BACHARACH®

INSTRUCTION 16-9006
FLORITE (Air Velocity Meter)
Rev. 2 - October 1995

FLORITE®

WARRANTY

Bacharach, Inc. warrants to Buyer that at the time of delivery this Product will be free from defects in material and manufacture and will conform substantially to Bacharach Inc.'s applicable specifications. Bacharach's liability and Buyer's remedy under this warranty are limited to the repair or replacement, at Bacharach's option, of this Product or parts thereof returned to Seller at the factory of manufacture and shown to Bacharach Inc.'s reasonable satisfaction to have been defective; provided that written notice of the defect shall have been given by Buyer to Bacharach Inc. within one (1) year after the date of delivery of this Product by Bacharach, Inc. For full details concerning this warranty, contact Bacharach Inc.

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GENERAL OPERATING INSTRUCTIONS

The "Standard" FLORITE models 16-7001 thru 16-7004 are for use on any grille or duct opening 3" in Diameter or 3" square or larger. The actual minimum size opening is shown in Figure 1. The "Diffuser" FLORITE models 16-7005 and 16-7006 are for use on ceiling diffusers. They will measure air movement on openings as small as 1/4" X 3" (see Figure 2).

Prior to initial use, check zero position of scale as follows:

1. Tighten KNURLED SCREW (1) at end of SCALE LOCK TRIGGER (2) with fingers to free air vane.
2. Set unit upright on level surface with scale window at top.
3. (a) "Standard" Model - Cover both faces of FLORITE with palms of hands to eliminate effect of stray air currents.
   (b) "Diffuser" Model - Cover exit face of this model with palm of one hand while other palm closes open end of "air scoop".
4. Scale zero should line up with SCALE POINTER (3) on scale window; if necessary, insert edge of coin in slot of ZERO ADJUSTING SCREW (4) and turn until scale zero does line up with SCALE POINTER (3).

To Use FLORITE:

1. Turn KNURLED SCREW (1) at end of SCALE LOCK TRIGGER (2) out as far as threads permit to lock scale and air vane. Never use pliers on this screw.
2. Hold FLORITE in air stream so moving air blows squarely into entrance face of FLORITE which is the face opposite to that with ADJUSTING SCREW (4) for the "Regular" Model and open end of air scoop for "Diffuser" Model.
3. Push SCALE LOCK TRIGGER (2) to one side to free air vane and read indicated air speed; release SCALE LOCK TRIGGER (2) to lock air vane again.

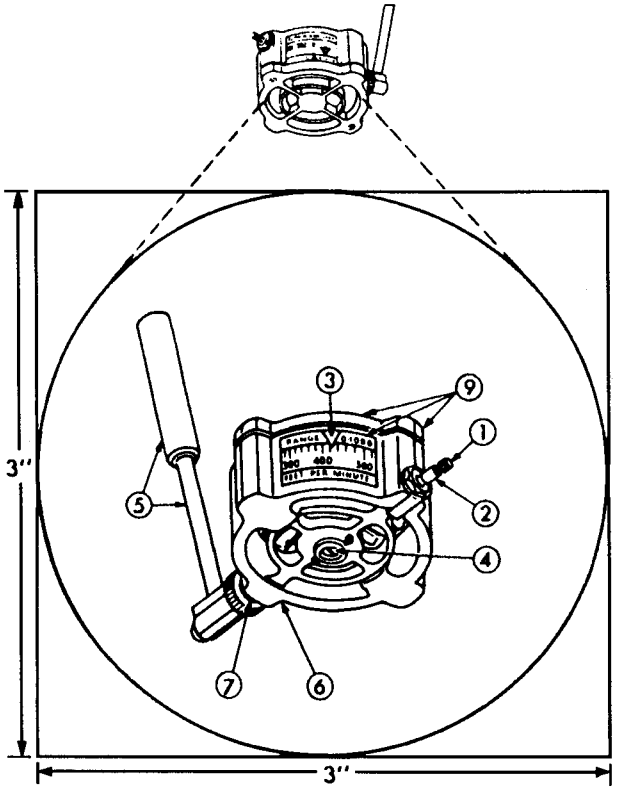

Figure 1. FLORITE "Standard" Models 16-7001, 16-7002, 16-7003 & 16-7004

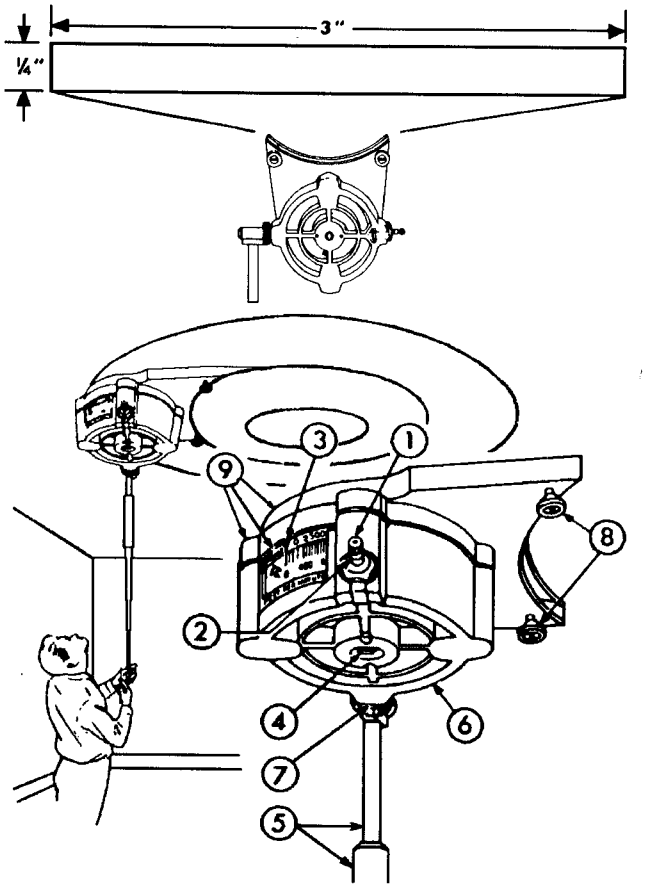

Figure 2. FLORITE "Diffuser" Models 16-7005, & 16-7006

SPECIAL APPLICATIONS INSTRUCTIONS

Holding FLORITE

For the most accurate results, FLORITE should be held in air current by HANDLE (5). After HANDLE (5) has been screwed together, screw STUD (7) into FLORITE HOUSING (6) opposite SCALE LOCK TRIGGER (2). HANDLE (5) can now be adjusted by always turning HANDLE clockwise without loosening STUD (7). There may be occasions when it is impossible to hold FLORITE by HANDLE; if so, be certain not to obstruct any part of entrance or exit faces of FLORITE with hand.

Using "Standard" Model FLORITE - Open Grilles & Ducts:

This model FLORITE is used to measure any air velocity being discharged from or into opening having minimum dimension of 3" in two directions. In other words, use the "Standard" Model FLORITE on any opening larger than 3" in diameter or 3" square. To measure air velocity being discharged from opening having grille cover (for example, air supply registers), hold entrance face of FLORITE against grille face. If opening has no grille cover, hold entrance face of FLORITE slightly inside opening. When being used to measure exhaust air velocities into openings having grille covers (for example, air intake registers), hold FLORITE with exit face against grille face; for exhaust openings not covered with grille, hold FLORITE inside opening with entrance face out and about flush with opening.

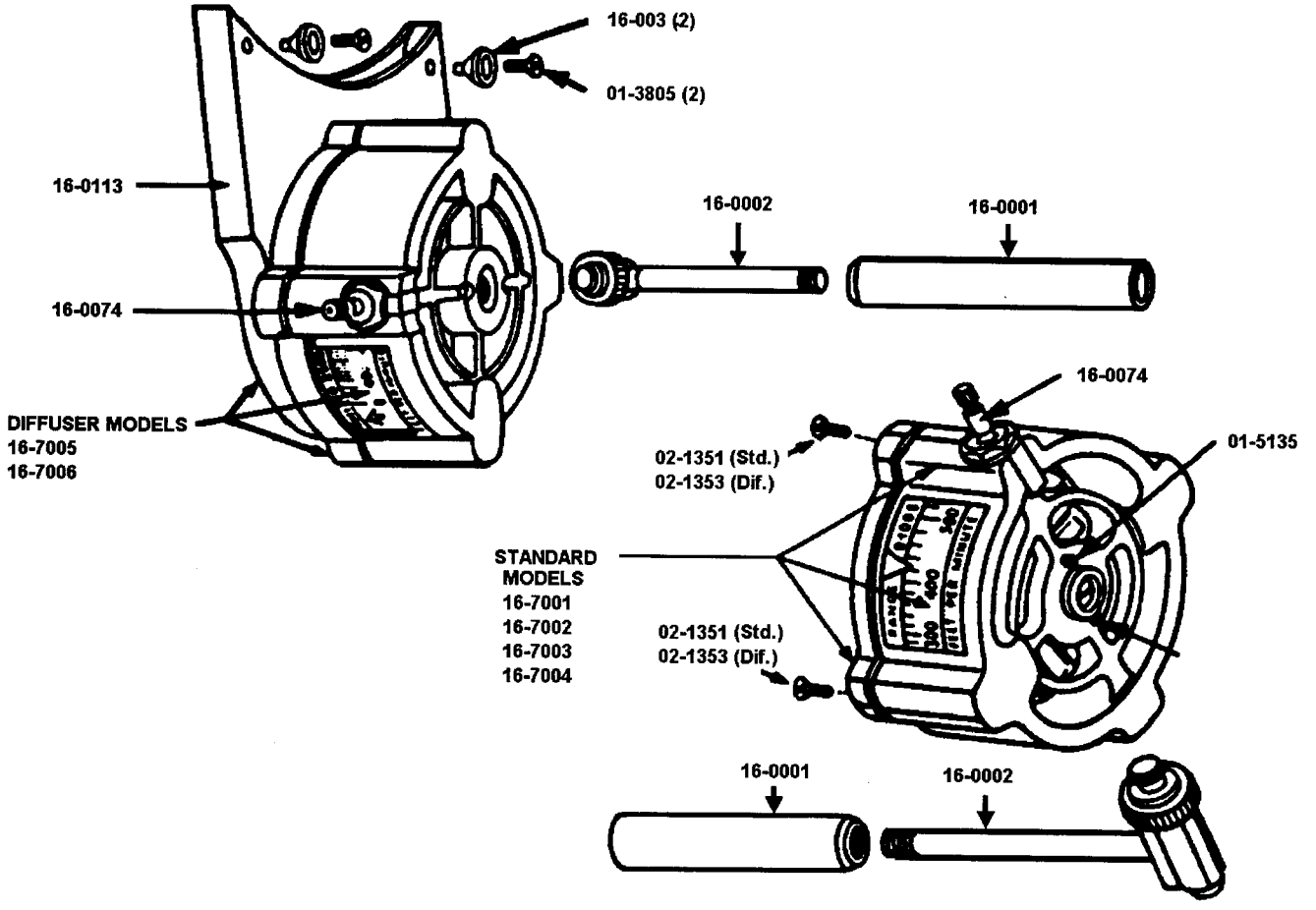

Figure 3. FLORITE Parts

Parts List for the FLORITE Air Velocity Meter

Part #	Description	Model*	Qty.
01-3805	6-32 x 1/2" lg. Flat Hd. Machine Screw	Dif.	2
01-5135	Fil. Hd. Mach. Screw #2-56 x 3/8" lg.	Both	1
01-7644	Fil. Hd. Mach. Screw #2-56 x 9/16" lg.	Both	1
02-1351	Fil. Hd. Phillips MSCR. #4-40 x 1/2" lg.	Std.	2
02-1353	Fil. Hd. Mach. Screw #2-56 x 3/8" lg.	Dif.	2
16-0001	Handle Adapter	Both	1
16-0002	Handle Assembly	Both	1
16-0003	Diffuser Stop Post	Dif.	2
16-0005	Case	Std.	1
16-0006	Case	Dif.	1
16-0074	Toggle Assembly	Both	1
16-0113	Scoop Assembly	Dif.	1
16-7001	1000 Ft./Min.		
	Range Speed Cup, Housing & Cover Assy.	Std.	1
16-7002	3000 Ft./Min. and 35 MPH		
	Range Speed Cup, Housing & Cover Assy.	Std.	1
16-7003	300 Meters/Min.; 5 Meters/Sec.		
	Range Speed Cup, Housing & Cover Assy.	Std.	1
16-7004	1000 Meters/Min.; 16 Meters/Sec.		
	Range Speed Cup, Housing & Cover Assy.	Std.	1
16-7005	2500 Ft./Min.		
	Range Speed Cup, Housing & Cover Assy.	Dif.	1
16-7006	7500 Meters/Min.		
	Range Speed Cup, Housing & Cover Assy.	Dif.	1

*Models - Std. = Standard, Dif. = Diffusion, and Both

Using "Diffuser" Model FLORITE - Diffusers:

"Diffuser" Model FLORITE was primarily developed to measure air velocities from diffusers. It can be used on all types of air diffusers, and on openings not large enough for the "Standard" Model but having an opening at least 1/4" by 3". If possible, insert end of "air scoop" between diffuser louvers or vanes; if not, place end of "air scoop' against face of diffuser. When using the "Diffuser" Model FLORITE on ceiling diffuser, open end of "air scoop" should be between vanes with STOP POSTS (8) resting on edge of vane.

Air flow in cubic feet per minute from diffusers can be obtained by following the instructions given in manufacturer's literature. For most accurate measurement of velocity from ceiling diffusers take readings at four 90 degree positions around each louver or vane. For approximate results, one reading at each louver or vane will be sufficient.

The FLORITE air velocity measurement (feet per minute) is converted into cubic feet per minute air delivery by multiplying the average FLORITE reading by the net effective open area of the diffuser (square feet) or by the performance or "K" factor supplied by the manufacturer. Use the manufacturer's instructions as a guide for flow determinations and air delivery calculations in all cases where available.

Preferred Method of Measurement

For good instrumentation and best service, FLORITE should be held with HANDLE (5) and with air vane kept locked except when actually measuring air speed. Hold instrument in air current as previously described, push or pull TRIGGER to one side until indicated air speed is approximately constant (5 seconds is enough if scale cannot be seen) and then release TRIGGER (2) to lock scale. Remove FLORITE from air current and read scale.

Using FLORITE with SCALE LOCK Inoperative

There will be occasions when it will be advantageous to use FLORITE with SCALE LOCK inoperative. For example, this could be when a series of readings over grille face or diffuser opening is to be mentally averaged or where it may be necessary to check direction of air current, pattern of air distribution, uniformity of air velocity, and so forth. Turn KNURLED SCREW (1) into SCALE LOCK TRIGGER (2) to free air vane; hold FLORITE in air current and read before removing from air current. Where checking for direction of air current, maximum readings obtained while constantly observing FLORITE, as it is moved through different positions, indicate that at that point direction of air stream is at right angles to FLORITE.

For Difficult Locations

When using FLORITE on ceiling diffusers or highwall registers, screw threaded length of 1/8" pipe into HANDLE (5). Attach string or cord to SCALE LOCK TRIGGER (2). Turn KNURLED SCREW (1) on SCALE LOCK TRIGGER in, finger tight. Using handle extension, hold FLORITE in air stream and use cord to unlock air vane to obtain readings. Release cord, remove FLORITE from air stream and note reading.

No general rule can be given as to number of readings required or locations at which such readings shall be taken. Where an accurate average air velocity is required, take several readings over cross section of opening or space through which air is flowing. For approximate or relative measurements, one reading at center of opening or cross section through which air is flowing will suffice.

MAINTENANCE

Scale zero should be checked and if necessary, adjusted once or twice weekly where FLORITE is used daily. Checking at one to two week intervals is sufficient for less frequent use. Scale zero should always be checked when FLORITE has not been used for an extended period. Always keep FLORITE in case with air vane locked when not in use. Keep case free of dust, lint, etc.

Be careful that projecting surfaces which are small enough to pass through open grille faces of FLORITE do not strike and damage or vane. If air vane collects excessive dirt or dust, remove by gently brushing both sides of air vane with a soft camel's hair brush. It is not necessary to dismantle instrument to do this.

If HOUSING SPEED CUP and COVER ASSEMBLY (9) is damaged, it must be returned to factory for repair or replacement.

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