

# Micro Control Systems

APPLICATION NOTE

APP-033

## MCS-6 HCU Digital Wireless Modem Setup

### Revision History

Date	Author	Description
07/17/02	R Toney	Created document

## Requirements:

A digital wireless modem that supports AT commands, 14.4K-baud rate and auto answer. The Kyocera model 2135 wireless phone is an example of this type of device. Along with this phone a Serial Connector Cable, a power supply that connects to the serial connector cable and an MCS-Wireless Cable is required.

An MCS-6 with revision HCU 1.12 software or greater is required for digital wireless modem support. This software has the capability of initializing the digital wireless modem to receive incoming calls and thus establishing remote communications without a phone line.

PC-Connect release 3.2-G or greater is required to activate this feature in an MCS-6 HCU controller.

## Theory:

A modem setup string is sent from the MCS-6 HCU to the connected digital wireless modem at both power up/reset and at midnight of each day if the Send Modem Setup indicator is active. The modem setup string places the digital wireless modem in data only mode with auto answer enable. This allows the MCS-6 HCU to receive incoming calls.

### Notes:

- 1. The default factory setting has the Send Modem Setup indicator as inactive (Digital wireless modem will not be setup to allow remote communications).**
- 2. The default factory modem setup string is AT&F0E0L1Q1&D0S0=1\$QCVAD=4 which is correct for the Kyocera 2135. Using a different wireless modem will require a different modem setup string (consult with the manufacturer of the wireless modem for the correct modem setup string).**

## Steps to Activate a Cellular Modem (Phone):

1. Both the MCS-6 HCU unit and the digital wireless modem must be on and power must be from the same source.
2. Connect a computer running PC-Connect to the MCS-485-Gateway's RS232 port using a standard MCS-PC9 or MCS-PC25 cable.
3. Start PC-Connect, get authorized then go to the status screen and click on the CHANGE SETUP button. You should see the following screen:

**Munters Change Network Address and/or Name of HCU1000 Unit**

**Make Changes to Unit?**

Network Address	0	Unit Name	HCU 1 COMP UNIT
Installation Month	1	Model Name	HCU 1000 CFM
Installation Day	1	Company Name	MUNTERS CORP.
Installation Year	2	Serial Number	SERIAL#03132002
Thermostat InActive	TOGGLE	Modem Setup	AT&F0E0L1Q1&D0S0=1\$QCVA
DLST Active	TOGGLE	Send Modem Setup Active	TOGGLE

Send Changes that have been made?

Authorized to make changes

4. Click on the TOGGLE button to activate the Send Modem Setup indicator.
5. Click on the YES button to send/save this change to the MCS-6 HCU.
6. Exit PC-Connect and disconnect the computer running PC-Connect from the MCS-6 HCU.
7. Connect the digital wireless modem (using the serial connector cable and the MCS-Wireless cable) to the MCS-485-Gateway's RS232 port.
8. Press the RESET button on the MCS-6 HCU, located near the bottom left corner of the MCS-6 board. This will reset the unit and the MCS-6 HCU will send the setup string to the wireless modem.
9. The wireless modem should now ready to receive incoming calls. The Kyocera 2135 will display the following:  
 Digital (may also display "Digital Roaming" if outside the home area)  
 Data Only
10. Perform a communications check by dialing the wireless modem with PC-Connect.