

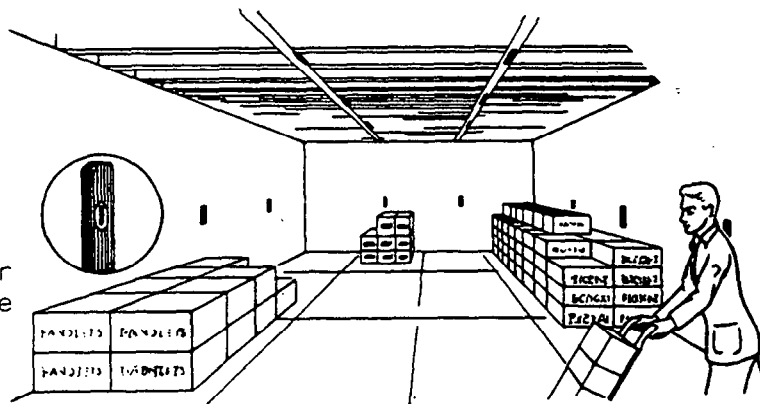
Nos. 10 & 11 VIBRATION CONTACTS

Both contacts operate in the same manner. They can both be adjusted for different degrees of sensitivity. The No. 11 is smaller than the No. 10, made of white plastic (No. 10 is grey) and has a ribbed back for glue on applications. Freedom from most false alarms and good sensitivity can be achieved by proper initial calibration. The following data can help achieving this goal.

The ADEMCO Vibration Contact is a closed circuit device designed to be mounted on walls, ceilings, safes, cabinets, etc, to respond and initiate an alarm signal when vibration of sufficient force is transmitted by striking the protected surface.

The contact is made adjustable so as to respond efficiently on all types of construction. The adjustment is made by varying the contact pressure by means of an Allen Wrench and set screw. The greater the contact pressure, the greater the force necessary to cause an alarm.

Low frequency vibration caused by normal building vibration has little effect on the contact as it is designed to respond much more efficiently to sharp blows.



A TYPICAL INSTALLATION
ON CEILING AND WALLS

PERFORMANCE

The following tests were conducted on different wall constructions by the Underwriters Laboratories Inc. In each case the contact was mounted 42 to 48 inches above the floor and a light machinist's hammer was used in determining response.

THREE COURSE BRICK

At a setting of 5 grams, the contact was responsive to a light blow at approximately 36 inches from the unit.

4" CEMENT BLOCK

At a 5 gram setting, the unit gave excellent response to a light hammer blow 48 inches away in any direction. It was readjusted to a 10 gram setting. This reduced the effective range to approximately 30 inches. It was noted that a blow striking the webbing or the mortar joints was more effective. Readjusting to an 8 gram setting, the response was good at a distance of 36 inches, and the unit was reasonably free from false alarms.

PLYWOOD

A wall of 3/4 inch thick plywood, made up in 4 x 10 ft. panels, on 24 inch studs, was checked. The contact was mounted in the center, at a height of 42 inches. It was adjusted to a setting of 18 grams. The response was excellent over the entire panel. Also, parts of the adjacent panel were responsive, particularly if the blow was near the studs.

The results of these tests should not be interpreted as recommendations. Rather, they show quite conclusively that simple experiment with a light hammer will determine the proper adjustment for a particular type of construction.

ADJUSTMENTS

When a unit has been adjusted for a particular type of construction by experimentation, the contact pressure should be measured with a Gram Meter, (ADEMCO No. 135). Place the blade of the Gram Meter under the contact of the spring blade and note the meter reading when the contacts first break or open. Do not hold the meter at an angle. The balance of detectors can then be adjusted with the meter before being installed.

When a Gram Meter is not available, the contact pressure can be adjusted quite accurately as follows:

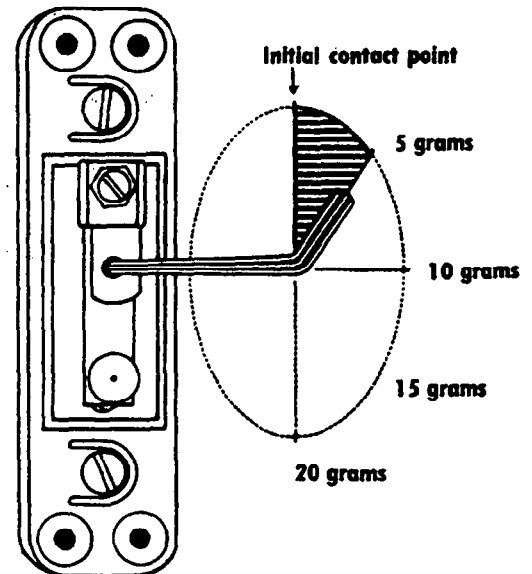
Turning the Allen wrench in a clockwise direction, at 1/2 turn from the initial contact point, the contact pressure will be approximately 20 grams. At 1/4 turn from the initial contact point, the contact pressure will be approximately 10 grams. At 1/8 turn from the initial contact point, the contact pressure will be approximately 5 grams.

TEMPERATURE CHANGES

Tests conducted by the Underwriters Laboratories indicate that temperature changes ranging from approximately 5 degrees below zero, to 150 degrees above zero, Fahrenheit, have little or no effect on the operation of the contact.

CAUTION: Contact pressure below 5 grams are not recommended, as erratic operation may result and be the cause of false alarms. Contact pressure above 25 grams is not recommended as permanent injury may result to the vibration blade.

HOW TO ADJUST CONTACT PRESSURE WHEN A GRAM METER IS NOT AVAILABLE



NO. 10 USES ALLEN WRENCH ADJUSTMENT
(NO. 11 USES SCREW ADJUSTMENT)

The initial contact point can be determined by rotating the Allen wrench in a clockwise direction until the contact points just touch. An ohmmeter placed across the terminals will show very accurately the initial contact point by the meter reading. 1/4 turn past this point sets the contact at a 10 gram pressure as shown above.



NO. 135 GRAM METER

Aids in adjusting vibration contacts on different types of construction

DUSTY ATMOSPHERE

The contact assembly is enclosed in a fully dust tight compartment. Terminal connections are made outside this compartment. Thus, the contact can be used without fear of erratic operation in dusty, or particle laden atmospheres.

INSTALLATION INFORMATION

Operating companies report that where possible contacts mounted on furring strips installed on walls and ceilings increase the sensitivity to attach tremendously. The furring strip acts as a sounding board and affords greater protection with fewer contacts. On walls, one company installs the furring strip from ceiling to about 4 ft. from the floor. The distance between furring strips is determined by the type of construction. On ceilings, the same procedure is followed, running the furring strip from one end of the protected area to the other.

- . When installing on walls, mount the contact with the weight down.
- . When installing on ceilings, the contact may be mounted upside down without the use of brackets.

Do not mount the No. 11 contact on bumpy walls.

NOTE: The No. 10 Vibration Contact can be installed in the No. 43 housing. This housing is weather-proof and made from die cast aluminum and will protect the No. 10 against mechanical damage. Both ends of the No. 43 will accept electrical conduit connections.