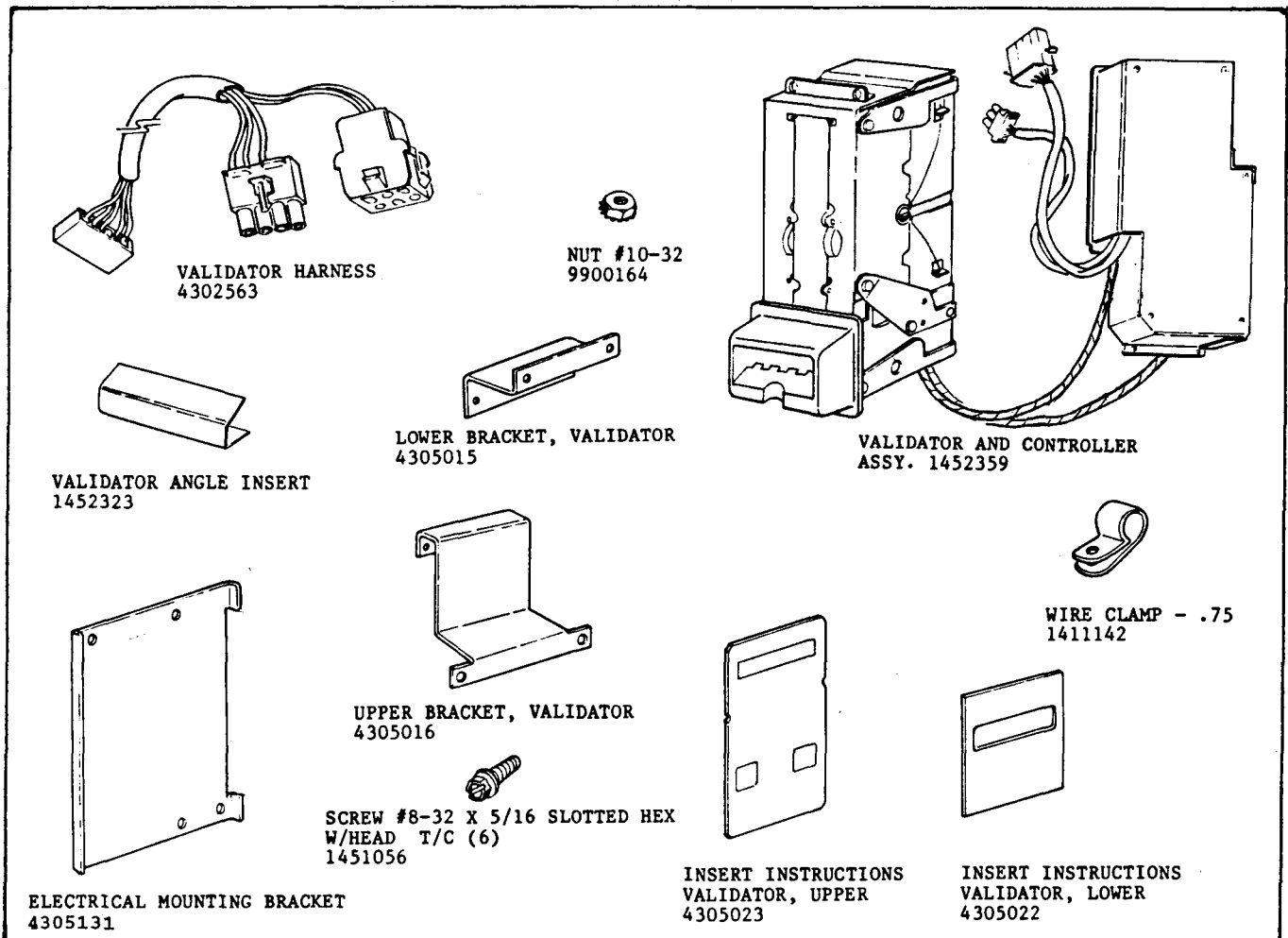


**INSTRUCTIONS FOR INSTALLING A MAK A VALIDATOR KIT P/N 4305059 ON  
A NATIONAL VENDORS SHOPPERTRON MERCHANDISER**

**CHECK THE PARTS RECEIVED IN THE KIT WITH THE PARTS LIST  
IN THESE INSTRUCTIONS. IF ANY PARTS ARE MISSING, CONTACT  
NATIONAL VENDORS' PARTS DEPARTMENT IMMEDIATELY.**

READ THESE INSTRUCTIONS CAREFULLY AND THOROUGHLY BEFORE INSTALLING THIS KIT.  
RETAIN THESE INSTRUCTIONS FOR PART NUMBERS AND INSTALLATION INFORMATION.  
THIS KIT CONTAINS THE FOLLOWING PARTS:

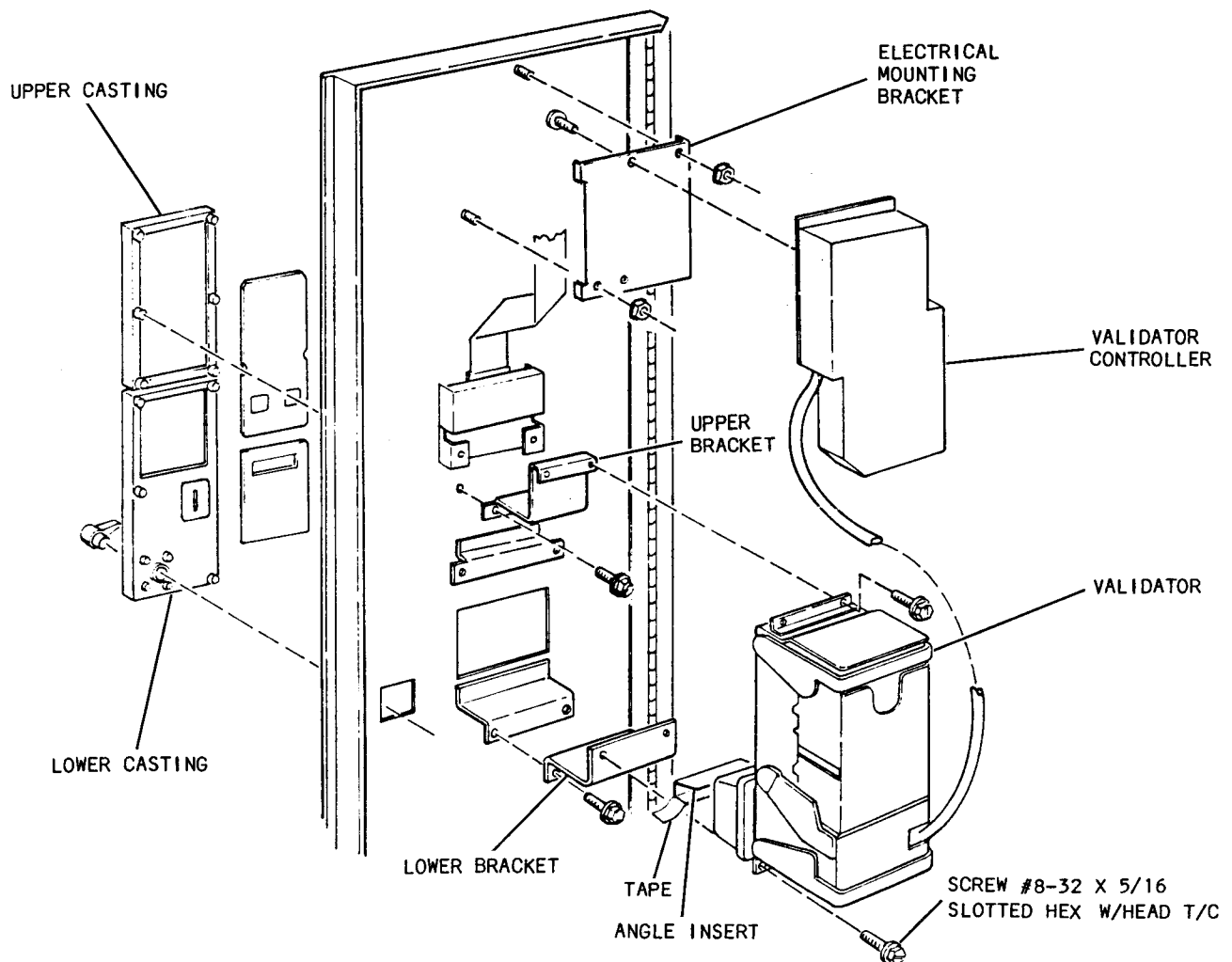
<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1452323	VALIDATOR ANGLE INSERT ASSY.	1
1411142	WIRE CLAMP - .75	1
1452359	VALIDATOR AND CONTROLLER	1
4302563	VALIDATOR HARNESS	1
4305015	LOWER BRACKET, VALIDATOR	1
4305016	UPPER BRACKET, VALIDATOR	1
4305131	ELECTRICAL MOUNTING BRACKET	1
4305023	INSERT INSTRUCTIONS VALIDATOR, UPPER	1
4305022	INSERT INSTRUCTIONS VALIDATOR, LOWER	1
1451056	SCREW #8-32 X 5/16 SLOTTED HEX W/HEAD T/C	6
9900164	NUT #10-32	2
4305060	INSTALLATION INSTRUCTIONS	1



**FIGURE 1**

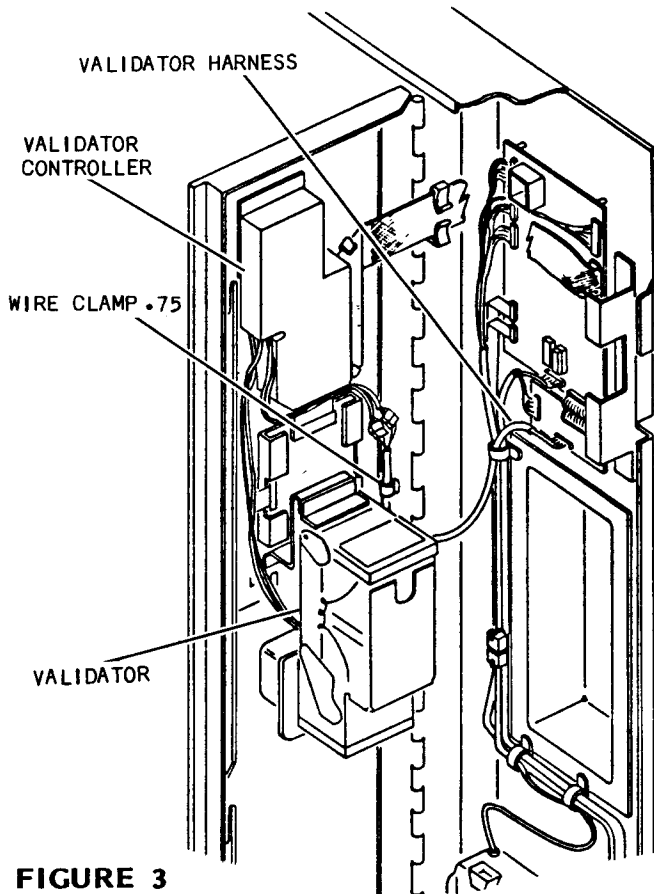
**MECHANICAL INSTALLATION** (Figure 2)

1. Remove the Scavenger Assembly.
2. Remove the Coin Chute.
3. Remove the screws that secure the Lower Casting to the Door Weld Assembly.
4. Replace the old Lower Instructions Insert with the new Lower Instructions Insert and secure the Lower Casting to the Door Weld Assembly.
5. Install the Coin Chute.
6. Install the Scavenger Assembly.
7. Remove the screws that secure the Upper Casting to the Door Weld Assembly.
8. Replace the old Upper Instructions Insert with the new Upper Instructions Insert and secure the Upper Casting to the Door Weld Assembly.
9. Tape the Validator Angle Insert to the Bill Insertion Opening of the Validator.



**FIGURE 2**

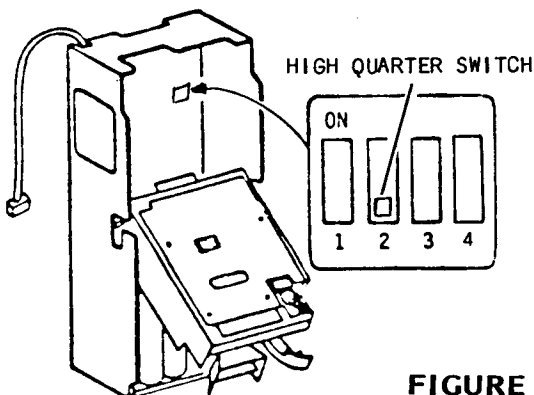
10. Secure the Upper Bracket to the Door Weld Assembly and to the Center taps in the Upper Casting.
11. Secure the Lower Bracket to the Door Weld Assembly.
12. Secure the Electrical Mounting Bracket to the back of the Controller using two of the #8-32 x 5/16 screws.
13. Secure the Electrical Mounting Bracket to the Door Weld Assembly using the #10-32 nuts.
14. Secure the Validator to the Upper Bracket and the Lower Bracket using four of the #8-32 x 5/16 screws.



**FIGURE 3**

**ELECTRICAL CONNECTION** (Figure 3)

1. Free the Data Switch Assembly and remove the cover on the Main Controller.
2. Connect the Validator Harness to the two connectors leading to the Controller and to the Coin Mechanism - Validator Interface.
3. Secure the Validator Harness to one of the Door Hinge mounting screws using the Wire Clamp.
4. Insert the Validator Harness in the Wire Clamp that is secured to the Validator Housing.
5. Install the Cover on the Main Controller and secure the Data Switch Assembly.



**FIGURE 4**

**SET-UP** (Figure 4)

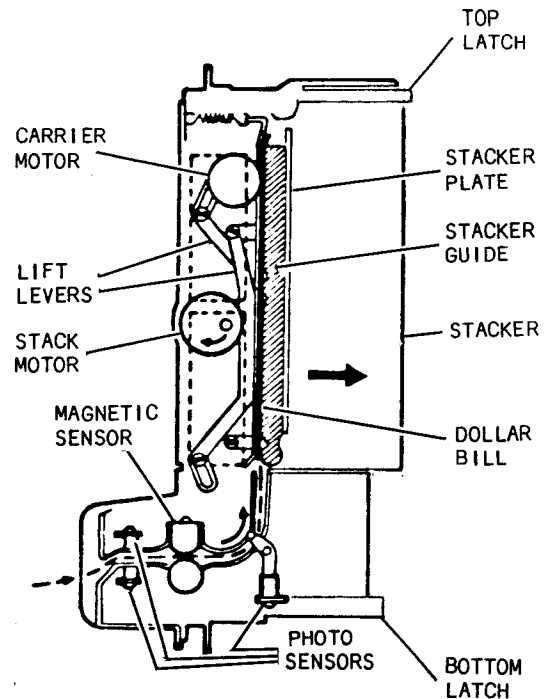
- . Refer to the Program Operations section of the Shoppertron Set-Up Instructions for information on Setting the Machine Configuration.
- . If the changer is a MARS TRC 6000, the High Quarter Switch must be set to the "OFF" position.

## REMOVING STACKED BILLS (Figure 5)

- . Push UP on the Latch on the top of the Stacker.
- . Pull DOWN the Stacker and pull the bills out of the Stacker.
- . Carefully return the Stacker to the original position.

## PRINCIPLES OF OPERATION (Figure 5)

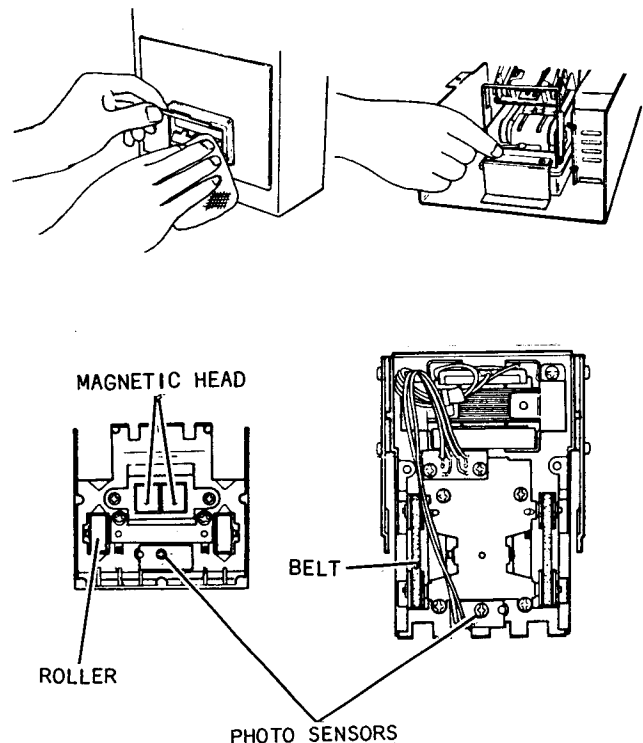
- . When a bill is inserted, the Carrier Motor is energized and advances the two Belts.
- . The Belts move the bill past the Photo Sensors and the Magnetic Sensors.
- . If the bill is authentic, a vend signal is output and the bill is stacked.
- . If the bill is counterfeit, the Belts reverse direction and return the bill.



**FIGURE 5**

## CLEANING THE VALIDATOR (Figure 6)

- . Wipe the Bill Insertion Opening with a soft cloth.
- . With the Stacker open, push DOWN on the Bottom LATCH and lift up on the Stacker. This provides access to the Rubber Rollers, Magnetic Heads and Photo Sensors.
- . Wipe the Rubber Rollers and the Belts with a soft cloth.
- . Clean the Magnetic Heads and Photo Sensors with an applicator dipped in denatured alcohol.
- . Refer to the Routine Service and Sanitation section of the SHOPPERTRON Set-Up Instructions for additional information.



**FIGURE 6**

P/N 4305059

DETAILED TASK ANALYSIS OF  
INSTALLATION PROCEDURE

SAVE FOR FUTURE  
REFERENCE

If you are not familiar with the assembly details of the SHOPPERTRON, these instructions have been designed to save you time. When a part on the SHOPPERTRON is called out for the first time, it is followed by two numbers in parentheses. The first number refers you to one of the FIGURES in the SHOPPERTRON PARTS MANUAL and the second number refers you to the INDEX NUMBER for the specific part.

INSTRUCTIONS FOR INSTALLING A MAKA VALIDATOR KIT  
ON A NATIONAL VENDORS SHOPPERTRON  
P/N 4305059

TO AVOID ELECTRICAL SHOCK AND POSSIBLE CIRCUIT DAMAGE,  
DISCONNECT THE SHOPPERTRON FROM THE POWER SOURCE  
BEFORE INSTALLING THIS UPDATE KIT.

FIRST DRAFT

R. THOMSON 2/19/88

### Removal of Scavenger

Unhook the SPRINGS (22-10) from the LEVER (22-5)

Remove the COTTER PIN (22-8) which connects the HANDLE (22-1) to the SHAFT (22-4)

Separate the SHAFT from the HANDLE and remove both from the merchandiser.

Remove the four screws that secure the STOP (22-3) and the BEARINGS (22-2) to the LOWER CASTING (21-12).

Remove the BEARINGS and the STOP from the machine.

### Removal of Coin Chute

Remove the two screws that secure the COIN CHUTE (21-30) to the CHUTE MOUNTING BRACKET (21-8)

Remove the screw that secures the COIN CHUTE to the COIN INSERT (21-14)

Remove the COIN CHUTE from the machine.

REFER TO FIGURE 2

### Replacement of Lower Instructions Insert

Remove the screws that secure the LOWER CASTING (21-12) to the DOOR WELD ASSEMBLY (21-4)

Replace the old LOWER INSTRUCTIONS INSERT (21-13) with the new LOWER INSTRUCTIONS INSERT.

Secure the LOWER CASTING to the DOOR WELD ASSEMBLY.

### Installation of Coin Chute

Secure the COIN CHUTE to the CHUTE MOUNTING BRACKET

Secure the COIN CHUTE to the COIN INSERT. DO NOT OVERTIGHTEN.

### Installation of Scavenger

- Position BEARING on back side of Lower CASING.
- Secure STOP and BEARING to Lower CASING.
- Secure the HANDLE to the SHAFT using the Cotter Pin.
- Hook the SPRING into the hole in the LEVER.



### Replacement of Upper Instructions Insert

Remove the screws that secure the UPPER CASTING (21-1) to the DOOR WELD ASSEMBLY (21-4)

NOTE: Be careful when <sup>removing</sup> and securing the upper left-hand screw. Failure to do so could damage the leads to the PUSHBUTTON ASSEMBLY (21-3)

Replace the old UPPER INSTRUCTIONS INSERT (21-2) with the new UPPER INSTRUCTIONS INSERT.

Secure the UPPER CASTING to the DOOR WELD ASSEMBLY. Only the four corner screws should be used at this time.

NOTE: In some models, it may be necessary to remove the DATA ACCESS COVER (21-9) first.

Preparing the SHOPPETRONI for installation of the validator and controller

Secure the UPPER BRACKET (21-33) to the DOOR

WELD ASSEMBLY and the UPPER CASTING.

Secure the LOWER BRACKET (21-26) to the DOOR WELD ASSEMBLY.

Secure the ELECTRICAL MOUNTING BRACKET (21-34) to the back of the CONTROLLER using two of the #8-32 x 5/16 screws included in this kit.

Tap the VALIDATOR ANGLE INSERT to the mouth of the VALIDATOR.

Installation of the VALIDATOR and the CONTROLLER

□?

Secure the ELECTRICAL MOUNTING BRACKET to the DOOR WELD ASSEMBLY using the #10-32 nuts included in this kit.

Secure the VALIDATOR to the UPPER BRACKET and the LOWER BRACKET using four of the #8-32 x 5/16 screws included in this kit.

REFER TO FIGURE 3

Interconnecting the Controller and the Control Board

Remove the screw that secures the DATA SWITCH ASSEMBLY (24-10) to the CONTROLLER COVER (24-11)

Remove the screws that secure the CONTROLLER COVER to the COVER BRACKET (24-15) and remove the COVER.

NOTE: Be careful when removing and securing the CONTROLLER COVER. Failure to do so could damage the DATA SWITCH ASSEMBLY.

Connect the VALIDATOR HARNESS to the two connectors leading to the CONTROLLER and to the COIN MECHANISM VALIDATOR INTERFACE (24-17)

Secure the VALIDATOR HARNESS to one of the DOOR HINGE (21-5) mounting screws using the WIRE CLAMP included in this kit.

Insert the VALIDATOR HARNESS in the WIRE CLAMP that is secured to the VALIDATOR HOUSING (24-18)

Secure the CONTROLLER COVER to the COVER BRACKET.

Secure the DATA SWITCH ASSEMBLY to the CONTROLLER COVER

THE INSTALLATION OF THIS KIT IS NOW COMPLETE