

# Challenger Version 8 Input Types and their uses.

# AN2

This document provides a reference for choosing the appropriate input type for any application in the Challenger System. The table provides information of how the input type will function when unsealed in both Access and Secure conditions.

The Input Types are categorized according to their general function for ease of use.

Access Alarms:	Inputs that will only generate an alarm when one or more of the areas assigned are in Access (disarmed)
Secure Alarms:	Inputs that will only generate an alarm when all of the areas assigned are in Secure (armed)
24 Hour Alarms:	Inputs that will generate the same alarm regardless of area status
Access / Secure Alarms:	Inputs that will generate different types of alarms when in Access and Secure.
Area (Alarm System) Control:	Inputs that turn area/s ON and/or OFF.
Activate Event Flag Only:	Inputs that activate event flags but do not generate alarms
Activate Report Only:	Inputs that activate a report but do not generate alarms
Special Purpose:	Special input types for system functions.
Camera Monitoring:	Inputs that monitor camera film levels.

## **NOTES:**

- 1) ACCESS**  
(disarmed or Off)  
**SECURE**  
(armed or On)  
**TOTAL DISARM**

An input is in access when ANY of the areas assigned to it are in access

An input is in secure when ALL of the areas assigned to it are in secure

An input is totally disarmed when ANY of the areas assigned to it that are specified in the system as "Total Disarm" areas, are in access.

Input Types 6, 31, 34 & 35 do not have areas assigned to them. Their functions are determined by assigning an alarm group to them.
- 2) OPEN or SHORT**

If the System is programmed for Input Tamper monitoring, an Open or Short circuit will generate a 24 Hour input tamper alarm.

If the System is programmed for no input Tamper monitoring, and Open or Short circuit will be treated as UNSEALED.

This does not apply to special input types that use the Open &/or Short condition for their functions.  
e.g. Input Types 23-26, 33, 36-39, 40, etc.

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	<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
		<u>IN ACCESS</u>	<u>IN SECURE</u>	
<b>ACCESS ALARMS</b>				
1.	ACCESS ALARM	Alarm	-	e.g. Holdup button
11.	DELAYED ACCESS ALARM	Alarm (After Delay)	-	Delay Programmable e.g. Holdup button to report after delay.
<b>SECURE ALARMS</b>				
2.	SECURE ALARM	-	Alarm	e.g. Internal door or PIR.
3.	ENTRY / EXIT ALARM	-	Alarm	Alarm occurs after entry/exit timers for the area/s assigned to the input have expired. e.g. Front door
4.	ENTRY / EXIT HANDOVER ALARM	-	Alarm	As above, but will alarm instantly if activated before an Entry/Exit input on entry. i.e. Allows entry path to be specified. e.g. PIR inside front door
13.	ENTRY / EXIT ALARM NO SEAL CHECK.	-	Alarm	As per Type 3, but does not need to be sealed when arming the area. e.g. Front door.
14.	ENTRY / EXIT HANDOVER ALARM NO SEAL CHECK.	-	Alarm	As per Type 4, but does not need to be sealed when arming the area. e.g. PIR inside front door.
28.	NON-LATCHING SECURE ALARM.	-	Alarm	Resets automatically when input reseals. e.g. PIR

<u>INPUT TYPES</u>		<u>Function when Unsealed</u> <u>IN ACCESS</u> <u>IN SECURE</u>		<u>NOTES</u>
<b>24 HOUR ALARMS</b>				
5.	24 HOUR ALARM	Alarm	Alarm	e.g. Equipment tampers
29.	24 HR NON-LATCHING ALARM	Alarm	Alarm	Resets automatically when input reseals.
33.	24 HR ALARM AND ISOLATE INPUT	Isolates	Isolates	Alarm is generated when input changes from sealed to Open or Short. Allows keyswitch (to isolate) and PIR to be wired on the same input. e.g. Small shop in shopping centre or cubicle in storage complex.
59.	24 HR ALARM DISABLED BY TIMEZONE 41.	Alarm	Alarm	Input is disabled and will not alarm if Timezone 41 is valid. Allows a 24 hr alarm to be disabled when specific condition/s exist in the system.



	<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
		<u>IN ACCESS</u>	<u>IN SECURE</u>	
<b>ACCESS / SECURE ALARMS</b>				
8.	DELAYED ACCESS / HOLDUP AT NIGHT.	Alarm (After Delay)	Alarm	Delay Programmable e.g. Holdup button to report after delay in access, but instant in secure. Will report instant in access if a second delayed alarm is activated.
15.	ACCESS LOCAL / SECURE ALARM.	Local Alarm	Alarm	e.g. Fire Doors. Local alarm reset by: <Enter> <Enter> to display & 0 <Enter> to acknowledge.
21.	ACCESS LOCAL (CODE TO RESET) / SECURE ALARM.	Local Alarm	Alarm	As per Type 15, but code is required to acknowledge local alarm.
22.	DELAYED ACCESS NON-LATCHING / HOLDUP AT NIGHT.	Alarm (After Delay)	Alarm	As per Type 8, but Access alarm resets automatically when input reseals. e.g. Latching holdup button.
30.	ACCESS LOCAL NON-LATCHING / SECURE ALARM.	Local Alarm	Alarm	As per Type 21, but the Local alarm resets automatically when the input reseals.
40.	SUSPICION OR DELAYED ACCESS / HOLDUP AT NIGHT.	Alarm (After Delay)	Alarm	As per Type 8, but Short cct on the input in Access activates Camera Event only. e.g. Special combination "Suspicion"/"Holdup" button assembly.

	<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
		<u>IN ACCESS</u>	<u>IN SECURE</u>	
41.	ACCESS LOCAL / ENTRY/EXIT ALARM	Local Alarm	Alarm	As per Type 15, but alarm occurs in secure after entry/exit timers for the area/s assigned to the input have expired. e.g. Fire door used as staff entry.
42.	ACCESS LOCAL (CODE TO RESET) / ENTRY/EXIT ALARM	Local Alarm	Alarm	As per Type 41, but code is required to acknowledge local alarm.
44.	ACCESS LOCAL / SECURE ALARM DISABLED BY CLEANERS/TRADES	Local Alarm	Alarm	As per Type 21, but secure alarm is disabled by certain User Categories.
45.	EVENT FLAG IN ACCESS / SECURE ALARM DISABLED BY CLEANERS/TRADES	Activates Event Flag only.	Alarm	Secure alarm is disabled by certain User Categories.
46.	ACCESS ALARM / HOLDUP AT NIGHT.	Alarm	Alarm	Reports night holdup in secure.
47.	SUSPICION HOLDUP / HOLDUP AT NIGHT	Activates Camera Event only	Alarm	Activates camera event flag/s in area/s assigned to the input in access. Reports night holdup in secure.
56.	ACCESS LOCAL (CODE TO RESET) / SECURE ALARM, DISABLED BY TIMEZONE 41.	Local Alarm	Alarm	As per Type 21, but the secure alarm is disabled and will not alarm if Timezone 41 is valid. Allows the secure alarm to be disabled when specific condition/s exist in the system.



	<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
		<u>IN ACCESS</u>	<u>IN SECURE</u>	
<b>AREA (ALARM SYSTEM) CONTROL</b>				
6.	AREA CONTROL INPUT - MOMENTARY	Toggles Area ON	Toggles Area OFF	e.g. Momentary action keyswitch to turn selected area/s ON and/or OFF.
31.	AREA CONTROL INPUT - LATCHING	Area ON (Armed)	-	Area OFF (Disarmed) when Sealed. e.g. Latching keyswitch to turn selected area/s ON and/or OFF
34.	AREA DISARM / USER CATEGORY ARM	Area ON (Arms - after warning time)	-	Area OFF (Disarmed) when Sealed. e.g. Latching keyswitch to turn selected area/s ON and/or OFF
35.	AREA USER CATEGORY ARM ONLY	Area ON (Arms - after warning time)	-	e.g. Keyswitch to turn selected area/s ON.

**NOTE:** The specific functions of these input types and the area/s they affect is programmed in an "Alarm Group" which is assigned to the input.  
For these input types an alarm group is assigned instead of area/s.

	<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
		<u>IN ACCESS</u>	<u>IN SECURE</u>	
<b>ACTIVATE EVENT FLAG ONLY</b>				
7.	CAMERA SUSPICION INPUT.	Activates Camera Event	Activates Camera Event	Activates camera/s in area/s assigned to the input.
20.	INPUT TO ACTIVATE EVENT FLAG - 24 HOURS.	Activates Selected Event Flag	Activates Selected Event Flag	Activates the selected event flag assigned to the input regardless of area status.
32.	INPUT TO ACTIVATE EVENT FLAG IN SECURE.	-	Activates Selected Event Flag	Activates the selected event flag assigned to the input in secure.
43.	INPUT TO ACTIVATE EVENT FLAG IN ACCESS.	Activates Selected Event Flag.	-	Activates the selected event flag assigned to the input in access.
<b>ACTIVATE REPORT ONLY</b>				
27.	INPUT TO ACTIVATE REPORT	Report sent	Report sent	Report sent to Remote monitoring station when input unsealed/faulted and restored Not applicable in High Speed Extended format.
57.	INPUT TO REPORT AND SCREEN	Report sent & message on LCD	Report sent & message on LCD	As above, but message also displayed on LCD Arming Station/s.



	<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
		<u>IN ACCESS</u>	<u>IN SECURE</u>	
<b>SPECIAL PURPOSE</b>				
9.	RESET DELAYED INPUTS	Reset delayed alarm type i/p's.	-	e.g. Keyswitch to reset delayed holdup alarm. Resets delayed access alarm type inputs, types 8, 11, 22, & 40.
12.	COURIER RESTART	-	Reset entry timer & start exit timer.	e.g. Keyswitch inside a door. Enables courier to perform his duties without disarming the alarm system.
16.	24 HOUR LOCAL MAINS FAIL.	Local Alarm	Local Alarm	Not normally used in current Challenger with on-board power supply. May be used to indicate mains fail on external power supply.
18.	24 HOUR LOCAL COMMS FAIL.	Local Alarm. Comms Fail LED on RAS.	Local Alarm. Comms Fail LED on RAS.	Not normally used on current Challenger with multiple reporting formats. May be used to indicate slave communicator failure.
19.	COMMS FAIL LED.	Comms Fail LED on RAS.	Comms Fail LED on RAS.	Not normally used on current Challenger with multiple reporting formats. May be used to indicate slave communicator failure.
58.	INPUT TO SCREEN TEXT.	Text on LCD.	Text on LCD.	Displays a text word selected from the word library. e.g. Siren isolate keyswitch.



<u>INPUT TYPES</u>	<u>Function when Unsealed</u>		<u>NOTES</u>
	<u>IN ACCESS</u>	<u>IN SECURE</u>	
<b>CAMERA MONITORING</b>			
48 to 55. CAMERA 1 to 8 FILM OUT INPUTS	Alarm	Alarm	
	<u>Function when Shorted</u>		
	<u>IN ACCESS</u>	<u>IN SECURE</u>	
23 to 26. CAMERA 1 to 4 FRAME COUNT INPUTS.	Increments Frame count.	Increments Frame count.	No end-of-line resistors necessary. Transition from Open to Short increments frame count by 1. i.e. A Normally Open contact is wired across the input. Camera count inputs <b>MUST</b> be wired to the Challenger Panel and not to DGPs.
36 to 39. CAMERA 5 to 8 FRAME COUNT INPUTS.	Increments Frame count.	Increments Frame count.	As above.

