

bigtrak



OPERATOR'S MANUAL

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INTRODUCTION



Telling **bigtrak** what to do is called 'programming'. When you programme **bigtrak** you enter instructions into the keyboard located on top of the vehicle.

The keyboard will direct **bigtrak** in the same way that a steering wheel and brakes direct a car.

It's easy to learn how to programme **bigtrak**. Each separate instruction is detailed so that you can try them one by one.

ALWAYS TAKE CARE WHEN HANDLING YOUR bigtrak.

Place it on the floor gently, do not drop it, this may cause damage.

When picking up **bigtrak**, grip centre wheels with both hands.

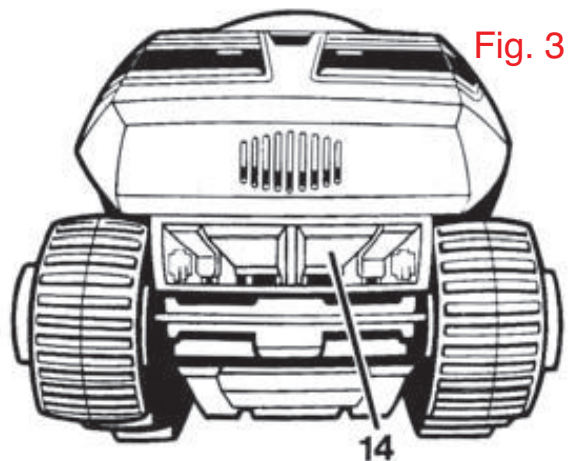
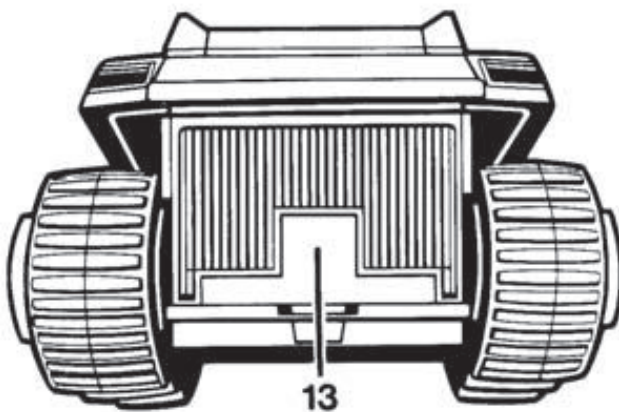
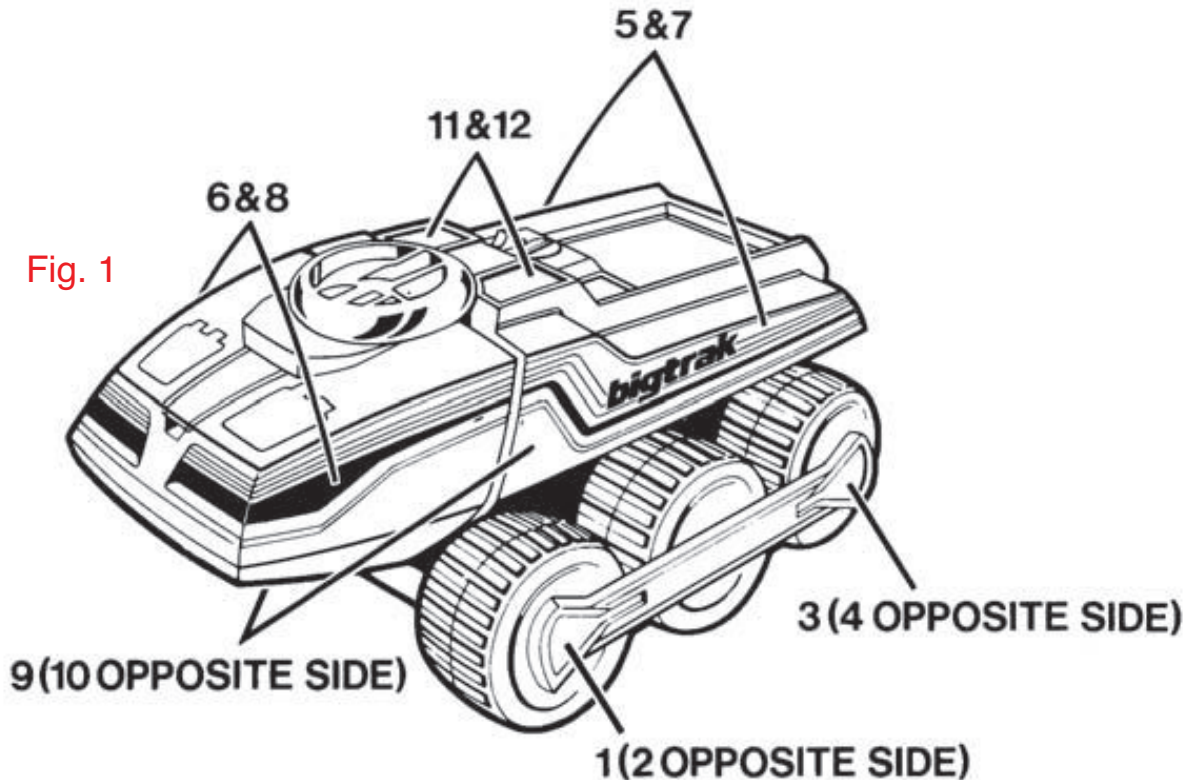
We do not recommend use of your **bigtrak** on stairs, water, dirt and sand.

This will cause permanent damage and may void your guarantee.

LABELLING (See Figs 1, 2 and 3)

We include a set of easy-to-apply labels with **bigtrak** which add exciting detail. All the labels are numbered, and you will see their correct positions from the following diagrams.

Peel the backing off the labels one at a time and apply them as shown. Once they are correctly positioned, rub them down firmly.

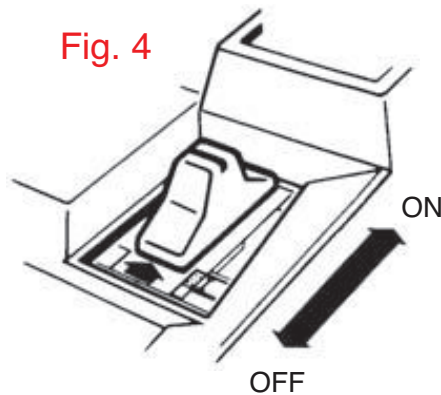


BATTERIES

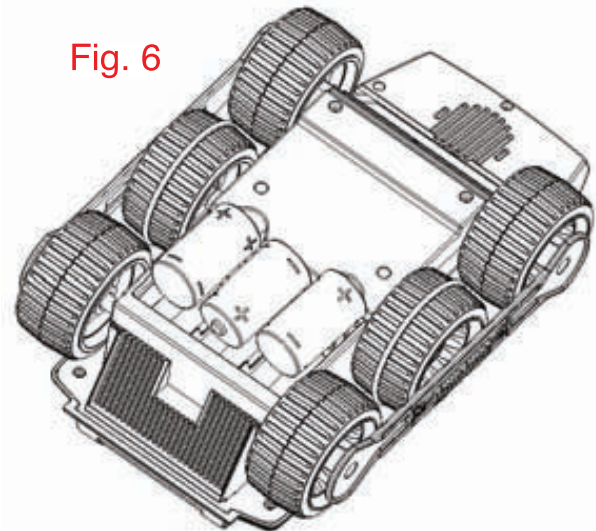
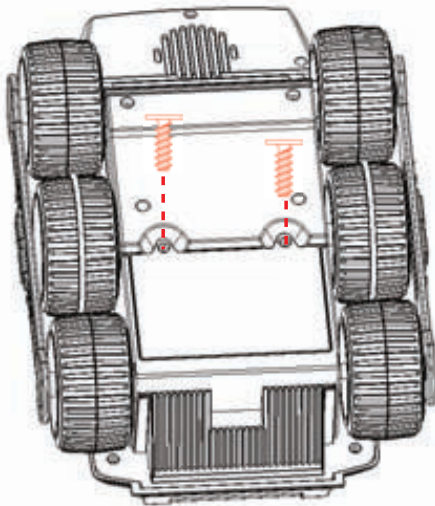
bigtrak requires 3 x D size batteries.

We recommend the use of alkaline batteries for longer life.

Find the red ON/OFF switch to the right of the keyboard. 'ON' is forward, 'OFF' is back (see Fig. 4). Make sure that the switch is in the OFF position before inserting the batteries.



1. Find the battery box underneath bigtrak (FIG. 5.)
2. Remove the two screws from the hatch and put to one side.



1. Match the polarity of each of the three batteries with polarity signs shown inside the battery compartment. Insert the batteries as shown in Fig. 6. Replace the battery cover and screws.

2. **bigtrak** will 'beep' after 15 seconds when it is turned on and is not being used. Program will go to sleep mode until wake up by pressing  to continue the last program or pressing  to set up a new program.

BATTERY LIFE AND REPLACEMENT

1. To obtain good operation we recommend to use alkaline batteries.
2. Do not use rechargeable batteries.
3. Non-rechargeable batteries are not to be recharged.
4. Different types of battery or new and used batteries are not to be mixed.
5. Only batteries of the same or equivalent type as recommended are to be used.
6. Batteries are to be inserted with correct polarity.
7. Exhausted batteries are to be removed from the bank.
8. The supply terminals are not to be short-circuited.
9. Important malfunction may occur when power in the batteries are running low. Please replace with brand new batteries.

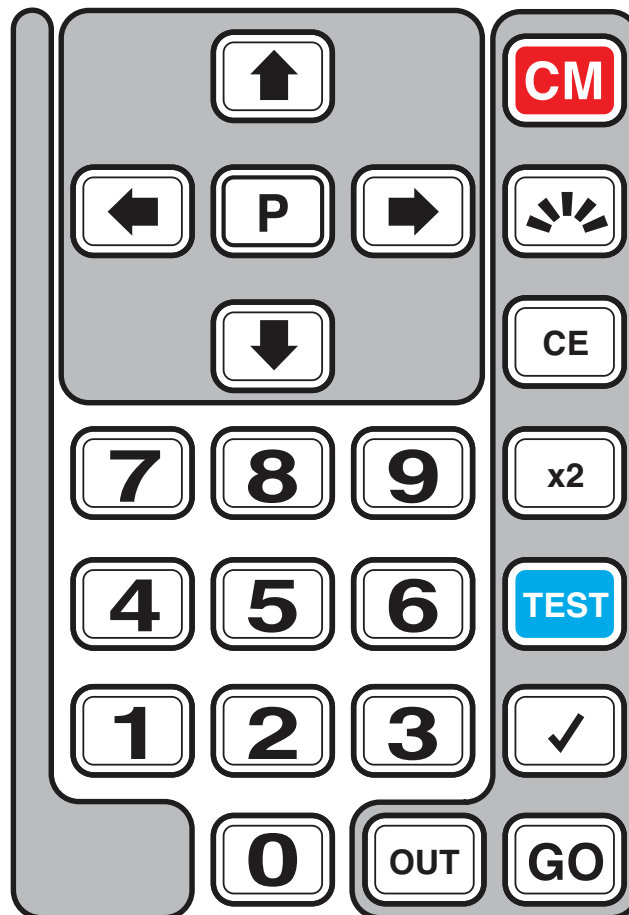


Please keep information for future reference

THE KEYBOARD

The keyboard is placed on the top of **bigtrak**. By pressing various combinations of keys on the keyboard, you can programme **bigtrak** to obey your commands.

Each key has a different purpose and is marked either with a letter, number or symbol.



Your new **bigtrak** has been pre-programmed at the factory with a very simple sequence of movements already placed into its memory.

Push the switch to ON, and press the  key. **bigtrak** will then move forward 2 lengths, fire three times, wait 3 to 4 seconds and then reverse 2 lengths to its starting position.

Every time you turn **bigtrak** on, this programme is present and ready for use when you press the  key. This key will only work once after the **bigtrak** has been switched on and **before pressing any other keys**.

Once you have seen how **bigtrak** works, you will want to start inventing your own programmes. To programme, you will need to learn what the other keys do. Practice using each key as you read about it.

CLEAR MEMORY

Find the key that is marked . This is the CLEAR KEY. Pressing this key will remove or erase all instructions from **bigtrak**'s memory. When you erase entries with this key, the entire computer memory becomes blank and you can then programme new instructions for **bigtrak** to perform.

When you want to change programmes,  is the first key to press. If you do not press  then the entire previous programme is 'remembered' by **bigtrak**, and can be repeated by pressing .

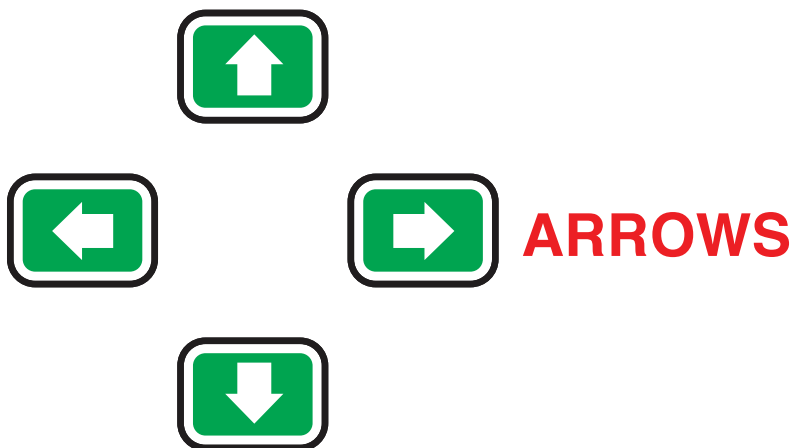
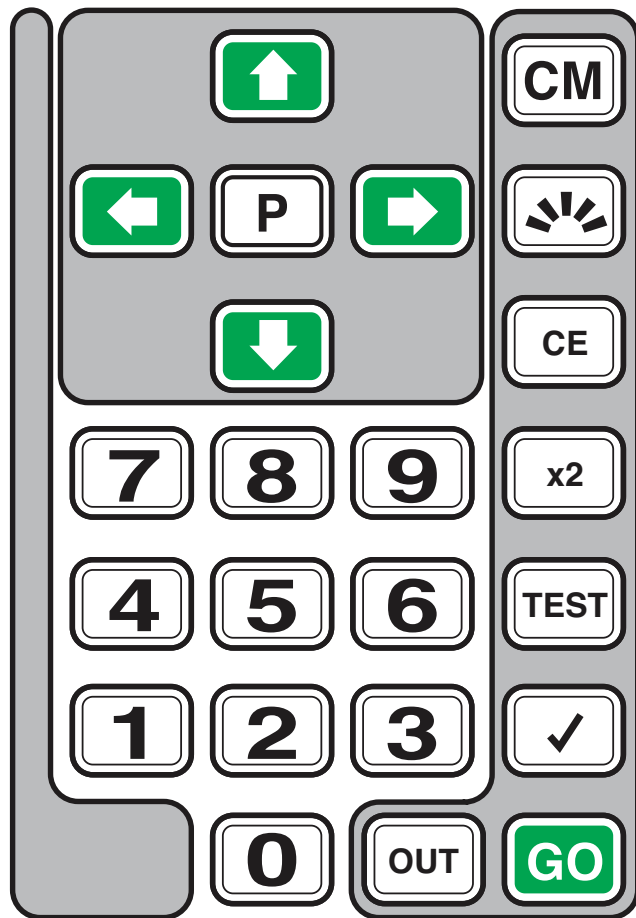
If you add more instructions, **bigtrak** will repeat the first programme and then perform your new commands when you press .

NOTE: **bigtrak** must be programmed every time you switch it OFF and ON again

Press  to cancel the TEST programme, and read about the next key, which is .

GO

Press  to action each step programmed into bigtraks memory.



At the top of the instruction panel are four arrows that surround the letter **P**. The arrows are to tell **bigtrak** to move forward, backward left or right.



BACKWARDS AND FORWARDS

When you press one of these keys you programme **bigtrak** to move either backwards or forwards from its position. As you will need to tell **bigtrak** how far to move, **you must also programme a second instruction.**

To do this, you have to press one or two of the number keys. Each number will tell **bigtrak** to move one times its own length, so the higher the number you press, the further it will go
You can press any number from 1 to 99.

Try this sequence:

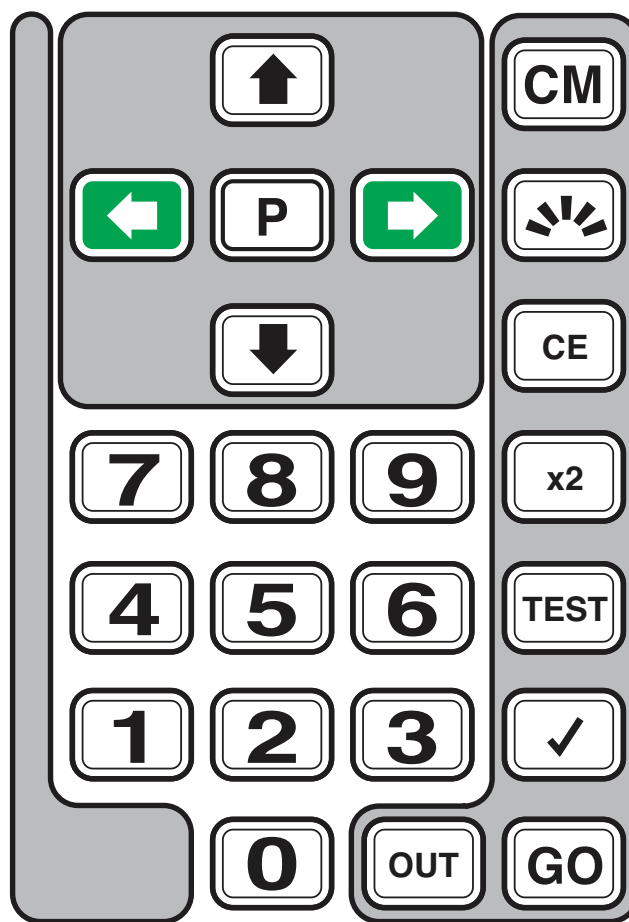


Watch **bigtrak** move forward its own length of 33cm plus an additional distance of up to 10cm depending on the condition and type of the running surface.

Try this sequence:



After you have seen **bigtrak** complete this programme, go on to the next section.



TURNING LEFT AND RIGHT

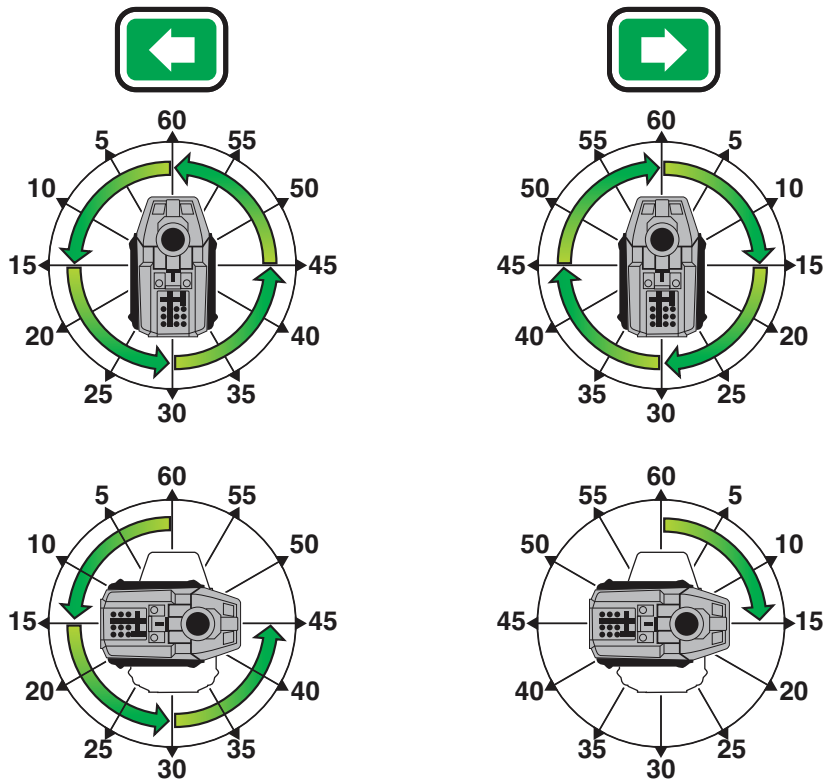
These arrows are to be found each side of the **P** button. When you press one of these arrows, **bigtrak** will turn to that side. **But you must also programme a second instruction** to tell **bigtrak** how far to turn. The examples below will help you programme **bigtrak** correctly. As each **bigtrak** is slightly different, you will need to experiment to find out exactly which number to press for the degree of turn that you want.

For example:

CM		1	5	Press GO	will give you a full right hand turn, (or 15 minutes on the face of a watch)
CM		3	0	Press GO	will turn bigtrak to the left to face the opposite direction from the one in which it was pointed.

As you can see, to make **bigtrak** turn a full 360° you press the direction (left or right) and then 60 which is the equivalent to 60 minutes on the face of a watch.

IMPORTANT: To get to any point in the turn, you can programme **bigtrak** to move either right or left.



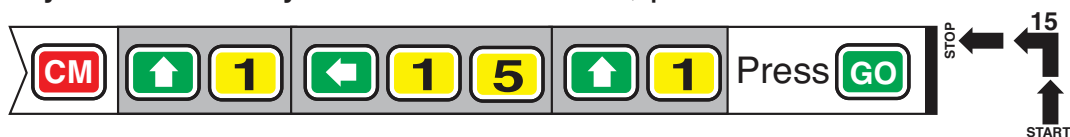
Try this sequence with a right turn: Press



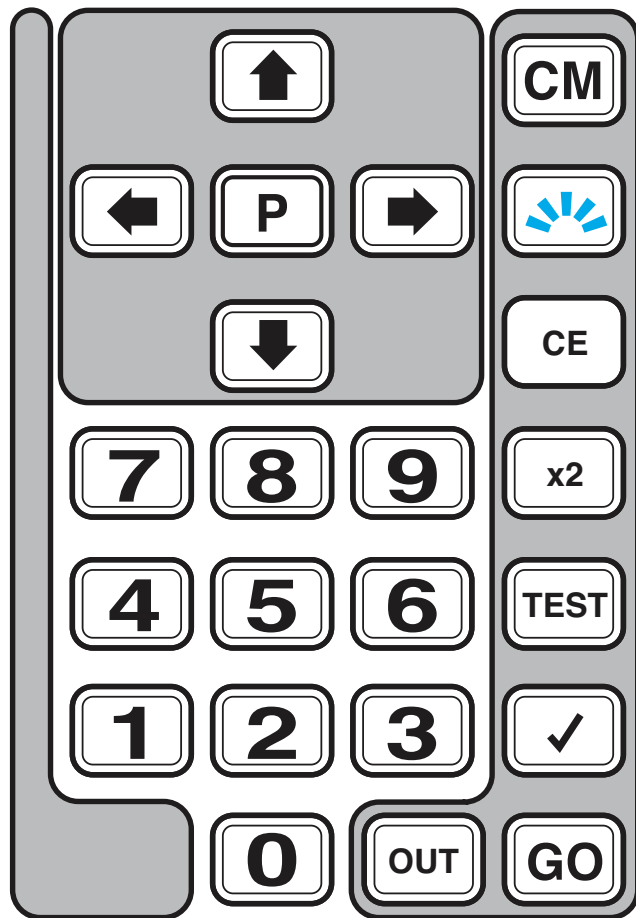
bigtrak will move one 'length' forward, make a full right turn and move forwards again.

The movement of your **bigtrak** should look like this.

Try it another way. For a left hand turn, press



NOTE: You can add more steps to this short sequence (up to 16 different ones) and then **bigtrak** will do more complicated things.



FIRE

The key marked with this symbol  tells **bigtrak** to fire its “photon” beam against the enemy. You programme **bigtrak** to fire by pressing this key, **but you must also programme a second instruction** to tell **bigtrak** how many times to fire. Think how you will programme **bigtrak** to fire 9 times.

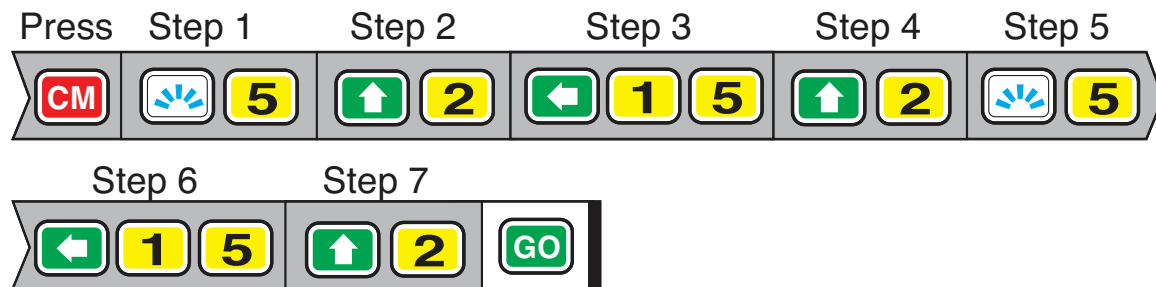
The correct sequence will be:



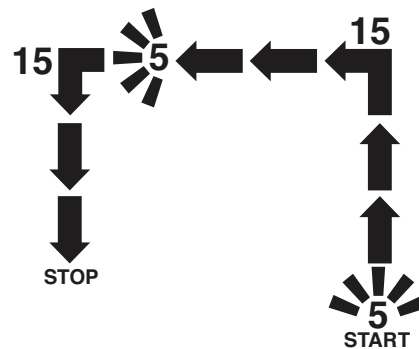
bigtrak should now fire 9 times and stop.

If you programme **bigtrak** to fire, but forget to say ‘how many’, **bigtrak** will not accept any further instructions until you press a number key. This is also true for Forward, Reverse, Left, Right, Hold and Repeat.

Try this sequence of 7 steps:



This is a diagram of what your **bigtrak**'s movement will look like.



REVIEW

Now look at what you have learnt about **bigtrak**

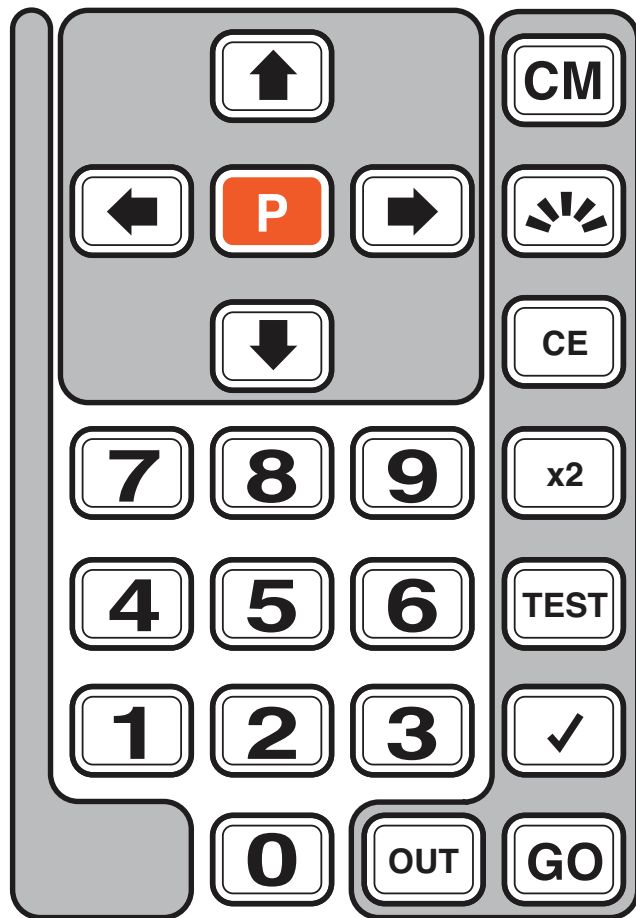
1. You know how to turn **bigtrak** on.
2. You know that you must press after your instructions to get **bigtrak** to operate.
3. You have learnt to instruct **bigtrak** to go forward, to reverse, and to turn right and left, and to fire its ‘photon’ canon.

You can instruct **bigtrak** to complete up to 16 different steps, one at a time and one after the other.

There are a few more keys to get to know. Look at the rest of the pages to see what they do.

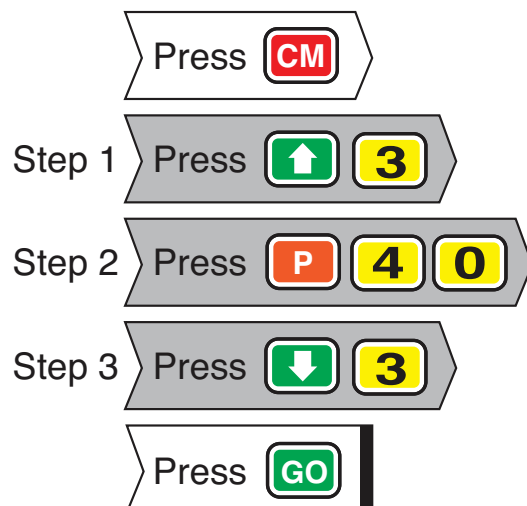
PAUSE

This symbol tells **bigtrak** to pause for a period of time before completing any more instructions. Press  if you want **bigtrak** to pause, **but you must also programme a second instruction** to tell **bigtrak** how long to pause, by pressing a number key.



Each unit of time on **bigtrak** is a tenth of a second. So if you want **bigtrak** to wait 6 seconds then you must programme  and  . Why? Because if 1 is one tenth of a second, then 10 is a whole second. So for 6 seconds you need to multiply 10 by 6, which is 60.

Try the following sequence which moves **bigtrak** forward 3 lengths, waits 4 seconds and then reverses 3 lengths.





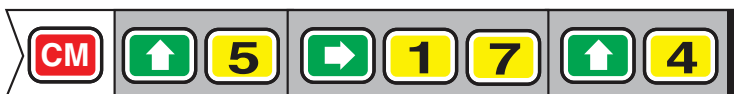
This key will allow you to remove the last step entered into **bigtrak**'s memory, and is useful if you change your mind about a programme.



If you press  you will cancel the last step in **bigtrak**'s memory, and if you continue to press it for a second and subsequent time, you will remove the last step each time. You could actually cancel a whole programme in this way, except that it would be quicker to press the  key

You cannot 'skip' steps by pressing  as it will only remove the last step entered.

For example, enter the following instructions:



To cancel the last two steps, press  and press  again.

Your programme will now consist of just one step:  
You can now enter more instructions into **bigtrak**'s memory.

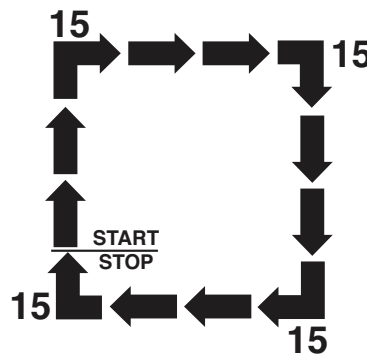
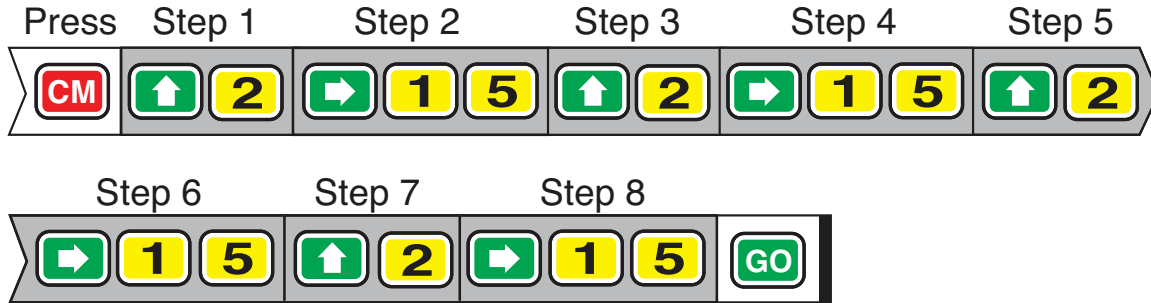


REPEAT KEY

Find this key on the keyboard. It is very important because you can repeat orders that you have already put into the computer memory without having to enter them all over again. **But you can only use this key once during a programme.**

When you use the  key, called the repeat key, **you must also programme a second instruction** to tell **bigtrak** how many previous steps to repeat by pressing a number key. It is important to know that **bigtrak** begins with the last step, counts backward the number of steps that you have told it to repeat and then counts forward through these steps, adding them to the existing program.

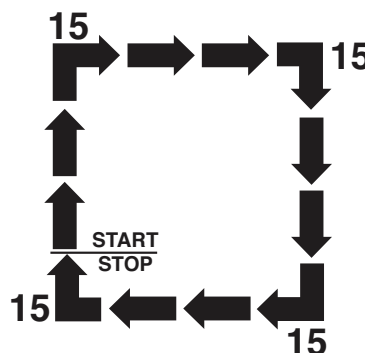
For example, to make **bigtrak** travel in a square, you would press this programme of 8 steps:



By pressing the Repeat key, you can programme the same square with only 5 steps:



bigtrak will make the same square using a repeated sequence.



REMEMBER

x2 can be used only once during a complete programme. And don't forget that the key repeats steps that were in the memory before you pressed **x2** and not what you enter in after it!

CM **CE** **TEST** **✓** and **GO** do not count as steps.



CHECK

You can use the check key  to find out whether your last instruction to **bigtrak** tells it what you want it to do.

The check key allows you to test instructions before they are fixed into **bigtrak**'s memory, but you can only check the last entry made on the programmes by using this key.

For example: If you want **bigtrak** to make a full turn to the right, you will normally press   . But because floor surfaces will vary from house to house, and room to room, '15' may not be enough to make the turn that you want, or it may be too much. So to check whether you have programmed it accurately, press .

Now watch **bigtrak** to see whether the instruction '15' is good. If it is, then you can continue to programme **bigtrak** by entering more instructions and **bigtrak** will automatically record the step **you have tested**. But if it was not good for any reason, press the  key to erase the last step. Then re-programme the turn and check the results. You can do this until you get the turn that you want, and then you can enter more instructions.

Remember:

 will only check the last step you have programmed.



The OUT key is used together with **bigtrak Transport** that you can buy separately. When you press this key and the Transport is *not* attached, the step will count as one of your sixteen steps, and **bigtrak** will pause in its programme for 3-4 seconds.

GENERAL OBSERVATIONS

To get the most fun out of **bigtrak** you should remember:

1. All steps except     and  need two or more separate instructions.

Look at the following chart to see which other instruction is needed each time.

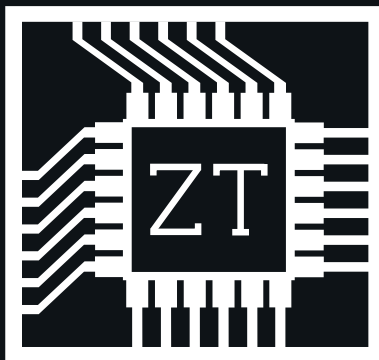
Backwards / forwards	How far?
Turn	How much?
Fire	How many times?
Pause	How long?
Repeat	How many steps?

2. All surfaces that you can run **bigtrak** on will be different. The numbers you use for turns and distance will vary from surface to surface, so use your  to find the correct number to programme.

3. **bigtrak** is designed to operate on a flat surface. When **bigtrak** runs into steep slopes or into any obstacles, such as walls or furniture it will stall the unit. The protection device will be activated (power cut off) to prevent the unit overheating. The unit will output the sleep mode tones alert once and enter sleep mode. The previous program is cleared after the protection device is activated.

4. Remember you can programme **bigtrak** with up to 16 different steps. These can include turns of more than 360°, up to 99 lengths of travel forwards or backwards, and up to 99 blasts of the photon beams per step. Remember     and  do not count as steps.

5. We suggest that you chart out the various rooms in your house and mark in furniture that you want to avoid. Then you can have fun programming **bigtrak** to move from room to room around the house. Keep notes of successful programmes so that you can use them again.



Please keep this information for future reference
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