**20240722\_internal\_main\_das2.0\_v1.1** July 2024

# DAS 2.0 Maintenance Instruction



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# Dust Analysis System 2.0 (DAS 2.0) Maintenance Instruction

## Colophon

Title Project code Project manager Contractor

Author

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Fred Chen

Billy Gan

#### Kiwa ExTEL 艾思特能源

13F-5, No.100, Section 1, Jiafeng 11th Rd, Zhubei City, Hsinchu County 302052, Taiwan

billy.gan@kiwa.com

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## 1. Preface

- Please read this instruction manual carefully before you start installing the machine.
- You are kindly requested to read this manual thoroughly, to follow the instructions given and for safety reasons, avoid controlling, adjusting or performing procedures other than those specified.
- The instruction manual contains important information on how to operate the machine safety properly and most efficiently. Observing these instructions helps to avoid danger.
- These operating instructions must be applied by any person in charge of carrying out work with and on the machine ,such as
  - Operation including setting up, troubleshooting in the course of work, care of consumables
  - Maintenance (serving, inspection, repair) and /or transportation
- This machine is designed and built in full compliance with the safety standard, please read the corresponding manual carefully before operating the machine.
- In addition to the operation instructions and to the mandatory rules and regulations
  for accident prevention and environment protection in the country and place of use
  of the machine, the generally recognized technical rules for safe and proper working
  must also be observed.

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### 1.1. Periodical Inspection & Maintenance

This section provides the basic periodical maintenance information for Dust Analysis System (DAS) examination during system maintenance to maintain an optimum level of performance of the system. General maintenance should be performed on a regular schedule and must include a visual inspection and routine maintenance.

No.	Item Name	Frequency	Explanatory Section
1	<ul><li>Visual Inspection (Check for abnormalities)</li><li>DAS System</li></ul>	1 Time/Month	1.2
	• Electric Actuator		4.0
2	Surface Clean of Mini PV Modules	Upon Customer O&M Schedule	1.3

## 1.2. Visual Inspection

Item Name	Inspection Description	Indicative Photograph
DAS System	Procedure  (1) Check the surrounding of DAS system. Any obstacles or debris found must be removed and cleaned. For example, remove any animals nest.  (2) Make sure the DAS is not shaded by trees, grass or other objects.  (1) Make sure all fixing screws are tight.  *The frequency of inspections can be adjusted depending on environmental conditions	
Electric Actuator	Position As shown in the photo on the right side ,the actuator is located within the red frame.  Procedure STEP1: Use the lever switch to move the actuator STEP2: Make sure the actuator moves smoothly.	Lever switch

#### 1.3. Surface Clean of Installed PV Modules.

1.5. Surface Cit	ean of Installed PV Modules	
Item Name	Inspection Description	Indicative Photograph
Maintenance of Mini Cleaned Modules. (regular work)	POSITION Cleaned mini PV modules are installed on DAS.  Frequency(regular work)  1 Time/Month  PROCEDURE STEP1: Open the cleaned panel with Lever switch manually  STEP2: Clean the panel.  STEP3: Close the cover when cleaning is complete.	Soiled PV exposed to outdoor environment for dust collection (same with PV arrays)  Cleaned PV kept under cover to maintain surface clean
Maintenance of Installed Mini PV Modules. (After PV module cleaning)	POSITION Two mini PV modules are installed on DAS.  TIMING when PV power plant undergoes PV module cleaning procedure.  PROCEDURE STEP1: Ensure on-site panel cleaning has been carried out  STEP2: Open the cleaned panel with Lever switch manually  STEP3: Clean the surface of both installed PV modules on DAS simultaneously  STEP4: Close the cover when cleaning is complete.	Soiled PV exposed to outdoor environment for dust collection (same with PV arrays)  Cleaned PV kept under cover to maintain surface clean

XThe frequency of inspections can be adjusted depending on environmental conditions.

## Appendix - Maintenance Record Sheet

Please use the format sheet below to record the maintenance history for reference.

<ul> <li>Maintenance Record Sheet of DAS ]</li> <li>System Location :</li> <li>Maintenance Date :</li> <li>Inspection By :</li> </ul>				
Maintenance Date :				
• Inspection By:				
• Inspection By:				
No Item Status Check After Maintenance				
1 Surface Clean of Installed PV Modules ☐ No obstacle or debries is/are existent				
Make sure the DAS is not shaded    No shaded by trees ,grass or other objects.				
Make sure all fixing screws are tight ☐ All fixing screws are tight				
Electric Actuator				
Maintenance of Mini Cleaned Modules. ☐ Cleaned module is clean ☐ Cleaned module is clean				
3 Maintenance of Installed Mini PV □ Soiling module is clean				
Modules. (After PV module cleaning ) ☐ Cleaned module is clean				