



ORBITER RIDEMASTER

Please note:

This unit is supplied without coin mechs.

Push button start is available when used in non Ridemaster mode.

Introduction

The Tornado Ridemaster is designed to control ORBITER cars to give greater flexibility to the operator in the manner in which the Orbiters are used and a higher safety margin. It consists of four basic components. The Transmitter, the Button Unit, the Orbiter Control Unit and the Starter.

The TRANSMITTER

The principal features of the Transmitter are shown in Figures 1 & 2 below.

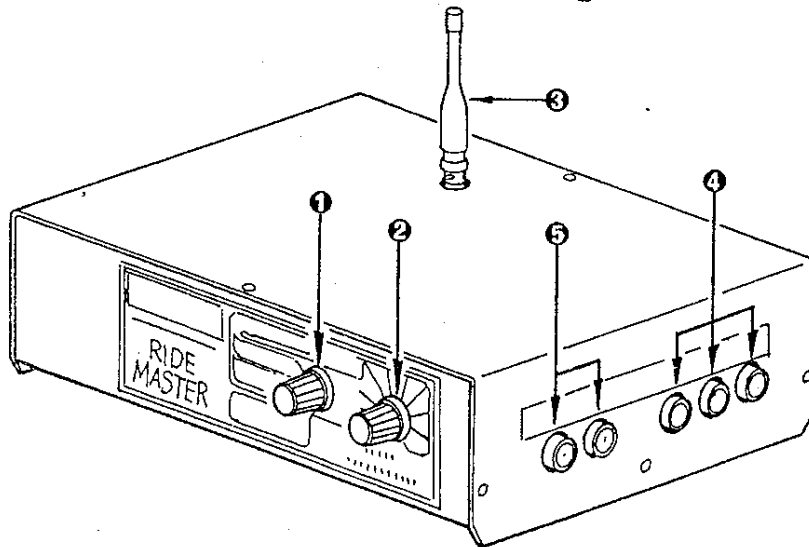


Fig. 1 - Transmitter Front & Side View

- ① - Mode Selector ② - Time selector ③ - Aerial
 ④ - Button Unit Sockets ⑤ - Facility Sockets

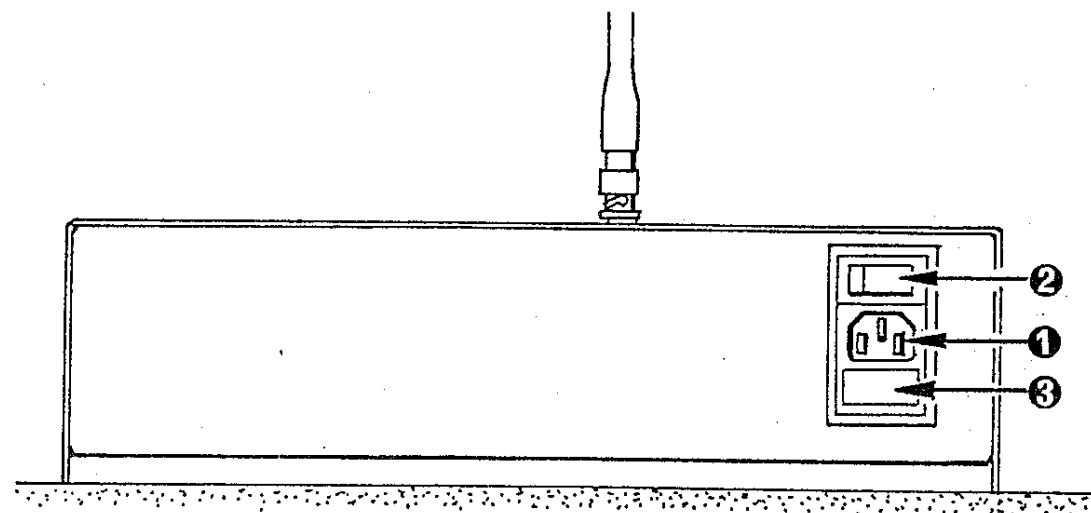


Fig. 2 - Transmitter Rear View

- ① - Mains Power In ② - Power Switch ③ - Fuse Holder

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The BUTTON UNIT

The principal features of the Button Unit are shown in Figure 3 below.

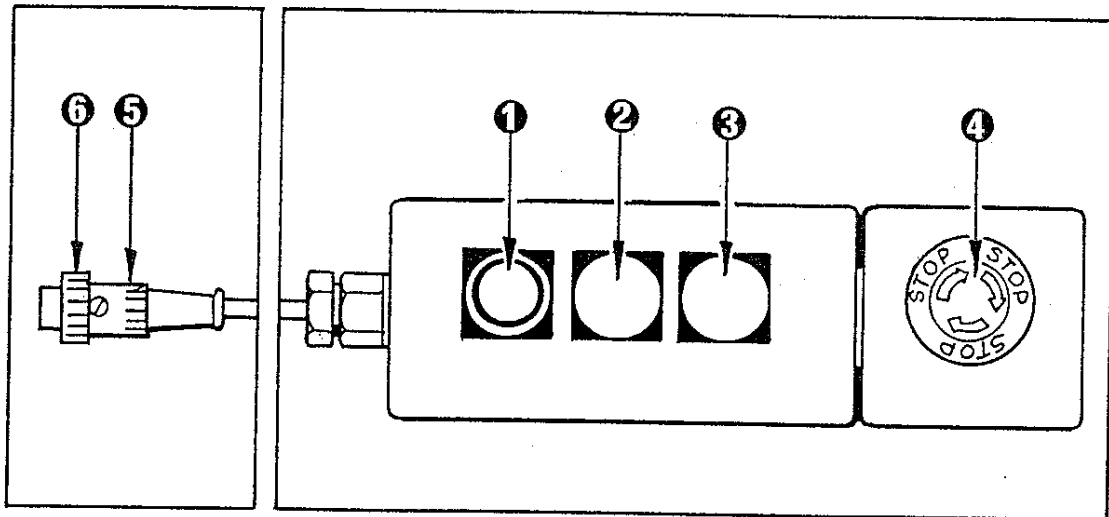


Fig. 3 - Button Unit

- ❶ - Start Button ❷ - Start Light ❸ - Finish Light
 ❹ - Emergency Stop Button ❺ - Connector ❻ - Connector Collar

The ORBITER CONTROL UNIT.

The principal features of the Orbiter Control Unit are shown in Fig. 4 below.

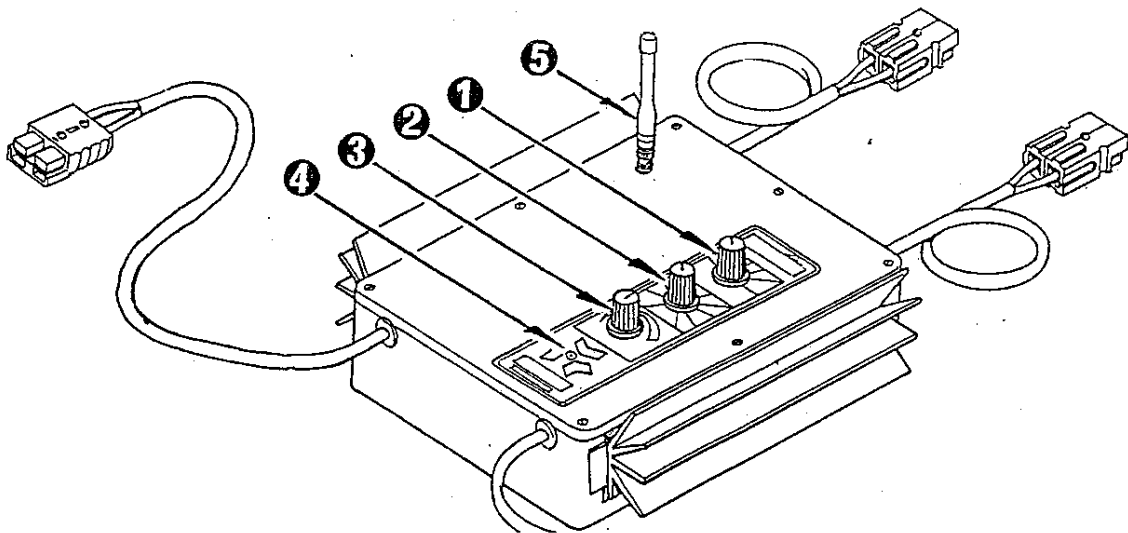


Fig 4 - Orbiter Control Unit

- ❶ - Coins per Play Selector ❷ - Time per Play Selector ❸ - Sound Volume
 ❹ - Starter Position ❺ - Aerial

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The STARTER

The principal features of the Starter are shown in Fig. 5 below.

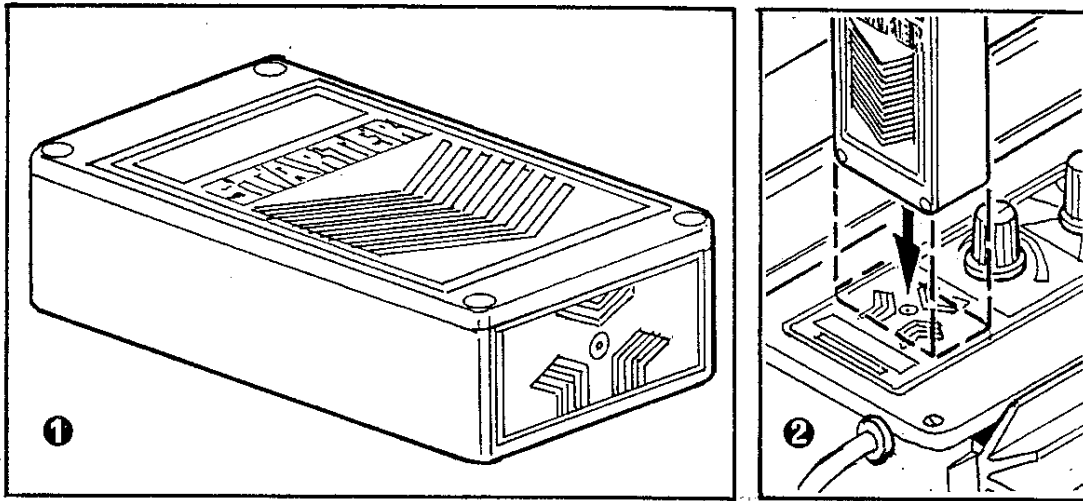


Fig 5 - Starter

① - Starter ② - Operating Position

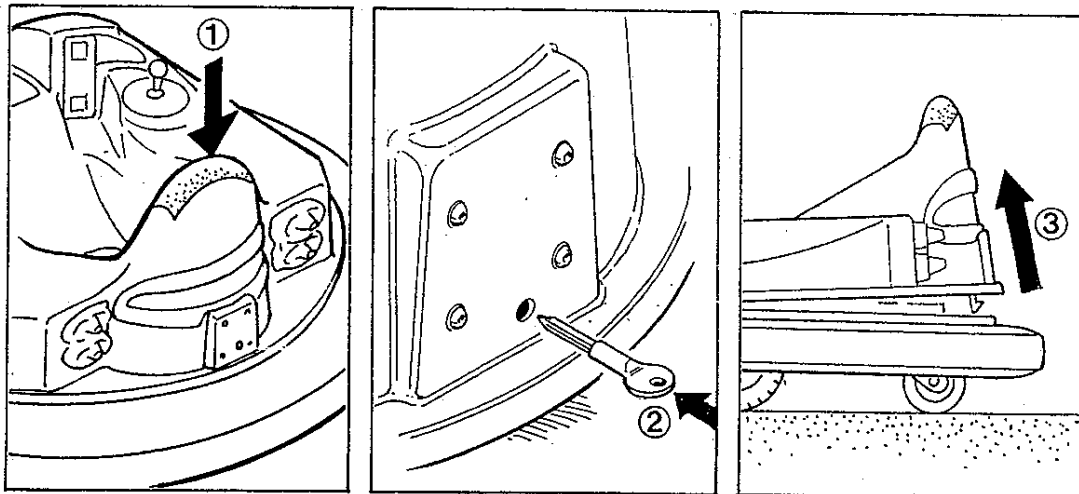


Fig 6 - How to Open the Orbiter Body

① - Push down here ② - Insert key and push fully home
 ③ - Lift body. It will be supported by the gas strut

Set Up

In most cases the ORBITER Control Units will be shipped ready mounted in the Orbiters. The body should be opened using the key supplied (Fig 6 item ②) and the ORBITER Control Unit checked for any damage.

1. Ensure that the aerial is correctly fitted (Fig 4 item ③).
2. Set the Time per Play selector (Fig 4 item ②) to 4 1/2 minutes.
3. Set the Coins per Play selector (Fig 4 item ①) to the one coin position.
4. Set the Sound Volume (Fig 4 item ④) to approximately 1/4.

Tip! The ORBITER Control Unit Time per Play selector (Fig 4 item ②) will only be effective when the ORBITER is used in the Individual mode. The Coins per Play selector (Fig 4 item ①) is effective in all modes except Session Play - Pay Attendant.

Site the TRANSMITTER in a suitable position. This TRANSMITTER is NOT designed to be used out of doors. It should be in a position completely protected from the weather and within reach of a mains electric socket. The controls on the front of the unit should be accessible. Try to avoid a location which places the aerial close to a large expanse of metal (for e.g. a metal roof) as this would adversely affect the radio signal. The Button Unit is waterproof and may be used out of doors.

5. Ensure that the aerial is correctly fitted (Fig 1 item ③).
6. Set the Ride Time selector (Fig 1 item ②) to 2 minutes.
7. Set the Mode selector (Fig 1 item ①) to Individual Play.
8. Connect the Button Unit (Fig 3) to the Transmitter (Fig 1 item ④) by inserting the Button Unit Connector (Fig 3 item ⑤) into any of the Button Unit Sockets (Fig 1 item ④). Note the correct alignment of the plug and socket. The Connector Collar (Fig 3 item ⑥) should then be tightened one quarter turn clockwise.
9. Insert the mains lead supplied into the mains socket on the rear of the Transmitter (Fig 2 item ①).
10. Turn on the Transmitter Power Switch (Fig 2 item ②). The red Finish Light (Fig 3 item ⑦) on the Button Unit should be lit.

Note!

The Transmitter is fitted with Facility Sockets (Fig 1 item ⑤). These may be used to control ancillary equipment for e.g. emergency lighting, automatic announcements etc. For further details please contact Tornado International Ltd. If you have ordered a facility unit it should be connected to either of the Facility Sockets and then follow the instructions supplied with the unit.

Testing

Place all of the ORBITERS in the operating area and connect the batteries. (See owners manual). Ensure that the Ridemaster System is set up in accordance with the previous section.

INDIVIDUAL PLAY.

1. Place a coin/token in each ORBITER in turn. The sound will be heard after a short delay and the ORBITER may be driven.
2. Whilst the ORBITERS are still running press the Emergency Stop Button (Fig 3 item ❶). All of the Orbiters will stop and the timers are suspended. The red Finish light (Fig 3 item ❸) and the green Start light (Fig 3 item ❷) will flash alternately whilst the system is in the emergency stop mode.
3. Release the Emergency Stop Button by rotating the red button anti-clockwise. All of the ORBITERS will re-start.
4. Let each ORBITER time out in turn.

SESSION PLAY - PAY IN CAR.

1. Place a coin/token in HALF of the ORBITERS. The ORBITERS will not start at this time.
2. Press the Green Start Button (Fig 3 item ❶) on the button unit. Only the cars which have had a coin/token inserted can be driven and heard.
3. Whilst the ORBITERS are still running press the Emergency Stop Button (Fig 3 item ❶). All of the Orbiters will stop and the timers are suspended. The red Finish light (Fig 3 item ❸) and the green Start light (Fig 3 item ❷) will flash alternately whilst the system is in the emergency stop mode.
4. Release the Emergency Stop Button by rotating the red button anti-clockwise. All of the coined ORBITERS will re-start.
5. Before the ORBITERS time out, place a coin/token in the other half of the ORBITERS. They will not start at this time.
6. Wait for the first group of ORBITERS to time out. They will all stop together. The green Start Light will go out and the red finish light will be lit.
7. Press the green Start Button. The second group of ORBITERS will now be able to be driven. The first group will remain off.
8. Allow the second group of ORBITERS to time out.

SESSION PLAY - PAY ATTENDANT.

1. Set the Mode Selector (Fig 1 item ❶) to Session Play - Pay Attendant.
2. Press the green Start Button (Fig 3 item ❶). All of the ORBITERS will start together.
3. Whilst the ORBITERS are still running press the Emergency Stop Button (Fig 3 item ❷) on the Button Unit. It will remain depressed and all of the cars will stop. The sound will also stop. The red Finish light (Fig 3 item ❸) and the green Start light (Fig 3 item ❹) will flash alternately whilst the system is in the emergency stop mode.
4. Release the Emergency Stop Button by rotating the red button anti-clockwise. All of the coined ORBITERS will re-start.
5. Wait for the ORBITERS to time out. They will all stop together. The green Start Light will go out and the red Finish Light will be lit.

THE STARTER

The Starter (Fig 5 item ❶) should only be used if the Transmitter should fail for any reason. As a safety precaution all of the ORBITERS will stop if the Transmitter should be turned off, the power fail or the Transmitter itself fail. Under these circumstances it is impossible to use the ORBITERS with out the starter. It should be tested as follows.

1. Set the Mode Selector (Fig 1 item ❶) to Session Play - Pay Attendant.
2. Press the green Start Button (Fig 3 item ❶). All of the ORBITERS will start together.
3. Whilst the ORBITERS are still running turn off the Transmitter Power Switch (Fig 2 item ❷). All of the ORBITERS will stop. This will simulate a mains/Transmitter failure.
4. Go to each ORBITER in turn and open the body using the key supplied (Fig 6 item ❷).
5. Place the Starter in position on the ORBITER Control Unit as shown in Fig 7. Note the alignment of the two symbols.

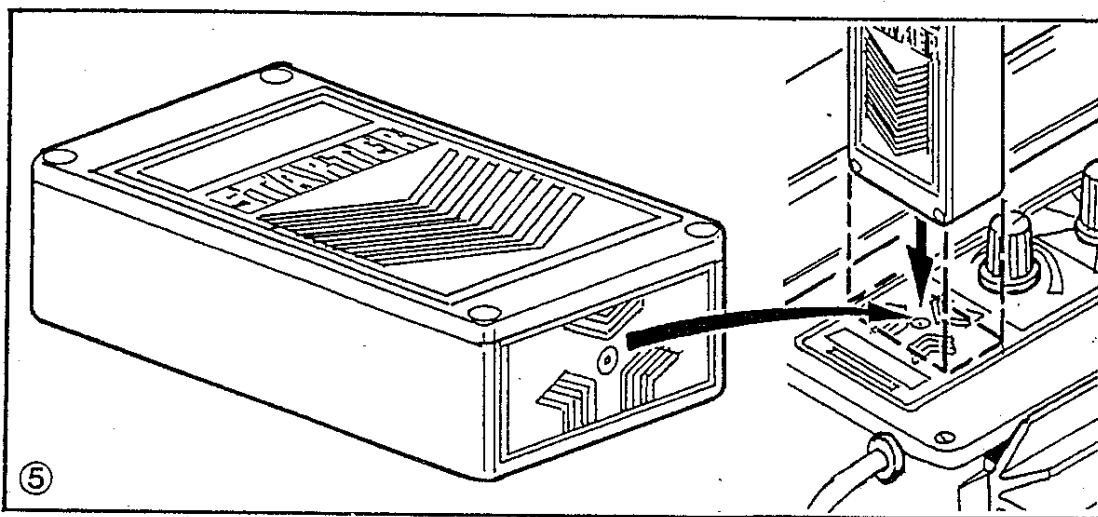


Fig 7 - The Starter Position

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6. Remove the starter and close the body firmly until you hear a click.
7. Coin each ORBITER in turn. It will operate and time out independently.
8. Repeat for each ORBITER.
9. Turn the Transmitter back on.

This concludes the test process. If you encounter any difficulties during this procedure please check that you have followed the instructions carefully. If this does not solve the problem telephone:

Tornado International World-wide Service on 44-(0)21-773-1827.

This number is manned Monday to Friday 08-00 to 18-00 UK time. Please ensure that you are familiar with the symptoms of the problem. In most cases the problem can be identified and solved over the phone.

Operation

Notes!

- ◆ The Emergency Stop Button (Fig 3 item ④) is operative in all modes. It is not available if the Transmitter should be out of use and the starter employed.
- ◆ When the Emergency Stop Button Is pressed the ride time is suspended in all modes. This allows the incident to be dealt with and the ride resumed from the time it was stopped.
- ◆ The Transmitter Ride Time selector (Fig 1 item ②) is effective in Session Play modes only.
- ◆ The ORBITER Control Unit Time per Play selector (Fig 4 item ②) is effective in Individual Mode only.
- ◆ The ORBITER Control Unit Coins per play selector (Fig 4 item ①) is effective in Individual Play and Session Play - Pay in Car modes only.
- ◆ All of the coin mech. are fitted with coin blockers. Coins introduced after a valid coin has been accepted will be rejected.

INDIVIDUAL PLAY.

1. Set the Transmitter Mode selector (Fig 1 item ①) to Individual Play.
2. Set the ORBITER Control Unit Coins per Play selector (Fig 4 item ①) to the required number.
3. Set the ORBITER Control Unit Time per play selector (Fig 4 item ②) to the required time.
4. Switch on the Transmitter at the Power Switch (Fig 2 item ②).
5. Fit batteries to each ORBITER.

Tip! It is useful to have the Transmitter Ride Time selector (Fig 1 item ②) and the ORBITER Control Unit - Time per Play selector (Fig 4 item ②) set to the same value. This allows you to change between modes without changing any time settings.

In this mode the coin counters mounted under the cash door will record each coin/token accepted. Each car operates independently of the others except when the Emergency Stop Button (Fig 3 item ④) is pressed. In this case all of the Orbiters will stop and the timers are suspended. The red Finish light (Fig 3 item ③) and the green Start light (Fig 3 item ②) will flash alternately whilst the system is in the emergency stop mode. Release the Emergency Stop Button by rotating the red button anti-clockwise. All of the coined ORBITERS will re-start.

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SESSION PLAY - PAY IN CAR.

1. Set the Transmitter Mode Selector (Fig 1 item ❶) to Session Play - Pay in Car.
2. Set the ORBITER Control Unit Coins per Play selector (Fig 4 item ❶) to the required number.
3. Set the Transmitter Ride Time selector (Fig 1 item ❷) to the required time.
4. Switch on the Transmitter at the Power Switch (Fig 2 item ❷).
5. Fit batteries to each ORBITER.
6. After the players are seated securely in the ORBITERS and they have inserted the coins check there are no pedestrians in the operating area and then press the green Start Button (Fig 3 item ❶). All of the ORBITERS will start together.
7. At the end of the pre-set time period all of the ORBITERS will stop together. The red Finish Light (Fig 3 item ❸) will illuminate and the cycle can be repeated from step 6.

Tip! It is useful to have the Transmitter Ride Time selector (Fig 1 item ❷) and the ORBITER Control Unit - Time per Play selector (Fig 4 item ❷) set to the same value. This allows you to change between modes without changing any time settings.

In this mode the coin counters mounted under the cash door will record each coin/token accepted. All of the ORBITERS start and stop together. When the Emergency Stop Button (Fig 3 item ❹) is pressed. All of the Orbiters will stop and the timers are suspended. The red Finish light (Fig 3 item ❸) and the green Start light (Fig 3 item ❷) will flash alternately whilst the system is in the emergency stop mode. Release the Emergency Stop Button by rotating the red button anti-clockwise. All of the coined ORBITERS will re-start.

SESSION PLAY - PAY ATTENDANT.

Tip! This mode may be used to operate the ORBITERS on a free ride basis for e.g. in a one pay park.

1. Set the Transmitter Mode Selector (Fig 1 item ❶) to Session Play - Pay Attendant.
2. Set the Transmitter Ride Time selector (Fig 1 item ❷) to the required time.
3. Switch on the Transmitter at the Power Switch (Fig 2 item ❷).
4. Fit batteries to each ORBITER.
5. After the players are seated securely in the ORBITERS check there are no pedestrians in the operating area and then press the green Start Button (Fig 3 item ❶) All of the ORBITERS will start together.
6. At the end of the pre-set time period all of the ORBITERS will stop together. The red Finish Light will illuminate and the cycle can be repeated from step 5.

In this mode the coin counters mounted under the cash door will not operate. All of the ORBITERS start and stop together. When the Emergency Stop Button (Fig 3 item ❹) is pressed. All of the Orbiters will stop and the timers are suspended. The red Finish light (Fig 3 item ❸) and the green Start light (Fig 3 item ❷) will flash alternately

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whilst the system is in the emergency stop mode. Release the Emergency Stop Button by rotating the red button anti-clockwise. All of the ORBITERS will re-start.

IN CASE OF TRANSMITTER FAILURE.

If the Transmitter or the supply to it fails then all timing information is lost. If rides are in progress all of the ORBITERS will stop. Customers whose rides are affected should be offered a free ride after the following procedure is completed.

IMPORTANT

AFTER THIS PROCEDURE IS CARRIED OUT THE EMERGENCY STOP BUTTON DOES NOT WORK! BEFORE PROCEEDING SATISFY YOURSELF THAT IT IS SAFE TO CONTINUE OPERATION OF THE ORBITERS. IT MAY BE PRUDENT TO SEEK THE AUTHORITY OF YOUR ORGANISATIONS MANAGEMENT, OR USE EXTRA PERSONNEL TO ENSURE THAT AN ACCEPTABLE LEVEL OF SAFETY IS MAINTAINED.

1. Go to the ORBITER and open the body using the key supplied (Fig 6 item ②).
2. Place the Starter in position on the ORBITER Control Unit as shown in Fig 7.
Note the alignment of the two symbols.

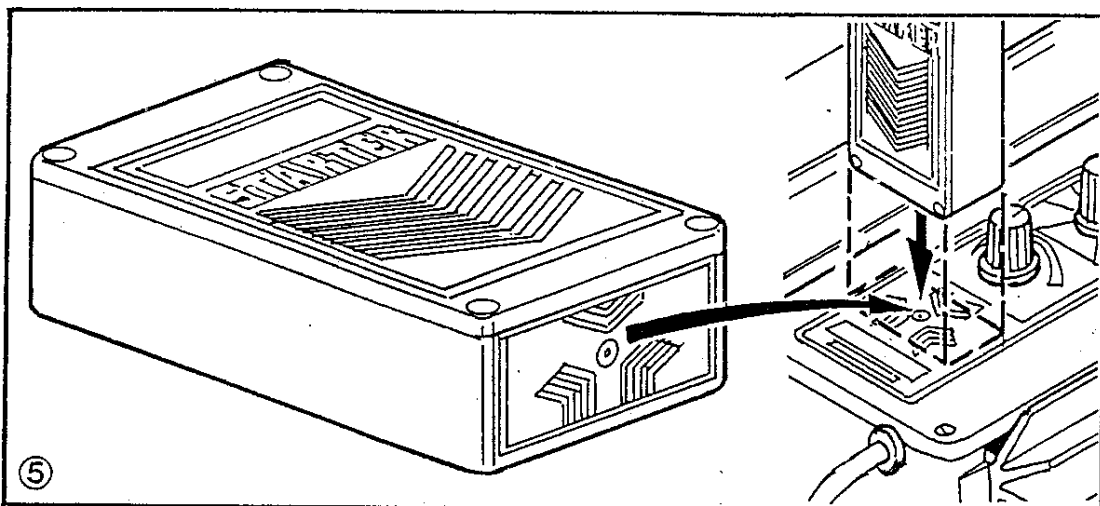


Fig 7 - The Starter Position

6. Remove the starter and close the body firmly until you hear a click.
7. Repeat for each ORBITER.

The ORBITERS may now be operated as if in Individual Mode but without the Emergency Stop feature. The above procedure must be followed each time the batteries are connected to the ORBITER.

RIDEMASTER MANUAL***TO RETURN THE TRANSMITTER TO SERVICE***

If the ORBITERS are in use:

1. BEFORE turning the Transmitter on, set the Transmitter Mode selector (Fig 1 item ❶) to Session Play - Pay Attendant.
2. Set the Transmitter Time selector (Fig 1 item ❷) to the required time.
3. Turn on the Transmitter at the power switch (Fig 2 item ❸) and then immediately press the Start Button (Fig 3 item ❶). All of the ORBITERS will stop briefly and then start again. After the amount of set time has expired, all of the ORBITERS will stop together. Some riders will get a longer ride than others.
4. When all of the ORBITERS have stopped, set the Transmitter Mode selector to the required mode and operate as normal.

If the ORBITERS are not in use:

1. Before turning the Transmitter on, set the Transmitter Mode selector (Fig 1 item ❶) to the required mode.
2. Set the Transmitter Time selector (Fig 1 item ❷) to the required time.
3. Turn on the Transmitter at the power switch (Fig 2 item ❸).
4. Operate as normal

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