

INSTRUCTION MANUAL

AD-8951

AND
A&D Company, Limited

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imno-AD8951-v.1

WARRANTY

Warranty rights vary from country to country but it is the general intention of A&D Co., Ltd., to offer customers a one year warranty on this product from the day it is purchased. In some countries consumer protection legislation states that your dealer is responsible for offering a warranty and under these circumstances please refer to your local dealer.

In the U.S.A. the product (if defective) should be returned, freight prepaid by the customer, to A&D Engineering Inc. in California and in Europe the product can be returned freight prepaid to A&D Instruments GmbH in Frankfurt, West Germany. Elsewhere the product can be returned to A&D Co., Ltd. in Japan. In any event please contact your nearest A&D office, before shipping, to confirm that the product is covered by this warranty. Simple repairs can be carried out by your local dealer under warranty and this may be the fastest method of solving your problem.

This warranty only applies to product failures due to defective materials and/or workmanship. This warranty will be rendered invalid if, upon inspection, it is found that the product was: Abused; used for a purpose for which it was not designed; mishandled; placed in a hostile environment; repaired by unauthorized personnel; improperly installed or not adjusted in accordance with instructions given in this manual.

If repair under warranty is confirmed by A&D, then the product will be repaired (or replaced, at the discretion of A&D) and then returned to the customer at no extra cost.

COMPLIANCE WITH FCC RULES

Please note that this equipment generates, uses and can radiate radio frequency energy. This equipment has been tested and has been found to comply with the limits of a Class A computing device pursuant to Subpart J of Part 15 of FCC rules. These rules are designed to provide reasonable protection against interference when equipment is operated in a commercial environment. If this unit is operated in a residential area it might cause some interference and under these circumstances the user would be required to take, at his own expense, whatever measures are necessary to eliminate the interference.

(FCC = Federal Communications Commission in the U.S.A.)

INTRODUCTION

Thank you for purchasing this A&D product

Every care has been taken during the manufacturing process of this product to try to ensure that it will perform reliably for many years.

The AD-8951 Comparator Lights are designed to be used with A&D system components which have a three stage Comparator Function --- that is, products which have comparator relay output for HI, GO and LO signals. Products in this category include the Platform Scales, FV, FW & FV-WP and also the Digital Comparator unit AD-8512 (AD-8511). Generally speaking the Red lamp is regarded as HI, Green equals GO and Orange/Yellow equals LO. The lamp bulbs can be replaced when blown and the position of the filters on the "Signal Tower" can be switched, if wanted. This equipment is AC operated and is not recommended for wet environments unlike the Platform Scales. For safety, the metal AD-8951 case must be earthed and, for complete protection, please use a sensitive earth leakage trip on AC240V power supplies.

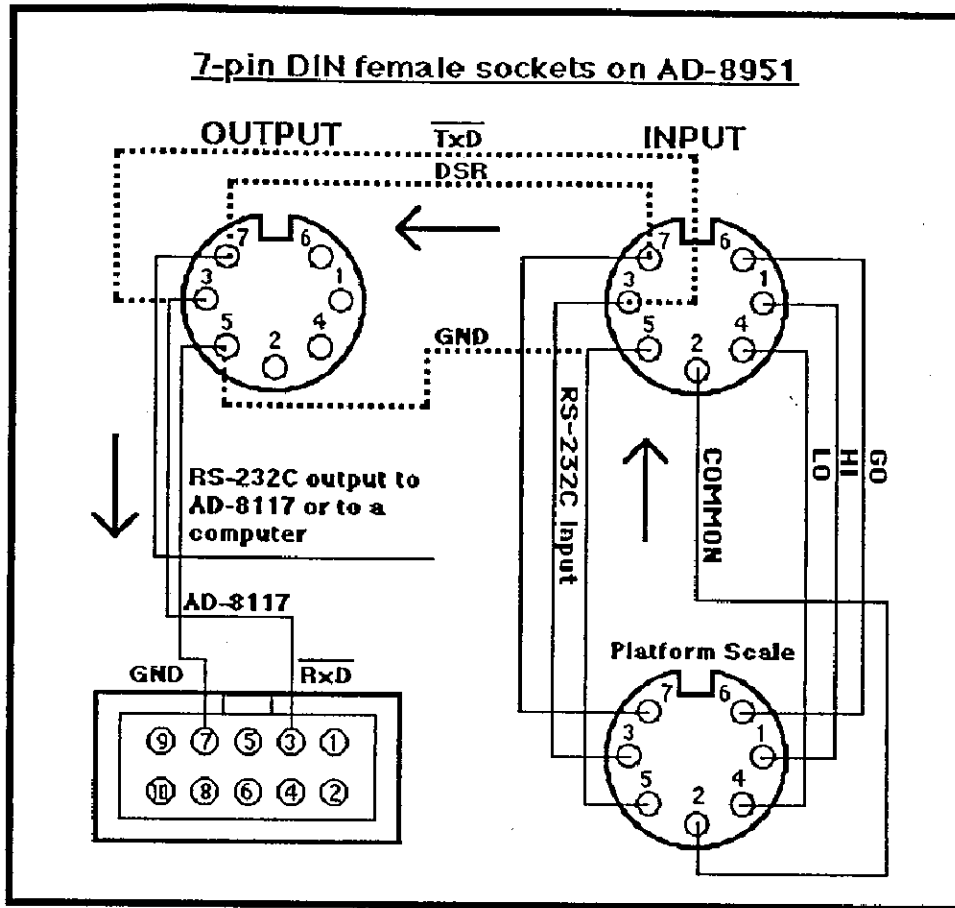
As far as the FV, FW & FV-WP Platform Scales are concerned, the check weighing display has "HI", "GO", and "LO" (LCD type annunciators), with two setpoints available for setting "HI" and "LO" limits. When the optional RS-232C Interface is installed in the Platform Scale, a comparator buzzer can be heard and relay output control of AD-8951 becomes possible via the 1st, 2nd, 4th and 6th pins of the 7-pin DIN output connector in the Display Pod. Therefore, the following options must be installed Platform Scales before connection to AD-8951 is possible.

- OP-03 ... RS-232C and comparator buzzer/relay board – not for FV-WP.
- OP-11 ... FV-WP RS-232C and comparator buzzer/relay board.

SPECIFICATIONS

○ Power Supply	... AC240V. 0.15A (use 3A fuse in "BF" type plugs).
○ Consumption	... Approximately 30VA if all lamps lit.
○ Lamp Control	... By relays activated by closing DC12V. 30mA circuits.
○ Lamp Power	... Three AC100V lamps with Red, Green and Yellow filters.
○ Temp. Range	... 0°C to 40°C (32°F to 104°F) RH<85%
○ Weight	... Approximately 3.6kg/7.9lb
○ Dimensions	... 50mm (W) X 250mm (D) X 652mm (H)
○ Accessories	... Power cable, 7-pin DIN connector (TCP:0576), Manual.
○ Connectors	... Two 7-pin DIN sockets; In for lamp control, Out for printer.

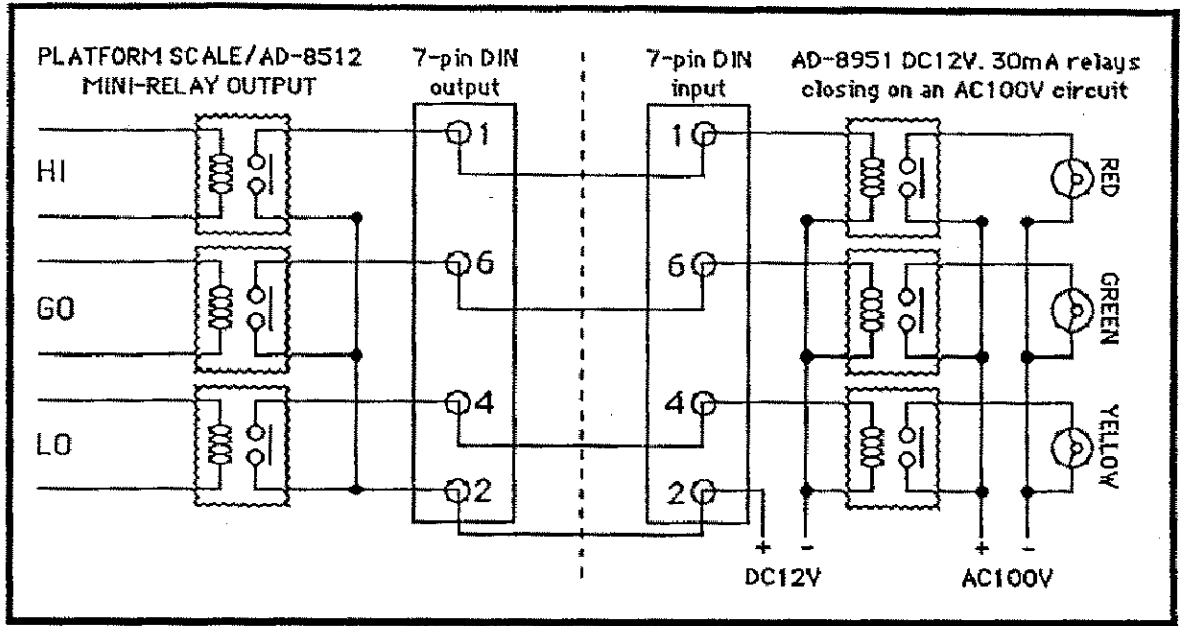
INSTALLATION



You should note that AD-8951 is connected to the Platform Scale by a shielded 7-pin DIN cable with male connectors on each end. AD-8951 has two female 7-pin sockets on the front panel; one for Input and one for Output. The cable from the Platform Scale must be connected to the Input socket. The Input socket is internally connected to the Output socket only on the 5th, 3rd and 7th pins (the RS-232C lines) so that a printer, like AD-8117 (AD-8116), or computer can be connected. Since the number of cables and connectors has increased on this sensitive data line, try to ensure good connections, short cables and low RFI conditions. If the printer is mounted on the optional Display Pod mounting attachment (OP-09 for AD-8117), then you should wire a 4-wire relay cable (like KO:507-S200) into the OP-09 connector in the Display Pod and terminate this cable with a 7-pin plug at the AD-8951 input socket. Ensure clean solder joints without shorts between pins.

There is no relay output control from AD-8951 so customers using the Platform Scale's relay board for automatic system control, should place their relay box between the Scale and Comparator lights. The twin switch, normally open, relays in your relay box should have electromagnets which will close the contacts when provided with less than DC50V, 100mA from a rectified transformer in your relay box. One set of switches can close on a DC12V, 30mA circuit for AD-8951 and the other set of switches can have input specifications suitable for the AC or DC voltages required by the automatic system control.

CIRCUIT DIAGRAM

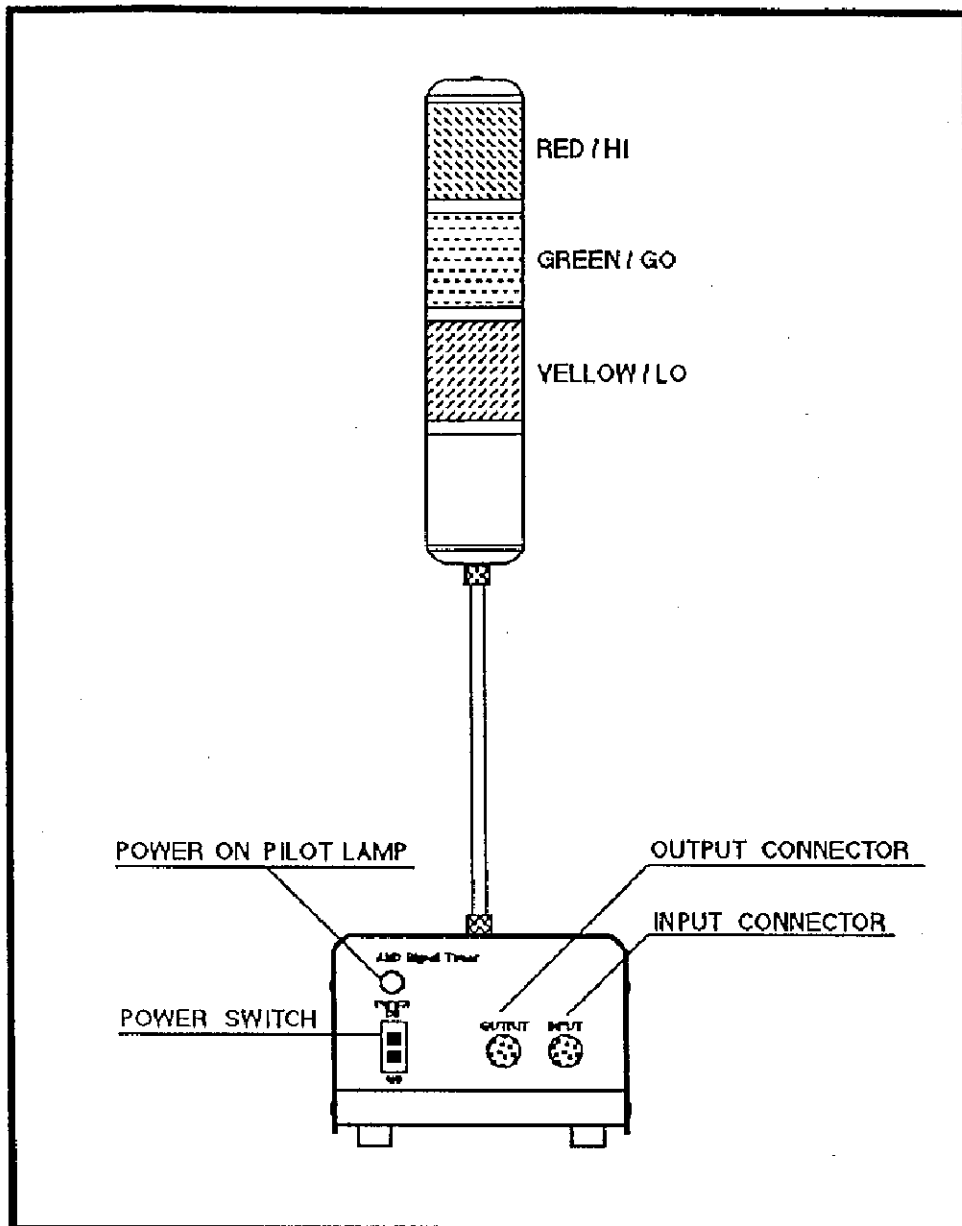


The AD-8951 Comparator Lights can also be connected to the HI, GO, LO output screw terminals on the rear panel of the AD-8512 Digital Comparator. In this case a 4-line cable with a male 7-pin DIN connector on just the AD-8951 end is used. Do not try to connect a double ended 7-pin DIN cable to the Current Loop connector on AD-8512 as nothing will happen. The RS-232C Output connector of AD-8951 will not be connected to any data lines so will be, effectively, dead.

PIN NUMBERS

Pin Numbers for DIN connectors on AD-8951			
Input Connector		Output Connector	
1	Top Red (HI)	1	Not Connected
2	Relay Common	2	Not Connected
3	RS-232C (TxD)	3	From Input (TxD)
4	Lower Yellow (LO)	4	Not Connected
5	RS-232C (GND)	5	From Input (GND)
6	Middle Green (GO)	6	Not Connected
7	RS-232C (DSR)	7	From Input (DSR)

FRONT PANEL



The rear panel contains the 3-pin mains power input connector for AC240V and a fuse holder for a 0.15Amp fuse (the AC100/120V version requires a 0.3A fuse). If the power on pilot lamp will not come on, check external fuses, circuit breakers and the internal fuse in the rear panel fuse holder. If the internal fuse has blown and blows again immediately when replaced, please disconnect the AD-8951 Comparator Lights and have the unit repaired by a qualified service engineer. If any of the lamps fail to switch on, please check the 7-pin DIN cable connectors, the cable for continuity, the lamp bulbs and that AD-8951 is providing the DC12V excitation voltage for the relays.

CONNECTIONS

The AD-8951 Comparator Lights can be connected to A&D Platform Scales, or to the AD-8512 Digital Comparator, using the following cables:

