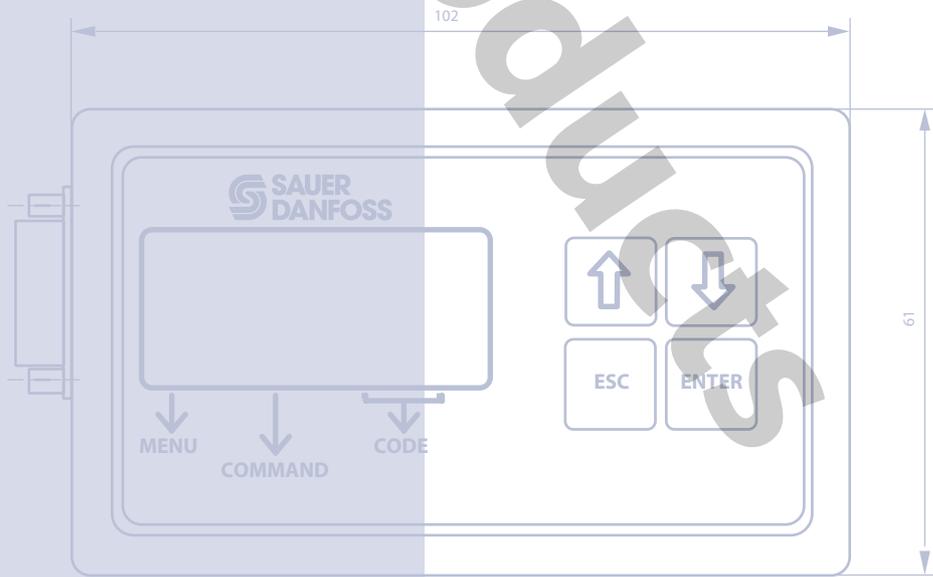
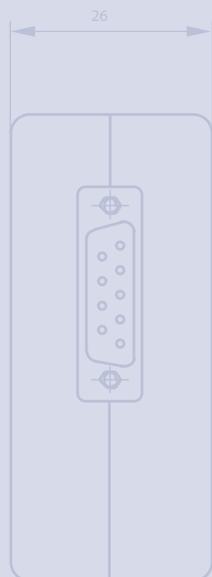
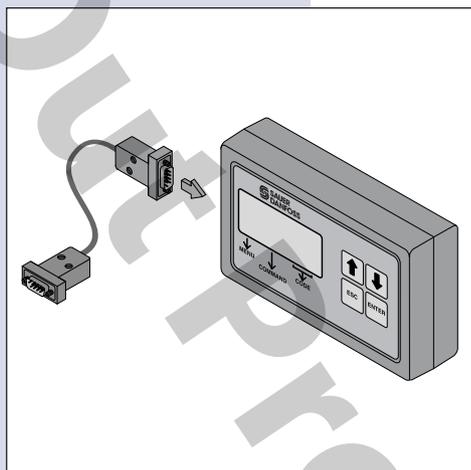


Technical  
Information



#### DESCRIPTION

The Sauer-Danfoss Service Device SUSMIC-DIA 1 is designed for use as a setup service and diagnostic tool.

During field service additional tools like a multi-meter or frequency-meter is not generally needed. No complicated connection is necessary. The separate connection cable must be connected with the SUSMIC-DIA 1 and the Digital Controller to start the service job.

**Note:** The SUSMIC-DIA1 is not water protected. It is a precision measuring tool and it should be handled with care (protect against water, shock and dust).

#### ORDERING INFORMATION

SUSMIC-DIA 1 MCT201A1001 (504780)

#### PROCEDURES

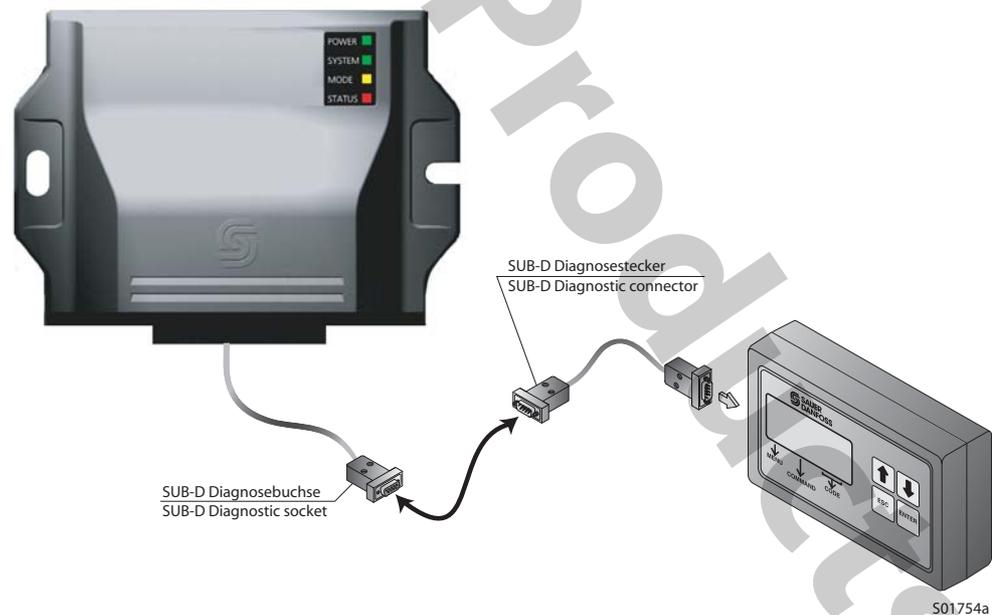
The SUSMIC-DIA 1 provides 3 different procedures:

- Sensor/actuator setup procedure
- Error check procedure
- Sensor/actuator check procedure

#### CONNECTION

Connect the SUB-D connector with the SUB-D socket (which is connected with the digital electronic) at the machine.

##### SUB-D connection



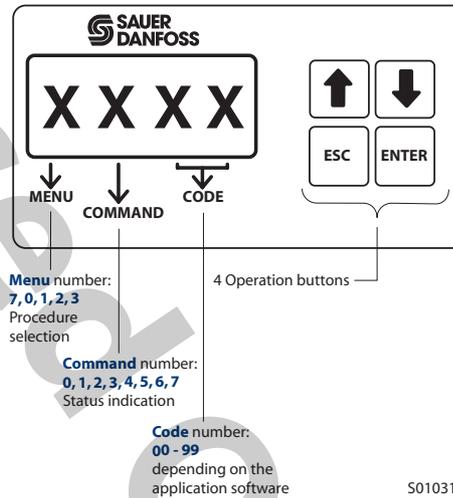
© 2001, Sauer-Danfoss

Sauer-Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Sauer-Danfoss reserves the right to alter its products without prior notice. This also applies to products already ordered provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are properties of the respective companies. Sauer-Danfoss and the Sauer-Danfoss logotype are trademarks of the Sauer-Danfoss Group. All rights reserved.

## DISPLAY

The display of the SUSMIC-DIA 1 is a four digit display.

### Display



## Menu Numbers

To get into the separate procedures, the SUSMIC-DIA 1 provides the following menu numbers, which are indicated with the first number in the display.

- 7** = Disconnect
- 0** = Main Menu
- 1** = Sensor Setup
- 2** = Sensor Error
- 3** = Sensor Check

## Command Numbers

The SUSMIC-DIA 1 provides the following command numbers, which are indicated with the second number in the display.

- 0** = Set Max
- 1** = Set Mid
- 2** = Set Min
- 3** = Set Def
- 4** = Increase
- 5** = Input Error
- 6** = Status Indicator
- 7** = Status Indicator

## Code Numbers

The code numbers are the third and fourth number in the display.

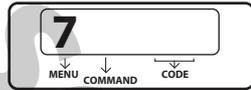
- 00 - 99** = depending on the application software

**GENERAL**

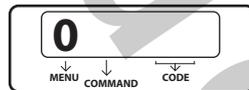
After connect the SUSMIC-DIA 1 with a Digital Controller the service job can be started.

**ACTIVATION**

1. Switch "OFF" ignition of the Digital Controller.
2. Switch "ON" the ignition. The display shows:



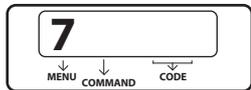
3. To start the communication between the Digital Controller and the Service Device SUSMIC-DIA 1 the **ENTER** button must be pushed. Now you are in the communication Procedure. The display shows:



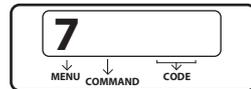
4. To select a procedure (sensor setup, sensor error, sensor check) use buttons **↑** and **↓**. Push the **ENTER** button to start the selected procedure.
5. During communication with the SUSMIC-DIA 1 the digital controller gives no output.

**DEACTIVATION**

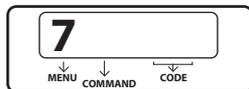
1. The main menu and all other menus can be quit by pushing the **ESC** button.
2. After pushing the **ESC** button, the display shows:



3. The communication link may only be unplugged, if the display shows:



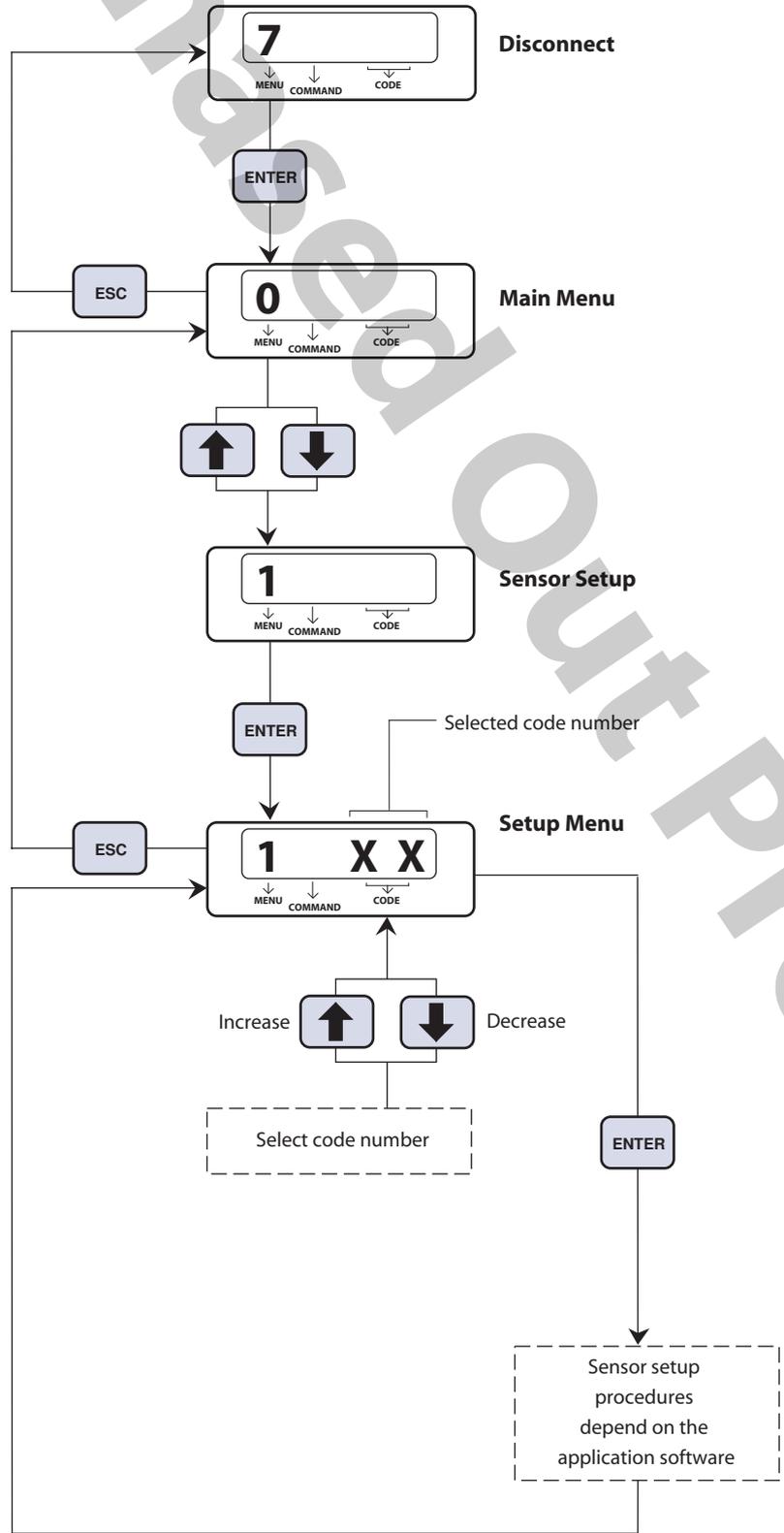
**Note:** The setup values and adjustment times will be saved in the Digital Controller, when you exit the setup menu (see flow chart) with the **ESC** button until the display shows:



In that **"DISCONNECT"** state the system is running. The data will be lost if the SUSMIC-DIA 1 is disconnected before you go to status **"7"**.

**SENSOR/ACTUATOR SETUP PROCEDURE**

This setup menu will be shown if you select menu number **1**.



Push **ENTER** to activate the main menu **0**.

Select with buttons **↑** or **↓** the sensor/actuator setup menu **1**.

Push **ENTER** to activate the sensor/actuator setup menu **1**.

Select with buttons **↑** or **↓** the special code number **XX** (the code numbers depend on the application software).

Push **ENTER** to activate the setup procedure for the selected sensor.

**Note:** If an undefined procedure code number is selected, i.e. **66**, the display shows:

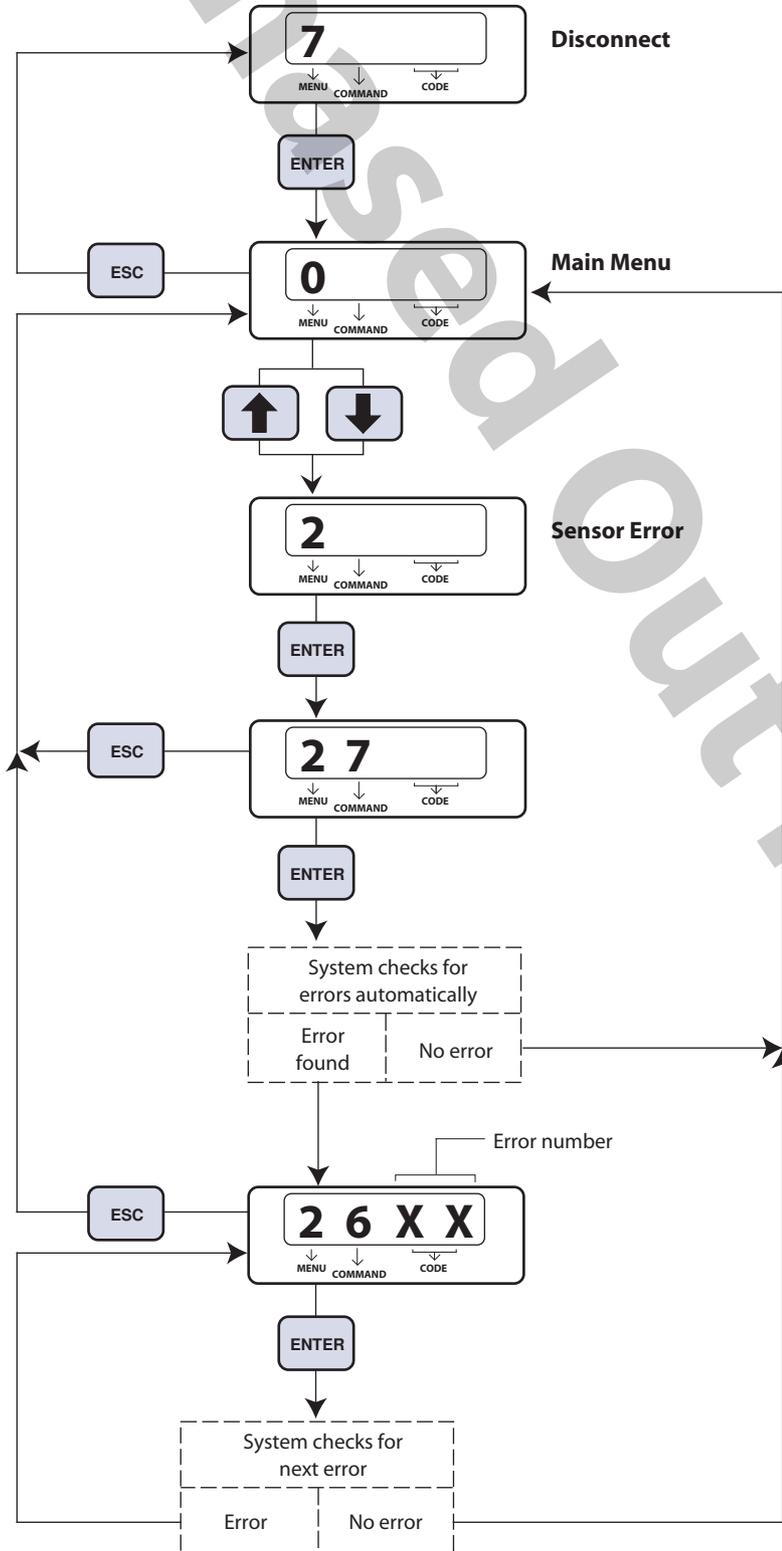


and the command number (**5**) flashes for a short time. After this, the selection can be changed with the buttons **↑** or **↓**.

S01095b

**ERROR CHECK PROCEDURE**

This error menu will be shown if you select menu number 2.



Push **ENTER** to activate the main menu **0**.

Select with buttons **↑** or **↓** the error check menu **2**.

Push **ENTER** to activate the error check menu **2**. The display shows **7** as command.

Push **ESC** to leave the procedure without searching for errors.

Push **ENTER** to start the procedure. The systems checks for errors.

If an error is indicated, the display shows the error number and **6** as command.

Push **ENTER** again, to see further errors.

Push **ESC** to leave the procedure.

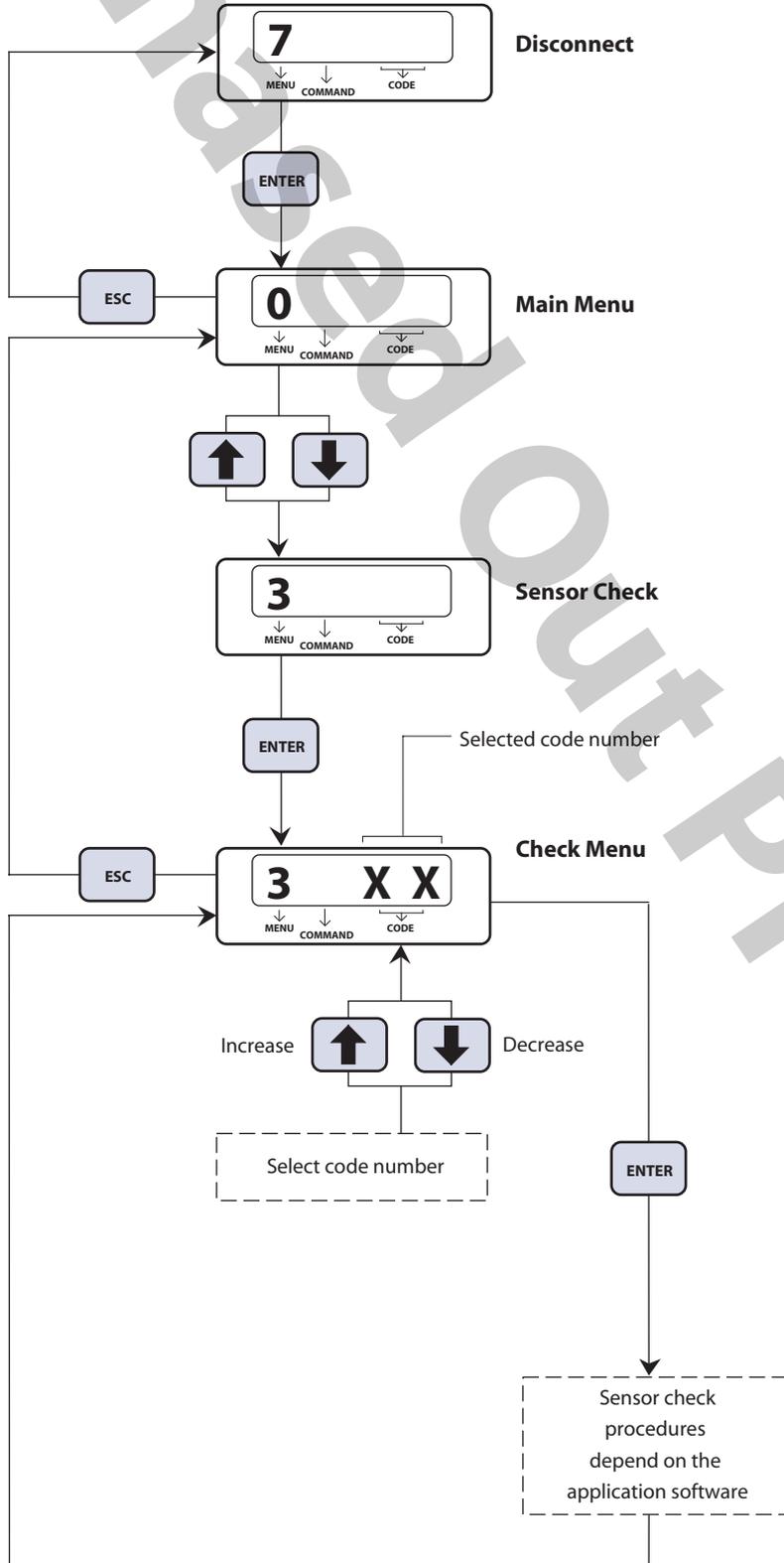
If no errors are found, the display shows **7** as command.

If no more errors are found, the system switches back to the main menu automatically.

S01106a

**SENSOR/ACTUATOR CHECK PROCEDURE**

This check menu will be shown if you select menu number **3**.



Push **ENTER** to activate the main menu **0**.

Select with buttons **↑** or **↓** the sensor/actuator check menu **3**.

Push **ENTER** to activate the sensor/actuator check menu **3**.

Select with buttons **↑** or **↓** the special code number **XX** (the code numbers depend on the application software).

Push **ENTER** to activate the check procedure for the selected sensor.

**Note:** If an undefined procedure code number is selected, i.e. **66**, the display shows:



and the command number (**5**) flashes for a short time. After this, the selection can be changed with the buttons **↑** or **↓**.

S01894

## OUR PRODUCTS

Hydrostatic transmissions  
Hydraulic power steering  
Electric power steering  
Closed and open circuit axial piston pumps and motors  
Gear pumps and motors  
Bent axis motors  
Radial piston motors  
Orbital motors  
Transit mixer drives  
Planetary compact gears  
Proportional valves  
Directional spool valves  
Cartridge valves  
Hydraulic integrated circuits  
Hydrostatic transaxles  
Integrated systems  
Fan drive systems  
Electrohydraulic controls  
Digital electronics and software  
Battery powered inverter  
Sensors

## Sauer-Danfoss Hydraulic Power Systems – Market Leaders Worldwide

Sauer-Danfoss is a comprehensive supplier providing complete systems to the global mobile market.

Sauer-Danfoss serves markets such as agriculture, construction, road building, material handling, municipal, forestry, turf care, and many others.

We offer our customers optimum solutions for their needs and develop new products and systems in close cooperation and partnership with them.

Sauer-Danfoss specializes in integrating a full range of system components to provide vehicle designers with the most advanced total system design.

Sauer-Danfoss provides comprehensive worldwide service for its products through an extensive network of Authorized Service Centers strategically located in all parts of the world.

Sauer-Danfoss (US) Company  
2800 East 13th Street  
Ames, IA 50010, USA  
Phone: +1 515 239-6000, Fax: +1 515 239-6618

Sauer-Danfoss (Neumünster) GmbH & Co. OHG  
Postfach 2460, D-24531 Neumünster  
Krokamp 35, D-24539 Neumünster, Germany  
Phone: +49 4321 871-0, Fax: +49 4321 871-284

Sauer-Danfoss (Nordborg) A/S  
DK-6430 Nordborg, Denmark  
Phone: +45 7488-4444, Fax: +45 7488-4400

Sauer-Danfoss (US) Company  
3500 Annapolis Lane North  
Minneapolis, MN 55447, USA  
Phone: +1 763 509-2084, Fax: +1 763 559-0108