



# **UNITED BUSINESS SYSTEMS COMPANY LTD.**

## **Installation of UPS & Batteries**

GUTOR UPS Systems, Battery Chargers

### **Batteries**

**Sealed lead acid**

**Vented lead acid battery**

**NiCd battery**



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## 1.0 SCOPE

United Business Systems has been in the field for Installation of the UPS, battery charger & batteries, lay cables for small and mega industries and projects which includes pre-commissioning of the UPS and the battery charger. In addition also includes complete battery bank installation, testing and commissioning.

## 2.0 STAFF

### 2.1 Project Manager

Project Manager has the overall responsibility for the installation Statement and is responsible for supporting and encouraging the related staffs and workers, so as for them to participate actively as worksite.

### 2.2 Project Engineer

Project Engineer has the responsibility for compliance with installation procedure and shall ensure to review contract documents and provide all resources necessary to effectively implement throughout the construction period and also shall review the construction details and specification with Electrical Supervisor and ensure they fully understand the requirements of the job

### 2.3 QC Engineer and Project supervisor

QC Engineer shall be responsible for the QC activities, material control and traceability, non-conformance management and compilation of Equipment Installation documents.

### 2.4 HSE Officer

HSE Officer shall monitor related works under carrying out, and advise supervisors' for corrective measures, if required. He shall ensure holding of pre task HSE meeting / daily toolbox talks covering details of specific tasks and specific job risks involved to the work force involved. He shall also ensure appropriate mode of communication in case of emergency



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## 3.0 INSPECTION & TESTING

- 3.1 Upon completion of the installation, Project Eng. will notify The client for inspection to assure that all requirements are met.
- 3.2 All inspection and testing shall be performed and the results shall be recorded in accordance with the inspection and test plan.
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- 3.4 The inspection results shall be documented on the related reports / checklists.
- 3.5 **Startup of system**  
Start UPS without batteries step by step. During the startup steps there are several points to check, such as Signals of the voltage and current values, control loops, controller supplies etc. adjust the system to the mains on site, calibrations if needed, check measuring units and control loops in UPS.
- 3.6 **Supervised Battery initial charge and discharge test**  
Measure and record the voltage of each battery cells before charging (also total voltage and ambient & battery cell temperature of). Measure and record the voltage of each battery cells during charging, as well as total dc, current, AC ripple, ambient temperature and battery temperature, in interval time, 3 –5 cycles(initial charging time requirements)according IEC 896.