

**owner's
manual**

**bulk loaded
changers**

ARDAC

More complete technical information and parts manuals are available from the factory on request.

introduction

Thank you for buying an Ardac dollar bill changer. We appreciate your business and want to assure you of our continuing interest in your complete satisfaction.

This manual has been prepared to assist you in the installation, operation and service of your dollar bill changer. Please read it carefully and become familiar with your new changer before putting it on location.



Model C8090

changer models

Ardac manufactures a number of changer models. Among these are a line of compact changers (C8090, C8091, C8790), combination \$1.00 and \$5.00 changers (E8060, E8061, E8960), standard models (T8770, T8771) and models specifically designed for the coin laundry market (L8880).

The letter in the model number refers to the cabinet type. The first number refers to the Mark 8 note acceptor. The second number indicates whether or not the changer is equipped with a coin acceptor. The third number refers to the type of payout. The fourth number refers to any modifications and most frequently indicates the changer is shipped without one of the coin hoppers that normally came as standard equipment.

installation

Ardac changers are extremely versatile. They can be installed many different ways depending on the location; however, there are a few common methods of installation.

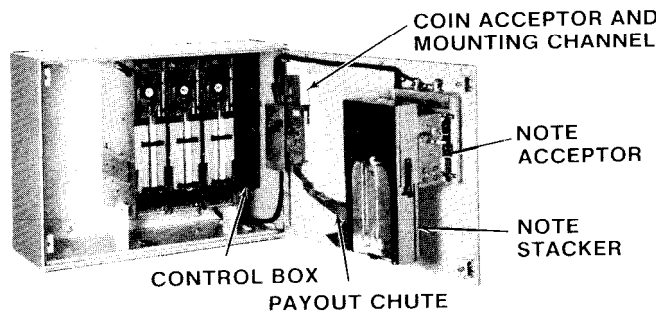
All Ardac changers can be wall mounted on a frame wall, concrete or block wall. A minimum of four bolts should be used to secure the changer. Holes must be drilled in the compact changer and combination changer cabinets and should be located no more than 1/2 inch from the sides. Holes are predrilled on other models. In all cases, mounting hardware should be of sufficient strength to support the changer and the weight of coins in the changer.

Floor stands are available for all changer models. Carriage bolts are used to secure the changer to the floor stand. The floor stand should also be secured to a wall or other vending machines for complete security.

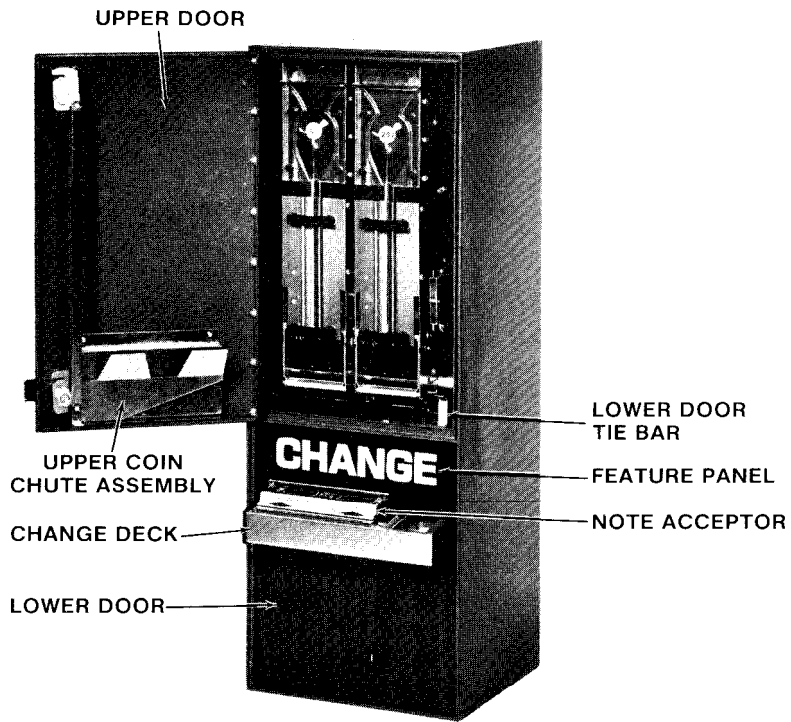
Ardac's compact changer can be mounted between two vending machines. Carriage bolts should be used to secure the changer to vending machines on either side of it and a header kit is available to bring the unit to a full 72 inch height.

The line cord can be run out the back of the changer or out the bottom depending on the installation. Line cord instructions are packed with each changer.

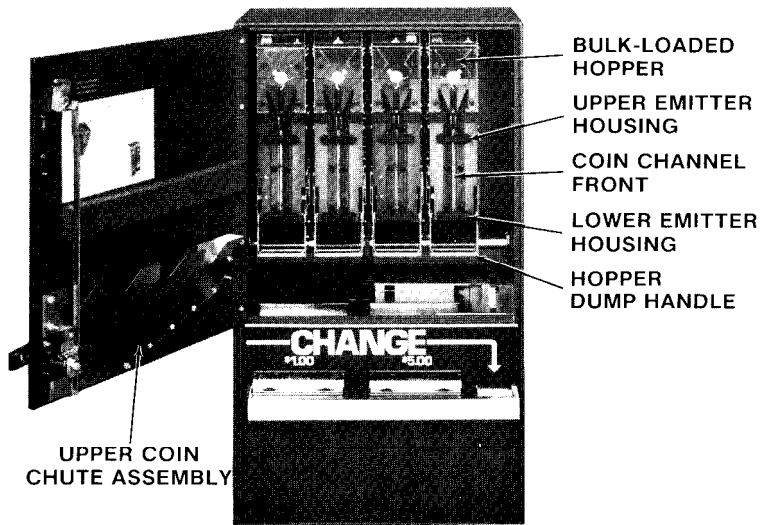
components



Model L8880



Model C8090



Model E8060

specifications

MODELS: C8090 (2 Hopper, 90 lbs, accepts \$1 only)
C8091 (1 Hopper, 75 lbs, accepts \$1 only)
C8790 (2 Hopper, 95 lbs, accepts \$1,
25¢, 50¢*)
T8770 (3 Hopper, 185 lbs, accepts \$1,
25¢, 50¢*)
T8771 (2 Hopper, 170 lbs, accepts \$1,
25¢, 50¢)
L8880 (3 Hopper, 185 lbs, accepts \$1,
25¢, 10¢, 5¢)
E8060 (4 Hopper, 215 lbs, accepts \$1, \$5)
E8061 (3 Hopper, 200 lbs, accepts \$1, \$5)
E8960 (4 Hopper, 215 lbs, accepts \$1, \$5,
25¢, 50¢*)

*or SBA dollar coins

HOPPER CAPACITIES: 1800 nickels, 3200 dimes, 1600 quarters

CHANGER CAPACITY: Up to \$400. per hopper

DIMENSIONS: C8090 34" High, 12" Wide, 10" Deep
T8770 22" High, 29-1/8" Wide, 10-3/4" Deep
L8880 22" High, 29-1/8" Wide, 10-3/4" Deep
E8060 37-3/4" High, 21-1/2" Wide, 11" Deep

ELECTRICAL: Voltage: 105 to 130 VAC
Frequency: 50 to 60 Hz
Drain: .75 amps standby; 3 amps peak

ACCESSORIES: Floor stand, non-resettable counter, dollar bill
stacker, 72" header kit, burglar alarm

routine maintenance

Normally your new changer will not require any maintenance other than occasional cleaning.

The cabinet of the changer may be cleaned with a damp cloth. If necessary, a cleaning solution may be used to remove heavy stains or dirt.

The tray of the dollar bill acceptor is made of clear plastic. It should be wiped clean as often as necessary depending on the location of the changer and the amount of dirt build-up. It is important to remember that cigarette smoke is common in many areas and will make more frequent cleaning necessary.

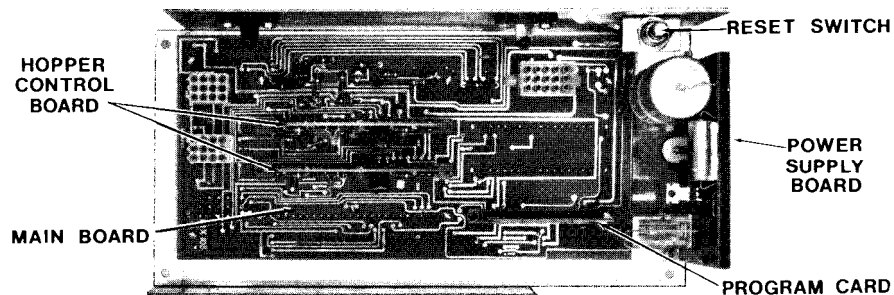
The coin channel of each hopper should be cleaned about once a year, or more often in an exceptionally dirty environment. To clean the coin channel, simply remove the upper and lower emitter housings. Then remove the six thumb screws that hold the coin channel front in place. Clean the entire coin channel with a small brush or pipe cleaner. Clean the two holes in front of the photo transistors making sure no damage is done to the photo transistors located at the back of each hole.

set-up and operation

Once the changer has been installed and connected to a normal 120VAC incoming voltage, it is ready to be put into operation. First, the changer control box should be checked; then, the coin hoppers can be loaded to put the changer into service.

CHANGER CONTROL BOX

The changer control box consists of a power supply board, a reset switch, and main board into which are plugged payout program cards and a hopper control board for each hopper in the changer. All boards and plugs should be firmly positioned to make good contact.



C8090 Control Box

The power supply board is located in the main control box on all changers. It regulates current in the changer. It contains a latching relay which disconnects power to the hoppers and control boards when one or all hoppers are empty. In addition, an inhibit relay on the board prevents dollar bills or coins from being accepted during a payout or when the changer is empty.

This power supply board should never be removed from the changer or installed into the changer without first turning the on/off switch to the off position or disconnecting all power to the changer.

The "RESET" Switch is simply used to turn the hoppers on and off. It is normally used to start the hopper motors and put the changer into operation once the hoppers have been filled with coins. It should not be confused with the circuit breaker or the on/off switch located next to the transformer.

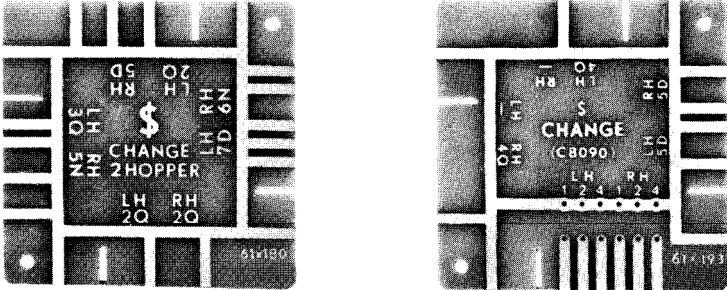
*The reset switch should always be used to turn power to the
hoppers off before any of the control boards are removed.
Failure to do this could result in damage to the boards.*

Payout program cards are supplied with every Ardac changer to provide a wide variety of payout combinations. Changers are normally shipped with cards positioned to provide the most frequently used change combination, but these can be easily changed to meet virtually any requirement.

Typically, program cards contain four possible payouts depending on which side of the card is plugged into the main board. If the bottom side of the C8090 program card shown on the left below is plugged in, for example, the changer will payout two quarters from the left hopper and two quarters from the right hopper. If other coin denominations are used, each hopper will, of course, payout two coins of whatever denomination is in the hopper.

Universal program cards are also available to provide any unusual payouts that may be needed and have not been provided with the changer. These cards are programmed in the field using jumper wires to payout 1, 2 or 4 coins as shown on the right below. Or a jumper wire may be soldered across the 1 and 2 position to payout 3 coins or the 4 and position to payout 6 coins and so forth.

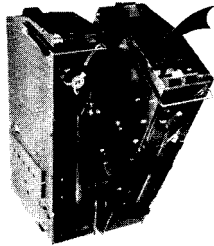
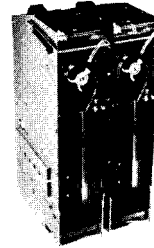
On E8960 combination changers that accept two coins, a single universal program card is used. That part of the card used to program hopper 1 should be used to provide the correct change combination for the largest denomination coin and the part of the card used to program hopper 4 should be used to provide the correct change combination for the smaller denomination coin. This card is then positioned in the middle connector on the main board.



C8090 Program Cards

LOADING AND UNLOADING THE HOPPERS

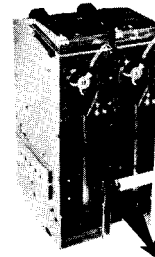
Ardac's bulk-loaded hoppers are completely interchangeable; the only difference is the label on the front indicating which coins to put in which hopper. The correct label should be put on each hopper depending on the payout desired.



To load each hopper, simply pull it forward until the latch spring catches on the front edge of the cabinet. Load coins directly into the hoppers making sure that coins do not drop into the front channel of the hoppers where they could cause a jam. *Do not overload.* The number of coins in each hopper should not exceed the stated capacity. Coins should always be level in the hoppers and should never go above the fill line etched on the side of each hopper.

Care should also be taken to make sure that coins are not loaded into the wrong hopper. Although this will not jam the hoppers, it will provide a customer with the wrong change.

To empty each hopper, lift the hopper dump lever as far as it will go. Coins will empty from the bottom of the hopper and the front channel. A canvas bag can be used to catch the coins using the serrated edges at the bottom of each hopper to hold the bag in place.

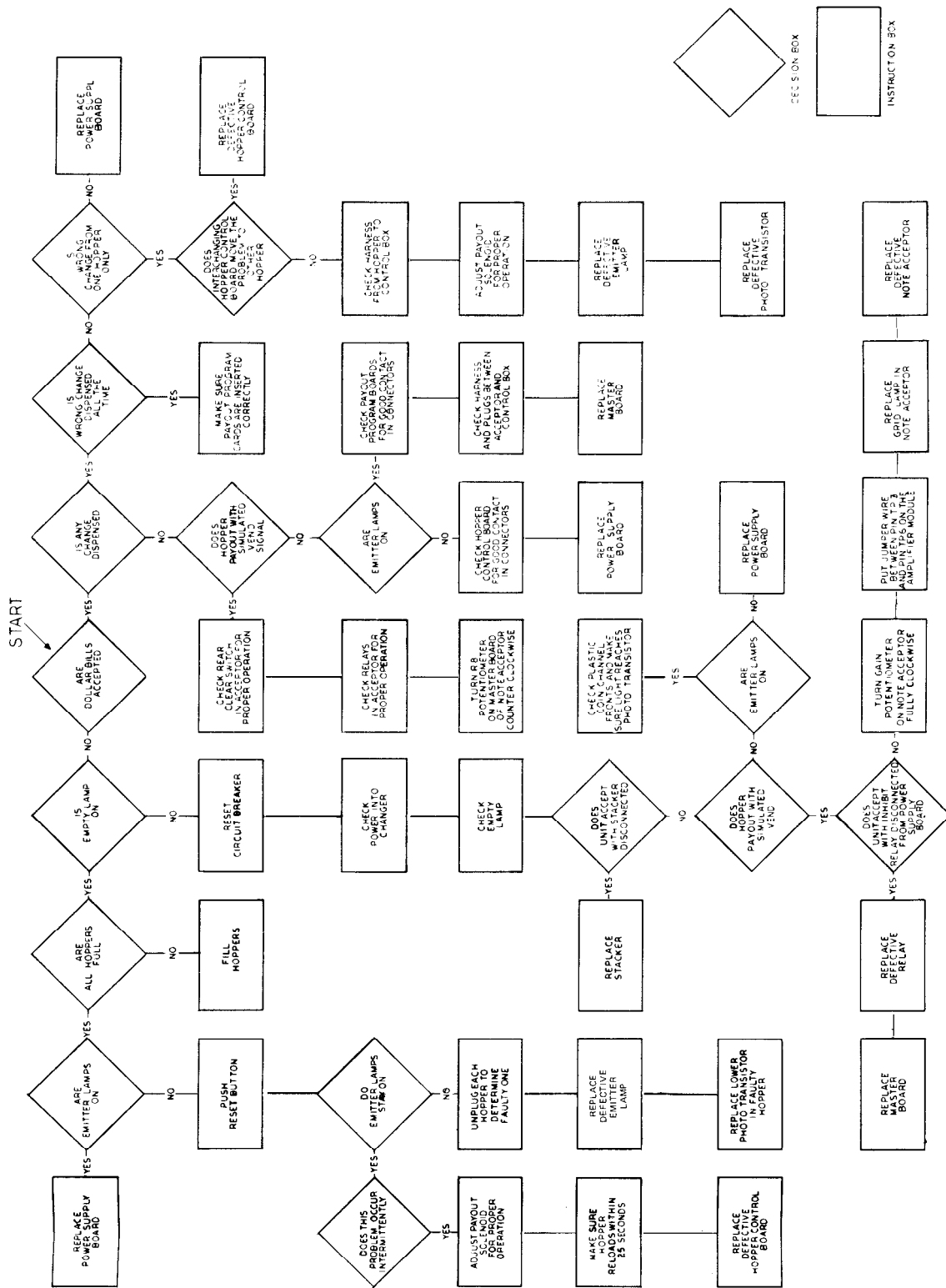


Once the dump lever has been lifted, it should be moved as far up as it will travel. Do not push it down until all coins have emptied from the hopper; otherwise, damage to the hopper can result.

Hoppers in both combination \$1 and \$5 changers and compact changers can be emptied with the bottom door of the changer open or shut. It may be more convenient to empty the hoppers with the bottom door of the changer closed.

Tokens can be paid out of any Ardac changer without modification if the token is between the size of a dime and a quarter. Tokens smaller than a dime or larger than a quarter may require modifications to the hopper which are available at no additional charge.

troubleshooting



service

Both the dollar bill acceptor and the payout system are designed to provide long life and minimum service requirements. In addition the changer has been manufactured with complete modular construction throughout so that any defective part can be quickly replaced with the least possible down time.

Since the bulk-loaded hoppers and the hopper control boards are interchangeable, a problem can be easily located by moving the boards or hoppers. If a problem follows a board, the problem is located in that board, and the board should be replaced. If a problem stays with a hopper, the hopper should be replaced.

If a hopper or hopper control board is defective, the changer can be reprogrammed in the field to use one fewer hopper so the unit will remain operational until a new part can be replaced in the machine.

The coin chute assembly on the upper door of compact changers can be removed and mounted on the lower door under the hoppers to test the changer with the upper door open. Coin catchers for testing other changer models are available from the factory.

For additional assistance please call our Service Department. Outside of Ohio call Toll Free: 1-800-321-0765.

basic parts inventory

PART NUMBER

DESCRIPTION

Dollar Bill Acceptor

2X1866	S.A. Filter Housing
52X20	Plug-in Relay
80X188-1	\$1.00 Tray Label
80X461	\$5.00 Tray Label
9X342	\$1.00 Plastic Tray Insert
9X521	\$5.00 Plastic Tray Insert
2X360	Infra-red Grid Lamp
33X73	Flexator Spring

Payout

2X3251	LED Lamp Assembly
80X303	Coin Label
2X1126	Hopper Control Board
2X1731	Power Supply Board
2X2809	Power Supply Board (E8060)

Cabinet

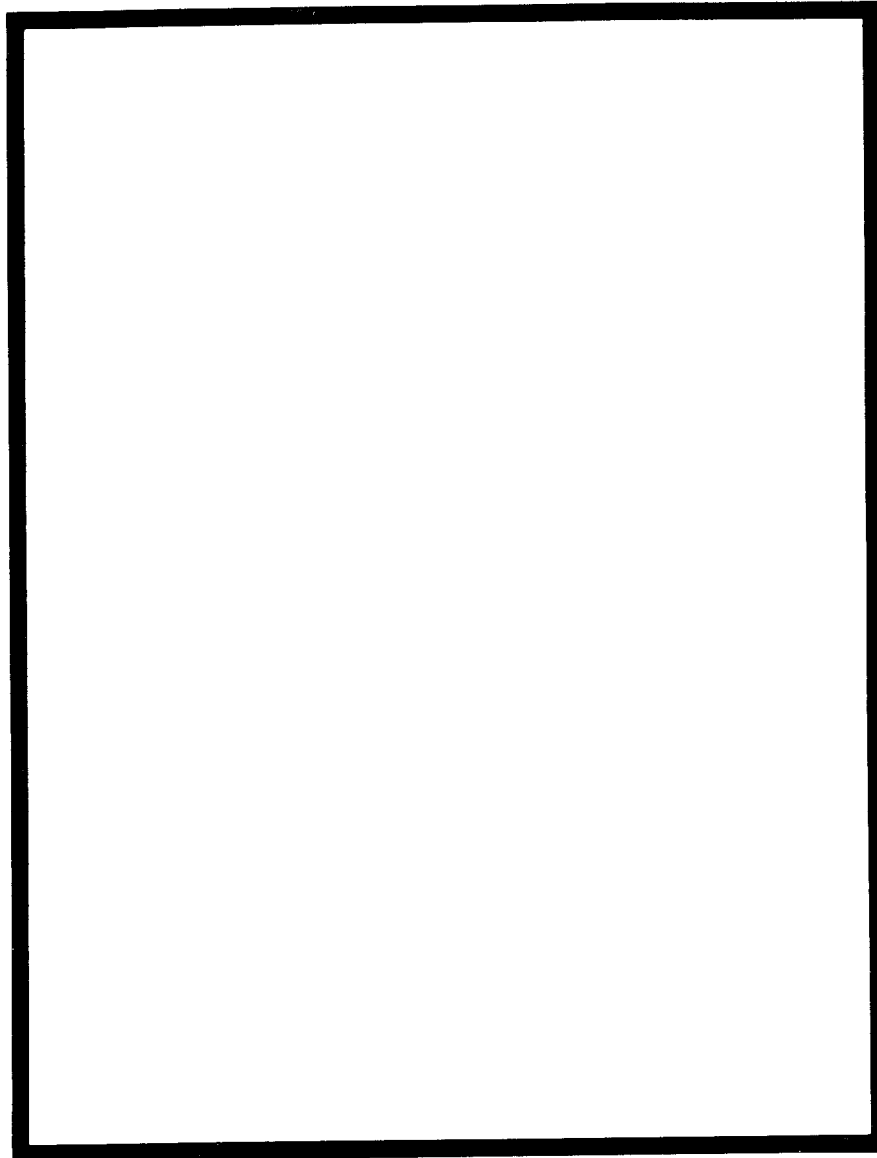
29X28-101	Lock Cylinder w/Keys
65X145	Illumination Lamp

warranty

Products manufactured by Ardac, Inc. are warranted against defects in material and workmanship if operated in accordance with the design specifications for a period of twelve months from date of installation. Corrections of defects in material or workmanship will be made at the factory at no charge to the owner for the first twelve months subsequent to initial installation of the changer. Thereafter, parts and labor expenses will be borne by the owner.

The company reserves the right to improve design and specifications at any time without incorporating these changes into units already manufactured.

This is the complete warranty and is in lieu of any, and supercedes all other warranties expressed or implied.



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