T·tel 2

Emergency Alarm System For Analog Line (POTS)

User Guide

SW 1.4

Rev. 02 del 02/08/2011

THANKS FOR YOUR CHOICE OF A PRODUCT MANUFACTURED BY **TELEDIF ITALIA**

Please read this manual carefully and keep it handy for any consultation; this will allow to obtain the best performance and to use the features and functions of theTSA 2 in the best way.

T.tel 2 is a telealarm system specifically designed to help people eventually locked in a cabin lift by raising an alarm to a service center and allowing emergency two way voice communication.

T.tel 2 is compliant to the following recommendations: Direttiva 95/16/CE, EN 81-28, EN 81-70, EN 81-72, CTR 21; EN 50082, EN 627 EN 50081-1:1991, EN55022, CEI EN139-4/A2:2003, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-6, EN61000-4-8 .

Main functionalities of T.tel 2:

- Bi-directional (talk/listen)
- Self-diagnostic of the main functionalities
- Audio levels adjustment by trimmer
- Real Time Clock with automatic summer/winter time change
- Identification code of call type
- Four independent call and comunication systems; Cabin, Pit, Cabin Roof, Engine Room
- Programmable filter main alarm
- Four alarm input with open/close contacts
- Programmable End of Alarm procedure
- PreAlarm message
- Warning/reassurance message
- System ID message /location)
- Identification message per type of alarm or location
- System information messages
- Telediagnostic on demand and scheduled (programmable)
- Battery alarm with programmable threshold and test duration
- Alarms programmable for voice call or Calling ID (CLI)
- Programmable call center communication procedure
- 2 programmable Relais for automatic management of sent and acknowledged alarm
- System Programming and verification, local and remote, with voice guide and help
- 11 telephone numbers that can be associated to different balarms and signalling

TECHNICAL SPECIFICATIONS

Power supply:	Da 10 a 16 Vdc
Max power consumption @ 12Vcc (RMS):	300 mA
Min power consumption @ 12Vcc (RMS):	30 mA
Max relay contacts current:	3A @ 120Vac or 3A @ 24Vdc
Real time clock (RTC):	Quartz controlled, ± 5 minuties/year
Card size (without connectors):	100 (L) x 160 (H)
Box size:	155 (L) x 184 (H) x 35 (D) mm
Weight:	About 200 g
Operating temperature:	+ 1°C to + 40°C
Storage temperature:	- 20°C to + 40°C
Operating and storage humidity:	20% to 80%

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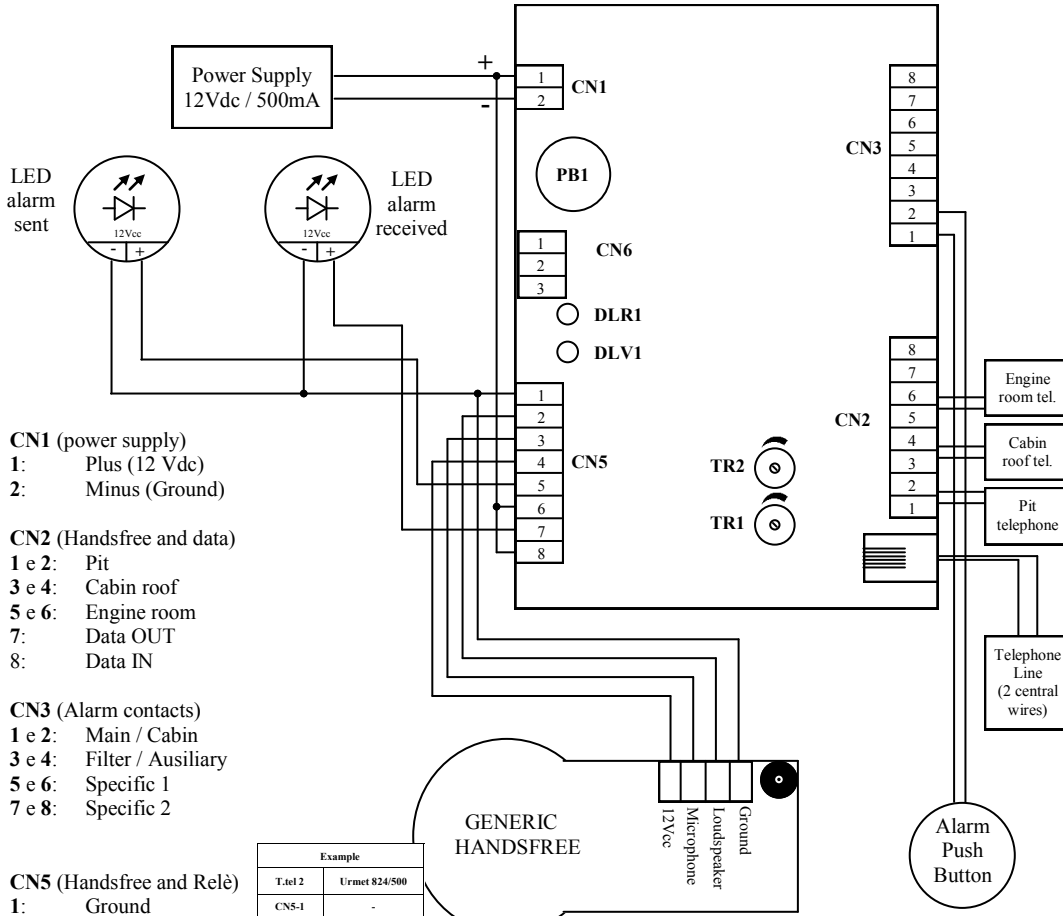
QUICK START

To quickly install the T.tel 2 and use its basic services please read and follows these basic steps:

1. Open the plastic enclosure
2. Connect the telephone line to the plug CN_TEL1 (two central contacts)
3. Connect a telephone set (CN2-1 and CN2-2)
4. Connect the alarm push button (CN3-1 e CN3-2)
5. Connect the cabin list loudspeaker hand free telephone (CN5-1 to CN5-4)
6. Feed T.tel 2 through a 12Vdc/500mA power supply (CN1-1 and CN1-2) matching the polarity.
7. Store from the local phone at least one emergency telephone number (parameter "81", page 15)
8. Hang up the phone and wait for the red LED stop flashing. If the red LED start fast flashing (like the green LED) refer to section "C.4".
9. The system is ready to operate when the green LED flashes fast and the red LED is off.
10. Break the appropriate notches in the plastic cover to pass the wires through.
11. Close the plastic enclosure .

A.1) GENERAL WIRING DIAGRAM



CN1 (power supply)
1: Plus (12 Vdc)
2: Minus (Ground)

CN2 (Handsfree and data)
1 e **2**: Pit
3 e **4**: Cabin roof
5 e **6**: Engine room
7: Data OUT
8: Data IN

CN3 (Alarm contacts)
1 e **2**: Main / Cabin
3 e **4**: Filter / Ausiliary
5 e **6**: Specific 1
7 e **8**: Specific 2

CN5 (Handsfree and Relè)
1: Ground
2: Loudspeaker
3: Microphone

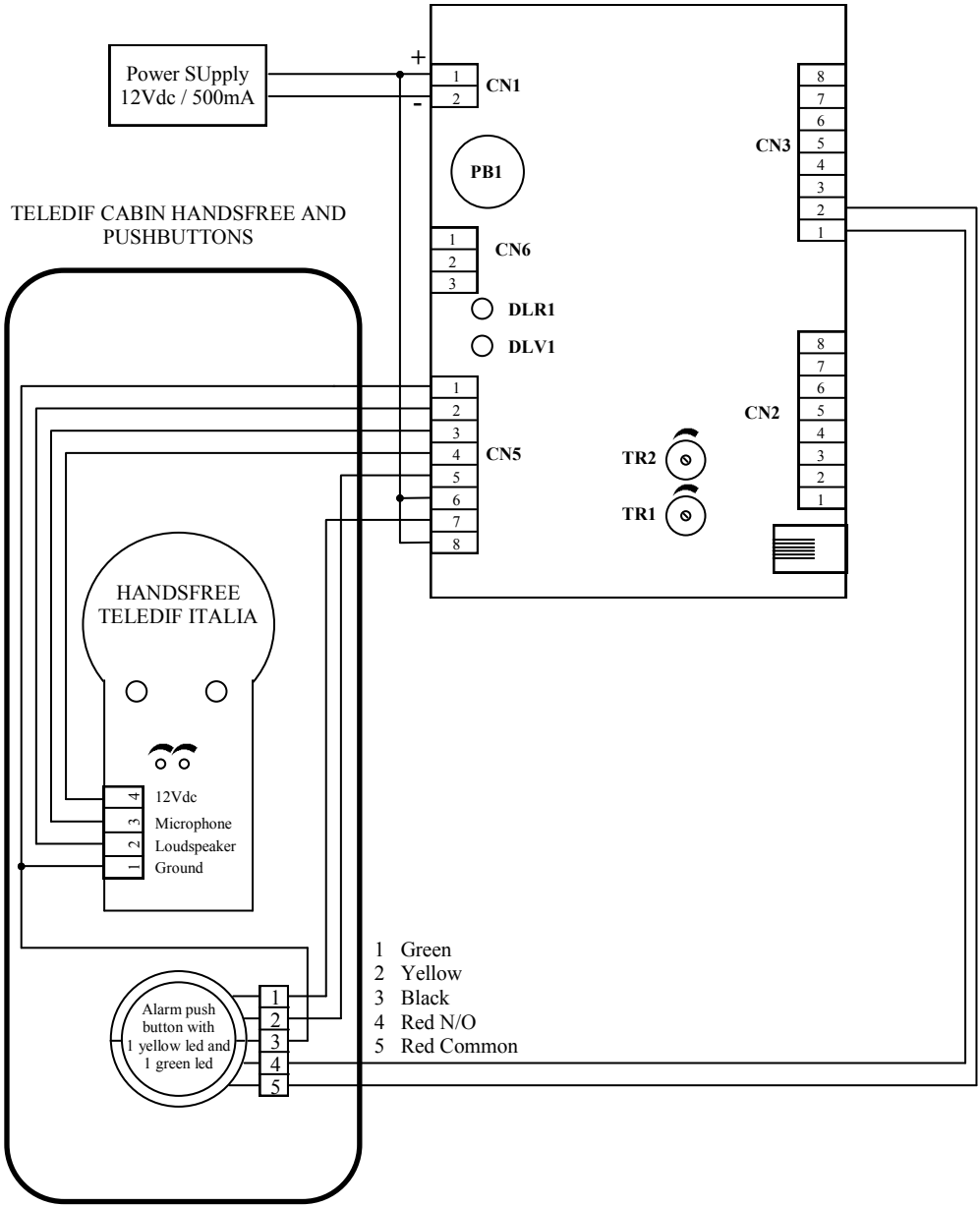
4: PS out (12 Vcc)
5: Relè 1 N/O
6: Relè 1 Common
7: Relè 2 N/O
8: Relè 2 Common

Example	
T.tel 2	Urmet 824/500
CN5-1	-
CN5-2	1
CN5-3	2
CN5-4	+

CN6 (Handsfree doorphone)
1: Loudspeaker
2: Microphone
3: Ground

DLV1: Green Led "ON"
DLR1: Red Led "LINE"
TR1: Audio level from local phones and PSTN to Handsfree
TR2: Audio level from Handsfree to local phones and PSTN
PB1: CR2032 3V battery for real time clock

B.1) WIRING DIAGRAM WITH TELEDIF PANEL AND HANDS FREE



OPERATION

T.tel 2 system has 4 system status:
1. SELF-TEST
2. OPERATING
3. PROGGRAMMING
4. ERROR (WARNING)

C.1) SELF-TEST

The condition of self test is displayed by a slow flashing red LED LINE. When switched on, the TSA2 automatically starts the self-test procedure to check the minimum conditions for proper operation, such as:
1. At least one telepohone number programmed
2. Supply voltage within the range
3. A telephone line connected

The self-test procedure is performed whenever any of the following conditions happen:
- Switching on of the system
- Hanging up the phone after a telephone number for main alarm has been recorded or erased
- After an automatic or manual system reset

At the end of the self test the red LED off indicates that the system is working correctly, the red LED fast flash indicate an error condition (see section C.4)

C.2) OPERATING

C.2.1) Events and Priorities

T.tel 2 manages alarms and events in order of priority

1. LOCAL TELEPHONE SETS
2. MAIN ALARM (CABIN)
3. MAINTENANCE ALARM
4. AUXILIARY ALARM (ref to C.3.2 parameter 22)
5. BATTERY ALARM
6. TECHNOLOGICAL ALARM 1
7. TECHNOLOGICAL ALARM 2
8. END of ALARM
9. SELF TESTI
10. INCOMING CALL

T.tel 2, always manages events at higher priority (Event 1 has higher priority than Event 2, etc). If a higher priority event is generated during an existing event, the T.Tel 2 freeze the procedure in progress to handle the new event and only at the end it resume the event frozen.

C.2.1.1) Intercom Handset

T.tel 2 can connect an intercom handset to be compatible with TSA systems.

From the intecom handset it is possible to:
- Initiate the end of Alarm procedure, if programmed
- Talk/listen with the hands free of the cabin
- Listen for any error messages

Picking up the intercom handset opens the audio with the cab for up to 120 seconds. Hanging up and picking up again allows to talk further 120 seconds.

C.2.1.2) Local telephone sets

Up to 3 local telephone sets can be connected to T.tel 2, in addition of the cabin handsfree and intercom.:

Telephone set 1 = Pit
Telephone set 2 = Cabin Roof
Telephone set 3 = Engine Room

Each telephone set, if connected, can send a maintenance alarm with the relevant message (alarm pit, cabin roof or engine room).

From a local telephone set is also possible to :

a. Start the End of Alarm procedure, if programmed
b. Avctivate the relais, if programmed
c. Send the relevant alarm message
d. Request the system ID
e. Talk with the cabin handsfree
f. Start the self check procedure, if the system is idle
g. Start programming T.tel 2
h. Check programming options
i. Record and playback messages

Local telephone sets have a timeout of 60 seconds. If no key is pressed within the timeout any further action is no more considered until the "*" asterisk key is again pressed. Timeout expiration is notified by a voice message.

C.2.1.3) Main Alarm (cabin)

The cabin alarm call is generated by pressing the alarm button for the length of time programmed. The system, if programmed, provides a pre-warning message and then starts processing the alarm with the announcement of the reassurance message to the cabin.

The called party receives the identification message of the cabin (if programmed) and, by pressing the 5 key can immediately enter into communication with the cabin. The keyboard of the telephone receiving the alarm can activate all the programmed options by using DTMF tones.

The alarm call is considered successful only when the operator acknowledge it by dialling the "5" key and enter into communication with the cabin.

It is possible to program up to 5 different numbers for alarm calls; the system selects them in a loop until it receives a valid response or until completion of the programmed cycle.

At the beginning of each new cycle the system anounce a reassurance message in the cabin.

Reports of "Alarm Sent" and "Alarm Received", unless otherwise managed, can be activated automatically by the relays of the T.tel 2 if properly programmed (see section C.3.7).

C.2.1.4) Auxiliary Alarme or Main Alarm Filter (cabin)

The "Filter" function, when active, avoid the start of the Main Alarm procedure. It is a logical contact status, programmable to N/O or N/C.
If differently programmed, this contact can be used as Auxiliary Alarm contact (refer to C.3.2 parameter 22).

C.2.1.5) Maintainer Alarm: pit, Cabin Roof, Engine Room

It is possible to send a maintenance alarm call from any of the 3 telephone connected to T.tel 2. This alarm is generated just by picking up the telephone set and digiting 3. The system recognizes the telephone set generaing the call and send the relevant alarm message together with the location message.

C.2.1.6) Battery Alarm

T.tel 2 automatically start a battery alarm call when the battey voltage is below a programmad value for more than a programmed time.

The system is also provided of a data input connector (CN2 pins 8 and Ground) to manage, if connected, events generated by the Teledif Italia T.ali intelligent battery charge.

The battery alarm is reported by means of one of the following:

- Dialling a preprogrammed telephone number and sending a System ID message (location) plus a battery alarm message
- Dialling a preprogrammed telephone number in Caller ID mode (CLI), refer to C.3.9.

C.2.1.7) Technological Input

T.tel 2 has 2 independent and programmable inputs for technological alarms or signalling.
Each input can be configured as N/O (normally open) or N/C (normally closed); it is also possible to program the trigger time (time that the contact must stay in the new state to start an alarm).
The technological input can generate one of the following events:

- Dialling a preprogrammed telephone number and sending a System ID message (location) plus the technological alarm message 1 or 2
- Dialling a preprogrammed telephone number in Caller ID mode (CLI), refer to C.3.9
- A “Gong” signal played in the cabin.

C.2.1.8) End of Alarm

At the end of a Main Alarm the T.tel 2 can handle an End of Alarm procedure or a Notification of Alarm acceptance in three different ways

a. **From remote**:
   After an alarm call, call back the phone number of the T.tel 2 which generated the alarm and dial * <Password> 0, i.e. * 1234 0

b. **From Local**:
   - Picking up the headsset of one of the telephone sets and dialing * <Password> 0
   - Lift and hang up the handset of the intercom

c. **Automatic**:
   - The acceptance of a call (key 5) triggers an automatic notification call to the number programmed

The End of Alarm procedure, if programmed, performs the following functions:

- Turn off the alarm signal, if it is managed by the T.tel 2 relay
- Start a call to the programmed number in voice mode or Caller ID (CLI).

In case that the relay and the telephone number are not programmed, T.tel 2 send an error message.

C.2.1.9) Telediagnosis/self check

The system has two different self check modalities:

- On demand
- Periodically: at time intervals programmable (day/hour/minute)

A self check call can be performed in the following modalities:

- Dialling a programmed number and sending ID messages
- Dialling a programmed number in Calling ID (CLI) mode (refer to C.3.9).

A self check on demand can be started from any local or remote telephone.

a. Local telephone request:
   1. Pick up the headset
   2. Dial asterisk and password, * <password>
   3. Dial 6
   4. Hang up

The system now starts a self check call in the modality programmed.

b. Remote telephone request:
   1. Dial the T.tel 2 telephone number
   2. At the answer (ID message) dial Asterisk, password and 6, i.e. * <password> 6
   3. Hang up

The system now starts a self check call in the modality programmed.

C.2.1.10) Incoming call

T.tel 2 answers to an incoming call after the number of programmed rings, by giving its ID message (location).
To access to the system, digit the following commands:

1. Asterisk (*****)
2. The sysstem answers with the message “enter password” or “insert code”
3. Digit the password, if programmed, if not digit directly the control code for the command or procedure you want to activate
4. IThe system answers with the message "password correct" or "password incorrect", "correct code" or "wrong code" or with the corresponding function message
5. Enter 5 to open the voice channel with the hands-free of the cabin (the cabin, for privacy reasons is warned by a “beep”, at regular intervals)
6. To close the connection enter "9" or hang up

If you do not enter the key * (asterisk) within the time set with parameter "05", the system warns with a sound signal indicating the timeout and then it releases after 10 seconds.

In the case of the occurrence of an event with higher priority the incoming call is closed and the system will initiate the procedure to manage the new event.

NOTE: When the TSA 2 is connected to a GSM gateway and not to an analog phone line or internal PBX line, the detection of DTMF tones could be difficult, especially in the presence of a weak signal. In this case the following precautions must be used in sending DTMF tones:

1. Only send DTMF when system messages are ended
2. Wait at least one second between each digit

C.2.1.11) Answer to an alarm call generated by the T.tel 2

When the operator of the call center answers the call, he receives the System ID message (location, ref. Par. C.3.3 parameter 30) followed by the message indicating the alarm originator (cabin, pit, cabin roof or engine room) and by the instructions on how to accept the alarm and get in communication with the caller ("dial 5 to get connected").

The messages are repeated until the operator answers the call digiting "5"

The command 5 activate the voice communication with the cabin and start the programmed timeout; if programmed it also switches on the relay 2 (alarm received) for the programmed time (Section C.3.7 parameter "72").

When approaching the end of timeout (10 seconds from the end) a short message or beeping tones are played. Digiting any number regenerates the time out.

While connected it is possible to access to "remote controls" (Section C.2.2) using the relevant codes.

The communication is ended and the TSA 2 returns to the idle state in the following cases:

- when receiving the digit "9"
- when receiving a busy signal from the telephone line
- at the end of "communication timeout"

C.2.1.12) Answer to a data call Ademco contact ID generated by T.tel 2

By setting Parameter 11 to value 3, T.tel 2 is programmed to send the alarm calls to a call center using the Ademco Contact ID protocol.

With the ADEMCO protocol is always possible to use voice communications playing location messages dialling 7, talking to the cabing dialling 5 and hanging up with 9.

ADEMCO message: **ACCT MT Q COD GG ZON**

ACCT = Four digit System ID (lower 4 digit of parameter 04)
COD = Code relevant to the alarm type
ZON = Alarm zone

C.2.2) System access and control code

The access to T.tel 2 system is possible by means of:

a. Local telephone:
   1. Pick up the handset of a local phone
   2. Dial asterisk

b. Remote telephone:
   1. Dial T.tel 2 telephone number
   2. When you get the answer (ID message), dial asterisk

In both cases is then necessary to dial the password, if programmed (ref C.3.1, parameter 01), then the "TELECONTROL" or "PROGRAMMING" control codes.

TELECONTROL CODES		
FUNCTION	**CODE**	**ACTIONS T.tel 2**
End alarm	0	Start, as soon as possible, the end of alarm procedure
Activate Relè 1	1	Control relay 1 (ref. C.3.7 parameter 70)
Activate Relè 2	2	Control relay 2 (ref. C.3.7 parameter 71)
Maintainer/maintenance alarm	3	Send Alarm: "pit" or "cabin roof" or "engine room" according to the originator
ID request (System ID code)	4	Send through DTMF the programmed ID (ref. C.3.1 parameter 04) and the ID code of the call tipology (ref. C.3.1 parameter 11)
a. Enable c onversation b. Acknowledge the call c. Reload the communication Timeout	5	a. Open the communication with the cabin b. Call suceeded c. Extend the timeout
Self check request	6	Start the procedure to perform a self check call
Listen to the Location Message	7	Playback the initial message relevant to the alarm under management
a. Close the conversation b. Hang up the call	9	a. Close the audio from local phones to intercom b. Hang up the call in case of : - outgoing call acknowledged by 5 - incoming call with correct password
Enter program mode	#	Wait for write or read meswsages

C.3) PROGRAMMING

Programming allows to Read and Write system parameters and use the following syntax:

Write:
WRITE CODE (11) + PARAMETER + ASTERISK (*) + VALUE + ASTERISK (*)
Read:
READ CODE (12) + PARAMETER

PROGRAMMING CODES		
FUNCTION	**CODE**	**ACTIONS T.tel 2**
Enter in program mode	#	Wait write or read code
Exit program mode		Wait write or read code
WRITE Code	11	WRITE a value in a parameter
READ Code	12	READ a value from a parameter

To start programming from a telephone:

1. Access the syste3m from a local or remote telephone
   - From a local telephone pick up the headset and dial asterisk;
   - From a remote telephone dial the telephone number of T.tel 2, wait for the location message and then dial Asterisk;
2. Wait for password request
3. Dial the password
   - Wait for the password correct message
4. Dial #
   - Wait for start programming message
5. Dial the programming codes and parameters according to the syntax
   - For each correct code/paramenter set the system acknowledge with a confirmation message
   - For each wrong or not possible programming the system play an error message
6. To exit programming hang up or dial #
   - The system acknowledge with a message

Example:

*** 1234 # 11 02 * 5 ***

Where "*" allows you to access the system, "1234" is the password, "#" allows access to programming, "11" writing code, "02" parameter concerned, "*" beginning of the value of the "5 " is the new value of the parameter to be changed and " * " is the end of the value of the parameter.

Once entered programming mode it is possible to read or write all the parameters in sequence without having to hang up and / or exit programming.

Example:
* 1234 # 11 02 * 5 * 11 20 * 3 * 11 41 * 01 * ... and so on ...

When in programming mode the system has a timeout of 60 seconds; after this time it delivers the message: "Timeout expired" and exits the programming mode. Repeat the programming procedure to reenter programming mode.

C.3.1) SYSTEM SETTINGS

SYSTEM PARAMETERS					
PARAME-TER	**VALUE**	**Default**	**YOUR Values**	**FUNCTIONS**	**NOTES**
00	00	-	-	Reset program settings	Reset all parameters to de-fault values (do not delete the messages, do not reset date/ time)
01	0000 to 9999	1234		Password	0000 = password disabled
02	1 to 9	1		Rings	N° of rings to answer incoming calls
04	000000 to 999999	000000		System ID	-
05	01 to 99	02		Communication Timeout	In MINUTES Time duration of the communication between the intercom and the telephone
06	010 to 999	060		Awaiting confir-mation	In SECONDS Waiting time between starting of dialing and confirmation digit (5)
07	-	-	-	Software Release	Example: 10 means SW reelase 1.0
10	YYMMDDhhmm	-	-	Setting DATE and TIME	YY = Year MM = Month DD = Day hh = Hour mm = Minute
11	1 to 3	1		How to manage codes identifyng the type of call	1 = Mode DTMF 1 2 = Mode DTMF 2 3 = ADEMCO Ref. C.3.11
12	-	-	-	Voltage supply	In TENTHS of VOLT (+/ - 0,1V) Example: 125 = 12,5 Vcc READ only
13 (nota)	1 to 9	5		Amplitude DTMF tone	1 = Amplitude min 9 = Amplitude max
14 (nota)	0 to 9	2 (100ms)		DurationDTMF tone	Step by 20msec: 0 = 60msec 9 = 240msec
15 (nota)	0 to 9			Pausa intercifra toni DTMF	
16	1 to 9	2		Time waiting before dialing.	In SECONDS
17 (nota)	0 to 4	2		Amplitude of the differential frequenc y of the DTMF tone	In dB
18	1 to 9	5		Sensitivity of reco-gnition of busy tone	1 = Max sensibility: faster in recognizing the busy tome
19	0 / 1	1		Telephone line connected check	0 = No 1 = Yes
28	05 to 90	10		Input ring duration setting	In tenths of msec. 10 = 100 msec.

*** **Note**: consider cahnging these parameters only after consulting Teledif Italia.

C.3.2) - MAIN ALARM AND MAINTAINER (PIT, TETTO, SALA MACCHINA)
- AUXILIARY ALARM or FILTER MAIN ALARM
- END OF ALARM

MAIN AND AUXILIARY ALARM					
PARAME-TER	**VALuE**	**Default**	**Your Value**	**FUNCTION**	**NOTES**
81	Max 20 digit	-	-	1° tel **Alarm principale**	Your No:
82		-	-	2° tel **Alarm principale**	Your No:
83		-	-	3° tel **Alarm principale**	Your No:
84		-	-	4° tel **Alarm principale**	Your No:
85		-	-	5° tel **Alarm principale**	Your No:
91		-	-	Tel **Alarm ausiliario**	Your No:
20	0 to 9	2		No of call cycles of the **main and auxiliary alarm**	0 = ENDLESS
21	0 or 2 to 9	2		Minimum time to push the **main and auxiliary alarm**	In SECONDS 0 = start immediately without warning message
22	0 to 3	0		Auxiliary alarm and filter main alarm	**0** = Filter call **main alarm** deactivated **1** = Filter normally open: when closed the **main alarm** is not sent **2** = Filter Normally Closed: when open the **main alarm** is not sent **3** = Used as **ausiliary alarm**
23	1 / 2	1		Working mode of the contact for **main and auxiliary alarm**	1 = Enabled N/O (Normally Open) 2 = Enabled NC (Normally closed)
24	0 / 1	1		Playing message **"**pre-alarm" on the **main alarm**	0 = Disabled 1 = Enabled (programming not relevant if parameter 21 = 0)
Factory set, not pro-grammable		5	-	Time between 2 calls **main or auxiliary** or **maintainer alarm** not suceeded	In SECONDS
END of ALARM					
80	Max 20 digit	-	-	**End of alarm** tel. No	Your No:
25	0 to 9	2		No of **end alarm** call cycles	0 = ENDLESS
26	1 / 2	1		Management of **end alarm**	1 = Start of **end alarm** only from local telephone 2 = Start of **end alarm** from local or remote telephone
Fix		3	-	Time between two sucee-ded calls	In MINUTES

To erase a programmed telephone number overwite or store an empty value, for example: 11 82 **.

C.3.3) MESSAGGES

The system provides 2 types of messages:

- System messages: predefined massages that cannot be changed by the user.
- User-recordable messages: 6 messages that can be associated to specific functions.

In order to record good quality messages, the duration of the messages must be estimated in advance and programmed before each recording. A message can be recorded from a local or remote telephone.

Recording from a local or remote telephone:

1. Hang up the local telephone or dial the number from a remote telephone and dial asterisk
2. Dial the password
3. Dial # to enter programming mode
4. Dial the code of message to be recorded as follows:
5. 11 33 * 08 * where:
   - 11: enable Write parameters
   - 33: code of the message that you want to record (i.e. “Technologic 2nd”)
   - *: start tag
   - 08: approximate duration of the message in seconds (8 in this example)
   - * end tag
6. The system answers with the message: “Record after the beep”
7. Talk clearly in the microphone of the telephone set
8. After the specified time the system will confirm: “mesasge recorded”
9. To listen to the recorded message, dial 12 followed by the code of the message. I.e. 12 33 to playback the message “Technologic 2nd”.
10. If the message is not properly recorded restart the process from point 4.

NOTE: In case the recording is noisy and / or not good quality, make sure the T.tel 2 is powered by a battery or a good efficient power supply and the phone used is good quality.
A system reset does not erase the recorded messages.
NOTE: Systems for lift are supplied with pre-recorded cabin alarm messages
.

PARA-METER	VALUE	DEFAULT	MESSAGE	NOTE
30	00 Or 02 to 20	00	**System ID** (LOCATION)	00 = Parameter not programmed Value = duration of the message to be recorded in seconds
31	02 to 20	(1)	**Reassurance message in cabin**	
32	02 to 15	(1)	**Technologic 1**	
33	02 to 15	(1)	**Technologic 2**	
34	02 to 15	(1)	**Auxiliary Alarm**	
35	02 to 15	(1)	**Main Alarm**	

Example of chained messages:

Message	Presentation	Location	Reason	Instructions
Type of message	Sistema (factory preset)	User (recordable)	User (recordable only for main alarm) System (test, battery, end of alarm, ecc)	Sistema (non registrabile)
Example: Complete message	***Plant TEL (followed by thye ID code)***	***Elevator located in street A - Building B, city C***	***Person in the cabin***	***Premere 5 per entrare in comunicazione …….***

C.3.4) TEST CALL

The system by default, according to the recomendations, performs a test call every 72 hours.

T.tel 2 has a real time clock which allows to set the correct Date and Time to perform the test.

REMOTE DIAGNOSTIC					
PARA-METER	VALUE	Default	Your Values	FUNCTION	NOTE
88	Up to 20 digit	-	-	Telephone no. for tele-diagnostic	Vs n°:
40	0 to 9	2		No of call cycles	0 = ENDLESS
41	01 to 99	03		Time between two consecutive calls	In DAYS
42	00 to 23	00		Time of the call: Hour	-
43	00 to 59	10		Time of the call: Minute	-
44	0 / 1	0		Warning mode	0 = Call with voice message 1 = Call in Call ID (CLI) mode (ref. C.3.9)
Fatory set		3	-	Time between two failed calls	In MINUTES

C.3.5) - BATTERY ALARM

BATTERY ALARM					
PARA-METER	VALUE	Default	Your values	FUNCTION	NOTE
89	Max 20 cifre	-	-	Telephone No. **Battery Alarm**	Your phone No:
50	da 0 a 9	2		No of cycles	0 = ENDLESS
51	da 100 a 150	110		Threshold of low battery alarm	In tenths of VOLT (+/- 0,1V) Example: 105 = 10,5 Vcc
52	da 00 a 99	01		Elapsed time to alarm	In MINUTES
53	da 01 a 99	01		Time between two suceeded calls (confirmed by 5) with persisting alarm or between completed cycles with no acknowledgement and with persisting alarm	In HOURS Example: by programming 02, even if the battery alarm has been acknowledged by the operator (dial 5), a new alarm is sent after 2 hours
54	0 / 1	0		Warning mode	0 = Call with voice message 1 = Call in Calling ID mode, CLI (ref. C.3.9)
Fatory set	Fatory set	3	-	Time between two failed calls	In MINUTES

Empty page for your notes

C.3.6) TECHNOLOGY INPUT 1 (T1) and TECHNOLOGY INPUT 2 (T2)

TECHNOLOGY INPUT 1 AND 2						
PARAMETER		VALUE	Default	Your Value	FUNCTION	NOTE
T1	T2					
64	69	0 to 1	0		**0** = Call with voice message **1** = Call in Calling ID (CLI) mode (ref. C.3.9) **2** = Message "Gong" played in the cabin	If programmed to **2**, the following programming are not relevant: 86/87, 60/65 and 61/66
86	87	Up to 20 digit	-	-	Telephone number for Technologic Alarm 1 **(T1)** and Technologic Alarm 2 **(T2)**	Your No T1: Your No T2:
60	65	0 to 9	2		Number of cycles	0 = ENDLESS
61	66	01 to 99	10		Time between two succeeded calls (confirmed by 5) with persisting alarm or between completed cycles with no acknowledgement and with persisting alarm	In HOURS
62	67	0001 to 9999	0060		Time for the contact to be Open or Close to validate the alarm	In SECONDS
63	68	1 to 4	1		Contact setting mode	1 = N/O Normally Open 2 = N/C Normally Close The system does not keep memory of the alarm if the alarm disappear 3 = N/O Normally Open $ = N/C Normally Close The system keeps memory of the alarm if the alarm disappear
Factory preset		3	-	-	Time between two failed calls	In MINUTES

C.3.7) RELAIS

RELAIS					
PARAME-TER	**VALUE**	**Default**	**Your Values**	**FUNCTION**	**NOTE**
70	0 to 9	7		Relais 1	**0** = The realais 1 is activated for the duration of the DTMF **1** to **4** = Activation time 1 to 4 seconds **5** = Relais 1 is activated step-step; at each push of the button 1 the relais 1 change the state **6** to **9** used to acknowledge "Alarm sent": **6** = Relais 1 is activated up to the end of alarm **7** = Activated until the acknowledgement of the Alarm call Cabin or Maintainer (dial 5) **8** = Activated flashing until end of alarm **9** = Activated flashing until the acknowledgement of the Alarm call Cabin or Maintainer (dial 5)
71	0 to 6	6		Relais 2	**0** = The relais is activated for the duration of the DTMF **1** to **4** = Activation time 1 to 4 seconds **5** = Relais 2 is activated step-step; at each push of the button 2 the relais change the state **6** = used to acknowledge alarm received: it is activated for the duration of time set in parameter 72, starting from the acknowledgement of the Alarm call Cabin or Maintainer (dial 5)
72	001 to 999	010		Time to activate Relais 2 if Parameter 71=6	In SECONDS

Nota: When reading the parameters the system also read the status of the relais

C.3.7.1) "ALARM SENT" AND "ALARM RECEIVED"

The two relay of T.tel 2 when properly programmed can manage light displays and sounds relevant to Alarm Sent and Alarm Received.

Alarm Sent
When a main alarm procedure is started, the relay 1, if programmed, activates the signal "alarm sent". The signal remains active until the alarm is acknowledged or until acknowledgement Alarm Received or the End of Alarm.

Alarm Received
The received alarm signal activate the relay 2, if programmed. Relay 2 remains active starting from the acknowledgement of the alarm call (key 5) to the end of dealy time programmed.

C.3.8) TELEPHONE NUMBERS

T.tel 2 can store up to 11 telephone numbers (parameters from 80 to 91);); each phone number can be associated to a specific event or alarm.

The main and the maintainer alarm select 5 phone numbers in cyclic mode until a confirmation code is received (dial 5) or until the end of the programmed number of cycles.

Parameter 99 can be used when all the calls should be forwarded to a single number.

To delete a number from the phone book simply set the parameter empty.

To change a programmed number just overwrite it.

PHONE BOOK			
PAR.	**VAL.**	**FUNCTION**	**YOUR VALUE**
80	Up to 20 digit	End of Alarm (*)	
81		First phone No. main alarm and maintainers(*)	
82		Second phone No. main alarm and maintainers	
83		Third phone No. main alarm and maintainers	
84		Fourth phone No. main alarm and maintainers	
85		Fifth phone No. main alarm and maintainers	
86		Technologic Alarm 1 (*)	
87		Technologic Alarm 2 (*)	
88		Telediagnostic (*)	
89		Battery Alarm (*)	
91		Auxiliary Alarm (*)	
99		To set or delete the phonebook entries marked with an asterisk (*) in a single programming	

C.3.9) CALLER ID (CLI) CALLS

When programmed to send an alarm or alert in CALLER ID (CLI) mode the system performs the following steps:

- call the phone number programmed and, if it is free, after 2 rings (about10 seconds) hangs up, thus allowing to detect the calling number to process your communications at no cost to the caller;
- if the number is busy, the system retries dialling every 3 minutes until it is free, or for the number of cycles set for the type of alarm.

C.3.10) IDENTIFICATION CODE FOR ALARMS AND SIGNALS

T.tel 2 can handle different ways to communicate to a call center the alarm code and the system code. The codes implemented are listed below.

The parameter C11 allows to select the mode to be used (seeSection C.3.1).
Example: to select the mode 2, program 11 11 * 2 *

TYPE OF CALL	CODE DTMF TONE				
	MODE 1	MODE 2	MODE 3 ADEMCO		
			Event	Group	Zone
Main alarm: CABIN	*01	D13	140	00	001
Maintainer Alarm: PIT	*02	D13	140	00	002
Maintainer Alarm: CABIN ROOF	*03	D13	140	00	003
Maintainer Alarm: ENGINE ROOM	*04	D13	140	00	004
AUXILIARY Alarm	*32	*32	140	00	005
BATTRY Alarm	*07	643	303	00	000
TECHNOLOGIC Alarm 1	*12	*12	140	00	011
TECHNOLOGIC Alarm 2	*13	*13	140	00	012
END of ALARM	*20	523	300	00	000
TELEDIAGNOSTIC	*05	583	602	00	000
INCOMING CALL	*31	*31	000	00	000

C.4) ERROR

In this condition it is possible to listen to the error type detected by picking up a local telephone handset or by dialling in from a remote telephone.

The error detected can be:

Error 1: No telephone number associated to main alarm (parameters 81 to 85)
Error 6: The power supply deliver less than 10 Vdc
Error 7: There is no telephone line connected to the system (public line, PBX extension or GSM gateway).

It is always possible to access programming mode and check system data.

D) TROUBLESHOOTING

PROBLEM	POSSIBLE REASON	POSSIBLE SOLUTION
The system sometimes doesn't answer and/or frequently reset itself	Close strong electromagnetic pulse caused by power equipment that disturbs the T.tel 2.	For proper operation it is advisable to install the T.tel 2 at least 2 meters from any source of electromagnetic disturbances: switchgear, motors,power relays, inverters, etc.. and use only new and dedicated cabling
The system is active but does not handle the alarms. The red LED flashes quickly (like the green led).	The system is in ERROR	Follow the indications in section C.4
System date and time are lost any time power supply is off.	Low PB1 Battery	Change the battery with a new one, model CR2032
Difficulty to properly receive DTMF from remote.	Disturbed or low audio signal	Enter the DTMF tones when system messages are not playing and wait at least one second between each digit. Call the T.tel 2 from a room with low environmental noise. Check for proper power supply. If the T.tel 2 is connected to a GSM gateway and not to an analog line, check that the GSM signal is of good strength or move the GSM device in a location that guarantees a good signal, chack that the antenna and the GSM device are at least 1 meter away from the T.tel 2.
By opening the hands-free communication between the cabin and the intercom handset you hear a "whistle".	Handsfree volume too loud	Lower the volume of the speaker and adjust optimal T.tel 2 levels (TR1 and TR2)
The recording quality of the custom messages is not good (you can hear a buzz).	Power supply not suitable or noise from the telephone line .	Use a linear power supply and not a switching one. If you are using a GSM gateway, chack that the T.tel 2 is at least 1 meter from the antenna and GSM device.

DISPOSAL

The device and the batteries must never be disposed of with household refuse. Please obtain appropriate information about the regulations in your community, and dispose of all refuse in accordance with regulations at separate locations provided.Improper disposal of the equipment or parts thereof may cause harmful effects to human health and to the environment.

ROHS

The electronic circuit of this product is designed and manufactured in accordance with the provisions of legislation 2002/CE (RoHS)

COMPLIANCE

Teledif Italia declares that the device meets the directives by the Councilin respect of EMC Directive 2004/108/EC and electrical safety equipment for low voltage Directive 2006/95/EC and its subsequent changes. The conformity of the product is expressed by the "CE" mark.

PRECAUTIONS FOR USE

Before attempting any cleaning or maintenance, disconnect the unit fromthe mains and any other connection. Do not put in contact with liquid and do not use aerosol sprays or solvents for cleaning. Use and / or store the product under conditions of temperature andhumidity ranges (see page 2). Use only the supply voltages in the ranges listed in this manual.
For any repairs contact your dealer or the service center of Teledif Italia.

WARRANTY

Teledif Italia warrants this product free from manufacturing defects for 2 (two) years from the date of purchase as resulting from the invoice.

During the warranty period the equipment will be replaced or repaired free of charge in the service center of Teledif Italia in Torino.

The cost of transport to and from the service center of Teledif Italia is always charged to the customer.

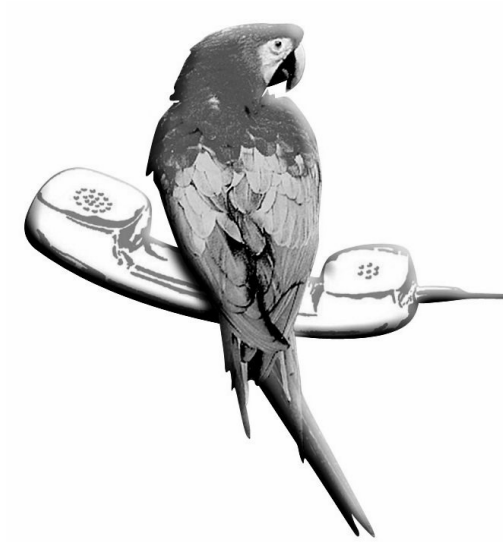
The equipment to be repaired under warranty must be shipped toTeledif Italia in its original packaging and with the copy of the invoice.

Failure to follow the instructions for use, the use of power supply other than indicated, the assembly of non-original parts, repairs by unauthorized third parties, altering or removing the serial number and any tampering, void the warranty.

Nothing will be due to the buyer for inactivity time due to a failure, nor he may claim damages or compensation of expenses for any direct or indirect problem arising from use of this equipment.

For any problem it is advisable to contact the installer or the store where you purchased the unit.

Any dispute will be brought before the courts of Turin, Italy.



working with love is a bond with our customers

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