

Challenger Version 8 Event Flags.

AN3

Event Flags are signals activated within the Challenger system to indicate that particular conditions exist in the system.

There are 256 Event Flags available.

The conditions of a few Event Flags are pre-defined, but most Event Flag numbers are allocated to the function or condition that they will indicate by the programmer/installer.

Event Flags can be activated by:

- Input conditions
- Area conditions
- Access control commands (Door Event flags)
- Shunt timer conditions
- System alarms
- System faults

An Event Flag is primarily used to activate a relay.

Relays are used for:

- Sirens (timed or untimed) and strobes
- Door locks
- Warning beepers and lamps
- Activating cameras
- Mimic LEDs or lamps for i/p, area & system status; & system fault indication.
- Automatic testing of input devices. (e.g. seismic detectors)
- Interface to building management systems (lighting, heating, airconditioning etc)
- Activate backup communicators (e.g. backup cellular dialler)
- Link functions together within the system
(programming facility - physical relay not required)

A relay can only be mapped to one Event Flag, however, the same event flag number can be assigned to indicate many conditions.

e.g. Many inputs can be programmed to activate a common event flag.

Several areas can be programmed to activate a common siren event flag.

Each input or area etc. can be programmed to activate unique event flags as well.

An Event Flag can also be utilized in "Macro Logic" programming which is a facility which may be used to AND/OR Event Flags &/or Relays together to activate another Event Flag or an Input.

AN3

Event Flags can be allocated or programmed to be activated in the following databases:

1) Input Database. Installer Menu Option 1.

- i) To enable an Event Flag to indicate a condition on an individual input.
e.g. Activate a buzzer above a specific door, or an LED on a mimic panel.
- ii) To group inputs together to activate a common Event Flag regardless of which area/s they are assigned. e.g. Siren, strobe, etc.

2) Area Database. Installer Menu Option 2.

- i) To enable Event Flags to indicate the area status.
- ii) To enable Event Flags to indicate when any of the inputs which have the area assigned to them in the input database, is in a condition specified in the event.
e.g. Access Alarm, Local Alarm, Isolated, Unsealed etc.

3) Arming Station Details. Installer Menu Option 3.

To enable an Event Flag to be activated to unlock a door when an access control function is performed at the arming station.

4) Input Shunt Timers. Installer Menu Option 21.

- i) To enable an Event Flag to be activated to indicate when a Shunt Timer is running.
- ii) To enable an Event Flag to be activated to indicate when the Shunt Warning Timer is running.

5) Summary Event Flags. Installer Menu Option 34.

To enable Event Flags to be activated to indicate system conditions, system faults and system alarms. e.g. Report fail, Low Battery, Keypad Duress, etc.

6) Macro Logic Equations. Installer Menu Option 35.

To enable Event Flags to be activated as a result of the conditions specified in a Macro Logic program.

i.e. An Event Flag can be activated which is dependent on the conditions of other Event Flags, Relays and Macro Logic timing functions used in a Macro Logic program.

Example of the use of Event Flags to activate sirens, strobe output and relays. In this example an 8 Way Relay Card is connected to the Challenger Panel (Relays 1 to 8) to activate other equipment. A 4 Way Relay Card is connected to DGP 1 (Relays 17 to 20) to activate locks and "Door Open Too Long" warnings, and a 16 way Open Collector Card is connected to DGP 2 (Relays 33 to 48) to drive LEDs on a mimic panel.

RELAYS

EVENT FLAGS

Relay 2 On-board Strobe Output

Mapped to

Secure Alm Event Flag 2

Relay 3 Activate Pop-up Bandit Screens

Mapped to

Access Alm Event Flag 13

Relay 33 to 47 Mimic panel
(indicates input/s in alarm)

Mapped to

Selected Event Flags ??

Relay 16 Panel on-board Siren Driver

Relay 32 DGP 1 on-board Siren Driver

Mapped to

Siren Event Flag 1

Relay 4 Activate Cameras

Mapped to

Camera Event Flag 33

Relay 5 External lighting

Mapped to

Secure Alarm Event Flag 34

AND

Exit Event Flag 34

AREA DATABASE

ARMING STATION DATABASE

Relay 17 Door 3 Lock Relay

Mapped to

RAS 3 Door Event Flag 17

Relay 18 Door 4 Lock Relay

Mapped to

RAS 4 Door Event Flag 18

SHUNT TIMERS

Relay 19 Door 3 Warning Beeper

Mapped to

Shunt Timer 3 Warning Event Flag 19

Relay 20 Door 4 Warning Beeper

Mapped to

Shunt Timer 4 Warning Event Flag 20

SUMMARY EVENT FLAGS

Relay 48 Mains Fail Indicator Lamp

Mapped to

Mains Fail Event Flag 253

Relay 8 Activate Backup Cellular Dialler

Mapped to

Report Fail Event Flag 254



INPUT EVENT FLAGS

There are up to 15 event flags which can be assigned to an individual input.
An event flag is activated when the input is in alarm.
(except in the case of some input types that do not generate alarms)

The circumstances which cause an input to generate an alarm depend on the input type.

The event flags which are activated by that alarm depends on:

- Which event flags have been assigned to the input.
- Whether the active time of those event flags corresponds with the alarm time. Event flags may be active:
 - 24 Hours
 - During access only - when one or more of the areas assigned to the input is disarmed
 - During secure only - when all the areas assigned to the input are armed.
- Whether the option "Make All Events 24 Hour" has been set to YES thereby making the active period 24 hours for all event flags.
- The input type. Input types 6, 7, 9, 10, 12, 16, 17, 18, 19, 23, 24, 25, 26, 27, 31, 34, 35, 36, 37, 38, 39, 48, 49, 50, 51, 52, 53, 54 & 55 do not activate any of the event flags programmed in the event assignments detailed here.

Note: 1. Event flags are also assigned to areas and are activated by any of the inputs with that area assigned to them. (see next page)
Therefore, an input may activate an event flag assigned to it on the input database, or it may activate an event flag assigned to one of its areas.

eg. Area event flag - Siren to sound when any input in the system is in alarm.
Input event flag - Light to flash above a door which has caused an alarm.

2. The output results of event flags are not defined anywhere (except those with pre-determined functions).

Each event flag is mapped to a relay (menu option 16) which controls the end function. To facilitate accurate relay mapping it is important that you make a note of which event flag numbers are to activate which end functions.

The input event flags are as follows:

Selected Event Flag (Event flag number is programmable)

Event flag which will be activated at any time an alarm is generated by the input.
Used wherever an indication of individual input status is required.

Siren YES/NO (Event flag number assigned in Area Database)

Activated when an alarm is generated by the input, and all the areas assigned to the input are armed.

Console Warning YES/NO (No Event flag number)

Any time an alarm is generated by the input, the console warning is activated on consoles which control areas that are assigned to the input.

Camera YES/NO (Event flag number assigned in Area Database)

The camera event flag programmed in the area database will be activated at any time an alarm is generated by the input.

Secure Alarm Event Flags (Event Flags 2 to 5 and 8 to 12)

If set at YES, the event flag will be activated when an alarm is generated by the input, and all the areas assigned to the input are armed. There are 8 secure alarm event flags.

Access Alarm (Event Flags 6, 7 & 13)

If set at YES, the event flag will be activated when an alarm is generated by the input, and one or more of the areas assigned to the input is disarmed. There are 3 access alarm event flags.

24 Hr Alarm (Event Flag 8)

If set at YES, the event flag will be activated at any time an alarm is generated by the input.

Note: The event flag numbers used in this record (except for "Selected", "Siren", & "Camera") are pre-defined. It is recommended that these numbers are not used elsewhere in the system, even if they are not used when programming inputs. Refer to "Pre-set Event Flags"

AREA EVENT FLAGS

There are up to 12 event flags which can be assigned to each of the sixteen areas.

These event flags are activated to indicate area status or when any of the inputs which have the area assigned to them in the input database, is in a condition specified in the event.

- The circumstances which cause an input to be in a certain condition depends on the input type.
- The event flags which are activated depend on which event flags have been assigned to the area.
- It is not possible to exclude an input in an area if the other inputs in that area are to activate the area event flag. If the area event flag is programmed with a number, all the inputs in the area will activate it.

Note: Event flags are also assigned to individual inputs and are activated when that input generates an alarm. Therefore, an input may activate an event flag assigned to it in the input database or it may activate an event flag assigned to one of it's areas.

eg. **Area event flag** - siren to sound when any input in the area or system is in alarm.
Input event flag - a beeper to sound above a door which has caused an alarm.

Some event flags are pre-defined - refer to "Pre-set Event Flags"

- The output event flags which can be activated for the area:

Siren	Local Alarm
Area Accessed	Exit
Unsealed	Entry
Isolated	Warning
Secure Alarm	Camera
Access Alarm	Pre-Alarm (Delayed Access alarm timer running)

DOOR EVENT FLAG (ARMING STATION DATABASE)

There can be up to sixteen Arming Stations in the system. Each arming station can have one Door Event Flag assigned.

The Door Event Flag allows you to program the arming stations to be used for opening doors.

The event assigned in this record will be activated when a valid door code is entered at the arming station

The Event Flag is active for the "Door/s Access Time" programmed in Option 6 - Timers.

SHUNT TIMER EVENT FLAGS

There are Sixteen Shunt Timers in the system. Each Shunt timer can activate two event flags.

- 1) Shunt Event Flag
The event flag assigned as the Shunt Event Flag will be activated whenever the shunt timer is running.
- 2) Shunt Warning Event Flag
The event flag assigned as the Shunt Warning Event Flag will be activated when the shunt warning time is active.

SUMMARY (SYSTEM) EVENT FLAGS

There are up to 14 Summary Event Flags that can be assigned to system functions and system alarm/fault conditions.

These event flags are activated when any of the conditions specified, exist in the system.

Default setting is "No event"

The system alarm/fault event flags will be latching if "Latching System Alarms" is set to YES in Installer Menu Option 7 - System Options

Note: Take care not to assign Event flag numbers which are pre defined (Event Flags 1 to 16) or Event Flag numbers which have been assigned by the Installer in the Input Database, Area Database, RAS Database, or Shunt Timers.

For list of pre-defined event flags - *Refer to:* Pre-set Event Flags.

The Summary Event Flags are as follows:

Mains Fail	Siren Fail	Duress	All Secured
Low Battery	DGP Isolate	Film Out	Console Trigger
Fuse Fail	DGP Offline	Report Fail	
Tamper	RAS Offline	Test Mode	

PRE-SET EVENT FLAGS

Some of the event flags used in the system will activate under pre-set criteria if certain settings exist.

Event Flag Number

1	Siren	Default Siren Event Flag. (Assigned in Area Database) May be changed if required. If set at YES on the input database, will activate when any siren activates in any area.
2	Secure Alarm	If set at YES on the input database, will activate when an alarm is generated by the input and all the areas assigned to the input are armed (Secured). Used for activation of System Strobe.
3	Secure Alarm	As per 2
4	Secure Alarm	As per 2
5	Secure Alarm	As per 2
6	Access Alarm	If set at YES on the input database, will activate when an alarm is generated by the input and one or more of the areas assigned to the input is disarmed.
7	Access Alarm	As per 6
8	24 Hour Alarm	If set at YES on the input database, will be activated at any time an alarm is generated by the input.
9	Secure Alarm	As per 2
10	Secure Alarm	As per 2
11	Secure Alarm	As per 2
12	Secure Alarm	As per 2
13	Access Alarm	As per 6
16	Tester	Activates during the secure test. A tester event is programmed to activate a device which will allow testing of other devices. The tester event flag will activate for half the "Tester Event Time" programmed in Installer Menu Option 6 - Timers. The remaining period of the secure test time is settling time to allow the tested device to reseal. i.e. Make sure that the Secure Test time is longer than the Tester Event time.

Note: It is recommended that these event flag numbers are not used elsewhere in the system.

AREA DATABASE

Event	Area															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Siren	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Access	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unsealed	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isolate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Secure Alm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Access Alm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Local Alm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exit	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Entry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Warning	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Camera	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pre-Alarm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



SHUNT TIMERS

Event	Shunt Timer Number															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Shunt Event	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Warning Event	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SUMMARY (SYSTEM) EVENT FLAGS

Mains Fail	--	Siren Fail	--	Duress	--	All Secured	--
Low Battery	--	DGP Isolate	--	Film Out	--	Console Trigger	--
Fuse Fail	--	DGP Offline	--	Report Fail	--		
Tamper	--	RAS Offline	--	Test Mode	--		