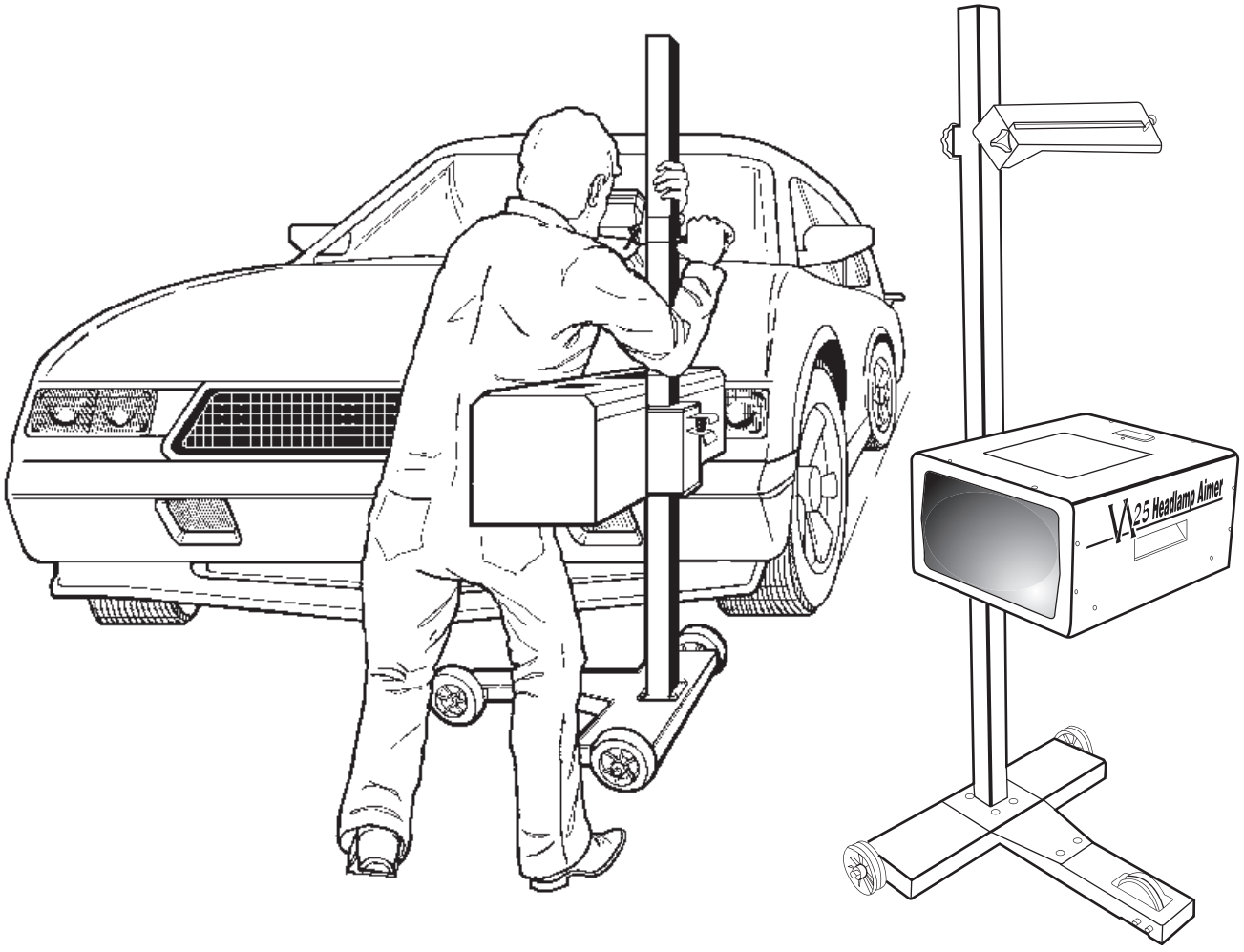
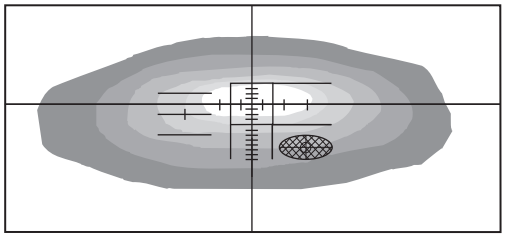
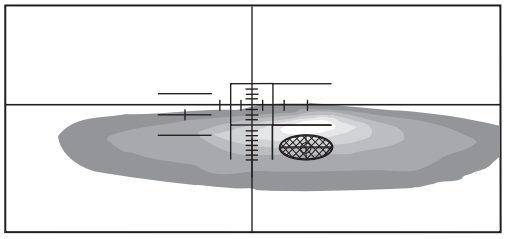
VA25 Headlamp Aimer

INSTRUCTION MANUAL







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VA 25 HEADLAMP AIMER OPERATOR'S MANUAL

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(A) Base
(B) Column
(C) Vertical Sliding System VSS
(D) Visor
(E) Optical Box (A Thru E – FIG. 1)

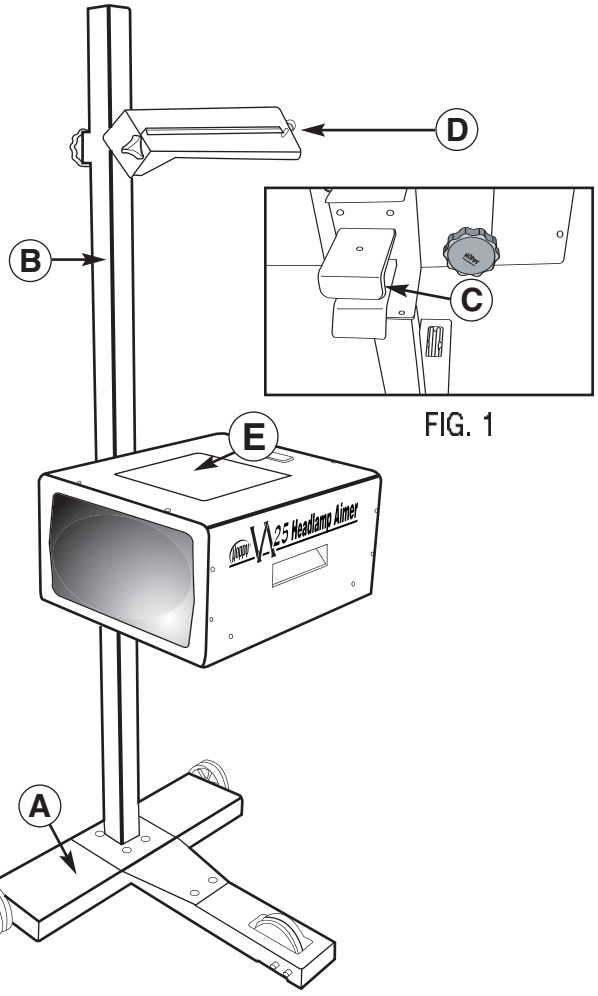


FIG. 1

TECHNICAL CHARACTERISTICS:

Height----------63.25"
Weight----------51.4 lbs.
Minimum Measurement Height---------- 8.5”
Maximum Measurement Height---------- 56.75

ASSEMBLY OF THE VA 25 HEADLAMP AIMER

1. Fix the column (**B**) on the base (**A**) using six bolts and nuts provided (Fig. 2).
2. Slide bracket (**G** / Fig.4) over the mast (**C** / Fig. 3).
3. Fit the side of the optical box (**F** / Fig. 4) on the vertical sliding system (**G** / Fig. 4) using a cap head bolt (**I** / Fig. 4). Secure the handle knob (**H** / Fig. 4) on the right side of the mast.
4. Slide visor (**D** / Fig. 3) over nose and tighten (**E** / Fig. 4).
5. Install plastic mast cap in top of mast.
6. After assembly, adjust optical head to center of mast. Put a level on top of the head and adjust the front wheel to level head side to side.
7. The vision alignment lens must be calibrated to the front edge of the aim head. Loosen the thumb screws (**J** / Fig. 3) and move the line until it matches the front edge of the aim head.

HOW TO PREPARE VEHICLE ADJUSTMENT

Be careful that headlight beams are clean and dry. Check vehicle positioning avoiding any kind of possible interference: snow, ice, mud, etc. Check tire pressure. In case of pneumatic suspensions, switch on the motor five minutes before testing and test with the motor on.

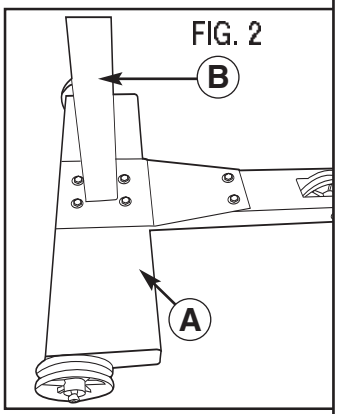


FIG. 2

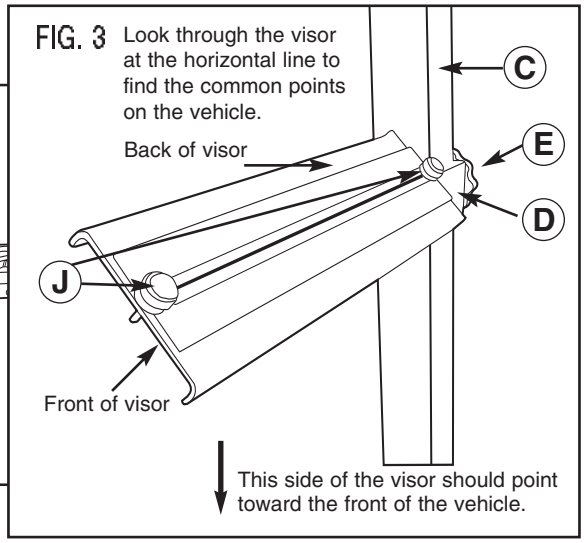


FIG. 3 Look through the visor at the horizontal line to find the common points on the vehicle.

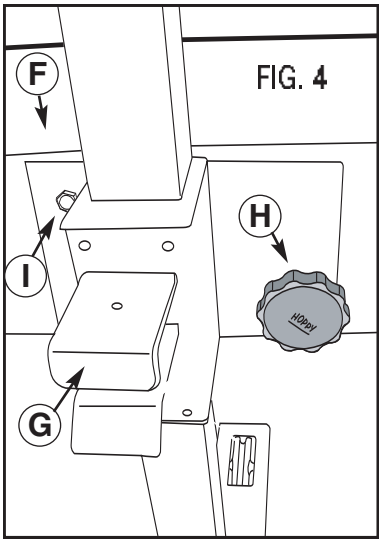
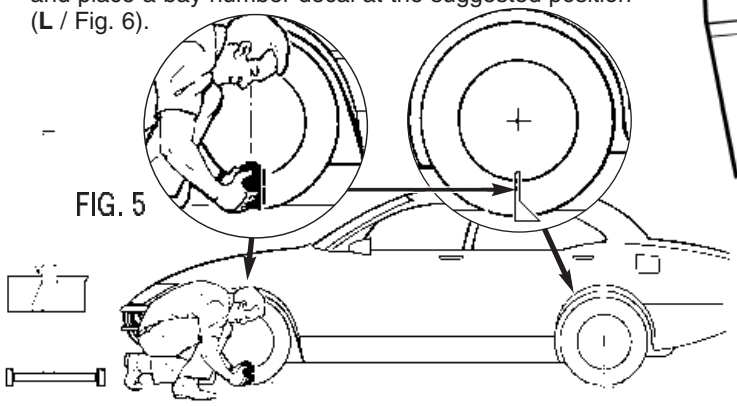
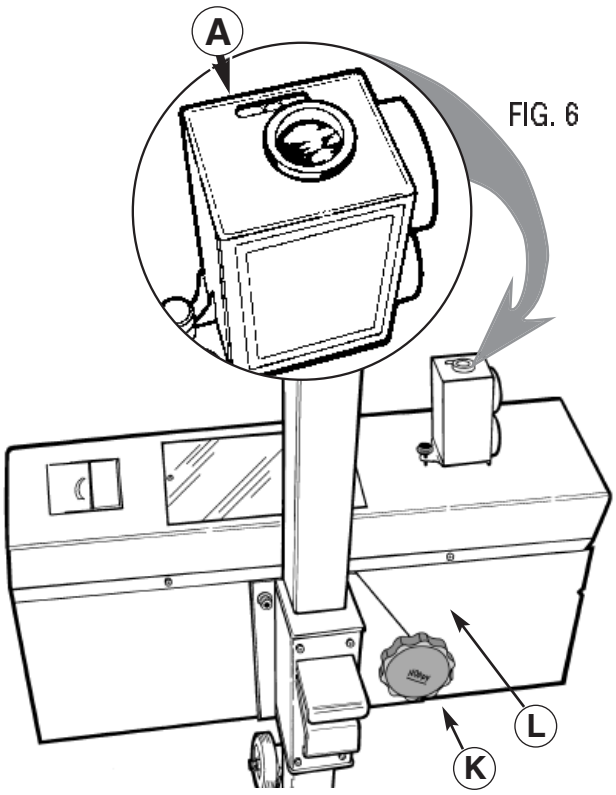


FIG. 4

FLOOR SLOPE SETUP

1. Since few shops have the same floor slope, the slope of each bay must be individually measured and recorded. A Hoppy® Model G2 Split Image Transit is provided to measure floor slope. Place the Transit at the front wheel (either side) of the vehicle and place the Target at the rear wheel on the same side (Fig 5).
2. Using the instructions provided with the G2 Transit, determine the floor slope of the bay. **Do not change these settings.**
3. Position the Aimer in the center and square to the front of the vehicle (Fig. 5).
4. Place the Transit with the settings in Step 2 above on top of the Aim Head with the optical windows towards the vehicle (Fig. 6).
5. Loosen the Aim Head tightening screw knob (**K** / Fig. 6) and tilt the Aim Head while looking at the top of the Transit and center the bubble (Fig. 6 / A). Tighten the handle knob. Floor slope is now set. Repeat this procedure for each bay and place a bay number decal at the suggested position (**L** / Fig. 6).





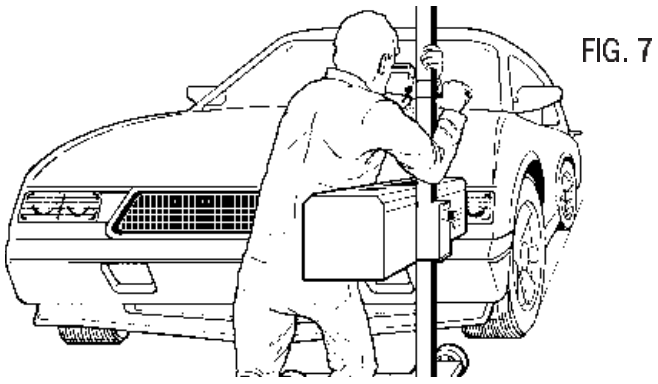
ALIGNMENT TO VEHICLE

FINDING THE CENTER OF THE HEADLAMPS

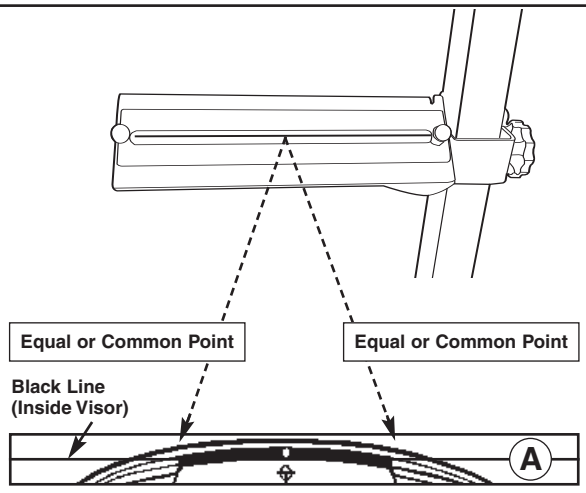
Position the VA 25 in front of either headlamp at the distance of 12 to 20 inches. Move the aimer up, down or sideways to locate the aimer in the center of the lamp, you can use the light intensity meter to assist this.
(**Note:** Many lamps today have a centering mark on the face of the lens. This can be a very small dot or cross and simplifies finding lamp center).

ALIGNING TO VEHICLE

While in front of the lamp, adjust the visor at the top of the aimer to view areas on the front of the vehicle. Looking into the visor, rotate the aimer until two equal points of the vehicle are found on the black line inside the visor (Fig. 7 / A). These may be the lamps, front bumper, symmetrical points under the hood and in the engine compartment or roof line. Be sure to keep the aimer centered on the lamp.



Using the line on the visor, find two common points on the vehicle and align the VA 25 so that it will be perpendicular to the vehicle.



SETTING THE BEAM PATTERN

(Aim Screen and Examples of Beam Patterns)

Observe the low beam pattern on the internal aim screen (Fig. 10). Proper aim is achieved by adjusting the headlamp to locate the beam pattern on the internal aim screen per the following illustrations (Fig 10, 11, 12, 13 and 14).

This can be assisted for more accurate aim by using the light intensity meter while adjusting the headlamp for maximum deflection of the meter (Fig. 9 / B). Low beam only.

If light intensity is to low to cause movement of the meter, gain can be increased by removing the top of the aim head and locating the small blue potentiometer behind the aim screen. Turning this pot will increase or decrease meter movement.

Note: This meter is designed for aim assist only, not a candela reading.

VEHICLES WITH 4 HEADLAMP SYSTEMS

When high beams are not located in the same assemblies as low beams (older 4 headlamp system) high beam test must be done using the method per Fig. 11.

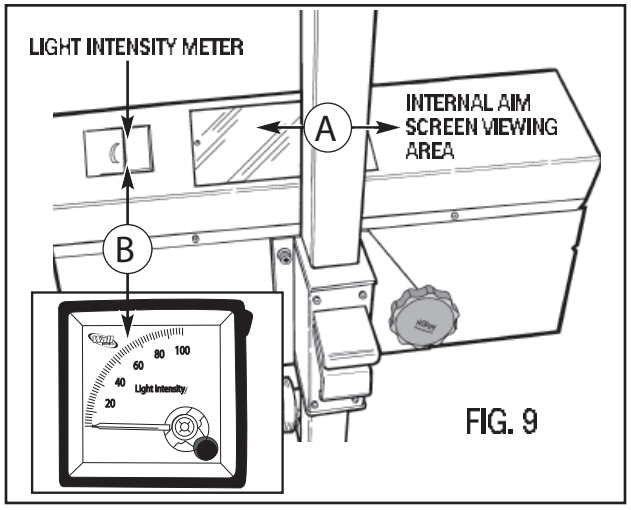


FIG. 9

INTERNAL SCREEN: LOW BEAM PATTERN

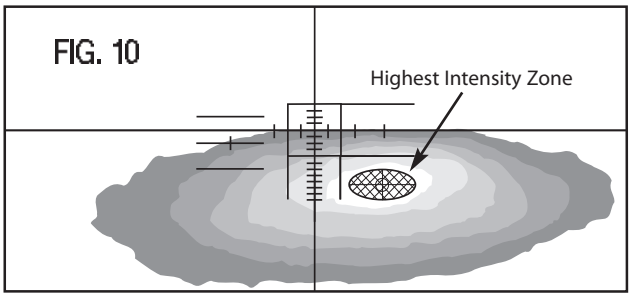


FIG. 10

INTERNAL SCREEN: HIGH BEAM PATTERN

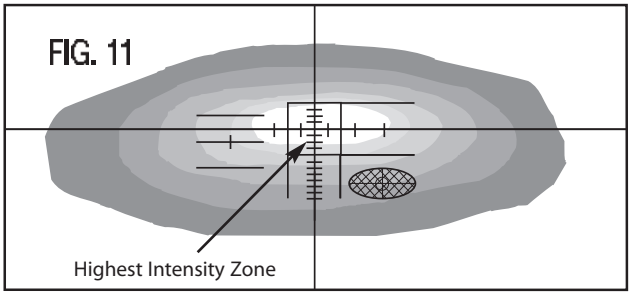


FIG. 11

INTERNAL SCREEN: VOR BEAM PATTERN

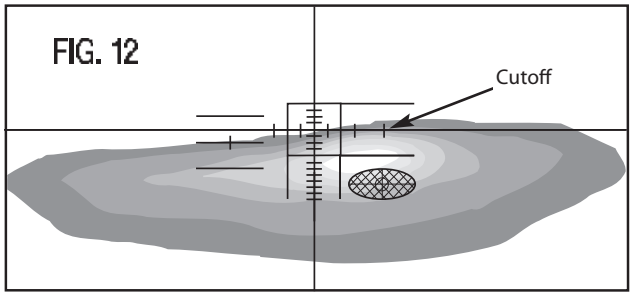


FIG. 12

INTERNAL SCREEN: VOL BEAM PATTERN

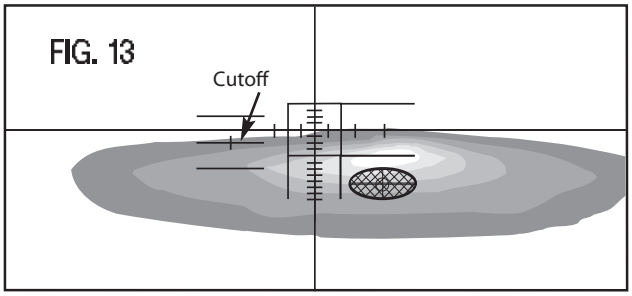


FIG. 13

INTERNAL SCREEN: FOG LAMP BEAM PATTERN

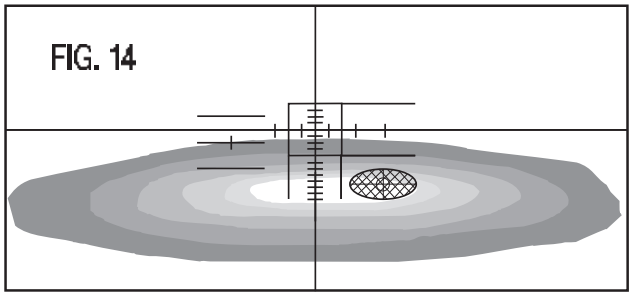


FIG. 14

VO lamps are set with the upper beam cutof fs, not the highest intensity zone. VOR use the right side of the beam pattern (Fig. 12). VOL use the left side of the beam pattern (Fig.13).

NOTE:

The vertical aim scale is provided with graduated incre - ments in steps of 25mm (1 inch) at 25 feet, both above and below the horizontal line.

The horizontal aim scale is provided with graduated increments in steps of 50mm (2 inches) at 25 feet, both left and right of the vertical line.

This manual should be read in its entirety before operating the VA25. If you have questions, please contact American Aimers Technical Support at 1-877-343-7703.