Serial In (POS / ATM)

User`s Manual

13. SERIAL IN (POS/ATM)

13.1 Usage of Serial-In Function

- Enables to record/search/display all transactions on monitoring screen by connecting POS/ATM/Cash Register.
- User can choose the data whether to record/display on their taste without limitedly designated protocols.

13.2 Connection Method

- Four ATM/POS channels are available as a default.
- Connect the USB slot of DVR by using USB to RS-232 Converter Cable and it is available to connect up to 4 serial-in devices by using the converter.
- Applicable converters as follows
  - FTDI chipset included converter
  - Prolific PL2303 / PL2303X / PL2303HX chipset included converter
  - Winchiphead chipset included converter
- When using a converter, please connect USB slot of DVR first, then restart in order to the DVR recognizes the USB converter.
- When using a multi-converter, the port recognizes as Number 1 as its shortest line of converter consequently.
- When using both single and multi-converters, single converter is recognized as Port Number 1.

NOTE

This function is only supports English alphabetical characters.

The maximum extension length for RS-232 cable is 15 meters approximately.

13.3 Connection Diagram

- Users can connect RS-232 port to USB port at front/rear of DVR by using a converter.

**USB Port
(Front, Rear)**
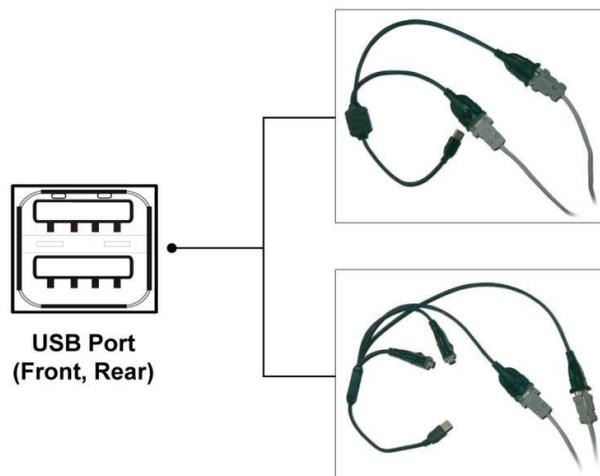
13.4 Link

13.4.1 Link Setup

• Click "Setup>Link>" then shows as below.
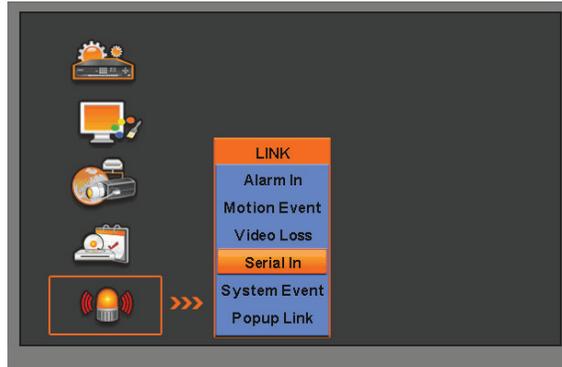
NOTE
The above menu is only available on the DVR model with Serial-In function.

• Click "Serial In" to appear following screen.

• Select POS/ATM port by clicking 'Serial In' button.
• Assign the port to display/record channel by clicking a "Link Camera".
• Select "Link Alarm Out" item to run alarm output when the serial in events occur.
• Designate the E-Mail address or IP/Domain name at "Link Notification" box when the serial in events occur.

NOTE
E-Mail address or IP/Domain configuration is possible to set in 'Setup>Network>Notification' menu.

• Set other POS/ATM port as above.
• Click "OK" to save the configuration.

13.4.2 Schedule Setup

- Click "Record>Schedule>" then shows as below.
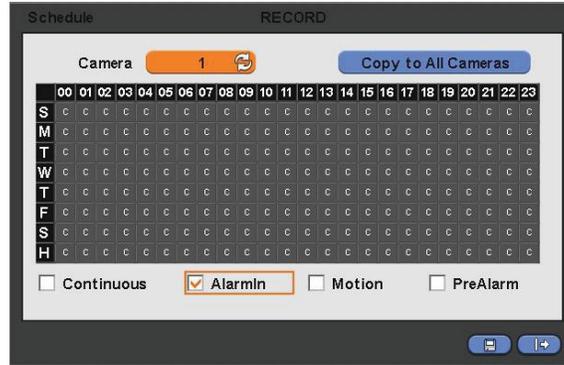
- Tick the box(□) item Alarm In.
- Click the Time/Date that wishes to activate ATM/POS function on schedule.
- It is possible to activate all the time by clicking top-right side of table.
- Click "OK" to save the schedules.

NOTE

Please do not select the Alarm In and Motion simultaneously on schedule setup.

Otherwise, POS/ATM text will be displayed improperly.

13.5 Setup

- Please click (↵) "System>Devices>Serial-In", then user will see the display below.
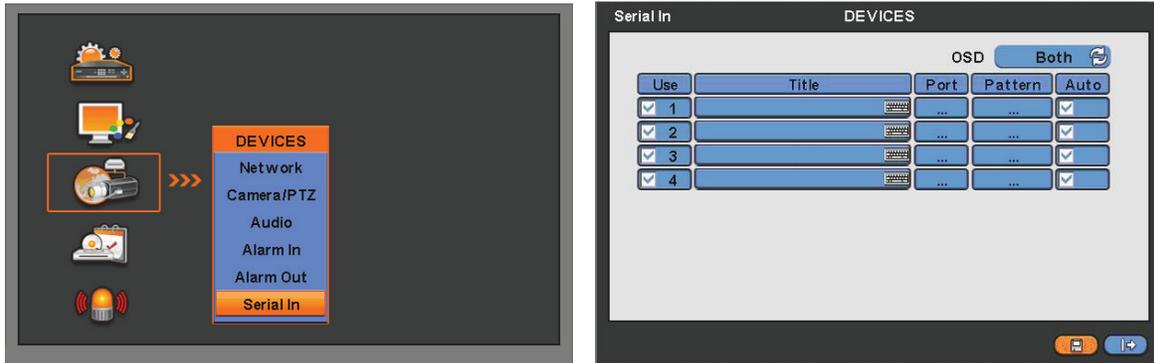
13.5.1 Title

- Click "Title" item then virtual keyboard will appear.
- Input the title then click (↵) to save.

13.5.2 Port Setting

- Press (↵) the "Port Setting" button in order to set up the port. Default values are Baud rate 2400 bps, Data Bit 5 bit, Stop Bit 1 bit, Parity None.
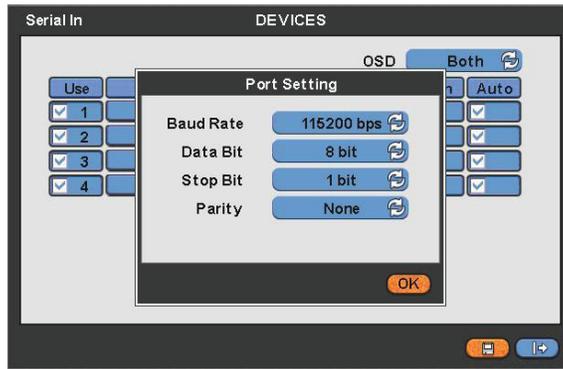
- When the setup is done, press enter (↵) to save the setting.

13.5.3 OSD Display

- OSD items are to decide whether to display the information from the serial port connected to the rs232 port on OSD screen.
- They have 4 menus as followings:
  - None: displays nothing on the OSD screen.
  - Live: displays incoming information from the serial port in real time on the OSD screen.
  - Playback: displays the saved information on the OSD screen during replay.
  - Both: displays all the information on both Live and Playback mode.

13.5.4 Pattern Setting

- User can select the name of serial device if click (↵) the keyboard button of Title.
- When "Use" items of Numbers 1-4 are checked☑ on Serial-In page, it receives the data from the applicable serial device.
- Check☑ the "Auto" item so as to capture automatically all the data which includes unnecessary dummy data out of serial device as below.

- Analyze among the automatically captured data which will be displayed or discarded then enter Pattern Setting.
  - Unless user checks "Auto" item, make sure to set up "Start Pattern" and "End Pattern"
  - "Discard Pattern", "Line Delimiter" and "MCPL" are utilized independently, not relation to "Auto" mode.
- It is possible to input and analyze the serial data by clicking "Pattern" after tick the "Auto" box(□) off.
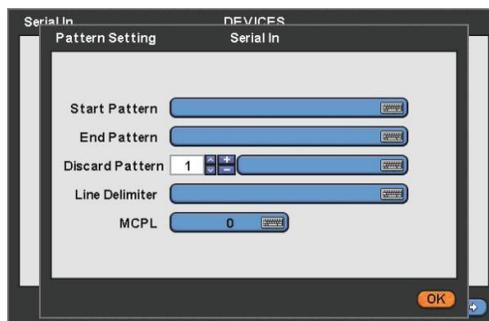
- Each item explains below:
  - Start Pattern: Indicates the beginning of the new data when new designated data are received from a serial device.
  - End Pattern: Indicates the end of the data when designated data are received from a serial device.
  - Discard Pattern: Does not show the designated data on OSD screen. Sets up in order to designate dummy data or

characters which is not favorably to be displayed. Can be designated up to 64 of discard patterns in total.

- Line Delimiter: Inputs characters to be used as delimiter between lines.
- MCPL (Minimum **C**haracter **P**er **L**ine) : Sets up the number of the minimum strings each line. Does not show the characters on OSD screen if there is a character of which number is below the designated number in each line divided by the line delimiter.

Example

• When it firstly connected, the data will be displayed as below.

• Input a certain repeated string to "Line Delimiter".
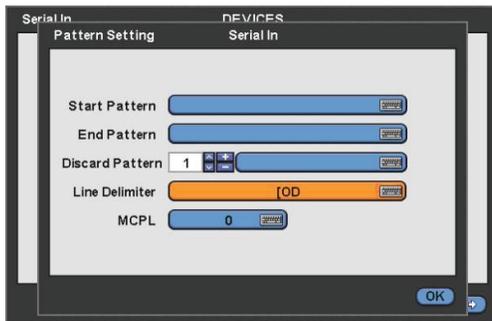
• Decide the number of minimum characters in "MCPL" item to hide data under the designated number of characters.
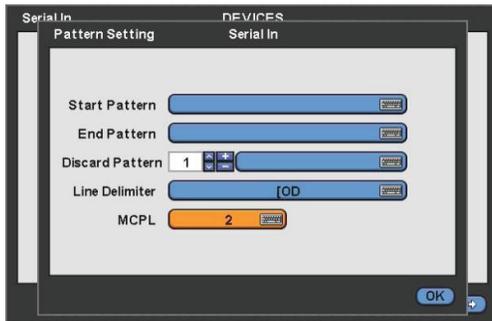
• Input the pattern of dummy data to Discard Pattern.
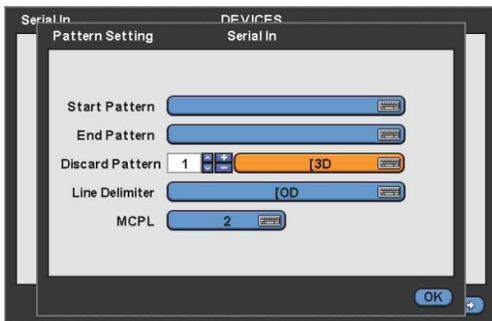
• Choose the data which willing to display and enter the Start Pattern and End Pattern.

- Then tick the Auto box off in order to make the DVR recognizes the data between the Start and End patterns.
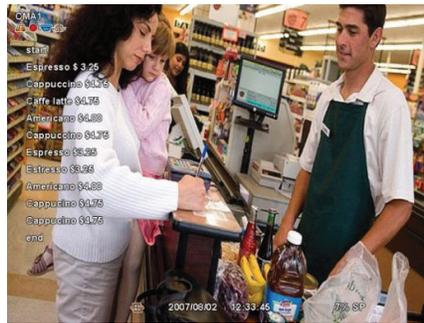
- Finally, test again and adjust data to remove missed dummy data.

13.6 Search

- Using event search function.
- Please click (↵) the "Search>Event Search" menu on the pop-up menu of the wallpaper, then user will see the following screen.

- It is possible to search the recorded data which is set up on Serial In and Linking pages.
- The keyboard button for setting up the characters to be searched activates only when the Serial In item is checked ☑.