

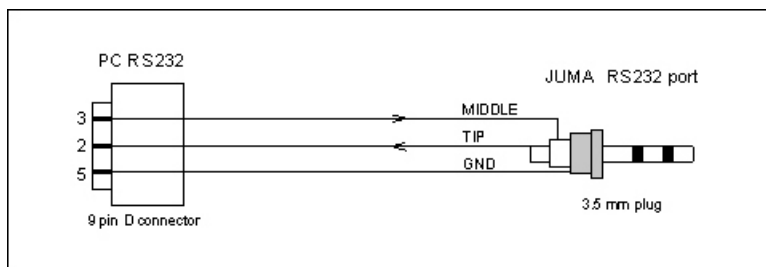
Installation

- Compatible operating systems Windows XP SP3 or newer
- Download **juma-tx136-tx500.zip** to a folder on your hard disk and unzip the the file
- Run **setup.exe** to install the application

PC connection



- Make a RS232 cable for PC connection
- Connect the cable between PC and JUMA
- If you don't have a RS232 port in your PC you can use an USB-RS adapter.

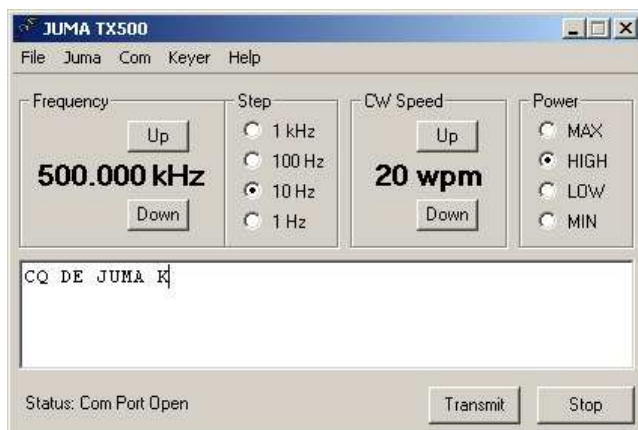


JUMA RS232 cable wiring diagram

JUMA TX136 & TX500 transmitter settings

- Switch ON JUMA TX136/TX500 and go to the configuration pages with a long CONFIG button push
- Step to the Serial protocol page with DISPLAY button and select "RS232 = TX136/500" with the UP/DOWN buttons
- Step to the Serial Speed page with DISPLAY button and select Baud Rate equal to the Win control software (eg 9600)
- Exit CONFIG by long CONFIG push

Control software settings



Control software screen shot

- From JUMA menu, select the JUMA model in use (TX136 or TX500)
- From Com menu, select RS 232 com port which is connected to JUMA Transmitter
- From Com menu, select Baud Rate equal to the Transmitter Baud Rate (eg 9600)

Using the Control software

- Start the application **juma-tx136-500-control** from Windows Start button.
- Click the Frequency Up/Down buttons and Step selections to adjust the transmit frequency
- Select the CW speed and RF power level by clicking corresponding buttons and selections
- Click the text area and write/edit the message to be sent (see the list of valid characters)
- Click Transmit button to transmit
- You can cancel transmission by clicking the Stop button

Valid characters

```

US ASCII   a-z and A-Z
Numbers    0-9
<space>    Space
,   -.-.-.- Comma
-   -.-.-.- Hyphen/minus
.   .-.-.-.- Dot
/   -.-.-.- Slash
=   -.-.-.- Double dash
?   ..-.-.- Question mark
@   .-.-.-.- At sign
"   .-.-.-.- Quotation mark
'   .-.-.-.- Apostrophe
$   ..-.-.-.- Dollar sign
)   -.-.-.-.- Parenthesis closed
+   .-.-.-.- Plus
:   -.-.-.-.- Colon
;   -.-.-.-.- Semicolon
ä   .-.-.-.- Ä
ö   -.-.-.-.- Ö
å   .-.-.-.-.- Å
ü   ..-.-.-.- Ü
!   -.-.-.-.- Start
(   -.-.-.-.- Parenthesis open "KN"
&   .-.-.-.-.- Wait "AS"
#   .-.-.-.-.- End of message "AR"
*   ..-.-.-.-.- End of contact "SK"

```

Valid control characters (starting with back slash)

```

\pn      Power level, n = 0...3, corresponding 0=MIN, 1=LOW, 2=HI, 3=MAX
\snnn    CW speed, nnn = 001...500, corresponding 0.1...50 WPM (e.g. 100 = 10.0 WPM)
\fnnnnnn Frequency, nnnnnn in Hz. Enter always 6 numbers (e.g. 500100 = 500.100 kHz)
\xn      Spare open collector output. ON n=1, OFF n=0. The spare output is marked
          SPARE on PCB

```

Updating the Win control software version

- Uninstall any older version of the software by using Windows Add/Remove Programs in Control Panel
- Install the new version by running setup of the new version