



MTC-1/MTC-1_US Equipment Installation Manual

Teldat-Dm 296-I

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I Important Information



Warning

The information given below contains instructions that you must follow for your personal safety. Follow all the instructions carefully

- Please read the following safety and electromagnetic compatibility information given on the attached sheet before connecting the device
- Do not handle or carry out any type of maintenance or inspection operation on the MTC-1 device when this is connected to the main power supply.
- In cases where the fuse needs to be substituted, you **MUST** physically disconnect the device from the main electricity supply and from all other devices and/or equipment. Only qualified personnel should replace the fuse. **ONLY** use a fuse of the same electronic characteristics and correctly homologated.
- Do not connect, *under any circumstances whatsoever*, a device or equipment to the controlled power supply socket whose power is higher than that specified in the technical specifications in this manual.
- There are no elements or parts contained in the interior of this device that require any maintenance or that can be replaced by the user.



Caution

The manufacturer reserves the right to make changes and improvements in the appropriate features in either software or hardware of this product, modifying the specifications of this manual without prior notice.

The images showing the front and back panels of the device are for information purposes only. Some small modification may exist in the actual device.

Chapter 1 Installing the device

1.1 Introduction

This manual describes how to correctly install **Teldat MTC-1** devices (Módulo de Telecontrol-1 – Telecontrol-1 Module).

There are several MTC-1 models, all adapted to the needs of various countries. Their type of power base and/or type of main power connector may vary. Generally speaking, all the devices have a similar appearance.

The parts of one of the MTC-1 models are described below:

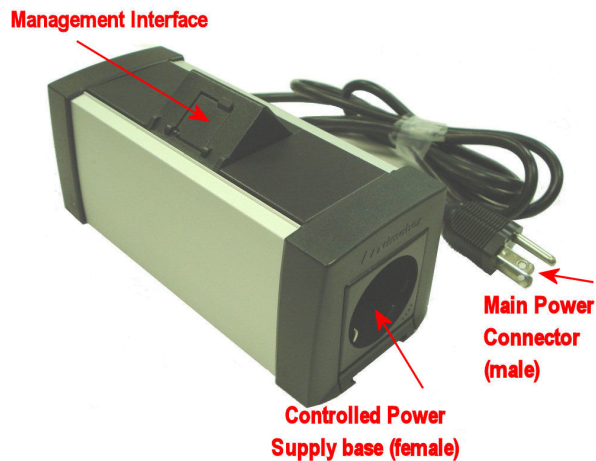


Fig. 1: MTC-1 EU: External aspect

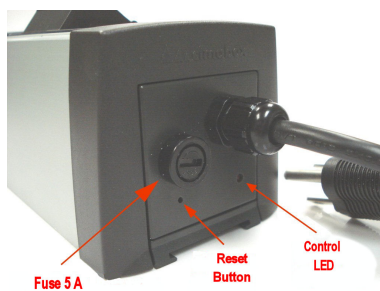


Fig. 2: Detail

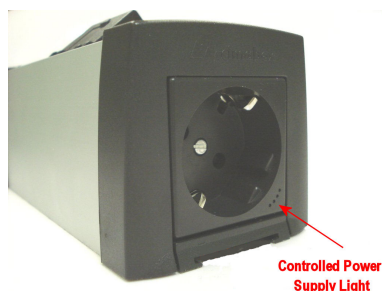


Fig. 3: Detail

Figures 1 and 2 show an MTC-1 equipped with a European controlled power base.

Figure 3 shows a device with a USA base.



Fig. 4: MTC-1 US (American)

In some models, a C14 connector can be found at the end of the main power cable. This allows you to connect a power cable, with a specific connector, in the country where it is being used.



Fig. 5: C14 Connector

Occasionally, you may need to add an adapter to the controlled power base to make it compatible with the standard connector for a specific country.

The supported power voltages may also be different. Please check the device label to verify that the voltages the device can withstand are appropriate for the installation site.

Apart from the two models described in this manual, there are other possible combinations. For instance, a model can be manufactured with connections for the US with a power voltage of 220/240 V (instead of 110/130 V).

1.1.1 Device Elements

- Main power supply connector: this should be connected to the power supply for the whole system i.e. the mains (normally this is a wall socket or an uninterrupted power system).
- External device: the device where you need to control the power.
- Controlled Power Base: supplies power to the external device.
- Teldat Router: device controlling the MTC-1 function.
- Management Interface: Teldat router commands receiver.
- Reset Button: forces a device to reset to its initial state.
- Control LED: provides information on the operating device. On device startup, this blinks for a few seconds.
- Controlled power supply light: it indicates the state of the controlled power supply base. If the light is on, the controlled power is receiving power from the main electricity supply.

1.1.2 Functionality

The MTC-1 allows you to remotely control the *power flow* from the *main power connector* to the *controlled power base*.

There are two possible states:

- *Permitted* power flow.

Controlled power supply light ON.

Initial status of device.

The external device receives power.

- *Cut* power flow.

Controlled power supply light OFF.

External device does not receive power supply.

The switch from one state to the other, is carried out through the management interface, which must be connected to a Teldat router.

1.1.3 Recycling and the Environment

Please do not, under any circumstances, throw away any **MTC-1** with normal domestic waste. Ask your local town hall for information on how to correctly dispose of them in order to protect the environment against e-waste. Always respect the current laws regarding waste material. Anyone found violating the environmental laws will be subject to fines and any additional steps established by law.

All the packing materials, i.e. the cardboard box, plastic and any other packaging, together with the pieces making up a **MTC-1**, must be recycled complying with the current active laws regarding recycling materials.



The above symbol, with a cross over the rubbish container, can be seen on the device. This means that, when a device reaches the end of its life, it must be taken to the official recycling/disposal centers where it must be disposed of in an environmentally responsible manner and separately from normal domestic waste.

1.2 Connections



Note

BEFORE INSTALLING THE ROUTER, PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

Workplace Conditions. Main Characteristics

- Excessive cold and heat should be avoided, as should humidity and dust.
- Avoid direct exposure to sunlight and any other heat sources. Do not place the device between papers, magazines or other items that could hinder natural air circulation.
- Do not place the device near strong electromagnetic fields such as those produced by speakers, motors, etc.
- Avoid knocks and/or strong vibrations during transport, operation and storage.



Warning

The electric current in power cables, telephone lines and communication cables is dangerous. To prevent electric shocks, before installing, handling or opening the equipment covers, connect and disconnect the cables following the steps set forth in the following tables:

To Connect	To Disconnect
Make sure the MTC-1 is not connected to the main electricity supply and the external device is disconnected (the on/off switch is in the OFF position).	Disconnect the data cable from the MTC-1.
Connect the data cable to the management router.	Switch off and then disconnect the external device from the Controlled Power Base.
Connect the data cables to the MTC-1.	Disconnect the MTC-1 from the main electricity supply.

Connect the MTC-1 to the main electricity supply.	
Connect the external device to the MTC-1 Controlled Power Base.	
Switch on the external device.	



Note

The MTC-1 device, once connected to the main electricity supply (provided that a disconnection command has not been sent), presents an active state in the Controlled Network Base. I.e. the device connected to said base immediately receives power from the mains.

1.2.1 Management Connection

The MTC-1 is connected to the Teldat router through a flat RJ45 connector. When it's connected to an Atlas device, add an RJ45-DB9M adaptor.

To check the connection between both devices, access the router monitoring menu, **POWER-SWITCH** via **TELNET** and execute the **VERSION** command. The router, under normal conditions, responds. Please see the [Troubleshooting](#) on page 9 if it doesn't.

1.2.2 Standard Connection Scheme

The MTC-1, in this configuration, controls the power supply for an external device which is not the router managing the MTC-1 (Figure 5).



Warning

All interconnected communication devices should be plugged to THE SAME GROUNDED POWER OUTLET, which should at the same time be of good quality (lower than 10 ohms).

Whether the workplace is provided with an uninterrupted power supply system (UPS), regulated supply or it is independent from the rest (such as lighting, etc.); it is highly recommended that all data devices should be connected to the same power source. This will avoid operating and premature aging problems of drivers and other components.

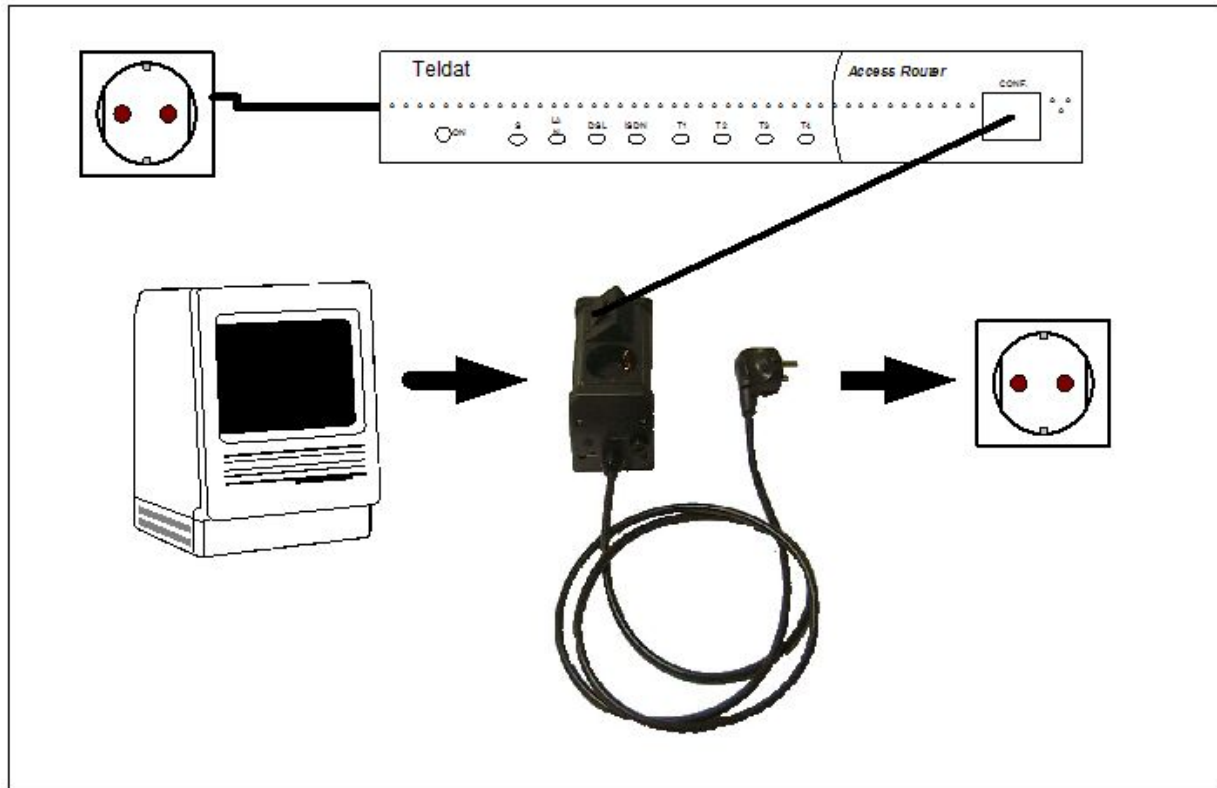


Fig. 6: Standard connection schema

1.2.3 Connecting the Management router powered by the MTC-1 scheme

In this configuration, the MTC-1 controls both the power for an external device and from the router managing the MTC-1 (Figure 6).

If you use this, please bear the following in mind:

- On executing the **OFF** command, the router is inaccessible until you press the MTC-1 *RESET button* (see Figure 2).
- On executing the **RESET** command, the router is temporarily inaccessible until it has restarted again, i.e. the current connection is closed.

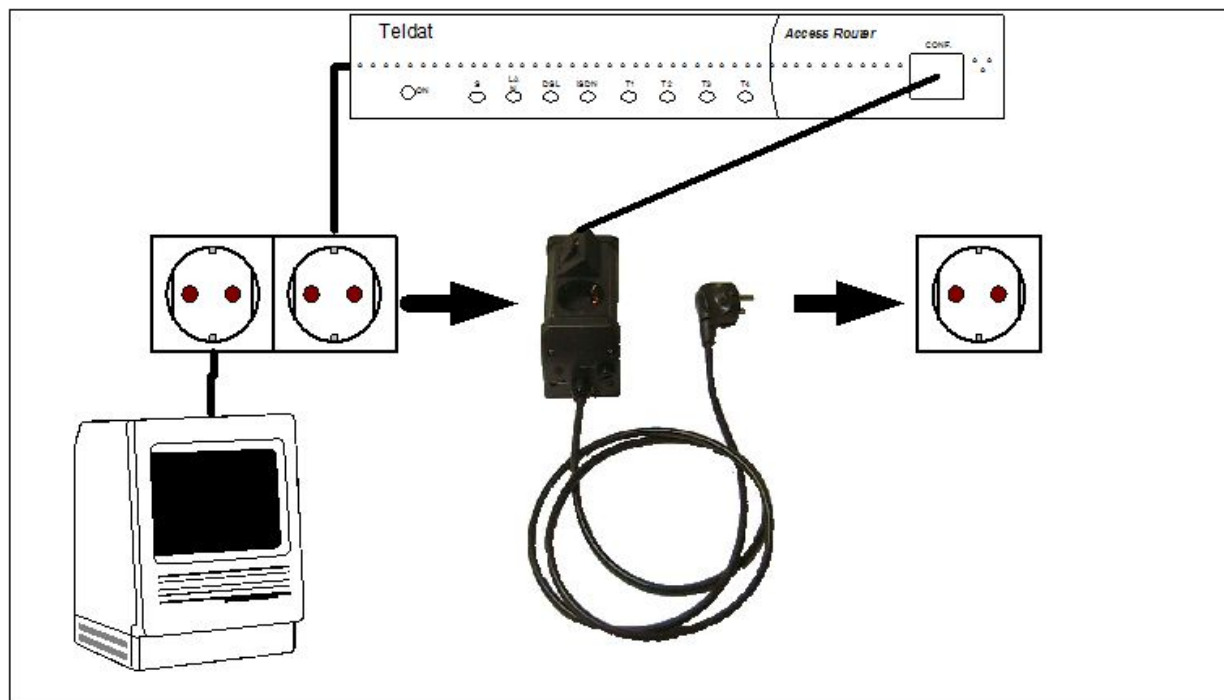


Fig. 7: Connecting the management router

1.3 Power-Switch Command

This command is found in the router monitoring menu. Enter **P3** to access it.

Subsequently, access the POWER-SWITCH monitoring menu by entering **Feature power-switch**.

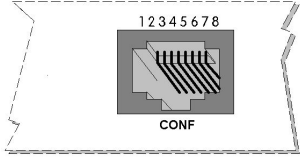
The available commands are displayed by entering **?**.

ON	Supplies power.
OFF	Cuts off the power supply.
RESET	Equivalent to an OFF command which after 10 seconds is followed by an ON .
STATUS	Displays the status (ON/OFF).
VERSION	Displays the code version.
EXIT	Exits the POWER-SWITCH menu.

These commands will only take effect if executed through TELNET.

1.4 Connectors

1.4.1 Management Connector

RJ45 MANAGEMENT	RJ45 PIN	CONF
	1	--
	2	TxD
	3	GND
	4	DBG-TxD
	5	DBG-RxD
	6	GND
	7	RxD
	8	--

1.5 Technical Specifications

Hardware Architecture

PROCESSOR	MC68HC908KX2
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Management Interface

LOCAL TERMINAL	V.24 9.600-8-N-1-without flow control
CONNECTOR	RJ45 female

MTC-1 Device (Europe)

Main Power Connector

POWER SUPPLY	220-240V AC
INPUT FREQUENCY	50-60 Hz
MAXIMUM INPUT CURRENT	6 A
MAXIMUM POWER	1440 W

Controlled Power Base

OUTPUT POWER SUPPLY	220-240V AC
OUTPUT FREQUENCY	50-60 Hz
MAXIMUM OUTPUT CURRENT	5 A
MAXIMUM POWER	1200 W
FUSE	5 Amps - 240V fast. (Homologate standard EN60950-2000),

MTC-1 Device (America)

Main Power Connector

POWER SUPPLY	110-130V AC
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INPUT FREQUENCY	50-60 Hz
MAXIMUM INPUT CURRENT	6 A
MAXIMUM POWER	780 W

Controlled Power Base

OUTPUT POWER SUPPLY	110-130V AC
OUTPUT FREQUENCY	50-60 Hz
MAXIMUM OUTPUT CURRENT	5 A
MAXIMUM POWER	650 W
FUSE	5 Amps - 240V fast. (Homologate standard EN60950-2000),

1.6 Troubleshooting

The following table can help you solve problems when installing the device. If you cannot solve the problem, contact your dealer for more information.

Symptom	Solution
The Control E1 LED does not blink for a few seconds when connected to the power base or when you press the Reset button.	Check the main power connector.
The Controlled Power Light does not light up.	Check the main power connector. Check the fuse (*)
You do not receive responses to commands.	Check the management interface connection cable. Press the Reset button (see Figure 2). Check the main power connector.
You do not receive responses to commands, however these execute.	Check the management interface connection cable. Press the Reset button.
You receive responses to the commands, however these do not execute.	Check that the external device connected to the MTC-1 has an ON/OFF switch. If so set to the ON position (connected). Press the Reset button Check the fuse (*)

(*) PLEASE NOTE:



Warning

Do not handle or carry out any type of maintenance or inspection operation on the MTC-1 device when this is connected to the main power supply.

**Warning**

In cases where the fuse needs to be substituted, you **MUST** physically disconnect the device from the main electricity supply and from all other devices and/or equipment. Only qualified personnel should replace the fuse. **ONLY** use a fuse of the same electronic characteristics and correctly homologated.

1.7 Translated Safety Warnings

	Do not handle or carry out any type of maintenance or inspection operation on the MTC-1 device when this is connected to the main power supply.
	No manipule ni efectúe ninguna operación de mantenimiento o inspección del equipo MTC-1 cuando esté enchufado a la Red Eléctrica.
	In cases where the fuse needs to be substituted, you MUST physically disconnect the device from the main electricity supply and from all other devices and/or equipment. Only qualified personnel should replace the fuse. ONLY use a fuse of the same electronic characteristics and correctly homologated.
	En caso de sustitución del fusible, el equipo deberá estar obligatoriamente desconectado físicamente de la Red Eléctrica y de todos los demás equipos o dispositivos. El fusible deberá ser reemplazado sólo por personal cualificado por uno de las mismas características eléctricas y debidamente homologado.
	Do not connect, under any circumstances whatsoever, a device or equipment to the controlled power supply socket whose power is higher than that specified in the technical specifications in this manual.
	No conecte, bajo ninguna circunstancia, en la toma de alimentación controlada un dispositivo o equipo cuyo consumo de potencia supere lo especificado en las características técnicas de este manual.
	There are no elements or parts contained in the interior of this device that require any maintenance or that can be replaced by the user.
	No existen en el interior del equipo elementos o piezas que requieran mantenimiento o puedan ser reemplazadas por el usuario.
	The electric current in power cables, telephone lines and communication cables is dangerous. To prevent electric shocks, before installing, handling or opening the equipment covers, connect and disconnect the cables following the steps set forth in the relevant sections.
	La tensión eléctrica de los cables de alimentación, de los cables de la línea telefónica y de los cables de comunicación es peligrosa. Para evitar descargas, antes de instalar, mover o abrir las cubiertas de este equipo, conecte y desconecte los cables siguiendo el orden que se detalla en los apartados " Conectar " y " Desconectar ".
	All interconnected communication devices should be plugged to THE SAME GROUNDED POWER OUTLET , which should at the same time be of good quality (lower than 10 ohms). Whether the workplace is provided with an uninterrupted power supply system (UPS), regulated supply or it is independent from the rest (such as lighting, etc.); it is highly recommended that all data devices should be connected to the same power source. This will avoid operating and premature aging problems of drivers and other components.
	Todos los equipos de comunicaciones interconectados deberán estar unidos a UNA MISMA TOMA DE TIERRA , a ser posible de buena calidad (inferior a 10 ohmios). Si la instalación está dotada de un Sistema de Alimentación Ininterrumpida (SAI), alimentación estabilizada, o bien es independiente del resto (alumbrado, etc.), conecte todos los equipos de comunicaciones a la misma fuente de alimentación. Así, se ahorrará problemas de funcionamiento y envejecimiento prematuro de drivers y demás componentes.