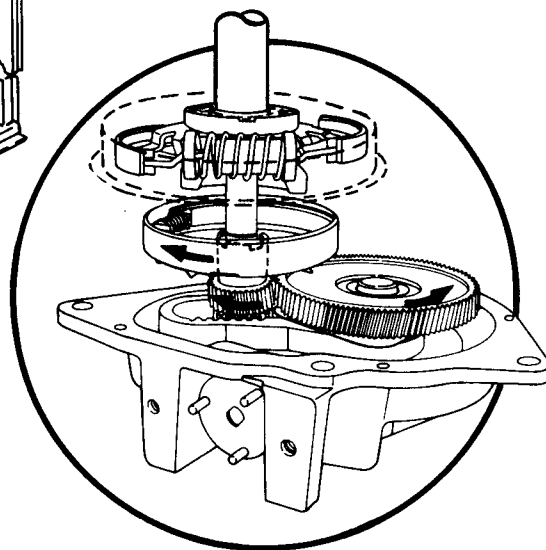
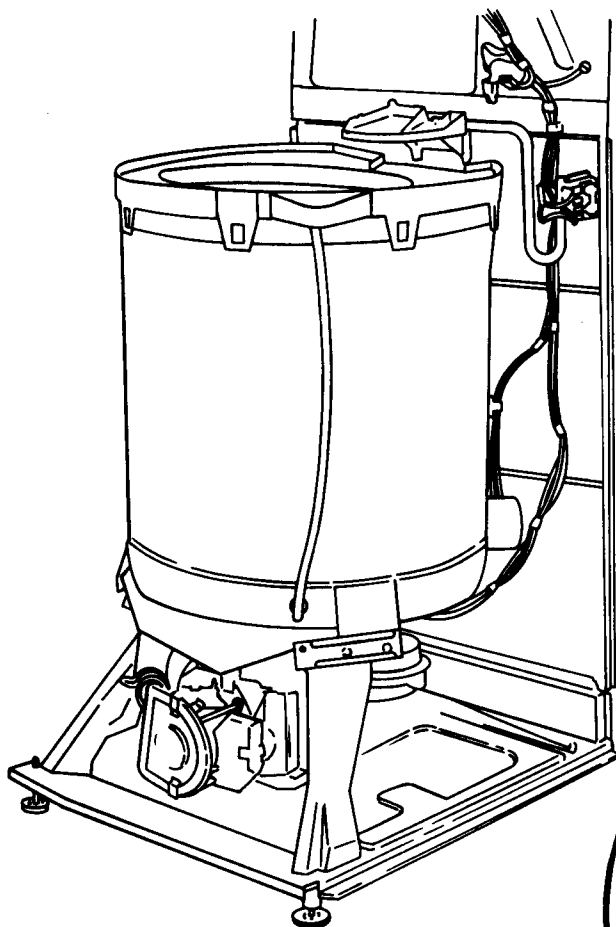


Kenmore Direct Drive Washer with NEUTRAL DRAIN



FOREWORD

The term "Neutral Drain" is being used to describe a revision to the Direct Drive Washer. Direct Drive washers with "Neutral Drain" will pump the water out of the tub before going into spin, just as the belt drive washer did.

To accomplish this, changes were made in two components—the gearcase and timer. This book covers only those changes; all other components perform exactly as before.

GEARCASE

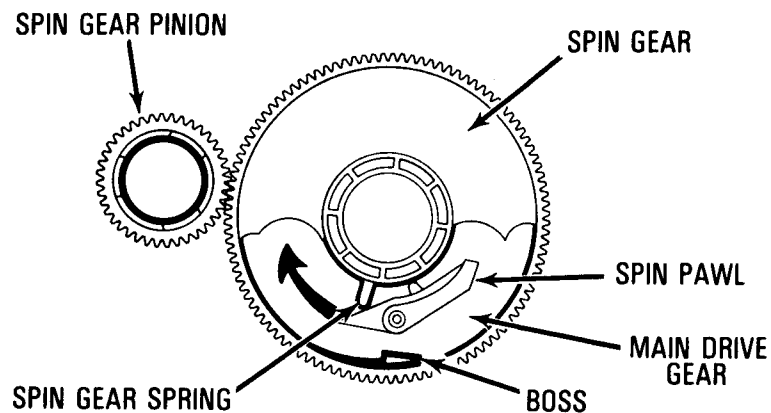
To better illustrate the changes made to the gearcase, a brief review of the spin section of the original gearcase is included.

Original Gearcase

The original Direct Drive Washer would go into spin with a full tub of water following agitation.

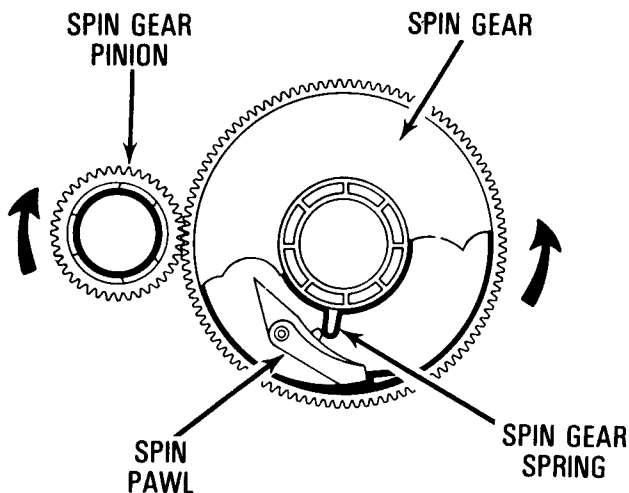
AGITATION

- The main drive gear which has the spin pawl mounted on it is turning in the direction indicated by the arrow.
- The spin gear does not turn because the spin pawl cannot engage the spin gear boss.



SPIN

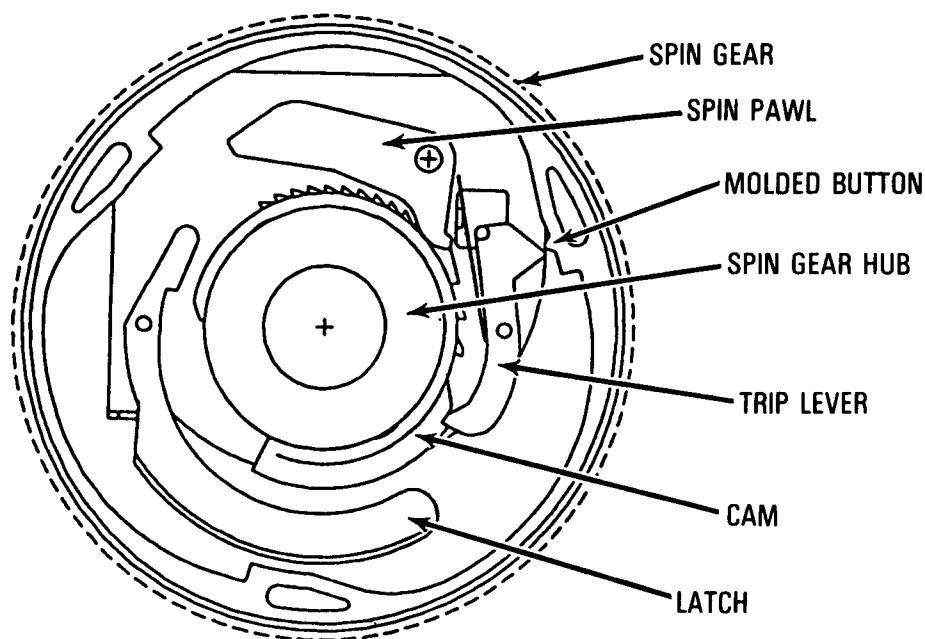
1. The main drive gear and spin pawl turn in the direction shown.
2. Spin pawl contacts loop of spin gear spring, which forces pawl outward.
3. Pawl contacts one of three spin gear bosses.
4. Pawl drives spin gear counterclockwise.
5. Spin gear drives spin pinion, which has clutch attached to it.



Neutral Drain Gearcase

SPIN COMPONENTS

1. **Revised Rack Retainer**—provides two locator pins, and two tabs for mounting neutral drain components.
2. **Revised Spin Pawl**—pawl has a revised shape, but still functions to drive the spin gear.
3. **Spin Gear**—has a molded “button” added to one of three bosses. Button required during the “Reset” mode of the neutral drain mechanism.
4. **Spin Gear Cam**—a counting device to reset the neutral drain mechanism. Cam is mounted to hub of spin gear and replaces spin gear spring.
5. **Trip Lever**—engages cam teeth. The molded button of the spin gear boss contacts the trip lever to lift it off the cam and advance it to the next cam tooth during the “Reset” mode of the neutral drain mechanism.
6. **Latch**—holds neutral mechanism stationary to allow for neutral drain pump-out prior to spin.

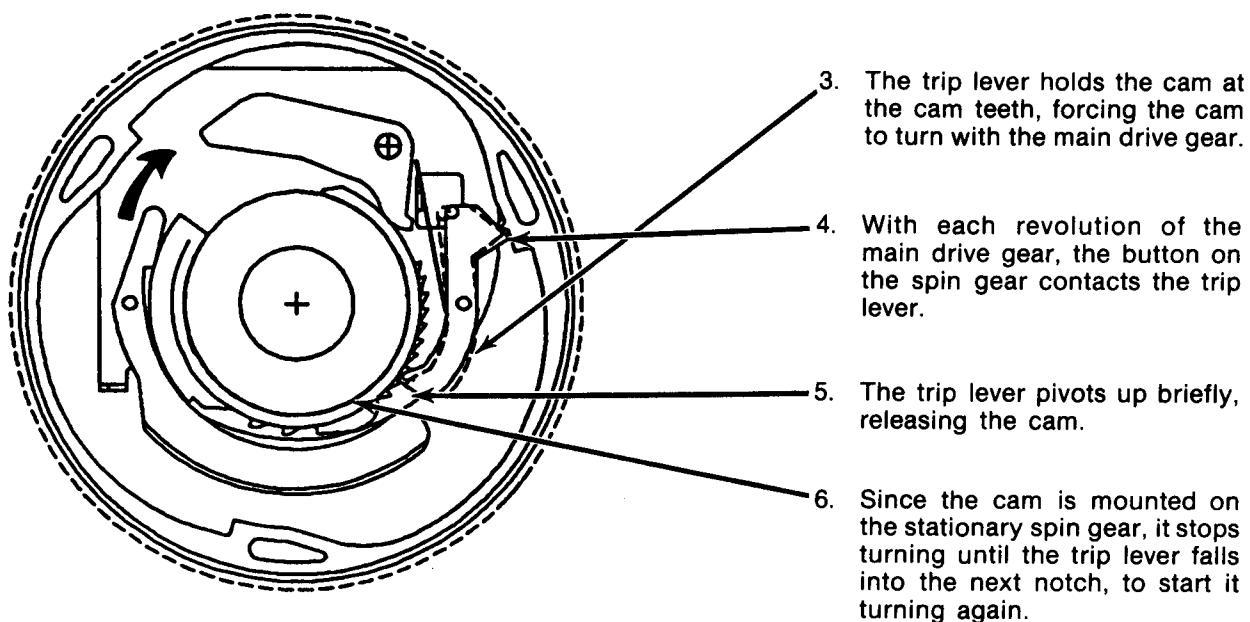


OPERATION

NOTE: The gearcase will always go into spin when the timer is set to spin or drain unless the machine is allowed to agitate for 3 to 5 seconds to reset the neutral drain mechanism.

RESETTING THE NEUTRAL DRAIN MECHANISM

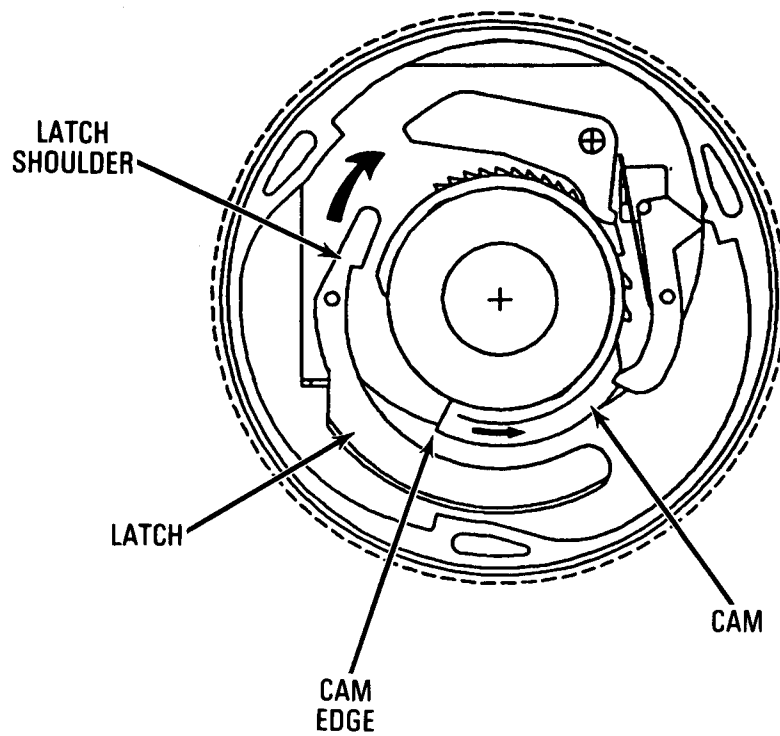
1. During agitation, the main drive gear and neutral drain mechanism rotate clockwise, and the spin gear is stationary.
2. The cam, which is mounted on the spin gear hub, cannot remain stationary because of the action of the trip lever.



AGITATION

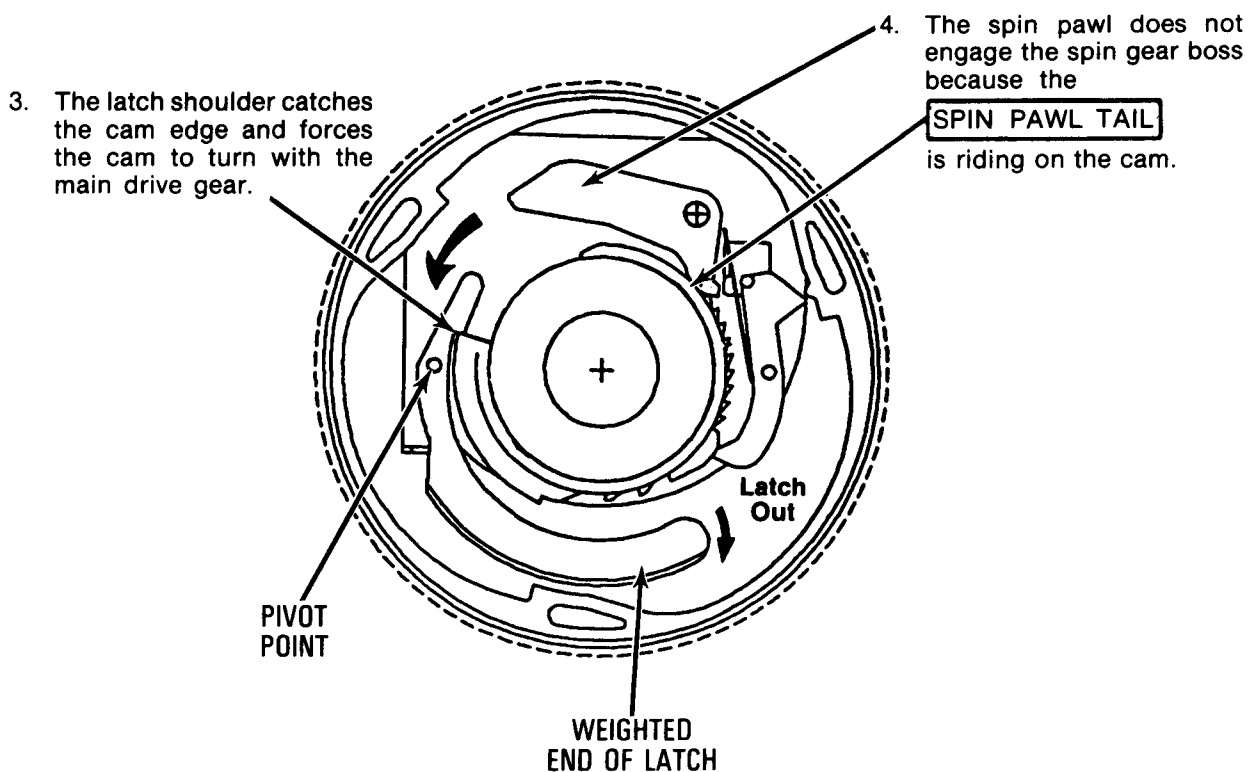
1. The spin mechanism is shown set up for a neutral drain.
2. The trip lever has advanced past all of the cam teeth.
3. The trip lever continues to push the cam, causing it to slip on the spin gear hub.

IMPORTANT: Note the position of the latch shoulder with respect to the cam edge.



PUMP-OUT MODE (NEUTRAL DRAIN)

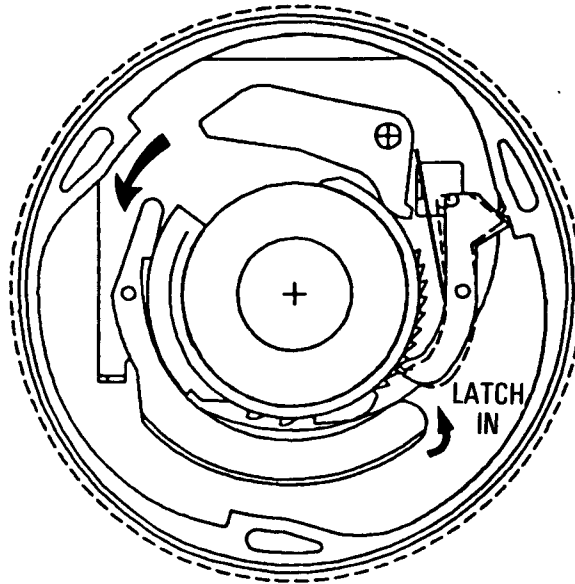
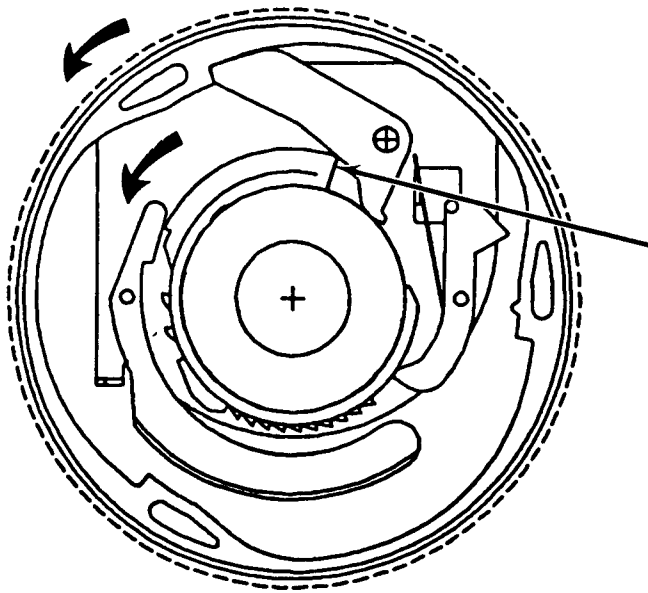
1. The motor stops at the end of agitation and restarts in the opposite direction.
2. As the main drive gear starts its counterclockwise rotation, the weighted end of the latch is moved outward by centrifugal force.



5. The motor runs for two minutes and then stops, due to a timer-controlled pause.

PAUSE—SHIFT TO SPIN

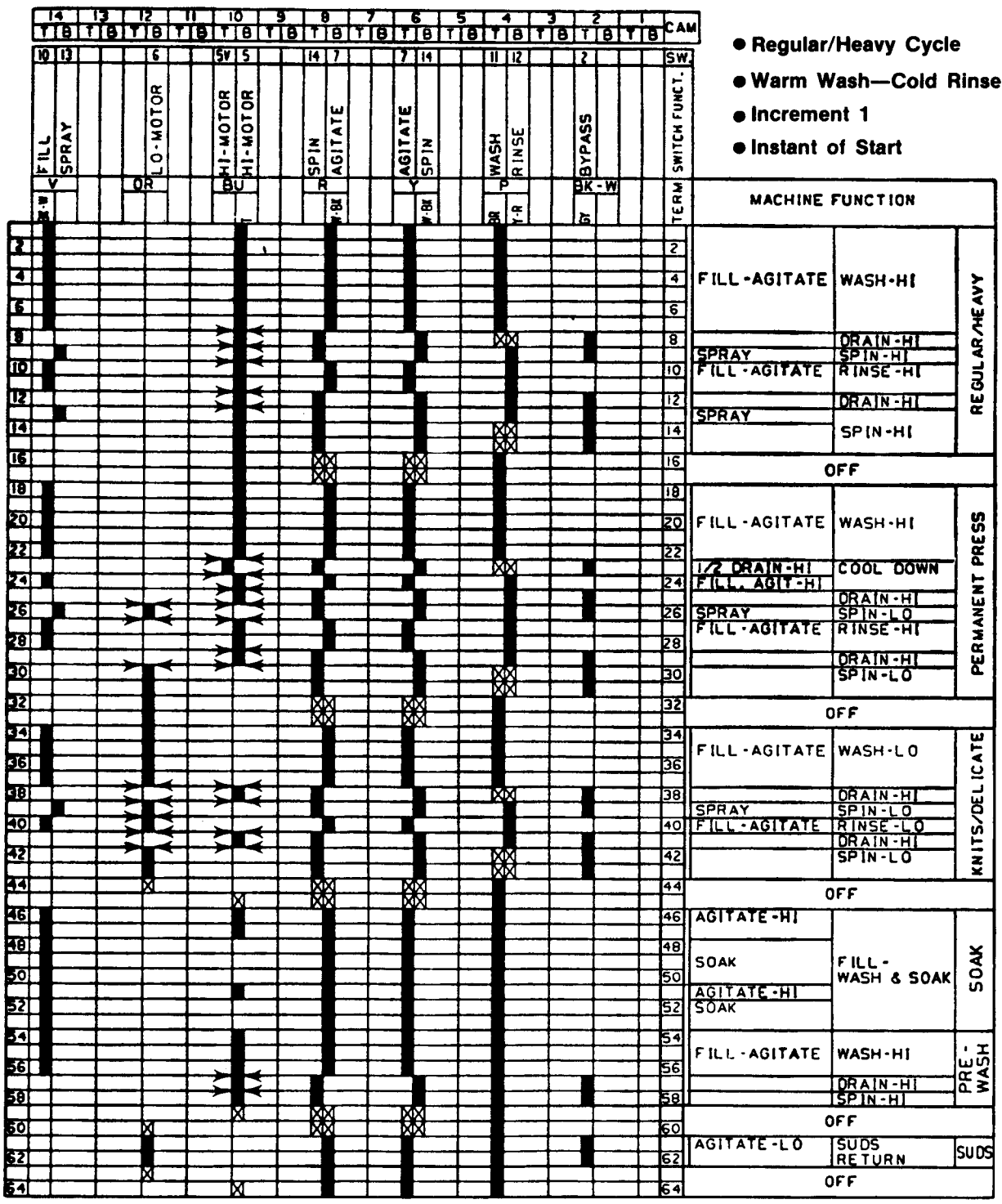
1. At the end of the neutral drain, as the main drive gear coasts to a stop, inertia causes the weight end of the latch to move inward. This releases the cam edge from the latch shoulder.

**SPIN MODE**







1. Following the pause, the motor restarts rotating the main drive gear and neutral mechanism counterclockwise.
2. The cam pushes the spin pawl outward, allowing the pawl to contact the spin gear boss and drive the spin gear. The spin gear drives the spin pinion, which rotates the clutch drum. The clutch lining spring contacts and rotates the brake release cam. When the brake is released, the basket spins.

TIMER CHANGE

The motor circuit is de-energized at the points indicated by $\rightarrow \leftarrow$ on the timer sequence chart.



AUTOMATIC WASHER WIRING DIAGRAM

-  TIMER SWITCH
 -  INTEGRAL COMPONENT CONNECTION
 -  HARNESS WIRING
 -  ○ TERMINAL CONNECTION
 -  X TIMER SWITCH MAY BE OPEN OR CLOSED.
 -  SUB-INTERVAL SWITCH
- TIMER STEPS ARE 120 SECONDS DURATION.

