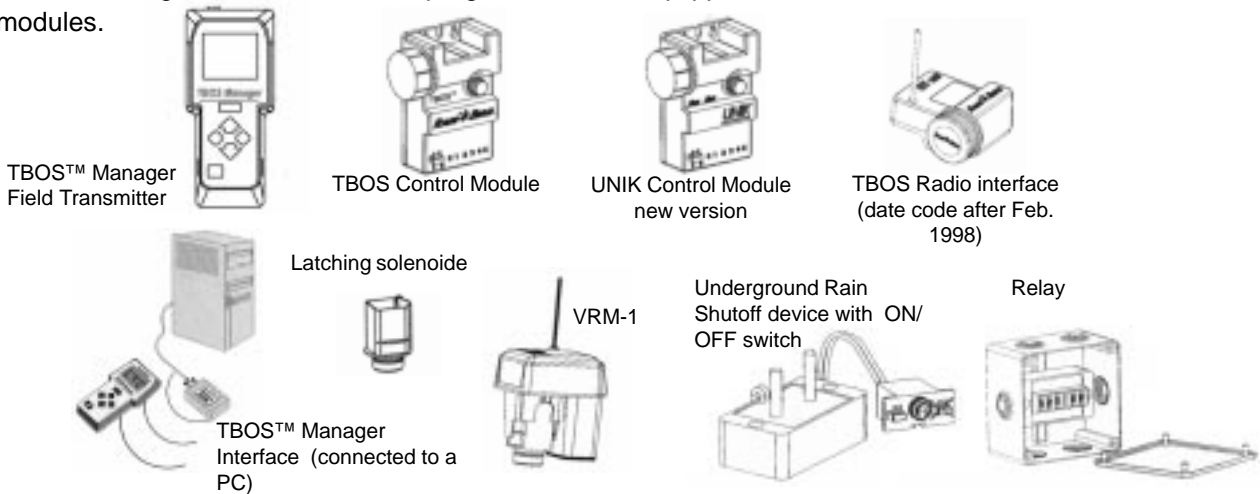# TBOS MANAGER System

SYSTÈME COMPONENTS

TBOS Manager is a management system designed to program battery-powered Unik Control modules by radio. The system consists of:
- TBOS Manager software operating in a Windows 95,Windows 98 or Windows NT environment
- Radio transmission device connected to a PC serial port
- 1,2 and 4-station control modules
- TBOS Radio Interface Unit with a date code indicating a manufacturing date after February, 1998 or a VRM-1 radio module
- TBOS Manager field transmitter to program modules equipped with an Unik Radio Interface or VRM-1 modules.

TBOS™ Manager Field Transmitter

TBOS Control Module

UNIK Control Module new version

TBOS Radio interface (date code after Feb. 1998)

Latching solenoide

VRM-1

Underground Rain Shutoff device with ON/OFF switch

Relay

TBOS™ Manager Interface (connected to a PC)

LCD SCREEN ICONS

1. Select program (A,B or C)
2. Transmission problem
3. Transmitting program
4. Low battery indicator :
   - in the transmitter if the icon appears when the key ➡ is pressed to turn on the LCD
   - in the TBOS module if the icon appears during program transmission
5. ON/OFF mode
6. Manual station (**STA**) start or manual Program/Cycle (**CYC**) start
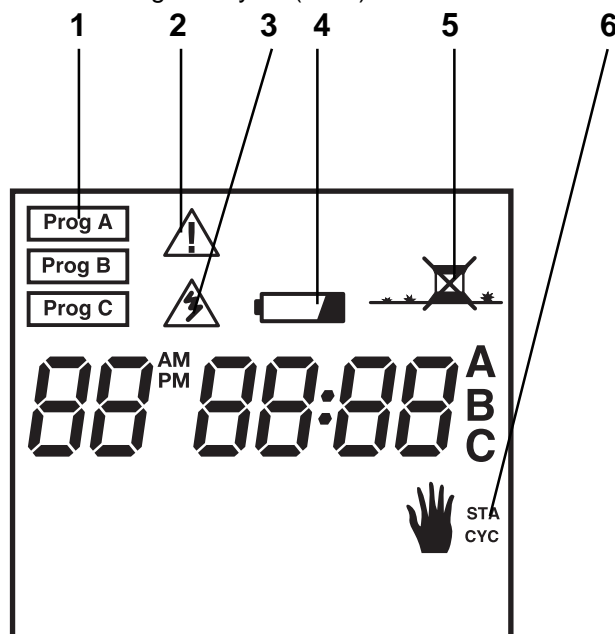
SPECIFICATIONS

- The Field Transmitter can program an unlimited number of control modules equipped with Radio Inter face units, or VRM-1 radio modules.
- The Radio Interface is simply snapped onto the control module.
- The average Radio Transmission range between the Field Transmitter and the Radio Interface is 0,5 to 10m. Distance varies depending on site conditions.
- Automatic synchronization of current time and day when the computer transmits the programs to the Field Transmitter.
- Automatic reset of current time and day when program is from the Field Transmitter to the Control Module
- LCD automatically turns off after 1 minute if Transmitter is not being used
- Battery life: 1 season with 1 top grade 9V battery such as Duracell, Wonder or equivalent. Battery not included.
- Low battery indicator (TBOS Manager Field transmitter and TBOS Control module)
- Maximum storage and operating temperature: 60°C

CLAVIER

A. Increase adjustment key
B. Decrease adjustment key
C. Program/cycle selection key
D. Move to next function key
E. Key to work within a function
F. Radio Transmission key transmits program to control modules equipped with a radio Interface or to VRM-1 radio modules.
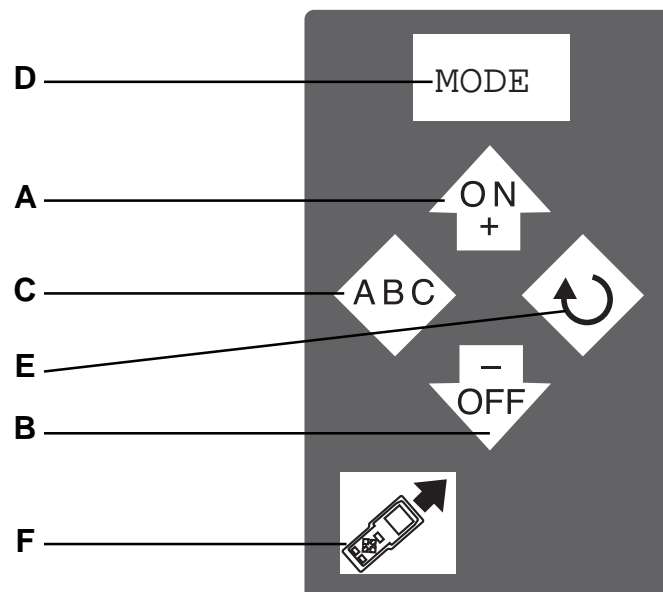
OPERATING PRINCIPLES

You do not manually enter any programs into the TBOS MANAGER Field Transmitter. All programs are transmitted from your computer which is equipped with TBOS MANAGER software and a Radio transmission device to download the programs by radio into the TBOS MANAGER Field Transmitter. See TBOS MANAGER software manual.

Step 1:
Enter your control module programs into the computer with the TBOS MANAGER software

Step 2:
Use the TBOS MANAGER Radio Transmission device to download the programs by radio from the computer into the TBOS MANAGER Field Transmitter.

Step 3:
Use the TBOS MANAGER Radio Transmission device to download the programs by radio from the computer into the TBOS MANAGER Field Transmitter.

SYSTEM START-UP

1. Install a battery in the Radio Interface

The Radio Interface is now ready to receive its identification code

2. Install a battery in the Field Transmitter

As soon as the battery is hooked up, this display appears
Note : In the future, if the low battery icon blinks for 30 secondes,after pressing the key to turn on the LCD, replace the 9 V bettery in the Field Transmitter.

3. Enter a 2-number code in the Field Transmitter.

This code differentiates Transmitters that are used on different sites.
Important: the code (01 to 99) must be the same code that you entered in the Unik Manager software.
Use ⬆ or ⬇ to enter the code and press ➡ to validate.

Example: you have entered "**12**" in your software for this transmitter. Press ⬆ or ⬇ until "**12**" appears on the transmitter LCD.

Note: You do not need to set current time because the transmitter receives the time of day from the computer during the downloading phase.

SYSTEM START-UP

1.   If you wish to change the code or if you have forgiven it, simultaneously hold down the ⬆ key and the ➡ key to display the "- -no" screen

1-

**2-** Use the ⬆ or ⬇ to change the transmitter code

3- Press to validate:

TRANSMISSION

DOWNLOAD TO THE FIELD TRANSMITTER

Place your field transmitter near the Radio Transmission Interface connected to your computer. Start transmitting the desired programs stored in the software (see TBOS MANAGER software manual). The computer downloads the programs into the Field Transmitter. The transmission process is displayed on your computer screen and on the transmitter LCD. You will hear 3 "**beeps**" when transmission begins.
Your transmitter will display the programs as they are transmitted.
Example: if you transmit the programs for 3 control modules to your field transmitter, the LCD will display the following screens in sequence:
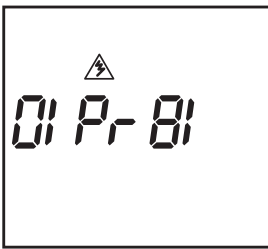
This means that the programs are now stored in the field transmitter. The computer will confirm the successful transmission of the programs.
Note: the field transmitter is automatically synchronized with the computer during transmission. Both have the same current time.

PROGRAM TRANSMISSION TO THE CONTROL MODULES

1. If the LCD screen is blank, press ➡
2. **IMPORTANT**: you must enter an identification code in the Radio Interface before transmitting a program (See paragraph "Identifiction code")
3. Repeatedly press ➡ until the above screen is displayed. YOU cannot transmit a program unless this screen is displayed.
(In this example 2 programs have been transmitted).
4. Press ✏. The ⚠ will appear for several seconds. Transmission is

completed. As the programs are transmitted, the number to the right of "**Pr**" will decrease. After all the programs have been transmitted to a given control module, "**Pr00**" will be displayed.
Example: "**02 Pr 00**" means that there were 2 programs to transmit. None remain to be transmitted.
Note: To display the other control modules to which programs must be transmitted, press ↺ when the "**02Pr02**" is displayed.

Example: "**0102**" will appear. Each control module is displayed with a 4-digit number defined by the software. The first 2 digits indicate the control module number. The last 2 numbers indicate the site. In the above example, control module Nr. 1 is on site Nr. 2.
Important : if the blinking low battery icon is displayed on the LCD for 30 seconds during program transmission, replace the 9V bettery in the TBOS Control Module. The low battery incon is used only in TBOS Control Modules.

IDENTIFICATION MODE

Enter a 2-number identification code in the radio interface or VRM-1 unit must be identified. If, for example, 2 control modules equipped with radio interface units or 2 VRM-1 radio modules are near each other, each unit must have its own identification code to avoid communication interference.
This function is used to identify the modules by assigning the site number and control module number.
This allows the transmitter to register the city code in the software. The transmitter is now ready to transmit to the control modules.
Repeatedly press ➡ until this display appears

Select the appropriate site number by pressing 🔼 or 🔽. Then press ◀️

Select the control module number by pressing 🔼 or 🔽 .

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IMPORTANT: Don't forget the control module identification codes. It is best to write them down somewhere. You can enter them on the site plan in the software or write them on the control modules equipped with a radio interface or a VRM-1. Press 🖊 to transmit the 2-number codes. You can now program the control modules.

MANUAL FUNCTIONS

Important !
The next 3 functions override all others.
This means that any program currently running will be suspended to permit the use of the manual functions. Before carrying out a manual start, make sure a run time (at least 1 minute) has been programmed and that the control module is in the irrigation "**ON**" mode (no X on the sprinkler).
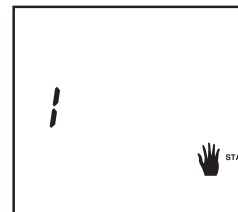
MANUAL SINGLE STATION START

Repeatedly press ➡ until the module screen appears. See example below.
Enter the Radio Interface identification code. In our example it is "05".
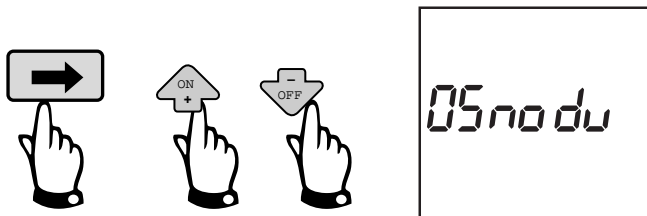
Then repeatedly press ➡ until this screen appears

The station number appears at the left.
(Example: station 1) . Press the ◀️ key until the desired station number appears

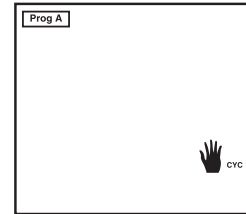Press the 🔼 key. Irrigation will start after 2 seconds.
If you wish to stop watering before the programmed time is up, press the 🔽 key.

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MANUAL FUNCTIONS

MANUAL CYCLE / PROGRAM START
(USED ONLY ON 2 OR 4 STATION MODULES)

First enter the Radio Interface identification code.
Remember that a program cycle consists of all stations operating
in sequential order.

Repeatedly press the ➡ key until this screen appears.
Select the program/cycle you wish to start with the ABC key

Your selection is displayed as "**Prog A**", "**Prog B**" or "**Prog C**". Prog A =lawn, Prog B =Shrubbery,
Prog C =Tree in the software.
Press on the ON key to start the cycle. After 10 seconds, irrigation will start.

The stations assigned to the program will operate in sequence –one after the other- until the last station has
finished watering. Irrigation will then automatically stop. If you wish to stop a manual cycle/program, press
the OFF key.

Note: If the system is in the "**OFF**" mode (a cross on the sprinkler, see next chapter) it is impossible to
manually start irrigation.

SYSTEM ON /OFF (IRRIGATION ON/OFF MODE)

The field transmitter has a function which can place the control module in the "**OFF**" mode. The default
mode is "**ON**" which allows the programmed watering to take place. You can prevent watering (rainy weather
shutoff) without changing the programmed cycles.
First enter the Radio interface identification code.
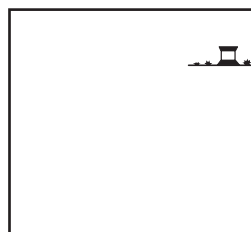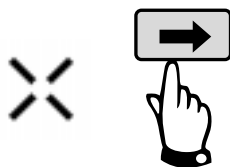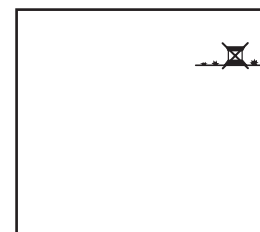
"ON"   "OFF"

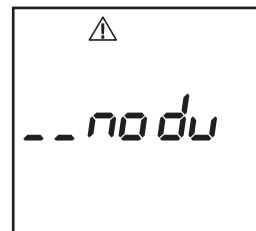To prevent irrigation press the OFF key.
A cross will appear on the sprinkler
To return to the irrigation mode, repeatedly press ➡ key until the screen with the X on the sprinkler ap-
pears. Now press the ON key. The cross disappears.

TROUBLE SHOOTING GUIDE

During code transmission:
Symptom:
Faulty code transmission indicated by a 5 "beep" alarm and this display.

⚠
`_ _ no du`

Checklist:
1 - Make sure that the antenna is not pointed dawn toward the ground
2 - Move closer to the Interface
3 - Make sure that there is not another Radio Interface with the same code
4 - Your Interface may already have a code. Disconnect the battery, wait 2 minutes, hook up the battery and repeat the "Identification mode" step.
5 - Replace the batteries in the Field Transmitter and the Interface

**During program transmission:**
Symptom:
Faulty program transmission indicated by this display.
This screen indicates an infrared transmission problem between the Interface
and the Control Module.
Checklist:
1 - Make sure that the "PR--" screen is displayed when you transmit your program.
2 - Make sure that the optical connectors between the Control Module and the
Interface are clean
3 - Replace the battery in the Control Module
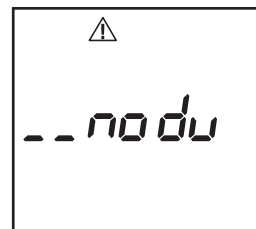4 - Make sure that you are not using an old version of the UNIK Control Module

⚠
`Err 1`
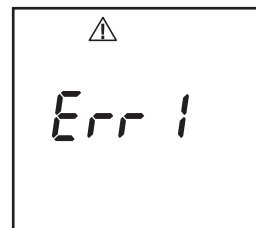
Symptom B:
Radio transmission problem indicated by a 5 "beep" alarm and this display.
Checklist:
1 - Make sure that the Interface is securely connected to the Control Module.
2 - Move closer to the Interface.
3 - Have you entered a code ?
4 - Replace the batteries in the Module and the Interface.
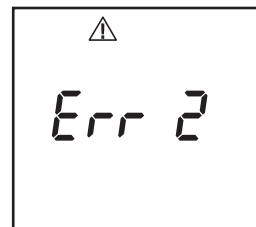
⚠
`_ _ no du`

Symptom C:
Mauvaise transmission radio indiquée par l'écran suivant :
Checklist:
Make sure that the date code indicates a Radio Interface manufactured after
Februry 1998.
The date code is located on the back of the Radio Interface.

⚠
`Err 2`

After programming:
Symptom:
The irrigation system does not work.
Checklist:
1 - Make sure the valve is not manually closed
2 - Make sure that the irrigation is not the Off mode in your field Transmitter. Set the irrigation mode. "**OFF**"
    and then "**ON**".
3 - Make sure that the optical connectors between the Control Module and the Interface are clean and are
    securely connected.
4 - Replace the batteries in the Module, the Interface and the Filed Transmitter.