

# **Driver Pant 8 and antenna switcher Ant 8**

## **User manual**



## Table of contents

|   |    |
|---|----|
| Table of contents .....                                       | 2  |
| Introduction .....  | 3  |
| Shipping Contents.....  | 3  |
| Technical Data.....   | 3  |
| Control Panel .....   | 4  |
| Rear panel .....  | 5  |
| Controller operation .....                                    | 6  |
| Operation mode change .....                                   | 6  |
| Normal operation mode (manual) .....                          | 6  |
| Automatic operation mode (via LPT ) .....                     | 7  |
| Automatic operation mode (via RS-232 serial interface ) ..... | 7  |
| Configuration mode (SETUP) .....                              | 7  |
| Number of antennas .....                                      | 7  |
| LPT option .....  | 7  |
| Outputs states table (OL 2, OL 3, OL 4): .....                | 8  |
| TRX manufacturer selection .....                              | 8  |
| TRX model selection .....                                     | 10 |
| RS-232 data rate .....  | 10 |
| Controller configuration via RS-232 .....                     | 11 |
| Mouse controller (optional) .....                             | 13 |

## Introduction

Pant 8 controller is designed for control of Ant 8 antenna switcher. Controller can be used for control of SPID antenna switcher or any other equipped with relays supplied from 12 V DC with common ground and active plus.

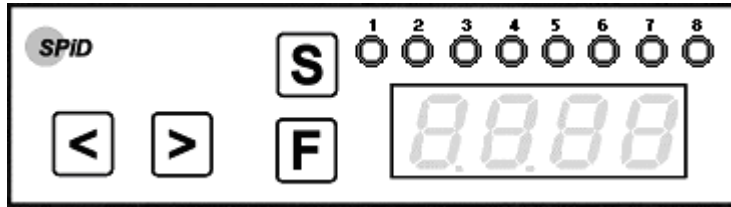
## Shipping Contents

|   |   |
|---|---|
| Pant 8 controller .....                       | 1 |
| Centronics cable .....                        | 1 |
| CD-ROM (Utilities and SpidLog software) ..... | 1 |
| Custom mouse .....                            | 1 |





## Technical Data

|                               |            |
|-------------------------------|------------|
| Input voltage (typical) ..... | 12-24 V DC |
| Input current.....            | 0.5 A      |
| Fuse.....                     | 2 A GMA    |

## Control Panel



### Buttons:

-  - Left (decrease)
-  - Right (increase)
-  - Configuration (Setup)
-  - Operation mode (Function)

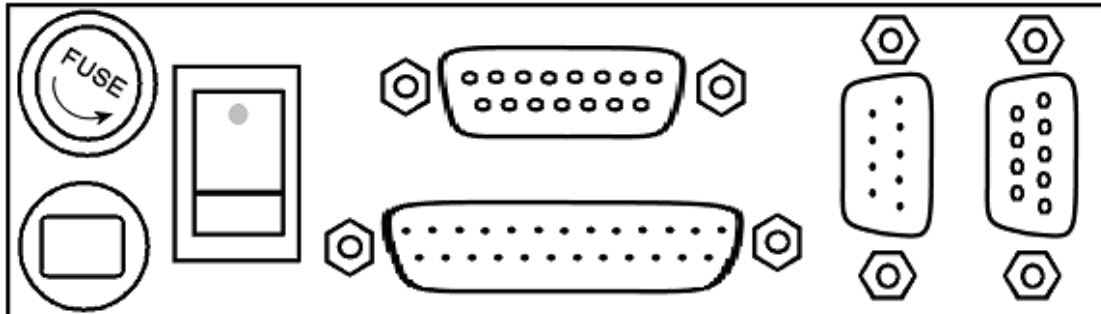
### 7 segment 4 - digit display



### Indicator (7 LED diodes)



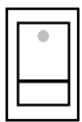
## Rear panel



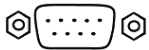
- Fuse holder



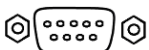
- Power cord



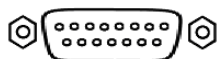
- Power Switch



- DB-9 connector (male) – custom mouse connection

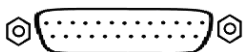


- DB-9 connector (female) – PC computer connection (RS 232)



- DB-15 connector – antennas control (for Ant8)

(outputs: pins 1-8, ground: pins 9-15)



- DB-25 connector – PC computer connection (LPT)

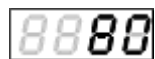
## Controller operation

The Pant8 controller has multiple modes of operation. You will need to become familiar with these modes to be able to make full use of your antenna switch

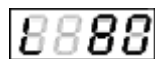
### Operation mode change

**F** button is used for operation mode change.

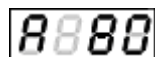
Three operation modes are available:



- normal operation mode (manual),





- automatic operation mode (controlled from LPT),



- automatic operation mode (controlled from COM – RS-232 serial interface).

In order to ensure proper operation of automatic modes, controller must be pre  
- programmed using included software. Please use COM RS-232 serial interface  
- SETUP mode – PP option.

### Normal operation mode (manual)

In normal operation mode (manual mode),  and  buttons are used for active antenna change (antenna must be pre – programmed).

Active antenna number will be displayed on the LED indicator (1-8); band name will be displayed on the multifunction LED display.

Custom mouse can be used in normal operation mode. Custom mouse buttons 1-8 are assigned to antenna outputs 1-8. If less than 8 antennas is connected, buttons assigned to outputs without antenna connected are inactive.

Pressing the **S** button in normal operation mode (manual) activate Configuration (Setup) mode.


### **Automatic operation mode (via LPT )**

In automatic operation mode (control via LPT), antenna output is switched by data from control software (LOGGER, DXWIN, SPIDLOG etc.) running on an attached PC computer.

Buttons  and  are inactive, custom mouse also can't be used.



### **Automatic operation mode (via RS-232 serial interface )**

In automatic operation mode (control via COM – RS-232 serial interface), controller switching antenna output converting frequency from radio (TRX) into band.

Buttons  and  are inactive, custom mouse also can't be used.

### **Operation mode with PC ( via RS-232 serial interface )**

When working on computer ( PC ) throughout COM ( RS-232 ) , driver switches antenna plug in just like command sent by Pant8.exe .

In Pc mode buttons  and  changing active antenna ( previous programmed ) and updates programs Pant8.exe panel .

### **Configuration mode (SETUP)**

 button is used for navigation through configuration menu.

Each pressing of  button causing entry into next MENU item.

Display readout will change depending on selected setup menu item.

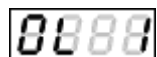
### **Number of antennas**



Programmable number of connected antennas (from 1 to 8).

This parameter is modified by  and  buttons pressing.

### **LPT option**



LPT output operation mode (1 – 4).

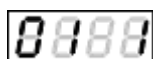
This parameter is modified by  and  buttons pressing.

- **Binary mode (OL 1 displayed on the multifunction LED display)** – only one of eight outputs is active (LPT – pins 2 to 9)
- **BCD mode (OL 2 displayed on the multifunction LED display)** – 160 m – 10 m bands (please refer to below table)
- **BCD mode (OL 3 displayed on the multifunction LED display)** – 160 m – 6 m bands (please refer to below table)
- **BCD mode (OL 4 displayed on the multifunction LED display)** – 160 m – 10 m bands (please refer to below table)

### Outputs states table (OL 2, OL 3, OL 4):

| Band | Pin 2 | Pin 7 | Pin 8 | Pin 9 |
|------|-------|-------|-------|-------|
| 160m | X     |       |       |       |
| 80m  |       | X     |       |       |
| 40m  | X     | X     |       |       |
| 30m  |       |       |       |       |
| 20m  | X     |       | X     |       |
| 17m  |       | X     | X     |       |
| 15m  | X     | X     | X     |       |
| 12m  |       |       |       | X     |
| 10m  | X     |       |       | X     |
| 6m   |       | X     |       | X     |
| 2m   | X     |       |       |       |
| 1,2m |       | X     |       |       |
| 70cm | X     | X     |       |       |
| 23cm | X     |       | X     |       |

### TRX manufacturer selection





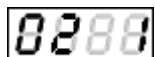
TRX manufacturer selection is realized by pressing of  and  buttons.



1 – YAESU

2 – KENWOOD

3 – ICOM

## TRX model selection



TRX model selection is realized by pressing of  and  buttons.

### YAESU

- 1 FT-817
- 2 FT-847
- 3 FT-857
- 4 FT-897
- 5 FT-1000D
- 6 FT-1000MP
- 7 FT-920
- 8 FT-840
- 9 FT-890
- 10 FT-900
- 11 FT-990

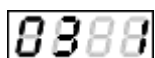
### KENWOOD

- 1 All

### ICOM

- 1 All models except 735

## RS-232 data rate



RS-232 data rate selection is realized by pressing of  and  buttons.

- |   |       |         |
|---|-------|---------|
| 1 | 1200  |         |
| 2 | 4800  | default |
| 3 | 9600  |         |
| 4 | 19200 |         |

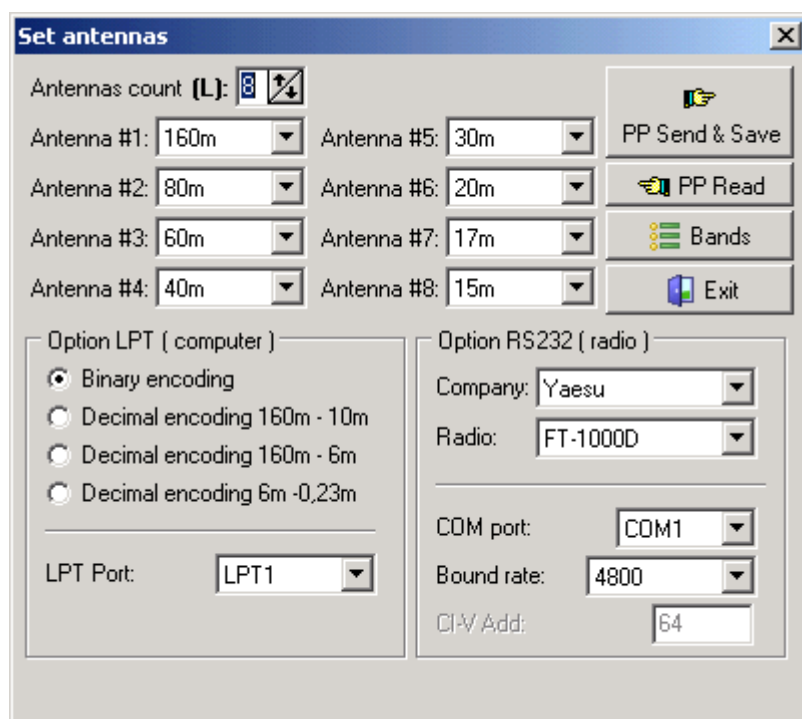
## Controller configuration via RS-232



This menu item makes possible to configure controller using PC computer. Please run PANT8.EXE file. Following bar will be displayed, right-click on the bar area and select SETUP from menu.




Following window will appear:



**[PP Read]** button makes possible to read actual settings from controller.

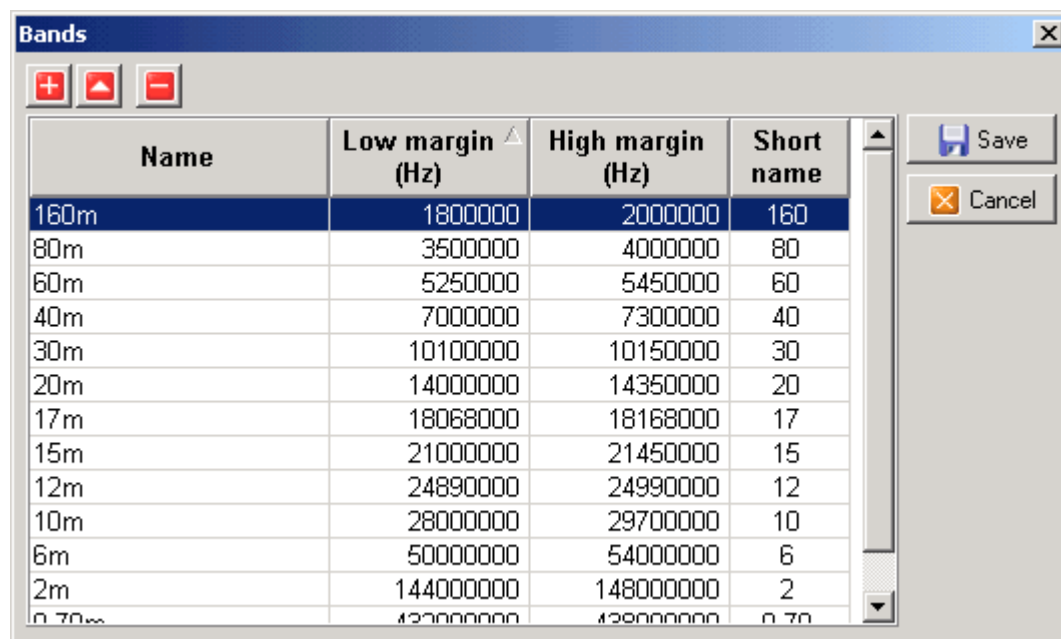
**[PP Send & Save]** button makes possible to send settings to controller and store them on the hard disk.

Mode selection can be done by option ( ) radio or (●) PC . On Pc mode driver is working P mode , program changes or reads active antenna throughout port RS232 with device .

This button  is for transmission speed auto detection ( baudrate ) in PC mode .

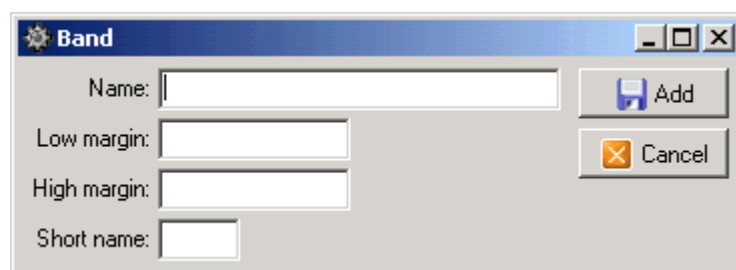
When you push the button driver checks what baudrate is set on PC .

**[Bands]** makes possible to open bands edition window.



| Name | Low margin (Hz) | High margin (Hz) | Short name |
|------|-----------------|------------------|------------|
| 160m | 1800000         | 2000000          | 160        |
| 80m  | 3500000         | 4000000          | 80         |
| 60m  | 5250000         | 5450000          | 60         |
| 40m  | 7000000         | 7300000          | 40         |
| 30m  | 10100000        | 10150000         | 30         |
| 20m  | 14000000        | 14350000         | 20         |
| 17m  | 18068000        | 18168000         | 17         |
| 15m  | 21000000        | 21450000         | 15         |
| 12m  | 24890000        | 24990000         | 12         |
| 10m  | 28000000        | 29700000         | 10         |
| 6m   | 50000000        | 54000000         | 6          |
| 2m   | 144000000       | 148000000        | 2          |

In order to add band press the **[+]** button. In order to edit selected band press **[^]** button.



Band

Name:

Low margin:

High margin:

Short name:

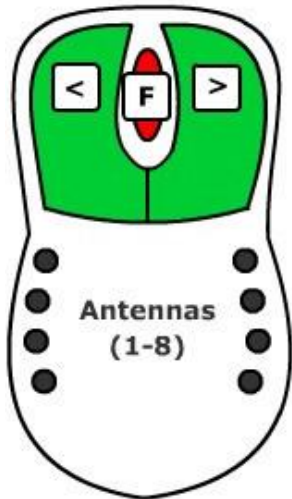
Add Cancel

**NAME** field contains name that is displayed in the main window, under LED indicators.




**LOW MARGIN** and **HIGH MARGIN** fields contain band frequencies range.

**SHORT NAME** field contains name that is send to controller.

## Mouse controller (optional)



The optional mouse controller allows easy desktop access to the most commonly used front panel controls. These buttons are functionally equivalent to the corresponding front panel controls.

-  - Left (decrease)
-  - Right (increase)
-  - Function mode

8 programmable buttons is available. These buttons are used for settings defining.

Preliminary settings of control outputs (from 1 to 8) are programmed in SETUP mode.

The mouse ball serves no function; the mouse simply provides an ergonomically pleasing case in which to mount the controls.