KCU-30
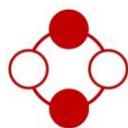
Ethernet Remote Communication Module
Hardware Installation Manual

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ISO 9001
BSMI

SECTION 1 : SUMMARY

KCU-30 Ethernet Remote Communication Module is specifically designed for use with specific KUTAI ATS and Generator Controllers. (Controller Model AMF-10, GCU-100, GCU-3000, ATS-22A, ATS-33, ATS-34, ATS-PLC…etc.) Download the free app for PC, tablet, or smartphone to monitor, control, and configure the controllers remotely.

Controllers' system parameters can be setup directly in KCU Communication Software (Refer to KCU Communication Software Installation Manual) for easy configuration.

FEATURES

● Plug and Play Internet connection.
● Support Dynamic IP Connection.
● All transmitted data use two sets of keys for encrypt/decrypt. (Primary Key and Session Key)
● User-defined connection password privileges. Administrator Password for monitoring and controlling. (1 user)
● Viewer Password for monitoring only. (Up to 5 users)
● Support 10Base-T standard.

SECTION 2 : SPECIFICATION

Power Input

5 Vdc

Power Consumption

< 1.0 watts

Dimensions

65.0 (L) x 23.0 (W) x 54.0 (H) mm

Environment

Operation Temperature	-20 – +70 ˚C
Storage Temperature	-35 – +85 ˚C
Relative Humidity	Max. 95%
Vibration	3 Gs @ 100 – 2 K Hz

Weight
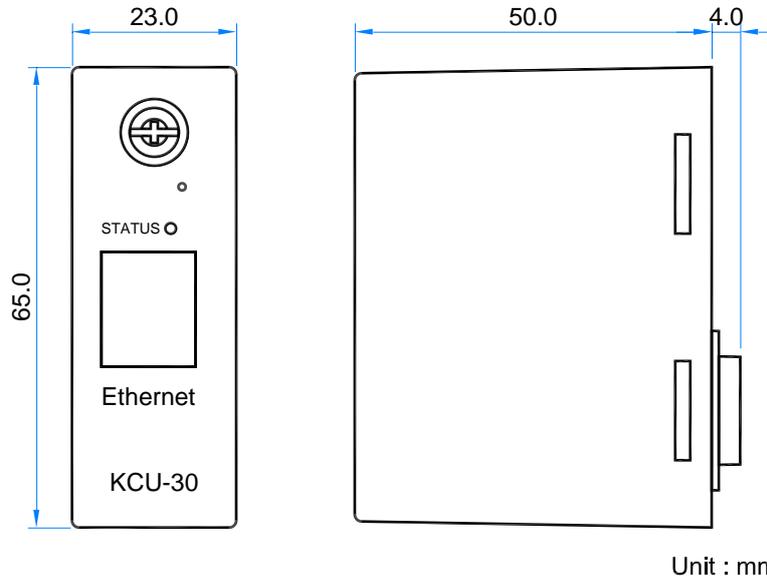
31 g +/- 2%

Unit : mm

Figure 1   Outline Drawing

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ATTENTION

KCU-30 Ethernet Module is designed for Dynamic IP address connection.
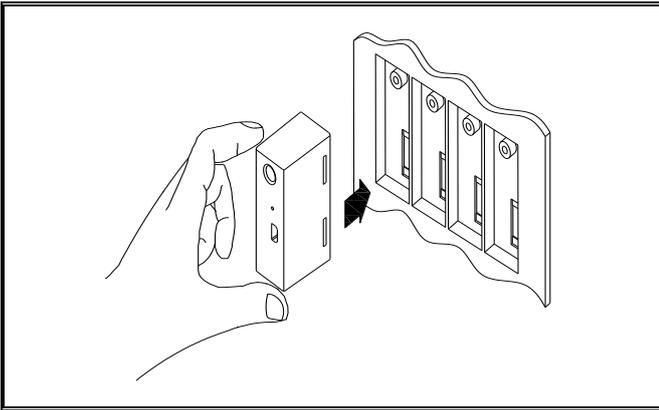**It will automatically connect the Server Control Protocol Bridge.**

SECTION 3 : INSTALLATION

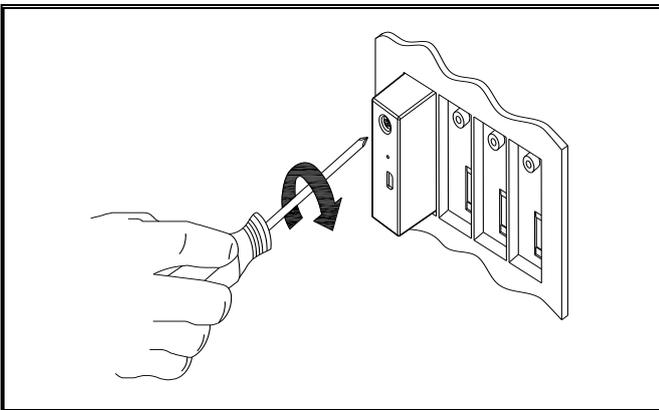Disconnect controller power supply before installation and follow the steps to install KCU-30 in expansion slot.

Step 1：Remove the slot cover from the back of controller.
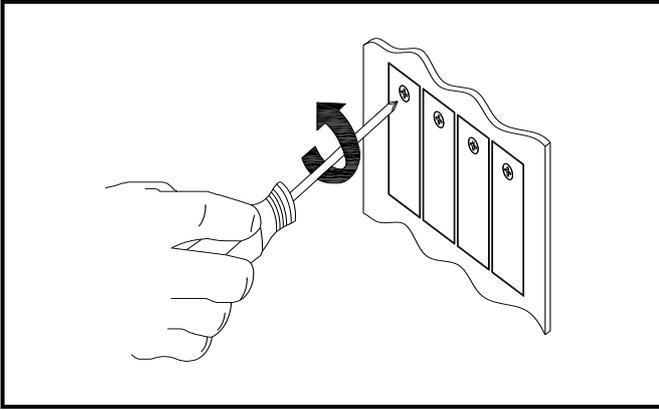
Step 2：Insert KCU-30 module into the slot

Step 3：Tighten the screw

Step 4：Power on ATS or Genset controller and enter Programe mode to enable "Remote control by KCU-XX module" function.

KCU-30 is now support for certain Kutai controllers. (AMF-10, GCU-100, GCU-3000, ATS-22A, ATS-33, ATS-34, and ATS-PLC)

AMF-10 / GCU-100	
NO.	DESCRIPTION
54	Remote control by KCU-XX module

GCU-3000	
NO.	DESCRIPTION
69	Remote control by KCU-XX module

ATS-22A	
NO.	DESCRIPTION
32	Remote control by KCU-XX module

ATS-33	
NO.	DESCRIPTION
23	Remote control by KCU-XX module

ATS-34	
NO.	DESCRIPTION
22	Remote control by KCU-XX module

ATS-PLC	
ITEM	SETTING RANGE
Remote Operation	Enable / Disable

ATTENTION

1. **If "Remote control by KCU-XX module" is disabled. The software can monitor the unit only but incapable to control it remotely.**
2. **KUTAI reserves the right to update or modify software without notification. Check the KUTAI website for the most recent software updates.**
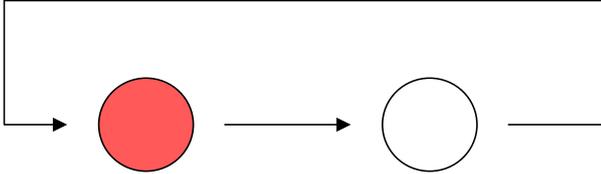

SECTION 4 : ETHERNET CONNECTIVITY


Connection Display
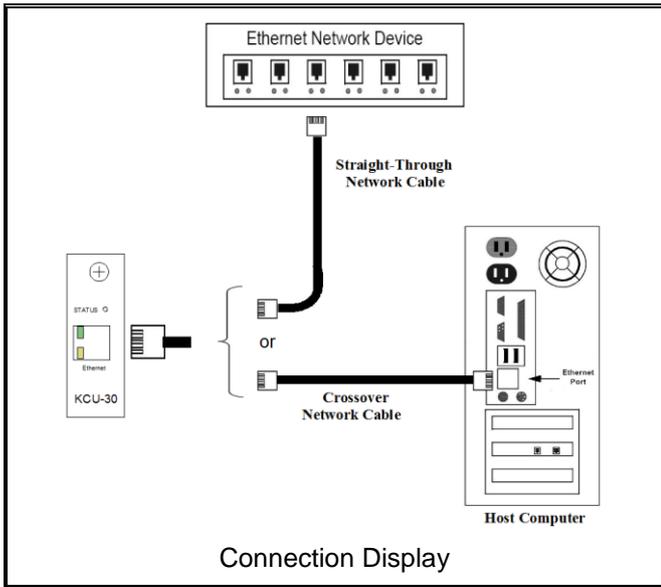
When KCU-30 connected to Ethernet (The diagram above), host computer can be considered as a server which has external network access; Ethernet Network Device can be considered as a HUB or IP Router.
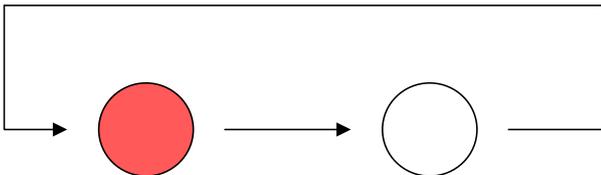
KCU-30 Startup Process：
KCU-30 startup and perform a communication test with the controller automatically.

Step 1：Obtain the IP address form a DHCP server automatically. The Status LED will fast blinking once every 400ms.
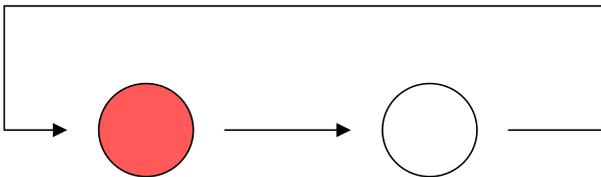
Step 2：Connecting with KUTAI Communication Server. The Status LED will blink once per second.

Step 3：After successfully linked the controller with KUTAI Communication Server, it now has remote connectivity. The Status LED will blink once every 1.5 second.
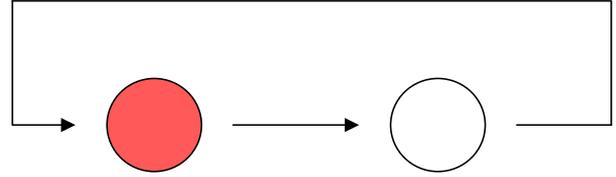
Product serial number (marked on module) and the connection passwords (with different privileges) are required for connecting KCU-30 module.

Administrator Password : is require for monitoring, controlling, managing passwords, and configure settings. (1 user login at a time)

Viewer Password : is require for monitoring only.
(Up to 5 users login simultaneously)

KCU-30 FACTORY SETTINGS	
Board Host Name	KCU-30
Administrator Password	0000
Viewer Password	9999
MAC Address	Marked on module

ATTENTION

We strongly recommend that you change the connection passwords right after the first successful connection.


SECURITY NOTICE AND LIABILITY DISCLAIMER

You are responsible for keeping your KCU Remote Connection Passwords (Administrator / Viewer) safe and confidential because they are the key to access your equipments.

There will be potentially serious security issues if your passwords are compromised. Some of the risks of compromised security include the equipment being remotely controlled by third parties, who may have criminal intent and malicious damage to your equipments.

We are entitled to rely on any use of our connection services using that password as being use by you and authorized by you. If you know or believe that there is any unauthorized, fraudulent or unlawful use of your password, **you must reset it in the controller**. (Refer to controllers user manual for connection password reset)

SECTION 5 : READING KCU-30 LED

STATUS ○ ——— Status Indication LED

——— Ethernet Port

Ethernet

KCU-30
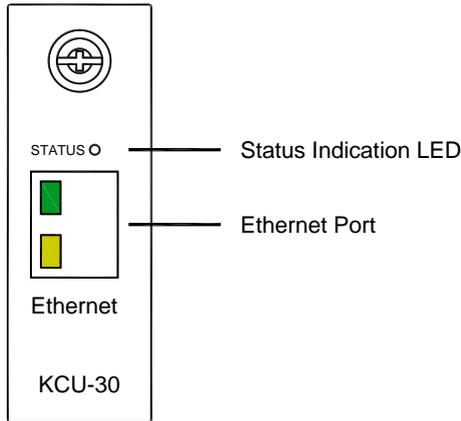
LED	MEANING
🔴 Flash	Communication Status (Refer to Section 4 for detail)
🟩🟨	Solid green：Ethernet connected Blinking yellow：Data transmitting

SECTION 6 : TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES	SOLUTIONS
Indication LEDs froze. No activity	KCU-30 Stop Working	**1. Controller in AUTO mode**： ● Controller is working properly, remove KCU-30 and reinsert it in controller slot. ● Controller is **NOT** working properly, try to fix it by following troubleshooting steps and recheck KCU-30. **2. Controller in modes other than AUTO**： ● Controller is working properly, remove power from the controller for a few seconds and resume power supply. Check if KCU-30 is working normally. If not then please replace KCU-30 or contact authorized dealer. ● Controller is **NOT** working properly, try to fix it by following troubleshooting steps and recheck KCU-30. **3. Controller is crashed**：Remove power first and then remove all external module(s). Resume power supply and fix the controller by following its troubleshooting steps. When controller is back to normal, remove controller power again and insert KCU-30 in the slot. Resume controller's power supply. Check if KCU-30 is working normally. If not then please replace KCU-30 or contact authorized dealer.