

Programming a Tecom Panel

***Note:** This document is a training aid only, and should be used in conjunction with the complete **Challenger Programming Manual**.*

Scope of this course

Step	Function
1	Default the Panel
2	Areas
3	Inputs
4	Alarm Groups
5	Relay Mapping
6	DGP
7	RAS
8	Communications
9	System Options
10	Users

Important sections are shaded

Turn OFF all the AREAS before programming.
Press [CLEAR] 4346 [OFF] 0 [ENTER]

Movement within MENU

- WHIST in the MENU options,
- # key will move you FORWARD
- * key will move you BACKWARDS.
- You must **enter the number of the menu** that you want then press [ENTER].
- Many items will require you to toggle **YES** or **NO**. To do this simply press the * key

Some Factory Default setting

Menu	Device	Default Settings
Inputs	1 to 16	Will activate Sirens & Strobe
		Programmed as Secure Alarms (instant) in AREA 1
Areas	1 to 16	Exit Time 60 seconds. Entry time 30 seconds
RAS	RAS 1	Programmed as MASTER
System Options		Input Tamper Monitoring (Duel End-of-Line)
Map Relays	16	Relay 16 (Siren) mapped to Event Flag 1
	2	Relay 2 (Strobe) mapped to Event Flag 2
Timers	Siren time	8 minutes
	Door Open	5 seconds

The Challenger Menu Structure

Press [MENU] 4346 [ENTER]

1	Panel Status
2	Input Unsealed
3	Input in Alarm
4	Input Isolated
5	History
6	Test Report
7	Service Menu
8	Film Counters
9	Input Text
10	Isolate
11	De-isolate
12	Test Input
13	Start Auto Access Test
14	Program User
15	Time & Date
16	Isolate/De-isolate RAS/DGP
17	Enable/Disable Service Tech
18	Reset Cameras
19	Install Menu
20	Door & Floor Groups
21	Holidays
22	Open Door
23	Unlock, Lock, Disable & Enable
24	Print History



1	Input Database
2	Area Database
3	RAS Database
4	DGP Database
5	Alarm Groups
6	Timers
7	System Options
8	Auto Reset
9	Communications
10	Text Words
11	Version
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15	User Category
16	Map Relays
17	Arm/Disarm Via TZ
18	Vaults
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24	Download
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26	Edit
27	Tecom Address Mapping
28	Remote Controllers
29	Security Password
30	Printer
31	Battery Testing
32	Custom Message
33	Program Next Service
34	Program Summary Event Flags
35	Program Macro Logic

Step 1 - DEFAULT the panel to factory settings

You can reset the panel to factory default programming by entering the **Defaults** Menu. There are several different defaults. To reset the panel to factory default enter:-

[MENU] 4346 [ENTER] 19 [ENTER] 14 [ENTER]

Select 99 (for -All) and Press [ENTER]

After a few seconds all the LEDS will light-up to indicate the Defaulted panel.

You must now disarm all areas before you can access program mode so

Press [CLEAR] 4346 [OFF] 0 [ENTER] This will disarm all AREAS and turn off all the LEDS. The panel is now ready for programming.

Step 2 – Program AREAS

[MENU] 4346 [ENTER] 19 [ENTER] 2 [ENTER]

The display will look like this

Area Database
Area No

Enter the AREA you wish to program and press [ENTER]

Area Database	Enter the AREA you wish to program and press [ENTER]	1
Area No		
Area Name: 0332, Area One	Challenger has a built-in library of words ready to use, enter the Textword number and Challenger puts the word in the display.. Below is an extract of this library as it relates to AREAS.	????
Word No:		

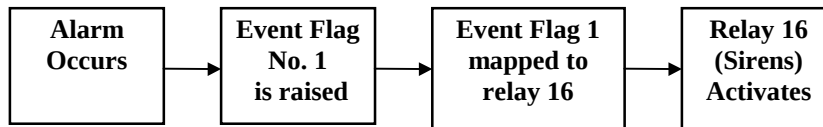
418	Administration	456	Main Admin Office	483	School
029	Building	141	Medical	225	Store
036	Canteen	462	Music	220	Staff
441	Equipment store	158	Office	331	Store Room
087	Factory	188	Refrigeration	247	Upstairs
122	Library	481	Resource Centre	255	Warehouse

Area 1: Exit-Time 60 Entry-time 30	Enter the Exit time press [ENTER] then enter the Entry Time (0 to 255)	60/30
Exit		

AREA Event Flags

AREA Event Flags exist to provide an indication of something happening within an Area such as Alarms, entry, exit, isolations, timers, etc These in turn can activate Sirens, Strobes, relays, etc. We are only interested in activating our Siren and Strobe.

For example, the Siren Event flag is factory defaulted to 1 and is also “mapped” to the Siren output (Relay 16).



Below are the various functions that that we can allocate event flags.

Siren Event Flag	Activates when inputs with Siren Flag set to YES is in alarm (Timed)	Set to 1
Area Accessed Event Flag	Activates when the AREA is DISARMED	0
Unsealed Event Flag	Activates when an Input in this AREA is UNSEALED	0
Isolate Event 24 hour	Activates when an Input in this AREA is ISOLATED	0
Secure Alarm Event Flag	Activates when an Input in this AREA is in ALARM and AREA Armed	Set to 2
Access Alarm Event Flag	Activates when Input in this AREA is in ALARM and AREA DisArmed	0
Local Alarm Event Flag	Activates when an Input in this AREA is in Local ALARM	0
Exit Event Flag	Activates during Exit time	0
Entry Event Flag	Activates during Entry time	0
Warning Event Flag	Activates when about to ARM or Test mode is due to end	0
Camera Event Flag	When an input (in this Area) with Camera Event set to yes is in Alarm	0
Pre-Alarm Event Flag	When a Delayed Hold-up input (in this Area) is in Alarm	0
Out-of-Hours Time Zone	Sends a report if Area is Disarmed outside of a Timezone	0
Area Disarm Time	Area Disarm Time (overrides user category time)	0

Step 3 - Inputs

[MENU] 4346 [ENTER] 19 [ENTER] 1 [ENTER]

Input Database
Input:

Enter the number of the input (Zone) to be programmed ie 1 press [ENTER]

1:	enter in the number for the "Textword"
TextWord 1:	

Word	Number	Word	Number	Word	Number	Word	Number
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These are some of the commonly used Text Words (refer Install Manual I-13)

016	Back	079	Emergency	105	Glass	164	Panic
063	Delayed	082	Entry	450	Guard	170	PIR
064	Detector	084	Exit	107	Hallway	187	Reed Switch
069	Door	086	External	110	Hold-up	193	Roller Door
070	Doors	093	Fire	158	Office	212	Smoke
075	Duress	098	Front	168	Perimeter	255	Warehouse

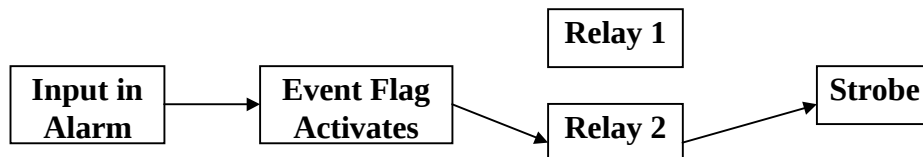
1: Type 2, Secure Alarm	Listed below are the most common input types, (there are 59 different types) :-	?
Type:		

Type	Name	Description	Ie
2	Secure Alarm	Activates alarm when ARMED	Pir's
3	Entry Exit Alarm	Allows entry/exit times	Reeds
4	Handover	Extends entry delay as long as entry zone activated first	Pir's
5	24 Hour	Activates an alarm regardless of panel status	Smokes
13	Entry Exit no seal check	Same as 3, doesn't need to be sealed on Arming - use on exit doors/ PIR's	Exit reeds
14	Handover no seal check	Same as 4, doesn't need to be sealed on Arming	Exit Pir's

1: 25-140, General Alarm Report ID:	Using Contact ID enter 25 for a General Alarm report.. This is irrelevant for Securitel.	25
1, Area:	The Input must be allocated to at least one AREA. It may be assigned to more than one AREA.	1
1: 2, Tested In Secure Test & Access Test Type:	Program a Type 2 Testing for PIR's & Doors etc. This will enable automatic TESTING to be active for Inputs either during Access or Secure. To perform the ARM the panel and activate those zones. To check enter [MENU] 6.	2

Input Event Flags

Each input has Event flags, these are software Flags that indicate that a certain event has occurred. These Flags do nothing by themselves however, they can be mapped to operate Relays. For example an event flag could operate a door buzzer when a door is opened. There are 15 event flags that can be assigned to an each input.



Programmable Event Flag	This option allows any event flag from 1 to 255 that will be activated when an alarm is generated by the input	1-255
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Selected Event Flag	User programmable event flag	Suggest
Siren Event Flag (refer Area)	Activate the Siren Flag in the AREA	YES
Console Warning Event Flag	Activates the Codepad buzzer	
Make All Event 24 hour	Activates all the Event Flags 24 hours	
Secure Alarm Event Flag 2	Activates if input alarms when Area is ARMED	YES
Secure Alarm Event Flag 3	Activates if input alarms when Area is ARMED	
Secure Alarm Event Flag 4	Activates if input alarms when Area is ARMED	
Secure Alarm Event Flag 5	Activates if input alarms when Area is ARMED	
Access Alarm Event Flag 6	Activates if input alarms when Area is DISARMED	
Access Alarm Event Flag 7	Activates if input alarms when Area is DISARMED	
24 Hour Event Flag 8	Activates if input alarms 24 Hours	
Secure Alarm Event Flag 9	Activates if input alarms when Area is ARMED	
Secure Alarm Event Flag 10	Activates if input alarms when Area is ARMED	
Secure Alarm Event Flag 11	Activates if input alarms when Area is ARMED	
Secure Alarm Event Flag 12	Activates if input alarms when Area is ARMED	

Access Alarm Event Flag 13	Activates if input alarms when Area is DISARMED	
Camera Event Flag	Activates if Camera input alarms	
Print Input when Unsealed	Prints if a printer or Computer is connected	

Step 4 - Alarm Groups

[MENU] 4346 [ENTER] 19 [ENTER] 5 [ENTER]

Alarm groups are used to define what the **USERS** of the system can do. Rather than program every **User** individually, we program **Groups** and then allocate Users to those Groups. Below is a list of options to define those groups (as it would appear on LCD display).

Some of the Defaulted Alarm Groups:

Alarm Group	Name	Menu Options
1	No Access	All No
2	Master RAS or DOOR	Full Menu
3	Master Code Access	Full Menu

OPTION	Description	Suggestion
Alarm Group Number	Options are 1 - 138 different Alarm Groups. Alarm groups 1-10 are hardcoded, they can be viewed but not changed. In a new system, alarm groups 11-29 are pre-programmed with some standard settings. Alarm groups 30-138 are blank. 3 is MASTER CODE Access	?
Areas	Enter Areas 1- 16 that the User can access	1 - 16
Can this Group be assigned to Users	YES - For Users NO - for RAS or Doors	YES
Alarm System Control	Yes- Users can ARM, DISARM or RESET alarms No - Users cannot ARM, DISARM or RESET alarms	YES
Prompt With List of Areas	Yes - will display a list of Areas to the User No - the Areas will ARM/DISARM immediately	YES
User Can Activate Keyboard Duress	Yes - The Keyboard Duress facility is available No - Keyboard Duress is not available	YES
Reset System Alarms	Such as AC fail, DGP Tamper, etc	YES
Disable Auto-Deisolate	Yes - This user is prevented from de-solating on DISARM	NO
Restricted to Arm & Reset	Yes - limited to Arm and Reset only. No - Unrestricted control	NO
Disarm Only	Yes - Disarm Only. No - Unrestricted control	NO
Alarm Reset Only	Yes - limited to Reset only. No - Unrestricted control	NO
Auto Isolate Unsealed Inputs	Yes - The System can be ARMED and Unsealed inputs will be isolated No - The System cannot be Armed with Unsealed inputs	NO
Forced Arming When Unsealed Inputs	Yes - Unsealed inputs are ignored and will be active No - The System cannot be Armed with Unsealed inputs	NO
Prevent Forced Disarming	Yes - Area cannot be Disarmed with unsealed inputs No - Areas can be Disarmed as normal	NO
Can User Access via Modem	This does not apply to Upload/Download Software	NO
Link User to Category 1-8	The user category is used to group together a number of areas and define certain alarm system control functions for those areas.	Blank
No Arming if User Cat Not Timing	Relates to User Category function	NO

Press 0 to Skip and access the MENU options for this Alarm Group

	Menu Option	Yes/No
1.	Panel Status	YES
2.	Inputs Unsealed	
3.	Inputs in Alarm	
4.	Inputs Isolated	
5.	History	YES
6.	Test Report	
7.	Dial For Service	
8.	Film Counters	
9.	Input Text	
10.	Isolate	YES
11.	De-Isolate	YES
12.	Test Input	

	Menu Option	Yes/No
13.	Start Auto Access Test	
14.	Program Users	YES
15.	Time & Date	YES
16.	Door Data	
17.	Enable/Disable Service Tech.	
18.	Reset Camera	
19.	Installer Menu	
20.	Door & Lift Groups	
21.	Holidays	
22.	Open Door	
23.	Unlock, Lock, Disable and Enable	
24.	Print History	

Enter the Options that the Users in this Alarm Group will have access to when they press [MENU] followed by their CODE

Press 0 to Skip and access the Last options for this Alarm Group

Alm-Grp X No Time Zone Time Zone:	You can allocate a Timezone to this Alarm Group	0
Grp X Alt-Grp 1 No Access Alm-Grp	You can allocate an alternate Alarm Group for when the original Alarm Group is denied by Timezones	0

Step 5 - RELAY MAPPING

[MENU] 4346 [ENTER] 19 [ENTER] 16 [ENTER]

Event Flags are mapped to Relays.

The main panel has 2 outputs connected (1 siren and 1 strobe output). These are called relays 2 and 16 respectively. Max current for both these outputs is 700ma.

Relay Mapping Relay Number :	Enter the relay you want to program (ie 2 - Strobe Relay on Main Panel)	2
Relay 2 Mapped to event Flag 2 Event Flag:	Enter the event Flag number that will activate this relay. (Default is Event Flag 2)	2
Relay 2 timezone not programmed Timezone Number:	The relay can be controlled by a timezone	0
Relay 2 non-Inverted "*" - Change	Relay can be Inverted so it is energised all the Time and de-energises when activated	-

Relay Numbering:

Main Panel

Relay	Output	Default Event Flag
Relay 2	Panel Strobe	Event Flag 2
Relay 16	Panel Int/Ext Siren	Event Flag 1

DGP

DGP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Siren relay	32	48	64	80	96	12	128	144	160	176	192	208	224	240	-

Step 6 - DGP (Data Gathering Panels)

[MENU] 4346 [ENTER] 19 [ENTER] 4 [ENTER]

No DGPs Are Being Polled Poll DGP:	Enter the number for each DGPs that exist in the system.
Set DGP Type DGP No:	0 = Standard; 1 = Door Controller; 2 = Lift Controller

Step 7 - RAS (Remote Arming Stations)

[MENU] 4346 [ENTER] 19 [ENTER] 3 [ENTER]

All RAS on the system should be powered up.

Option	Meaning	Suggest
1, Poll RAS:	Poll RAS's by entering the number of that RAS and press [ENTER] <i>Note: comma after the "1," indicates that device is polled OK. If it appeared as "1:" then the device is not being polled properly.</i>	
Arming station Details RAS No:	Enter the number of the RAS to be programmed	?
RAS: 1 Alm-Grp: Alm-Grp:	The RAS's can also be restricted to Alarm Groups the same as USERS	2
RAS: 1 Menu Alm-Grp: Alm-Grp:	The RAS's can also be restricted to what MENU options are allowed	2
RAS: 1 Has No Door Event Flag Event Flag:	The Event assigned here will be activated when a valid code is entered.	-
RAS: 1 Can See Relays From	Allows a relay control group to be set for RAS.	-

Group 0 Relay Grp:		
LCD Arming Station	Yes = LCD RAS, No = no LCD	YES
Toggle Keyboard Control	Yes = Code then ENTER Arm/Disarms No = Code then On or OFF Arm/Disarm	NO
Enter Key Opens door Only	Code then Enter used to unlock doors only	NO
Door Event Flag on Alarm Codes	Yes = Door will operate with valid code No = Door will operate with door code only	NO
Display Shunting on LCD	Yes = will display when input shunted No = will not display when input is shunted	NO
Disarm/Arm Using One Key	Yes = Arm/Disarm Areas = keys pressed. No = Normal	NO
Cards Auto Disarm	Yes = Card Disarms system No = Card unlocks door only	NO
Cards Always Disarms/Arms	Yes = Card Arms/Disarm system No = Card unlocks only	NO
Reset From RAS without Code	Yes = reset alarms [ENTER] twice + 0[ENTER]	NO
Restricted User Category To Disarm	Yes = RAS Used for Disarm only	NO

Step 8 - Communications

[MENU] 4346 [ENTER] 19 [ENTER] 9 [ENTER]

Option	User programmable event flag	Suggest
PABX:	No. for outside line -* = Pause, 0 [ENTER] Clear	
Ph1 No:	Primary Phone Number	Phone number 1
Ph2 No:	Secondary Phone Number	Phone number 2
Ser No:	Number for "Dial for service"	
Cback:	No. dialled if "CallBack" option is triggered	
Comp:	Only if using remote computer Interface	
Account:	System Area (enter 9999 for no report)	System Code
Area 1 - 16	Account code for Area 1 - 16 Press * for Next Area	Client Code
Format No:	Selects the dialling format	3 (Contact ID small)
Network Address:	Direct Line only	-
Comp Address	Only if using remote computer Interface	-
O/C Areas:	Areas that report Opening & Closing	Enter Areas
STU ID:	Securitel Hard ID Set for Securitel	
Encryption Key	Direct Line Only	
Number of Rings	Enter number of brrr-brrr before panel answers	15
Number of Calls	Enter number of calls of (brrr-brrr's) above that must be received before panel answers phone	1
Test calls	0=None, 1=daily, 2=weekly, etc	2
Test Call Time	Enter Hours, Minutes	02:00
Maximum Events	Max Events to report at once	255
Multi-Break Alarms	Yes = multiple alarms; No=1 alarm per zone	?
Multi-Break Restore	Yes = multiple restores; No=1 restore per zone	?
terminate direct line	Direct Line Only	

Remote Control	Direct Line Only	
Common Open/Close	Yes = 1st open/ last closed, No = Individual	?
Tone Dialling	Yes = Tone Dialling, No = Decadic	Yes
Disable Isolates	Yes = Isolates will not dial: . No = Isolates dial	No
Answering Machine	Yes = After rings & calls is met answer 1st	?
Enable Line Monitor	Yes = Enable, No = disable	?
Comp Port Connected	Only if using remote computer Interface	-
Alarms to comp inst.	Only if using remote computer Interface	-
Access to comp Inst.	Only if using remote computer Interface	-
Dial via Comp port	Only if using remote computer Interface	-
Dial via own modem	Only if using remote computer Interface	-

Step 9 - SYSTEM OPTIONS

System options will set up the basic settings for the alarm system.

[MENU] 4346 [ENTER] 19 [ENTER] 7 [ENTER]

Press [ENTER] to scroll through options until the display reads.

Time Before Rotate	Time delay before Text starts scrolling on LCD Display	0
Rotate speed is 0	This will increase or decrease the speed at which the Text scrolls on the LCD keypad. (1 = fastest, 15 = slowest).	8
Input Tamper Monitoring	Yes = dual End-of-Line resistors. NO - Single End-of-Line resistors	YES
Auto De-isolate When Area Accessed	Yes = Allows for the automatic de-isolation on Disarming of any inputs that have previously been isolated.	YES
Display One Input at a time	Displays inputs as either NO eg Unsealed 1,2,3,4 or YES eg Unsealed 2 Building 1 Workshop PIR	No
Name File	Yes = User Name will be asked for when programming User Codes.	
System Alarms set Siren & Strobe	Relates to "Tamper" inputs on the Main Panel and DGP.	
System Alarms Latch	Yes – System Alarms latch and require code to reset. No – System Alarms automatically reset.	

Press [ENTER] several times to skip options until the display reads:-

Display Alarms Instant on LCD	Yes – To display Alarms as they Occur. No – Alarms can Only be reviewed by pressing [ENTER] twice.	
Sirens Only After Report Fail	Yes – Siren Event Flags will only activate on alarms if Panel has failed to report to the monitoring station. No – Sirens activate normally.	

Although other options are of value, this is all we are concerned about with these options Press [0] to Exit the "SYSTEM OPTIONS" Menu

Step 10 - User Programming

[MENU] 4346 [ENTER] 14 [ENTER]

1 - Delete 2 - Display 3 - Create

To create a new User press 3 - (also 3 allows changes to existing Users)

Create User	Challenger allows 50 users before extra memory is required - User 1 - 50 (4346 is User 50)	1
User No:		
Alm-Grp:1-No Access	Press * to see a list of Alarm Groups	?
Door Group 0	Enter Door Group if applicable	0
Floor Group 0	Enter Floor Group if applicable	0
Your Name is	Enter the Users name * to end	Brian O'Flaherty
Pin Code	enter in up to 10 digits	1234567890

Step 11 - Testing

- **Challenger has several levels of testing**

1. Panel Status [MENU] 4346 [ENTER] 1 [ENTER]

Display the status of Inputs, RAS DGPS etc.

2. Input Unsealed [MENU] 4346 [ENTER] 2 [ENTER]

Displays any Unsealed Inputs

3. Input in Alarm [MENU] 4346 [ENTER] 3 [ENTER]

Displays any Inputs in Alarm

4. Test Report [MENU] 4346 [ENTER] 6 [ENTER]

Only applicable if inputs have been programmed for Test. Arm system and this will display any inputs that have not been activated since the system was last disarmed

5. Test Input [MENU] 4346 [ENTER] 12 [ENTER]

Allows an individual test on any input - This is a real-time test.