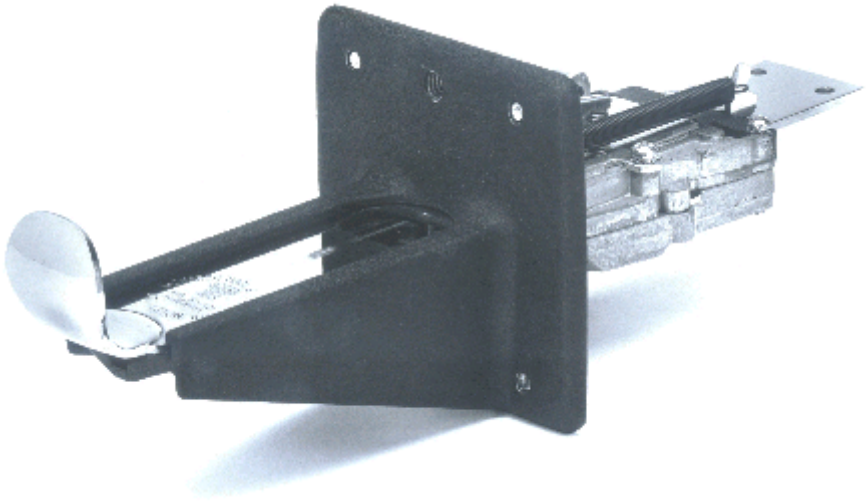
Maintenance Notes On
Monarch's Model 444
Coin/Token Lay Down Chute



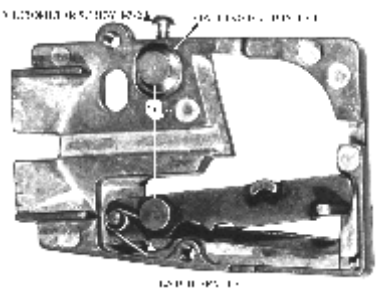
Your coin chutes are checked at the factory. Every effort is made to assure that your Model 444 will operate smoothly and with a minimum of problems now and for many years to come.

However, as with any mechanical device, a basic understanding of it's operation, maintenance needs, and adjustments will extend the useful service life of the product. Please read the following notes and assure yourself of having a long lasting product.

MONARCH
COVINGTON KENTUCKY
800-462-9460
PH: (859) 261-4421
FX: (859) 261-7403
www.monarchcoin.com

OPERATION

The Model 444 is a simple mechanism. This simplicity makes it a very reliable chute for use with single coin or token. The coin or token is sized and shaped to fit into a similarly sized and shaped opening in the slide. As the slide is pushed in, the top dog checks for the presence of a token or coin, and exerts some downward pressure to encourage it to drop into the lower gauging channel. If no coin is present, the top dog drops into the opening and prevents the slide from advancing further. Disabling this feature may be just enough to allow a free vend in some applications. The Coin/Token is also passed under a magnet to detect ferrous slugs. Magnets keep a ferrous coin from falling to the lower level for further gauging.



INSIDE OF BOTTOM PLATE
SHOWING
LATCH ARM & GAUGING BUTTONS

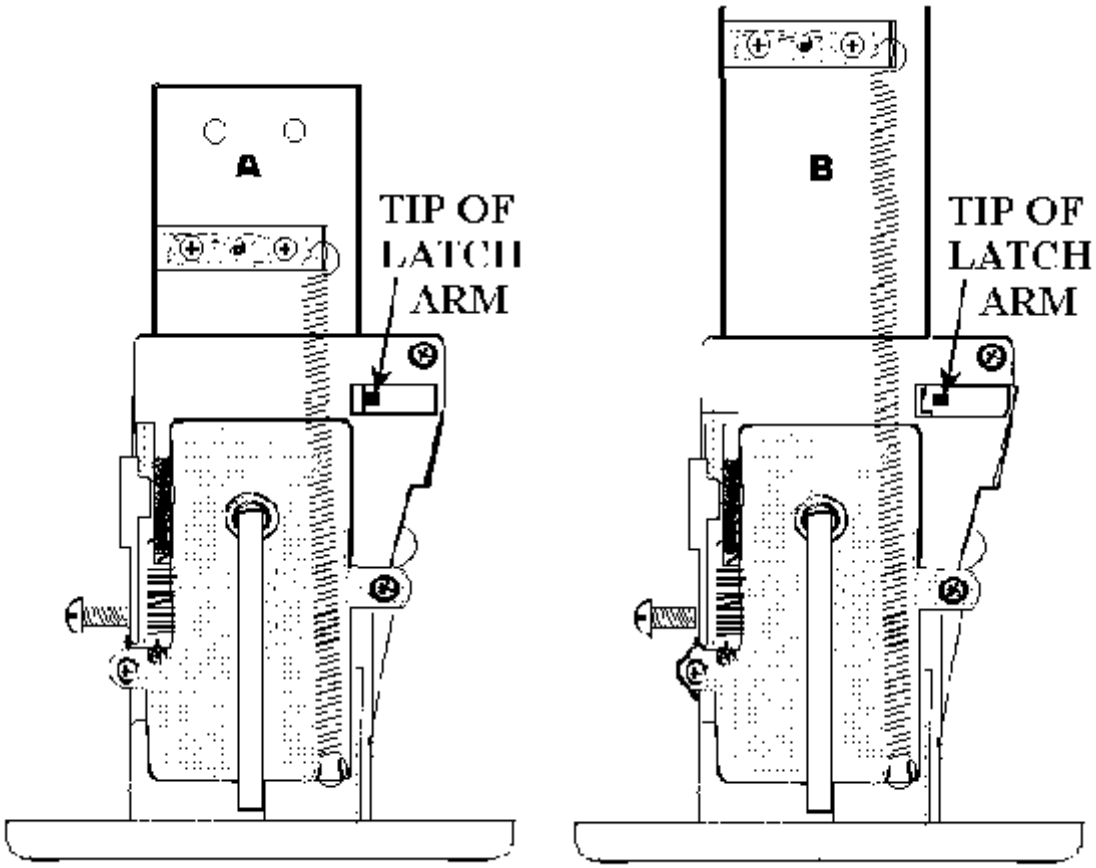
The magnets must be removed to allow the chute to accept other coins, such a Canadian quarters. Remove the two screw holding the top plate (P/N 4-4). The plate has the tips of four aluminum tabs. Straighten the tabs and carefully remove the aluminum rectangular piece from the bottom of the plate. Inside are two ferrous plastic magnets. Remove these, reattach the aluminum cover (it must be in place for the chute to function properly) and reassemble the unit, including any switch brackets that may have been removed.

As the token/coin drops into the lower level, it slides along the bottom plate, advanced by the carriers on the bottom of the slide. For most tokens/coins, it is guided between the fixed measuring button, and the measuring button on the latch arm. In these cases, the buttons have a "V" which supports the token/coin as it passes between them, this lends a greater sensitivity to the measurement of the token being evaluated. In the case of Lug Type High Security tokens (such as the Chilly Willy or the LTB series), there is no fixed button. Rather, the token is held in proper relationship to the latch arm by the button passing along a guide groove in the bottom plate. **There is a wear compensating bar for this as well.** This means the token is actually being assessed on two different inter-related levels.

Once the coin or token has been found acceptable, the latch arm moves aside and allows the slide to pass into the last inch of inward travel. As the slide enters this area, the ratchet engages the teeth of the slide, preventing the slide from being withdrawn without completing the slide, and, once the inward motion is completed, prevents the slide from being only partially withdrawn and then pushed in again for an additional free vend. This ratchet controlled area is called the "safety zone." Any application that allows the product or service to be vended prior to the coin chute entering this area will allow free vends to occur.

ADJUSTMENT INSTRUCTIONS FOR MODEL 444 CHUTES

As with any machine, occasional adjustment may be required to compensate for wear, or to fine tune the measuring of the specific token being used. **On chutes other than those used for Lug Tokens, there is a hex nut on the underside of the chute.** This secures the fixed measuring button. On the outside edge of the bottom chute is a small slotted screw. To adjust the measuring parameters, loosen the nut, and by turning the small slotted screw into the housing, in ½ turn increments, try the token or coin which is giving problems, and watch the latch arm in the designated opening, until the arm swings aside just as the detent in the slide approaches it. (See illustration)



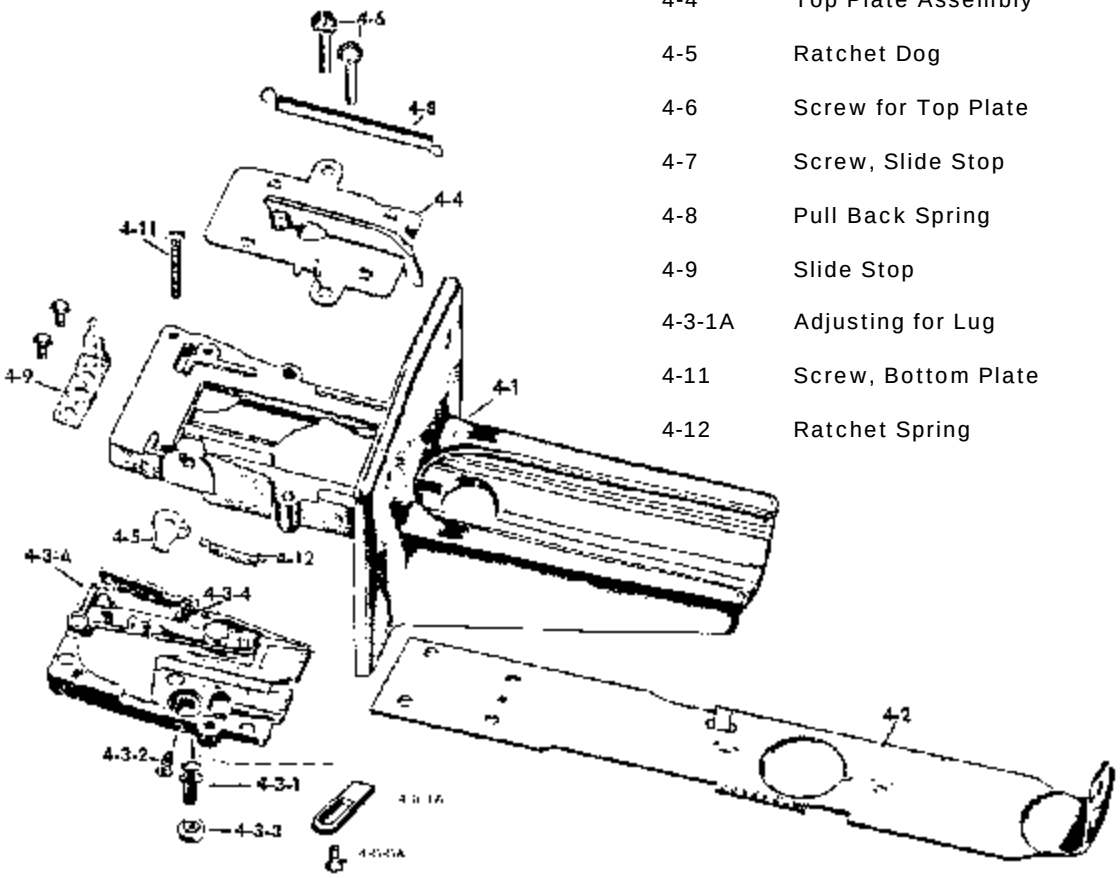
Chutes which use lug tokens will not have the hex nut on the bottom. Rather. there is a slotted screw and lock washer, that secures a measuring bar. The end of this bar projects from the left hand side of the chute, presenting a loop appearance. Loosening the screw, and gently tapping the loop into the chute, while trying the token as above, will compensate for wear. Once the latch arm is moving as it should, secure the slotted screw, and try the tokens again to assure no shift has taken place.

As with any machine, an occasional cleaning and lubrication is essential to maintain its utility. Occasionally brushing off the accumulated grim with a small stiff toothbrush, and lubrication with a silicon spray type of product, (such as the sprays sold in auto supply stores) will extend the life the mechanism considerably.

DO NOT USE WD-40. This is a fine product, but it leaves a greasy film on the parts. This film holds dirt and will cause the mechanism to eventually gum up, especially in dusty areas. In high use situations, frequently check for proper clearance of the latch arm tip and adjust the setting if it is not clearing properly with each token. This will avoid costly down time and customer frustrations. Keep in mind that over time the tokens will wear as well and will eventually need replacing.

Old Part Number	Description	New Part Number
4-1	Housing	194-1BK
4-2	Slide	194-2-X
4-3-A	Bottom Plate	194-3-A
4-3-1	Gauging Screw	194-3-1
4-3-2	Adjusting Screw	194-3-2
4-3-3	Hex Nut for Gauging Screw	194-3-3
4-4-4	Coil Spring for Latch Arm	194-3-4
4-4	Top Plate Assembly	194-4
4-5	Ratchet Dog	18M-4
4-6	Screw for Top Plate	194-6
4-7	Screw, Slide Stop	194-7
4-8	Pull Back Spring	17M-1
4-9	Slide Stop	194-9
4-3-1A	Adjusting for Lug	194-3-2A
4-11	Screw, Bottom Plate	194-11
4-12	Ratchet Spring	17M-4

PARTS LIST FOR MONARCH NUMBER 444 COIN CHUTE



The basic design has remained unchanged for over 50 years. Over nine million units have been put in service in that time. Like a screwdriver, it is a basic tool which does what it is designed to do, and does it well, if applied properly. And like any other tool, it will fail if abused or improperly applied, or not maintained. We have made every effort to provide you with a quality product, and hope you will find it serves you well. If you have any questions or problems regarding the device, we look forward to helping you.

When ordering parts, keep in mind that the token or coin used determines the final configuration of the slide, the latch arm, and gauging button. A coin chute manufactured for one particular coin or token is rarely adaptable to an alternate coin or token at a later date. Only powder coated finish is currently available for the housing. This environmentally friendly finish avoids the contamination of chrome plating, and produces a more weather resistant finish.