

INSPECTION PROCEDURES



GUIDANCE

PUBLISHED BY AND AVAILABLE FROM
BACTA
KING'S CROSS HOUSE
211 KING'S CROSS ROAD
LONDON W1X 9DN

TEL 0207 713 7144

INTRODUCTION.

This guidance is intended to assist inspectors of coin operated devices achieve consistency in the testing of equipment.

The general requirements and procedures for testing will be found in BACTA guidance on coin operated kiddie rides and the BACTA guidance on arcade simulators. However it is important for an inspector to know the extent to which he is expected to go when achieving the objective.

First and foremost the main purpose of the inspection is to ensure the safety of: -

1. The child or passenger.
2. The public in general
3. Maintenance staff or persons working on the device.

A question often asked is "do I have to dismantle the device in order to conduct a thorough examination?" the answer is not necessarily.

Certain parts of the device may be safety critical. If access to such parts requires the removal of covers or fixtures and the inspector is not completely satisfied with the integrity of such parts then access must be gained.

A thorough examination should be exactly that. The whole object is to eliminate risk of injury to the person not to create unnecessary work.

On completion of a successful examination the operator (or controller) should be issued with the following items for each device tested:

1. REPORT OF INSPECTION
2. D.O.C. (Declaration of Operational Compliance)
3. D.O.C PLATE. (Sticker)

It is essential that a full engineers report be drawn up detailing any faults found.

Any faults or comments on the safety of the device should be repeated on the REPORT OF INSPECTION by the registered inspection body and any corrective measures necessary be carried out before a DOC is issued.

These two documents should then be kept available for any authorised inspection for a minimum of 10 years.

The D.O.C. plate (sticker) should be attached to the device in a reasonably prominent position indicating the registration number of the inspection body, the unique number of the DOC and the expiry date of the DOC.

BASIC INSPECTION PROCEDURE

Before any inspection of the device it is always advisable to consult the instruction manual if available for any specific procedures recommended by the manufacturer.

The following steps represent a basic procedure for annual thorough examination.

- Step1. Before any inspection of the device is commenced ensure that the ride is disconnected and isolated from the electrical supply and any other sources of energy.
- Step2. Inspect the device for breakages or damage and for evidence of any problems with the electrical equipment and supply (signs of overheating, damage that may allow direct contact with live parts, loose connections etc).
- Step3 Remove inspection covers to check for dirt or corrosion.
- Step4. If in your opinion the condition of any part of the device is such that it could be dangerous due to excessive dirt build up notify the controller and ask for the device to be cleaned to enable a satisfactory inspection to be carried out.
- Step5. If on inspection the mechanical parts of the device are clean and free from corrosion
 - 5a Check that all fixings and bearings are secure.
- Step6 Inspect the electrical system in detail and bring the need for any repair/remedial action to the attention of the operator/controller.
- Step7 Check for any damage or deterioration to enclosures.
 - 7a Check that seals on enclosures are in good repair for the required level of ingress protection.
 - 7b Check for any sharp protrusions or finger traps, and any deterioration of rubber boots gaiters etc.
- Step8 Check for any damage or deterioration to components, plugs, sockets and cable insulation that may lead to injury.
- Step9 Check that over current protective devices such as fuses and circuit breakers are correctly rated.
- Step10 Check that any interlocking devices and safety-related sensors are in good condition and correctly set up.

Step11 Carry out a test of the electrical system to ensure that insulation resistance and earth continuity (Min 2 Megohm at a test voltage of 500v and Max 0.2 ohm at 25amp respectively are normally accepted values) are satisfactory. Be aware of the possibility of damaging sensitive electronic equipment during these tests and the possibility of leakage to earth through devices such as motor drives; take appropriate precautions.

Note If the device is part of a fixed installation or supplied by a generator, and where appropriate, measure the external earth fault loop impedence to ensure that it is of satisfactory value in relation to the rating of the over current protective devices and the required disconnection time.

Assuming satisfactory results on the electrical and mechanical inspections, and after all the covers etc have been replaced, switch on the supply to the device and carry out a full functional test. This test should exercise all the safety-related systems, including Residual Current Devices(RCDs) safety interlocks, stops, emergency stops, and protective systems.

The above is a basic test procedure and outlines the minimum requirements. Further tests may be necessary and full compliance with the appropriate BACTA safety guide, HSG175 and the device manual is essential before a DOC is issued.

IMPORTANT READING

COIN OPERATED DEVICES (KIDDIE RIDES, ARCADE SIMULATORS AND SIMILAR EQUIPMENT) A SAFETY GUIDE.

Published by BACTA.

FAIRGROUNDS AND AMUSEMENT PARKS GUIDANCE ON SAFE PRACTICE.
(HSG 175)

Published by HSE.

To follow: SAFETY OF AMUSEMENT DEVICES -*Advice on design*
SAFETY OF AMUSEMENT DEVICES -*Advice for inspection bodies.*

BACTA
King's Cross House
211 King's Cross Road
London W1X 9DN
Tel 0207 713 7144

HSE BOOKS
PO BOX 1999
Sudbury
Suffolk CO10 6FS
Tel 01 787 881165

BACTA gratefully acknowledges the advice and assistance given by the HSE in the preparation of this document.