

CHALLENGER INPUT WIRING

Challenger inputs can be wired in a variety of configurations to suit different alarm and control applications.

The Challenger is capable of Four-state monitoring using two 10kOhm end-of-line resistors.

Two-state monitoring can be selected as a programming option, so that only one End-of-line resistor is required.

End-of-line resistors are used to achieve Four state monitoring by providing different resistance values on the input for the various conditions:

Sealed	10kOhms.
Unsealed	5k or 20kOhms. i.e. Two 10k resistors in series or in parallel.
Tamper/Fault	Open circuit.
Tamper/Fault	Short circuit.

The following pages illustrate the wiring methods available for various applications:

- Four state monitoring.
- Two state monitoring.
- Keyswitch wiring.
- Keyswitch and alarm input wiring. (Input type 33)



The Challenger is Designed and Manufactured by:

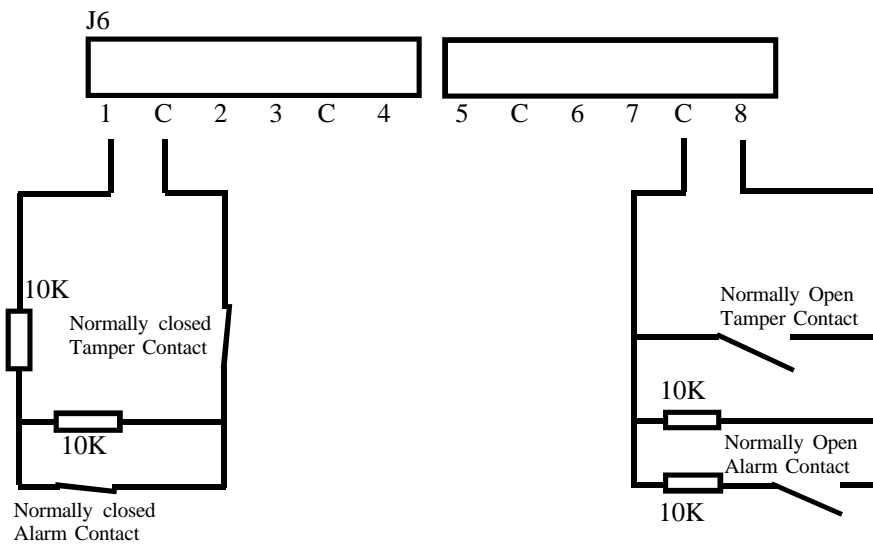
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INPUT WIRING

FOUR STATE MONITORING

Four State Monitoring provides the ability to detect four input states; Sealed, Unsealed, Open circuit and Short circuit. The system will operate with four state monitoring when Installer Menu Option 7: - "Input Tamper Monitoring" is set to YES.



NORMALLY CLOSED CONTACTS

NORMALLY OPEN CONTACTS

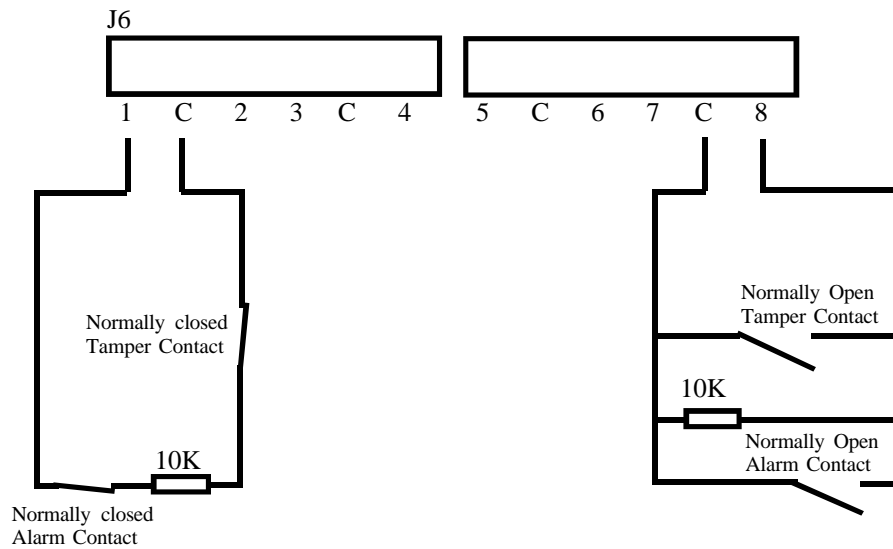
STATE OF INPUT	RESISTANCE	APPROX. DC VOLTAGE AT INPUT (DC SUPPLY = 13.8 V)
Sealed	10K	6.9 V
Unsealed	5 K	4.6 V
	20K	9.2 V
Tamper	OPEN CCT.	13.8 V
	SHORT CCT.	0 V

INPUT WIRING

TWO STATE MONITORING

Two State Monitoring provides the ability to detect two input states; Sealed and Unsealed.

The system will operate with two state monitoring when Installer Menu Option 7: - "Input Tamper Monitoring" is set to NO.



NORMALLY CLOSED CONTACTS

NORMALLY OPEN CONTACTS

STATE OF INPUT	RESISTANCE	APPROX. DC VOLTAGE AT INPUT (DC SUPPLY = 13.8 V)
Sealed.	10K	6.9 V
Unsealed.	OPEN CCT.	13.8 V
	SHORT CCT.	0 V

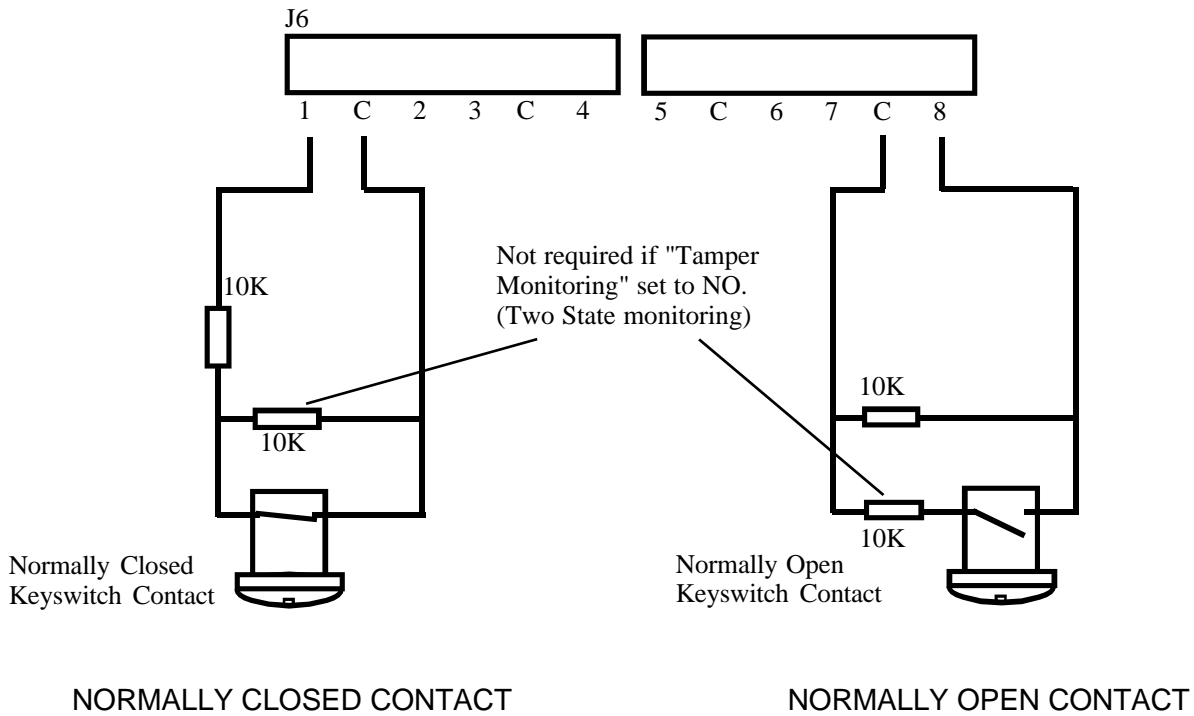
Use of the 10K End-of-line resistor still provides protection against cable tampering, however, the Alarm Panel cannot distinguish between an unsealed condition and a cable tamper and will treat both conditions as unsealed.

Input types 33 & 40 cannot be used with two state monitoring.

INPUT WIRING

WIRING OF KEYSWITCHES

Keyswitches can be wired to Challenger inputs to enable alarm control functions to be performed with a key instead of a PIN code or Access Card.



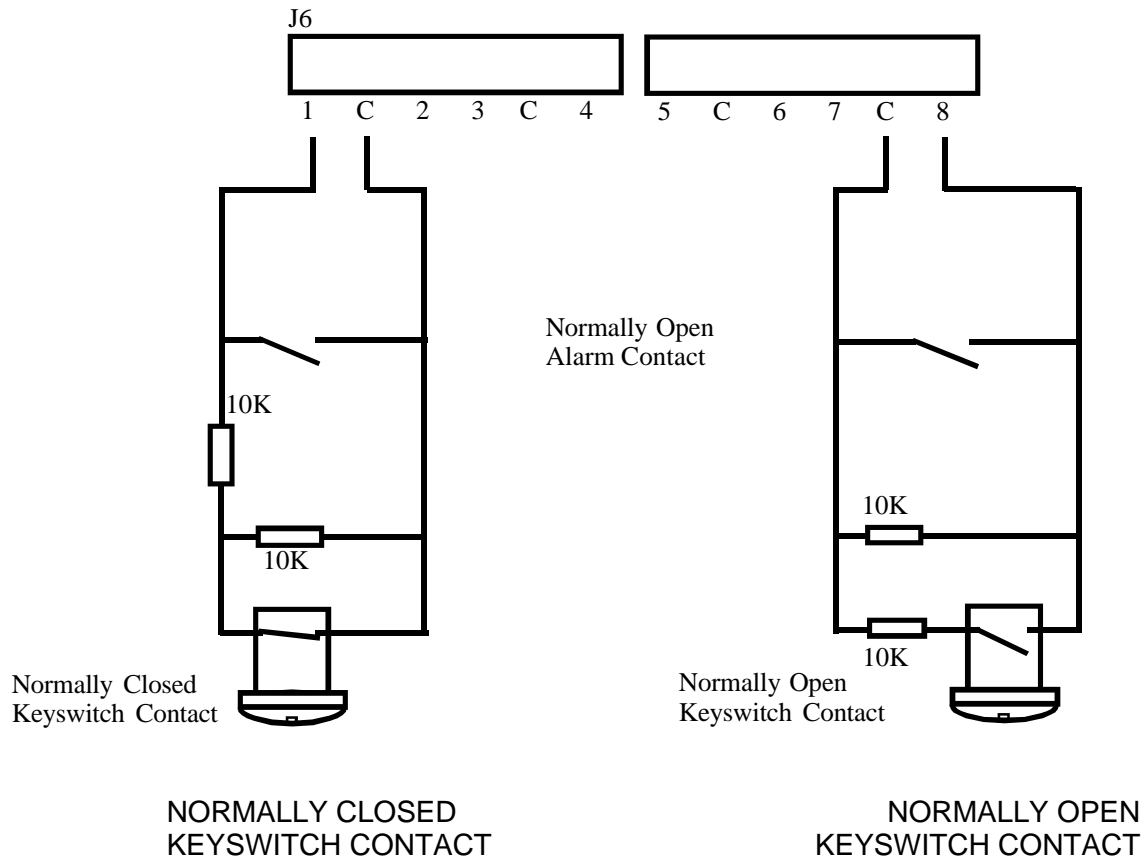
STATE OF INPUT ("TAMPER MONITORING" SET TO YES)	RESISTANCE	I/P TYPE 6	I/P TYPE 31
SEALED	10K	SEALED TO UNSEALED	OFF
UNSEALED	5 K 20K	TOGGLES ON / OFF	ON ON
TAMPER	OPEN CCT. SHORT CCT.	ON(V7/8) ON(V7/8)	ON(V7/8) ON(V7/8)

STATE OF INPUT ("TAMPER MONITORING" SET TO NO)	RESISTANCE	I/P TYPE 6	I/P TYPE 31
SEALED	10K	SEALED TO UNSEALED	OFF
UNSEALED	5 K 20K OPEN CCT. SHORT CCT.	TOGGLES ON / OFF	ON ON ON ON

INPUT WIRING

WIRING OF INPUT TYPE 33. KEYSWITCH & ALARM CONTACT

A special input Type 33 can be used to enable a keyswitch and an alarm contact to be wired together on the same input so that the keyswitch can be used to isolate the input.



STATE OF INPUT ("TAMPER MONITORING" SET TO YES)	RESISTANCE	I/P TYPE 33
SEALED	10K	SEALED
UNSEALED	5 K 20K	ISOLATED ISOLATED
TAMPER	OPEN CCT.	TAMPER(V6) ALARM(V7/8)
	SHORT CCT.	ALARM