DESCRIPTIVE AND INSTALLATION

INSTRUCTION MANUAL FOR

MODEL AH1000, BH1000, AND EH1000

SERIES ANNUNCIATORS

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PROPRIETARY NOTICE

NOTE:

Unless otherwise noted, the paragraphs that follow refer to the entire series of AH1000, BH1000, & EH1000 Annunciators. These include but are not limited to: AH, BH & EH1001; AH, BH & EH1001A; AH, BH & EH1001B; AH, BH & EH1002; AH, BH & EH1002A; AH, BH & EH1002R/O; AH, BH & EH1002R/OA; AH, BH & EH1003 and AH, BH & EH1003A.

Drawing information included at the end of this manual only refers to the AH1000 series. If detailed reference to a BH1000 or EH1000 series unit is required, a "24" x "36" blue print drawing will be included as an accompaniment to this manual. See Paragraph 9.2 for more...

1.0 UNPACKING AND HANDLING

1.1 Immediately upon receipt the packing list should be examined to assure that there is no shortage. The package list is always an integral part of every shipment and for shipments involving several containers, the one marked "Packing List Enclosed" should be opened first.

1.2 Immediately after unpacking, a visual check should be made with particular attention to the following areas:

a. Any concealed damage to the enclosure, especially to assure that painted surfaces are free from marks or scratches.

b. All lens caps and engraved plated to assure that they are securely in place.

c. All terminal barrier screws to assure that they are properly tightened.

d. All point modules and in general paying particular interest to solder connections to assure that there are no loose wires..

1.3 If there is physical damage due to improper handling by the carrier, preserve packing container and call the carrier immediately. We will instruct you on how to file a claim. After notifying the carrier, Seekirk, Inc. should be informed as to the specific equipment and extent of damage. This will insure proper repair or scheduling of replacement equipment prior to setting the claim with the carrier. Always include as much information as possible to avoid undue delays and identify with your purchase order number; Seekirk's internal SOR number, and Serial Number, (see packing list). Any claim for shortage, defects, or errors in shipment must be made in writing and within ten days after receipt of goods.

2.0 GENERAL DESCRIPTION

2.1 All AH, BH & EH1000 Series annunciators are of a rigid steel construction with a "bottom hinged" front cover. The unit is a 4H x 3W array of lamps and switches and will be referred to as Group A, Group B and Group C of lamps and switches. Group A is on the right front, Group B in the center front and Group C on the left front. Each Group will have (4) rows of lamps on the left and (4) rows of switches on the right. For each group the number 1 point module is located at the bottom, i.e., 1A, 1B and 1C. There a total of (12) points per unit. Nameplates, if engraved by Seekirk will be affixed between each lamp and the corresponding switch. If no engraving has been specified, blank nameplates and J-Bolts for flush mounting will be placed inside of the unit.

2.2 Typically, the AH, BH or EH Series of annunciators are designed for either flush mounting or 19 inch Rack mounting. For the latter, removable 19 inch rack “ears” are attached to the standard unit with ¼” bolts and nuts. This allows for mounting directly into a 19” Rack. If the 19 inch rack “ears” are left off of the unit, it can be either “flush” mounted into a standard enclosure or “wall” mounted onto a panel. Typically the terminals are mounted on the rear of the unit it either 19 inch rack mounted or flush mounted. If the unit is wall mounted, the terminals are mounted on the inside of the unit on the rear wall. To gain access to the interior of the AH , BH or EH1000 Series annunciators, a "wing nut" is provided at the top of the front cover. Rotating this in a counterclockwise direction will release the front cover, which can then be pulled forward and downward. The AH, BH or EH1000 Series comes pre-assembled with twelve point modules or relays (three groups of four) fastened securely to the back side of the front cover. Check to assure that there are (12) modules present and that they are appropriately labeled and dated.

2.3 The point module numbering system for all AH, BH and EH1000 Series annunciators always consist of a four digit number with either a two or three letter suffix. For the A1000 Series the first three digits will be a 911; for the BH1000 Series the first three digits will be a 811; and for the EH1000 the first three digits will be a 976. In all cases the fourth digit will be a 2, 3 or 4 depending upon the voltage; ie. 2=24VDC, 3=48VDC and 4=125VDC. The suffix letters will vary depending upon the Series Module Number. To derive this information, locate the pertinent drawing either at the rear of this manual, or sent with this manual as an attachment. A table on the drawing will provide the

appropriate point module numbers.

2.4 All AH, BH and EH1000 Series annunciators are provided with customer hookup terminals which are located either within the interior or on the rear. They will become apparent once the front cover is opened or referring to the rear of the unit.

3.0 MECHANICAL INSTALLATION

3.1 Wall mounted units are installed by mounting the annunciator enclosure securely to the wall with two #12 screws. Hole knockouts are provided on the rear of the enclosure for this purpose. No further mechanical adjustments are required.

3.2 Units to be flush or panel mounted are installed by mounting annunciator through a 8. 25"H x 15.875"W panel cutout, and then securing the four supplied "J" Bolts through the hole knockouts located on the unit sides.

3.3 Units to be mounted into a 19 inch rack panel will have a left and right side “ear” mounted to the unit. The unit can be secured directed into the 19 inch rack via the 1/4 by 9/16 inch slots provided within each ear.

3.4 Conduit knockouts are provided at the top an bottom of unit to facilitate wire installation for the wall mounted units or the units flush mounted with integral terminals. These are 1-1/8" knockouts which will accommodate 3/4" conduit.

4.0 ELECTRICAL INSTALLATION - GENERAL

4.1 All Series AH, BH and EH1000 annunciators are provided with a eight position input terminal barriers and eight position auxiliary output terminal barriers. The number and grouping of terminal barriers will vary from Model to Model and it is best to refer to the drawing provided with this manual for proper hookup and wiring.

5.0 FIELD WIRING AND CHECK OUT

CAUTION: The following test are functional. If voltage breakdown tests or insulation resistance tests with other than a low voltage ohmmeter are to be performed, all TEST-RESET/OFF-ON switches must be placed in the RESET/OFF or center position, in order to prevent damage to the internalcomponents and relay contacts.

CAUTION

VOLTAGES DANGEROUS TO LIFE ARE PRESENT
WHEN POWER IS APPLIED TO THIS UNIT

5.1 To insure proper operation of the unit, it is good practice to first connect the battery supply to the positive (+) and negative (-) terminals of the annunciator, i.e. (+) to terminals 5 or 6 and (-) to terminal 7 of TA1, TB1 or TC1. This allows operation of the test switch to check the auxiliary contacts and lamps. If the unit is to be interconnected to a supervisory set or other alarm device, this wiring should be accomplished next and again the test switch used to check operation. Refer to the sequence table on the schematic drawing for proper operation. The next and final step is to wire each individual point to field contacts as required (see par. 10).

5.2 When wiring is completed, a thorough point-by-point test should be performed to insure proper operation and the absence of wiring errors. In some cases, lamps are subjected to severe shock in shipment and may arrive damaged. If the test, pop off the lens cap and pull lamp straight out and replace it. Lamps are slide-base units and may be replaced at any time without removing power from the equipment.

6.0 MAINTENANCE

6.1 No preventive maintenance is required by the equipment. Should a failure occur, analysis and repair of the problem can be accomplished by the removal of suspected faulty modules and their replacement with spare modules known to be good.

For replacement of a point module within the AH1000 or BH1000, first “module hold down” bar which holds the modules in place most be unscrewed and removed.

For the AH1000 Series units, the point modules are soldered directly to their adjacent switches and lamps. Replacement of these modules will require the removal of the faulty point module by either de-soldering or cutting the wires attached to it. The new module then must be re-soldered into place.

For the BH1000 Series units, the point modules all have "in-line" connectors, which are pushed onto pins that have been attached to each point module. Replacement entails the removal of these connectors by pulling them away from the module. The point module is then free to be lifted from its position, and the new module can be put back into place by simply reversing the above procedure. Finally, the hold down bar can be re-attached via the two screws.

For replacement of the relay modules within the EH1000 Series, simply grasp each firmly and pull to unplug. Re-insert the new relay by appropriately lining up the pins with the socket and push firmly into place.

It is recommended and good practice to have available spare modules for such repair even though failures are infrequent.

7.0 SPARE PARTS LIST

7.1 The design of Seekirk equipment minimizes the number of spare parts required. When ordering spare parts it is a primary importance to specify units by part and Serial Number to insure exact interchangeability and proper operation. Spare parts orders received after shipment will be billed at existing prices at that time.

7.2 Recommended spare parts consist of the following items:

(10) Lamps, specify 24PSB, 48PSB OR 120PSB for 24VDC, 48VDC OR 125VDC or VAC units, respectfully.

(2) Point or Relay Modules. See applicable drawings for the correct number designation.

8.0 WARRANTY

8.1 Seekirk warrants that the apparatus delivered will be of kind and quality described in the order or contract. In connection with the apparatus sold, Seekirk agrees to correct any defect(s) in workmanship or material, which may develop under proper or normal use during the period of one year from date of shipment, by repair or by replacements, freight paid by customer both ways, or the defective part(s), and such correction shall constitute a fulfillment of all Seekirk liabilities in respect to said apparatus. In no event shall Seekirk be liable for consequential damage.

9.0 DRAWINGS

9.1 The following drawings are considered to be standard, and included as part of this instruction manual.

DRAWING NUMBER	**DESCRIPTION**
A1000	GENERAL OUTLINE DIAGRAM

02D100516	A1001
02D100498	A1001A
02D100500	A1001B
02D100515	A1002
02D101126	A1002A
02D100497	A1002B
02D100519	A1002R/O
02D100682	A1003

9.2 Since Seekirk manufactures so many different special A, B and E1000 series annunciators, the listing of these units are too numerous to be included with this manual. At the time of this writing, there are approximately (50) such specials.

Typically, these annunciators are manufactured for specific customer applications, and the specialized model number is newly created at inception. It is usually derived from the standard module number followed by a "-S" suffix, which is followed by a number. An example may be, "A1002-S4". If the annunciator ordered is one of these specialized units, then this manual will be accompanied by large "24" x "26" blue print or an 8-1/2" x 11" Copy. The hookup, point module numbers, etc. details can be derived from this drawing.

Concerning the B and E1000 Series, as a general rule, any A1000 series annunciator can be equipped with plug in modules and will then be referred to as the equivalent B or E1000 series. If the large "24" x "36" or 8-1/2" x 11" copy or the B and E1000 series is missing as part of this manual, the equivalent A1000 series drawing may be utilized for basic wiring and hookup details. The main differences are that the B1000 series units utilize "811.." plug in point modules, whereas the A1000 series annunciators utilize "911..." wire in point modules. The E1000 Series are equipped with the equivalent 976...plug in Relay Modules.

The basic A1000 series drawings are included as part of this manual.

10.0 APPLICATION NOTE

10.1 For the A1000 and B1000 Annunciators, field precautions when utilizing the auxiliary contacts should be exercised. The contact rating of the auxiliary contacts are limited and the following ratings apply:

Max. Watts DC.....25 Watts DC
Max. Amperers DC.....2.0 Amps DC
Max. Volts AC.....250 VAC

Example:

For 50VDC load, Max. I = .3 Amps
For 130VDC load, Max. I = .115 Amps

10.2 For the E1000 Annunciators, field precautions when utilizing the auxiliary contacts should be also be exercised, but the contact rating of the auxiliary contacts are more highly rated than are those of the A1000 and B1000 Series. For the E1000 Series, the following ratings apply:

Max. Watts DC.....90 Watts DC
Max. Amperers DC.....3.0 Amps DC
Max. Volts AC.....250 VAC

Example:

For 50VDC load, Max. I = 1.8 Amps
For 130VDC load, Max. I = 0.69 Amps

10.3 Contact protection for auxiliary relay contacts should be exercised to limit excess wear on the contacts. Since the contacts of most relays now manufactured are gold flashed with almost zero internal resistance, in some cases where inductive or capacitive loads are being driven, the following precautions should be exercised.

For inductive loads such as relays, it is a good practice to always place a 1N4007 diode across the load relay in order to prevent an inductive current transient to occur across the auxiliary contact of the annunciator when the loading relay is being de-energized. The cathode of the diode should always face the (+) positive voltage source.

For capacitive loads, it is a good practice to place a 100 ohm - 1 watt resistor in series with the auxiliary output contact of the annunciator. This small resistance is typically negligible compared to the load input impedance; however, the resistor will limit the maximum current transient voltage peak at the instant of auxiliary contact closure.