General Index

1.- Coils

1.1 Standard Coils

Designation	Reference	Coil Type(Ø)	Pitch	Capacity
Coil 65-20	1901482100-0	**65**	20	22
Coil 65-25	1901483100-0	**65**	25	19
Coil 65-30	1901484100-0	**65**	30	15
Coil 65-35	1901485100-0	**65**	35	13
Coil 65-40	1901486100-0	**65**	40	11
Coil 65-50	1901487100-0	**65**	50	8
Coil 65-60	1901488100-0	**65**	60	7
Coil 65-85	1901584100-0	**65**	85	5
Coil 78-35	1901489100-0	**78**	35	13
Coil 78-45	1901490100-0	**78**	45	10
Coil 78-55	1901491100-0	**78**	55	8
Coil 78-65	1901492100-0	**78**	65	7
Coil 78-85	1901549100-0	**78**	85	5

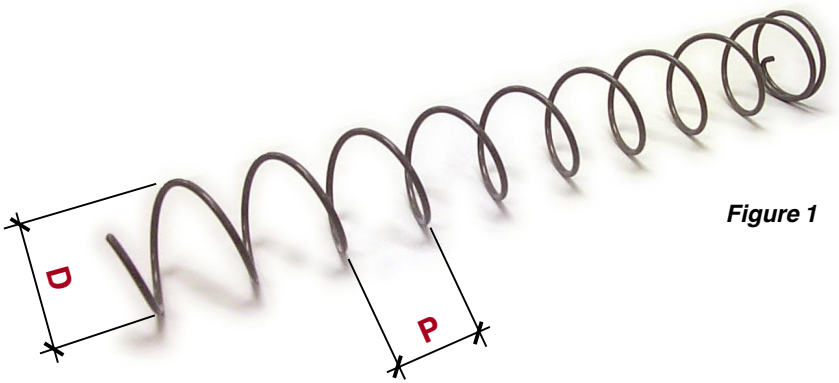


Figure 1

1.2 Double Coil

These are used for extracting small products and duplicate the capacity because the turn the coil makes is 180º.

To use this coil in **Function 210** "1 impulse" must be programmed.

There are types of double coils:

Designation	Reference	Coil Type(Ø)	Pitch	Capacity
Coil 65-20 D	1901514100-0	**65 D**	20	44
Coil 65-30 D	1901515100-0	**65 D**	30	30
Coil Divider	19016380-0			

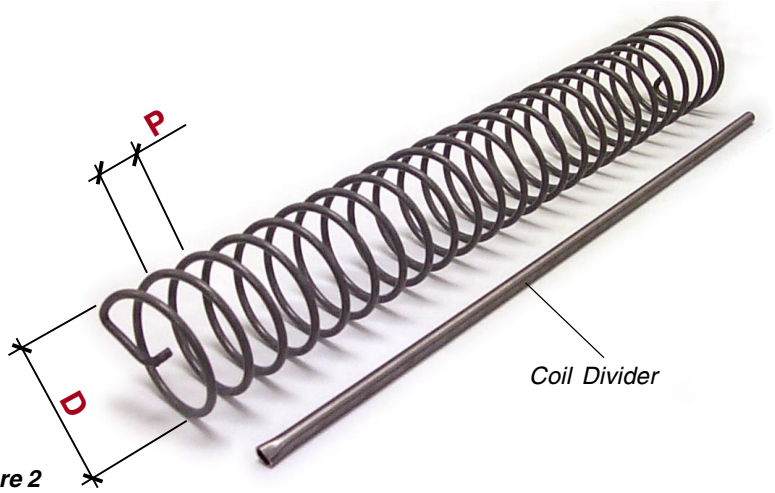


Figure 2

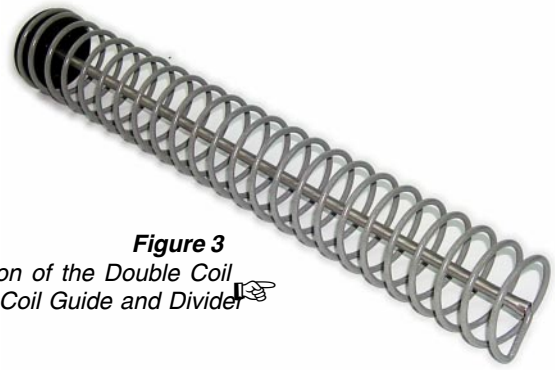


Figure 3
Installation of the Double Coil with the Coil Guide and Divider

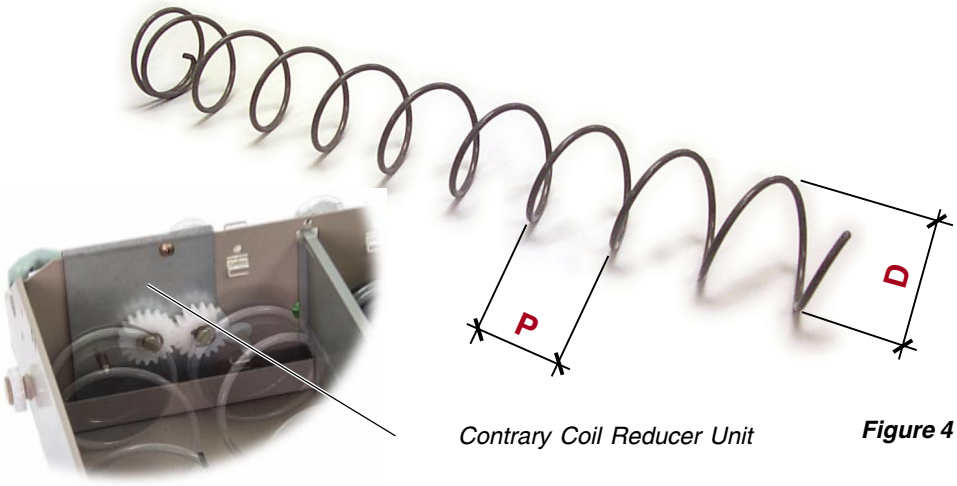
1.3 Contrary Coil

This type of coil is applied when vending extra-wide products.

It consists of a coil which turns in the opposite direction from the normal. This coil is installed using another normally turning coil and a "Contrary Coil Reducer Unit" which turns the Contrary Coil.

The following different coils exist:

Designation	Reference	Coil Type(Ø)	Pitch	Capacity
Coil 65-20 C	1901643100-0	**65C**	20	22
Coil 65-25 C	1901644100-0	**65C**	25	19
Coil 65-30 C	1901645100-0	**65C**	30	15
Coil 65-35 C	1901646100-0	**65C**	35	13
Coil 65-40 C	1901506100-0	**65C**	40	11
Coil 65-50 C	1901507100-0	**65C**	50	8
Coil 65-60 C	1901508100-0	**65C**	60	7
Coil 65-85 C	1901647100-0	**65C**	85	5
Coil Reducer Unit	41081031-0			



Contrary Coil Reducer Unit

Figure 4

2.- Can Support Kit

For vending heavy products such as canned drinks, bottles, yoghurt, etc., there is a kit with the following elements:

- ✓ Can Support, ref. 31075871-0
- ✓ Can support stop, ref. 31075860-0
- ✓ 4x12 pozidriv screw, REF. 01014151-0

This "can support" can only be placed with a Ø65 coil.

Figure 5

Figure 6
Coil Guide Installation Detail

Figure 7
Detail of Installation in the front part of the coil

3.- 2-Temperature Kit

With this kit it is possible to divide the product container into two zones with different temperatures. The lower zone can reach 3 ^{O}C and the upper one 12 ^{O}C. Separation is made at the height of shelf "**C**" so that each zone has three shelves.

The elements composing the kit are:

1. 2-temperature air duct, ref. 31076790-0
2. Upper diffuser lid, ref. 31076800-0, (2 parts)
3. Lateral separating flange, ref. 31076850-0, (2 parts)
4. Lateral separator, ref. 39012660-0
5. Temperature separator **H-70**, ref. 31076871-0
5. Temperature separator **H-87**, ref. 31076861-0

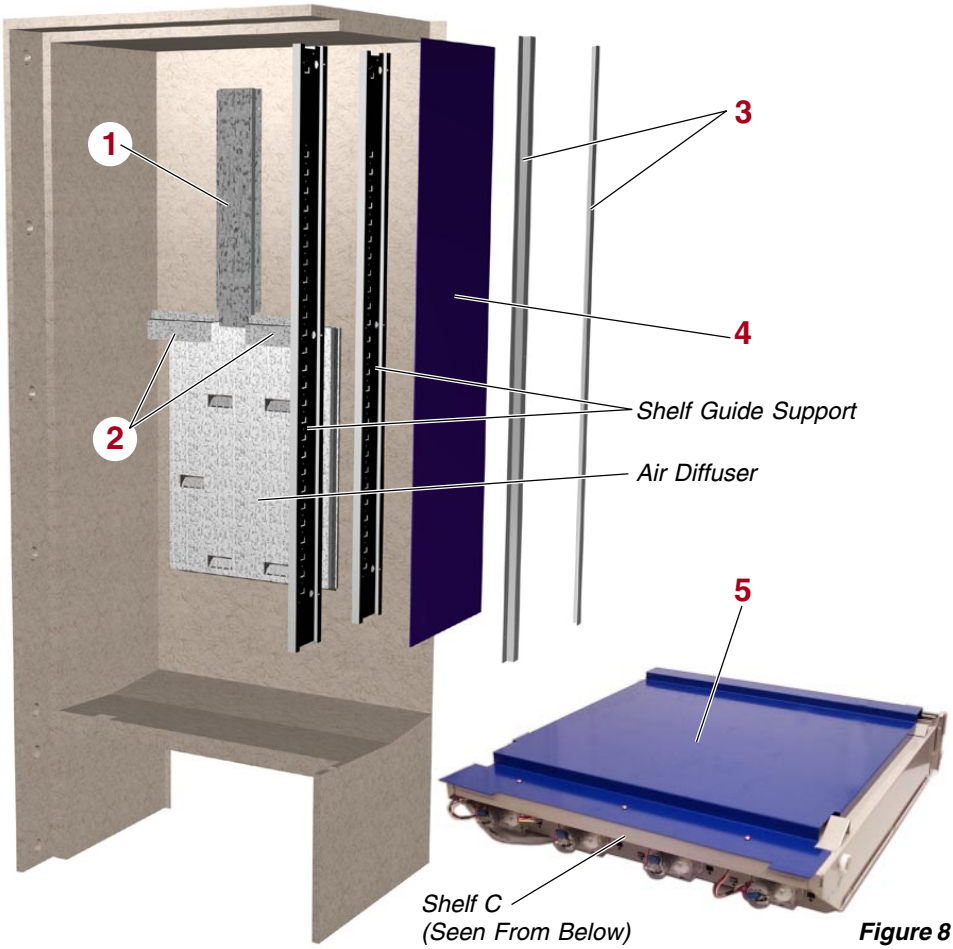


Figure 8

3.1 Installation

1.- Turn off the machine.

2.- Remove shelves A, B, C, and the lower shelf (F or G).

3.- Open the inner door and remove the two support trays inside it.

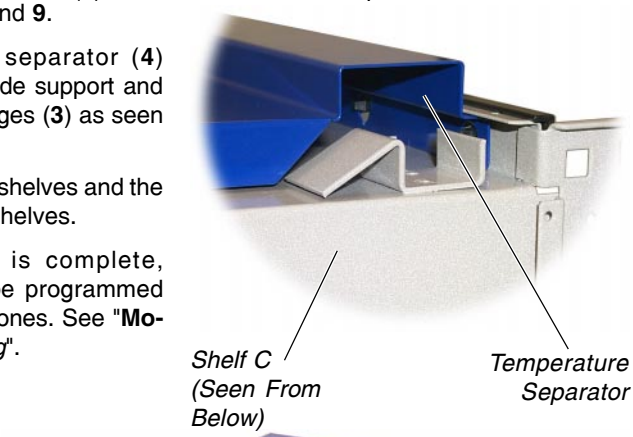
4.- Install the 2-temperature air duct (**1**) and the two upper diffuser lids (**2**) as shown in **figure 8**.

5.- The temperature separator (**5**) is installed in the lower part of **shelf C** as shown in **figures 8** and **9**.

6.- Screw the lateral separator (**4**) between the shelf guide support and lateral separating flanges (**3**) as seen in **figure 8**.

7.- Reinstall the support shelves and the previously removed shelves.

8.- Once installation is complete, **function 467** must be programmed for two temperature zones. See "**Module 3:** *"Programming*".



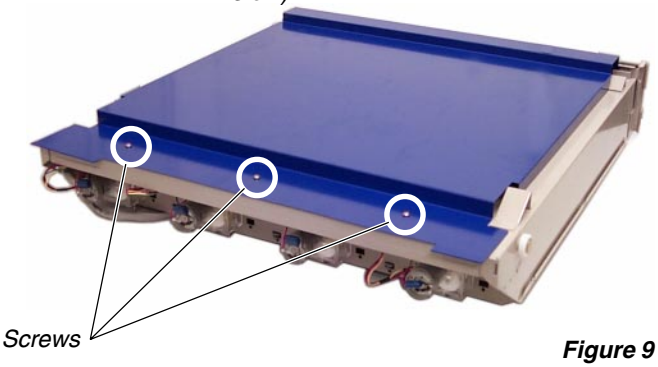


Figure 9

4.- Security Bin Kit

This kit consists in the following elements:

- ✓ 1 Security bin subunit, ref. 42917041-0
- ✓ 1 Bin lock support, ref. 31080650-0
- ✓ 1 STS lock, ref. 08500410-0

4.1 Installation

To install the Security Bin Kit the following operations must be performed:

1.- Install the lock in the support as shown in **figure 10**.

2.- Remove the machine coin mechanism support and remove the normal bin.

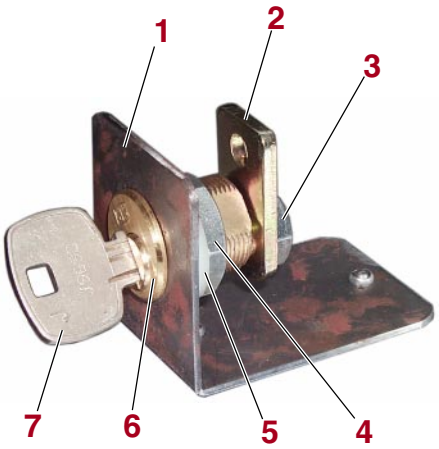


Figure 10

1	Lock Support Bin	4	Bolt
2	Rod	5	Bushing
3	Bolt	6	Lock
		7	Key

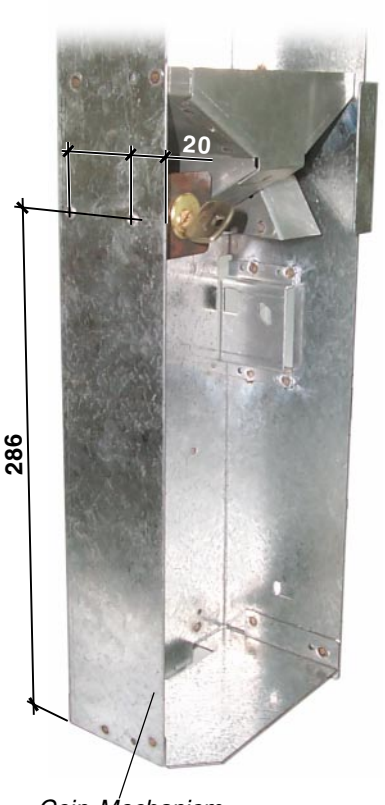


Figure 11

3.- Rivet the bin lock support with the lock already installed into the two pre-existing holes in the support mechanism. If the holes are not present, two new Ø4 holes must be drilled where indicated by **figure 11**.

4.- Confirm that the lock opens and closes and put the new security bin in place.

5.- Replace the coin mechanism support.

Figure 12

5.- Infrared Kit Ref. 41506061

5.1 Instructions for Installation and Use

The infrared kit is composed of the following elements:

a) 1 Infrared Transmission Card, ref. 43306940-0

b) Instructions

5.1.1 Installation

1.- Open the door and turn off the machine

2.- Remove the Display Card which is held by plastic clips (see **figure 13**), to do so, it will be necessary to extract the coin mechanism as much as possible.

3.-Place the Infrared Transmission Card in the four-pin connector in the Display Card according to **figure 14**.

4.- Replace the Display Card.

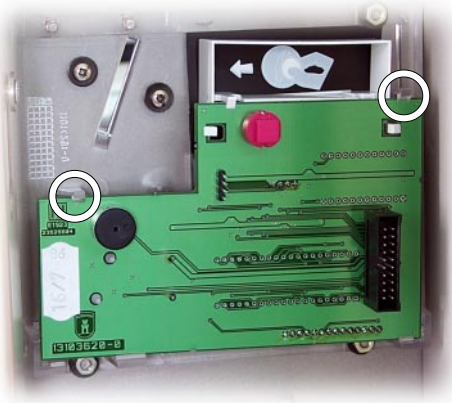


Figure 13

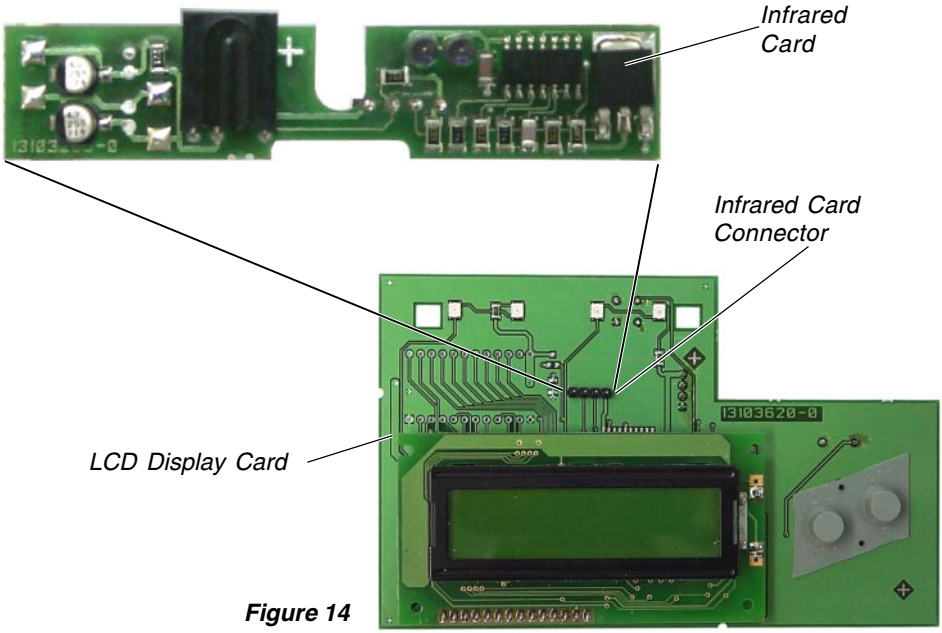


Figure 14

5.1.2 Use

Once the infrared card is installed, no special programming or configuration is necessary in the machine; it is ready to use the card automatically to perform transmissions. It is only necessary to program the machine data for processing: operator code (function **472**) and machine number (function **470**).

Using the numerical edition mode, a four-digit code identifying the operator to the machine is programmed.

Figure 15

If the operator does not program the same number programmed in the machine into his **"Data Capture Terminal,"** he will not be able to access its accounting data.

Next access the function

Using the numerical mode, a seven-digit number is programmed which identifies the machine (a type of series number that is programmable by the operator for each machine in order to a administrate its use).

Figure 16

5.2 Data Extraction Using the Infrared Module INFR-101

Before proceeding to data extraction itself, it is imperative to program the same operator code programmed into the machine (**function 472**) into the **infrared module**.

5.2.1 Code Programming in INFR-101

✓ Use the infrared module keyboard:

Press...	*...and observe the display:*
ON	F1 - READ DATA
↑	F2 - DOWNLOAD DATA
↓	F3 - OPERATOR CODE
EXE	*Enter the number XXXX.*

Figure 17

✓ *Type the same four-digit number programmed into your machines (function 472) and the module will automatically respond:*

END OPERATOR CODE PROGRAMMING

5.2.2 Data Extraction- Modus Operandi

✓ Face the machine as indicated in the attached graphic and if the infrared module is already connected, navigate through the various functions using the keys ↑ and/or ↓. Otherwise it will be necessary to activate it:

Press... *...and observe the display:*

ON	F1 - READ DATA
EXE	READING DATA

✓ *After a moment, the following message will appear in the infrared module:*

READING CORRECT

Figure 18

5.3 Basic Accounting Program for Automatic Machines

5.3.1 Data Capture and Visualisation in the Computer

Connection of the Module INFR101 to a PC ***Figure 19***

Previous Requirements:

✓ Have the program-demonstration installed in your computer.

✓ Connect the collection terminal to one of your computers series ports (**COM1** or **COM2**) using the cable with the **RS-232** terminal supplied by **Azkoyen**.

✓ Execute the Basic Accounting Program and the computer will show this display:

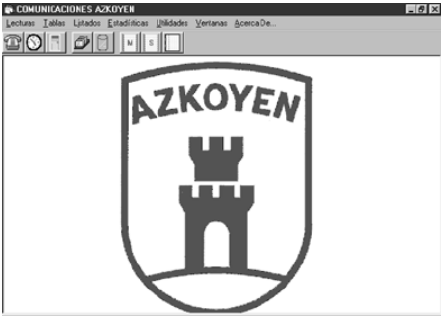
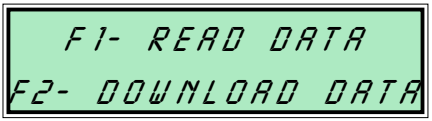


Figure 20

✓ When the infrared terminal icon is clicked this display will appear:

✓ Next switch on the infrared terminal:



✓ If the data is downloaded successfully the

Figure 21

computer will display the following:

Figure 22

✓ The program permits the obtaining of consumption statistics, both weekly and monthly as well as accounting data which can be grouped in various ways (by zones, locations, machine families). The data can be summarised and can be viewed onscreen or downloaded to a printer.

5.4 Communication Module INFR-101

5.4.1 Introduction

- ✓ Module **INFR-101** is a data reception system for vending machines using infrared or cable and for data transmission to a computer using a **RS-232** series port.

5.4.2 General Characteristics

- ✓ **Power input:** 9 Vdc, obtained from an alkaline battery.
- ✓ **Internal memory:** 8 Kbytes of RAM and128 Kbytes of data capable of storing approximately 1,000 machines.
- ✓ **Dimensions:** 150x92x50mm.
- ✓ **Weight:** 265g.
- ✓ **Using Distance:** Between 0.25 and 1m from the machine.
- ✓ **Functioning temperature:** Between -5ºC and 50ºC.

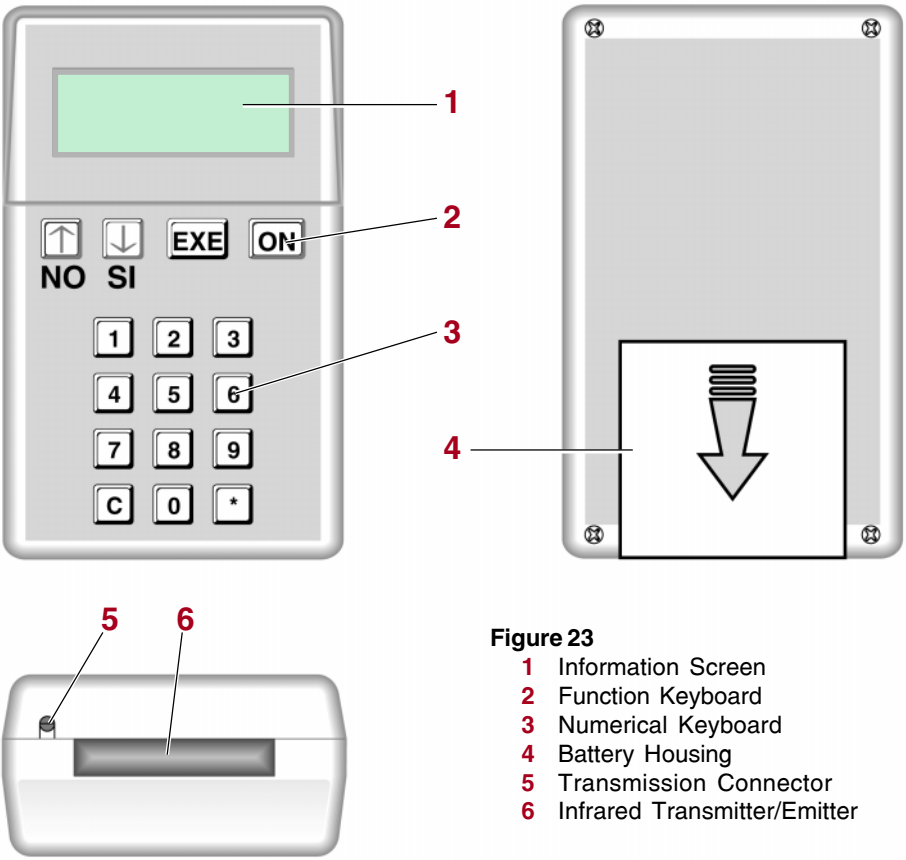


Figure 23

1 Information Screen
2 Function Keyboard
3 Numerical Keyboard
4 Battery Housing
5 Transmission Connector
6 Infrared Transmitter/Emitter

5.4.3 Functional Description

Connection/Disconnection: pressing **ON** key.

The screen shows the distance function messages one by one.

To move forward or back among the functions or options appearing on the screen, press the up or down keys.

To directly access a function, press its number on the keyboard.

To execute a function, press **EXE**.

To cancel the execution of a function, press **C**.

5.4.4 Changing the Battery

✓ Remove the battery cover (**fig. 23**, pos. **6**) pressing in the direction of the arrow.

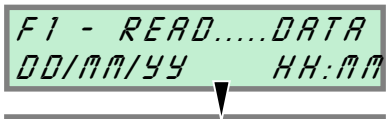
✓ Place the new battery **according to the polarity sign** engraved in its housing.

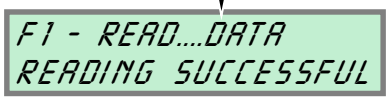
5.4.5 Function Description

There are two methods for accessing the different functions:

1. Pressing the corresponding digit for the desired function on the numerical keyboard to directly access it.
2. Repeatedly pressing the up or down arrow keys to pass the functions one by one.

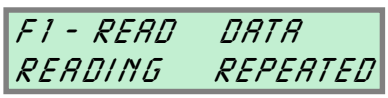
Reading data





✓ Press **EXE**. Wait a few seconds and the screen will indicate if the data has been read successfully or what type of error has occurred.

Other possible messages:



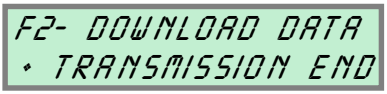
✓ Data is unchanged since last reading.

✓ Operator control and machine codes do not match.

Downloading data to the computer

✓ Connect the control to the computer using the connector situated on the upper part of the control and press **EXE**.

Other possible messages:



✓ Computer download has been successful.

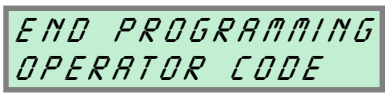
✓ There is no reading stored.

✓ The download was performed but an error has been detected in the stored data.

Changing operator code

✓ Press **EXE**. The module will request the new operator code.

✓ Enter the combination using the numerical keyboard.

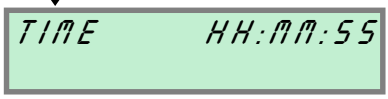


Changing date and time

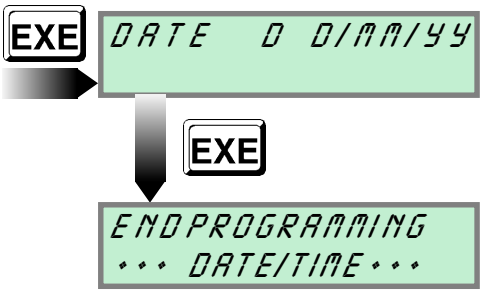
✓ Press **EXE**.

The currently programmed hour will blink.

✓ To change, press the ***up*** or ***down*** arrows to raise or lower values.



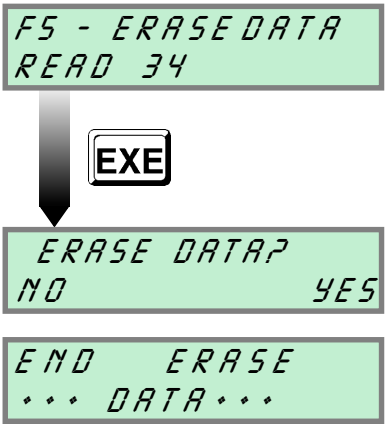
✓ Once the hour is programmed, press **EXE,** and the minutes can be programmed.



✓ Press **EXE** when done, will pass to date change. Proceed in the same manner.

✓ When programming is done, the screen will confirm the function end.

Erasing the reading made



✓ Press **EXE** and the module will request the order. The key works in the following manner:

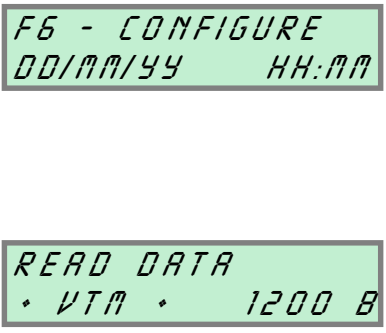
↑ Up arrow = **NO**

↓ Down arrow = **YES**.

✓ If **NO** is pressed, it will return to the previous function.

✓ If **YES** is pressed, the machine will confirm the action performed.

Configuring transmission mode and speed



✓ Press **EXE** and the machine will show the programming options.

↑ Press ***up*** key to go forward.

↓ Press ***down*** key to go backward.

EXE Press **EXE** to confirm the selection and proceed to program it.

✓ Select the type of data reading desired.

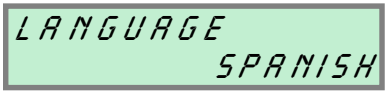
Select the type of reading using the ***up*** or ***down*** keys.

EXE Pressing **EXE** confirms the selection.

NOTE: *The default configuration is:*

VTM 1200B

Selecting the language for control messages



✓ Select the language to be used in control messages: *Spanish or English*.

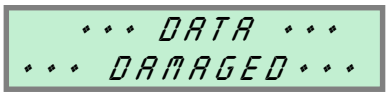
EXE Press **EXE** to confirm.

To view the percentage of memory used

✓ Press **EXE**.

The numerical percentage as well as a graphic will be shown.

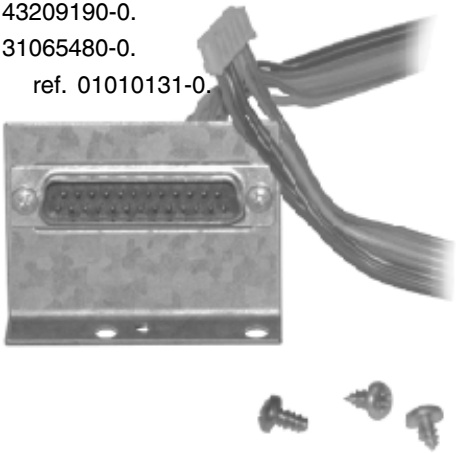
Error messages

Message	Description	Operation
	Communication has not been established successfully.	Move the control closer to the machine. Revise configuration.
	Communication with the computer has not been successfully established.	Move the control closer to the machine. Revise configuration.
 	Error in data memory Memory capacity full	Execute F-5 ERASE DATA.
	Dead battery	Change the battery.

6.- Connector Kit RS 232 Ref. 41506091

It consists of the following elements:

- ✓ 1 Bundle RS232 "N" ---------- ref. 43209190-0.
- ✓ 1 Connector Support RS 232 ----- ref. 31065480-0.
- ✓ One 7x ¼ Countersunk Head Screw ref. 01010131-0.



6.1 Installation

1.- Screw the 25-way connector onto the body.

2.- Connect the 6-wayel terminal to the J2 connector on the Control Card.

Figure 24

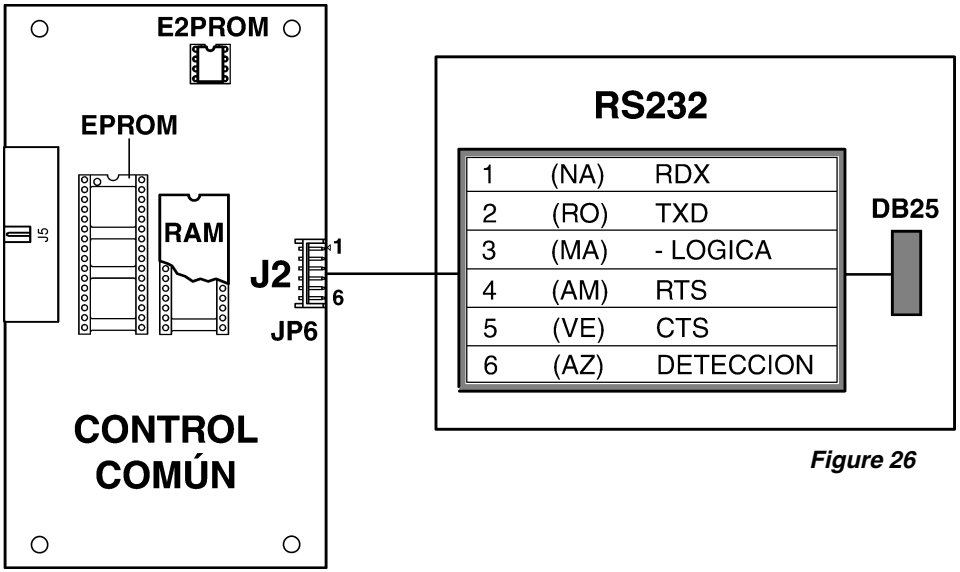


Figure 26

7.- Printers

7.1 Seiko DPU-414 Printer Kit , Ref. 41506071

To use this printer machine Kit RS232 must be previously installed.

This printer kit consists of the following elements:

- ✓ A Seiko DPU-414 (with batteries and charger)
- ✓ A RS232 connection cable , from DB25 to DB9
- ✓ An instruction manual

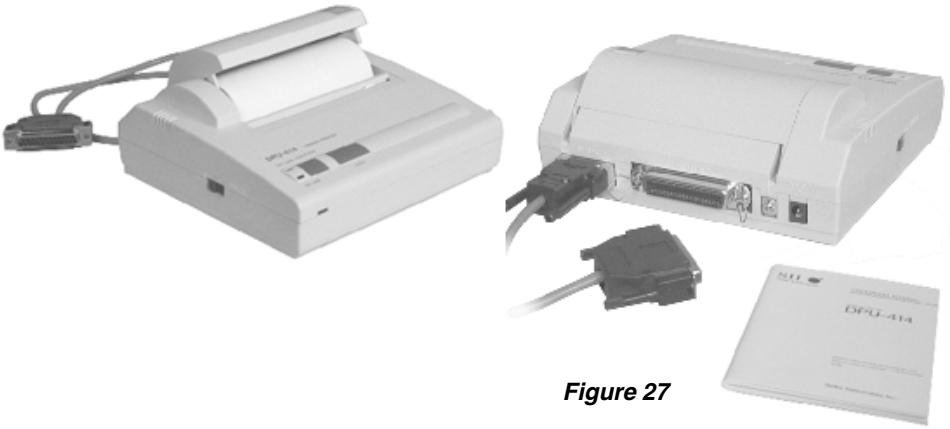


Figure 27

7.1.1 Programming the Printer

To enter printer programming it should turned on with the "**ON LINE**" key pressed. Next, the printer will print its current programming and finish showing the messages:

"**Continue? : Push «On-line SW»**"

"**Write? : Push «Paper feed SW»**"

If you wish to exit programming push the "**ON LINE**" key and if you wish to to modify programming press the "**FEED**" key.

If you continue with programming, it will begin in the **DIP SW-1**. Next point "**1**" should be programmed for which there are two options:

- ✓ "**ON**" pushing the "**ON LINE**"key.
- ✓ "**OFF**" pushing the"**FEED**"key.

And thus, sucessively points 2 , 3, 4 , 5, 6, 7 and 8 will be programmed

When **DIP SW-1** programming is finished the messages:

"**Continue? : Push «On-line SW»**"

"**Write? : Push «Paper feed SW»**"will reappear.

If you wish to continue **DIP SW-2** will appear and in the same way **DIP SW-3**. The options for programming are indicated below:

Dip SW-1

1 (OFF): Imput = Serial
2 (OFF): Printing Speed = High
3 (ON): Auto Loading = ON
4 (OFF): Auto LF = OFF
5 (ON): Setting Command = Enable
6 (OFF): Printing
7 (ON): Density
8 (ON): =100%
Continue?: Push "On-Line SW"
Write?: Push "Paper feed SW"

Dip SW-2

1 (ON): Printing Columns = 40
2 (ON): User Font Back-up = Normal
3 (ON): Character Select = Normal
4 (ON): Zero - Normal
5 (ON): International
6 (OFF) : Character
7 (ON) : Set
8 (OFF): = Spain 1
Continue?: Push "On-Line SW"
Write?: Push "Paper feed SW"

Dip SW-3

1 (ON): Data Lenght = 8 bits
2 (ON): Parity Setting = No
3 (ON): Parity Condition = Odd
4 (ON): Busy Control = H/W Busy
5 (OFF): Baud
6 (ON): Rate
7 (ON): Select
8 (ON): = 9600 bps
Continue?: Push "On-Line SW"
Write?: Push "Paper feed SW"
DIP SW setting complete!!

To initiate printing machine function 010 must be executed.