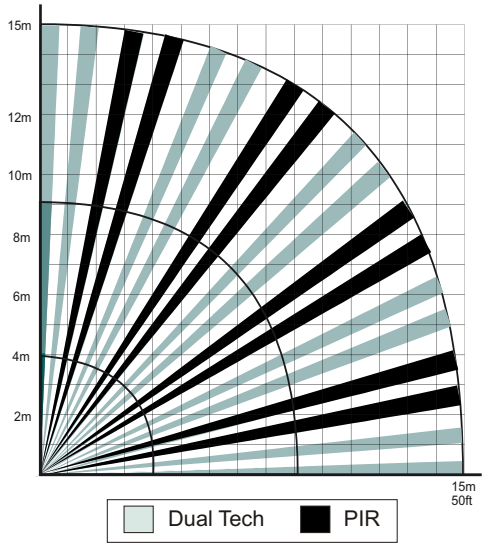
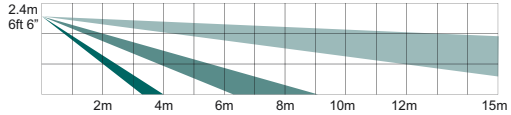
Coverage Pattern And Plan View

HORIZONTAL COVERAGE

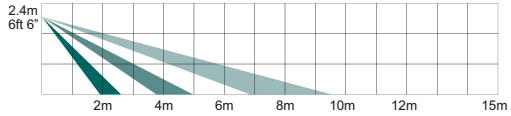


VERTICAL COVERAGE

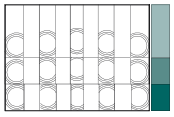
Maximum Range Setting



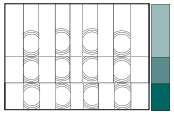
Minimum Range Setting



Dual Tech Lens
Volumetric
90°
30 Zones
3 Planes



PIR Lens
Volumetric
69°
24 Zones
3 Planes



Operation of Features

Initial Power Up

On first power up of the TMD15G3®, the detector will go into a self test, this will involve the GREEN and ORANGE LEDs flashing on the dual tech, and the RED LED flashing on the PIR. After a minute the detector will be ready.
If the ORANGE LED is still flashing then the detector has failed a Microwave test, or if the GREEN LED or RED LED is still flashing then the detector has failed a PIR test, if this occurs try restarting the detector (powering down and back up).

Self Test

Every 5 hours of detector none activity the detector will do an active diagnostic self test. If in the unlikely event of a failed self test the detector mask/fault relay will open.

Low Voltage Detect

If the detector detects a low voltage fault, then the mask/fault relay will open

The EN Mask Operation

FOR EN OPERATIONS DIP SWITCH 6 MUST BE ON
If an attempt is made to mask the TMD15G3® the BLUE LED will start flashing at half a second intervals, signaling that the detector is going into 'mask processing'. Mask processing will take 60 seconds to complete.
If the detector still sees a mask after 60 seconds then the Mask/fault and Alarm relays open, and the GREEN and ORANGE LEDs will be illuminated.
For None EN operation just the mask/fault relay goes open.To select which relays to open on a mask activation see dip switch 6.To reset the detector to normal operating mode, remove the blocking material, the BLUE LED will then flash again and during this time the detector should be walk tested to activate both Microwave and PIR, the GREEN and ORANGE LED will distinguish after 60 seconds and the relays will be closed again.If the detector has been put into mask processing by accident, you will need to walk test the detector so both the Microwave and PIR trigger, after 60 seconds the BLUE LED will stop flashing and normal operation is resumed.

Switch 1,Switch 2,Switch 5: DO NOT USE. Switch 6: use for Grade 2 panels.

Switch 3. Blocking

ON = Blocking Disabled / OFF = Blocking Enabled
'Blocking' works as follows: If an attempt to mask the detector is made when the control panel is disarmed, the alarm relay will be held open until the masking is removed (thus not allowing the control panel to arm). You must also connect the "RI 1" input on the TMD15G3® to a programmable output. When the control panel is disarmed, this input must be at 0V. When the panel is armed it must be at 12V. To enable this feature dip switch 3 must be OFF.

Switch 4. RI 1 Mode

A link on board marked "RI1/Spare" determines if the RI1 terminal is used for the set/unset signalling or simply as a spare terminal to aid EOL wiring.
If the RI1/Spare link is fitted, the state of RI1 determines if the panel is set or unset. The actions that can be performed in set and unset mode are also determined by DIP switch 4 and 2. DIP switch 4 controls the action of RI1. If the switch is **ON** the detector will operate permanently in Set Mode. When DIP switch 4 is **OFF,** the detector will use the state of RI1 to determine the set or unset state.
A 0V applied to input RI1 is interpreted as being unset.
A +12V applied to input RI1 is interpreted as being set.
DIP switch 2 determines if masking is enabled all of the time or only when the panel is unset. When nothing is connected to RI1, the input state is in the set state.

Switch 7. Operational mode

ON = TMD Mode.
DIP Switch 7 determines the operational mode of the detector. When the switch is ON (default) will operate as a TMD15G3, where the Dual Tech and the Single PIR operate independently. To open alarm contact 1, the Dual Tech's PIR must trigger within a given time period of the microwave sensor. Alarm contact 2 is based on the operation of the Single PIR only.
OFF = TriCover® Detector Mode.
When switch 7 is OFF, the detector will operate as a TriCover® detector, with all technologies needing to trigger within a given time period of each other to open alarm contact 1. Alarm contact 2 will operate in the inverse of alarm contact 1.
In alarm, the only LED to be illuminated will be the Dual Tech alarm LED.

Switch 8. LED Enable/Disable

ON = LED Enable / OFF = LED Disable
To remotely enable the LEDs 0V must be applied to the "LED" terminal.
If used with Pyronix panels, the LED terminal must be connected to a PGM output and programmed as "Remote LED Enable".
For Standard G3 operations the DIP switches do not need to be adjusted.

SWITCH OPTIONS

SWITCH	FEATURE	POSITION	MEANING
1	50/60Hz	-	DO NOT USE
2	Mask Mode	-	DO NOT USE
3	Blocking	ON	Blocking processing Off
		OFF	Blocking processing On
4	RI1 Mode	ON	Permanent in Set Mode
		OFF	State of Ri1 = set/unset mode
5	Sensitivity	-	DO NOT USE
6	Mask	ON	Open Mask & Alarm Relays
		OFF	Open Mask Relay Only (Grade 2)
7	Operational Mode	ON	Two movement detector
		OFF	TriCover® detector
8	LED Enable	ON	Enable LEDs
		OFF	Disable LEDS

TS50131-2-4
EN50131-1
PD6662:2004
Security Grade 3
Environmental Class 2

TMD15® GRADE 3

TMD15® Specifications

Model:	**TMD 15®** 15m Internal detector
Colour:	WHITE
Casing:	3mm ABS, 0.4mm HDPE in Lens Area
Lenses:	**2 Volumetric Lenses, with NO overlapping zones**
Detection Method:	2 Low noise dual element passive infrared sensors and a microwave doppler unit
Dual Tech Sensitivity:	Selectable AUTO or HIGH
Temperature Compensation:	Digital
Microwave Detection Range:	15m PIR and 1-15m microwave
Mask Detection Range:	0m - 1m masking
Detection Zones:	27°facets,54 zones in total. *Top Lens*: 5 columns, 15 facets, 30 zones 90°field of view none-overlapping zones *Bottom Lens*: 4 columns, 12 facets, 24 zones 69 field of view none-overlapping zones
Detection Speed:	0.25 - 2.5m/s
Operating Voltage:	9-16Vdc, 13.8Vdc typically
Current Consumption:	24mA @ 13.8Vdc Quiescent
Relay Output:	3 x SELV limits; 60Vdc 50mA (42.4Vac peak)
Mounting Height:	1.8 - 2.4m = 15m. 3m = 12m
Tamper Switch:	12Vdc 50mA both front and rear
Storage Temperature:	-40°C to +80°C (-40°F to +176°F)
Operating Temperature:	-30°C to +70°C (-22°F to +158°F)
Emissions:	EN55022 Class 2
Immunity:	EN50130-4

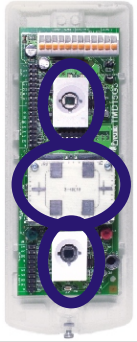
Suggested Specification Detail:
A dual technology (PIR/Microwave) movement detector having a range capability of 15 metres and five detection columns within an overall angle of coverage of 90 degrees. This is non-overlapping with a PIR movement detector, which has a range capability of 15 metres and four detection columns with an overall angle of coverage of 69 degrees installed in the (location) and at a height of (x) metres.

TMD (Two Movement Detectors) or TriCover®

Simply by moving a switch on the pcb, the TMD 15 can be selected to operate as a sequential confirmation or triple coverage detector.

TMD mode: Provides the simple solution to sequential confirmation by operating as 2 independent detectors in 1 housing with non-overlapping fields of view and separate relay outputs.

TriCover®Mode: Triple coverage ensures that an alarm will not occur unless all 3 detector fields are activated in a particular sequence. Offers unparalleled stability in the elimination of false activations



This product is approved for use in the Residential, Commercial and Light Industrial Environment.

TS50131-2-4
EN50131-1
PD6662:2004
Security Grade 3
Environmental Class 2

This product complies with TS50131-2-4. at security grade 3, environmental class 2.
UK = Suitable for use with systems installed to PD6662:2004 (AMD)
EXPORT = Suitable for use with systems installed to EN50131-1

Customer Support Line:
0845 6434 999 (local rate) or 01709 535225

Hours of business: 8.00am - 6.30pm
E-mail: customer.support@pyronix.com
website: www.pyronix.com

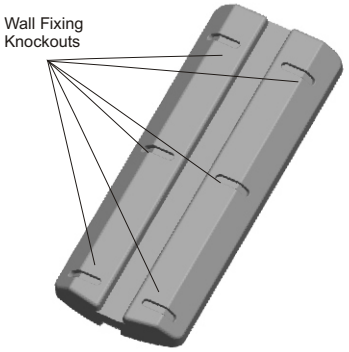
Pyronix Limited, Pyronix House, Braithwell Way, Hellaby, Rotherham, S66 8QY. UK

RINS1321-2

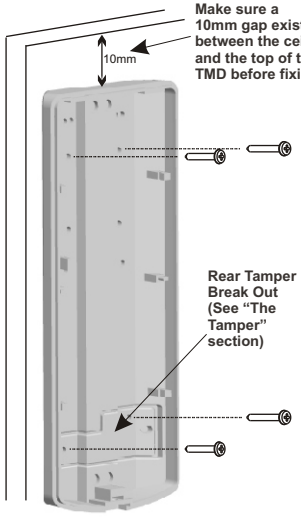
The Installation Of The TMD15®

Case Lid Screw Fitting

Casing Knockouts

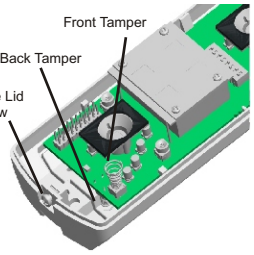


Wall Mounting



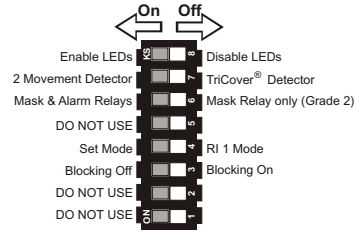
NOTE: When mounting the TMD 15®, ensure that it is mounted vertically

The Tampers



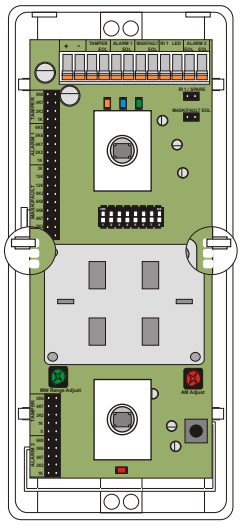
The back tamper operates by the use of the "rear tamper break out" section of the TMD 15.® If the detector is forcibly removed the "rear tamper break out" stays attached to the wall, thus opening the back tamper.

Dip Switches

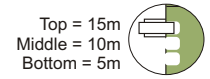


At Factory Default All Switches Are ON

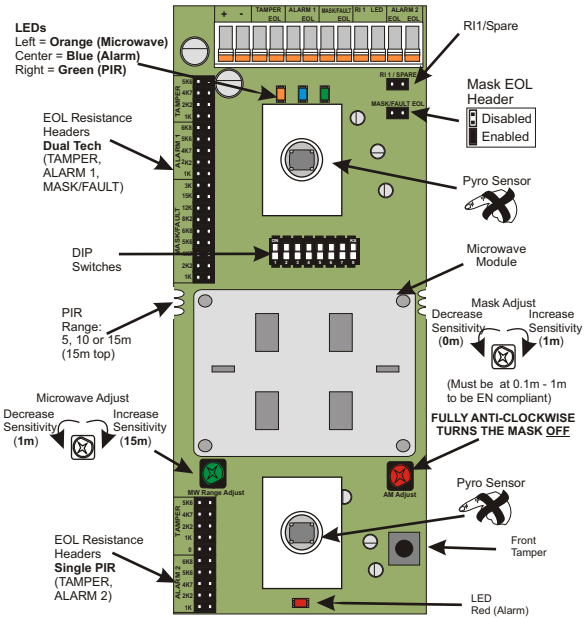
PIR Range



The 'notches' as shown above, alter the range of the PIR from 5m to 15m.

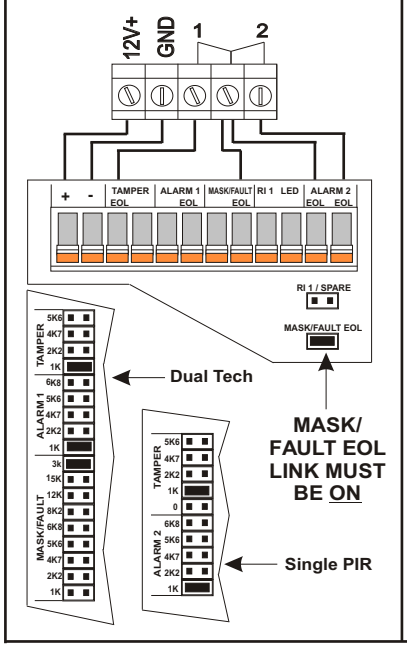


Physical Layout



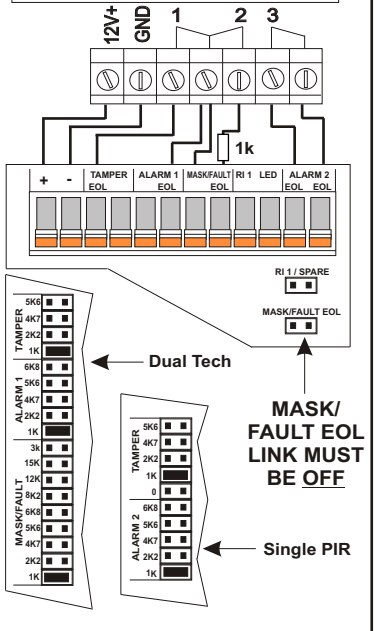
The Wiring Connections For The TMD15® (To a Honeywell Panel)

Grade 3 Configuration
Alarm, Tamper, Mask and Fault Configured To A Single Zone



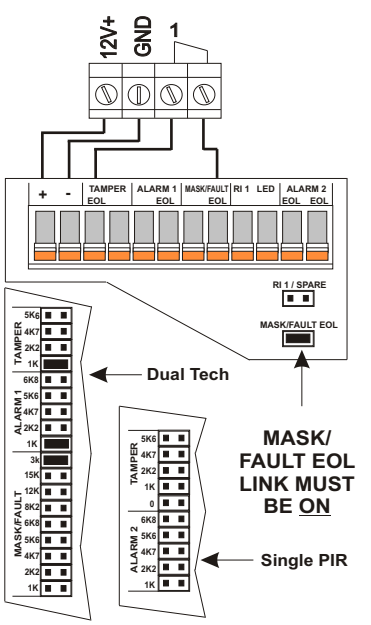
Grade 2 Double End of Line Wiring
All Technologies Configured To Separate Zones

NOTE: DIP SWITCH 6 MUST BE OFF



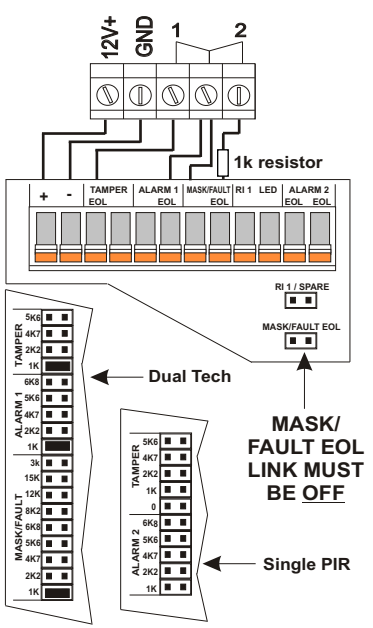
Grade 3 Configuration
TriCover® Mode Configured To A Single Zone

NOTE: DIP SWITCH 7 MUST BE OFF



Grade 2 Configuration
TriCover® Mode Configured To A Single Zone

NOTE: DIP SWITCH 6 & 7 MUST BE OFF



LED Indications

Action	Single PIR LED	Dual Tech LEDs
Powering Up		
PIR Triggered		
Microwave Triggered		
PIR Failed Self Test		
Microwave Failed Self Test		
Normal Alarm		
Mask Processing		
Latched Mask/ Blocking Indication		
Low Voltage		