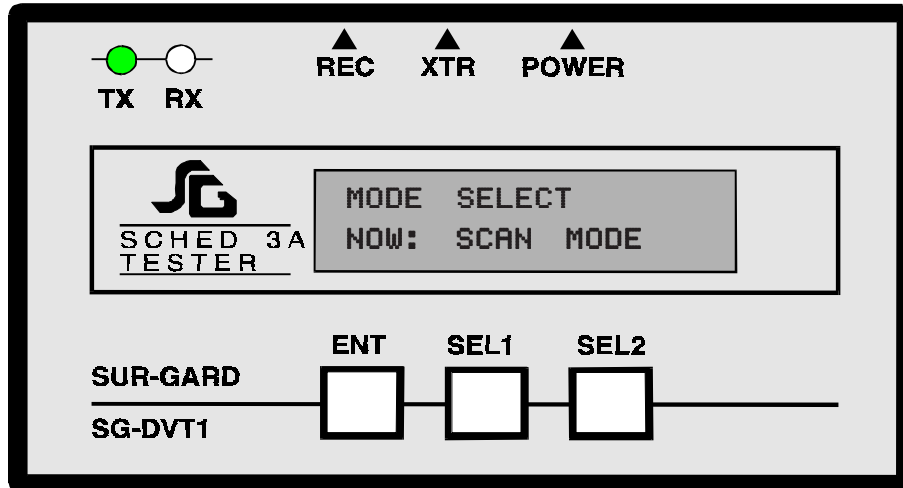


INSTRUCTION MANUAL



**SG SECURITY
COMMUNICATIONS**

A Division of Sur-Gard Security Systems Ltd.

SG-DVT1

Software Version 6.0

DESCRIPTION

The SG-DVT1 is a SCHED 3A line tester. It allows the user to test the communication coming from the transmitter. To do that, the DVT1 simulates a receiver by scanning the transmitters on line. The SG-DVT1 is compatible with all the SUR-GARD DVAC* transmitters, it can decode any possible alarm from them. The scanning is programmable, for example, you can program the first transmitter to be 41 (Hex.) and the last one to be 80 (with the transmitter to check in this range). This feature avoids time lost, because it is not necessary to wait for the scanning of the 240 transmitters before seeing if our unit answers correctly.

The SG-DVT1 can also allow the installer to check if the modem and line are working normally. To do that, you just have to program the identification code of the transmitter that you want simulate and the tester will answer each time the receiver polls it. In this mode, it is then possible to send alarms and restores to the receiver.

HOW TO USE IT:

Connect the alligator clips on the battery (red alligator clip on the "+" of the battery, black alligator clip on the "-" of the battery).

When you connect power to the tester, the following is on the display:

```
MODE SELECT
NOW: SCAN MODE
```

If you want to test a transmitter by simulating a receiver, press "ENTER" to start this scan mode, or press "SELECT 1" if you want to test modem and SCHED 3A line by simulating a transmitter. In that case, the following is on the display:

```
MODE SELECT
NOW: XTR MODE
```

Press "ENTER" to start this transmitter mode, to simulate a transmitter (or press "SELECT 1" to go back to scanning mode). For information about the transmitter mode, see page 5.

NOTE: Each time you press a button, a "beep" will be heard. If you don't hear it and the unit does nothing, retry the command.

*DVACS is a registered trade mark of Electro Arts Limited and covers a wide variety of products.

Full DVACS compatibility applies only when the Sur-Gard equipment is connected to the RS-232 port of a DVACS F1F2-List 3 (or a DVACS F1F2-List 1) subset which is connected to a DVACS HUB-324 (or DVACS HUB-308) card.

SCANNING MODE

When you enter this mode, the following is on the display:

```
FIRST XMTR#: 01
LAST XMTR#: 20
```

The cursor flashes on the number of the first transmitter of the scanning to indicate that you can program it. Press "SELECT 1" to change it and the number will be an increment of 20 Hex.

You just have to press this button until you obtain the desired number for the first transmitter. Press "ENTER" to keep this number in memory and advance to program the last transmitter of the scanning.

NOTE: When testing SG-DV1660, SG-DV1660LC, SG-DVT-DSC or SG-DV4420, select scanning starting at 01 to permit a good synchronization of those transmitters.

The cursor flashes on the number of the last transmitter ID be scanned to indicate that you can program it. Use the same procedure as for programming the first transmitter, to do that.

NOTES: If you want to go back to change the first transmitter, you just have to press the "SELECT 2" button.

Evidently, the number of the first transmitter must be less then the number of the last transmitter. If you make a mistake, the tester will "beep" and the display will show the following:

```
1ST XMTR MUST BE
< THEN LAST XMTR
```

When the number of the first and last transmitters was set (defines the range of scanning), you must then program the number of the transmitter to check. We require this for security reasons. The display shows the following:

```
ENTER ID CODE
TO CHECK: 01
```

You must program the identification code digit by digit. First, the cursor is on the more significant (left) digit of the number (now "0"). You can change it by pressing the "SELECT 1" button. When you obtain the desired value for the first digit, press the "SELECT 2" button to change the position of the cursor. Now you may change the value of the less significant digit of the number by pressing the "SELECT 1" button. It is possible to go back to the more significant digit by pressing the "SELECT 2" button, in case you made a mistake.

When you obtain the desired identification code of the transmitter, press the "ENTER" button.

Four possible mistakes can occur when you program the identification code of the transmitter:

1. The code must be different from 00, if not the display shows:

```
ID CODE MUST BE  
MORE THAN 00
```

2. The code must be less than F1, otherwise the display shows:

```
ID CODE MUST BE  
LESS THAN F1
```

3. The code must be greater than the start of the scanning, otherwise the display shows:

```
ID CODE MUST BE  
> THAN 1ST XMTR
```

4. The code must be less than last transmitter of the scanning, otherwise the display shows:

```
ID CODE MUST BE  
> THAN LAST XMTR
```

If the identification code is acceptable, the scanning starts and the display shows the following:

```
AUTOMATIC TESTER  
SCAN XX TO YY
```

NOTE: In this mode you must plug the telephone cable into the output named "XTR" of the SG-DVT1.

Each time the programmed transmitter answers, the tester will "beep" and display what it receives. If another transmitter responds, it will be ignored.

Here are some possible messages that the tester may show on the display:

```
-05- OnIdCode  
Present
```

- This to signify that the transmitter answered its code without an alarm.

```
-05- OnAllCall2  
Present
```

- This to signify that the transmitter answered on All Call #2 and that it sent a burglary alarm on zone #35.

```
-05-  
TxError
```

- This is to signify that the transmitter answered but a transmission error occurred.

NOTE: Unlike a real receiver, the tester doesn't show a message if no response occurs.

To stop this test you may do one of the following three:

- Press "ENTER": Go back to select mode **OR**
- Press "SELECT 1": Go back to the programming of the first and last transmitter. **OR**
- Press "SELECT 2": Go back to the programming of the transmitter's code to check.

TRANSMITTER MODE

NOTE: In this mode you must plug the telephone cable from the modem into the input named "REC" of the SG-DVT1.

When you enter in this mode, the display shows the following:

```
ENTER ID CODE  
TO XMIT: 01
```

You must program the identification code digit by digit. First, the cursor is on the more significant digit of the number (now "0"). You can change it by pressing the "SELECT 1" button. When you obtained the desired value for the first digit, press the "SELECT 2" button to change the position of the cursor. Now you may change the value of the less significant digit of the number by pressing the "SELECT 1" button. It is possible to go back to the more significant digit by pressing the "SELECT 2" button, in case you made a mistake.

When you obtain the desired identification code of the transmitter, press the "ENTER" button.

Two possible mistakes can occur when you program the identification code of the transmitter:

- 1: The code must be different from 00, otherwise the display shows:

```
ID CODE MUST BE  
MORE THAN 00
```

- 2: The code must be less than F1, otherwise the display shows:

```
ID CODE MUST BE  
LESS THAN F1
```

If the identification code is acceptable, the test starts and the display shows the following:

```
ID CODE IS:XY
```

The tester will automatically send a test code to the receiver to advise the central station that a testing unit is on the network. The test code sent corresponds to "Other TrbZn#DF" signal at the central. When the test code is sent, the display shows the following.

```
ID CODE IS:XY  
TEST CODE SENT
```

The tester will answer with the identification code each time it was polled by the receiver and the display will show the following:

```
ID CODE IS: XY
Id Sent
```

NOTE: Advise the central station before performing this test:

If you press the “SELECT1” button, a fire trouble signal on zones #57 and #61 will be sent to the receiver. After, if you press again the “SELECT 1” button, a restore signal of the fire trouble on zones #57 and #61 will be sent to the receiver. You can repeat this test by pressing “SELECT 1# again.

When the tester sent an alarm, the display shows the following:

```
ID CODE IS: XY
Alarm Sent
```

When the tester sent a restore, the display shows the following:

```
ID CODE IS: XY
Restore Sent
```

To stop this test you may either:

- Press “ENTER”: Go back to select mode.

or

- Press “SELECT 2”: Go back to the programming of the transmitter’s number.

PROGRAMMING MODE

The SG-DVT1 has been updated to decode Surgard standard library 4 with multiple alarms/restores decoding per communication. There is a new Programmer mode to program the DVACS compatible panels programmable via SG-DVT1 (mainly the new DV4420 fire panel). The SG-DVT1 can be easily updated by replacing the microcontroller chip inside the SG-DVT1.

1) VERSION 6.0 prompted on the display as:

```
SELECT MODE V6.0
NOW: SCAN MODE
```

- 2) Version 6.0 will decode multiple events issued by panel and display them in the order of lower to high alarm/restore zone number during the scan mode.
- 3) There is a new programmer mode for programming the new SG-DV4420 fire alarm system via the DVACS compatible line connector on the panel.

4) HOW TO ENTER PROG MODE:

- On power-up SELECT MODE screen, press SEL1 key twice to get to the PROG MODE and then press ENT key. Make sure that your panel is connected to XTR (transmitter) jack on the DVT1.
- The DVT1 will display the following screen:

```
PROGRAMMER MODE
CONNECTING...
```

- DVT1 is now trying to communicate (“CONNECTNG...”) to the panel and waits for upto 1.2 minutes for a link to establish.
- When the link is established, the panel will identify itself. Follow programming instructions provided with panel documentation.

5) HOW TO REPLACE THE MICROPROCESSOR CHIP:

- Unplug unit’s power and attached cables.
- Remove 4 screws in the back of unit.
- Remove the rear cover.
- Now, remove the microprocessor chip (it’s a 40 pin, dual in line package chip) by using an I.C. extractor or a screwdriver.
- Take the new chip out of its antistatic package and put it in the socket on the unit.
- Check if all the pins of the chip are inserted properly.
- Put the rear cover on and fasten it by using the screws removed previously.
- Put the power back on and the display should show:

```
SELECT MODE V6.0
NOW: SCAN MODE
```

- Your unit is ready to use.

NOTES



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