

MODEL VH-1 VEHICLE ADAPTER KIT



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1.0 ASSEMBLY AND OPERATING INSTRUCTIONS

1.1 VH-1COMPONENTS

- A. Carrying case with foam insert.
- B. 2 – Large area detector bottom supports
- C. 1 – 10 foot plastic threshold with 1- 25' D Connector cable
- D. 2 - Weather resistant end covers for detectors.

1.2 SYSTEM ASSEMBLY



AM-801 PARTIALY ASSEMBLED

NOTE: Cable in picture with black connector is not on new model AM-801

Figure 1

- A. Remove the detector assemblies from the AM-801 carrying case.
- B. Attach Detector # 1 and Detector #2 together then repeat for Detector #3 and Detector #4 then lay out as shown in Figure 1
- C. Remove the Large area detector bottom supports from the VH-1 Kit Case.
- D. Attach the bottom supports to the bottom end (end with long notches on each side) of each detector. Leave the detectors lying horizontal.
- E. Place the detectors in the area where they will be utilized. Place the detectors approximately 10 feet apart with the detector window facing each detector.
- F. Remove the plastic threshold and the 25' D-Connector cable.
- G. Place the threshold between the detectors.
- H. Carefully run the D-Connector cable up the outside of each detector to the TOP open end of each Detector Unit.
- I. Connect the D-Connector cable to the D-Connector cable adapter in the TOP end of each Detector Unit (Figure 2).
- J. Carefully stand each Detector Unit in the upright position.
- K. Be sure the interconnecting D-Connector cable is cover by the threshold where vehicles will be crossing the cables
- L. Place the weather caps over each end of the Detector Units (Figure 3).
- M. Remove the MAIN CONTROL Unit from the AM-801 case and connect to Detector #1
- N. Remove the power transformer from the AM-801 carrying case and connect to the bottom of the MAIN CONTROL unit and to a 120 vac power supply.

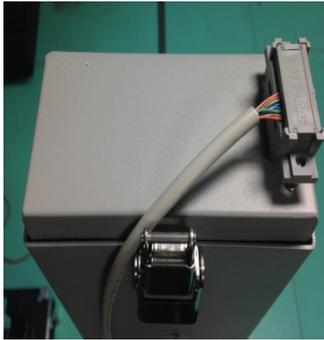


Figure 2

CABLE ON TOP PROPER CONNECTION

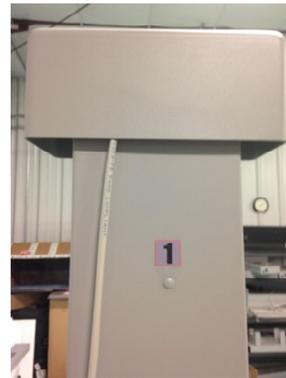


Figure 3

WEATHER PROOF END CAP
PROPERLY INSTALLED

AM-801 W/VH-1 VEHICLE KIT FULLY ASSEMBLED

1.3 SYSTEM ALIGNMENT

NOTE: THIS IS A VERY IMPORTANT STEP TO ENSURE PROPER MONITOR OPERATION – MAKE SURE THAT AM-801-4 IS HIGH LIGHTED (SELECTED AS MODEL OF OPERATION) ON THE MAIN DISPLAY – IF IT IS NOT PLEASE PERFORM STEP 1.4.2 BEFORE ALIGNMENT.

- A. Open the MAIN CONTROL unit door and turn on the power switch in the upper right corner of the housing.
- B. The detector with the MAIN CONTROL unit has a round opening on the inside (side with gray insert) with a window in the middle of the detector. This is the person or vehicle sensor that detects when a person or vehicle is in the MEASURING ZONE of the AM-801,
- C. The other detector has a reflective material at the same elevation as the person/vehicle sensor.
- D. The detector and reflector must be aligned properly for the system to function.
- E. The next part of this procedure will describe a method for correctly aligning the person/vehicle monitor.
- F. Using a tape measure check the distance from the front corner of each detector to the front corner of the opposite detector as per Figure 3.

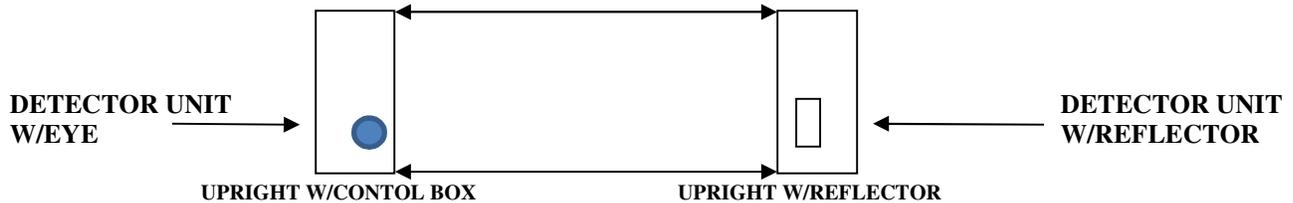


Figure 3

- G. The distance between each corner should vary by no more than $\frac{1}{4}$ ".
- H. Standing behind the detector with the MAIN CONTROL unit. Place your head near the detector at the same elevation as the person sensor window on the inside of the detector. The red light of the laser vehicle/person sensor should be visible on the surface of the reflector. If not rotate the detector slightly until the light is visible. Figure 4 below shows how the red laser appears on the reflector when the alignment is correct.



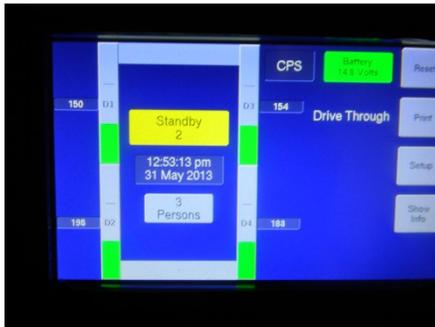
**RED LASER PERSON/VEHICLE
CORRECTLY FOCUSED ON REFLECTOR**

Figure 4

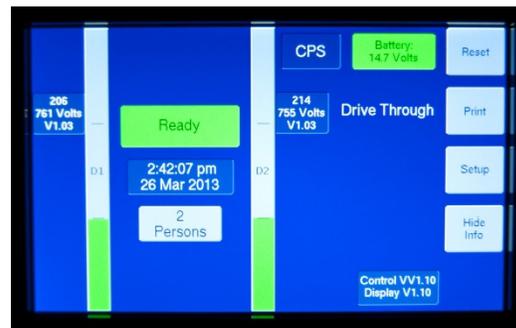
- I. This completes the alignment of the vehicle/person sensor System should now begin to operate normally after completing the initial system checks and background count.

NOTE: IF EYE IS NOT CORRECTLY ALIGNED THE DISPLAY WILL LOOK LIKE Figure 5 THE MONITOR WILL CONTINUE TO STAY IN “STAND BY” MODE UNTIL PROPERLY ALIGNED WHEN THE DISPLAY WILL LOOK LIKE Figure 6 ”READY”

SCREEN FOR INCORRECT ALIGNMENT



SCREEN FOR CORRECT ALIGNMENT



1.4 INSTRUMENT OPERATION – “DRIVE THROUGH” MODE

- 1.4.1 Touch the SETUP button on the display screen to determine if settings are correct. Complete the following steps to assure the system is in the correct operating MODE.
- 1.4.2 To change the Model configuration touch the SETUP button – once the setup screen appears select **AM-801-4** as the Model to be used.

NOTE: IF AFTER RETURNING TO THE MAIN SCREEN THE UNIT HAS ANY BACKGROUND ALARMS DO A HARD RESET (turn main power OFF then back ON) THIS WILL LET THE UNIT RESET ITSELF AND IT SHOULD BE IN THE CORRECT MODEL CONFIGURATION.

- 1.4.3 The “Operating Mode” button in the upper left side of the SETUP screen will display the operating mode “WALK THROUGH”, “DRIVE THROUGH”, “AREA MONITOR” or “TIMED COUNT”. If the operating mode displayed on the button is not “Drive Through” touch the button until “Drive Through” appears.
- 1.4.4 The button below the “Operating Mode” is Minimum Time the vehicle being measured is in the portal. To set the time touch the “Min Time Occupied” button and a numerical key pad will appear enter time in seconds and touch ENTER the screen then should return to the SETUP SCREEN.
- 1.4.5 The button below the “Sound Level” button is the “Alarm (Above Bkg)”. To measure radiation levels of less than 1 μCi at the side of the vehicle set to 75 cps (this number will need to be adjusted depending on the background the instrument is setup in). To set the Alarm touch the “Alarm (Above Bkg)” button and a numerical key pad will appear enter desired Alarm Set Point and touch ENTER screen should then return to the SETUP SCREEN.
- 1.4.6 The other two buttons on the SETUP SCREEN are the “Min Background” and “Max Background” buttons. These buttons are set at the factory. The **MAXIMUM BACKGROUND = 2000 cps AND THE MINIMUM BACKGROUND = 100 cps (make sure this number is set lower than any background being displayed)**. These are operational alarms and tell the operator the background is abnormally high or the background is abnormally low and that the detection system should be checked for proper operation. If the background count exceeds 2000 cps (approximately 20 $\mu\text{R/hr}$) the portal monitor should be moved to an area with less background to assure maximum sensitivity.

- 1.4.7 Select the “Home” button on the lower right side of the screen to return to the Home Screen. Figure 8 shows the Home Screen. Figure 6 shows the Home Screen with data i.e. detector high voltage. To remove the display of this data touch the “Show Info” button in the lower right side of the screen to make the high voltage disappear from the display.
- 1.4.8 To return the vehicle counter to 0 the instrument must be powered down then back up (the counter will return to zero after every power down).

IMPORTANT: Johnson suggests the Detectors be stabilized by filling the 2 large zip lock bags with sand, gravel, dirt etc. and placing each bag on the detector support to further stabilize the detector. If materials like sand, gravel etc are not available then materials like large rocks, bricks etc can be utilized