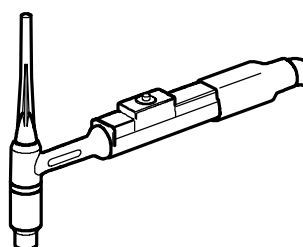
Caddy Professional 250

Spare parts list

Item	Qty	Ordering no.	Denomination
1	1	0468 462 001	Filter
2	2	0467 796 001	Grille



Accessories

	Remote control units with cable	
	PHA 1 box 12 pole, 10 m cable	0367 657 881
	PHA 1 box 12 pole, 25 m cable	0367 657 880
	PHA 2 with settings for Hot Start and welding current	0367 601 880
	Remote control units without cable	
	PHB 1 bar 12 pole, with planetary gear	0367 317 880
	PHB 2 box 12 pole, with coarse and fine setting	0367 318 880
	PHC 2 box 12 pole, With coarse setting in 10 steps and fine setting within each step	0367 620 880
	PHA 5, pulse device	0367 970 880
	Cable 12 pole, 5 m	0367 144 881
	Cable 12 pole, 10 m	0367 144 882
	Cable 12 pole, 15 m	0367 144 887
Cable 12 pole, 25 m	0367 144 883	
	TIG-torch	
	HW-20ARV, 3,8 m. For max 140 A	0588 000 714

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