

PHA1, PHB1, PHA2, PHB2, PHC2

**Fjärrmanöverdon
Fjernbetjeningsenhet
Fjernstyringsenhet
Kauko-ohjain
Remote control
Fernbedienung
Commande à distance
Afstandsbediening
Mando a distancia
Controllo a distanza
Comando à distância
Εξ αποστάσεως έλεγχος**

**Bruksanvisning
Brugsanvisning
Bruksanvisning
Käyttöohjeet
Instruction manual
Betriebsanweisung**

**Manual d'instructions
Gebruiksaanwijzing
Instrucciones de uso
Istruzioni per l'uso
Manual de instruções
Οδηγίες χρήσεως**

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ENGLISH


DESCRIPTION - Connection cables

To connect the PHB 1, PHA 2, PHB 2 and PHC 2 to the power sources a connection cable is needed.


These are available in 4 different lengths with 12-pole Burndy connections in both ends.

	art.nr		art.nr
1,5 m -	367 144-880	10 m -	367 144-882
5 m -	367 144-881	25 m -	367 144-883

Cables are also available with 3 pin Cannon contacts.



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 keep fumes and gases 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

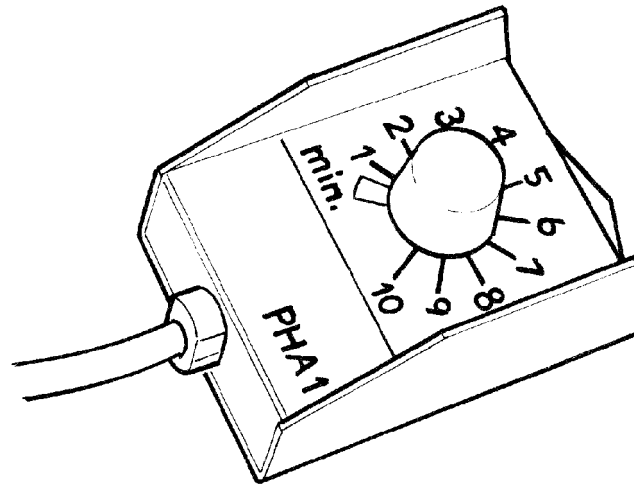
- Protect your ears. Use ear defenders or other hearing protection.
- Warn bystanders of the risk.

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

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

PROTECT YOURSELF AND OTHERS!

DESCRIPTION PHA 1



bf01d001

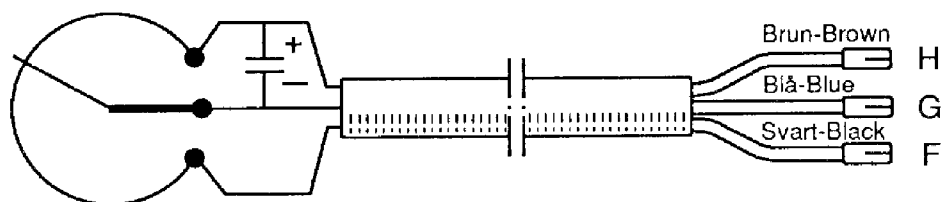
PHA 1 is a simple remote control unit with a stepless setting of the current.

The unit is delivered with 10 or 25 m cable included.

The following chart gives an indication of what values you have when using the PHA 1 with 400 A and 630 A welding rectifier.

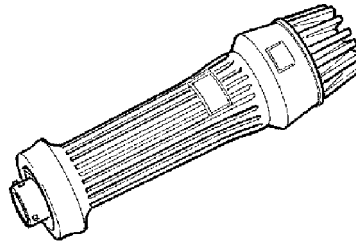
	400 A	630 A
1	8	15
2	50	90
3	90	160
4	145	240
5	190	300
6	230	370
7	270	410
8	315	490
9	370	540
10	395	610

The resistor shown from the rear plate.



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DESCRIPTION PHB 1



bf01d003

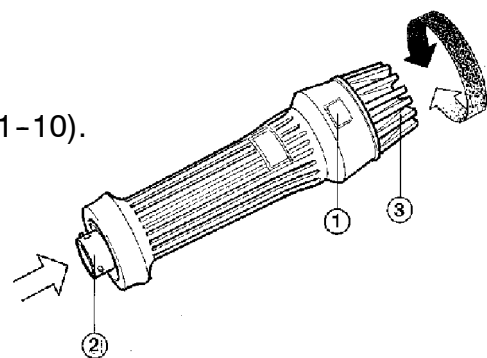
PHB 1 is a light and handy remote control unit that you can manoeuvre with one hand.

The unit has a planetary gear for accurate stepless setting on a scale from 1 to 10, where 10 is the maximum current.

The following chart gives an indication of what values you have when using the PHB 1 with 400 A and 630 A welding rectifier.

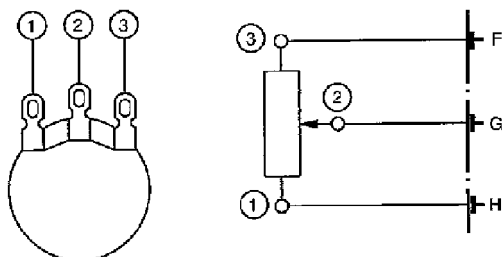
	400 A	630 A
1	8	8
2	35	55
3	85	135
4	135	220
5	185	280
6	230	360
7	270	420
8	335	510
9	385	590
10	395	610

1. Window indicates proportional current value (1-10).
2. The control unit connected to remote control socket on the power source.
3. Rotate clockwise to increase. Anti-clockwise to decrease.



bf01d004

Circuit diagram



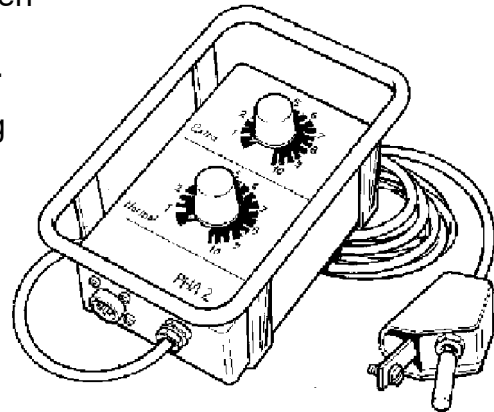
bf01d005

DESCRIPTION PHA 2

PHA 2 is a remote control unit where two completely independent current levels can be set. You can then choose between them by the selector switch (see fig). The switch is mounted on the electrodeholder.

"Hot Start" unit is used for example after switching electrodes in one-sided welding with a backing piece. The higher current level is selected when you want to restart. This melts down welding faults (pipes and crater cracks etc.) that often occurs when welding is interrupted.

Below you find a chart with the values you obtain with the upper and lower knob when using the PHA 2 with a 400 A and 630 A welding rectifier.

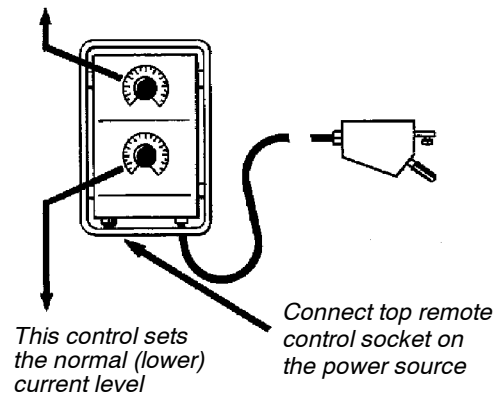


bf01d006

PHA 2 with a 400 A thyristor controlled rectifier

Upper	Lower
1-8 A	1-8 A
2-50 A	2-50 A
3-87 A	3-87 A
4-133 A	4-133 A
5-180 A	5-180 A
6-220 A	6-220 A
7-266 A	7-266 A
8-310 A	8-310 A
9-360 A	9-360 A
10-400 A	10-400 A

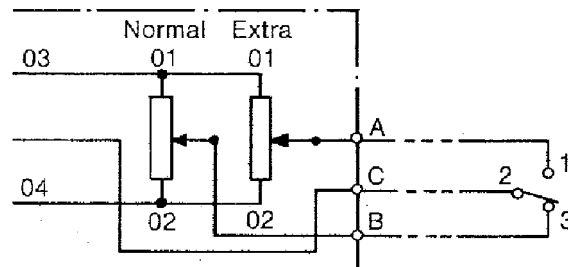
When the trigger is pressed the current rises to a level set by this control



bf01d007

PHA 2 with a 630 A thyristor controlled rectifier

Upper	Lower
1-12 A	1-12 A
2-85 A	2-85 A
3-153 A	3-153 A
4-220 A	4-220 A
5-280 A	5-280 A
6-360 A	6-360 A
7-410 A	7-410 A
8-480 A	8-480 A
9-540 A	9-540 A
10-610 A	10-610 A



Circuit diagram

- A: Black
- B: Blue
- C: Brown

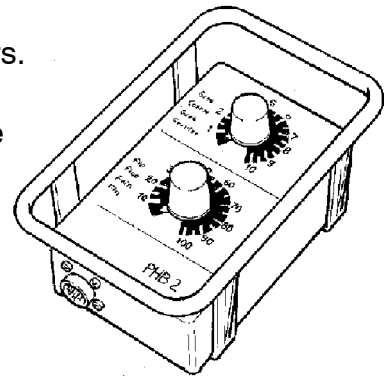
bf01d008

DESCRIPTION PHB 2

PHB 2 is a remote control unit for setting of the welding current, with two very accurate adjustment potentiometers.

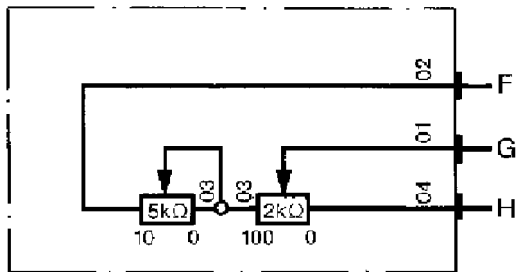
The coarse setting of the maximum current is chosen with the upper knob and fine adjustment is made with the lower knob (see fig).

Below you find a diagram done with the PHB 2 connected to a 400 A and a 630 A welding rectifier. This gives you an idea what current range you obtain with the different coarse settings.

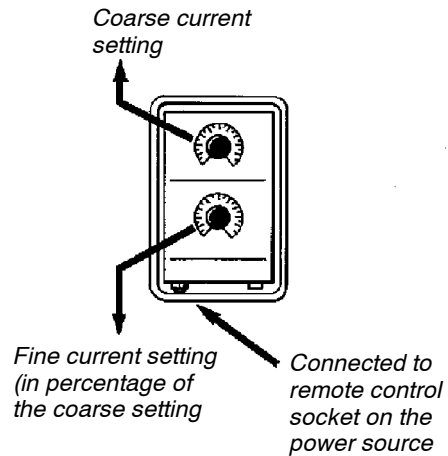


bf01d009

Circuit diagram



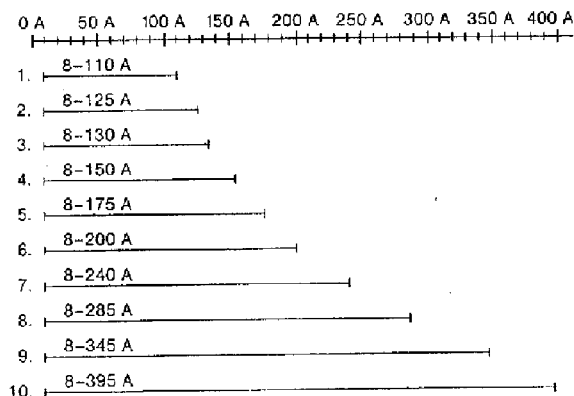
bf01d012



bf01d010

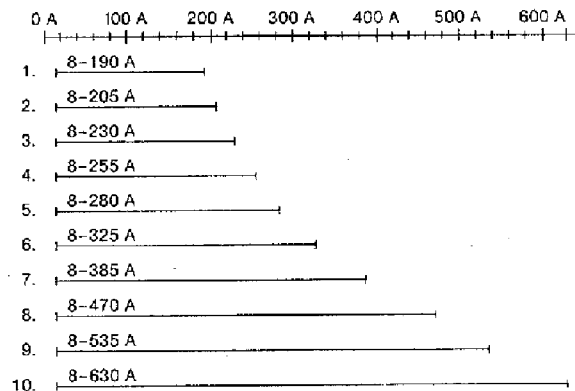
PHB 2 with a 400 A thyristor controlled rectifier

Coarse setting



PHB 2 with a 630 A thyristor controlled rectifier

Coarse set-

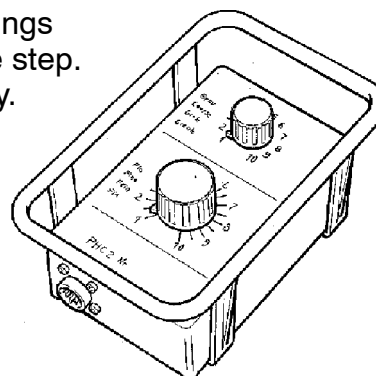


bf01d011

DESCRIPTION PHC 2

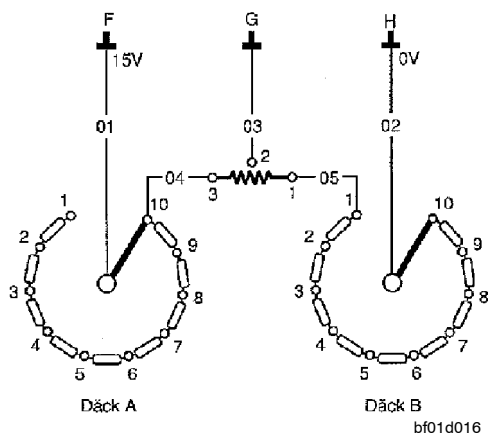
PHC 2 is a robust remote control unit with 10 coarse settings step and steplessly adjustable current within each coarse step. With these two knobs you can set the current very exactly.

Following diagram shows the current range in each coarse step.

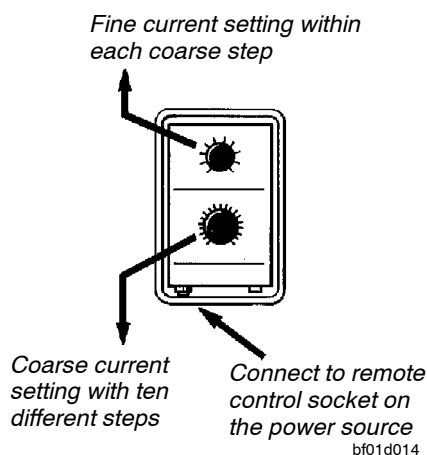


bf01d013

Circuit diagram

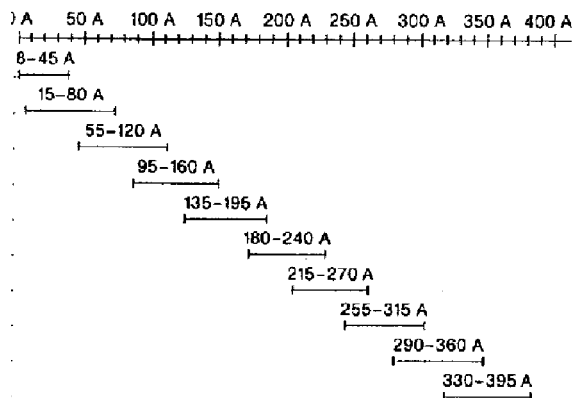


bf01d016

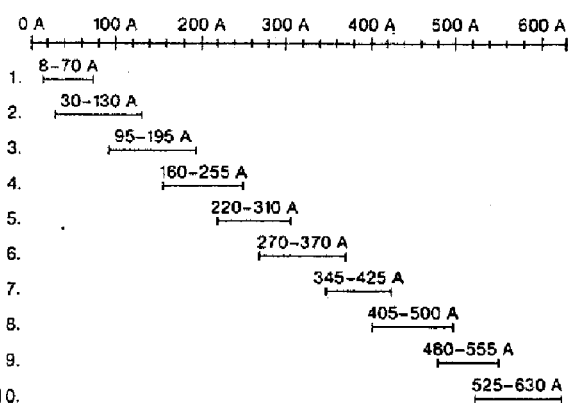


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PHC 2 with a 400 A thyristor controlled rectifier



PHC 2 with a 630 A thyristor controlled rectifier



bf01d015

Ordering spare parts

When ordering parts please state the machine model, serial number and name and spare part number as shown in the list of spare parts. This facilitates dispatch and ensures a correct delivery.