

Basic Installation Guide

(Rev.1.0)

Cash drawer Virtuos S-410 / EKO0103 (matte black)

• Warnings and Cautions

	1. Avoid metal contact with device connectors 2. Use the device outside the environment with flammable gases
	If the following situations occur, immediately shut down the host computer, unplug the device, and consult your nearest dealer. 1. Smoke, unusual odor or sounds coming from the device 2. Dropping the device with visible damage to the cover
	Never do the following: 1. Do not use the device in extremely humid places, or expose it to excessive temperature changes. 2. Do not use the device in extremely humid places, or expose it to excessive temperature changes. 3. Do not place the device in an oily or steamy environment such as kitchen, etc. 4. Do not leave the device without adequate ventilation, under the cloth, in any cover or package. 5. Do not insert foreign objects or pour water into the device openings. 6. Do not touch or carry this device with your hands wet. 7. Do not use anti-slip gloves containing plasticizers when working with this device. 8. Never use organic solvents such as gasoline, thinners, insecticides, etc. for cleaning. This could result in fire or electric shock. 9. Do not pull or unnecessarily bend the connecting cables or place heavy objects on them. Do not look into the light sources of the device and do not point the light source at the eyes of others. This may cause irreversible eye damage.
	Do not leave the device in unstable locations where there is a risk of falling and consequent danger of injuring people.
	Once damage to the power cord is detected, such as damage to the insulation, stop using the device immediately and contact your dealer. Fire or electric shock could occur.

• Basic Information

This guide provides a brief overview of the information necessary to install the product. More detailed information about the product can be found at www.virtuos.cz/download.

• Features

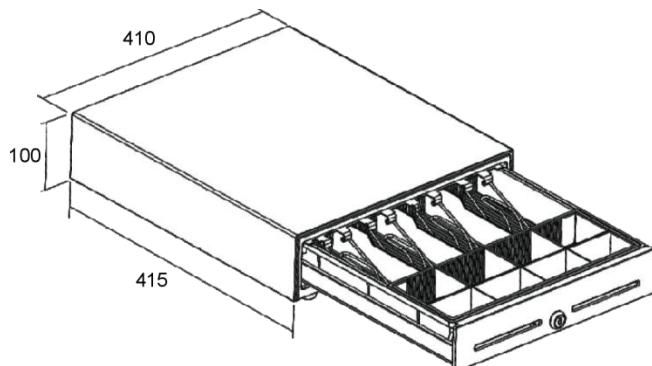
- Mechanically resistant design with powder coated paint
- Cash tray of robust plastic construction with adjustable compartments for 4 banknotes side by side with metal holders
- Removable coin tray with 8 adjustable coin compartments
- Electronic control of drawer closing by microswitch
- Connection via integrated cable with RJ12 6p6c connector for 24V / 1A device
- Possibility of inserting checks and banknotes through two slots in the front bezel without opening
- Polyurethane bearings with steel balls for easy opening and long life

• Specification

Compartments	4 × for bills + 8 × for coins (adjustable) removable cash tray and coin tray
Material	Cash Drawer – Steel Construction Tray – Durable Plastic
Key Lock	3 Positions (locked, electr. opening, opened)
Connector	Integrated cable terminated with RJ12 6p6c connector, 115 cm long
Closing check	Internal microswitch (closed = disconnect)
Recomm. pulse length	100 till 250 ms
Electrical parameters	Voltage 9V/12V/24V, current max. 1A ±10%
Opening	Manually by key, electronically
Drawer Dimensions	410 (W) × 100 (H*) × 415 (D) mm
Package Dimensions	440 (W) × 127 (H) × 445 (D) mm
Weight	6.8 kg (w/o) / 7.4 kg (w/package)
Ambient temperature	Operating 0 to 50°C, storage -20 to 70°C
Humidity	5 to 95% non-condensing
MTBF	More than 1,000,000 openings
EMI	Complies with CE

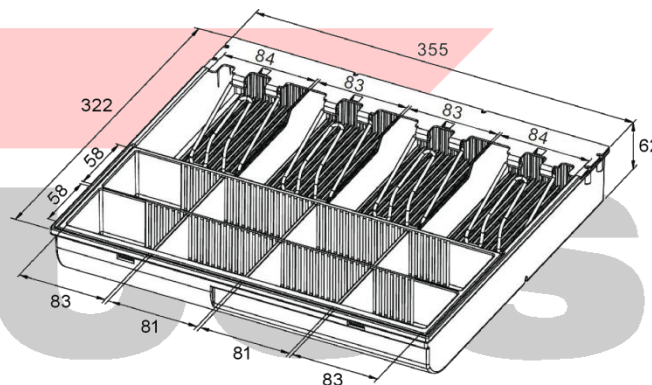
*measured without 9 mm high rubber feet

• Outer dimensions (in millimeters)



• Cash tray and coin tray

Tray dimensions for banknotes and coins (adjustable) in millimeters:



• Package contents



Note: Keys are attached to the drawer in the plastic bag.

• Optional accessories

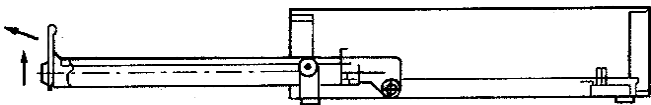
- EKN9001 – USB adaptor for cash drawer to USB port using virt. serial port
- EKN9002 – RS232 adaptor for cash drawer to serial port
- EKO9004 – Another plastic cash tray 4/8 for cash drawer S-410
- EKO9002 – Additional cover with lock and keys for cash drawer S-410
- EKO9005 – Spare lock for FT-460Vx cash drawer including two keys
- For complete spare parts (including bearings, springs, holders, dividers, locks, rubber feet etc.) search on www.virtuos.cz.

• Installation

1. Turn off the device to which you will connect the cash drawer.
2. Insert the RJ12 connector of the integrated cable into the socket of the host device intended for connection of the cash drawer (printer, cash register...) or converter adapter (USB, RS232).
3. Make the software settings of your system according to the supplier's instructions.

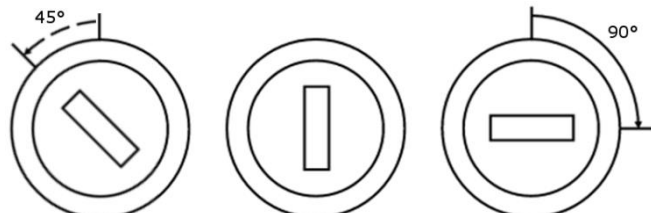
• Drawer removal

Open the drawer to the rearmost position and remove the tray. Pull the front edge of the drawer upward, lighten the back, and then pull out the drawer. By reverse procedure you will return the tray back.



• Basic Lock Functions

The lock has three positions, the first position 45° to the left returns.



Manual opening

Electronic opening

Locked

Caution: To reduce the risk of key damage or breakage, do not leave the key in the lock during normal operation!

• Emergency opening of drawer

There is a manual emergency opening in the bottom part of the drawer. It works only in lock position - electronic opening. It is used when the system electronics fails!



• Most common malfunctions and their elimination

1. The drawer cannot be electronically opened

If you have everything set up correctly in the cash register system, you have checked the connection and the cable, the problem can be loosened RJ12 connector or solenoid damaged by voltage overload. In this case the repair in Virtuos Service Centre is necessary.

2. Lost or damaged key

There are limited number of key inserts for the drawers. There is no any universal key, it is always necessary to use the key and insert with the same number. If the drawer is locked, it is necessary to open it first. Either by force – by breaking the insert using flat screw driver and turning with it inside the lock and/or by picking it using, for example, a paper clip. The lock does not have any special security features, i.e. skillful user can open it this way. Please, remember then, the drawer IS NOT SAFE a do not leave it unsecured with having a lot of cash in it. After opening it you can replace the old lock for new one, please, see spare part on www.virtuos.cz.

• Basic programming commands and settings

The cash drawer can be electronically opened by sending an electrical pulse to the solenoid, which releases the opening mechanism and the drawer opens. To do so, you need a device or a computer port + control software. The drawer is usually opened directly by the cash register software and in the settings of these programs, the type of drawer and the type of its connection are selected and you do not have to worry about anything. Yet, let us give you some examples of how to do it:

1. By cash drawer

The most common case of opening the drawer is opening it through a POS printer. The drawer is opened when the appropriate control command is sent to the printer. This command is different for each printer model and can be found in the printer's technical documentation. E.g. STAR printers use: `<BEL> (07h)`; EPSON printers use: `<ESC> "p" "0" "6" "6" (1Bh 70h 30h 36h 36h)`.

The printer can also monitor the state of the drawer, i.e. whether is opened or closed.

2. By USB or RS232 interface

Another option is to use special additional adaptor, that you will place between the system and the drawer (connecting cable) and you plug it to the POS system (computer, tablet ...). Either directly to the RS232 serial port or USB port, which then will simulate the RS232 interface. You will open the drawer by sending any character directly to a given port. The drawer status, i.e. whether it is opened or close, can be read from serial port control characters. You will find more information in USER manuals of these adaptors.

3. By cash register

Individual cash drawers have direct function of drawer opening. You only need to select the right cable and connect the drawer to the cash register. Then you should be able to open the drawer directly from the cash register keyboard, after the device prints the receipt or after account closing. Since the RJ12 6p6c cable is included in the socket, it can only be connected to the cash registers that support this type of connection. Other types of termination are available on request.

For detailed instructions visit www.virtuos.cz or contact HOTLINE Virtuos.

• Maintenance

The moving drawer parts should be cleaned and lubricated regularly. The frequency depends on the usage and environment in which the socket is located. The typical recommended frequency is once every 3-6 months. Wipe the old grease and dirt off the inside and outside of the moving parts with a dry, lint-free cloth. Do not use water or other cleaning fluids. Use oil or grease to lubricate bearings. Grease other friction surfaces evenly several times with grease so that only a thin layer of lubricant is formed.