TOWER®-20AM is a ground-breaking outdoor mirror detector that provides unparalleled alarm detection in outdoor environments due to the unique patented technologies it employs. It is the first detector to prevent false alarms caused by outdoor interferences, such as rain, snow, lightning storms, swaying bushes and free-roaming animals, while still providing reliable detection of real threats.

TOWER-20AM features the revolutionary Octa-Quad™ technology which uses eight PIR sensors. Each sensor acts as a Quad detector to accurately determine whether an alarm is justified. In addition to further increase reliability, TOWER-20AM has a robust housing and patented anti-masking protection that can distinguish between masking spray, rain and sprinkler irrigation, providing an exceptionally high resistance to vandalism and masking.

Due to its unique features, the TOWER-20AM must be installed correctly in order to work properly. Below is a new addition for the installation guide - which further illustrates how to install this outdoor detector correctly.
Correct Detection of Movement

Attention!
The TOWER-20 AM / TOWER-20 AM MCW is designed to detect motion of a human intruder that crosses through at least 2 adjacent detection zones out of 8 detection zones of the coverage area – see figure 1. For example: Crossing detection zones 5 & 4 or 7 & 6 etc. For this reason, the detector must be installed so that the expected motion pattern of an intruder would cross at least two adjacent detection zones of the detector.

1 Balcony – NOT OK
TOWER-20 is not designed to protect narrow areas such as a corridor or a narrow balcony or passage. In example 1, the far end of the balcony is not covered well by the two detection zones 1 & 2 so that movement at that location may not be detected.

2 Terrace - OK
In example 2, the direction of movement is excellent for effective detection since 2 zones (zones 4 and 5) are crossed.

3 Yard – NOT OK
In Example 3 the person will not be detected since the pattern of motion does not cross two adjacent detection zones.

4 Yard – OK
In example 4, the person will be detected since the pattern of motion crosses two adjacent detection zones 6 and 7.
Protecting the House and Yard

1. OK
Example 1 illustrates optimal installation. The detector does not "look" into the neighbor's premises or street where people or vehicles may move and be detected.

2. NOT OK
Example 2 illustrates poor installation. The detector "looks" into the neighbor's premises and into the street and may detect objects moving outside of the protected area. However, measures can be taken so that the detector does not "look" outside the protected area. For example, installing the detector opposite a high wall instead of opposite a low fence ensures correct installation.

3. 4
The motion of a person walking outside of the desired protected area may be detected and cause an unwanted alarm (false alarm).

Figure 2 – House and Yard Protection
Correct Adjustment of Detector When Installed on Flat and Sloped Surfaces

For optimum performance, the detector must be vertically adjusted so that the upper "detection beams" are directed toward the upper part of a person moving at the far end of the protected area. The adjustment process and a reference vertical adjustment table are provided in sections 3.4 and 3.5 of the TOWER-20 AM / TOWER-20 AM MCW Installation Instructions. This table is suitable when the detector is mounted on a straight vertical wall perpendicular to a horizontally flat ground only. However, in reality, the ground surface may have some inclines which requires some corrections to be done to the vertical adjustment.

Correct Installation
Upper beams directed towards the upper part of the moving person

Flat ground
Adjust the detector according to the vertical adjustment scale (see section 3.4 of the Installation Instructions).

Downward sloped ground
On downward sloped surfaces, you may need to compensate for the slope by adding 1 or more steps to the numbers provided in Table 2 of section 3.4 of the Installation Instructions.

Upward sloped ground
On upward sloped surfaces, you may need to compensate for the slope by deducting 1 or more steps from the numbers provided in Table 2 of section 3.4 of the Installation Instructions.

Bracket Mounting
When mounting the bracket, the bracket must be positioned so that it runs parallel to the ground surface (see examples below).

In both examples, the detector is mounted parallel to the ground surface.