## Boiler Steam Iron

GC8220





#### **Philips Consumer Lifestyle**

# ServiceManual

#### **PRODUCT INFORMATION**

## Features

#### Iron

- Careeza Soleplate
- Continuous steam in horizontal & vertical position
- Adjustable steam rate up to 110 g/min
- Shot Of Steam up to 120 g/min
- Steam activator lock
- Automatic drip stop
- Soft touch hand grip
- Steam tip for hard-to-reach places
- Steam hose length : 1.7 m

#### Stand

- Anti-corrosion Inox boiler
- Boiler sensing : Electronic
- Boiler pressure : 4.5 bar
- Fast heat-up : Steam ready in 2 mins.
- Cord length : 2.5m
- Hose cord storage
- Easy to rinse
- Iron lock for safe storage
- Detachable tank : 1.4 L

#### Safety Information

- This product meets the requirements regarding interference suppression on radio and TV.
- After the product has been repaired, it should function properly and has to meet the safety requirements as officially laid down as this moment.

Published by Philips Consumer Lifestyle

Printed in the Netherlands

### **TECHNICAL INFORMATION**

| Voltage               | : 220 - 240 V                    |
|-----------------------|----------------------------------|
| Frequency             | : 50 - 60 Hz                     |
| Power Iron            | : 800 W                          |
| Boiler                | : 1370 W                         |
| Dimension (F-box)     | : 350 x 350 x 250 mm (L x W x H) |
| Weight (with packing) | : 6.4 kg                         |
|                       |                                  |

#### Water advice

If the tap water in your area is very hard, it is advisable to mix the tap water with an equal amount of demineralised water.

#### Careeza soleplate

Scratch resistant, non-stick, easy to clean & very durable.

#### Fast ironing

Steam ready in 2 minutes & up to 5 bar of steam pressure penetrating deeper into the fabrics.

#### Iron lock

Safely store the iron on the stand.

#### Easy to rinse

The new design of the rinse cap makes it very easy to rinse the boiler regularly. Simply unscrew the cap and pour out the "dirty" water into the sink. No hassle with coins, extra tubes or anything of this sort.

#### Large detachable water tank

1.4 Liter water tank allows up to 3 hours freedom of ironing without refilling.

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Subject to modification



#### **DISASSEMBLY ADVICE - IRON**

## GC8220



Fig 1. Wiring at rear HOUSING (Part 1)



Fig 2. Wiring at rear HOUSING (Part 2)

| STEAM LOCK 6                   |                   |  |  |  |
|--------------------------------|-------------------|--|--|--|
| L                              | LAMP ASSY 7       |  |  |  |
| MICRO                          | SWITCH ASSY 9     |  |  |  |
| SWIT                           | CH HOLDER 10      |  |  |  |
| PIVC                           |                   |  |  |  |
| FIV                            |                   |  |  |  |
| Т                              | RIGGER 12         |  |  |  |
| THERMO                         | STAT DIAL ASSY 14 |  |  |  |
| HOUS                           | ING PRINTED 16    |  |  |  |
| SOLEF                          | PLATE COVER 17    |  |  |  |
| THERM                          | 1OSTAT BUSH 19    |  |  |  |
| RUE                            | BER HOSE 20       |  |  |  |
| BR                             | ASS JOINT 21      |  |  |  |
| SOLE                           | PLATE ASSY 23     |  |  |  |
| Remove                         | Screw A           |  |  |  |
| Disassemble                    | BACKPLATE 1       |  |  |  |
| Release                        | Inlay rear catch  |  |  |  |
| Disassemble INLAY 4            |                   |  |  |  |
| Disassemble STEAM LOCK 6       |                   |  |  |  |
| Disassemble SWITCH HOLDER 10   |                   |  |  |  |
| Disassemble MICROSWITCH ASSY 9 |                   |  |  |  |
| Remove Screw C                 |                   |  |  |  |
| Disassemble                    | PIVOT HOLDER 11   |  |  |  |
| Disassemble                    | TRIGGER 12        |  |  |  |
| Disassemble THERMOSTAT DIAL 14 |                   |  |  |  |

**INLAY 4** 



Fig 3.

| Remove      | Screws D1, D2, D3     |
|-------------|-----------------------|
| Disassemble | HOUSING PRINTED 16    |
| Remove      | Screws E1, E2, E3     |
| Disassemble | SOLEPLATE COVER 17    |
| Remove      | Hose clip (b)         |
| Disassemble | <b>RUBBER HOSE 20</b> |

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| Pos | Service code   | Description                      |
|-----|----------------|----------------------------------|
| 1   | 4239 026 21890 | Backplate                        |
| 2   | 4239 026 22160 | Swivel                           |
| 3   | 4239 021 41431 | Hose cord mounted assy           |
| 4   | 4239 026 24010 | Inlay SOS (Blue)                 |
| 5   | 4239 026 08280 | Lamp cover                       |
| 6   | 4239 026 21820 | Steam lock                       |
| 7   | 4239 021 32580 | Lamp assy                        |
| 8   | 4239 026 01220 | Lamp holder                      |
| 9   | 4239 021 31790 | Microswitch assy                 |
| 10  | 4239 026 21780 | Switch holder                    |
| 11  | 4239 026 21790 | Pivot holder                     |
| 12  | 4239 026 21800 | Trigger                          |
| 13  | 4239 010 09290 | Trigger spring                   |
| 14  | 4239 021 34920 | Thermostat dial assy (Blue)      |
| 15  | 4239 014 53790 | Rattle spring                    |
| 16  | 4239 021 32820 | Housing printed                  |
| 17  | 4239 026 24000 | Soleplate cover (Blue)           |
| 18  | 4239 015 70150 | Ryton ring                       |
| 19  | 4239 026 13220 | Thermostat bush                  |
| 20  | 4239 015 56520 | Braided rubber hose (inlet)      |
| 21  | 4239 010 09350 | Brass joint                      |
| 22  | 4239 010 10280 | Hose clip - braided rubber hose  |
| 23  | 4239 021 31710 | Soleplate assy (Careeza) - 230 V |
| 24  | 4239 015 56120 | Rubber hose (SOS)                |
| 25  | 4239 015 56510 | Rubber hose (dosing)             |
| 26  | 4239 026 24020 | SOS knob (Blue)                  |
| 27  | 4239 021 31780 | Steam deviator assy              |
| 28  | 4239 010 10110 | Hose clip                        |



Fig 4 . Electrical diagram



#### DISASSEMBLY ADVICE - STAND & DETACHABLE WATER TANK

## GC8220

| TRAY RUBBER (MAIN) 30     |                            |  |  |  |
|---------------------------|----------------------------|--|--|--|
| TRAY 33                   |                            |  |  |  |
| ST                        | AND TOP 34                 |  |  |  |
| FRONT P                   | ANEL PRINTED 37            |  |  |  |
| BOIL                      | ERASSY EE 38               |  |  |  |
| ELEC                      | CTROVALVE 40               |  |  |  |
| POV                       | /ER BOARD 43               |  |  |  |
| CONT                      | ROL BOARD 44               |  |  |  |
| PL                        | JMP ASSY 45                |  |  |  |
| IN                        | LET TUBE 46                |  |  |  |
| DE                        | -AIRTUBE 47                |  |  |  |
|                           | BBER COUPLING 50           |  |  |  |
| RINGE RO                  |                            |  |  |  |
|                           |                            |  |  |  |
| SAFE                      | Y CAP ASSY 52              |  |  |  |
| REED S                    | SWITCH ASSY 53             |  |  |  |
| Remove                    | WATER TANK ASSY 70         |  |  |  |
| Remove                    | TRAY RUBBER (MAIN) 30 (3x) |  |  |  |
| Remove                    | Screws J1, J2, J3          |  |  |  |
| Disassemble               | TRAY 33                    |  |  |  |
| Remove                    | Screws K1, K2, K3, K4      |  |  |  |
| Disconnect                | INLET TUBE 46              |  |  |  |
| Disconnect DE-AIR TUBE 47 |                            |  |  |  |
| Remove SAFETY CAP ASSY 52 |                            |  |  |  |
| Remove                    | RINSE BUSH 51              |  |  |  |
| Remove                    | RINSE RUBBER COUPLING 50   |  |  |  |
| Disassemble               | STAND TOP 34               |  |  |  |
| Remove                    | Screws L1, L2              |  |  |  |
| Disassemble               | FRONT PANEL PRINTED 37     |  |  |  |
|                           |                            |  |  |  |

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Fig 5. Connections on CONTROL BOARD 44

RemoveConnections 9, 10, 11, 12 (Fig 5)RemoveScrews M1, M2, M3 (Fig 5)DisassembleCONTROL BOARD 44



Fig 6. Connections on POWER BOARD 43



| Pos | Service code   | Description                       |
|-----|----------------|-----------------------------------|
| 30  | 4239 015 56010 | Tray rubber (Main)                |
| 31  | 4239 015 56030 | Tray rubber (Rear)                |
| 33  | 4239 010 09310 | Tray                              |
| 34  | 4239 026 21920 | Stand top                         |
| 35  | 4239 026 21930 | Nipple plate                      |
| 36  | 4239 026 22080 | Cord storage lever                |
| 37  | 4239 021 32160 | Front panel printed               |
| 38  | 4239 021 31920 | Boiler assy EE                    |
| 39  | 4239 026 22280 | C-Wall                            |
| 40  | 4239 017 09890 | Electrovalve                      |
| 41  | 4239 015 56160 | Braided hose                      |
| 42  | 4239 010 09390 | Inox clamp                        |
| 43  | 4239 021 31970 | Power board                       |
|     |                | (Refer Symptom Cure<br>SDA_97593) |
| 44  | 4239 021 31940 | Control board                     |
|     |                | (Refer Symptom Cure<br>SDA_97593) |
| 45  | 4239 021 32480 | Pump assy                         |
| 46  | 4239 015 56140 | Inlet tube                        |
| 47  | 4239 015 56150 | De-air tube                       |

| Pos | Service code   | Description               |
|-----|----------------|---------------------------|
| 48  | 4239 015 55980 | Boiler rubber support A   |
| 49  | 4239 015 55990 | Boiler rubber support B   |
| 50  | 4239 015 56050 | Rinse rubber coupling     |
| 51  | 4239 026 22330 | Rinse bush                |
| 52  | 4239 022 56470 | Safety cap assy           |
| 53  | 4239 021 31820 | Reed switch assy          |
| 54  | 4239 026 22050 | Reed switch holder        |
| 55  | 4239 000 09780 | Cordset EU                |
| 56  | 4239 026 22270 | Stand bottom EE           |
| 57  | 4239 015 52340 | Bung (Stand)              |
| 58  | 4239 026 05990 | Filling cup               |
| 59  | 4239 015 56000 | Power button cap (Silver) |
| 60  | 4239 026 21990 | Power button frame        |
| 61  | 4239 026 22010 | Steam button frame        |
| 62  | 4239 026 22000 | Light guide (ring)        |
| 63  | 4239 026 22030 | Display lamp cover        |
| 65  | 4239 022 58590 | Safety valve sealing ring |



Fig 7. Boiler Assy EE - Wiring Diagram



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| Pos | Service code   | Description            |
|-----|----------------|------------------------|
| 70  | 4239 021 34810 | Water tank assy (Blue) |
| 71  | 4239 026 22130 | Tank washer            |
| 72  | 4239 015 55390 | Sealing ring           |
| 73  | 4239 026 22110 | Tank coupling          |
| 74  | 4239 015 56060 | Tank coupling seal     |

| Pos | Service code   | Description        |
|-----|----------------|--------------------|
| 75  | 4239 026 22120 | Tank lever (White) |
| 76  | 4239 010 09330 | Spring             |
| 77  | 4239 015 56070 | Pick-up tube       |
| 78  | 4239 021 31860 | Filter assy        |
|     |                |                    |

#### **REPAIR INSTRUCTIONS**

- Due to the high wattage of the iron, only the specified cord set must be used.
- Should damage be observed on the HOSE-CORD ASSY 3 or CORDSET 55, they must be replaced. Continued usage is not allowed.
- When replacing the MICROSWITCH ASSY 9, please dress the 2 attached wires such that they are free of tension. Pulling force on the wires may affect the steam triggering.
- To avoid damage to the sealing & components of the BOILER ASSY 38, NEVER clean the boiler assy with vinegar, descaling agent or other corrosive chemicals.
- When replacing ELECTROVALVE 40 or PUMP ASSY 45, please be reminded to apply loctite at the joints for good sealing.
- After the product has been repaired, it should function properly and has to meet the safety requirements & legal regulations as laid down & officially established at this moment.
- The following tests are common checks that are conducted on a repaired product before it is returned to the consumer.

#### 1. Soleplate temperature

Check that soleplate temperature is within IEC requirement.

Measure the temperature of the soleplate after the iron has reached steady state i.e connected to the mains for at least 15 minutes. The table below shows the temperature requirement.

| Marking |              | Soleplate temperature (Deg C) |         | rature (Deg C)      | Marriel for morely                                |                    |
|---------|--------------|-------------------------------|---------|---------------------|---|--------------------|
|         |              | Minimum                       | Maximum | Nominal + Tolerance | Material, for example                             | "                  |
| •       | • (1 dot)    | 70                            | 120     | 95 ± 25             | Acetate, elastane, polyamide, polyproylene        | X X Test-<br>point |
| •       | •• (2 dots)  | 100                           | 160     | 130 ± 30            | Cupro, polyester, silk, triacetate, viscose, wool |                    |
| •       | ••• (3 dots) | 140                           | 210     | 175 ± 35            | Cotton, linen                                     |                    |

#### 2. Leakage current

Check that leakage current is within IEC requirement.

Measure leakage current between LIVE/NEUTRAL & EARTH. IEC requirement is that at 230 V supply, the EARTH leakage current must be less than 0.75 mA.

#### 3. Water leakage / Functionality

Check that there is no water leakage from any part of the product during operation.

Check that the functionality of the product (product dependent) eg. steaming, variable steam, SOS, ASO etc is working properly.

#### 4. Loose part

Check that there are no loose parts eg. extra screw in the product that can cause short-circuit or product malfunction.