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APR300/400 series with Bluetooth Instruction

V06/09/06



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August 2006 (BB, MQ)

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1. Introduction

Before attempting to use the Bluetooth function of the APR reader for the first time read through the user manual carefully.

Warning! The original name of any program, as well as all important procedures for processing are printed in **BOLD**. Program paths and actions that have to be made, such as a single mouse click are printed in *Italics*. Keys of the APR Handheld that have to be pressed are printed in [brackets]. Other important information is shown in a b o x.

The APR Bluetooth option enables wireless communication between the APR and a PC or PDA.

2. APR Bluetooth option

2.1 Activation of Bluetooth

Switch on the APR Handheld. Press [F-Key]. The display indicates:

>Setup Operation

Press [ENTER].

The display inidcates:

>RF/ID Baudrate



Press [Arrow Up/Down] until the **Bluetooth** option shows up in the display.

>Blue Tooth RF/ID

Press [ENTER].

By default the Bluetooth option is disabled.

Bluetooth technology needs a significant amount of current, therefore the Bluetooth option should always be disabled if Bluetooth is not used.

Use [Arrow Up/Down] to scroll through the available settings.

Blue Tooth Disable

Disable: Bluetooth is switched off. Use this setting, if Bluetooth is not in use to save current.



Blue Tooth Outdoor

Outdoor use: The APR doesn't switch off automatically as long as it is in range of other devices that communicate via Bluetooth (e.g. with a pocket PC where AprDemo is installed on). It is equal whether the communication is active or not. As soon as the Bluetooth connection was shut down, the APR switches off, provided the time ran down, that was given in *Service* \rightarrow *Blue Power off.* This option is thought for outdoors, e.g. while the APR sends transponder data to a PDA (Online-Mode active).

Blue Tooth Indoor

Indoor use: The APR doesn't switch off automatically as long as it is communicating with any other device (e.g. with Agrident.exe PC software)<u>and</u> there is serial wireless communication between APR and PC/PDA. As soon as the Bluetooth connection was shut down, the APR switches off, provided the time ran down, that was given in *Service* \rightarrow *Blue Power off* (see chapter 2.2). This option is thought for "office use", to read data from the APR.

Scroll to Outdoor and press [ENTER].

Now Bluetooth is active.

While Bluetooth is not in use, we suggest choosing the option **Disable**, to low power demand.

2.2 Automatic disconnecting time (Power off)

After Activation of Bluetooth the display indicates the new sub menu **Blue Power off**. It enables the choice of period after which the APR switches off automatically, as soon as the Bluetooth connection to the PC/PDA is disabled.

Press [ENTER].

The submenu allows to determine the disconnecting time (in seconds).



A period of 30, 60 or 90 seconds can be chosen.

Default: 90 seconds.

For the first Bluetooth connection to PC/PDA, 90 seconds are recommended (standard). In paired modus 30 seconds are sufficient.



3. Bluetooth with PC software Agrident.exe

3.1 Setup for Bluetooth software (PC)

Make sure that your PC provides Bluetooth function. The APR has to be switched on and in the range of the PC.

Start the **Bluetooth software** on the PC. It is supplied by the manufacturer of your Bluetooth interface. Let it ask for Bluetooth devices.

The APR should be detected as new Bluetooth device, named APR400#xxx (APR type + serial number).

As soon as the APR is indicated, *connect* to the "serial port" of it. It depends on the Bluetooth software being in use, how this connection has to be arranged (see manual of the PCs Bluetooth software).

With Belkin software (German) it might look like this:



If the Handheld is connected successfully, the Bluetooth software indicates the serial interface in the status line of the window:

verbinduna zu Al	PR400#7140101013 besteht über virtuellen COM-Anschluss 6

3.2 Set up of communication software Agrident.exe

Start **Agrident.exe**. *Choose* the according COM-Port (see software manual). After some seconds the status line has to switch over from **"not connected**" to **"connected V1.xx**" (V1.xx stands for the software version of the Handheld).

connected : V1.87

The green LED of the APR Handheld indicates in 2 second intervals, while there is a Bluetooth connection.

4. Password for safe connections

Provided the serial Bluetooth interface of the PC is configured as "safe connection", the Bluetooth software might ask for a password, while the first try to connect to the APR Handheld (code word, keyword). The password of the Bluetooth module inside of the APR is "0000" (4x zero).



5. Bluetooth with PDA and AprDemo software

5.1 Set up for Bluetooth software (PDA)

The menu path generally differs between each type of PDA/pocket PC/operating system. This sample is demonstrated on the basis of an iPAQ 2410 with Windows Mobile SE.

5.1.1 Detection of Bluetooth devices

Click on Start \rightarrow Einstellungen.



In the window Einstellungen select register Verbindungen.



Privat	System	Verbindungen	
			=



Open the icon Bluetooth.

In case that Bluetooth is switched off, the following window appears:

Bluetool	h: Allgemein			
Aktuelle	s Profil			
S	tandard		- 5	Ĵ
Bluetool	th-Status			
Blu	etooth ist au	sgeschal	tet	
Eir	<mark>schalten</mark> /	Ausschal	ten	
Bluetooth	<u>1-Manager</u> zum E	Einrichten	von	
Usubiado	nden verwender	<u>b</u>		
Verbindu	Igon rormondor	10 XX	0.654	
Verbindu Allgemein	Verfügbarkeit	Dienste	Info	

In the window **Bluetooth-Einstellungen** click on *Einschalten*. The activation of this function might take some seconds.

As soon as Bluetooth is switched on, the following window appears:

Bluetoot	h: Allgemein			
Aktuelle	s Profil			
SI	andard		-	
Bluetoot	h-Status			
Blu	jetooth ist eir	ngeschal	tet	
Ein	schalten	Ausschal	ten	
<u>Bluetooth</u> Verbindur	n <mark>-Manager</mark> zum E Angen verwender	Einrichten 1.	VON	

Click on the hyper-link *Bluetooth-Manager*.





Tippen Sie auf 'Neu', um via Bluetooth auf andere Geräte zuzugreifen



Click on *NEU* in the bottom line of the window **Bluetooth Manager**.



Now choose Bluetooth Gerät durchsuchen in the window Verbindungsassistent.

Switch the APR Handheld on. Await 10 seconds till Bluetooth is initialized on the APR. Click on *Weiter*.

After some seconds the APR Handheld should be detected and indicated in the **Verbindungsassistenten**.



5.1.2 Port settings





Click on the icon APR#xxx (APR type + serial number) in the window Verbindungsassistent.

	bindung	Isassiste	-	€ 14:33
8 (S	luetooth (t h Assis Gerät dur	tent chsua	: hen
Diens	APR40 tauswah	0#714	010:	1013
Ser	ial port			
1				
	c:- 4:- 5	· · · · · · · · · · · · · · · · · · ·		20
Wähler Verbind	i Sie die D lungsverk	ienste, fü nüpfunge	ùr die en ers	Sie itellen möchten
Wähler Verbind	i Sie die D lungsverk r <mark>heit</mark>	ienste, fi nüpfunge	ùr die en ers	Sie tellen möchten
Wähler Verbind - Sicher	i Sie die D lungsverk r <mark>heit</mark>	ienste, fü nüpfunge :e Verbino	ùr die en ers dung '	Sie tellen möchten verwenden
Wähler Verbind - Sicher Ver Ver	i Sie die D lungsverk 'heit schlüsselt echen	ienste, fü nüpfunge :e Verbind (Zur	ùr die en ers dung ' ück	Sie tellen möchten verwenden Weiter 💠

Click on *serial port* in the list **Dienstauswahl**. *Weiter*.



The following window appears:

*	Bluetooth Assistent Bluetooth Gerät durchsuchen
1	APR400#7140101013
Verk	müpfungen erstellt ————
Verbi ausge	ndungsverknüpfungen für die von Ihnen ewählten Dienste wurden erstellt.
Zum H Dopp Bildso Verkr Verkr Optio	Herstellen einer Verbindung: eltippen Sie im Bluetooth Manager hirm 'Verknüpfungen' auf die iüpfung. Oder tippen und halten Sie das iüpfungsssymbol und wählen Sie die n 'Verbinden' im Kontextmenü.
	Fertig 🏈

=

Click on *Fertig*.

5.1.3 Activation of Bluetooth connection

The window **Bluetooth Manager** appears again.



Double click on icon *APR#xxx* or touch the icon and keep on it – don't move – to open the **context menu**.



Select Verbinden:

8	iluetooth ′erknüpfungen	
APR400	Verbinden	
serial	Umbenennen Löschen	
	Eigenschaften	

Verknüpfungen Aktive Verbindungen Neu Extras Ansicht.

The window **Bluetooth** appears to show that the APR is getting connected.

8	Bluetooth Verknüpfungen	
Carl Carl	2	
В	luetooth	×
V	APR400#71401010: /erbinden	13: serial
	Details >	>

Verknüpfungen	Aktive Verbindungen	
Neu Extras Ansi	cht 🐌	



If the connection fails, an error report is displayed:

Bluetooth Verknüpfungen	
Bluetooth	×
APR400#7140101013: serial Verbindung fehlgeschlagen.	l) I
<< Details O	К
- Details	
 Details Auf Gerät warten Es konnte keine Verbindung hergestellt werden. Vergewissern Sie sich, dass d. Gerät aktiviert ist und sich im 	▲ ≡ ■
 Details Auf Gerät warten Es konnte keine Verbindung hergestellt werden. Vergewissern Sie sich, dass de Gerät aktiviert ist und sich im knüpfungen Aktive Verbindunger 	

In this case please check:

- Is the APR Handheldswitched on?
- Is the Bluetooth function of the APR activeated (see chapter 2.1)
- Are all settings correct?

Then repeat the steps in chapter 5.1.3.

As soon as the connection is set up, the icon in the Bluetooth Manager changes:



Verknüpfungen	Aktive Verbindungen	
Neu Extras Ansi	cht 🐌	=

The green LED of the APR Handheld indicates in 2 second intervals, while there is a Bluetooth connection.



The register Aktive Verbindungen gives the following information:



Verknüpfungen	Aktive Verbindungen	
Neu Extras 🐌		

Close the window by \bigotimes in the title bar.



5.1.4 Detection of COM port

The window **Bluetooth-Einstellungen** appears again.



Bluetooth-Manager zum Einrichten von

Allgemein Verfügbarkeit Dienste Info				
				m •

Click on register Dienste.



Select Serieller Anschluss from the selection list box.

Click on the button Erweitert...





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Note the value of COM-Anschluss (Ausgang), in our sample "8".

Attention! This port needs to be set in the AprDemo program.



Also close the other windows by 🤷 resp.

The Bluetooth connection of the APR is successfully completed.



5.2 Set up of communication software ArpDemo

Click on Start \rightarrow Programme \rightarrow AprDemo to open the software.

After some seconds the window **AprDemo** appears:

🏞 Ap	orDemo2	# ◀€ 14:46	•
Online	Remote		
		status : not connecte	d
Menu		E	₩ ▲

5.2.1 COM port

Click on Menu \rightarrow Settings.

78	AprDer	no2		#‡⊀	€ 14:46	•
		_				
A	oout onnect	te				
<u>S</u> e	ettings		status	: not c	onnecte	ed
Meni	1				E	≝ ^



Select that **COM port** in the drop-down list you have noted from the window Bluetooth-Einstellungen (see chapter 5.1.4). Generally it is "8", by default.

🏄 AprDemo	🗱 📢 14:47 🚳
Settings	
COM port	8
Baudrate	9600 👻

Click on **O** in the title bar.

5.2.2 Bluetooth connection to APR Handheld

If not already done, switch the APR Handheld on.

Click on *Menu* \rightarrow *Connect* to connect the AprDemo software to the Handheld.

78	AprDei	mo2	# -({ 14:47 🐽
		_	
At	oout	te	
⊆	onnect		status : not connected
Se	ettings		
Menu	L		E



After some seconds "status: listening on COMx" is indicated (x stands for the port number).

🎦 Ap	orDemo2	# ◀€ 14:47 🚯
		1
Online	Remote	
	status	s : listening on COM8
1enu		A

The green LED of the APR Handheld indicates in 2 second intervals, while there is a Bluetooth connection.

If it doesn't indicate, click on Menu \rightarrow Disconnect and try again Menu \rightarrow Connect.

The Bluetooth connection is not available before the green LED doesn't indicate.



5.2.3 Online data transfer

If the Online-Mode of the APR Handheld is activated, a transponder can be read and its number will be transferred directly to the AprDemo software.

Sample 1: Online-Mode data long.

AprDemo2	# # 4 € 14:59
1	
16.02.06	
14:59:01	
HDX	
2=Visit 0	by docto
982 010000	015576
Blue Duck	
Online Remote	
statu	s : listening on COM8
Menu	₩
Explanation on dis	played data:
Data set number Date	

Date Time Transponder type ActionCode number & alias ActionCode+ value Transponder number Alias of the animal



Sample 2: Online-Mode Data short.

🎦 Ap	rDemo2	#	◀€ 15:00	•
982	010000	001557	6	1
Online	Remote			
	stat	us : listeni	ng on COM	18
/lenu			E	₩.

Only the transponder number is indicated.

Sample 3: Online-Mode SCP-Format (.

🎦 Ap	rDemo2	#‡ ◀€ 15:00 @3
000(0015576	
Online	Remote	
	status	: listening on COM8
Menu		-

Only the last figures of the transponder number are indicated.



6. Trouble shooting

Problem	Reason
Bluetooth connection to PDA/PC doesn't operate.	 Make sure that the APR is switched on. Activate the Bluetooth function of the APR (see chapter 2.1). Select the right COM port in the AprDemo resp. Agridetn.exe software (see chapter 3 and 5.2.1.).
How to change the display format of a read transponder number.	See manual of your APR Handheld.

For any further problem please contact us:

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