No. 497 Coaling Station

Congratulations on your purchase of the Lionel 497 Coaling Station. This coaling station has been produced using the original tooling from the 1950's. The coaling station is constructed of stamped metal and injection molded plastic and features a powerful cam motor and solenoid for years of reliable operation. The coaling station can be placed on any Lionel O or O-27 gauge three-rail layout and is designed to operate at 12 - 18 volts alternating current.

Installation of your Coaling Station

Your coaling station can be located along any straight portion of track on your layout. In larger layouts, a good location for a coaling station is on a service siding near a terminal. To install your coaling station, simply clear an area approximately 9 1/2" x 6" on your layout. For optimum operation, its location on your layout should be flat and level. There are four holes located on your base to secure your coaling station to your layout. We highly recommend that you secure your coaling station to your layout using all four of these holes. If you have a permanent layout mounted on a board or platform, your coaling station can be fastened to the board by means of screws through the holes in the coaling station base.

You will notice that connected to your coaling station is a piece of O gauge remote uncoupling track (Lionel part # 606-5530-000). Now that your base is secured to your layout, connect a straight piece of track (not included) to each side of the uncoupling track. Using a piece of straight track will ensure that your locomotive or rolling stock will not hit the legs of your coaling station when pulling in. The function of the uncoupling track is described in the Operation of your Coaling Station section of this manual. Your coaling station is now installed to your layout and ready for transferring coal.
Operation of your Coaling Station

Now that your coaling station is installed, you are ready to begin adding some coal transferring fun to your layout. Once power is given to your coaling station by means of track power, simply follow the steps described below.

Direct your train with a coal dump car (not included) into the station and stop it so that the dump car is right in the center of the station. Simply check to see if the plunger located on the bottom of your dump car is located directly above the coil in your uncoupling track. The car must be positioned accurately, and you may want to move it over by hand to make sure it is in the correct position. The car should face the front of the station so that it can dump its load into the receiving bin. Also, due to the small amount of clearance between your locomotive and the receiving bin, it is recommended that the bin is all the way down before running your train through the station.

When the dump car is in position, move the right-hand lever down or into the “DUMP” position. This will energize the coil in your uncoupling track to tilt the dump car and empty its contents into the receiving bin. Do not use too much coal or it will spill over. It may make the receiving bin difficult to raise as well. Once your coal load has been dumped into the receiving bin, move the left-hand lever up or into the “UP” position and hold it there. This will start the receiving bin moving up the side of the station. Continue to hold the lever for the bin in the “UP” position until it reaches the top of the station and pours the coal into the storage bin.

NOTE: Continuing to hold the “UP” lever after the receiving bin reaches the top of your station will break the string, which raises and lowers the receiving bin. Once you have reached the top of the station, please do not continue to hold the controller lever in the “UP” position.

Now that you have transferred your coal from the receiving bin to the storage bin inside of your coaling station, move the left-hand lever on your controller down or in the “DOWN” position. This will reverse the polarity of the motor and begin to lower the receiving bin to its normal position. Hold down on this lever until the receiving bin reaches the base of your coaling station.

NOTE: If you continue to hold down on the left-hand lever on your controller after the receiving bin reached the base of your coaling station, you will notice that the receiving bin will start to rise again. This is because the string has become completed unwrapped from the cam, and it is starting to wrap itself on the cam in the opposite direction. This can be easily corrected by pressing the lever in the “UP” position until the receiving bin lowers to its normal position. Continuing to hold the lever in the “UP” position after reaching the bin’s normal position will start the bin to rise again properly.

Now that your coal load is transferred into the station’s storage bin, you may unload this coal load into any car you desire. To do this, simply locate your empty car under the storage bin in the station. Once the car is in position, move the right-hand lever up or into the “LOAD” position. This will trigger the solenoid in your station to open the storage bin gates and empty the coal load into your awaiting car.

Wiring your Coaling Station

Your coaling station will operate best from 12 - 18 VAC. Your coaling station comes with your remote uncoupling track pre-wired and installed from the factory. Because of this, there is no need to connect any wires to your coaling station for power. Track power will run through the uncoupling track, and your coaling station will also receive its power this way. By simply turning on track power, your coaling station is powered.

Your coaling station cannot be operated with the use of an SC-1 or SC-2 due to the electronics of your coaling station. For this reason, we recommend that you always operate your coaling station in a conventional mode.