











Directions for use



Introduction

Thank you for purchasing the Manual Control with Memory (item #9753) from LEGO Dacta. You will be able to operate up to three 9 volt LEGO® electrical devices, including motors, lamps and sound elements, either by manual control or by running programs in memory.

Installing Batteries

Remove the back panel and install six 1.5 volt "LR 14" batteries ①. Alkaline batteries are recommended. Each battery points in the direction opposite to that of its neighbor. Replace the back panel. Press the On/Off key ③. If the Memory I (Mem. I) light comes on, the Manual Control with Memory is working properly. If the light does not come on, check the batteries.

Manual Operation

Select a device, such as a motor, lamp or sound element, from a 9 volt LEGO building set. Connect the device to the yellow 2x2 connector plate ② either by placing the device directly on the connector plate or by using a LEGO wire.

Turn on the control center with the On/Off key. Hold down yellow control key A 4 to operate the device. Try yellow control key B 5 also. (Turn the top of your sound element 90 degrees and try again if it does not make noise when you press control key A.) For continuous operation, hold down key A and tap key B. Tap either key once more to stop.

If you are using a motor, B turns the motor in the opposite direction as A. If you are using a sound element, B produces a different sound than A. This is because A sends electrical current in one direction through the wires and B sends it in the other direction. (The lamp lights up the same for A and for B.)

Programming

With your device still connected to the yellow 2x2 connector plate, hold down the red Program key ⑥ until the Memory I (Mem. I) light begins to blink. Now the control center can "remember" the keys you press.

Try this example:

• Hold down control key A for two seconds.

• Press the red Pause key (9). The Pause light comes on.

· Wait three seconds. Press Pause again. The Pause light goes off.

· Hold down control key B for five seconds.

Press the red Stop key 7. The Mem. I light stops blinking.

You have just placed a program into Memory I. Press the red Go key ⁽⁸⁾ to run your program.

To create a different program, repeat the above process with different key strokes. Use the red Pause key to insert a pause in your program.

Other Programming Techniques

The Manual Control with Memory can remember two different programs at once, and carry them out one at a time.

To place a program into the second Memory (Mem. II), tap the red Memory key (10) until the Mem. II light is on. Hold down the red Program key until the Mem. II light begins to blink.

Enter your key strokes and then press Stop. Press $\mbox{\sc Go}$ to run your program.

You can switch between Mem. I and Mem. II by tapping on the Memory key.

To run a program continuously, press the Go key twice quickly. To stop a program, press Stop or On/Off.

To have a program pause while running, press Pause. To continue, press Go.

Connect additional devices to the red and blue 2x2 connector plates and control them with the yellow pad $\widehat{\mathbb{1}}$ on the right end of the control panel. Pressing the top $\widehat{\mathbb{N}}$ or bottom $\widehat{\mathbb{S}}$ of the yellow pad sends electricity to the red connector $\widehat{\mathbb{2}}$. Pressing the left $\widehat{\mathbb{W}}$ or right $\widehat{\mathbb{E}}$ side of the pad sends electricity to the blue connector $\widehat{\mathbb{2}}$. Pressing in between these positions sends electricity to both connectors.

Now place a program in memory using the yellow pad.