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Application Note: WAN12-0006
Application note:

Title: *Titel:*	serial protocol WX – Ver.4.1 – (since WX-Firmware 064) *Serielles Protokoll WX – Ver. 4.1 – (ab WX Firmware 064)*		
Date : *Datum:*	21.02.2013	Editor: *Bearbeiter:*	D. Schönau / G. Mittmann

Content

1 Interface Settings

Bits per second:	**1200**
Data bits:	**8**
Parity:	**no**
Stop bits:	**1**
Handshake:	**no**

1.1 Enable remote

Transfer following string to the WX unit to enable Remote:

„**remote1**"   WX answers with ?1+unit ID (see 1.5)
Compatibility to Firmware version (<052) "**REMOTE**" works, too.

If the remote setting was successful, following message will be displayed at the unit depending on which interface the cable was connected:

Front connection: Rear connection:
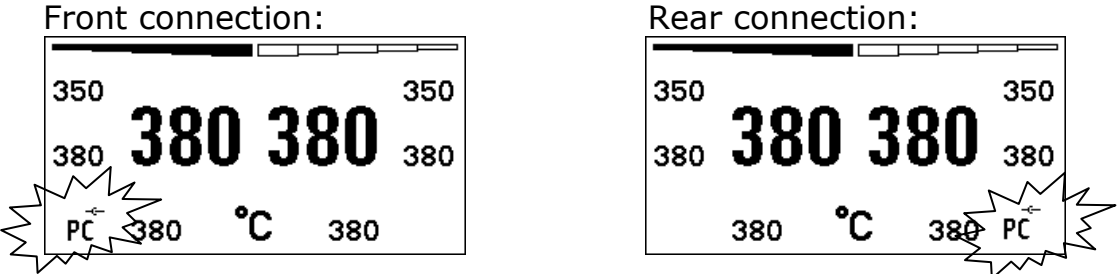
1.2 Enable remote + button lock
(since Firmware version 062 – buttons on front are without function)

Transfer following string to the WX unit to enable Remote:

„**remote2**" WX answers with ?1+unit ID (see 1.3)

If the remote and button lock setting was successful, following message will be displayed at the unit depending on which interface the cable was connected:

Front connection: Rear connection:
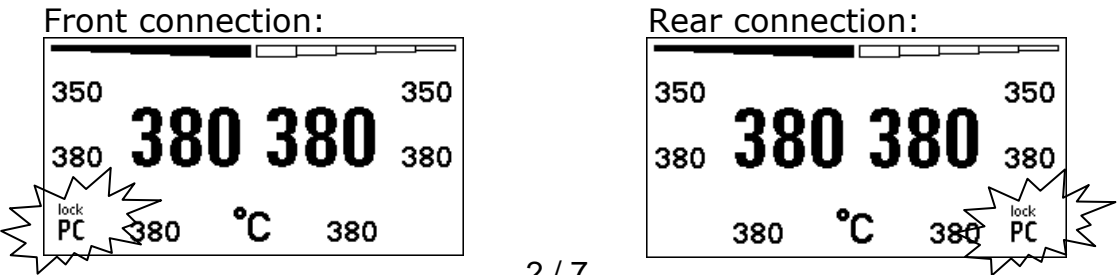
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1.3 Disable remote
(since Firmware version 062)

Transfer following string to the WX unit to enable Remote:

„**remote0**" WX sends no answer

If the remote setting is reset, the displayed status message will be cleared.

1.4 Checksum

To ensure a successful transmission a checksum will be needed. The checksum is calculated using following formula:

(Ascii value 1 + Ascii value 2 + ….. + Ascii value 6) − 256* = Checksum

z.B. „s12500"	Ascii value "s"	+	115	
	Ascii value "1"	+	49	
	Ascii value "2"	+	50	
	Ascii value "5"	+	53	
	Ascii value "0"	+	48	
	Ascii value "0"	+	48	

	Sum		363	
		-	256	if sum > 255 then -256

	Checksum		107	Ascii value 107 = „k"

1.5 Read data

Read out Unit ID:

„**?**"   WX answers: „**?1xxxxC**"

?1   = Unit ID
xxxx = Index number
C   = Checksum

Unit ID:
1 =   WX 1 available since Version 0.50!
2 =   WX 2
3 =   WX 2D   5 =   WX 1D
4 =   WX 2A   6 =   WX 1A

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Read out Status:

„Q"   WX answers: **„Q1xxxxC"**

> **Q1**   = Status
> **xxxx** = Value of Status
> **C**   = Checksum

Value of Status:
(x,x,x,x) = (Status CH1, Status CH2, not used, not used)
Status:
OFF	**0**
ON	**1**
STANDBY	**2**
AUTOOFF	**3**

Read out read temperature:

„R"   WX answers: **„R1xxxxCR2yyyyC"**

> **R1**   = Read temperature channel 1
> **xxxx** = Value in 1/10°C
> **C**   = Checksum

> **R2**   = Read temperature channel 2*
> **yyyy** = Value in 1/10°C
> **C**   = Checksum

Read out set temperature:

„S"   WX answers: **„S1xxxxCS2xxxxC"**

> **S1**   = Set temperature channel 1
> **xxxx** = Value in 1/10°C
> **C**   = Checksum

> **S2**   = Set temperature channel 2*
> **yyyy** = Value in 1/10°C
> **C**   = Checksum

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Read out Preset temperature 1:

„T"   WX answers: **„T1xxxxCT2yyyyC"**

T1   = Preset temperature channel 1
xxxx = Value in 1/10°C
C   = Checksum

T2   = Preset temperature channel 2*
yyyy = Value in 1/10°C
C   = Checksum

Read out Preset temperature 2:

„U"   WX answers: **„U1xxxxCU2yyyyC"**

U1   = Preset temperature channel 1
xxxx = Value in 1/10°C
C   = Checksum

U2   = Preset temperature channel 2*
yyyy = Value in 1/10°C
C   = Checksum

* depends on the number of available channels

Read out Firmware version:

„V"   WX answers: **„V1xxxxC"**

V1   = Firmware version
xxxx = Value
C   = Checksum

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Read out Tooltyp:

„Y"   WX answers: **„Y1xxxxCY2yyyyC"**

Y1 = Tooltyp ch1
xxxx = Value (Tool)
C = Checksum

U2 = Tooltyp ch2*
yyyy = Value (Tool)
C = Checksum

Value (Tool):
NOTOOL	**0**
WXP120	**1**
WXP200	**2**
WXMP	**3**
WXMT	**4**
WXP65	**5**
WXP80	**6**
WXB200	**7**

* depends on the number of available channels

1.6   Set data

Transmit Status:

„q1xxxxC"   **q1** = Status
xxxx = Value of Status
C = Checksum

Value of Status:
(x,x,x,x) = (Status CH1, Status CH2, not used, not used)
Status:
OFF	**0**
ON	**1**

Transmit set temperature:

„s1xxxxC"   **s1** = Set temperature channel 1
xxxx = Value in 1/10°C
C = Checksum

„s2xxxxC"   **s2** = Set temperature channel 2
xxxx = Value in 1/10°C
C = Checksum

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Transmit Preset temperatur 1:

„t1xxxxC"   **t1** = Preset temperature 1 channel 1
xxxx = Value in 1/10°C
C = Checksum

„t2xxxxC"   **t2** = Preset temperature 1 channel 2
xxxx = Value in 1/10°C
C = Checksum

Transmit Preset temperatur 2:

„u1xxxxC"   **u1** = Preset temperature 2 channel 1
xxxx = Value in 1/10°C
C = Checksum

„u2xxxxC"   **u2** = Preset temperature 2 channel 2
xxxx = Value in 1/10°C
C = Checksum

Transmit Fingerswitch Action (one shot):

„x1xxxxC"   **x1** = Fingerswitch action channel 1
xxxx = Value in seconds
C = Checksum

„x2xxxxC"   **x2** = Fingerswitch action channel 2
xxxx = Value in seconds
C = Checksum