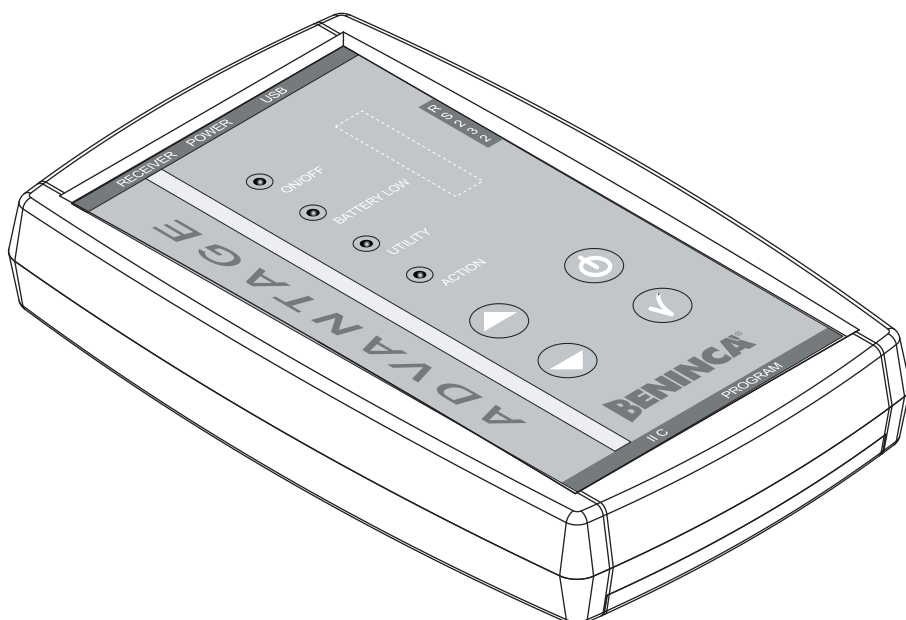


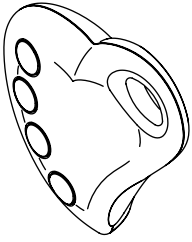
BENINCA®

RADIO CONTROL MANAGEMENT SYSTEM

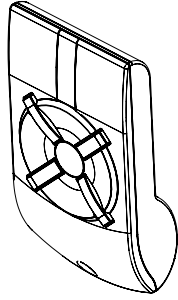
ADVANTAGE



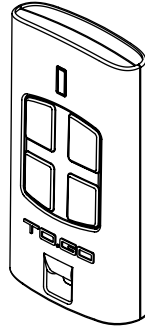
CU 2WV
CU 4WV



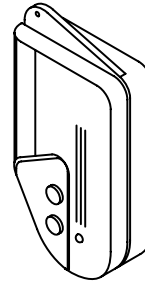
T2WV
T4WV



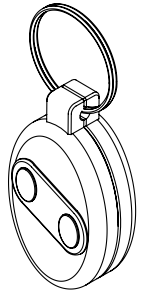
TO.GO 2-V
TO.GO 4-V



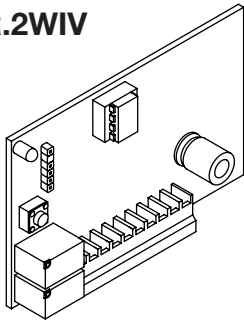
LO.T2WMR



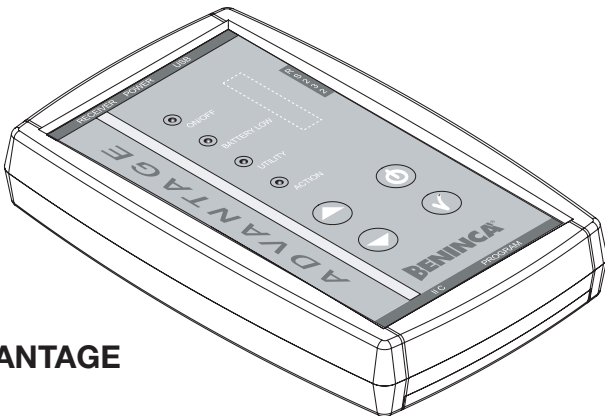
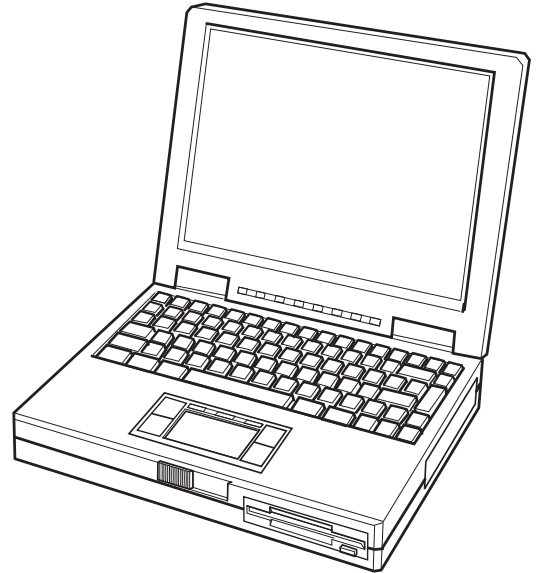
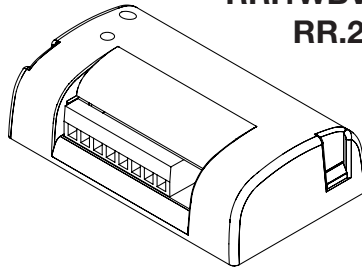
RollKey



RR.1WIV
RR.2WIV



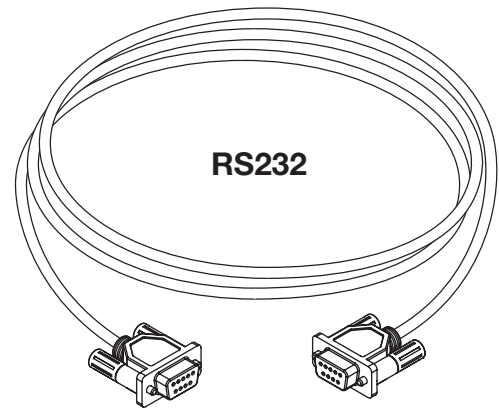
RR.1WBV
RR.2WBV



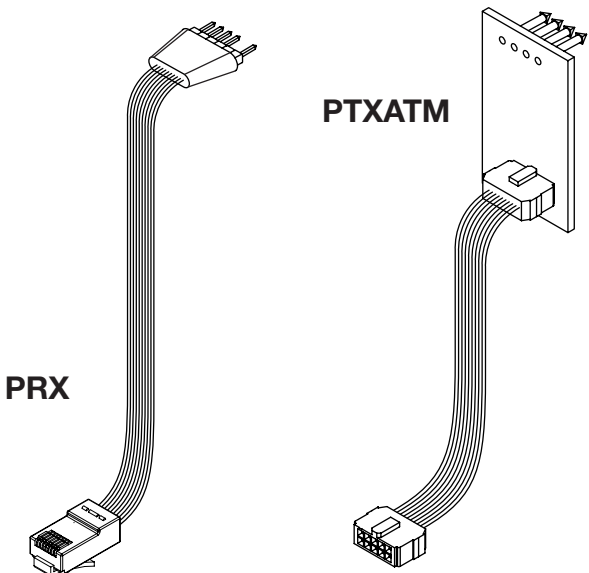
ADVANTAGE



ADVANTAGE

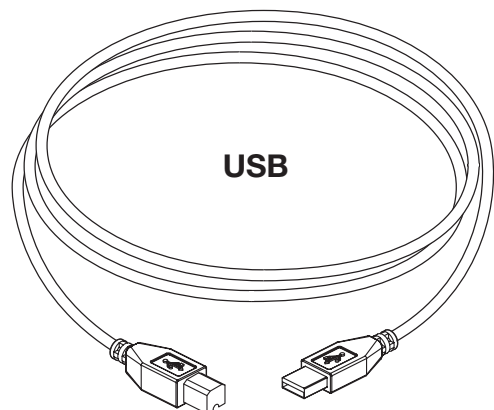


RS232



PRX

PTXATM



USB

ADVANTAGE

Radio control management system

This product has been conceived and developed to provide a simple, effective management of the installation and maintenance of radio control systems.

The ADVANTAGE system includes:

- The “ADVANTAGE” palm programmer
- A CD-ROM with “Advantage” management software for PC with Windows operating system
- A USB port cable for communication between the programmer and the USB port of a PC.
- A RS232 serial port cable for communication between the programmer and the serial port of a PC.
- A PRX cable for connecting the programmer to compatible receivers.
- A PTXATM cable for connecting the programmer to “T2/4 WV” transmitters.

The following 433.92 MHz rolling code receivers are compatible with the ADVANTAGE system:

RR.1WBV - RR.2WBV (in a plastic box)

RR.1WIV - RR.2WBV (with Molex connection).

The following 433.92 MHz rolling code transmitters are compatible with the ADVANTAGE system:

“Atmosfera” series: T2WV - T4WV

“Cupido” series: CU2WV - CU4WV

“Rollkey” series: Elegant - Deluxe

LO.T2WMR

TO.GO-V

Certain advanced functions (e.g. code programming) are only possible with “Atmosfera” T2/4 WV or TO.GO-V transmitters.

Other future products not included in this list may be compatible with the ADVANTAGE system. Consult the specific product documentation for more information.

FOREWORD

All the radio receivers have a memory for storing their relative transmitters.

The number of transmitters a receiver can store is dependent on the size of memory available in the receiver, and is normally 512 or 2048.

The installation and management of radio systems in plants using a great quantity of transmitters (e.g. companies, public buildings, apartment blocks, etc.) can be very complicated. This is where ADVANTAGE becomes the ideal solution since it offers the possibility to:

- Create a database file on PC for each individual receiver being managed, associating each transmitter recorded on the receiver with its owner’s name and surname, notes, telephone number, address, etc.
- Record all the transmitters in the programmer memory before going to the installation location and then download the file onto the receiver and start-up the system.
- Record a large quantity of transmitters in one single operation. For this purpose special packages of transmitters with sequenced codes are available for order.
- Remove a transmitter that has been lost or stolen.

In a traditional receiver the system memory would have to be completely erased and then the whole block of transmitters in the system would have to be recorded from scratch.

- Temporarily disable certain specific transmitters in a plant.
- Effortlessly manage transmitter button and receiver channel associations in multi-channel receiver and transmitter systems.
- Protect the receiver with a personal access code to prevent counterfeits.
- Restore operation of an installation in the event of a fault or damage..

THE ADVANTAGE PROGRAMMER

RECEIVER jack:

Use the PRX cable to plug the programmer into the receiver.

POWER jack:

The 12Vdc power unit input plugs the programmer into the mains supply and recharge the built-in battery.

USB jack:

Use the USB cable to plug the programmer into a PC by a USB port.

ON/OFF LED: On when the power is on or the battery is charged.

LOW BATTERY LED:

Without the 12Vdc power unit connected:

Led off: battery charged
Slow blinking: battery flat

With the 12Vdc power unit connected:

Fast blinking: battery is under charge
Led On: charging complete
Led Off: no battery

UTILITY LED:

The BLINKING changes sequence to indicate which function has been selected

ACTION LED: the LED indicates the function status.

Select buttons ▲▼:

Select a programming function by pressing these buttons. The Utility LED changes blink sequence to indicate the function

RS232 jack:

Use the serial cable to plug the programmer into a PC by a serial port (COM).
For use of the serial port see section "The RS232 port".

ON/OFF button:

Press for 3 sec's to turn on/off the programmer

OK button:

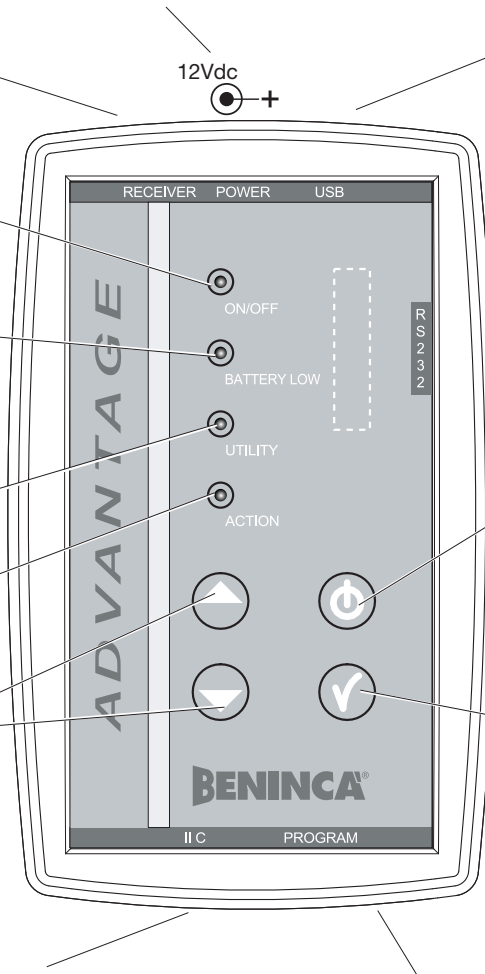
Starts the selected function entering the programming procedure.

IIC protocol jack:

Not used.

PROGRAM jack:

Use the PTXATM cable to plug the programmer into compatible transmitters.
This type of connection is only required when using the transmitter code cloning/programming functions. During normal use the programmer and transmitter communicate via radio.



The ADVANTAGE palm programmer is central core of the system, since it acts as a communication interface between the "Advantage" software installed on the computer and the radio components (i.e. receivers and transmitters). It has a built-in receiver for 433.92MHz rolling code transmitters, which can store up to 2048 transmitters. This receiver acts as buffer memory to contain the data read by another receiver or by an Advantage file resident on PC.

The receiver can also read via radio the code of a compatible transmitter and record it in an Advantage file.

Connecting the programmer to a receiver

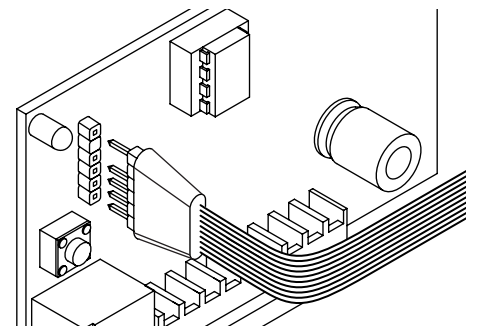
The compatible receivers have a pin-strip connector (see figure to right) for the PRX cable.

The other end of the cable has a jack that is plugged into the RECEIVER input.

The Battery

A 9Vdc Ni-Mh160mAh battery powers the programmer when the mains supply is not available. When the battery is fully charged it gives the programmer an autonomy of about 2 hours.

The battery can be charged about 1000 times before having to be changed with another battery having the same characteristics.

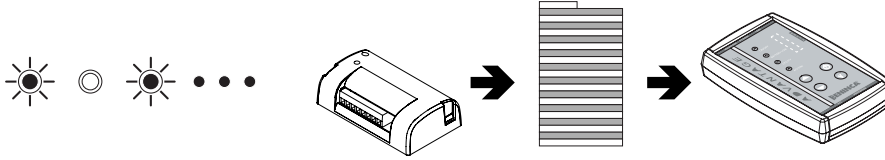


Using the programmer:

- 1) Press the **ON/OFF** button for 3 seconds to turn on the programmer (when the mains supply is connected or the built-in battery is charged).
- 2) The **UTILITY** LED is normally off. If one of the select buttons ▲▼ is pressed the LED will start blinking. The following blinking sequences indicate which function has been selected:

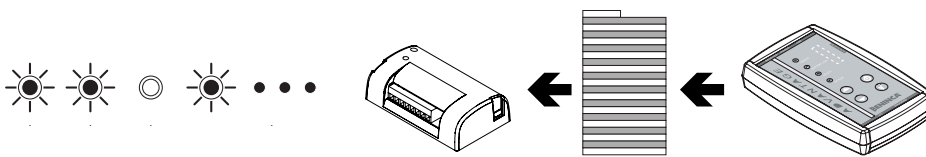
1 blink followed by a 1 sec pause – Read Memory Menu

The programmer reads the receiver memory and records it in its buffer memory.



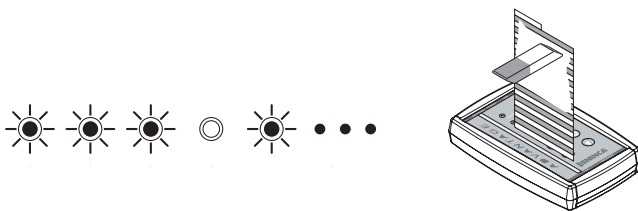
2 blinks followed by a 1 sec pause – Write Memory Menu

The programmer reads its internal buffer memory and records it in the receiver memory.



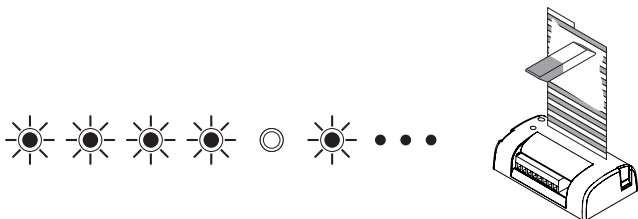
3 blinks followed by a 1 sec pause – Cancel Buffer Memory Menu

The programmer cancels its buffer memory, including any password, so it is ready for a new reading.



4 blinks followed by a 1 sec pause – Cancel Receiver Memory Menu

The programmer cancels the receiver memory, including any password.



- 3) Select a function and press the OK button to confirm. The **ACTION** LED indicates the programmer status:

Action LED off

No procedure in progress.

Action LED blinking

Data transfer in progress from/to the programmer

Action LED On

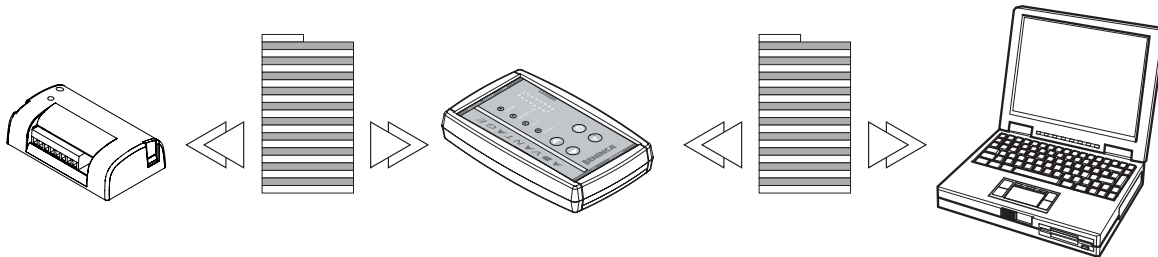
Transmission error (i.e. bad connection or incompatible receiver/transmitter)

If programming is completed successfully, the Action LED stops blinking and the programmer is ready for a new procedure.

THE ADVANTAGE SOFTWARE 1.04

The Advantage software plays the most important function in the system: management of the receiver memory. The system is based on the concept that each receiver has a memory that records a list (database file) of the transmitter codes.

This file can be created directly by the Advantage software or read by a receiver via the Advantage programmer and transferred to PC for management by the software.



So the internal memory of the programmer acts as interface between receiver and software allowing files to be transferred from receiver to PC and vice-versa.

What's more the programmer can receive a transmitter code via radio signal and transmit it to the software.

Software installation

- Insert the "Advantage" CD-ROM.
- Double click on the file Advantage.exe, a dialogue window will open asking which directory to use to save the program (default C:\Advantage). Click on "Browse.." to change directory.

Having selected the target directory a new sub-directory will be created called Advantage1.04, containing all the files required to run the software. To uninstall the program on the PC just erase the whole sub-directory.

USB Drivers

- 1 – Connect the programmer to the PC using the USB cable
- 2 – Turn on the programmer.

The first time the USB port is used to connect the Advantage programmer to the Computer the PC operating system will automatically start-up the procedure "Guided installation of new hardware".

- When the first dialog box opens select the option "Search for a driver suited to peripheral" and click "Forward".
- In the next dialog box select the option "Specify a route", and click "Forward"
- In the dialogue box that follows, press "Browse". Enter the "VCP_driverXP" directory under the Advantage directory and press "Forward".
- The required driver is automatically loaded by the operating system, press "End" to confirm.

The above operation should be carried out twice. In the first phase, the "USB <-> Serial" driver is loaded, in the second phase, the "USB Serial Port" driver is loaded.

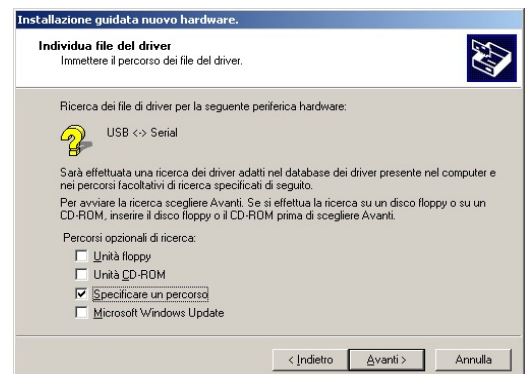
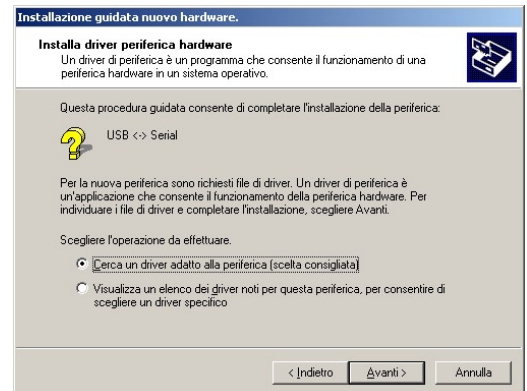
This procedure will only be performed the first time the Advantage programmer is connected to the PC.

In the future the operating system will automatically recognise the peripheral.

Never turn off or disconnect the programmer while the software is running.

Always follow this procedure:

- 1 – Turn off the programmer before plugging it into the PC by the USB cable
- 2 – Turn on the palm programmer
- 3 - Start the Advantage software
- 4 – At the end of the work session, exit the program (File>Exit)
- 5 – Disconnect the USB peripheral (see Windows guide)
- 6 – Turn off the palm programmer
- 7 – Unplug the USB cable



BEFORE STARTING

Before using the Advantage software it is best to get acquainted with certain basic operating principles.

SINGLE USER/MULTI-USER MODE

The software can be used in two modes:

Single user mode

The software will always be used by the same operator or all operators will be allowed to have free access to all the installation files. In this case, at the first start-up select "Single User". The user's details only have to be entered during this first start-up, after which the software and the files are freely accessible (no password is required).

Multi-user mode

The program is going to be shared by several users. In this case select "Multi-user".

By selecting this mode:

- The details of each individual user have to be registered.
- Each user is given an individual Login/Password.
- An installation file can only be accessed by the user who created it and cannot be shared by other users.

Caution: When in this mode, if a user loses or forgets the password, access to all the files created by that given user will be denied.

TRANSMITTER AND SYNC COUNTER STATUS

Every transmitter on file is described by a text in a specific colour coding for each status:

Green:

The transmitter is enabled, the Sync Counter is enabled and is greater than 0.

This mode represents all the transmitters enabled and read by a receiver or recorded with the "Add TX by programmer" function. The Sync Counter is greater than 0 indicating a "real" transmitter.

Blue

The transmitter is enabled, the Sync Counter is enabled and is equal to 0.

This is similar to the "green" status, indicating the transmitters recorded in "Add TX by keyboard" mode. The Sync Counter is equal to 0 indicating a "virtual" transmitter.

The code is recorded and enabled but no transmitter signal has been recorded up to now. The moment the transmitter sends a signal to the receiver the Sync Counter increases its value, changing the TX to "real".

Black:

The transmitter is enabled, the Sync Counter is disabled.

This mode represents all the "clonable" transmitters. With Sync Counter disabled the code can be duplicated unlimitedly. By disabling the Sync Counter of even just one transmitter plant security is put at serious risk since it becomes equivalent to fixed code receiver system.

Red:

The transmitter is disabled.

This mode represents all the disabled transmitters, regardless of their Sync Counter status. The transmitter code remains in the receiver memory but all its signals are ignored. They can be enabled by using the "Modify TX" function.

Purple:

Transmitter added manually

This is used temporarily by the "Compare memory" functions to highlight transmitters added manually to the receiver and recorded on file.

REGISTER A NEW USER

- Start the Advantage.exe application by double clicking the icon.
- The first time the application is run the "Register a new user" dialog box is opened and requests: Name/Surname/Login/Password1/Password2, (max. 10 characters each).

Select the software user mode: Single user or Multi-user as described above.

If Single user is selected, fill in all the boxes even if the Login and Password will no longer be requested.

If Multi-user is selected, the data will be recorded as the first user. Additional users can be registered using the "Add a new user" menu.

The screenshot shows a dialog box titled "New user". It has a light blue header. Below the header are five input fields: "Name", "Surname", "Login", "User password (1)", and "User password (2)". To the right of the "Name" and "Surname" fields are two radio buttons: "Single user" (which is selected) and "Multi-user". At the bottom of the dialog box are two buttons: "OK" and "Cancel".

WORK AREA

The screenshot shows the ADVANTAGE software interface. At the top, there is a menu bar (5) with options: File, Modify, View, Utilities, Options, Communication, Help. Below the menu bar is a toolbar (6) with icons for New, Open, Save, Add Tx, and Print. A status bar (7) is located below the toolbar. The main window contains several input fields: 'Installation name' (1) with the value 'Beninca', 'Address' (2) with 'Via Capitello', 'Tx id' (3) with '125', and 'Size' (4) with '512'. Below these fields is a table with columns: 'Rec. #', 'Code', 'Active Buttons', 'Surname/Name', and 'Notes'. The table contains 20 rows of data. At the bottom of the window, there is a status bar (9) with several indicators: 'Code' (10), 'Memory size' (11), 'Active keys' (12), 'Procedure in progress' (13), and 'Name, surname and notes' (14).

Rec. #	Code	Active Buttons	Surname/Name	Notes
0	FFFFE00	B1=RL1 B3=--	B2=RL2 B4=--	
4	FFFFC04	B1=RL1 B3=--	B2=RL2 B4=--	
5	FFFFE05	B1=RL1 B3=--	B2=RL2 B4=--	
9	FFFFC09	B1=RL1 B3=--	B2=RL2 B4=--	
13	FFFFC0D	B1=RL1 B3=--	B2=RL2 B4=--	
14	FFFFC0E	B1=RL1 B3=--	B2=RL2 B4=--	
26	FFFFE1A	B1=RL1 B3=--	B2=RL2 B4=--	
31	FFFFE1F	B1=RL1 B3=--	B2=RL2 B4=--	
32	FFFFE20	B1=RL1 B3=--	B2=RL2 B4=--	
36	FFFFE24	B1=RL1 B3=--	B2=RL2 B4=--	
44	FFFFE2C	B1=RL1 B3=--	B2=RL2 B4=--	
50	FFFFC32	B1=RL1 B3=--	B2=RL2 B4=--	
51	FFFFC33	B1=RL1 B3=--	B2=RL2 B4=--	
58	FFFFC3A	B1=RL1 B3=--	B2=RL2 B4=--	
59	FFFFC3B	B1=RL1 B3=--	B2=RL2 B4=--	
60	FFFFE3C	B1=RL1 B3=--	B2=RL2 B4=--	
67	FFFFC43	B1=RL1 B3=--	B2=RL2 B4=--	
68	FFFFE44	B1=RL1 B3=--	B2=RL2 B4=--	
74	FFFFE4A	B1=RL1 B3=--	B2=RL2 B4=--	
75	FFFFC5	B1=RL1 B3=--	B2=RL2 B4=--	
81	FFFFC51	B1=RL1 B3=--	B2=RL2 B4=--	
84	FFFFE54	B1=RL1 B3=--	B2=RL2 B4=--	
89	FFFFC59	B1=RL1 B3=--	B2=RL2 B4=--	

LEGEND

- 1 Installation name:**
The name given to the current installation
- 2 Address:**
The address of the current installation
- 3 Num TX:**
The number of transmitters in the current installation
- 4 Size:**
How much memory is taken up by the current installation (512 or max 2048 transmitters)
- 5 Menu bar: File/Modify/...:**
Access to the various software functions.
See the descriptions of each individual menu below.
- 6 Quick menu function keys:**
New/Open/Save/Add Tx by programmer/Print.
Press the button to interrupt any read or write memory procedure in progress
- 7 Status Bar:**
The bar is gradually filled to show how much time is left before completing the read or write procedure
- 8 Key Rec#:** The memory location of the transmitter is shown. If a transmitter code is already stored in that location, the "Modify TX" box is shown when clicking the key.
- 9 Communication:**
The status of the connection between software and programmer.
TIME OUT: Programmer disconnected, a bad connection or no power.
OK: Programmer connected. The programmer software version is also displayed.
- 10 Code**
The code of the transmitter, which is expressed in hexadecimal format, i.e. including numbers 0 to 9 and letters A-B-C-D-E-F.
- 11 Memory size:** It indicates the memory size of the receiver.
- 12 Active keys:** The existing links between the key number of the transmitter and the output channel key number of the receiver are shown.
- 13 Procedure in progress**
A description of the procedure being performed (e.g. read, write, programming, etc).
- 14 Name, surname and notes:**
Fill in the boxes with the "Modify TX" function to create an unequivocal identification of each transmitter recorded on file.

FILE MENU

New

Create a new installation.

The “Installation data” dialog box is opened and requests:

Size of the receiver memory that will store the file. Select 512 TX or 2048 TX.

Configuration CH1/2/3/4:

The relay contact mode of each channel can be set as follows:

0 *Bistable mode*

(i.e. each control signal will change the relay status)

1 *Pulse mode - default*

(i.e. the relay will change status for 1 sec, then return to its initial status)

2/90 *Dwell mode*

Select the number of seconds the relay will remain switched.

Installation name, address, town.

Fill in these boxes so that each installation is unequivocally differentiated from any other.

Open

Open an existing installation.

The dialog box shows the main installation data stored on file. Select an installation and press OK to confirm.

The “Delete” button will eliminate an installation from the file.

In multi-user mode only the installations created by the current user will be shown.

Save

Record the changes made to the installation.

Confirmation is requested.

Save as...

Records a copy of the current installation.

A “Installation data” dialog box is opened where the new installation data can be entered.

Print

Print a list of all the transmitters on file based on the selected view options (see View menu).

Avoid printing in the “TX Record id” View mode, since this will print the whole list of the receiver, including empty memory locations.

Exit

Exit the work session.

Installation data

Central configuration

512 TX 2048 TX

Conf. CH1: 1 sec

Conf. CH2: 1 sec

Conf. CH3: 1 sec

Conf. CH4: 1 sec

Installation data

Installation name: Beninca

Address: Via Capitello

Type Desc.: Ingresso

OK Cancel

MODIFY MENU

Modify installation data

Change the data of the current installation offering the same options shown when creating a new installation (see menu bar File>New)

Change Password

Enter a password for the current installation (max 6 characters). The password has to be repeated as confirmation. The password is then recorded on the receiver, thereby preventing transmitters from being recorded manually. The password is requested at every attempt to read or write on the receiver.

N.B.: If no password protection is required leave the box empty and press OK. The reset receiver procedure (both from Menu Utilities>Reset receiver and from the programming button) will cancel the password.

Add TX by keyboard

To insert a group of transmitters this function requests the codes of the lowest and highest transmitters. All the codes within the lowest and highest range will be automatically recorded on file.

For this purpose transmitter packages are offered on order with sequenced codes. The package specifies the codes of the first (i.e. lowest code) and last (i.e. highest code) transmitters.

This procedure also allows "Virtual" codes to be recorded for transmitters that do not actually exist but can be programmed at a later date and are recorded automatically (see "Program TX" function)

All transmitters recorded by this procedure have Sync Counter=0 (i.e. text in blue).

The NumTX option avoids the need to calculate the highest hexadecimal TX code if several virtual codes are being recorded. Just enter the hexadecimal code of the first TX in the "SN First TX" box and the quantity of virtual TX's being recorded in the "NumTX" box. The program will automatically record the new virtual TX's with progressive hexadecimal codes. See note on "Hexadecimal coding" at page 15.


It is also possible to random create new TX codes, by activating () the "Automatic entering" dialogue box and indicating the number of codes to be created in the Num TX field.

Add TX by programmer

This function allows one or more transmitters to be recorded on archive by remote control:

- Enter the quantity of TX's being recorded on file and press OK.
- The system will go in standby mode waiting to receive the codes.
- Position each transmitter next to the programmer and progressively press any button on each transmitter being recorded.
- When the last code has been received, the system exits the standby mode and returns to the main screen.

Transmitters recorded in this way always have Sync Counter >0 (green).

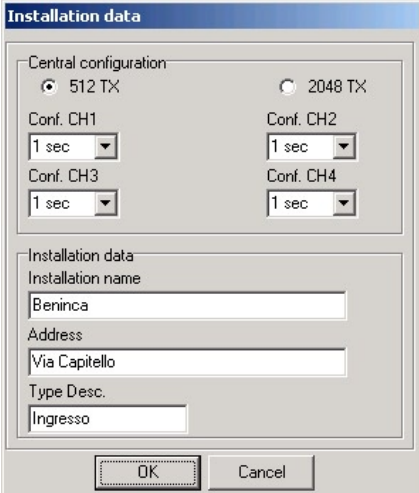
The  button puts the programmer in standby waiting to receive a single code, without opening the "TX quantity being recorded" dialog box.

Delete TX

The selected transmitter is removed from the current file.

Warning!:


The cancellation can not be restored.



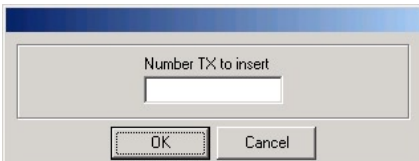
Installation data dialog box. It contains a "Central configuration" section with radio buttons for "512 TX" (selected) and "2048 TX". Below are four dropdown menus for "Conf. CH1", "Conf. CH2", "Conf. CH3", and "Conf. CH4", each set to "1 sec". The "Installation data" section includes text boxes for "Installation name" (filled with "Beninca"), "Address" (filled with "Via Capitello"), and "Type Desc." (filled with "Ingresso"). At the bottom are "OK" and "Cancel" buttons.



Change password dialog box. It has two text input fields labeled "New password (1)" and "New password (2)". At the bottom are "OK" and "Cancel" buttons.



Add TX by keyboard dialog box. It has three text input fields: "first TX code", "last TX code", and "Num Tx". There is a checkbox labeled "Autom. entering" which is currently unchecked. At the bottom are "OK" and "Cancel" buttons.



Number TX to insert dialog box. It has a single text input field for entering the number of transmitters. At the bottom are "OK" and "Cancel" buttons.

Program TX

The connected transmitter is programmed and assigned the transmitter code currently selected from file. The original transmitter code will be overwritten.

Open the casing of an "Atmosfera" T2WV or T4WV transmitter and use the PTXATM cable to plug it into the "PROGRAM" jack of the programmer as shown to the right.

For "TO.GO" transmitters it is sufficient to open the battery housing, as indicated aside.

Select "Program TX", and click on OK to confirm.

The end of the procedure is indicated by the message "The transmitter has been programmed successfully".

TX programming can:

Automatically add extra transmitters.

Initially create a given number of "virtual" transmitters by the "Add TX by keyboard" function (Sync Counter 0 – text in blue), recording codes on file that do not actually refer to any existing or "real" transmitter.

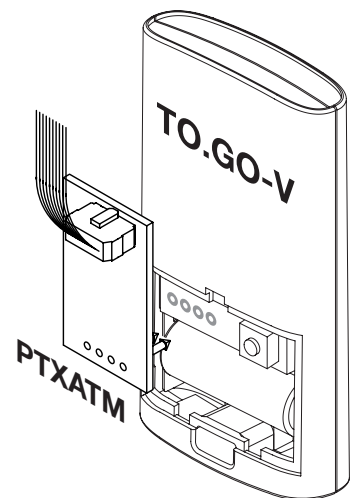
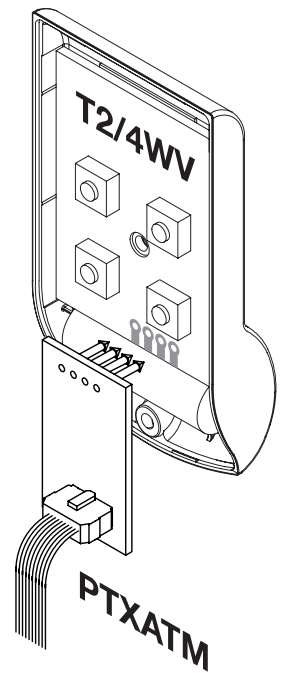
Whenever necessary a transmitter programmed with a virtual code will be automatically recorded on the receiver as normal, "real" rolling-code transmitters.

Cloning a transmitter.

Program a new transmitter with the same code as a transmitter with the Sync Counter disabled (see Menu Modify>modify TX).

This will have created a "clone" of the transmitter with exactly the same functionalities as its original.

This function makes it possible to add a virtually infinite number of new transmitters to the receiver, without having to access the plant.



Modify selected TX

This opens the dialogue box for the selected transmitter/s configuration (see "Select all" Menu):

In addition to the text fields for Name/Surname/Notes, this function configures:

- The association between transmitter button (B1/B2/B3/B4) and receiver channel (RL1/RL2/RL3/RL4).

- Enable() / Disable () transmitter.

See "Disable TX" function

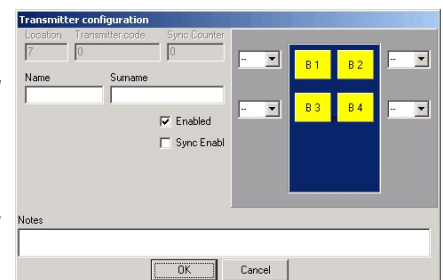
- Enable() / Disable () Sync Counter

Sync Counter:

Disabling the Sync Counter has the same effect as removing the rolling-code algorithm control on the receiver for the transmitter in question.

This creates a clonable transmitter that can be duplicated an unlimited number of times and these "clones" will be automatically recorded the moment they send a radio signal to the receiver.

Cloning is possible using the "Program TX" function (see below) by programming the transmitter code with Sync Counter disabled, on all "clone" transmitters.



Select all

Select all transmitters.

The transmitters which are not listed in the current display mode will not be selected. To modify all transmitters stored in the archive, select the "Num record TX" function in the Display Menu.

To select a group of transmitters:

To select a block of transmitters in sequence

Keep the Shift (⇧) button pressed and click on the first and last transmitter, all intermediate transmitters are selected.

To select an assortment of transmitters

Keep the Ctrl button pressed and click on each individual transmitter to select. The Ctrl button can also be used to remove individual transmitters from the selection.

VIEW MENU

TX record id

Default view mode. The complete memory of the file is shown, ordered by memory location id.

Avoid printouts in this mode.

Active TX

Only the enabled transmitters are shown (i.e. text in green or blue).

Inactive TX

Only the disabled transmitters are shown (i.e. text in red).

TX Sync 0

Only the transmitters with Sync Counter=0 are shown (i.e. text in blue).

TX Sync other than 0

Only transmitters with Sync Counter other than 0 (green colour) are displayed.

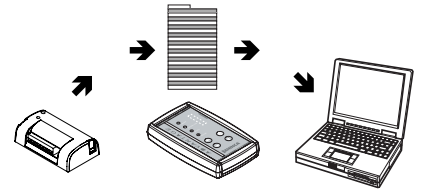
TX with Sync disabled

Only the transmitters with Sync Counter disabled are shown (i.e. text in black).

UTILITIES MENU

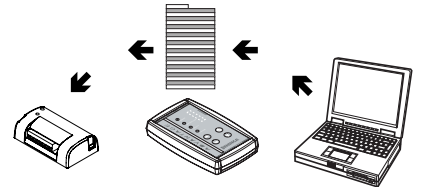
Read receiver

Read the memory of the receiver connected to the programmer. Any open archives will be closed to allow the creation of a new archive. If a password is required it will now be requested. The “New installation” dialog box will be opened to assign a name to the archive being read. The programmer works merely as a bridge, so its buffer memory is not affected.



Write receiver

The contents of the current file are written on the receiver connected to the programmer. The programmer works merely as a bridge, so its buffer memory is not affected. Any data recorded previously on the receiver will be overwritten.

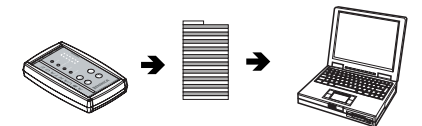


Reset receiver

The receiver memory is completely erased, including any password.

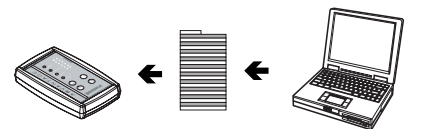
Read programmer

Read the buffer memory of the programmer. Any open archives will be closed to allow the creation of a new archive. If a password is required it will now be requested. The “New installation” dialog box will be opened to assign a name to the archive being read.



Write on programmer

The contents of the current file is written on the programmer buffer memory. Any data found previously on the programmer buffer memory is overwritten.



Reset programmer

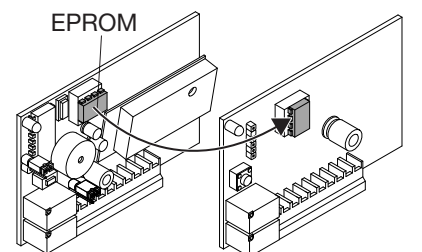
The buffer memory is completely erased, including any password.


Obsolete memory import

This allows the reading of a memory of receivers series LO.R1/2WCV and R1/2WBV.

Nevertheless, it is not possible to connect the receiver directly to the Advantage programmer. The EPROM memory must be removed from the obsolete receiver and should be installed in a new compatible one.

If, after reading, the memory is modified by writing, the latter will lose its compatibility with the old receiver and must be used only with the compatible receiver.



Press the  button to interrupt any read or write memory procedure in progress.

Important:

When a file is transferred from PC to the receiver memory the Name/ Surname/Notes fields are not recorded

As a result if a receiver or the programmer buffer memory is read this data will be missing.

OPTIONS MENU

Create a new user

To create a new user the same “register a new user” dialog box is shown as the first time the program is started.

A new user can now be created.

Every new user will have a personal login/password **and a personal plant file, which cannot be shared with other users.**

Modify user details

Modify the details (name/surname/login/password) of the user currently authorised by the system.

Search

Enter a reference in the box to search the current file and then click on the search button.

Searches can be made on both the texts (i.e. name/surname/notes) and transmitter codes. Select the box that refers to the field where the search has to be made.

Compare programmer memory

Compare the current file with the programmer buffer memory.

If any transmitters are not contained in the file they are automatically recorded.

Any transmitters added in this way are highlighted in purple.

Compare receiver memory


Compare the current file with the receiver memory.

If any transmitters are not contained in the file they are automatically recorded.

The transmitters added in this way are highlighted in purple.

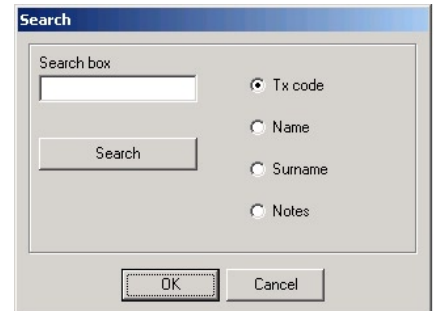
Select language

Select a language from the list.



The 'New user' dialog box contains the following fields and options:

- Name: [Text input field]
- Surname: [Text input field]
- Login: [Text input field]
- User password (1): [Text input field]
- User password (2): [Text input field]
- Single user:
- Multi-user:
- OK: [Button]
- Cancel: [Button]



The 'Search' dialog box contains the following fields and options:

- Search box: [Text input field]
- Tx code:
- Name:
- Surname:
- Notes:
- Search: [Button]
- OK: [Button]
- Cancel: [Button]

COMMUNICATION MENU

Connect COM_

This allows for the connection of the Advantage programmer to the default port (see “Search Port”), so that memory reading/writing operations, reset, etc. can be carried out.

Disconnect COM_

This allows for the disconnection of the programmer. It is therefore possible to work Off-line on the archive (i.e. with no need to connect the programmer to the PC). Default setting.

Search Port

All ports available are detected by the COM of the PC to which the programmer is connected. If the programmer is detected, it will be automatically connected. On the rear bar the message COMMUNICATION OK appears and, if connected, the software version of the receiver is displayed.

The port number is stored in memory and given by default for the selection of the current work.

Select Port

If the programmer is not detected with the “Search Port” function, a manual research can be carried out: select the available ports one by one and enter the “Connect COM_” control for each single port selected.

*If the programmer is not detected, check the following:
the programmer is switched on (LED ON), connected and powered correctly (to mains or battery).*

The drivers are correctly installed. If a UBS cable is in use, see “ USB Driver “ section.

If a RS232 cable is used, check the internal setting of the Dip-Switch.

INCREASING THE SYNC COUNTER

After the system is started up the Sync Counter of each transmitter recorded on the receiver will increase every time a signal is received. This constant synchronisation between receiver and transmitter is an essential factor in the security of rolling-code systems.

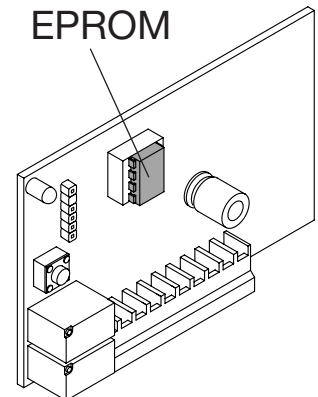
To maintain this security level every rewrite procedure on an installation (e.g. to add or cancel transmitters) must only be performed after an update of the database stored on PC.

This update avoids the possibility that, after a modification is made, the receiver Sync Counter has a lower value than the transmitter Sync Counter, which would result in the transmitter not being recognised by the receiver.

To update an installation:

- 1 Open the installation database.
- 2 Hook the receiver up to the Advantage programmer that must then be connected to the PC or, alternatively, upload the receiver on the buffer memory and just connect PC and programmer.
- 3 Open the Options Menu and select Compare receiver memory if the update is being made directly from the receiver, otherwise select Compare programmer memory if the update is being made from the programmer buffer.
- 4 At the end of the procedure the Sync Counters will be updated, the text and notes fields will be left unchanged and any transmitters added manually will be highlighted in purple.

Now any change can be made to the Advantage archive and then downloaded onto the receiver memory with the assurance that all the transmitters will be recognised when the operation of the installation is restored.



RESTORING A DAMAGED INSTALLATION

If a receiver is damaged, the first action to take is verify the state of the EPROM memory.

Remove the EPROM from the damaged receiver and mount it in a new receiver of the same model. If the EPROM has not been damaged this simple operation will restore the system.

If the EPROM has lost the transmitter data, proceed as follows:

- 1 Open the Advantage archive for the damaged installation.
- 2 Disable all the transmitter Sync Counters and save the changes.
- 3 Download the archive of a new receiver and start up the installation.
- 4 Leave the plant in operation for enough time to allow all the transmitters to synchronise with the new receiver.
- 5 When this process is complete use the Compare Memory function to update the installation database.
- 6 Enable the Sync Counters of all the transmitters and save the changes.
- 7 Rewrite the memory.

The installation functionalities have now been restored.

NOTES AND TIPS ON THE USE OF ADVANTAGE

- 1 In installations managed by the Advantage system, always work on the software file and try not to record transmitters manually because, as they are not recorded on file, this could be a cause of confusion.
- 2 Always protect the receivers with a password.
- 3 Assign a clear, unequivocal name to each transmitter so that any future work on the plant is clear and simple.
- 4 Each transmitter of the Advantage system becomes strictly personal.
Inform all users of this fact to avoid confusion about the transmitter assignment. If a transmitter is lost or stolen and has to be changed, be sure to trace the correct code to substitute.
- 5 Always create a number of “virtual” codes.
This will allow transmitters to be added in the future, which will then be automatically recorded on the receiver when sending the first signal, thereby maintaining duplication security.
These “virtual” codes should be chosen with special care not to use identical codes on different plants.
- 6 Only use the clone functions when strictly necessary, since they reduce system security against code duplicating.

HEXADECIMAL CODING

Each transmitter code is identified by a number expressed in hexadecimal numbering.

Hexadecimal numbering (i.e. based on 16 numbers instead of 10) uses some letters of the alphabet to represent the numbers from 10 to 15, as shown in the table below:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

As a result, when recording “virtual” codes, this numbering system must always be used.

There are a maximum of 7 figures available, so the codes will range from 0 and FFFFFFFF.

SAFETY BACK-UP

It is good practise to periodically create a safety copy of the Advance.dat file located in the program’s main directory. This file contains all essential data (i.e. users, plant files, etc) for restoring system operation.

THE RS232 PORT

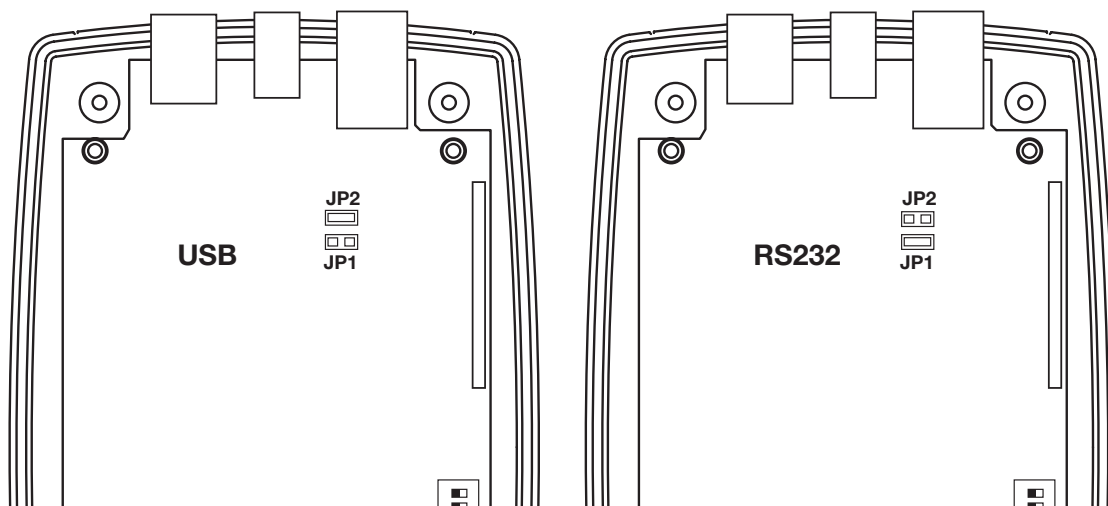
The default setting for communication between the programmer and the Advantage software is the USB port using the USB cable provided.

If the PC does not have a USB port, the RS232 serial port can be used with the RS232 cable provided.

If this is the case:

- Open the programmer case by opening the cover on the battery compartment and unscrewing the 4 screws.
- Move Jumper JP so that it bridges Jumper JP1 and opens Jumper JP2

This will disable the USB port and enable the RS232 port. To restore the USB port return the jumper to Jumper JP2 thereby opening Jumper JP1.



QUICK GUIDE TO CONNECTIONS

1

If it is not already installed, load the Advantage software and USB driver, see the “Software Advantage” section

2

Switch off the Advantage programmer and connect it to the PC by the USB port of the programmer and the USB cable provided.

If the PC does not have a USB port, an RS232 port can be used, see “Use of the RS232 port”.

3

Switch off the radio receiver and connect it to the Advantage programmer using the PRX cable provided.

(The radio receiver can also be connected later, during the data transfer from the programmer)

4

Turn on the programmer, which has to be hooked up to its mains power unit provided or, alternatively it must have sufficient battery charge. If the receiver is connected its LED will light up Orange.

5

Start the Advantage software on the PC.

Select the Communication > Connect COM Menu.

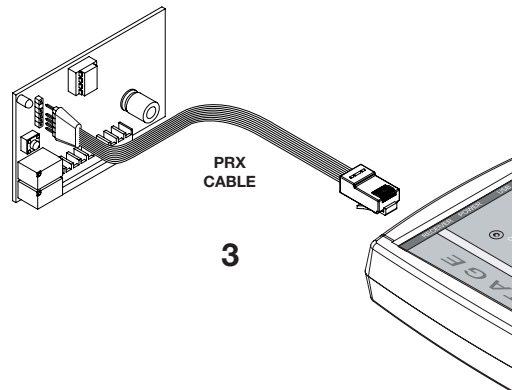
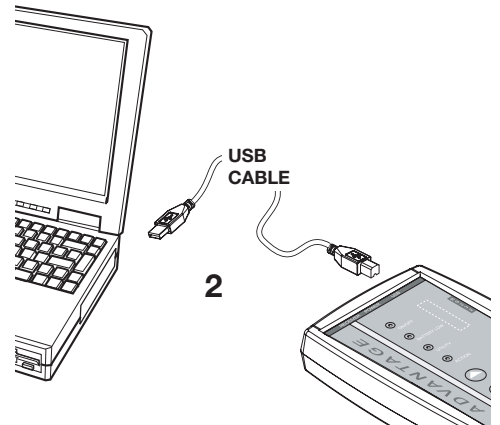
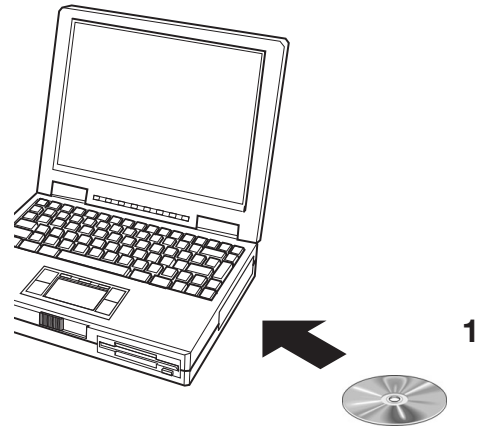
If the software does not recognise the programmer the message “Communication Error” appears, select the “Search Port” function in the Communication Menu to carry out an automatic research and “Select Port” if the automatic research is not successful.

If the software is using the wrong language change it by the Options>Change Language menu.

6

Now practice with these functions to get to know the Advantage system:

- 1 Create a new installation file.
- 2 Record a series of transmitters in the various modes.
- 3 Complete the Name/Notes dialog boxes to personalize the transmitters
- 4 Save the file on PC
- 5 Record the current file on the buffer and/or on the receiver.
- 7 Read the buffer and/or receiver memory to make sure the transmitters have been recorded.
- 8 Turn on the receiver and check that the recorded transmitters work properly.



ADVANTAGE 1.07

The modifications made to the software with version 1.07 are described in this document.

For any further information, please refer to instructions supplied together with the programmer (Advantage 1.04).

BACK-UP FOLDER

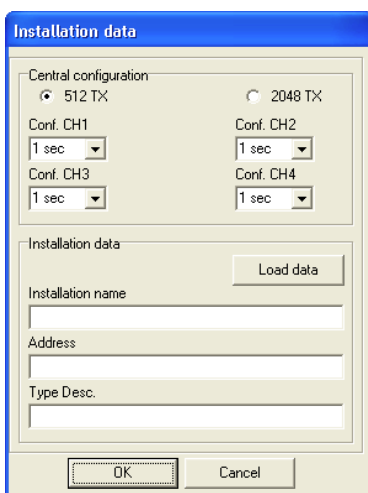
At each start of the program, Advantage 1.07 makes a copy of the database (Advance.dat file) in folder C:\Advantage\Backup\
Folders are organized as follows: Backup\year\month\day\time_minutes_seconds.
Backup files older than 180 days are erased automatically.

DISPLAY MENU - ENTER ORDER

Remote control codes are listed in the database in entering chronological order.

INSTALLATION DATA WINDOW

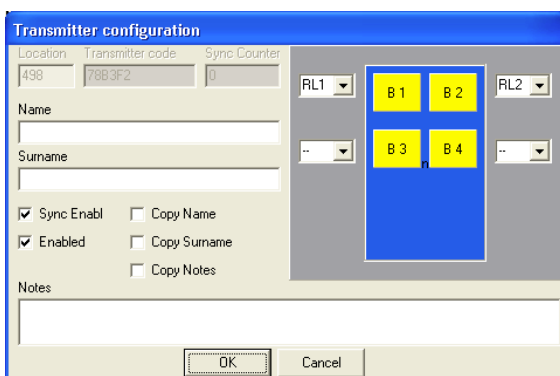
A "Load Data" button is provided in order to allow copy of installation data of an existing archive.



REMOTE CONTROL ENTERING WINDOW

Selection boxes: "copia nome" (copy name) - "copia cognome" (copy surname) - "copia note" (copy notes)

They allow to apply the same text string to fields Name/Surname/Notes to a multiple selection of remote controls.



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AUTOMATISMI BENINCA SpA - Via Capitello, 45 - 36066 Sandrigo (VI) - Tel. 0444 751030 r.a. - Fax 0444 759728
