



# AMUSEMENT SERVICES AUSTRALIA

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STARSHIP 2000 "GRAVITRON" X1494. DESIGN NO.DRE1600

## OPERATORS INSTRUCTIONS

In addition to the operator's instructions as per the manual from FERRARI, ASA wish to include the follow "Patrons Rules" to the staff training procedures.

1. Ride operator is to walk around the deck and welcome all riders on to the ride.
2. Explain that once the ride begins that the ride will start to spin and due to gravity the patrons will "stick" to the rider seat beds.
3. Your seat bed will slide up during the initial start of the ride cycle
4. Patrons should always remain in an upright position
5. Patrons should **not attempt** to turn **sideways**, **up side down**, or attempt to **crawl** along the seats during the ride cycle.
6. Operator is to remain observant at all times and instruct any patrons attempting the above to return to the upright position.
7. In the event of an Emergency- **HIT THE RED "STOP" BUTTON IMMEDIATELY** and follow the standard stopping procedures before opening the door.
8. **NOTE- ALL OPERATORS MUST BE AWARE OF THE 2 EMERGENCY TRAP DOORS THROUGH THE REVOLVING PLATFORM.**
9. **THE MAIN DOOR ALSO CAN BE LIFTED BY HAND FROM INSIDE OR PUSHED UPWARD BY HAND FROM OUT IF ANY EMERGENCY ARISES.**
10. **OPERATOR MUST INSTRUCT PATRONS THAT THE 2 SEAT BEDS MARKS WITH AN X MUST NOT BE USED AS THEY ARE CLOSE TO THE EMERGENCY EVACUATION DOOR.**

## OPERATOR TRAINING RECORD.

DATE <u>26/7/19</u>	NAME <u>Spencer Smith</u>	TRAINED BY: <u>Amanda</u>	SIGNED: <u>[Signature]</u>
DATE <u>26/7/19</u>	NAME <u>Patricio Berto Q</u>	TRAINED BY: <u>Amanda</u>	SIGNED: <u>[Signature]</u>
DATE <u>21/12/21</u>	NAME <u>Phillip Osborne</u>	TRAINED BY: <u>Russell</u>	SIGNED: <u>[Signature]</u>
DATE <u>21/12/21</u>	NAME <u>Peter Monk</u>	TRAINED BY: <u>Russell</u>	SIGNED: <u>[Signature]</u>
DATE.....	NAME.....	TRAINED BY:.....	SIGNED.....
DATE.....	NAME.....	TRAINED BY:.....	SIGNED.....
DATE.....	NAME.....	TRAINED BY:.....	SIGNED.....

**Ferrari**

**OPERATING  
INSTRUCTIONS**

## GRAVITRON

OPERATOR'S INSTRUCTIONS

1. Turn main switch "ON" in the electrical box at the back of the trailer.
2. Check that all switches are in the "ON" position.
3. Open door with switch adjacent to door under platform.
4. Turn all switches "ON" in the centre console.
5. Press the "UP" and "DOWN" door buttons to allow customers in. Once the customers are in and positioned, close the door by pressing door "DOWN" button.
6. Locate the electrical timer in front of the Operator's Control and select the time required for the length of the ride. Once everyone is safely positioned, press the ride "ON" button which starts the main electric motor and accelerates the ride to the present speed of 24 rpm. When the selected time has elapsed, the motor will automatically switch off.
7. Wait for a couple of revolutions and slowly apply the hydraulic brake to slow the ride down sufficiently so that the door can be partly opened and the outside steps become visible.
8. Press your foot on the brake pedal to smoothly bring the ride to a stop at the steps.
9. Press the door "OPEN" button to allow the happy customers to file out past the next group eagerly waiting to board.

EMERGENCIES

In the event of any emergency, HIT THE RED "STOP" BUTTON IMMEDIATELY and then follow the standard stopping procedure before opening the door.

**NOTE:** All operators must be aware of the two emergency trapdoors through the revolving platform floor.

The main door also can be listed inward by hand from inside, or pushed upward by hand from outside if any emergency arises.

### SAFETY REQUIREMENTS

The key to safety is well trained and well supervised employees. Make certain all employees know how the ride operates. The employees should have a good attitude towards safety and common sense.

REMEMBER, SAFETY MUST ALWAYS COME BEFORE REVENUE.

Do not neglect the employees' safety. Before starting the ride, be certain there are no personnel inside the fences or on the ride structure. Be certain all electricity is turned off whenever an employee might come into contact with electrical connections or components. Safety helmets should be worn by all personnel when erecting or disassembling a ride.

### GENERAL SAFETY GUIDELINES

The following is a list of a few general rules which should be adhered to by everyone. Remember that in the long run, the key to a safe and successful operation is to have well-trained and well supervised employees.

- 1) All work must be done by competent, qualified mechanics capable of understanding the function of the parts and their proper installation.
- 2) Inspect the ride each day of operation to determine that no portion of the ride is damaged, omitted or worn in such a manner that it is unsafe, or that unsafe conditions may develop.
- 3) Perform manufacturer's recommended maintenance procedures at intervals and in the manner specified by Operation and Maintenance Manual, in the following general areas:
  - a) Lubrication
  - b) Air, hydraulic and electrical systems
  - c) Torquing of bolts
  - d) Wear of bolted or pinned joints
  - e) Adjustment and care of mechanical components such as brakes, clutches and air compressors
  - f) Passenger securing devices
  - g) Crown control devices
  - h) Operating and emergency controls
  - i) Factory installed safety devices

- 4) Study each job carefully to determine all hazards so that necessary safeguards can be taken.
- 5) Examine safety devices, tools, ladders, etc. before they are used to make sure they are in a good condition. Ladders should be clean at all times.
- 6) Use the proper tool or equipment for each job. Ground all hand electric power tools before use unless the manufacturer advises otherwise.
- 7) Wear close-fitting comfortable clothing when working on or close to mechanical apparatus or live electrical circuits. Avoid finger rings, jewellery or other articles which may be caught in moving parts or come in contact with electrical circuits.
- 8) Protect your eyes by wearing approved safety glasses or goggles.
- 9) Wear hard hats at all times. When working in elevated areas, use a safety belt.
- 10) Where work to be performed is hazardous such as live electrical circuits, at least two men should work together.
- 11) If guards must be removed from equipment, make sure they are replaced before leaving the job.
- 12) Clean up after each job and dispose of surplus materials.
- 13) Keep a record of parts replaced and date of replacement. Inform the manufacturer of any replacement requirements that are frequent or cause unsafe conditions.
- 14) Make modifications and additions as outlined in the manufacturer's Service and Safety Bulletins.

#### OPERATOR SELECTION AND INSTRUCTION

- 1) Select competent, mature operators, capable of understanding the function and use of amusement rides and their control.
- 2) Instruct each operator fully in the proper use and function of the ride he is to supervise, including:
  - a) Controls and procedures for normal and emergency operation.

- b) Manufacturer's recommended maximum speed and load.
  - c) Manufacturer's recommended length of ride time and frequency of repeat rides.
  - d) Any foreseeable misuse of the ride as determined by the manufacturer or owner, or by special conditions such as weather, location or crowds.
  - e) Each operator must have immediate availability of a manufacturer's Operator Manual for the ride he supervises.
- 3) Require each operator to inspect the ride he supervises, each day of operation.
- a) Determine that no portion of the ride is damaged, omitted or worn in such a manner that it is unsafe or that it may develop into an unsafe condition.
  - b) Report any irregularities to the superintendent or owner.
  - c) Do not operate the ride if any irregularities are found until such conditions are corrected.
- 4) Instruct the operator to allow no passenger to ride who is visibly ill, or under the influence of drugs or alcohol.
- 5) Instruct operators and attendants on the proper methods of securing passengers in the ride. Do not allow a passenger to board a ride if he cannot be properly secured because of his size or because there is a malfunction of the securing device.
- STOP the ride immediately if any passenger is observed tampering with any restraining device or behaving dangerously, such as standing up.
- 6) Advise the operator against starting or operating the ride whilst any person (passenger, spectator or employee) is in an endangered or unsafe position on the ride, or within the ride area.
- 7) Insist that each operator remain in full control of the operating controls during operation of the ride, and give his full attention to the ride and its passengers.
- 8) Instruct the operator to allow no other person, other than another trained operator, to operate the controls of the ride, except those portions of the ride that are specifically designed to be controlled by the passenger.

- 9) Advise the operator that factory-installed safety devices are not to be tampered with or removed.
- 10) Advise the operator of owner/supervisor procedure for assisting ill or injured passengers.
- 11) Instruct operators and attendants that patrons are required to secure all articles, such as keys, change, eye glasses, etc., which may become loose while riding.

**OPERATOR RESPONSIBILITIES**

- 1) Handicapped Persons - Persons who are physically handicapped must not be allowed to ride violent or fast moving rides such as a Coaster, Octopus, Hurricane, etc. If the management of the amusement area allows handicapped persons to ride certain slow rides like the Carousel or Ferris Wheel, the operator must ensure the handicapped person is under the full control of an adult person who will ride with and supervise them during the ride.
- 2) Prohibited Passengers - Operators should not allow a passenger on the ride who cannot be properly secured due to his size or there is a malfunction in the securing device. Similarly, they must refuse the ride to a pregnant woman, or a passenger who is visibly ill, or under the influence of alcohol or drugs.
- 3) Clearance Precaution - Before operating the ride, it is important to ensure there are no personnel around the ride structure or any exposed electrical components or other areas where there could be the risk of injury.
- 4) On-duty Attention - Insist that each operator remain in full control of the operating controls during operation of the ride with complete attention to the ride and passengers. Under no circumstances should the operator leave his or her position while the ride is in operation.  
  
If it does become necessary for the operator to leave his post at the controls, he must turn the ride off completely to ensure it does not accidentally start and/or injure passengers or staff.

5) Inspection/Check List - Operators must inspect the ride and complete a "General Check List" before each day's operation.

6) Daily "warm-up" - The operator must always run the ride through several cycles before the first passengers are loaded. This "warm-up" without passengers is necessary to make sure the ride is safe and there are no problems mechanically not detected previously.

7) Safety Bars - The operator must check each individual safety bar before the ride is put in motion. In addition, he must observe the ride at all times so that should a safety bar become unlocked, the ride can be immediately stopped.

8) Precautions before and during ride - Never start the ride unless the operator is facing the ride and is in a position to observe the whole area because:

- Patrons have been known to jump fences
- Patrons have been known to release safety devices so as to change seats with their partners
- Patrons have been known to release safety devices and stand up in the ride
- Patrons have also been known to "skylark" causing their own safety and that of others to be jeopardised
- The operator's assistant may wish to make a last minute adjustment and be in a dangerous position when the operator puts the ride in motion.

### OPERATING AMUSEMENT DEVICES - OPERATOR INSTRUCTIONS

The following are the correct loading (balance) procedures of amusement devices:

- 1) Every amusement ride must always be operated with a balanced load of passengers at all times.
- 2) The "balancing" rule is to ensure an even load on the ride's structure and mechanical drive, which in turn will cause



less wear and tear and ensure a safer, longer life of the structure with less down-time for adjustments and repairs.

- 3) In practical terms, consider the difference in driving a motor vehicle with balanced wheels as against unbalanced wheels, which causes vibrations and eventual wear and tear.
- 4) The majority of operators would have experienced driving a car with unbalanced wheels and the consequent results. Amusement devices are mostly large wheels and react the same as an automotive wheel when out of balance.
- 5) Although the out of balance load on some devices cannot be physically felt by the passengers or operator, it is still nevertheless essential for the ride to be balanced.
- 6) On an extremely fast moving ride, it is essential that the ride be accurately balanced at all times.
- 7) Although it may not be strictly essential to balance slower revolving rides, it is still most desirable to achieve a balanced load in the interests of the passengers and the owner of the ride for increased safety and less "wear and tear".

THE PRECEDING COMMENTS AND THE FOLLOWING LIST WILL HELP YOU UNDERSTAND:

- \* The difference between rides
- \* The reasons for balancing passengers
- \* Why it is essential in the interests of safety of patrons and operators to balance amusement devices.



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## HAZARD AND RISK ASSESSMENT STAR SHIP

ITEM	HAZARD IDENTIFICATION PRIOR TO RIDE ERECTION	RISK CONTROL MEASURES TO ELIMINATE OR MINIMIZE	SEVERITY OF INJURY F= FATEL S = SEVERE M= MED L = LIGHT	COMPLETED
1	GROUND CONDITIONS, SOFT, SLOPES	USE APPROPRIATE BLOCKING AND STRAPPING TO SPREAD LOAD AND STABILIZE RIDE.	S/M	EACH SET UP
2	CLEARANCE FROM WIRES, TREES, STRUCTURES	INSPECT RIDE PRIOR TO COMMENCING SET-UP. MEASURE CLEARANCE REQUIRED.	F/S	EACH SET UP
3	PUBLIC ACCESS TO ERECTION AREA	ERECT SET-UP BARRIER EXCLUSION ZONE	S/M	EACH SET UP
4	PPE REQUIRED	ISSUE PPE EQUIPEMENT e.g HARD HATS, GLOVES, HI VISUAL CLOTHING, WORKING AT HIGHTS HARNESS.	F/M	EACH SET UP
5	HANDLING OF RIDE COMPONANTS	STAFF TRAINING OF CORRECT HANDLING OF RIDE COMPONENTS	F/S	EACH SET UP

6	LOWERING TRAILER AND LEVELING	WORK AREA TO BE CLEAR DURING LEVELING TRAILER	F/S	EACH SET UP
7	INSTALL ROOF COVER, SLIPS AND FALLS	CORRECT FOOTWEAR, CLEAN CLIMBING SURFACES OF GREASE, WORKING AT HIGHTS HARNESS	F/S	EACH SET UP
8	RIDE MUST NEVER OPERATE WITH OUT ROOF COVER	INSPECT ON DAILY SET UP CHECK LIST	F/S	EACH SET UP

**DAILY SET UP CHYECK LIST**

ITEM	CHECKED
1. FENCING, GUARDS, BARRICADES AND STAIRWAYS	
2. ELECTRICAL EQUIPMENT PROTECT FROM PUBLIC AND WEATHER INTRUSION	
3. FIRE EXTINGUISHERS 2 ON HAND, WARNING, DIRECTIONAL AND SAFETY SIGNS IN PLACE.	
4. LUBRICATION AS PER MANUFACTURERS INSTRUCTIONS	
5. CHECK TYRE PREASURE 45-50 PSI	
6. CHEACH BREAK FLIUD LEVEL - INSPECT WEAR ON BREAK PADS, CHECK AND LECKAGE .	
7. CHECK V BELT TENSION, ENSURE SET UP BELTS HAVE BEEN REMOVED.	
8. INSPECT DOOR MOTOR, SPROCKET, CHAIN, LUBRICANT.	
9. OPERATE EMERGENCY LIGHTING AND EXIT DOOR.	

**DAILY SET UP CHYECK LIST**

<b>10. ENSURE ALL WEDGES ARE SECURE AND HAE SAFETY PINS FITTED.</b>	
<b>11. FOUR PLATFORM BOLTS UNDER DECK MUST BE TENSIONED.</b>	
<b>12. TEST PA SYSTEM</b>	
<b>13. BLOCKING AND SUPPORT STANDS</b>	
<b>14. OPERATE RIDE THROUGH COMPLETE RIDE CYCLE.</b>	
<b>15. INSPECT ALL PANEL STEEL FRAMEWORKS FOR CRACKS OR BROKEN WELDS.</b>	
<b>16. TENSION CENTRE BEARING BOLTS TO 150lbs.</b>	

## GRAVITRON

ASSEMBLY PROCEDURE

1. Select site and mark out the area where the Gravitron is to be set up for operation.
2. Lower the levelling jacks and level ride, usually rear pair first and then the front pair.
3. Unfold front and rear panels on trailer.
4. Remove platform support blocks from front and rear between platform and trailer.
5. Connect vee belts to set up the motor.
6. Remove pins in top travelling braces, and set up derrick and rope block.
7. Connect power 415V/50HZ to the ride and turn on the main switch.
8. First check for correct rotation by checking for air coming out of the centre console.
9. If no air is felt, the power is connected incorrectly. The step then is to change over two of the incoming three phase active wires.
10. Switch on hydraulic pump and lower the decking opposite the sign and secure the two platform bolts under the deck.
11. Lower the sign platform approximately 1m so that the sign can be raised with the rope block.
12. When the sign is in position and secure with the braces, remove the rope block from the sign and continue to lower the platform.
13. Secure the two platform bolts under the deck and remove the derrick and tee beams from the platform.
14. Set up steps for easy access onto platform.
15. Remove aluminium beam and set up one end on the centre and the other to the rear of the trailer.

16. Remove aluminium beam and set up one end on the centre and the other to the rear of the trailer.
17. Working from the rear erection platform, move all trusses clear of the panels.
18. Disconnect the left hand truss with the special end and slide it just past the centre of the panels. Insert pin and wedge.
19. Connect lifting truss to chain block hook.
20. Using the chain block, raise the first panel clear of floor travelling pins and using the switch adjacent to the erection platform, rotate platform anti-clockwise until the door panel moves away from the back of the trailer.
21. Slide this first panel back so that it meets up with the door panel.
22. Loosely attach floor wedges, side pin and wedge, position top truss, pin and wedge.
23. Turn platform clockwise until the second panel on the platform is under the chain block.
24. Repeat this operation until No. 7 panel is ready to go into position.
25. Connect rope block to top of Panel 6 and top of centre console at attachment points.
26. Lower panel 6 outwards sufficiently to allow panel 7 to fit.
27. Swing last truss into position and secure with pins and wedges.
28. As one side of the Gravitron is now assembled, revolve the platform so that the second set of stacked platforms are under the aluminium beam.
29. Proceed as with Step No. 10 to complete the second half of the ride.
30. The centre fences can now be passed down through the roof trusses.
31. Position vinyl top on the centre of the ride and proceed to roll out the top, making sure that the two turn buckles end up over the panel with the slot, which is directly opposite the door.

32. Hook up turn buckles and tension cable.
33. When the top is secured, wind up the centre with the wheel provided in the ceiling of the centre console.
34. Open door and revolve platform so that the door opening is to the front of the trailer.
35. Start from one end and lift three couches forward on one panel and secure the couch truss with attached pins. Plug in light leads at this time.
36. Continue with this procedure until all couches have been secured.
37. Check and tighten all wedges, pins, etc. throughout the ride.
38. Set up perimeter panels.
39. Set up perimeter fences.
40. After the ride has been completely assembled, a check must be made by the Supervisor to ensure all equipment has been correctly secured.
41. A number of test runs without passengers must then be made to ensure the ride is safe and secure for passengers.

## DISMANTLING PROCEDURE

To dismantle and "pack up" the Gravitron, please reverse the above procedures.

### NOTE \*\*\*\*

Refer to the Maintenance Check List for daily and periodical safety checks.