

TS119

**INSTALLATION
INSTRUCTIONS**



FIRE BURGLARY INSTRUMENTS INC.

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TS-119 DIGITAL DIALER

The TS-119 is a five channel Digital Dialer that may be added to the Model TS-12 control. The TS-119 can be programmed to send; alarm codes for each of the four zones by the TS-12, a trouble code in the event of the TS-12 detecting a trouble condition in one of its supervised circuits and a 18 hour self test to verify the communicator's operation. Each of these codes must be programmed for NFPA-71.

Connections between the TS-12 and TS-119 should be made according to Terminal connections on page 3 and the diagram on page 9. The wires between the two units must pass through conduit. The conduit should have set screw connector when terminating at each enclosure. All conductors between the TS-12 and TS-119 are rated 12VDC Nominal, 1 Amp Maximum.

For more information, refer to TS-12 installation instructions - I2252.

TS-119 DIALER TERMINAL CONNECTIONS

TS119 Terminals	TS-12/37DM Terminals	Description
1	4	Zone 1 of the TS-12 trips channel 1 on the TS119 HERE
2	18	Zone 2 of the 3ZDM trips channel 2 on the TS119 HERE
3	23	Zone 3 of the 3ZDM trips channel 3 on the TS119 HERE
4	28	Zone 4 of the 3ZDM trips channel 4 on the TS119 HERE
5	No connection	
6		System trouble input from the TS-12. Supervises TS-112. Supervises the power to the TS119 and trips the common trouble channel on the TS119.
7	1	Positive (+) input 12 to Volts DC MA.
8	2	Negative (ground) DC supply voltage.
9	NC	Positive (+) 5 volts DC output
10	NC	Lightning Protection Earth Ground
11 12 13 14		Phone line 2 terminals: Connect these terminals to a telephone Co. approved RJ31X modular jack via an F.B.I. model 368 cord. 12-green, 11-red, 13-grey, 14-brown. Phone line 2 has double pole line seizure.
15 16 17 18		Phone line 1 terminals: Connect these terminals to a Telephone Co. approved RJ31X modular jack via an F.B.I. model 368 cord as follows: brown-17, grey-18, green-16, red-15. Phone line 1 has double pole line seizure.
19	Common Trbl.Term.	When the TS119 sensed lo battery, line fault, or fail to go thru, it trips the TS-12 system trouble circuit on this terminal.
20(-)	No connection	A remote "Failure to Communicate" LED may be wired to these terminals. In the event the TS119 activates as a result of a trouble or alarm condition and communication to the Central Office is unsuccessful, after the Prom programmed number of attempts, the on board and remote "Failure to Communicate".LED, and system trouble will occur. THE TS119 RESET BUTTON must be depressed to extinguish this condition.
21(-)	No connection	A remote low battery LED may be wired to these terminals if desired. If the battery voltage on the TS-12CS drops to approximately 10VDC, the on board and remote low battery LED's will lite, and a system trouble transmission and LED will occur.
22(-)	No connection	A remote "line fault 2" LED may be wired to these terminals. This circuit operates the same as "line fault 1".
23(-)	No connection	A remote "line fault 1" LED may be wired to these terminals. If Telco line 1 is cut or removed from its appropriate terminals for approximately 110 seconds, the on-board, and remote "line fault 1" LED will lite and a system trouble transmission will occur. If the TS119 is using phone line 1 at the time it senses "line fault 1", it will automatically switch to phone line 2 to make its transmission. Otherwise, if "line fault 1" is sensed while TS119 is using the phone line 2, a line switch does not occur.

TS119 PROM PROGRAMMING INSTRUCTIONS

The TS119 Digital Dialer will transmit alarm codes and restores by zone if desired, and a separate system trouble code. Programming is done on either the FBI 110 or 110C programmer. The Program must be burned onto a Prom chip model F102. This prom can actually hold 4 separate TS119 programs (in the event of error or changes). Only one quarter of the prom is used at a time for a program. Each quarter of the prom is called a quadrant. They are appropriately called quadrant 1-4. Programming may be done on any one of the four quadrants. The TS119 must be set up to read whichever quadrant the actual program has been burned on. Resistor jumpers R72 and R73 control which quadrant the TS119 will read. The following Truth Table explains jumper connections versus 110 and 110C programmer switch settings.

Quadrant	110C Rotary Switch Setting	TS119 Jumpers		Alternate 110 Programmer Switch Settings	
		R72	R73	S8	S7
1	1	Connected	Connected	South	South
2	2	Cut	Connected	South	North
3	3	Connected	Cut	North	South
4	4	Cut	Cut	North	North

The new TS119 is a digital dialer which uses a program chip (prom). Understanding the programming instructions, which follow, is essential because many outputs are possible with each activation. The dialer will transmit codes for either momentary or maintained inputs and restores. If a maintained input is aborted during transmission a choice of either an abort code, restore code or complete aborting of the transmission is programmable. The dialer is also capable of accessing three different receivers, with each activation, and will shut down after being kissed-off by one or all receivers, depending on programming.

CAUTION: THERE SHOULD BE NO POWER ON THE **TS-119** WHEN THE PROM IS INSERTED. PLUGGING IN THE PROM WITH POWER ON THE PANEL, WILL CAUSE THE DIALER TO TRANSMIT OUT OF PROGRAM.

Before using the digital dialer, the telephone company shall be requested to install two USOCRJ31X jacks on the telephone line. Give the telephone company the FCC registration (AE398E-69554-AL-E) and the ringer equivalence (C.O.B) numbers for the TS119. Connect the TS119 to an approved modular plug (#368) to mate with the RJ31X's as shown on page 9 .

Should the TS119 cause harm to the telephone network, the telephone company may temporarily discontinue service until the problem is corrected. Notice of such action will be given by the telephone company.

Should the telephone company make any changes to its facility or other requirements that could render the TS119 incompatible, the customer shall be given adequate notice by the telephone company, in writing. Upon receipt of this information from the customer, the manufacturer shall advise the customer as to what actions must be taken to maintain uninterrupted service.

The model TS119 may not be connected to party lines or coin lines. If trouble is experienced, the TS119 shall be disconnected from the phone line, by means of the plug shown to determine if the TS119 is malfunctioning. If the TS119 is malfunctioning, do not re-connect until the problem has been corrected.

The prom used is a Model F103 (74S387) and is programmed on our Model 110 or 110C programmers as follows.

- 1) Plug in the programmer. 'OP should appear on the LED display.
- 2) Set desired quadrant.
- 3) The first digit of the OP field will determine the dialer transmission of fire zone 1 in the event an attempt is made to abort the alarm code transmission. Aborting the transmission is accomplished by operation of the TS12 reset button prior to the zone alarm code reaching the Central Office. The following options are available on abort.

This digit will also determine if the dialing type will be rotary or touchtone.
 Note: If touchtone dialing is desired, the model F103 chip must be inserted in the U6 socket, on the TS119, white dot Left.

FIRE ZONE 1

Digit	Dialer Output	Type of Dialing
0	No Abort	Rotary
1	Stop dialing on abort	Rotary
2	Restore on abort	Rotary
3	Abort code on abort	Rotary
8	No abort	Touchtone
9	Stop dialing on abort	Touchtone
A	Restore code on abort	Touchtone
B	Abort code on abort	Touchtone

If fire zone 1 is not used, but rotary dialing is used, program digit 1.

If fire zone 1 is not used, but touchtone is used, program digit 9.

- 4) The second digit of the OP field will determine the dialer transmission for fire zone 2 in the event of an abort. This digit will also determine if the dialer will transmit an automatic test code. If a test code is desired, it will be sent at 18 hour intervals after the last transmission. The proper digit to program in the second location of the OP field is as follows:

FIRE ZONE 2

Digit	Dialer Output	Self Test *
0	No abort	None
1	Stop dialing on abort	None
2	Restore code on abort	None
3	Abort code on Abort	None
4	No abort	18 Hr
5	Stop dialing on abort	18 Hr
6	Restore code on abort	18 Hr
7	Abort code on abort	18 Hr

If both fire zone 2 and self test ARE NOT USED, program DIGIT 1
 If fire zone 2 is NOT USED, but Self Test IS USED, program DIGIT 5

5) The third digit will determine the operation of fire zone 3.

FIRE ZONE 3

Digit	Dialer Output
0	No abort
1	Stop dialing on abort
2	Restore on abort
3	Abort code on Abort

All options may have a restore programmed later in the procedure

6) The fourth digit will determine the operation of fire zone 4.

FIRE ZONE 4

Digit	Dialer Output
0	No abort
1	Stop dialing on abort
2	Restore on abort
3	Abort code on Abort

All options may have restore programmed later in the procedure.

- 7) Beginning with the fifth digit of the OP field if a common prefix is needed for all receivers, (9, area code, etc.), it may be keyed in here. If a time delay is needed before or between digits, key in "C" where the delay (3 secs.) is needed.
- 8) Press ENTER switch, then 9. 1P should appear on the LED display. Key in the first telephone number. Up to 11 digits may be used.

Information must be entered in this field

- 9) Press ENTER switch, then 9. 2P should appear on the LED display. Key in the second telephone number. Up to 11 digits may be used. If there is no second number, leave this field Blank.
- 10) Press ENTER switch, then 9. 3P should appear on the LED display. Key in the third telephone number. Up to 11 digits may be used. If there is no third number, leave this field Blank.
- 11) Press ENTER then 9. AF should appear on the LED display. The first digit in this field will determine the number of attempts the dialer will make to reach the receiver in the event the receiver is busy.

See Chart below:

No. of Attempts	Use of Digit	No. of Attempts	Use Digit	No. of Attempts	Use Digit
1	1	7*	7	12	C
2	2	8*	8	13	D
3	4	9*	9	14	E
4	4	10*	0	15	A
5	5*	11	B	Unlimited	F

* NOTE: Number of attempts limited to 5 to 10 per NFPA 71

11), cont'd.

IMPORTANT: When F is pressed, the number does not display, but the space is left blank. The second digit in the field will determine the number of receivers the dialer must access before it shuts down. Select as follows: If only one phone number is used, program number A in the second location of AF field.

Any one receiver - A
All receivers - E

12) Press ENTER, then 9. FF should appear on the LED display. This field will determine receiver format. One digit must be keyed in for each phone number programmed.

NOTE: NFPA requires that units transmit into listed Fire Receivers at listed central stations.

See chart for selecting the proper receiver code:

TESTED & APPROVED UL RECEIVER TYPE	Use Digit
FBI	1
Radionics (2300)	1
Radionics (1400)	3
Ademco with Kiss-off	5

Receiver Type	Use Digit
Franklin. Quickalert	1
DCI	1
Sescoa	1
Adcor CDR 50	3
Ademco without Kiss-off	4
Silent Knight without Kiss-off	6
Silent Knight with Kiss-off	7

Not Tested
by UL

Information must be entered in this field

13) Press ENTER, then 9. AC should appear on the LED display. Key in a 3 or 4 digit account code. A 4 digit account code can only be used with receiver that is capable of handling it.

Information must be entered in this field.

14) Press ENTER, then 9. AL should appear on the LED display. Key in digits for the following alarms.

(Program an "F", which leaves a blank, for any location NOT BEING USED)

Locations	Description	Code
1	Zone 1 alarm code	0-9 or F *
2	Zone 2 alarm code	0-9 or F *
3	Zone 3 alarm code	0-9 or F *
4	Zone 4 alarm code	0-9 or F *
5	System Trouble Restore Code	0-9 E or F
6	System Trouble alarm code	0-9 A or F *
7	Zone 1 Restore Code	0-9 or F
8	Zone 2 Restore Code	0-9 or F
9	Zone 3 Restore Code	0-9 or F
10	Zone 4 Restore Code	0-9 or F
11	Abort Code/Test Code	0-9 D or F *

System Trouble Alarm Code

NOTE: For English Language Printout of codes to Radionics and FBI Receiver use

A	Trouble
D	Abort
E	Restore

* NFPA-71 requires self test, trouble code and alarm code be programmed. Never use an "F" on these locations.

