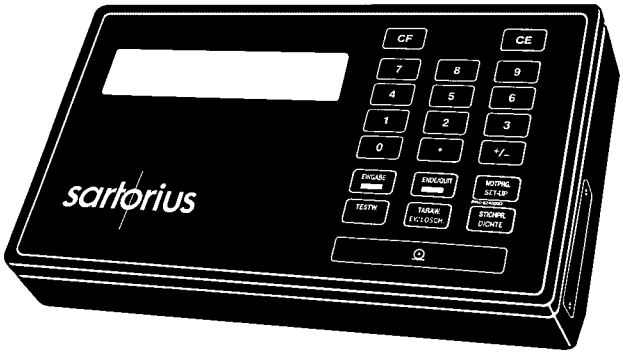
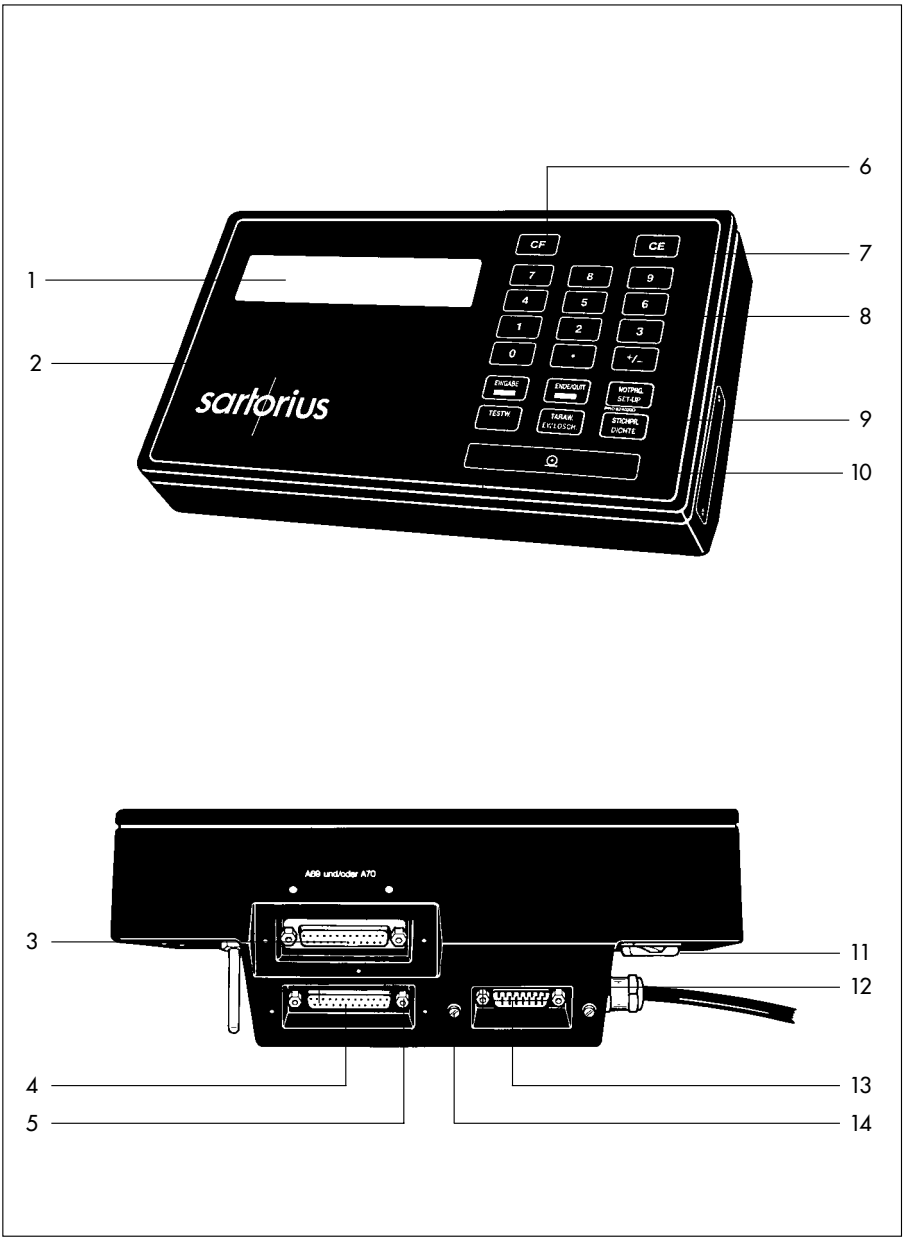
98646-000-60

# Data Input
# YDI 50 Z

## Dedicated Keyboard Rated to IP 65 with LCD
## Installation and Operating Instructions




sartorius


1
2
3
4
5
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8
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11
12
13
14
CF
CE
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1
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0
.
+/-
ENGABE
ENDE/QUIT
NOTPRG. SETUP
TESTW
TARAW. EXCLUSIVE
STROMPL. DICHTE
sartorius
A08 und/oder A70

1 LCD
LCD Anzeige
Affichage LCD

2 DIP switches and screw for adjusting the contrast of the LCD
DIP-Schalter und Stellschraube für den Kontrast der LCD-Anzeige
Commutateurs DIP et vis de réglage pour le contraste de l'affichage LCD

3 COM B
COM B
COM B

4 COM A
COM A
COM A

5 Manufacturer's label
Typenschild
Plaque signalétique

6 CF key (clear function)
CF-Taste (Clear-Funktion)
Touche CF (Clear-Function)

7 CE key (clear entry)
CE-Taste (Clear Entry)
Touche CE (Clear Entry)

8 Numeric keypad
Zahlenblock
Bloc numérique

9 Function keys
Funktionstastenfeld
Touches de fonctions

10 PRINT key
PRINT-Taste
Touche d'impression PRINT

11 ON/OFF switch
EIN/AUS-Schalter
Commutateur Marche/Arrêt (ON/OFF)

12 Fuse
Netzsicherung
Fusible de secteur

13 Interface for connecting the balance/scale
Waagenschnittstelle
Interface balance

14 Voltage selector
Spannungswähler
Sélecteur de voltage

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# About the Product (Warranty)

The YDI 50 Z Data Input dedicated keyboard is a programmable terminal that can be connected to all MP-8 and MC1 Balances and Scales that are equipped with an interface (MC1 Balances and Scales must have a YDO 01 interface).

**Read these "Installation and Operating Instructions" carefully before operating your Data Input keyboard.**

Do not miss out on the benefits of our full warranty. Please complete the warranty registration card, indicating the date of installation, and return the card to your Sartorius dealer.

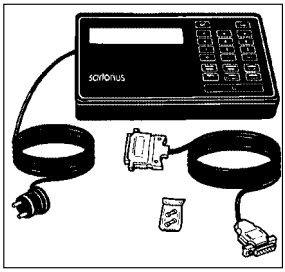
## Storage and Shipping Conditions

Storage temperature: –40°C ...+70°C
–40°F ... +158°F

After unpacking the Data Input keyboard, please check it immediately for any visible damage as a result of rough handling during shipment.

**Save all parts of the packaging and the box because you may need to ship your equipment. Before you pack your equipment to ship it, unplug all connected cables to prevent damage.**

# Equipment Supplied




– Power cord

– Interface cable for connection to an MP-8 balance/scale

– Fuse

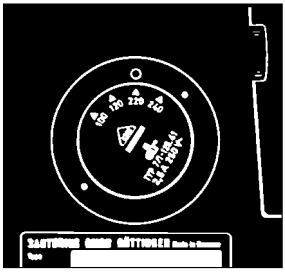
– Keyboard overlays (for the function keys)

# How to Set Up the YDI 50 Z Data Input Keyboard

Set up the Data Input dedicated keyboard in a suitable area.
If you plan on connecting peripherals (such as a balance or scale with an interface, a printer, etc.), make sure that the ambient conditions are also suitable for these devices.

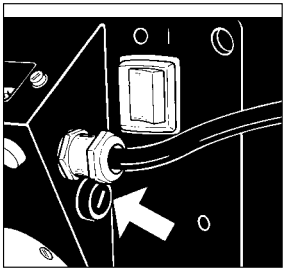
## How to Adjust the Voltage Selector to Your Local Line Voltage

The Data Input keyboard has been factory-set to 220 volts.




To adjust the voltage selector to the local line voltage rating that you use, unscrew the cover plate from the base of the YDI 50 Z keyboard. Then adjust the voltage selector to your local line voltage rating. Write the new voltage setting on the manufacturer's label.

Whenever you change the operating voltage to **100/120 V**, make sure to exchange the installed **T 80 mA** fuse for the **T 160 mA** fuse that comes with the Data Input keyboard.



The fuse **(12)** is located on the side panel of the Data Input keyboard.

## How to Connect the Data Interface Cable and the Power Cord

Connect the data interface cable to the balance/scale first **(with the unit unplugged)**, then to the YDI 50 Z Data Input keyboard.
Plug the power cord of the Data Input keyboard into a properly installed wall outlet.

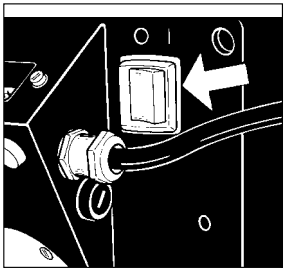
Important Note:
If you connect your Data Input keyboard to a power supply which does not have a protective grounding conductor, be sure to ground the unit.

For information on startup of the balance/scale, please refer to the installation and operating instructions supplied with it.

## Adjusting the Data Transmission Rate of the Balance/Scale Interface

To adapt the Data Input keyboard and the balance/scale, it is necessary to change the data transmission rate in the balance/scale operating program from 1,200 baud to 9,600 baud (see the installation and operating instructions of the balance or scale you are using). For this purpose:

change code 224 to 227.

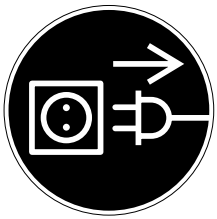


## Turning the YDI 50 Z Data Input Keyboard On and Off

You can turn the YDI 50 Z on and off using the ON/OFF switch **(11)**.

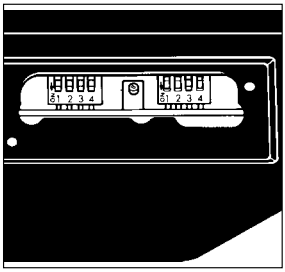
"0": no power

"I": power is on



Important Note:
Always unplug the Data Input keyboard and the balance/scale from line power before you connect or disconnect devices to or from the interface ports.

# Overview of the DIP Switch Settings




The DIP switches **(2)** are located behind a cover plate on the left side of the Data Input keyboard.

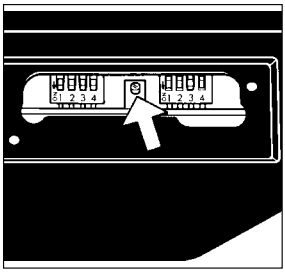
– DIP switch S1.1 = OFF (V24 mode)
– DIP switch S1.2 = OFF (V24 mode)

– DIP switch S1.1 = ON (Sartonet)
– DIP switch S1.2 = ON (Sartonet)

– DIP switch S1.3 = not assigned
– DIP switch S1.4 = not assigned

– DIP switch S2.1 =
(program-dependent switch setting*)
– DIP switch S2.2 =
(program-dependent switch setting*)
– DIP switch S2.3 =
(ON = data can be transmitted to the LCD)
– DIP switch S2.3 =
(OFF = data cannot be transmitted to the LCD)
– DIP switch S2.4 =
(program-dependent switch setting*)

## How to Adjust the Contrast of the LCD




Located between the DIP switches **(2)** is a small screw which you can use to adjust the contrast of the LCD.

* Please refer to the program description for information on the switch setting.

# Keypad Description

The keypad consists of the CE key, CF key, numeric keys, function keys and the ENTER key (PRINT key on some models)
In addition, each function key has an LED which can be activated or deactivated by the program.

| Keys | Function |
|---|---|
| CF | Clear Function<br>Press this key to end a program. |
| CE | Clear Entry<br>This key deletes digits;<br>a zero is displayed. |
| 7 8 9<br>4 5 6<br>1 2 3<br>0 • +/– | Numeric keys<br>Use these keys to enter digits and decimal points. |
| F1 F2 F3<br>F4 F5 F6 | Function keys<br>You can insert different keyboard overlays for the software programs. |
| ENTER | The ENTER key has functions which change based on the program.<br>The functions are described in the user's manual for each set of programs. |

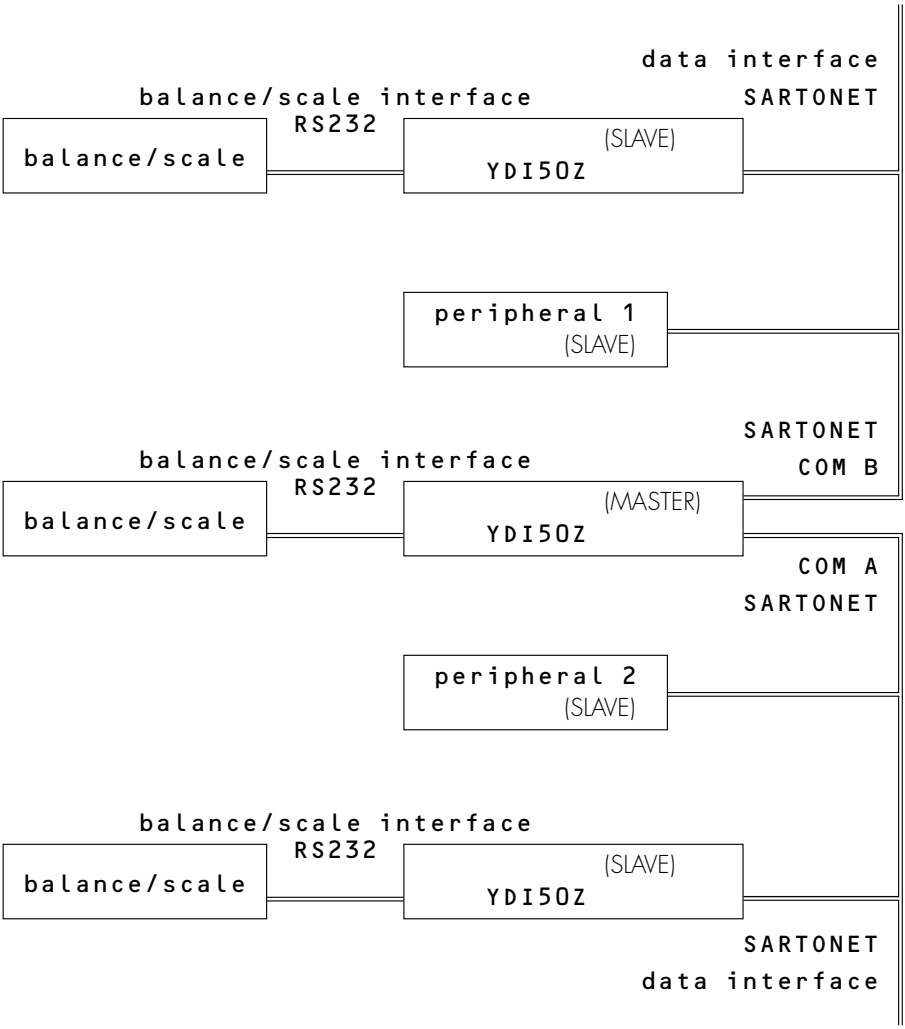
## Adapting the YDI 50 Z Data Input Keyboard to Individual Requirements

Additional devices can be connected to the two additional interfaces **(3/4)**.

# Configuration Options

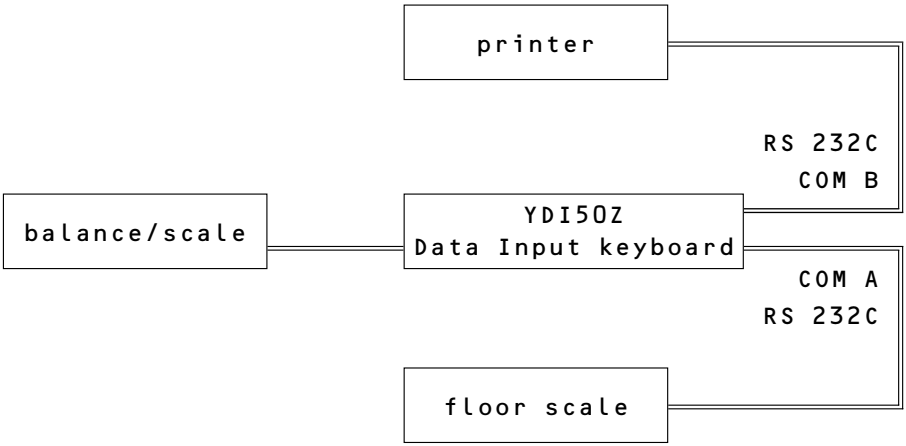
## COM A and COM B in the Sartonet Mode

In the SARTONET mode, up to 32 units can be connected in parallel to one data interface cable (SARTONET system for networking). A YDI 50 Z Data Input keyboard functions as the "MASTER," and all other connected devices are referred to as "SLAVES" (please see "Additional Literature" on page 12).



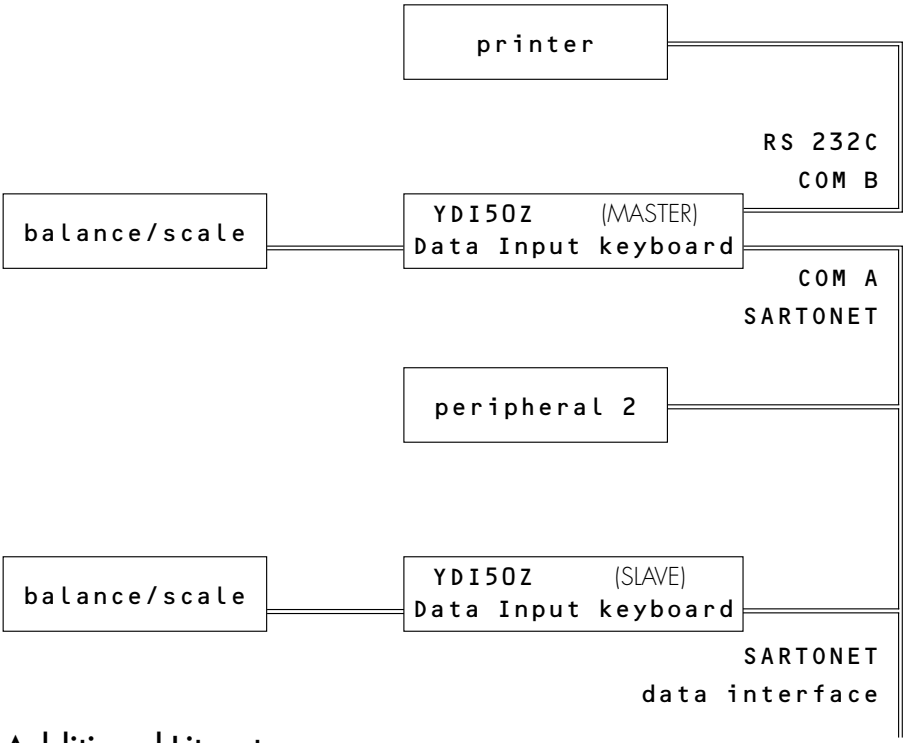
## COM A and COM B in the RS-232C Mode

If you operate COM A and COM B in the RS-232C mode, you can directly connect other devices, such as a computer, a printer, a floor scale, a recorder or a spectrometer (please see "Additional Literature" on page 12).



### COM A in the Sartonet Mode and COM B in the RS-232C Mode

You can connect a printer to COM B and simultaneously work with COM A in the Sartonet mode.




## Additional Literature:

SARTONET – Description and User's Manual

Interface Description for Sartorius Balances and Scales (MP 8-4) 98647-000-03

# Specifications

| Model | YDI 50 Z |
|---|---|
| Power requirements | 110/120/220/240 V (selectable),<br>approx. 30 VA, 50–60 Hz |
| Fuse | T 80 mA (160 mA for 110/120 V) |
| Dimensions of the housing | W 260 mm,<br>D 160 mm (210 mm incl. plug),<br>H (max.) 110 mm |
| Weight | 3 kg |
| Temperature range | +10°C to +40°C |
| ROM for programs | 64 KB |
| Data memory | 32 KB |
| LCD | 20 characters, 2 lines, backlit |
| Protection rating | IP 65 |

# CE-Marking

## CE

The CE marking affixed to the equipment indicates that the equipment meets the requirements of the following Directive(s) issued by the Council of the European Union:

89/336/EEC "Electromagnetic compatibility (EMC)"

Applicable European Standards:

| | | |
|---|---|---|
| Limitation of emissions: | EN 50081-1 | Residential, commercial and light industry |
| | EN 50081 -2 | Industrial environment |
| Defined immunity to interference: | EN 50082- 1 | Residential, commercial and light industry |
| | EN 50082-2 | Industrial environment |

Important Note:

The operator shall be responsible for any modifications to Sartorius equipment and for any connections of cables or equipment not supplied by Sartorius and must check and, if necessary, correct these modifications and connections. On request, Sartorius will provide information on the minimum operating specifications (in accordance with the Standards listed above for defined immunity to interference).

73/23/EEC "Electrical equipment designed for use within certain voltage limits"

Applicable European Standards:

| | |
|---|---|
| EN 60950 | Safety of information technology equipment including electrical business equipment |
| EN 61010 | Safety requirements for electrical equipment for measurement, control and laboratory use<br>Part 1: General requirements |

If you use electrical equipment in installations and under ambient conditions requiring higher safety standards, you must comply with the provisions as specified in the applicable regulations for installation in your country.

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