

Instructions for configuring and using the RS-LAN module for operation in the composition of the 7000 system or on a network of conventional Control Panels and FS5200R

For this purpose are necessary software for control and configuration of modules and software for virtual COM Port of PC

The CD has a file "tdst-5-08-05-x86.exe" or "tdst-5-08-05-x64.exe" (respectively for 32 and for 64 bit operating systems "Windows") - after starting the file, choose installation type "Full" and install the necessary programs for configuration and for using the module.

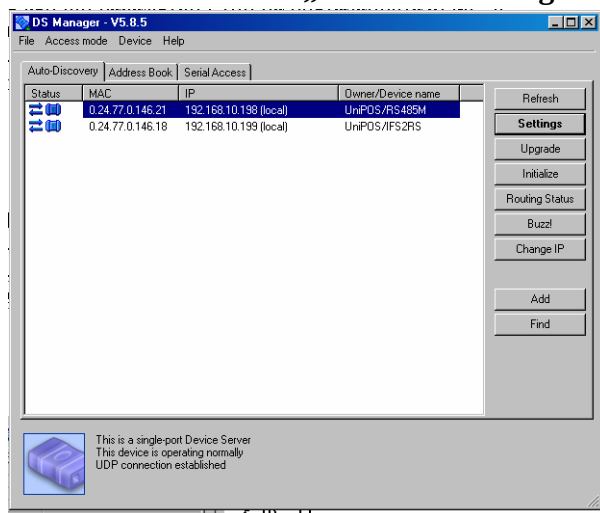
Connect the module to the power supply 12-28 V and to the LAN network, to which the PC is connected with its installation software, set to some LAN network (For example IP: 192.168.10.100, Mask: 255.255.255.0, GW: 192.168.10.1). Jumpers of the module are to be set depending on its use - for RS232 or RS485 (as shown in the relevant parts of this instruction).

For network connection use two cable types:

A. Straight-Through Ethernet Cable (**Straight-Through Ethernet Cable**) – for connecting the module into SWITCH

B. Crossover Ethernet Cable (**Crossover Ethernet Cable**) – for connecting the module directly to a PC

I. First start the „Tibbo DS Manager” and the following window appears:



1. List of the RS2Eth devices that have been found (if no devices were found, the reason is in the LAN connection, then check if all the devices are connected, the network settings and etc.)

2. Choose the device you want to configure. If you do not know what device to configure, identify it with button "Buzz!", in this case the LEDs "SG" and "SR" of the selected device are flashing several times. In the first configuration or reconfiguration of the device parameters do not match to those shown in Fig. 2. Choose the device and press the button "Settings".

Fig. 1

II. Configuring of the device for operating in the composition of system 7000.

1. Jumpers of the module are set according to Fig. 1:

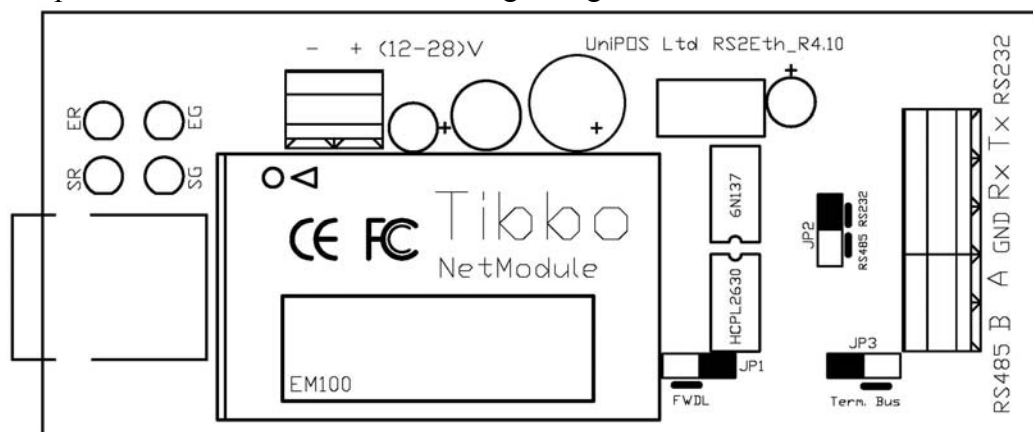
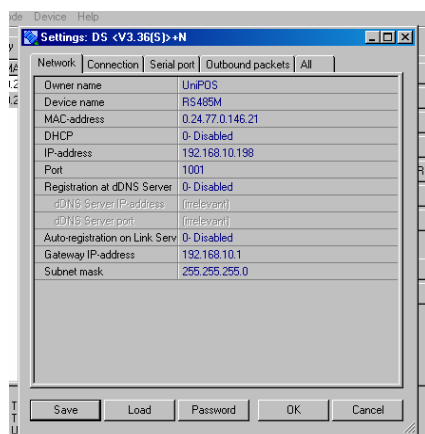


Fig. 2

JP1 – Open, JP2 – RS232, JP3 – Open (placed on the black places)

2. Configure the device, connected to IFS7002, in accordance with the following figures:



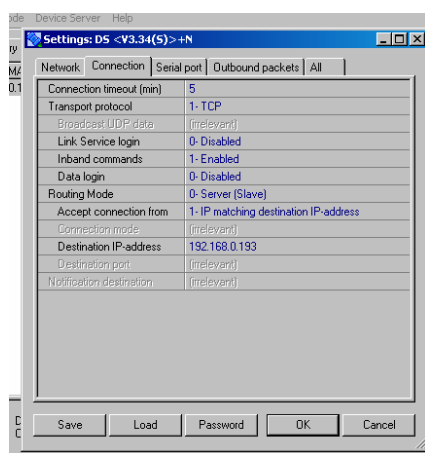
with the module (it should not be filtered by the network devices in the relevant network).

Fig. 3

„Network”

1. “Owner name” - UniPOS
2. “Device name” – IFS2Eth (for device, connected with IFS7002)
3. MAC-address – does not change(remains the same as it is)
4. DHCP – 0- Disabled
5. IP-address – according to the network system administrator (Ex. 192.168.10.198)
6. Port – 1001 (пр. 1001)*
7. Registration at dDNS Server – 0- Disabled
8. Auto-registration on Link Server – 0- Disabled
9. Gateway IP-address –according to the network system administrator (ex. 192.168.10.1)
10. Subnet mask - according to the network system administrator (ex. 255.255.255.0)

* - Port number through which the driver installed on the PC, communicates



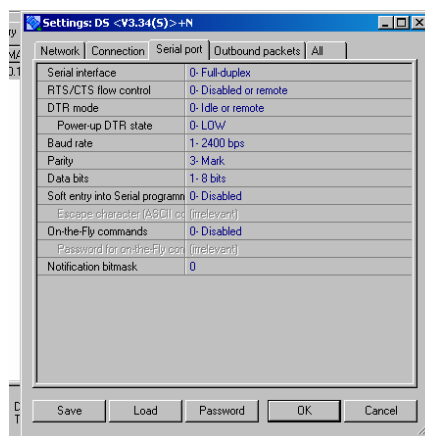
“Connection”

1. Connection timeout (min) 5
2. Device name 1- TCP
3. Link Service login 0- Disabled
4. Inband commands 1- Enabled
5. Data login 0- Disabled
6. Routing Mode 0- Server (Slave)
7. Accept Connection from 1- IP matching Destination IP-address *
8. Destination IP-address 192.168.10.100**

* - .Connection with a PC in the network (for security reasons, it is not required to use connection with any computer). If in item 7 is used "0 - Any IP-address" Item 8 is unavailable to configure.

** - IP-address of the computer, ONLY to which the communication of the module is possible (it must be visible from the module in the relevant network). If item 7 is used "0 - Any IP-address" the module can communicate with any IP-address of the network.

Fig. 4

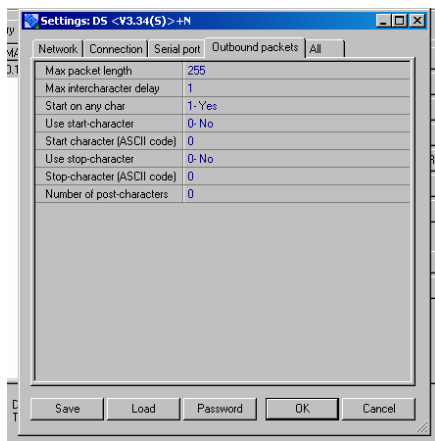


“Serial Port”

1. Serial interface 0- Full-duplex
2. RTS/CTS flow control 0- Disabled or remote
3. DTR mode 0- Idle or remote
4. Power-up DTR state 0- LOW
5. Baud rate 1- 2400 bps*
6. Parity 3- Mark
7. Data bits 1- 8 bits
8. Soft entry into Serial programming mode 0- Disabled
9. On-the-Fly command 0- Disabled
10. Notification bitmask 0

* - communication speed with 7002 - must be equal to the one set into the control panel and into the software for connection

Fig. 5



“Outbound packets”

- | | |
|---------------------------------|--------|
| 1. Max packet length | 255 |
| 2. Max intercharacter delay | 1 |
| 3. Start on any char | 1- Yes |
| 4. Use start-character | 0- No |
| 5. Start character (ASCII code) | 0 |
| 6. Use stop-character | 0- No |
| 7. Stop-character (ASCII code) | 0 |
| 8. Number of post-characters | 0 |

Fig. 6

The settings for the network must be coordinated with the system administrator..

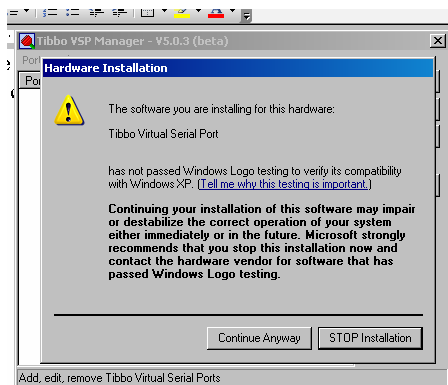
There is possibility for the configuration to be saved in file on the CD using the button "Save" and the subsequently recorded configuration can be loaded using the button "Load".

Sample file with configuration - "RS232.ds". While loading the file with configuration in the section "Network" settings do not change thus that must be done manually and verified by the user.

There is possibility to introduce password for protection the settings of the module from unauthorized changes by pressing "Password".

Confirm the settings, the module will restart and is ready for use.

3. Then start "Tibbo VSP Manager" and create a virtual COM port with number from 1 to 255 (this port is used for setting the software for connection with IFS7002). In case of attempt to create a port the following warning appears:

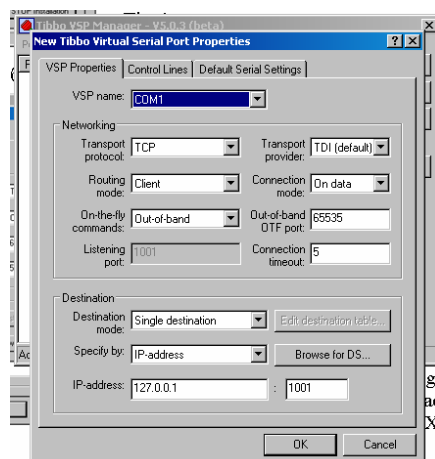


Confirmed the continuation of the port installation (Continue Anyway):

Fig. 7

Choose a free port number from 1 to 255 ("VSP name" - there should not be in conflict with an existing port) and configurations according to the following figures

“VSP Properties”



“Networking”

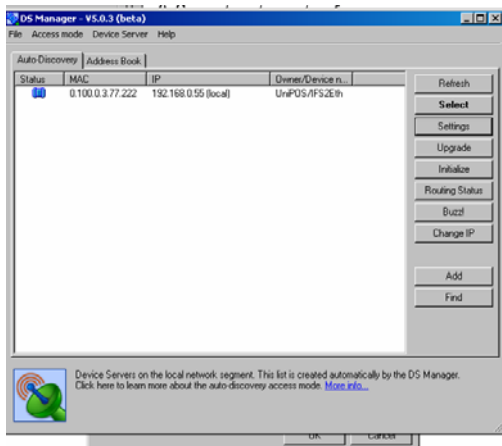
- | | |
|--------------------------|---------------|
| 1. Transport protocol: | TCP |
| 2. Routing mode: | Client |
| 3. On-the-fly commands: | Out-of-band |
| 4. Transport provider: | TDI (default) |
| 5. Connection mode: | On data |
| 6. Out-of-band OTF port: | 65535 |
| 7. Connection timeout: | 5 |

“Destination”

- | | |
|----------------------|-------------------------|
| 1. Destination mode: | Single destination |
| 2. Specify by: | IP-address |
| 3. IP-address: | XXX.XXX.XXX.XXX : 10yy* |

* - IP-address and port number of the module, to which the driver communicates (is automatically inserted by the module settings after choosing "Select" in the next step).

Fig.8



Providing that the module is connected to the network and accessible from the computer by pressing the button "Browse for DS ..." a screen appears with all the available RS2Eth devices - choose the one you want to associate with the appropriate port by clicking "Select". IP address should be set to be visible from your computer (to be in the same subnet with the appropriate mask). If this condition is not fulfilled use the button "Change IP".

Fig. 9

„Control Lines”

1. CTS – Normal (reported by Device Server)
2. DSR – Normal (reported by Device Server)
3. DCD – Normal (reported by Device Server)

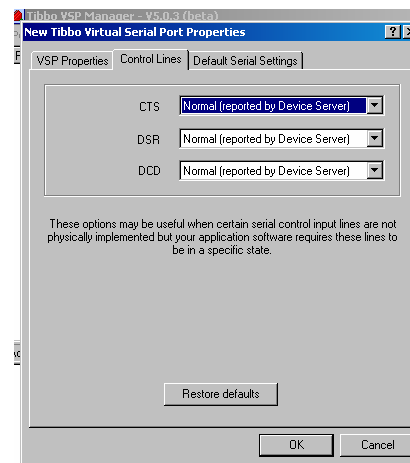
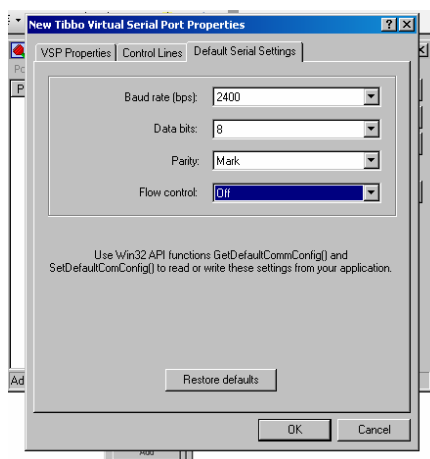


Fig. 10

Configure the other parameters of the communication on RS 232:



„Default Serial Settings”

1. Baud rate (bps): 2400
2. Data bits: 8
3. Parity: Mark
4. Flow control: Off

These settings are entered automatically from the settings of the selected device in the previous step by button "Select"(Fig. 9).

Fig.9

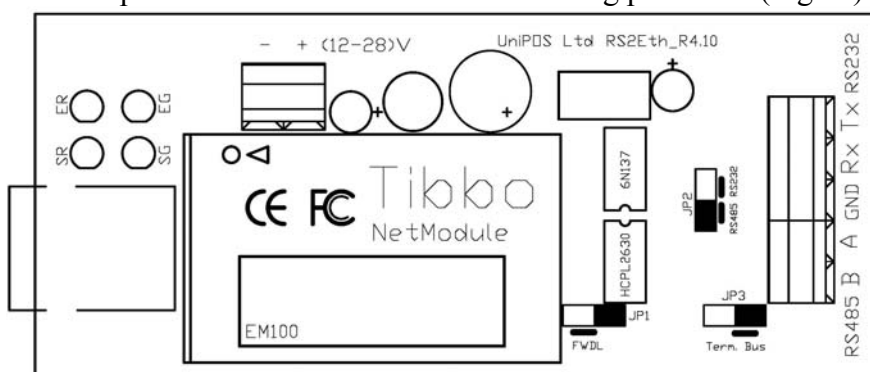
After another warning that the software has not been tested for compatibility with Windows XP and confirmation "Continue Anyway" there is a configured virtual COM port that uses the module RS2Eth for connection. This port will be used in the configuration of software for connection with IFS7002.

Further you can start RS700 or Intellect by the normal way (by using a cable RS232 and according to the instruction manual for operation with the relevant software).

In presence of more than one device for connection with more IFS7002 Control Panels in the same network, the ports for communication between the devices must be set to vary from the different pairs' module-driver ". The range of these ports shall be coordinated with the network system administrator in order not be filtered by network devices (routers, etc.). It is recommended to use ports 1000-1200.

III. Configuring and using the module for connection with conventional Control Panels with Repeater FS5200R.

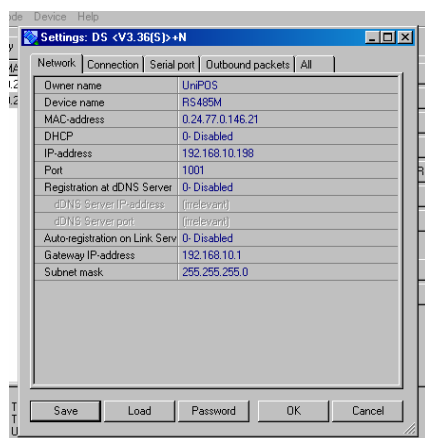
Jumpers of the module are in the following positions: (Fig 10):



JP1 – Open, JP2 – RS485, JP3 – Close

Fig.10

1. From the screen "Tibbo DS Manager" (Fig. 1) select the device connected to the FS5200R on the network (RS485M) and press button "Settings". Configure the device in accordance with the following figures:



“Network”

1. “Owner name” - UniPOS
2. “Device name” – RS485M (за устройство, свързано с FS5200R)
3. MAC-address – does not change (remains the same as it is)
4. DHCP – 0- Disabled
5. IP-address – according to the network system administrator (ex. 192.168.10.198)
6. Port – 1001 *
7. Registration at dDNS Server – 0- Disabled
8. Auto-registration on Link Server – 0- Disabled
9. Gateway IP-address - according to the network system administrator (ex. 192.168.10.1)
10. Subnet mask - according to the network system administrator (ex. 255.255.255.0)

* - port number ,through which the modules communicate with modules (it should not be filtered by network devices in the relevant network)

Fig. 11

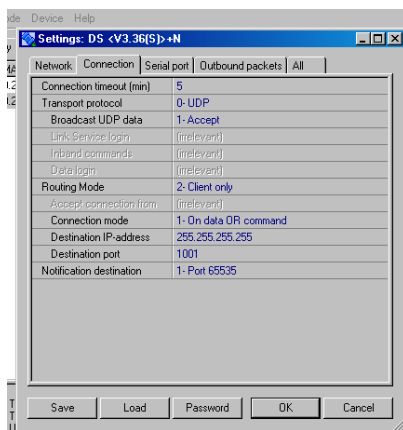
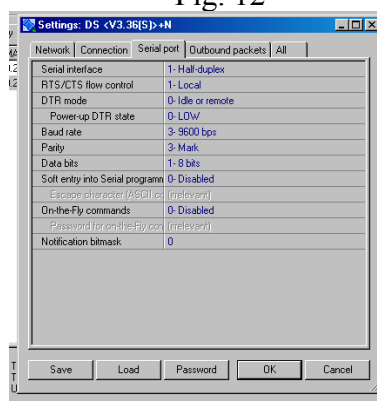


Fig. 12

"Connection"

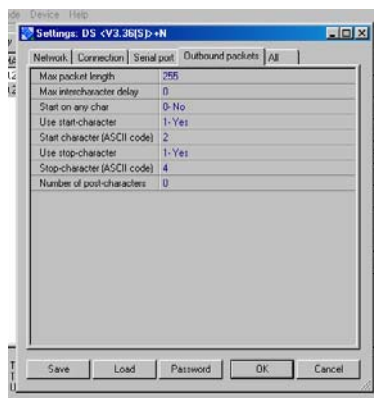
- | | |
|-----------------------------|-----------------------|
| 1. Connection timeout (min) | 5 |
| 2. Transport protocol | 0- UDP |
| 3. Broadcast UDP data | 1- Accept |
| 4. Routing Mode | 2- Client only |
| 5. Connection mode | 1- On data OR command |
| 6. Destination IP-address | 255.255.255.255* |
| 7. Destination port | 1001** |
| 8. Notification destination | 1- Port 65535 |

* - Specifies the connection to all devices in the subnet (broadcast). This module 255,255,255,255 can to communicate with all modules, configured as "Slave";
 ** - IP port on which the modules communicate (it should not to be filtered by network devices in the network)

**"Serial port"**

- | | |
|--|-------------------|
| 1. Serial interface | 1- Half-duplex |
| 2. RTS/CTS flow control | 1- Local |
| 3. DTR mode | 0- Idle or remote |
| 4. Power-up DTR state | 0- LOW |
| 5. Baud rate | 3- 9600 bps |
| 6. Parity | 3- Mark |
| 7. Data bits | 1- 8 bits |
| 8. Soft entry into Serial programming mode | 0- Disabled |
| 9. On-the-Fly command | 0- Disabled |
| 10. Notification bitmask | 0 |

Fig.13



- | | |
|---------------------------------|--------|
| 1. Max packet length | 255 |
| 2. Max intercharacter delay | 0 |
| 3. Start on any char | 0- No |
| 4. Use start-character | 1- Yes |
| 5. Start character (ASCII code) | 2 |
| 6. Use stop-character | 1- Yes |
| 7. Stop-character (ASCII code) | 4 |
| 8. Number of post-characters | 0 |

Fig.14

The settings for the relevant network must be coordinated with the system administrator.

There is possibility for the configuration to be saved in file on the CD using the button "Save" and the subsequently recorded configuration can be loaded using the button "Load".

Sample file with configuration – „RS485_master.ds”. While loading the file with configuration in the section "Network" settings do not change thus that must be done manually and verified by the user.

There is possibility to introduce password for protection the settings of the module from unauthorized changes by pressing "Password".

Confirm the settings, the module will restart and is ready for use.

2. From the screen "Tibbo DS Manager" (Fig. 1) select the device, connected to the "Slave" panel on the network (RS485S) and press button "Settings". Configure the device in accordance with the following figures:

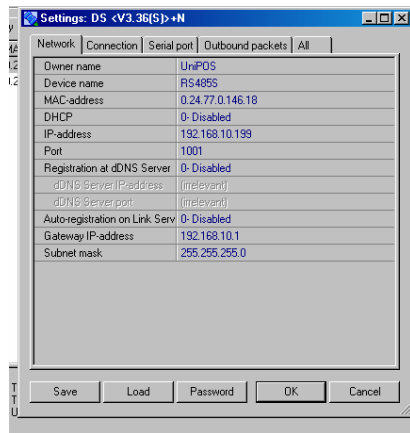
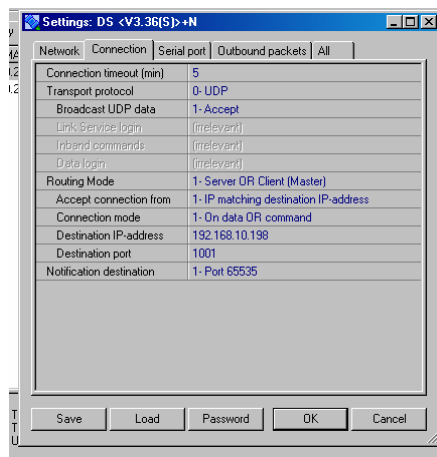


Fig.15

“Network”

1. “Owner name” - UniPOS
2. “Device name” – RS485S (for a device, connected with „Slave” panel on the network)
3. MAC-address – does not change (remains the same as it is)
4. DHCP – 0- Disabled
5. IP-address – according to the network system administrator (ex. 192.168.10.199)
6. Port – 1001*
7. Registration at dDNS Server – 0- Disabled
8. Auto-registration on Link Server – 0- Disabled
9. Gateway IP-address - according to the network system administrator (ex. 192.168.10.1)
10. Subnet mask - according to the network system administrator (ex.255.255.255.0)

* - port number, through which the modules communicate (it should not be filtered by network devices in the relevant network)



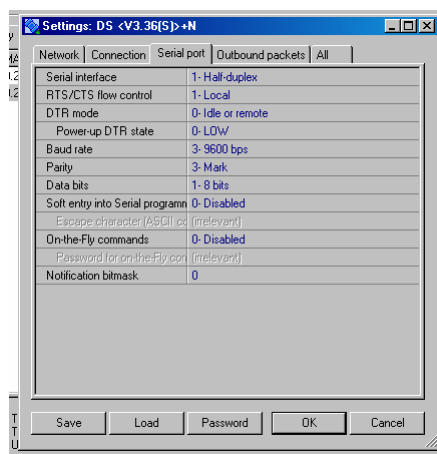
„Connection”

1. Connection timeout (min) 5
2. Transport protocol 0- UDP
3. Broadcast UDP data 1- Accept
4. Routing Mode 1- Server OR Client (Master)
5. Accept connection from 1- IP matching destination IP-address
6. Connection mode 1- On data OR command
7. Destination IP-address 192.168.10.198*
8. Destination port 1001**
9. Notification destination 1- Port 65535

* - Indicates the IP address of the device, connected with FS5200R.

** - IP port, on which the devices communicate

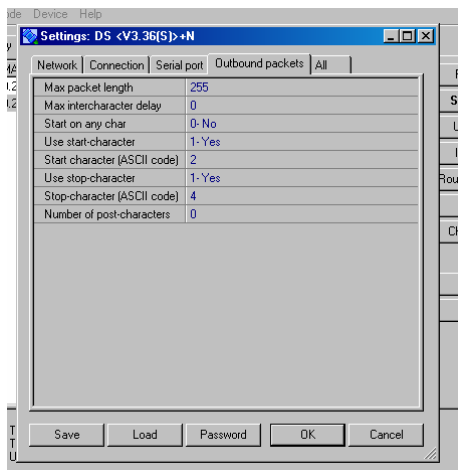
Fig. 16



“Serial port”

1. Serial interface 0- Half-duplex
2. RTS/CTS flow control 1- Local
3. DTR mode 0- Idle or remote
4. Power-up DTR state 0- LOW
5. Baud rate 1- 9600 bps
6. Parity 3- Mark
7. Data bits 1- 8 bits
8. Soft entry into Serial programming mode 0- Disabled
9. On-the-Fly command 0- Disabled
10. Notification bitmask 0

Fig. 17



“Outbound packets”

- | | |
|---------------------------------|--------|
| 1. Max packet length | 255 |
| 2. Max intercharacter delay | 0 |
| 3. Start on any char | 0- No |
| 4. Use start-character | 1- Yes |
| 5. Start character (ASCII code) | 2 |
| 6. Use stop-character | 1- Yes |
| 7. Stop-character (ASCII code) | 4 |
| 8. Number of post-characters | 0 |

Fig. 18

The settings for the relevant network must be coordinated with the system administrator

There is possibility for the configuration to be saved in file on the CD using the button "Save" and the subsequently recorded configuration can be loaded using the button "Load".

Sample file with configuration – „RS485_slave.ds”. While loading the file with configuration in the section "Network" settings do not change thus that must be done manually and verified by the user.

There is possibility to introduce password for protection the settings of the module from unauthorized changes by pressing "Password". Confirm the settings, the module will restart and is ready for use.

3. Connect the modules to the relevant Control Panels and to the LAN network (modules must be in one subnet and the LAN connections should not pass through "router" and "bridge" because of the UDP communication) and check the connection between FS5200R and the Control Panel(s) on the LAN network. The Control Panels must transmit the information to the Repeater and through the Repeater commands to be submitted to the Control Panels, as in direct connection on RS485.