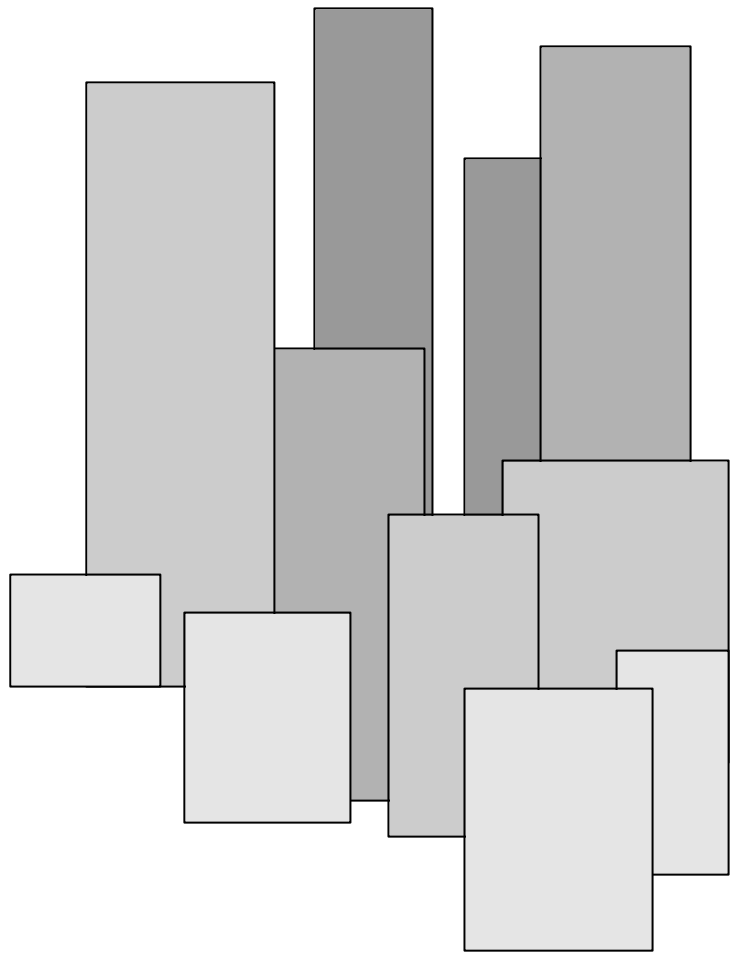


Issue II, Revision I: August 1998



The Challenger

Version 8 Introductory Programming Guide

(including V9 Information)



The Challenger is Designed and Manufactured by:

Tecom Systems Pty. Ltd
646 Whitehorse Road
Mitcham 3132
Victoria Australia
Telephone: 03 9259 4700
Facsimile: 03 259 4799

INTRODUCTION

The Version 8 Challenger Alarm Panel is assembled using the latest Surface Mount technology and added design features that provide increased reliability and self diagnosis functions. Many new programming options and refinements have been developed to provide even greater flexibility than the versatile Version 6 Alarm Panel, including information on the significant advancement of V9.

This programming guide also applies to the Version 7 software upgrade for Version 6 Challenger Alarm Panels. The Version 7 upgrade provides the features of Version 8 Panels, including the Upload/Download capabilities. Please read all the information in Appendix IV before fitting Version 7 upgrade software to Version 6 Panels. V9 programming and numbering system.

The Version 8 Challenger Programming Guide provides information on the many options available to the Installer.

The Installer menu options and the displays for each option have been listed in the sequence in which they appear on the panel. The pages of the manual have been divided into columns to provide a quick reference programming sequence on the right side of the page and more detailed explanations on the left.

In addition, various tables and summaries have been supplied and these will provide the Installer with valuable cross references. The Programming Guide should be used in conjunction with *The Challenger* User and Hardware Guides and other related manuals.

The Challenger system hardware capacity:-

- 256 Inputs
- 255 Relays
- 16 Areas

- 16 Arming Stations
- 15 Data Gathering Panels (or Door/Lift Controllers - Max 12)
- 64 Doors (or 12 Lifts)
- 64 Floors

- On-Board Dialler
- Serial Securitel interface connection
- Serial Printer connection (Optional module)
- Serial Computer connection (Optional module)
- Panel Link connection (Optional module)

The Challenger standard memory capacity:-

- 50 Users with 16 characters for user name and up to 10 digit PIN number
- 128 Programmable Alarm Groups
- 10 Door Groups
- 10 Floor Groups

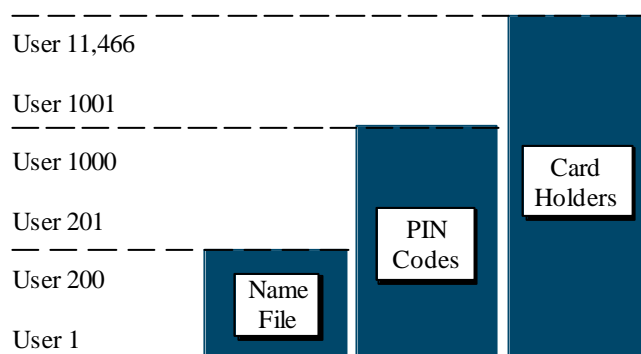
- 200 Event printer buffer
 - 100 Access control Events
 - 100 Alarm system Events

The Challenger expanded memory capacity:-

- 11,466 Users
 - 200 with 16 characters for user name
 - 1000 with 10 digit PIN number
 - 11,466 card holders
- 128 Programmable Alarm Groups
- 128 Door Groups
- 64 Floor Groups

- 2000 Event printer buffer
 - 1000 Access control Events
 - 1000 Alarm system Events

Note: Output Events are prioritised with Alarm Events given priority.



USER PROGRAMMING - EXPANDED MEMORY

Disclaimer

It is the responsibility of the customer to test and determine the suitability of this product for specific applications.

In no event shall Tecom Systems Pty Ltd be responsible or liable for any damages incurred by the buyer or any third party arising out of the use or inability to use the product.

Due to ongoing development the contents of this manual is subject to change without notice. All efforts have been made to ensure the accuracy of this manual. However, Tecom Systems Pty Ltd can assume no responsibility for any errors or omissions in this manual or their consequences. Should any errors be found, we greatly appreciate being notified of them.

CONTENTS

Introduction	i
Disclaimer	ii

Getting Started:

Glossary	v
Numbering - Inputs/DGPs/Relays/Doors	vii
Panel Link Numbering	x
Installer menu - How to select menu options	xii
Summary of Installer options	xiii
Programming Sequence/Option Selection	xxii
Which Installer Menu Options will I need to program ?	xxvi
Programming Defaults summary	xxix

Menu Options:

1. Input Database	1
2. Area Database	7
3. Remote Arming Station (RAS) Database	11
4. Data Gathering Panel (DGP) Database	17
5. Alarm Groups	19
6. Timers	27
7. System Options	31
8. Auto Reset	39
9. Communication Options	41
10. Text Words	51
11. Version	53
12. Lamp Test	55
13. Time Zones (Tz 1 to 24)	57
14. Reset Defaults	59
15. User Category Data	61
16. Relay Mapping	67
17. Arm/Disarm via Timezone	69
18. Areas Assign to Vaults	71
19. Area Linking	73
20. Site Number (Code)	75
21. Input Shunts	77
22. Time Zone to Follow Relay (Tz 26 to 41)	81
23. Poll Errors	83
24. Download	85
25. Display Card	87
26. Edit	87
27. Tecom Address Mapping	89
28. Remote Controllers	89
29. Security Password	91
30. Printer	93
31. Battery Testing (Maintenance)	95
32. Custom Message	97
33. Program Next Service	97
34. Program Summary Event Flags	99
35. Program Macro Logic	101
36. Radio Communications (<i>See Radio Kit documentation</i>)	104
37. Panel Link (V9)	109
38. Programming Linked Panels (V9)	110
39. Systems Option (V9)	
40. LED Mapper (V9)	

Continued Over

CONTENTS

Tables: Appendix I

1. Input Types (Input Database)	I - 3
2. Word Library	I - 13
3. Test Types (Input Database)	I - 17
4. Default Alarm Groups	I - 18
5. Network Events and Commands	I - 21
6. Pre-set Event Flags	I - 31
7. Arming Station Type Programming	I - 32

Help: Appendix II

V8 Challenger Panel - TS0816	II - 2
LCD Arming Stations - TS0001, TS0004 or TS0210	II - 3
4 LED Arming Station & Magnetic Card Readers	II - 4
- TS0003, TS0007, TS0008 or TS0009	
Data Gathering Panels - TS0820 to TS0824	II - 5
Serial Printer Interface - TS0094	II - 6
Relays - TS0840 to TS0842	II - 7

Programming Sheets: Appendix III

1. Input Database	III - 2
2. Area Database	III - 4
3. Remote Arming Station (RAS) Database	III - 6
4. Data Gathering Panel (DGP) Database	III - 7
5. Alarm Groups	III - 8
6. Timers	III - 10
7. System Options	III - 11
8. Auto Reset	III - 12
9. Communications	III - 13
10. Text Words	III - 15
13. Time Zones (Tz 1 to 24)	III - 16
15. User Category Data	III - 17
16. Map Relays	III - 18
17. Arm/Disarm via Timezone	III - 19
18. Areas Assign to Vaults	III - 20
19. Area Linking	III - 21
20. Site Number	III - 20
21. Input Shunts	III - 22
22. Time Zone to Follow Relay (Tz 26 to 41)	III - 23
29. Security Password	III - 24
30. Printer	III - 24
31. Battery Testing	III - 25
32. Custom Message	III - 26
33. Program Next Service	III - 26
34. Program Summary Event Flags	III - 27
35. Program Macro Logic	III - 28
36. Radio Communications (<i>See documentation supplied with Radio Kit</i>)	
37. Panel Link (V9)	
40. LED Mapper (V9)	
User Menu Option 14: Program Users	III - 30
User Menu Option 20: Door Groups	III - 31
User Menu Option 20: Floor Groups	III - 32
User Menu Option 21: Holidays	III - 33

Version 7 Information: Appendix IV

Introduction	IV - 2
Conversion Procedure - Version 6 to Version 7	IV - 3
Programming Information	IV - 4

GLOSSARY

ACCESS	: The condition of an area or building when it is occupied and when the security system has been set so that normal activity does not set off an alarm.
ACCESS CONTROL	: The control of entry to, or exit from a security area.
ALARM GROUP	: A <i>Challenger</i> feature which defines a group of areas, functions and menu options. Alarm groups are assigned to users, arming stations, or door readers, to define what areas can be controlled & what functions can be performed by that user, or from that device. An alarm group can also be assigned to certain input types for area control.
ALARM	: The state of a security system when an armed input device is activated. eg. A door lock is broken causing a siren to sound.
AREA	: A section of a building which has specific security requirements. <i>The Challenger</i> allows a building to be divided into 16 areas of differing security requirements. Each area is identified by a number and name. eg. 1. Office, 2. Workshop, 3. Boardroom. etc.
ARMED	: The condition of an input, an area or a building, when a change in the status of any input (from sealed to unsealed) will cause an alarm. An area or building is only armed when it is unoccupied. Some inputs may remain armed continually.
ARMING STATION (RAS)	: A device which is the user's control panel for security functions for an area(s) or for access points (doors). The arming station may be a <i>Challenger</i> console, or any other device which can be used to perform security functions such as arm/disarm, open doors etc.
CURSOR	: A flashing underline character on the liquid crystal display which indicates where the next character entered on the keyboard, will appear.
DGP	: (Data Gathering Panel) A device which collects data from other security devices within an area, and transfers it to the main control panel.
DOOR GROUP (ACCESS GROUP)	: A <i>Challenger</i> feature which assigns a group of doors or lifts to a user, in order to allow access at those doors/lifts. Access to each door in a group may be restricted via a timezone.
DURESS	: A situation where a user is being forced to breach the system security (eg. forced at gunpoint to open a door). <i>The Challenger</i> Duress Facility allows a signal to be activated (eg. notification to a security station) by the user. This is done by entering a duress digit in conjunction with a PIN.
EGRESS INPUT	: An input that activates, or is programmed to activate, a Door Event Flag. e.g. A button provided inside a door (Egress button) to allow users to exit without using the door reader.
EVENT FLAG	: A signal activated by an input condition, area condition, system status or fault condition, door command (on doors 1 to 16) or shunt timer condition. The main purpose of an event flag is to activate a relay.
FLOOR GROUP	: A <i>Challenger</i> feature which assigns a group of floors to a user, in order to allow selection of those floors when accessing a lift reader. Access to each floor in a group may be restricted via a timezone. (Previously called "Lift Group" in Version 6)
HISTORY	: A list of past alarm and access control events stored in memory which can be viewed on an LCD Arming Station or sent to a printer.
INPUT	: An electrical signal from a security device (Input Device) to <i>The Challenger</i> system. Each input device is identified by a number and text. eg. 14. Reception Holdup Button, 6. Fire Exit Door.
ISOLATE	: See Sealed/Unsealed/Isolated.
LCD	: (Liquid Crystal Display) The part of an arming station where messages or programming

GLOSSARY

	input are displayed.
LED	: (Light Emitting Diode) A light indicator, on an arming station, which conveys a condition. eg. Area in alarm, communications fault etc.
LOCAL ALARM	: An alarm which is transmitted only within a building, and occurs when an area is occupied. The circumstances which cause a local alarm can be checked and rectified by personnel on site and it is therefore unnecessary for the alarm to be relayed to a remote monitoring station.
ON-LINE / OFF-LINE	: Operational/Not operational A device may be off-line due to a malfunction in the device itself or a disconnection from the control.
PIN	: A 4-10 digit number given to, or selected by a user. It is necessary to enter a PIN on <i>The Challenger</i> keypad as a pre-requisite to performing most <i>Challenger</i> functions. In <i>The Challenger</i> programming the PIN is associated with a user number which identifies the PIN holder to the system.
POLL	: An inquiry message continually sent by <i>The Challenger</i> control panel to DGPs and arming stations. Polling allows the remote unit to transfer data to the control panel.
RAS	: See "Arming Station".
RELAY CONTROLLER	: A PCB module which connects to <i>The Challenger</i> or a DGP to provide Relay or Open Collector outputs. When programming, 1 Relay Controller = 8 Relays.
REMOTE MONITORING COMPANY	: A company which monitors whether an alarm has occurred in a security system. A remote monitoring company is located away from the building/area it monitors.
SEALED/UNSEALED/ISOLATED	: Describes the condition of an input device. Sealed: The input device is NOT activated. eg. door closed. Unsealed: The input device is activated. eg. door open. Isolated: The input device has been inhibited from indicating sealed or unsealed status. It is excluded from functioning as part of the system.
SECURE	: The condition of an area or building when it is armed (security turned on) and unoccupied.
SHUNT	: A procedure which inhibits an input from being activated when it is in an unsealed condition. eg. Shunt stops a door generating an alarm when opened for a short time.
TAMPER	: A situation where an arming station or associated wiring are tampered with, or accidentally damaged. <i>The Challenger</i> Tamper Facility activates a signal (eg. flashing light) when Tamper occurs.
TIMEZONE	: A program setting which identifies specific time periods on specific days. Timezones are allocated to <i>Challenger</i> functions to control the activity of that function by time and day and are primarily used to restrict access.
UNSEALED	: See Sealed/Unsealed/Isolated.
USER	: A number which is associated with a user's PIN to identify the user to <i>The Challenger</i> .
USER CATEGORY	: A User Category can be assigned to an Alarm Group to enable different types of Users to: Use the timed access function on certain area/s, Restrict alarm control to "Arm/Reset only" on certain area/s or Utilize the "User Count for each area" or "Dead Man Alarm" function.

NUMBERING

All DGPs, inputs, and relays are numbered according to a set formula.

This is used when determining the physical numbers/locations of DGPs, relays etc. when programming.

Panel Link expansion uses the existing numbering system for a Challenger panel plus one extra feature. Each linked panel can be identified by the addition of 2 numbers in front of existing system numbers. That number identifies the panel as one of a possible 16. Zero or nothing identifies the first panel; the master panel, for examples inputs 1-16 will remain unchanged.

INPUTS

The main *Challenger* panel can have up to 16 inputs connected to it. These are numbered as inputs 1 to 16.

Input number 13 on Panel Link 6 would be Input number 6013.

Input number 13 on Panel Link 7 would be Input number 7013.

Input number 13 on Panel Link 0/Master Panel would be Input number 13.

A standard DGP can have 8 inputs connected to it. This can be expanded in increments of 8, up to 32.

(So, a DGP can have 8, 16, 24 or 32 inputs)

Expanding the inputs connected to a DGP to more than 16 is the same as combining 2 DGPs. The additional inputs are taken from the following DGP. If this is done, the second DGP ceases to exist and is not included to be polled.

This is done to maintain consistent numbering.

eg. DGP1 has 32 inputs
(DGP2 cannot exist as DGP1 has used the inputs allocated to the DGP2 address)
DGP3 is therefore the second physical unit.
If it has 24 or 32 inputs, DGP4 cannot exist and so on.

See Illustration on page 20.

Door and Lift controllers are also DGP's, and their inputs fit into the standard input numbering.

eg. Door controller 1 is DGP 1 and has 16 inputs, which *The Challenger* sees as inputs 17 to 32.

Input Numbers:

Chall	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DGP1	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
DGP2	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
DGP3	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
DGP4	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
DGP5	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
DGP6	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
DGP7	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
DGP8	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
DGP9	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
DGP10	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176
DGP11	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
DGP12	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208
DGP13	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224
DGP14	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
DGP15	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256

8-32 INPUT DGP PROGRAMMING

For each DGP programmed to be polled, the Challenger expects to see 16 or 32 inputs, depending on the setting of Dipswitch 5.

If a DGP is connected with only 8 or 24 inputs, the unused input numbers in the system must be programmed in the Input Database as Type 0. (Type 0 is the default input type for inputs 17 to 256)

e.g. DGP 1 has 24 inputs (2 i/p expanders fitted & Dipswitch 5 on). Therefore, inputs 41 to 48 must be programmed as Type 0.

In a new Challenger Panel or a panel that has been reset to factory defaults (using Installer Option 14), inputs 1 to 16 are set to Type 2 - Secure Alarm, and all other inputs (DGP inputs) are defaulted to Type 0 - No Input Type.

NUMBERING

RELAYS

Outputs on DGP' s can be expanded by the use of Relay Controllers.

Each relay controller expands the relays by 8 .

A DGP can have 2 relay controllers connected, increasing the relays to the maximum of 16 per DGP.

A *Challenger* panel can have up to 32 relay controllers which would provide the maximum of 256 relays.

Note: If the main *Challenger* panel has more than 2 relay controllers connected, therefore making more than 16 relays, the relay numbers will be duplicated on the DGPs.
If this is done, one of 2 options may be used:
- The relays on the DGPs are not used.
- both relays are activated together.

e.g. The Challenger Panel has three relay controllers fitted and DGP 1 has one relay controller fitted.
When relay 17 is active, the first relay on the third relay controller connected to the Challenger Panel; and the first relay on the relay controller connected to DGP 1 are both activated.

The relay numbers allocated for each DGP address are listed in this table.

DGP 1	17-32	DGP 9	145-160
DGP 2	33-48	DGP 10	161-176
DGP 3	49-64	DGP 11	177-192
DGP 4	65-80	DGP 12	193-208
DGP 5	81-96	DGP 13	209-224
DGP 6	97-112	DGP 14	225-240
DGP 7	113-128	DGP 15	241-256
DGP 8	129-144		

Relay numbers are always the same as the first 16 input numbers on the DGP they are connected to.

If a DGP does not exist because the previous DGP has an expanded number of inputs, the relay numbers of that DGP address cannot be used for relays connected to DGPs.

The relay numbers can be used if relay controllers are connected to the Challenger Panel that correspond to those relay numbers.

eg. DGP1 has 32 inputs : 17-48
DGP1 relays (max 16) : 17-32
(DGP2 relays 33-48 not used)
DGP3 has 32 inputs : 49-80
DGP3 relays : 49-64
(DGP4 relays 65-80 not used)

See example illustrated on page 20 at end of "Numbering" section.

SIREN OUTPUTS

The Internal and External Siren speaker outputs on the V7/V8 *Challenger* Panel are always treated as Relay 16.

On Data Gathering Panels with Siren speaker outputs, the last of the 16 relay numbers associated with that DGP address is the Siren output. *e.g.* On DGP 3 the Siren speaker output is Relay 64. (*See table below*)

To enable the Siren speaker output, the Relay number representing the siren output must be mapped to the required "Siren Event Flag Number". The "Siren Event Flag Numbers" are programmed in Installer Option 2 - Area Databases.

DGP Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Siren Relay No: 32	48	64	80	96	112	128	144	160	176	192	208	224	240	-	

NUMBERING

RELAY CONTROL GROUPS

Relay control group numbers are a way of identifying a group of 8 relays **controlled by an arming station**.

When a relay control group is assigned to an arming station, the Open Collector output (or "OUT") terminal, follows the FIRST relay of the relay control group.

Refer to: Program Arming Stations - Installer menu option 3.

Group Relay Numbers

1	1 - 8
2	9 - 16
3	17 - 24
4	25 - 32
5	33 - 40
6	41 - 48
7	49 - 56
8	57 - 64
9	65 - 72
10	73 - 80
11	81 - 88
12	89 - 96
13	97 - 104
14	105 - 112
15	113 - 120
16	121 - 128

Group Relay Numbers

17	129 - 136
18	137 - 144
19	145 - 152
20	153 - 160
21	161 - 168
22	169 - 176
23	177 - 184
24	185 - 192
25	193 - 200
26	201 - 208
27	209 - 216
28	217 - 224
29	225 - 232
30	233 - 240
31	241 - 248
32	249 - 256.

DOOR AND LIFT NUMBERING

Door numbers are determined by the address of the Arming Station or Reader connected to the Challenger LAN or Intelligent Controller LAN, and the Intelligent Controller address if applicable.

Doors 1 to 16 are reserved for Arming Stations 1 to 16 which are connected to the Challenger Panel LAN and are being used for Door Control functions.

Doors 17 to 64 are used for Door or Lift numbers being controlled by an Intelligent Controller DGP. (4 Door Controller or Lift Controller). *See table opposite.*

UNIT DOOR NUMBER

RAS 1 to 16 1 to 16

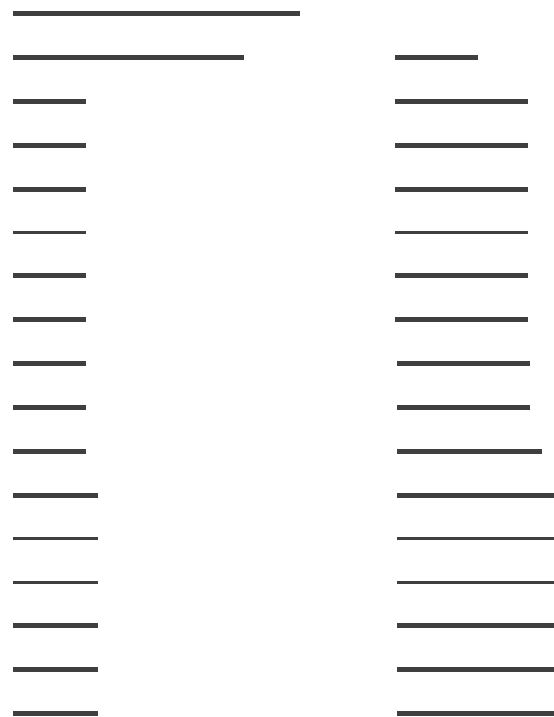
	1st or Lift	2nd	3rd	4th
DGP1	17	18	19	20
DGP2	21	22	23	24
DGP3	25	26	27	28
DGP4	29	30	31	32
DGP5	33	34	35	36
DGP6	37	38	39	40
DGP7	41	42	43	44
DGP8	45	46	47	48
DGP9	49	50	51	52
DGP10	53	54	55	56
DGP11	57	58	59	60
DGP12	61	62	63	64

PANEL LINK NUMBERING

Panel Link expands on the standard Challenger system by increasing the number of inputs, outputs, areas, etc.

<u>Panel Link hardware capacity:</u>	<u>Panel Link memory capacity per Panel:</u>
Connection of a possible 16 Challenger panels	11,466 Users common to all Panels
4096 Inputs (16 x 256)	200 with 16 characters for user name
4080 Relays (16 x 255)	1000 with 10 digit PIN number
256 Areas (16 x 16)	11,466 card holders
256 Arming Stations (16 x 16)	255 Programmable Alarm Groups
240 DGPs (16 x 15)	255 Door Groups
1024 Doors (16 x 64)	64 Floor Groups
1024 Floors (16 x 64)	2000 Event Buffer per panel
On-board Dialler	1000 Access control events
Serial Securitel interface connection	1000 Alarm system events
Serial Printer connection TS0891 (optional module)	
Serial Computer connection TS0892 (optional module)	

Because Panel Link works to form a complete unit out of a possible of 16 Challengers, the numbering system has altered to cater for this change. Numbering for Challenger Panel 0, the master panel will remain the same, the remaining Panels however will have a prefix to identify the Challenger panel.



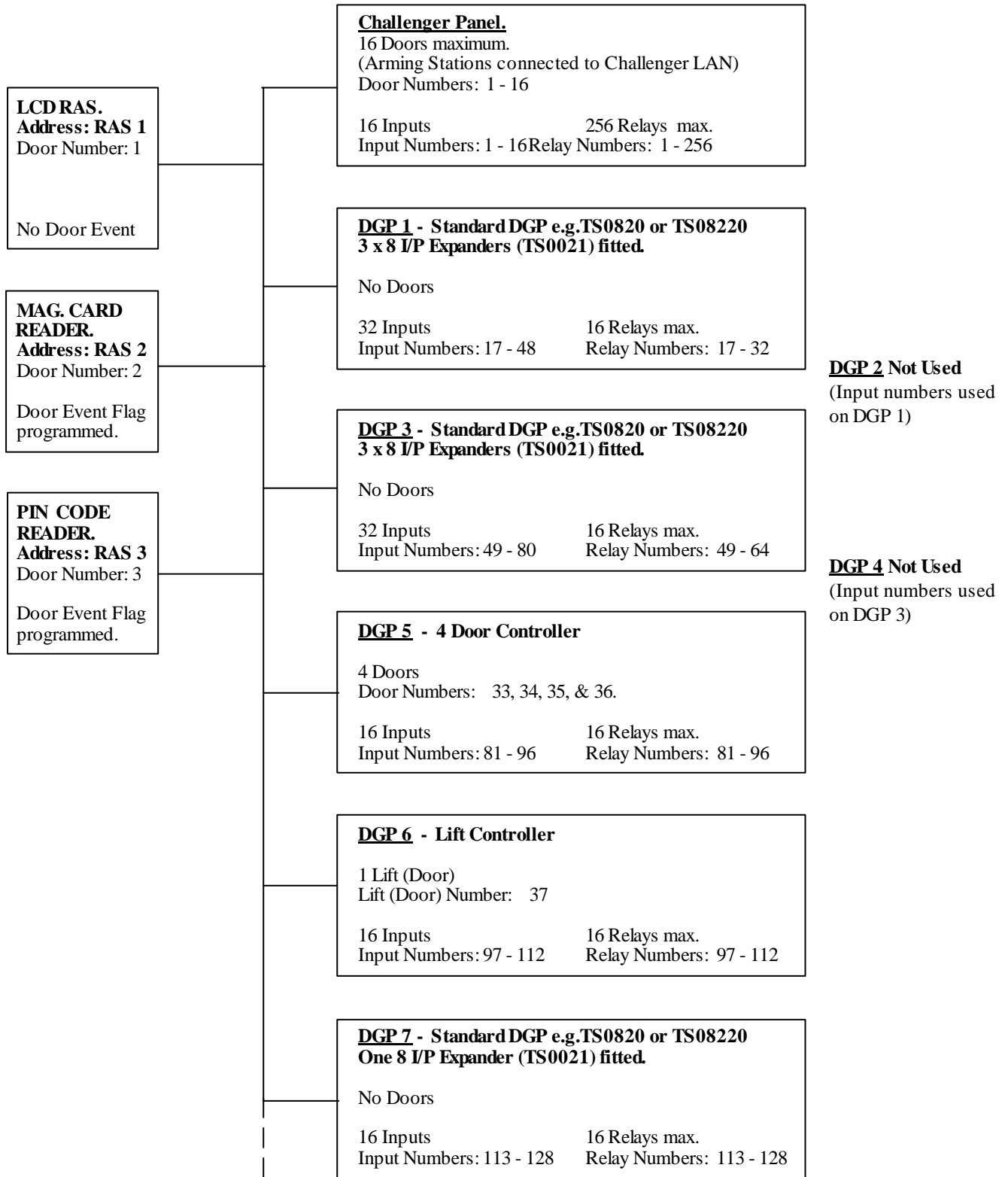
Input numbers are displayed left as an example of the numbering system. The last numbers identify the input in this case and the first numbers are an indicator of the Challenger panel associated with that input.

Input No.: NNXXX

NN = Challenger No.
XXX = Input No.

NUMBERING

EXAMPLE OF INPUT, RELAY AND DOOR/LIFT NUMBERING.



INSTALLER MENU

The Installer menu is accessed via the User menu and is User menu option 19.

The system must be disarmed before it is possible to use the Installer Menu.

To disarm the system:

4 3 4 6 (Master PIN code) **<OFF>**

0 (Select all areas) **<ENTER>**

To display menu option 19 on the User menu the alarm group of the user code must allow it.

The Master Installer is User Number 50

The default master PIN code (User 50) = 4346

The master PIN code should be changed.

The Alarm Group assigned to User 50 should never be changed.

Note: When using the manual:

- ?** 1. This symbol indicates a variable numeric or alpha value to be recorded. eg. An input number, an area number, an alarm group number etc.
2. Where programming procedures are the same for several records in one function, this procedure is shown only once. Examples of the display for each record are however provided.

USER MENU OPTIONS

The following User Menu Options may also need to be used when programming your Challenger System.

Test Input	User Menu Option 12
Program Users	User Menu Option 14
Program Time & Date	User Menu Option 15
Door & Floor Groups	User Menu Option 20
Holidays	User Menu Option 21

The programming details for all User Menu Options are available in The Challenger Version 8 User Guide, which is supplied with every Version 8 Challenger Panel.

To access the Installer menu:

1. The display will show:

There Are No Alarms In This Area
Code :

***** ~ Press

2. The display will show:

To Access Menu Enter Code
Code:

4346 Enter ~ Enter Mastercode.

3. The display will show:

"0"-Exit, "ENTER"-Down ⁰⁰⁰¹ -Up
0-Exit, Menu:

19 Enter ~ Enter Installer menu option number.

4. The display will show:

Install Menu
0-Exit, Menu:

ENTER ~ Scroll forwards through the menu options.

or ***** ~ Scroll backwards through the menu options.

or **0 ENTER** ~ Return to the User Menu.

or **? ENTER** ~ Select a menu option.

INSTALL OPTIONS

1. Input Database

Records parameters of inputs. Must be programmed for every input used.

Input Number	-	1 to 256 (Depends on the number of DGPs in the system)
Input Name	-	Name/description of input.
Input Type	-	Number and name for a pre-defined input type which determines the input function.
Reporting	-	Method of reporting to the monitoring company. (Contact ID Type)
Area Assignment	-	List of areas assigned to the input. (Or Alarm Group on Area Control input types)
Test Option	-	Determines testing procedure.
Event Flags	-	Records the event flags which can be activated by the input.

Selected Event Flag	Secure Alarm x 8	Camera
Siren	Access Alarm x 3	
Console Warning	24 Hour Alarm	

Make all Events 24 Hr.... -	Determines active period of event flags assigned to the input - Access/Secure.
Print I/P when unsealed ... -	Allows printout of input condition to be enabled/disabled.

2. Area Database

Records parameters of areas. Must be programmed for every area used.

Area Number	-	1 to 16.
Area Name	-	Programmable text for easy area recognition.
Exit Time	-	Time allowed between exit and area arm before an alarm is activated.
Entry Time	-	Time allowed between entry and area disarm before an alarm is activated.
Event Flags	-	Records event flags which can be activated by conditions in the area or condition of inputs with this area assigned to them.

Siren	Secure Alarm	Entry Timer
Accessed	Access Alarm	Warning (User Cat. timer expiry)
Unsealed	Local Alarm	Camera
Isolate	Exit Timer	Pre-Alarm

Out of Hour Timezone -	Timezone which will cause an alarm condition if area is accessed out of specified hours.
Area Disarm Time	Records the Timed Disarm period for individual areas. (Over-rides User Category timers)

3. Arming Stations

Records details of arming stations. Must be programmed for every arming station used.

RASs to be polled	-	Records the number of each arming station to be polled by the main control panel.
Area Alarm Group	-	Alarm Group to determine the areas which can be controlled by the arming station.
Menu Alarm Group	-	Alarm group to determine the areas which can be accessed via the arming station when using menu options. (Optional)
Door Function	-	Assign event flag to allow arming station to be used to open a door.
Relay Group assigned	-	Assign relay group to enable Output on RAS.
LCD Arming Station	-	Defines type of arming station.
Toggle Keyboard Control	-	Disables use of OFF or ON control when arming/disarming at the arming station.
ENTER key Opens	-	
Door Only	-	Prevents ENTER key from being used for Alarm functions. (Toggle Control must be NO)
Door Event Flag on	-	
Alarm Codes	-	Determines if Alarm Codes can be used for door function.
Display Shunt on LCD	-	Allows Shunt functions to be displayed on LCD RAS.
Disarm/Arm using one key	-	Option for use of special 16 Area Membrane RAS.
Cards Auto Disarm	-	Allows Cards to Disarm without using OFF key.
Card Always Disarm/Arm	-	Allows Cards to Arm and Disarm without using ON/OFF keys.
Reset without Code	-	Allows user to reset alarms without PIN.
Restrict User	-	
Categories to Disarm	-	Restricts User Category functions to disarm only.
Card Arm After 3 Badges	-	Allows 3 badges to arm and one badge to disarm (V9).

INSTALL OPTIONS

- Restrict If Area Secured ...* - Access denied if area is secured (V9).
Restrict to Local Challenger Card and Code - Restricts the RAS operation to the local Challenger (V9).
Enables card and code to login to the menu (V9).

4. Data Panels

Records details of Data Gathering Panels. Must be programmed for every DGP used.

- To be Polled* - Records the number of each DGP to be polled by the main control panel.
DGP Type - Records the type of DGP being polled.

5. Alarm Groups

Records parameters of each alarm group. Must be programmed before users can have any alarm system control.

- Alarm Group Number* - 1-128 (1-10 hardcoded, 11-29 pre-programmed).
Alarm Group Name - Name of the alarm group.
Areas Assigned - Areas where the alarm group can control functions. Areas can be programmed across linked panels.
User Alarm Group - Indication of whether alarm group can be assigned to a user.
Alarm System Control - Allow alarm system control functions.
List Areas - User is prompted with List of areas on LCD during arm/disarm.
Keyboard Duress - Allows duress facility to be activated by a code.
Reset System Alarms - Allows the alarm group to reset latching system alarms.
Disable Auto De-isolate ... - Disables Auto De-isolate function.
Arm and Reset Only - Restrict alarm system control to arm and alarm reset only.
Disarm Only - Restrict alarm system control to disarm only.
Alarm Reset Only - Restrict alarm system control to alarm reset only.
Auto Isolate Unsealed Inputs - Isolate unsealed inputs when arming.
Forced Arming when Inputs Unsealed - Arm with unsealed inputs.
Prevent Forced Disarming - Prevent disarming with unsealed inputs.
Modem Access - Allows access to Challenger Panel via dial-up modem.
User Category 1 - Link User to Category 1.
User Category 2 - Link User to Category 2.
User Category 3 - Link User to Category 3.
User Category 4 - Link User to Category 4.
User Category 5 - Link User to Category 5.
User Category 6 - Link User to Category 6.
User Category 7 - Link User to Category 7. (Dead Man Alarm)
User Category 8 - Link User to Category 8. (Counter)
No Arming if User Category not Timing - Prevent user category timer if area disarmed without timer running.
User Menu Options - Allow access to user menu options - individually.
Time Zone - Allocate timezone to control when alarm group is enabled.
Alternate Alarm Group - Allocate alarm group to apply when timezone for this one is not valid.

INSTALL OPTIONS

6. Timers

Records time values applicable to some timed system functions. Must be programmed for the functions required.

<i>User Cat. 1 to 7</i>	- Individual times for user categories 1 to 7 function of Time Disarm.
<i>User Category 8</i>	- Time for user category 8 function of Time Disarm. (Category 8 time must not be programmed if used for Counter option)
<i>Access Test</i>	- Time that an access test runs.
<i>Secure Test</i>	- Time that a secure test runs.
<i>Warning Time</i>	- Time provided as a warning before group timer expires or before test procedure expires.
<i>Delayed Holdup</i>	- Time between delayed type input being activated and an alarm being reported.
<i>Suspicion Time</i>	- Time that a camera continues to operate after a suspicion input seals.
<i>Service Isolate</i>	- Time applicable to enable service.
<i>Local Alarm Reminder</i>	- Time between alarm and re-alarm for local alarms.
<i>Individual Input Test</i>	- Time that a test on an individual input runs.
<i>Door/s Unlock Time</i>	- Time that door locks activate.
<i>Tester Event Flag</i>	- Time that tester event flag activates for during secure test.
<i>Siren Time</i>	- Time that the internal siren drivers operate.
<i>Mains Fail Time</i>	- Time allowed before the Panel reports Mains Fail to the Remote Monitoring company.

7. System Options

Records system options. Must be programmed to determine how the system will operate.

<i>Areas Selected to</i>	
<i>total Disarm</i>	- Allow Access Local/Secure Alarm inputs to be totally disarmed.
<i>Film Low Level</i>	- Frame count number used to indicate low film.
<i>Film Out Level</i>	- Frame count number used to indicate no film.
<i>Test Mode</i>	- Determines if/when secure and access tests run automatically.
<i>Relay Controllers</i>	- Number of relay controllers fitted to the main panel.
<i>Event Text</i>	- Text shown on LCD when event text inputs activated.
<i>Alarm Prefix</i>	- Number of Alarm Prefix digits for defining Door and Alarm codes.
<i>Time Before LCD</i>	
<i>Text Rotation</i>	- Option to allow the period before LCD Text begins to rotate, to be altered.
<i>LCD Text Rotation Speed</i> -	- Option to allow the rotation speed of LCD text to be altered.
<i>Input Tamper Monitoring</i> -	- Indicate if input alarm is tamper alarm.
<i>Automatic De-Isolate</i>	- De-isolate input when area accessed.
<i>Input Display</i>	- Display one input at a time for user functions.
<i>Name File</i>	- User PIN to have a record of user name.
<i>System Alarms set</i>	
<i>Siren/Strobe</i>	- System alarms on Panel & DGP (Tamper, Mains fail etc) activate Siren & Strobe.
<i>System Alarms Latch</i>	- System Alarms are latching and need to be reset with code.
<i>Siren Testing</i>	- Sirens operate when secure test is started.
<i>Disable "0 Enter" for</i>	
<i>Camera Reset</i>	- "0 Enter" disabled for use to stop cameras operating.
<i>Disable Auto Insert of</i>	
<i>User Categorys</i>	- Disables the ability to treat areas as vaults.
<i>Disable Area LEDs that</i>	
<i>don't Report</i>	- Disables LEDs for areas not reported on.
<i>Disable Code from</i>	
<i>Displaying</i>	- Disables codes from being displayed when being programmed. (In User Menu Opt. 14)
<i>Disable Flashing Area</i>	
<i>LEDs</i>	- Disables the flashing of area LEDs when an alarm condition occurs.
<i>Dual Custody</i>	- Two users are required to enter their PIN to enable user programming.
<i>Display Alarm Instant</i>	- Enables alarms to be displayed instantly on the LCD Arming Station/s
<i>Sirens Only after</i>	
<i>Report Fail</i>	- Enables Sirens to be disabled unless Panel fails to report.
<i>Financial Institution</i>	
<i>Options</i>	- Enables three special options specific to financial institutions.
<i>Display User Flags</i>	- Enables the special User Flags to be displayed when programming Users. (User Menu Opt. 14)

INSTALL OPTIONS

8. Auto Reset

Used to program *Challenger* to automatically reset alarms if the function is required.

- Auto Reset Time** - Set time that elapses between alarm occurring and reset.
Reset Alarm Group - Alarm Group which records areas to reset.

9. Communication Options

Records the details of the communications link between *The Challenger* and the remote monitoring company &/or computer.

- PABX access code** - Number/s (if required) for access to PABX.
Telephone Numbers - Numbers used for Dialer reporting formats, "Dial for Service", "Callback" and "Computer via dialer".
Account Numbers - Unique number/s to identify the system to the monitoring company. (Dialer formats)
Format - Reporting format type. e.g. Direct Line, Dialer formats, Securitel etc.
Direct Line Address - System identification number when communicating via a direct line.
Computer Address - System identification number when connected to a Central Management System.
Areas to Report On - Areas where arm/disarm reported to monitoring company.
STU Hard ID - Address of Securitel Interface Unit.
Encryption Key - Enables Data encryption key to be programmed for Tecom Direct Line format.
Number of Rings - Number of rings in Callback request call.
No. of Calls before answer - Number of calls before panel answers Callback request .
Dialer Test mode - Determines testing procedure for communications.
Test Call Time - Records time of day when test call will be activated.
Buffer Size - Defines Transmission Buffer size for Ademco format dialers.
Alarm Reporting - Report multi break alarms.
Alarm Restoral - Report multi alarm restorals.
Always Terminate
Direct Line - Allows Direct Line connection to be permanently loaded (direct line only).
Remote System Control - Allow system control via remote monitoring company (direct line only).
Open/Close Reporting - Defines condition required to report armed/disarmed.
Tone/Decadic dialling - Defines the panel's dialling format.
Disable Isolates triggering Dialer - Disables Isolates from triggering the dialer to report.
(Isolates will be reported to the monitoring company with the next report)
Answering machine defeat - Enables the Challenger Panel to connect instantly when being accessed via dial-up modem.
Enable PSTN Line
Fault Monitor - Enables the Challenger Panel to monitor the integrity of the dialer line.
Computer Port connected via Modem - Allows Challenger Computer I/face to be linked to System management computer via modem.
Dial Alarm Events to Computer instantly - Enables the Challenger Panel to dial through Alarm Events to the computer instantly.
Dial Access Events to Computer instantly - Enables the Challenger Panel to dial through Access Events to the computer instantly.
Dial Events via Computer Port - The Challenger Panel is reporting to the computer via the Dial-up modem on the Computer Port
Dial Events via On-board modem - The Challenger Panel is reporting to the computer via the On-board modem.

10. Text Words

Used to program additional words unique to this system and in addition to existing word library.

Word Number
Word

INSTALL OPTIONS

11. Version Number

Records software version and database revision numbers.

12. Lamp Test

Turns LEDs on or off to enable testing.

13. Time Zones

Records parameters of time zones. Must be programmed if Timezones have been assigned to any functions.

Timezone Number - 1 to 24
Times - Start and end time.
Days - Days of week/holiday that timezone is valid.

14. Reset Defaults

Resets system to various default settings and allows history to be cleared.
The Default Option: 99 - All, should be used before commencing the programming.

15. User Category Data

Records user category parameters. Programmed if Time Disarm, Arm/Reset restriction or User Count functions required.

User Category Number - 1 to 8.
User Category Name - Name of the User Category.
Areas to Time On - Areas programmed for Time Disarm.
Areas to Arm/Reset - Areas programmed for Arm/Reset.
Alternates - Alternate areas to time on/arm/reset for alternate alarm groups.

16. Relay Mapping

Records details of settings which control the activity of relays. Must be programmed for every relay used.

Relay Number
Event Flag Number - Number of the event flag which will activate the relay.
Timezone - Controls times that relay is active/inactive.
Active/Inactive during
Timezone - Determines the effect of the timezone.
Relay is Inverted - Reverses the logic to the relay.

17. Arm/Disarm Timers

Relates a timezone to an access level to facilitate automatic arm/disarm in accordance with a timezone if required.

Program Number - Number for each record.
Timezone - Number of timezone.
Alarm Group - Number of the alarm group.

INSTALL OPTIONS

18. Areas Assign to Vaults

Assign areas to be treated as vaults.

By using a special programming procedure a user category timer will start when all the vault areas are armed. When the timer expires, a non-vault area linked to the vault areas will automatically arm.

19. Area Linking

Links an area to other areas to enable common control.

20. Site Number

Records up to two site identification numbers ("Site Codes" or "Facility Codes") and provides the option of programming two card offset values used in access card codes for readers connected to the Challenger LAN.

21. Input Shunts

Records details of a shunt procedure. Programmed to inhibit an input from being activated for a set time period.

<i>Shunt Timer Number</i>	-	Number of the shunt timer. 1 to 16
<i>Input Number</i>	-	Number of the input which is shunted.
<i>Relay Number</i>	-	Number of the relay connected to the shunt timer.
<i>Shunt Time</i>	-	Time that the input will be shunted.
<i>Shunt Warning Time</i>	-	Time that the Shunt Warning will be activated before Shunt timer expires.
<i>Shunt Event Flag</i>	-	Event Flag number that will be activated during the Shunt time.
<i>Shunt Warning Event Flag</i>	-	Event Flag number that will be activated during the Shunt warning time.
<i>Door Open Command</i>	-	Determines how the shunt timer will be activated.
<i>Door Shunted in Access</i> ...	-	Allows the shunt to operate in access.
<i>Door Shunted in Secure</i> ...	-	Allows the shunt to operate in secure.
<i>Cancel Door Event Flag</i> ..	-	Door event flag will be cancelled when shunt timer seals.
<i>Input Holds Event Flag at</i> <i>2 Seconds</i>	-	Allows delay in cancelling door event flag - for magnetic locks and drop bolts.
<i>Entry/Exit Shunting</i>	-	Allows Shunted input to be treated as Entry/Exit point.
<i>Report Door</i> <i>Open/Close</i>	-	Allows input unsealed/sealed to be logged on printer as door open/close.

22. Timezone to Follow Relays

Used to program a timezone to be active only when a relay is active.

Timezone Number
Relay Number

23. Poll Errors

Displays errors in communication between *Challenger* and units connected to it.

INSTALL OPTIONS

24. Download

Allows User, Door/Lift Group, Timezone, and Holiday data to be downloaded to Intelligent DGPs.

Display Status - Displays status of Download operation.
Down Load All - Provides options for downloading of specific databases .

25. Display Card

Displays the Site Code and Card I.D. Number of the last card read by a reader connected to the Challenger LAN.
i.e. Doors 1 to 16. Diagnostic facility only.

26. Edit

Do not use. Diagnostic Facility only.

27. Tecom Address Mapping

Displays the Physical Address and Reporting Address of Tecom Direct Line Panels. Diagnostic facility only.

28. Remote Controllers

Allows access to Intelligent Door and Lift Controller DGP, Smart Door Controller RAS Programming.

Refer to Separate "V7/V8 4 Door Controller" or "V7/V8 Lift Controller" Programming Guides.

29. Security Password

Records the Security Password required to access the Challenger Panel via any Computer Protocol.
e.g. Challenger Management software. Security attempts records the number of fail attempts before disabling access to Challenger.

30. Printer

Records parameters of printer output. Must be programmed if TS0091 or TS0094 are fitted and connected to a printer.

Enable Real-time Printer - Enables printer output to print in real-time. (If set to NO, "Print History" must be used)
Print Alarm Events..... - All alarm system events will be printed.
Print Access Control Events - All Access Control events will be printed.
Dump Print Data
Outside Timezone - Option for Printer to operate outside the timezone instead of during the timezone.
Print During Timezone - Timezone during which printer will be active.
Printer Options - Printer Baud rate and Data format options.

INSTALL OPTIONS

31. Battery Testing

Records parameters of Auto Battery Test options and allows manual testing of battery.

- Test mode selection* - Enables Auto Battery Test and selects frequency.
Start Battery Test - Specifies time of day when battery test will start.
Battery Test time - Specifies how long battery test is to run for.
Manual Battery Test - Allows manual testing of Challenger Panel and DGP batteries.

32. Custom Message

Records 32 Characters of customised Text which will be displayed on the LCD Arming Station/s in place of the message "There are no Alarms in this Area"

33. Program Next Service

Records the date on which the next routine service call is due and the message to be displayed. The client will be prompted with programmable text to call the Security Company, via the LCD Arming Station/s.

34. Program Summary Event Flags

Records Event Flags assigned to system functions and system alarms. Programmed if a relay output is required to indicate function or alarm condition.

Summary Event Flags - Records event flags which can be activated by conditions or faults in the system.

Mains Fail	Tamper	DGP Offline	Film Out	All Secured
Low Battery	Siren Fail	RAS Offline	Report Fail	Console Trigger
Fuse Fail	DGP Isolate	Duress	Testmode	Panel Link Fail

35. Program Macro Logic

Records details of high level Relay and Event Flag logic programming.

Macro Logic Program

- Number* - Number of the Macro logic program. 1 to 24.
Function - Selects the way in which the logic output will function.
Time - Records the period that the function will time for. (If a timed function selected)
Activate Event Flag or Input Number - Records the number of the Input or Event Flag that will be activated.
Logic Equation - Records up to 4 Logic Inputs (Event Flag or Relay Numbers) and whether each of those inputs performs an AND, OR, NAND or NOR function in the logic.

36. Radio Communications

Records details of communication options when reporting via Radio Interface. (*See documentation supplied with Radio Kit*)

37. Panel Link

Sets up linked panels for programming sequence.

- Panel Linked* Enter the ID numbers of the linked panels.
Printer Events to Master.. Printed events to go to master panel printer interface.
User Port B for comp Computer to plug into which port.

INSTALL OPTIONS

<i>Comms Port priority</i>	Selecting the order of panel redundancy when communicating with monitoring stations.
<i>Common Area</i>	Select a common area for all panels.
<i>No Link Area for this Challenger</i>	Selection of linked areas.
<i>Event Mapper</i>	Mapping local event flags to remote events.
<i>Relay Mapper</i>	Enables relay activation across panels.

Programming Linked Panels

Programming linked panels works in the same way as programming up a standard Challenger system. See relevant sections in Programming Sequence for details.

Program Panel Link

Install Menu

Input Database

Area Database

RAS Database

DGP Database

Alarm Groups

Timers

System Options

Auto Reset

Communications

Text Words

Version

Lamp Test

Time Zones

Defaults

User Category

Map Relays

Arm/Disarm via Tz

Vaults

Area Linking

Site No.

Input Shunts

Tz to Follow Relays

Poll Errors

Download

Disp Card

Edit

Tecom Address Mapping

Remote Controllers

Security Password

Printer

Battery Testing

Custom Message

Program Next Service

Program Summary Event Flags

Program Macro Logic

Mobile Data

39. System Status

Dial Displays number of events in comms buffer.

Comp Displays number of alarm and access events.

Flags Displays active flags and relays.

PL Events Displays number of PL events.

40. RAS LED Mapper

Enables viewing of LED status across panels on 1 RAS or multiple RASs.

PROGRAMMING SEQUENCE

The following can be used as a guide for the order in which records can be programmed when setting up a basic system.

1. Plan the system and fill-out the programming sheets.

In planning the system make sure you define what outputs (Siren/s, Strobe, Relays) will be required.
This will determine the Event Flags that will need to be programmed in the Input, Area, Arming Station, Summary Event Flags, & Shunt Timer databases.
2. **Defaults** - Installer menu option 14, default to STD All (**99 <Enter>**).
3. To set up options that will determine how the system will operate.

System Options - Installer menu option 7.
4. If any words required for the names of inputs, areas, alarm groups, user categories, etc. in this system are not recorded in the Word Library:

Text Words - Installer menu option 10.
5. If functions available to Users or Arming Stations/Readers are to be restricted by time:
If Arm/Disarm Timers are used:
If Doors or Floors are to be restricted by time:
If Relays are required to be held active/inactive for a specified period:

Time Zones - Installer menu option 13.
Holidays - User menu option 21.
Program Time and Date - User menu option 15.
Also see **Time Zone to Follow Relay** - Installer menu option 22.
6. **Area Database** - Installer menu option 2 for all areas (partitions) in the system.
7. If the special function to allow timing on non-vault area/s is required:
(This function also requires programming in "System Options", "Area Linking", "User Categories" "Timers" and "Alarm Groups". See the programming guide for details.)

Areas Assign to Vaults - Installer menu option 18.
8. If Time Disarm functions are required:
If some of a user's areas are to be restricted to Arm/Reset only:
If "User Count" function is required (see User Category details for information):

User Categories - Installer Menu Option 15.
Note: User Categories are used in Alarm Groups to specify special functions for certain areas.

VERSION 8 PROGRAMMING SEQUENCE

9. To define User's areas of control and functions available.
To define Arming Station/Reader areas of control and functions available.
(If the pre-programmed alarm groups are not suitable)
To define Arm/Disarm Timer, Area Control Input, and Auto Reset functions.
(If the pre-programmed alarm groups are not suitable)

Alarm Groups - Installer menu option 5.

10. If Access Control is utilized or Cards, insert keys, etc. are used in the system.
To define a user's level of access at door and lift readers/arming stations:

Door Groups/Floor Groups - User Menu Option 20.

11. If the system has more than 16 inputs or has intelligent Access Controllers :

Data Panels - Installer menu option 4.

12. If the system has Intelligent Access Controller DGPs (4 Door Controllers or Lift Controllers):

Remote Controllers - Installer menu option 28. (See special Programming guide/s)

13. **Input Database** - Installer menu option 1 for all inputs in the system.

14. If the system has more than one arming station :

Arming Stations - Installer menu option 3.

15. To record time values applicable to most timed system functions.

Timers - Installer menu option 6.

16. If Event Flags are required for any system events or system alarms:

Summary Event Flags - Installer menu option 34.

17. If Inputs (Door Contacts etc.) are to be shunted (inhibited from being activated for a specified period):

Input Shunts - Installer menu option 21.

18. To define Relay functions for every relay (and siren driver) in the system:

Map Relay - Installer menu option 16.

19. If the System is required to automatically reset alarms in specified areas after a specified period:

Auto Reset - Installer menu option 8.

VERSION 8 PROGRAMMING SEQUENCE

20. If Areas are required to automatically arm and/or disarm at a specified time:
Arm/Disarm Timers - Installer menu option 17.
21. If an area is to follow the disarm state of other area/s:
Area Linking - Installer menu option 19.
22. If your system is using Magnetic/Proximity/Wiegand Cards, Insert Keys, on RASs (doors) 1 to 16:
Up to two "Site Codes" (or "Facility Codes") may be programmed with the option of a "card offset" value for each Site Code.
Site Code - Installer Menu Option 20.
23. If your system has a printer connected to The Challenger Panel:
(via TS0091 or TS0094 interface fitted to the Panel)
Printer - Installer Menu Option 30.
24. If you require automatic dynamic battery testing or need to manually test a particular battery:
Battery Testing - Installer menu option 31.
25. If you require customised text (up to 32 characters) to appear on the LCD in place of
"There Are No Alarms In This Area":
Custom Message - Installer menu option 32.
26. If you require special text to appear on the LCD on a date specified for the next routine service call:
Program Next Service - Installer menu option 33.
27. To ensure system security when Panel is able to communicate with Upload/Download software:
Security Password - Installer menu option 29.
28. If you require output functions (e.g. Relay to pulse), timing functions, control functions
or input functions not available with any other installer menu options:
(This may also require programming in several other Installer menu options such as "Inputs",
"Areas", "Map Relays", etc. depending on the function/s required)
Macro Logic - Installer Menu Option 35.
29. To program User's PIN codes, Cards etc. into the system and define their functions:
Program Users - User menu option 14.

VERSION 8 PROGRAMMING SEQUENCE

30. If any of the Intelligent Access Controller DGPs (4 Door Controllers or Lift Controllers) were not connected and polled when "Timezones", "Door/Floor Groups", "Users", and "Holidays" were programmed:

Download - Installer menu option 24.

31. **Communication Options** - Installer menu option 9.

Programmed if the system is reporting to a remote monitoring company.
Programming the Comm. Options last prevents the system from attempting to report before necessary.

32. **Radio Communications** - Installer menu option 36.

Programmed if the system is reporting to a remote monitoring company via Radio Interface.
Programming the Comm. Options last prevents the system from attempting to report before necessary.

The following Installer Menu Options are Diagnostic Options only and do not need to be programmed:

11. Version Number Records software version and database revision numbers.
12. Lamp Test Turns LEDs on or off to enable testing.
23. Poll Errors Displays errors in communication between Challenger and units connected to it.
25. Display Card Displays the Site Code and Card I.D. Number of the last card read by a reader connected to the Challenger LAN. i.e. Doors 1 to 16. Diagnostic facility only.
26. Edit Do not use. Diagnostic Facility only.
27. Tecom Address Mapping Displays the Physical Address and Reporting Address of Tecom Direct Line Panels. Diagnostic facility only.
39. System Status Displays status of dialer, computer, events flags/relays and V9 events.

PROGRAMMING SEQUENCE

Which Installer Menu Options will I need to program?

1. **Input Database** Must be programmed for every input used.
2. **Area Database** Must be programmed for every area (partition) used.
3. **Arming Stations** Must be programmed for every arming station used.
4. **Data Panels** Must be programmed for every DGP used.
5. **Alarm Groups** Must be programmed before users can have any alarm system control.
(Alarm groups are assigned to users & arming stations)
6. **Timers** Records time values applicable to some timed system functions.
7. **System Options** Records system options. Must be programmed to determine how the system will operate.
8. **Auto Reset** Programmed if the *Challenger* is to automatically reset after an alarm condition.
9. **Communication Options** Records the details of the communications link between *The Challenger* and the remote monitoring company &/or computer.
10. **Text Words** Used to program additional words to the word library. (words unique to this system)
13. **Time Zones** Records parameters of time zones used to restrict users, auto arm/disarm etc.
e.g. 7:00 to 19:00 Monday to Friday.
14. **Reset Defaults** Resets system to various default settings and allows history to be cleared.
The Default Option: 99 - All, should be used before commencing the programming.
15. **User Category Data** Programmed if users need to control areas differently. (e.g. If Time Disarm, Arm/Reset restriction or User Count functions required)
16. **Relay Mapping** Must be programmed for every relay used.
17. **Arm/Disarm Timers** Programmed to disarm & arm area/s automatically.
18. **Areas Assign to Vaults** Assign areas to be treated as vaults.
By using a special programming procedure a user category timer will start when all the vault areas are armed. When the timer expires, a non-vault area linked to the vault areas will automatically arm.
19. **Area Linking** Links an area to other areas to enable common area control.
20. **Site Number** Records up to two site identification numbers ("Site Codes" or "Facility Codes") and provides the option of programming two card offset values used in access card codes for readers connected to the Challenger LAN.
21. **Input Shunts** Programmed to inhibit an input from being activated for a set time period.
e.g. Shunt fire doors or access controlled doors.
22. **Timezone to Follow Relays** Used to program a timezone to be active only when a relay is active.
24. **Download** Allows User, Door/Lift Group, Timezone, and Holiday data to be downloaded to Intelligent DGPs.
28. **Remote Controllers** Allows access to Intelligent Door and Lift Controller DGP Programming.
Refer to Separate "4 Door Controller" or "Lift Controller" Programming Guides.
29. **Security Password** Records the Security Password required to access the Challenger Panel via any Computer Protocol. e.g. Challenger Management software.
30. **Printer** Records parameters of printer output.
Must be programmed if TS0091 or TS0094 are fitted and connected to a printer.
31. **Battery Testing** Records parameters of Auto Battery Test options and allows manual testing of battery.
32. **Custom Message** Records 32 Characters of customised Text which will be displayed on the LCD Arming Station/s in place of the message "There are no Alarms in this Area"
33. **Program Next Service** Records the date on which the next routine service call is due and the message to be displayed. The client will be prompted with programmable text to call the Security Company, via the LCD Arming Station/s.
34. **Program Summary**
 - Event Flags Records Event Flags assigned to system functions and system alarms.
Programmed if a relay output is required to indicate the function or alarm condition.
35. **Program Macro Logic** Records details of high level Relay and Event Flag logic programming.
Programmed to achieve complex Input and Output functions not possible with other programming options. e.g. Pulsed outputs, function to activate multiple event flags, etc.
36. **Radio Communications** Records the details of the radio communications link between *The Challenger* and the remote monitoring company.
37. **Panel Link**
38. **Panel Link Programming**

PROGRAMMING SEQUENCE

The Version 8 Programming diagram on the opposite page, illustrates how the main Challenger Programming options interact with each other to achieve the flexibility which allows the system to be configured in so many different ways.

- Notes
- 1. Shaded boxes are User Menu Options
 - 2.* Event Flags.
Pre-assigned & Assigned via programming, to: Input Database, Area Database, Arming Station Details (Door Event Flag) System alarms and system functions ("Program Summary Event Flags"), and Input Shunts (Shunt and Shunt Warning Events).
 - 3.** Timezones. 1 to 24. Start/End Times & Days.
25. Service. (Do not use in Door Groups & Floor Groups)
26 to 41. Timezone to follow relay. (Do not use in Door Groups & Floor Groups)

Note the focus on the "Alarm Groups" option. Understanding Alarm Groups is one of the keys to understanding Challenger Programming.
You will find the "Alarm Groups" introduction on page 39 very helpful.

It is important to understand how user functions and arming station functions are defined.
As the diagram illustrates;

USERS:

In order to restrict a user to specific areas, system functions, doors/lifts and floors, a User can be assigned:

- 1. An Alarm Group - To determine what areas the user can control, what level of control the user has, and what user menu options the user has access to.
A timezone during which the Alarm Group is valid may also be specified.
- 2. A Door Group - To specify the door/s that the user has access to and a timezone during which each door in the group may be accessed.
(Each door in the group is assigned it's own timezone)
- 3. A Floor Group - To specify the floor/s that the user has access to and a timezone during which each floor may be accessed.
(Each floor in the group is assigned it's own timezone)

See: Version 8 Challenger User Guide, Menu Option 14 - Program Users.

ARMING STATIONS:

In order to restrict an arming station to control specific areas and allow specific system functions, each arming station can also be assigned alarm groups.

The alarm groups assigned to the arming station specifies what areas can be controlled, the level of control available, and the user menu options available from the arming station.

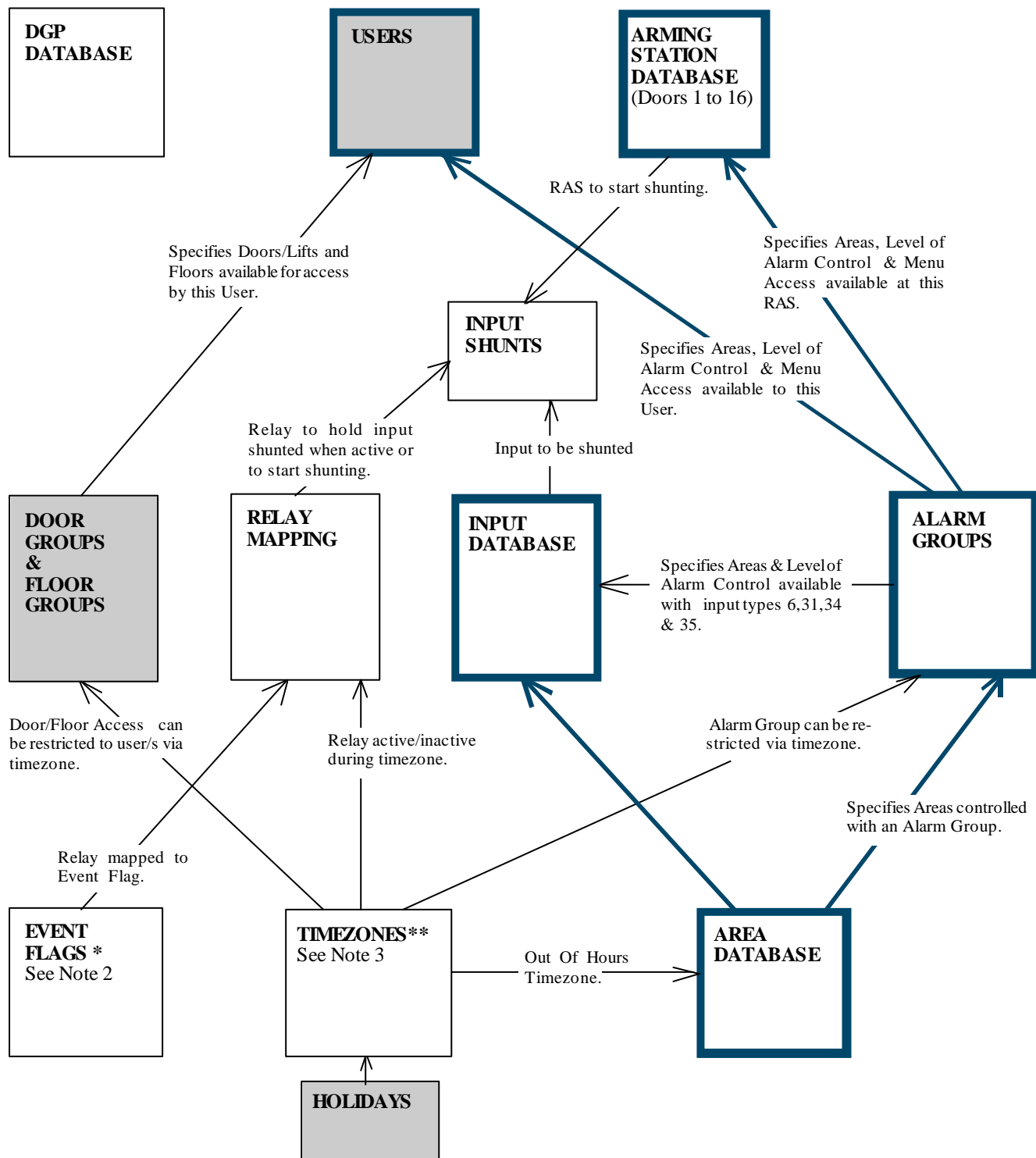
The functions of an arming station are also affected by the way in which the arming station details are programmed.
e.g. The door function, the keypad operation, card function options, etc.

SYSTEM OPERATION:

Whenever a User attempts to perform any alarm system functions at an arming station the area/s and functions specified in the user's alarm group and the arming stations alarm group/s are compared to determine what operations are allowed.

PROGRAMMING SEQUENCE

- Must be programmed in basic system.
 Must be programmed if option is used.



DEFAULTS

PROGRAMMING DEFAULTS

The Challenger Panel is supplied with a set of factory defaults in the programming to make initial set-up easier.

Inputs 1 to 16 are set to Type 2 - Secure Alarm with the SIREN Event flag & Event flag 2 (Strobe) set to YES.

All Area Databases have Exit time of 60 secs & Entry time of 30 secs, and the SIREN Event flag set to 1.

Arming Station 1 is programmed to be polled, and is assigned Alarm Group 2 (Master RAS).

There are 29 pre-programmed Alarm Groups. (See Table 4 & Installer Menu Option 5 for details)

In System Options, Film Low is set to 800.
Film Out is set to 1100.

Most of the Timers have a default value programmed. (See Installer Menu Option 6 for details)

In Communication Options, Reporting format is Contact ID-Large. Area 1 is listed for Open/Close reporting.

Relay Mapping. Relay 2 (Strobe O/P) is mapped to Event Flag 2.
Relay 16 (Siren driver) is mapped to Event Flag 1.(See Siren Event Flag-Area Database)
The 16th relay assigned to each DGP (DGP Siren drivers) are also mapped to Event Flag 1. i.e. Relay 32, 48, 64, etc.

User 50, the Tecom Master Installer Code is allocated:
Alarm Group 3.
Door Group 1.
PIN code 4346.