

# **SCAN COMBIFLEX 800**

MANUAL



# **Table of Contents**

| 1 | Specifications                              | 42 |
|---|---|----|
|   | 1.1 Electrical specifications               | 42 |
|   | 1.2 Mechanical specifications               |    |
|   | 1.2.1 Water connection                      |    |
|   | 1.3 Tools                                   |    |
|   | 1.4 Range of application.                   |    |
|   | 1.5 Scope of supply                         |    |
|   | 1.6 Overview                                |    |
| 2 | Safety Regulations                          |    |
| _ | 2.1 Legend                                  |    |
|   | 2.2 Safety precautions                      |    |
|   | 2.3 Organizational measures                 |    |
|   | · · · · · · · · · · · · · · · · · · ·       |    |
|   | 2.4 Personnel selection and qualification   |    |
|   | 2.5 Safety regarding operation of machine   |    |
|   | 2.6 Electrical safety                       |    |
|   | 2.6.1 Cables                                |    |
|   | 2.6.2 Using a generator                     | 51 |
|   | 2.7 Definition of the "Safety off position" |    |
|   | 2.8 Safety regarding maintenance            |    |
|   | 2.9 Safety regarding transport              |    |
|   | 2.9.1 Manual transport                      |    |
|   | 2.9.2 Lifting                               |    |
|   | 2.9.3 Inside vehicles                       |    |
| 3 | Transport                                   |    |
|   | 3.1 Precautions                             | 54 |
|   | 3.2 Manual transport                        | 54 |
|   | 3.3 Lifting                                 | 54 |
|   | 3.4 Inside vehicles                         | 54 |
| 4 | Operation                                   | 55 |
|   | 4.1 Precautions                             |    |
|   | 4.2 Operation of machine                    |    |
|   | 4.3 Control panel                           |    |
|   | 4.4 Water connection                        |    |
|   | 4.5 Start up                                |    |
|   | 4.6 Stop                                    |    |
|   | 4.7 Adjusting grinding speed                |    |
|   | 4.8 Change grinding direction.              |    |
|   | 4.9 Safety off position                     |    |
|   | 4.10 Grinding                               |    |
|   | 4.11 Changing tools                         |    |
|   | 4.12 Using with generator                   |    |
| 5 | Maintenance                                 |    |
| J |   |    |
|   |   |    |
|   | 5.2 Daily inspection prior to operation.    |    |
|   | 5.3 Maintenance and inspection list         |    |
|   | 5.4 Grinding disc replacement / assembly    |    |
|   | 5.5 Cleaning the machine                    | 60 |

|     | 5.6  | Trouble shooting                | 60 |
|-----|------|---------------------------------|----|
|     | 5.6  |                                 |    |
|     | 5.6. | .2 Error codes                  | 61 |
| 5   | Spa  | are Parts                       | 62 |
|     | 6.1  | Center axis                     | 64 |
|     | 6.2  | Grinding spindle                | 65 |
|     | 6.3  | Grinding spindle with 2 pulleys |    |
|     | 6.4  | Drive axis                      |    |
|     | 6.5  | Tensioner for main belt         | 68 |
|     | 6.6  | Tensioner for secondary belt    | 69 |
|     | 6.7  | Grinding head                   | 70 |
| 7   | Wa   | ırranty                         | 72 |
| 3   |      | Declaration                     |    |
| 9   | Alp  | phabetical reference            | 74 |
| 1 ( |      | ntact information               |    |
|     |      |                                 |    |

### 1 Specifications

The SC-800 is available with different power inputs and some options regarding wet grinding. This is described in the different sections later on in this chapter.

### 1.1 Electrical specifications

To find the specifications that apply to your machine, check the information plate on the electrical cabinet door.



Never connect the SC-800 to any other voltage or number of phases than described in this specification.



The power source must be fused according to "External fuse" in this specification; also the cables used must be marked and rated in accordance with the fuse used. Failure to comply with the correct fuses may cause fire or injuries.

| Power choice <sup>1</sup>  | 400 V 3~2                  | 230 V 3~                   |
|----------------------------|----------------------------|----------------------------|
| Power                      | 11 kW (10 hp)              | 7.5 kW (10 hp)             |
| Current                    | 25A                        | 27 A                       |
| Voltage                    | 400 V 3~                   | 200 – 240 V 3~             |
| Frequency                  | $50/60 \text{ Hz} \pm 5\%$ | $50/60 \text{ Hz} \pm 5\%$ |
| External fuse <sup>3</sup> | 16 A                       | 32 A                       |
| Power inlet <sup>4</sup>   | IEC 60309                  | IEC 60309 3P+E             |
|                            | 3P+N+E 400V                | 250V 32A                   |
|                            | 32A                        |                            |

 Table 1-1
 Electrical specifications

All models are CE-marked.



If using a generator see "2.6.2Using a generator"

### 1.2 Mechanical specifications

| Model                   | SC-800           |
|-------------------------|------------------|
| Muci                    |                  |
| Grinding diameter       | 800 mm (32")     |
| Grinding plate diameter | 240 mm (9.5")    |
| Grinding plate speed    | 500 – 1400 RPM   |
| Mass                    | 400 kg (880 lbs) |
| Gear barrel             | Synchronized     |
|                         |                  |

 Table 1-2
 Mechanical specifications

#### Measurements of SC-800

| Width  | 820 mm  | $(32.3)^{\circ}$ |
|--------|---------|------------------|
| Height | 1500mm  | (59")            |
| Depth  | 1120 mm | (44.1)           |

Ambient temperature range during operation
Ambient temperature range during storage
-10°C to +50°C (14°F to 122°F)
-40°C to +70°C (-40°F to 158°F)



When using water the ambient temperature must never fall below 0°C (32°F).

#### 1.2.1 Water connection

Inside the cover of the gear barrel there is a sprinkle system connected to an external water connection. The water connection comes with its counterpart and fits a standard ½ inch hose. At the connection that is fitted near the handle there is a tap to adjust the flow.

<sup>&</sup>lt;sup>1</sup> This refers to different power choices. Note that a SC-800 made for one choice of power must be used with that particular choice.

<sup>&</sup>lt;sup>2</sup> Standard

<sup>&</sup>lt;sup>3</sup> Maximum current for the fuses used in the power source (i.e. the distribution box).

<sup>&</sup>lt;sup>4</sup> This is the standard inlet used. Machines sold outside of EU will be shipped either with a local standard inlet or an adapter.

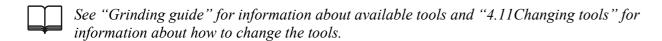


Figure 1-1 Standard SC-800

#### 1.3 Tools



The machine must be equipped with tools approved by Scanmaskin Sweden AB before operation.



The tools are fitted using the Scan-On system for easy fitting

#### **Available tools**

- SC-Tiger PCD
- Diamond tools

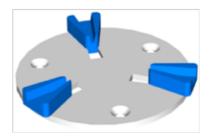


Figure 1-2 Scan-On plate with tools fitted.

#### 1.4 Range of application



SC800 is exclusively designed to process horizontal surfaces. SC800 must not be used for other purposes than stated in this user guide. The manufacturer will not be liable for damage or injury resulting from incorrect usage of SC800. Failure to follow the directions in this user guide will void the warranty.

#### **Typical applications**

- Removal of old coatings, carpets, putty from hard surfaces
- Removal of undulated concrete surfaces
- Preparation of the surface for coatings
- Polishing of the surface
- Removal of coating defects
- Removal of glue residues

### 1.5 Scope of supply

The following parts are included with the standard SC-800 grinding machine:

- Key to electrical cabinet
- User guide

If the machine has got a water connection, the counter part for the connection will be included and fit in the water connection near the handle.

Machines sold outside of Europe will be either equipped with a local standard connector for the power inlet or the mating connector will be included and fitted at the main power inlet.



Read "2.6Electrical safety" before connecting any included connectors.

44 www.scanmaskin.com www.scanmaskin.com www.scanmaskin.com 45

#### 1.6 Overview



Figure 1-3 Overview of SC-800

| Item | Description               | Reference                    |
|------|---------------------------|------------------------------|
| 1    | Control panel             | 4.3Control panel             |
| 2    | Handle                    |                              |
| 3    | Power inlet               | 1.1Electrical specifications |
| 4    | Dust collector connection |                              |
| 5    | System fan                |                              |
| 6    | Wheel                     |                              |
| 7    | Grinding head             | 4.11Changing tools           |
| 8    | Dust cover                |                              |
| 9    | Cover                     |                              |
| 10   | Bolt                      |                              |
| 11   | Frame                     |                              |
| 12   | Lift handle               | 3.3Lifting                   |
| 13   | Motor                     | 1.1Electrical specifications |
| 14   | Cover                     |                              |
| 15   | Electrical cabinet        | 1.1Electrical specifications |

 Table 1-3
 Machine parts overview

### 2 Safety Regulations



Read this entire chapter carefully! Failure to comply with safety regulations may result in serious injuries or damages.

### 2.1 Legend

| <u>^!</u> | Notation regarding safety                  |
|-----------|--|
| 4         | Notation regarding electrical safety       |
|           | Notation regarding safety during transport |
|           | Tipping hazard                             |
|           | See reference                              |

### 2.2 Safety precautions



Any machine, if it is not used according the regulations, may be hazardous for operating, setting-up and service personnel. The operating authority is responsible for compliance with the safety regulations during operation and maintenance, and for the use of safety devices supplied with the machine, as well as the provision of appropriate additional safety devices!

Eye and ear protection must be worn at all times.

Never operate the machine when it's not in its upright position.

Make sure there is no debris in the work area.

Check the work area for screws or other hard objects in the concrete. Don't use the machine if there are any foreign objects stuck into the surface. Such objects must be removed prior to operation of machine.



Read "2.3Organizational measures" and "2.5Safety regarding operation of machine" thoroughly before operation!

### 2.3 Organizational measures



The user guide is to be kept near the location where the machine is being operated and must be within reach at all times.

In addition to this user guide general and legal regulations regarding accident prevention and environmental protection must be complied with as per local regulations.

Such duties may, for example, relate to the handling of hazardous substances, or to the provision and wearing of personal protection equipment, as well as compliance with traffic regulations.

The user guide must be supplemented by other instructions, including the duty to supervise and report incidents relating to particular working practices, for example work organization, work procedures and personnel safety.

Personnel entrusted with working with the machine must read the User Guide before starting work, in particular the "2Safety Regulations" chapter. To read these instructions after work is commenced is too late. This particularly applies to incidental activities such as setting up the equipment, carrying out maintenance work or training staff to work with the machine.

From time to time the working practices of the operators are to be checked by a supervisor especially to the items regarding awareness of safety and hazards.

Operators must tie back long hair, and not wear loose clothing or jewelery including rings. There is a risk of injury through items getting caught, or being drawn into moving machinery.

Eye and ear protection must be worn at all times!

Use personnel protection equipment if necessary or required by local regulations! Take notice of all safety and hazard notices on the machine!

All safety and hazard notices at or on the machine must be kept complete and legible!

If safety-critical changes occur to the machine or its working method, the machine must be shut down immediately! The cause of the fault must be established, and rectified.

Changes, add-ons or conversation to the machine, which might impair safety, must not be made, without the manufacturer's permission!

This applies in particular to the fitting and adjustment of safety devices.

Spare parts must comply with the technical requirements specified by the manufacturer. This is always guaranteed if original spare parts are used.

Intervals for recurring checks and inspections specified in this User Guide must be complied with!

To perform maintenance work correctly it is imperative to be equipped with the proper tools for the task in question.

Repairs may only be made by Scanmaskin Sweden AB certified service technicians.

Some grinding work may generate sparks under certain circumstances. Personnel working with the machine must therefore be aware of the risk of fire and how to handle a fire situation properly.

Do not use the machine in areas with highly flammable and/or explosive materials.

#### 2.4 Personnel selection and qualification

#### **Fundamental duties:**

- Work on the machine may only be undertaken by trained personnel.
- Specify clearly the responsibilities of personnel for operation, setting up, servicing and maintenance work!
- Make sure that only authorized personnel operate or work on the machine!
- Define responsibilities of the machine operator, with regard to traffic safety regulations, and inform him not to take instructions from third parties who may not be complying with the local safety requirements.
- Personnel, who are being trained to operate equipment, may only use the machine under constant supervision of an experienced person!
- Work on electrical equipment may only be undertaken by a skilled electrician or by trained persons under the supervision of a skilled electrician, as well as in accordance with the local electrical engineering regulations.

### 2.5 Safety regarding operation of machine



Do not allow any method of working that impairs safety!

Recognized official procedures have to be used to ensure the machine is operated in safe and best conditions.

Only operate the machine when all safety devices and related safety equipment are present and operational!

Check the machine visually for any damage and defects at least once a day.

In the event of operational malfunctions the machine must be shut down immediately and secured!

48 www.scanmaskin.com www.scanmaskin.com www.scanmaskin.com 49

Secure the work area around the machine in public areas providing a safety distance of at least 10 m (3.3 ft) from the machine.

Faults must be immediately rectified.

Carry out the switch on, and switch off operations in accordance with this user guide.

Before switching on the machine make sure that no-one can be endangered when the machine starts up.

Never operate the machine when not in its upright position.

Do not switch off or remove the exhaust and or the ventilation devices whilst the machine is running!

All persons in the proximity of the machine must wear ear and eye protection as well as safety shoes. In addition the machine operator must wear close-fitting protective clothing.

Only use extension cables that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.



See "2.6Electrical safety" for further information.

Make sure there is no debris in the work area.

Check the work area for screws or other hard objects in the concrete. Don't use the machine if there are any foreign objects stuck into the surface. Such objects must be removed prior to operation of machine

### 2.6 Electrical safety



The power source must be equipped fuses according to the table in "1.1Electrical specifications". All cables used must be marked and rated according to the fuses used. Never connect the machine to a power source that does not provide protective earth!

Work on electrical equipment may only be undertaken by a skilled electrician or by trained persons under the supervision of a skilled electrician as well as in accordance with the local electrical engineering regulations.

Use only extension cables, that are used for extending the main cable, that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.

The electrical equipment for the plant must be inspected regularly. Defects such as loose connections or scorched cables must be rectified immediately. Call as skilled electrician or out customer services.

A second person must be in attendance whilst the electrical engineer is working on the equipment.

The work area must be secured against any third party entering the work area. Follow local electrical engineering regulations while working on the machine. Never leave a machine unattended. Use only tools that are insulated against electricity.

Only start work after you are familiar with the electrical engineering regulations that apply to the local area.

Only use voltage seekers that comply with the regulations when troubleshooting. From time to time check voltage seekers to ensure that they are operationally efficient.

#### **2.6.1 Cables**



Only use cables that are marked and rated according to the specifications in "1.1Electrical specifications". Don't use excessive length of the cables. If a very long cable is needed we recommend that you use a cable rated for more current and connect it to a distribution central near the machine. Never lay the cable in a loop when operating the machine, this will cause the cable to heat up and may cause fire. See "Figure 2-1" for explanation.



**Figure 2-1** Recommended way to handle excessive cable length.

#### 2.6.2 Using a generator



The generator must be equipped with protective earth and operated in accordance with the current EN-VDE directives (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and eliminate possible damage to electrical components.

### 2.7 Definition of the "Safety off position"

The machine is in a safe condition where it cannot be any hazard.

#### How to set the machine in the Safety off position:

- 1. Switch off the machine
- 2. If a dust collector is used, switch it off
- 3. Wait for all drives to come to a complete stop
- 4. Disconnect the main power
- 5. Secure against unintended restart



Always disconnect the main power at the machine end to be able to prevent other persons from accidentally reconnect the main power while working on the machine.

### 2.8 Safety regarding maintenance

Set the machine into the Safety off position before beginning any work on the machine.



See "2.7Definition of the "Safety off position"".

Never work on the machine while power is still connected! All parts must have come to a complete stop before beginning any work!



When the machine is lying down on its back it might tilt to it's upwards position. Take extra care to prevent this from happening to ensure that no injuries or damages occur.



When the machine has been operated the segments, Scan-On plates and other parts on the gear barrel may be hot. Take extra care to prevent burn injuries.

Adjustment, servicing and inspection work on the period of time limits, specified in this User Guide as well as any information on the replacement or parts and equipment must be undertaken and/or complied with!

These activities may only be undertaken by qualified personnel.



The machine must not be connected to any power source while cleaning.



See "2.7Definition of the "Safety off position"" for further information.

### 2.9 Safety regarding transport



Always remove the tools before transport. The tools may fall of or damage the surface the machine is transported along.

### 2.9.1 Manual transport



When transporting the machine manually be observant about ramps and/or edges.

Follow local traffic regulations for the work site to prevent accidents. Failure to comply with these regulations may cause injuries or damages.

#### 2.9.2 Lifting



The machine must be secured according to local safety regulations before lifted.

No person is allowed beneath a lifted machine! The machine must be lifted according to the instructions in "3.3Lifting" Observe the machines point of balance before lifting! Failure to comply with these regulations may cause injuries or damages. Only use straps approved for the weight and circumstances!

#### 2.9.3 Inside vehicles



Secure the machine according to local transport safety regulations before transporting the machine inside a vehicle.

### 3 Transport

#### 3.1 Precautions

Read "2.9Safety regarding transport" before attempting to transport the machine.

#### 3.2 Manual transport

- Detach the tools according to the instructions in "4.11Changing tools".
- Push the handle downwards to lift the gear barrel about 10 cm (4") from the ground.
- Push the machine in desired direction.

#### 3.3 Lifting



Before attempting to lift the machine, read "2.9.2Lifting"

- Detach the tools according to the instructions in "4.11Changing tools".
- Fasten the straps used for lifting at the two handles as shown in "Figure 3-1".
- Lift the machine.



Figure 3-1 Lifting points

#### 3.4 Inside vehicles

- Detach the tools according to the instruction in "4.11Changing tools".
- Secure the machine inside the vehicle.

### 4 Operation

#### 4.1 Precautions



Any machine, if it is not used according the regulations, may be hazardous for operating, setting-up and service personnel. The operating authority is responsible for compliance with the safety regulations during operation and maintenance, and for the use of safety devices supplied with the machine, as well as the provision of appropriate additional safety devices!

Never operate the machine without proper tools.

Eye and ear protection must be worn at all times.

Never operate the machine when its not in its upright position.

Make sure there is no debris in the work area.

Check the work area for screws or other hard objects in the concrete. Don't use the machine if there are any foreign objects stuck into the surface. Such objects must be removed prior to operation of machine.



Read "2Safety Regulations" before operating the machine.

#### 4.2 Operation of machine

The gear barrel has got three grinding heads that rotates in the opposite direction of the gear barrel. Each grinding head is equipped with a Scan-on plate where each plate hold the tools used. See "Figure 4-1".



**Figure 4-1** Illustrates the rotation of the grinding heads versus the gear barrel.

#### 4.3 Control panel

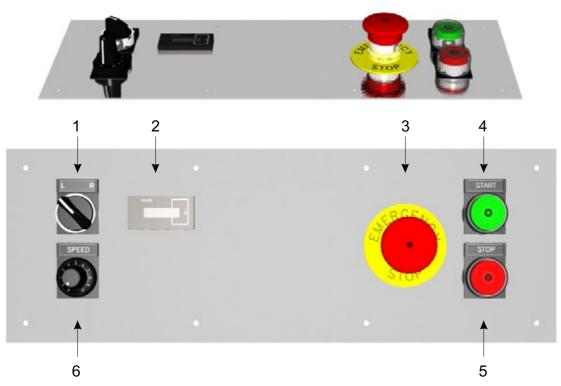


Figure 4-2 Control panel of SC-800.

| Item | Text           | Description                |
|------|----------------|----------------------------|
| 1    | L/R            | Selects rotation direction |
| 2    | HOURS          | Hour meter                 |
| 3    | EMERGENCY STOP | Emergency stop             |
| 4    | START          | Starts the machine         |
| 5    | STOP           | Stops the machine          |
| 6    | SPEED          | Speed of rotation          |

 Table 4-1
 Description of the control panel.

#### 4.4 Water connection



**Closed** – No water will flow



Open – Water will flow

### 4.5 Start up



See "4.1Precautions" before starting the machine.

#### How to start the machine

- Make sure that the power plug and hoses for dust collector and water (if used) are connected to the machine.
- Turn on the dust collector if used.
- Push the handle downwards to lift the gear barrel about 10 cm (4") from the ground.
- Make sure that the "EMERGENCY STOP" button (3) is in its upper position. If not, release it by turning it clock wise until it rises and press the "STOP" (5) button once to reset
- Press the "START" (4) button.
- Lower the gear barrel down to the floor.

#### 4.6 Stop

#### How to stop the machine

- Press the "STOP" (5) button.
- Wait for the machine to come to a complete stop before letting go of the handle.
- Turn off the dust collector if used.

### 4.7 Adjusting grinding speed

Turn the "SPEED" knob (6) clock wise to increase the grinding speed and counter clock wise to decrease it. See "1.2Mechanical specifications" for the rotation speed range.

### 4.8 Change grinding direction

Use the "L/R" switch (1) to select grinding direction. The machine will automatically come to a complete stop and restart in the selected direction.

### 4.9 Safety off position

When working on the machine, either maintenance or tool change, the machine must be set to the "Safety off position". See "2.7Definition of the "Safety off position"" for further information.

### 4.10 Grinding

Refer to "Grinding guide" for instructions and information about grinding.

### 4.11 Changing tools



Before changing tools, read "2.8 Safety regarding maintenance".

This illustration shows how to change the Scan-On tools.

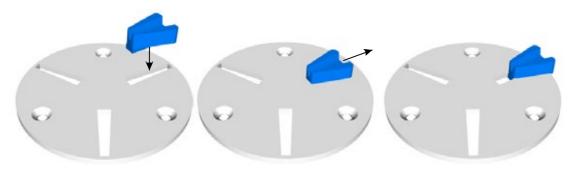


Figure 4-3 How to fit the diamond segments on the Scan-On plate

- Insert the segment at the widest part of the slot
- 2 Push the segment outwards
- The segment is now fit on the Scan-On plate

To make sure that the segment is secured, use a small plastic hammer and slightly hit the segment outwards. In reverse this technique can be used to loosen segments that are stuck.

#### 4.12 Using with generator



The generator must be equipped with protective earth and operated in accordance with the current EN-VDE directives (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and eliminate possible damage to electrical components.

#### Maintenance

#### 5.1 Precautions

Set the machine into the Safety off position before beginning any work on the machine.



See "2.7Definition of the "Safety off position"".



Read "2.6Electrical safety" before beginning any maintenance work.

Never work on the machine while power is still connected! All parts must have come to a complete stop before beginning any work!



When the machine is lying down on its back it might tilt to it's upwards position. Take extra care to prevent this from happening to ensure that no injuries or damages occur.



When the machine has been operated the segments, Scan-On plates and other parts on the gear barrel may be hot. Take extra care to prevent burn injuries.

Adjustment, servicing and inspection work on the period of time limits, specified in this User Guide as well as any information on the replacement or parts and equipment must be undertaken and/or complied with!

These activities may only be undertaken by qualified personnel.



The machine must not be connected to any power source while cleaning.

### 5.2 Daily inspection prior to operation

Inspect the following items prior to operation

- Inspect the wheels for damage.
- Inspect the grinding heads. Dirt between the Scan-On plate and the grinding hub can impair the flexibility of the grinding head.
- If any screws appears loose, tighten them.
- Look over the machine for any other damage.

### 5.3 Maintenance and inspection list

| Daily                  | <ul><li>Inspect the wheels</li></ul>                     |  |
|------------------------|--|--|
|                        | <ul> <li>Inspect the grinding heads</li> </ul>           |  |
|                        | <ul> <li>Look for any other damage</li> </ul>            |  |
| Every 300 hours        | <ul> <li>Clean and re-grease the gear-rim and</li> </ul> |  |
|                        | gearwheel (560516)                                       |  |
|                        | • Check the V-ring (570132)                              |  |
| 12 hours after service | <ul> <li>Tighten all screws</li> </ul>                   |  |

**SCANMASKIN ENGLISH SCAN COMBIFLEX 800** 

### 5.4 Grinding disc replacement / assembly

Follow these steps to replace the Scan-On plate

- Make sure the machine is in its "Safety off position"
- Tilt the machine backwards and secure it.
- Remove any tools used.
- Loosen the three screws holding the Scan-On plate.
- Replace the Scan-On plate.
- It's recommended that new screws are used to fasten the replacement Scan-On plate.
- It's also recommended that copper paste is used on the surface of the screw hole at the Scan-On plate.
- Tighten all screws by hand and make sure that they are secured.

### 5.5 Cleaning the machine

Before starting to clean the machine, make sure it is in its "Safety off position"

The power must not be connected while cleaning the machine.

Do not use highly pressurized water to clean the machine. Water and soap is recommended.

### 5.6 Trouble shooting

#### 5.6.1 Common faults

| Symptom                    | Cause  | Correction   | A <sup>5</sup> |
|----------------------------|--|--|----------------|
| The machine won't start    | <ul> <li>There is a power failure from the power supply</li> </ul> | <ul> <li>Inspect the fuses in the worksites fuse box</li> </ul>  | 0              |
|                            |  | <ul> <li>Inspect cables</li> </ul>   | Е              |
|                            |  | <ul> <li>Measure that all three phases are present and at full voltage<br/>near the machine</li> </ul>   | Е              |
|                            | <ul> <li>The emergency stop button is depressed</li> </ul>         | <ul> <li>Release the emergency stop button.</li> </ul>   | 0              |
|                            | Internal error   | <ul> <li>If possible, read the alarm or fault code present at the display inside of the electrical cabinet. Alarm codes are formatted as "Axxxx" where "x" is the number. Fault codes are formatted as "Fxxxx".</li> <li>Contact Scanmaskin Sweden AB</li> </ul> | 0              |
| The machine is weak and    | <ul> <li>One of the three phases are missing from the</li> </ul>   | <ul> <li>Inspect the display on the inverter for any alarm code</li> </ul>   | О              |
| might stop when on the     | power supply   | <ul> <li>Inspect the fuses in the worksites fuse box</li> </ul>  | О              |
| ground.                    | <ul> <li>There is a voltage drop at the power supply</li> </ul>    | <ul> <li>Inspect cables</li> </ul>   | Е              |
|                            |  | <ul> <li>Measure that all three phases are present and at full voltage<br/>at the cable end near the machine.</li> </ul>   | Е              |
|                            |  | <ul> <li>Make sure that the cable is not to long. If the cable should be<br/>to long, use a cable with higher rating to a distribution box<br/>nearer the machine.</li> </ul>  | О              |
| The machine vibrates a lot | <ul> <li>The grinding speed is to high</li> </ul>                  | <ul> <li>Lower the speed</li> </ul>  | 0              |
|                            | <ul> <li>The tools are damaged</li> </ul>                          | <ul> <li>Inspect the tools</li> </ul>  | 0              |
|                            |  | <ul> <li>Change the tools if needed</li> </ul>   | О              |

Table 5-1Common faults

<sup>5</sup> See access table "Table 5-3"

#### 5.6.2 Error codes

| Code  | Description      | Cause  | Correction   | $A^6$ |
|-------|------------------|--|--|-------|
| A2001 | Over current     | <ul> <li>One of the three phases is missing from the</li> </ul>      | <ul> <li>Inspect the fuses in the worksites fuse box</li> </ul>      | О     |
|       |                  | power supply   | <ul> <li>Inspect cables</li> </ul>                                   | О     |
|       |                  | There is a voltage drop at the power supply                          | <ul> <li>Measure that all three phases are present and at</li> </ul> | E     |
|       |                  |  | full voltage at the cable end near the machine                       |       |
|       |                  |  | <ul> <li>Make sure that the cable is not to long. If the</li> </ul>  | Е     |
|       |                  |  | cable should be to long, use a cable with higher                     |       |
|       |                  |  | rating to a distribution box nearer the machine                      |       |
|       |                  | The environmental temperature is too high. When                      | <ul> <li>Inspect the ventilation fans</li> </ul>                     | 0     |
|       |                  | the temperature is above 40°C (104°F) the                            | <ul> <li>Inspect the filters to the fans</li> </ul>                  | O     |
|       |                  | inverter will decrease its maximum output current                    |  |       |
| A2002 | Over voltage     | The power supply has got voltage transients                          | <ul> <li>Inspect the power source</li> </ul>                         | Е     |
| A2003 | Under voltage    | One of the three phases is missing from the                          | See A2001  |       |
|       |                  | power supply   |  |       |
|       |                  | There is a voltage drop at the power supply                          |  |       |
| A2006 | Speed reference  | The potentiometer on the control panel is                            | <ul> <li>Inspect the potentiometer</li> </ul>                        | S     |
|       | error            | damaged  | Replace if necessary   | S     |
| A2009 | Over             | The internal temperature in the inverter is above                    | Inspect the ventilation fans   | 0     |
|       | temperature      | 120°C (248°F). This could be caused by faulty                        | <ul> <li>Inspect the filters to the fans</li> </ul>                  | Õ     |
|       | temperature      | ventilation in the electrical cabinet.                               | Contact Scanmaskin Sweden AB   |       |
| A5001 | Internal error   | Terminal in the electrical eachies.                                  | Contact Scanmaskin Sweden AB   |       |
| F0001 | Over current     |  | See A2001  |       |
| F0002 | Over voltage     |  | See A2002  |       |
| F0003 | Over             | The internal temperature in the inverter is above                    | See A2009  | T     |
|       | temperature      | 135°C (275°F). This could be caused by faulty                        |  |       |
|       | 1                | ventilation in the electrical cabinet.                               |  |       |
| F0004 | Short circuit in | The cable to the motor has been damaged                              | <ul> <li>Inspect the motor cable</li> </ul>                          | Е     |
|       | motor            | The motor has been damaged   | <ul> <li>Inspect the motor connection</li> </ul>                     | Е     |
|       |                  |  | Contact Scanmaskin Sweden AB   |       |
| F0006 | Under voltage    |  | See A2003  |       |
| F0007 | Speed reference  |  | See A2006  |       |
|       | error            |  |  |       |
| F0016 | Protective earth | <ul> <li>The cable to the motor has been damaged</li> </ul>          | <ul> <li>Inspect the motor cable</li> </ul>                          | E     |
|       | failure          | <ul> <li>The motor has been damaged</li> </ul>                       | <ul> <li>Inspect the motor connection</li> </ul>                     | E     |
|       |                  | <ul> <li>Water have entered the motor</li> </ul>                     | <ul> <li>Contact Scanmaskin Sweden AB</li> </ul>                     |       |
| F0018 | Internal error   |  | Contact Scanmaskin Sweden AB   |       |
| F0021 |                  |  |  |       |
| F0022 | Power supply     |  | See A2003  |       |
|       | phase fault      |  |  |       |
| F0034 | Motor phase      | <ul> <li>One of the three phases to the motor is missing.</li> </ul> | <ul> <li>Inspect the motor cable</li> </ul>                          | Е     |
|       | fault            | This could be due to damage to the motor cable                       | <ul> <li>Inspect the motor connection</li> </ul>                     | E     |
|       |                  | or to the motor.   | Contact Scanmaskin Sweden AB   |       |

Table 5-2Error codes

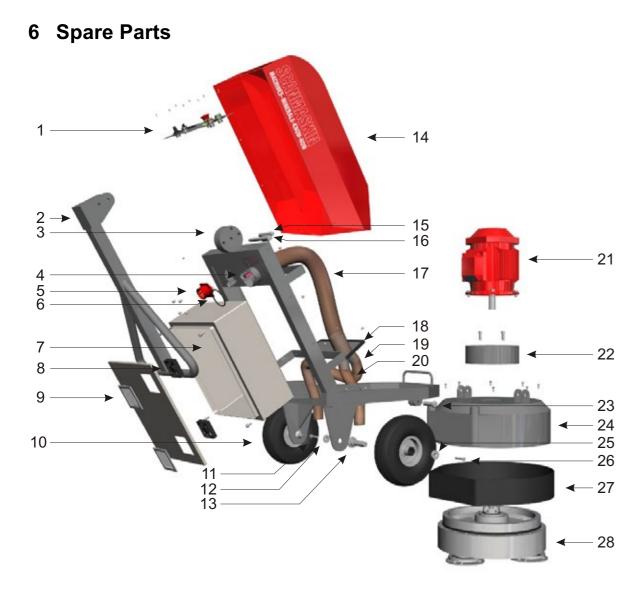
Alarm codes starts with "A" and fault codes starts with "F". The machine will be operational if an alarm code is present but not when an fault code is present.

The following table describes the access for the task.

| Abbreviation | Person                                  |
|--------------|---|
| 0            | Machine Operator                        |
| Е            | Electrician                             |
| S            | Scanmaskin certified service technician |

 Table 5-3
 Access rights for different persons

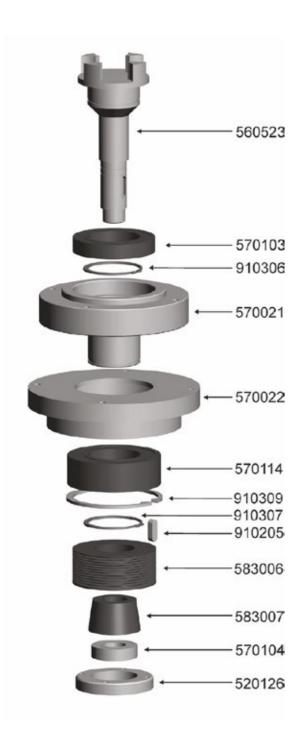
<sup>&</sup>lt;sup>6</sup> See access table "Table 5-3"



| No. | <u>Part</u>            |  |
|-----|------------------------|--|
| 1   | Control panel          |  |
| 2   | Handle                 |  |
| 3   | Frame                  |  |
| 4   | Water inlet            |  |
| 5   | (optional) Power inlet |  |
| 1   |                        |  |
| 6   | O ring                 |  |
| 7   | Electrical cabinet     |  |
| 8   | Fan                    |  |
| 9   | Fan grid               |  |
| 10  | Wheel                  |  |
| 11  | Bolt                   |  |
| 12  | Washer                 |  |
| 13  | Wheel axis             |  |
| 14  | Cover                  |  |
| 15  | Handleaxis             |  |
| 16  | Handle lock pin        |  |
| 17  | Interna dusthose       |  |
| 18  | Rubber seal            |  |
| 19  | Left dust hose         |  |
| 20  | Right dust hose        |  |
| 21  | Motor                  |  |
| 22  | Motor distance         |  |
| 23  | Lock pin               |  |
| 24  | Cover                  |  |
| 25  | Washer                 |  |
| 26  | Bolt                   |  |
| 27  | Dust cover             |  |
| 28  | Gear barrel            |  |

Table 7-1Spare parts SC-800

### 6.1 Center axis



# 6.2 Grinding spindle

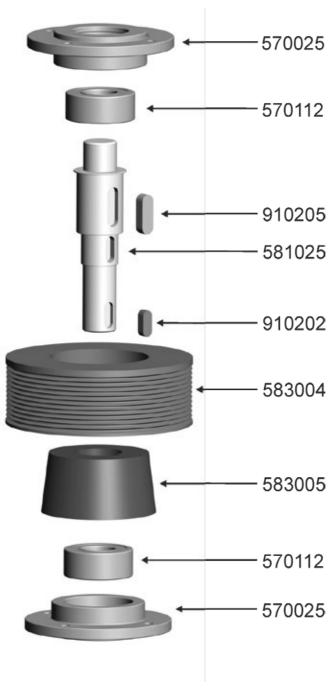


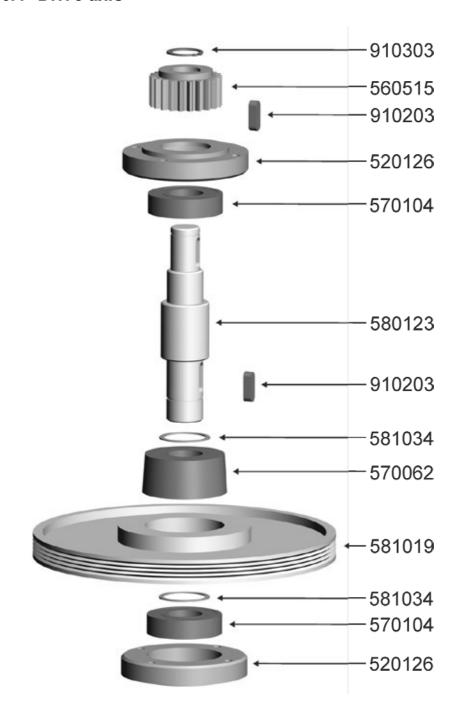
Figure 6.2 Grinding spindle (2pcs)

# 6.3 Grinding spindle with 2 pulleys

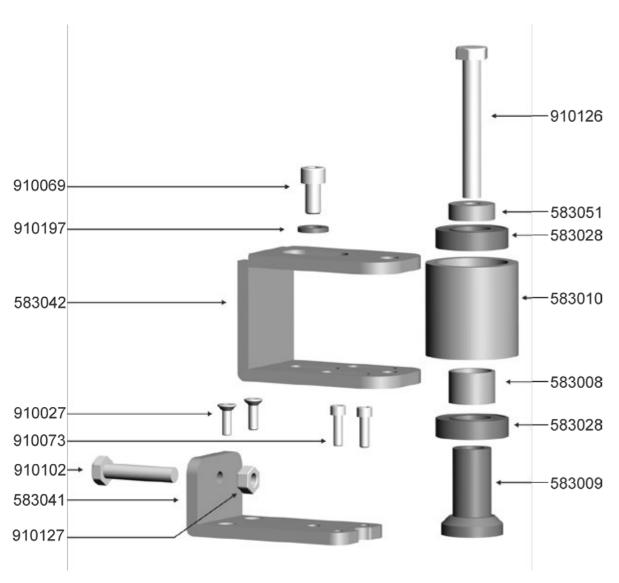


Figure 6.3 Grinding Spindle with 2 pulleys (1pcs)

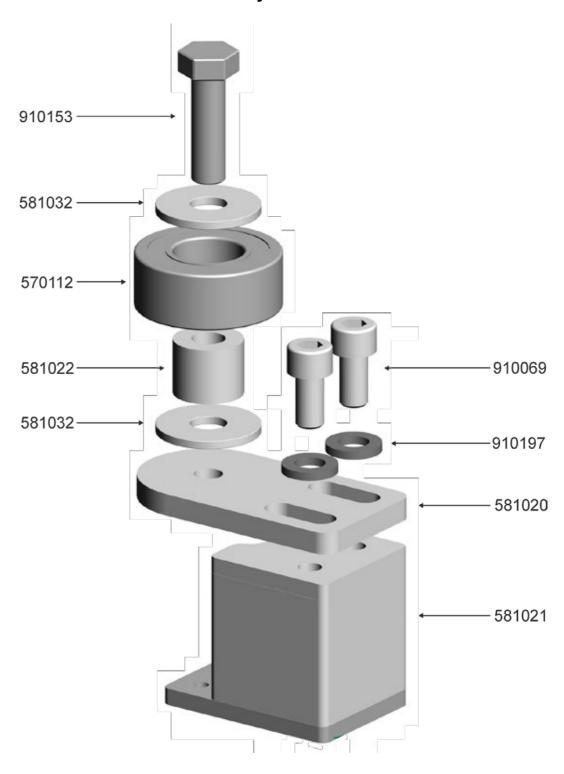
### 6.4 Drive axis



### 6.5 Tensioner for main belt

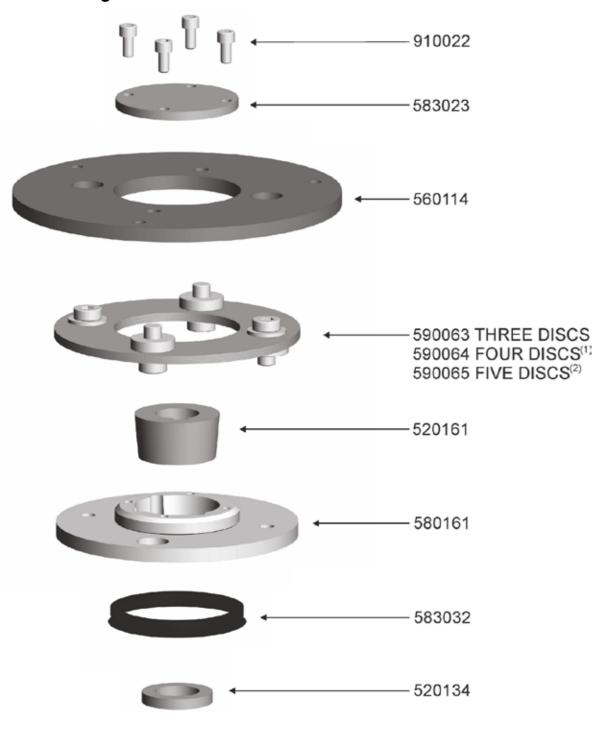


### 6.6 Tensioner for secondary belt



**SCANMASKIN** ENGLISH **SCAN COMBIFLEX 800** 

### 6.7 Grinding head



- (1) Standard SC-650 (2) Standard SC-700

#### 6.1.1 Electrical schematics

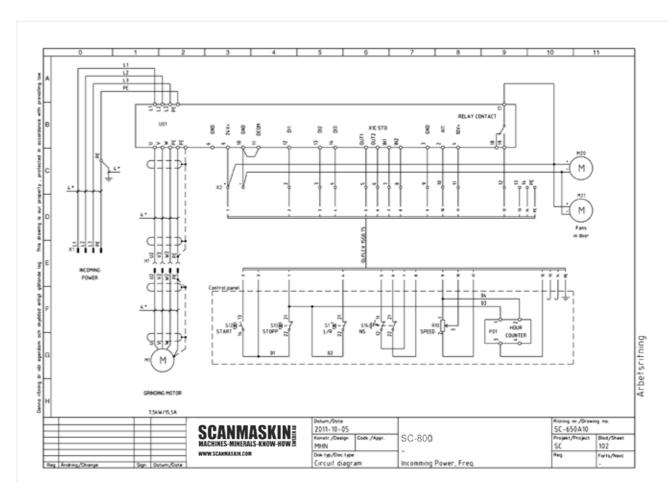


Figure 7-4Electrical schematic SC-800

| Component | Description             | Art. No.      |  |
|-----------|-------------------------|---------------|--|
| S1        | Hour meter              | 570028        |  |
| S2        | Rotary switch           | 596001        |  |
| S3        | Potentiometer assembly  | 596008        |  |
| S4        | Red push button         | 596007        |  |
| S5        | Green push button       | 596006        |  |
| S6        | Emergency stop          | 596003        |  |
| Fan 1-2   | Cabinet fan             | 570151/530036 |  |
| U1        | Inverter                | See table 1-1 |  |
| CN3       | Power inlet             | See table 1-1 |  |
|           | Motor cable             | 530131        |  |
| CN1       | Motor connector chassis | 570157/570158 |  |
| CN2       | Motor connector cable   | 570156/570159 |  |

 Table 7-5Electrical spare parts

### 7 Warranty

This product from Scanmaskin Sweden AB comes with a twelve month warranty. If the product does not function satisfactorily during this period, Scanmaskin will return the product to full working order for normal use which the product is intended for – with no charge for labour or spare parts, according to the following conditions:

- 1. The warranty only applies to persons that have legal right to the equipment during the warranty period.
- 2. The manufacturer's undertaking is limited to the repair of defective parts or the replacement of these according to the manufacturer's assessment. Costs and risks for transport as well as dismantling and reinstallation of the product / products and other direct or indirect costs, associated with the repair in question, are not covered by this warranty.
- 3. Periodic inspections, adjustments, maintenance work and changes are not covered by the warranty.
- 4. Scanmaskin is not liable for any damages to grinding discs or other similar equipment.
- 5. The warranty only applies to material and design deficiencies and does not apply in the following cases:
  - a. Damage caused through accidents, carelessness, changes, use of spare parts or grinding tools that are not original components, or incorrect use and installation.
  - b. Damage caused by lightning, water, fire, vandalism, incorrect mains voltage, incorrect ventilation or other causes that lie outside of the manufacturer's control.
- 6. Scanmaskin reserves the right to modify the design or make improvements without obligation to change previously manufactured products.
- 7. Scanmaskin reserves the right to modify the design or make improvements without obligation to change previously manufactured products.
- 8. All warranty repairs must be carried out by Scanmaskin or by a Scanmaskin accredited repair workshop. Costs for repairs, carried out by an unauthorised workshop, will not be reimbursed by Scanmaskin. If such repairs damage this product these are not cover by the warranty agreement.

#### 8 EU Declaration

#### Declaration of conformity CE

Manufacturer Scanmaskin Sweden AB

Address Heljesvägen 10

437 36Lindome

Sweden

**Product** Grinding machine

Name Scan Combiflex 800

Serialnumber \_\_\_\_\_

#### Standards used including number

 Machine directives
 2006/42/EG

 EMC
 2004/108/EC

 LVD
 2006/95/EG

#### Harmonized standards

Safetyofmachinery EN ISO 12100:2010 Safetyofmachinery EN ISO 60204-1 Safe Torque Off EN 61800-5-2

<u>Place of issue</u> Lindome / Gothenburg / Sweden

Name of authorized representative Claes-Göran Bergstrand

**Position** Managing Director

#### **Declaration**

We declare that as the authorized representative, the above information in relation to the supply / manufacture of this product is in conformity with the stated standards and other related documents following the provisions of EEC directives.

Signature of authorized representative:

# 9 Alphabetical reference

| A                     |    |
|-----------------------|----|
| Application           |    |
| range of              | 45 |
| typical               | 45 |
| c                     |    |
| Cleaning              | 60 |
| Contact information   |    |
| Control panel         |    |
| E                     |    |
| Electrical schematics | 71 |
| Error codes           |    |
| EU Declaration        | 73 |
| F                     |    |
| Faults                |    |
| troubleshooting       |    |
| Fuse                  |    |
| External              | 42 |
| G                     |    |
| Grinding disc         |    |
| Replacement           | 60 |
| •                     |    |
| M                     |    |
| Maintenance           |    |
| Access                |    |
| Common faults         |    |
| Daily                 |    |
| Error codes           |    |
| Inspection list       |    |
|                       |    |
| o                     |    |
| Operation             | 55 |
| Options               | 42 |
| Water connection      | 43 |
| P                     |    |
| Power                 |    |
| choice                | 42 |
| inlet                 | 42 |
| source                | 42 |
| S                     |    |
| Spare Parts           | 62 |
| Specifications        |    |
| Electrical            | 42 |
| T                     |    |
| Tools                 |    |
| Availble tools        | 44 |
| changing              | 57 |
| Snan On               | 57 |

| Transport | 54 |
|-----------|----|
| lifting   | 54 |
| manual    | 54 |
| W         |    |
| Warranty  | 72 |

### **10 Contact information**

**Sweden** (Head Office)

Heljesvägen 10

Box 187

SE-437 22 Lindome

Phone: +46 (0) 31 99 49 70 Fax: +46 (0) 31 99 48 70 E-mail: info@scanmaskin.se Website: www.scanmaskin.se

#### Denmark

Torvegade 22 DK-7330 Brande

Phone: +45 97 18 00 58 Fax: +45 97 18 45 58 E-mail: info@scanmineral.dk Website: www.scanmaskin.se

#### Norway

Postboks 6, Furuset N-1001 Oslo Tomtveien 12 N-2015 Leisund

Phone: +47 63 87 60 00 Fax: +47 63 87 60 01 E-mail: info@scanmaskin.no Website: www.scanmaskin.se

#### **Finland**

Raudoittajantie 3 A FIN-06450 Porvoo / Borgå

Phone: +358 19 57 55 001 Fax: +358 19 57 55 002 E-mail: info@scanmaskin.fi Website: www.scanmaskin.fi

#### **USA**

1407 132<sup>nd</sup> Avenue Northeast, Suite 8 Bellevue, Washington, 98005

Phone: +1 425 628 1212 E-mail: info@scanmaskin.com Website: www.scanmaskin.com

| IOTERINGAR/NOTES |          |
|------------------|----------|
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  |          |
|                  | ······   |
|                  | ······   |
|                  | <u>.</u> |

| NOTERINGAR/NOTES | NOT         | OTERINGAR/NOTES |
|------------------|-------------|-----------------|
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  | -           |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  | <del></del> |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  |             |                 |
|                  | <u></u>     |                 |
|                  |             |                 |
|                  | <u></u>     |                 |
|                  | <u></u>     |                 |
|                  | <u></u>     |                 |
|                  |             |                 |

