



## GH Everywhere Application Note

### Comtek 4 Square Controller

Using a GHE device to control the Comtek Controller offers the following advantages:

- Adds ability to share your 4 Sq among operating locations and eliminate clumsy control boxes.
- Adds ability to control your 4 Sq remotely over the internet.
- Uses GHE Client software to allow custom computer screen controls using compass rose, or Great Circle map images. Control of direction via mouse or hotkeys. (Contesters...your hands never leave the keyboard)
- Can eliminate expensive control cable if GHE Remote is located at the outdoor unit.. In many cases, the control cable savings alone would pay for the GH Everywhere device(s) required.
- Can eliminate the through-the-wall cable problems.
- If you use the GHE Wireless Remote, you will eliminate the possibility that lightning strikes will propagate up the control cable into the shack.

Here are some of the possible ways to connect to your Antenna Relay:

- Use GH Remote out at the relay to eliminate control cable. Wire as shown connecting the C terminal of the GH Remote to GH Remote +12V. Obtain power via the available Bias T Remote, OR external 12V if you are not using the Bias T Remote. You must have a GH Base to communicate with the Remote.
- Use a GH Remote at the shack end of a cable run. This is an ideal “back room” or just outside the shack solution to eliminate the problem of running cables through walls. You must have a GH Base to communicate with the remote.
- Use a GH Base inside within USB reach of a shack computer. Wire as shown to the control cable, an external 12V supply must be utilized because the base is USB powered and does not have 12V available to supply the necessary relay voltage. Note that in this case we are actually not using any wireless signal.

NOTE: You may parallel the connections with the Comtek control box if desired. You MUST remember to turn off the control box when using GH Everywhere, and to disconnect GHE or use the NE (all OFF) position when using the manual control box

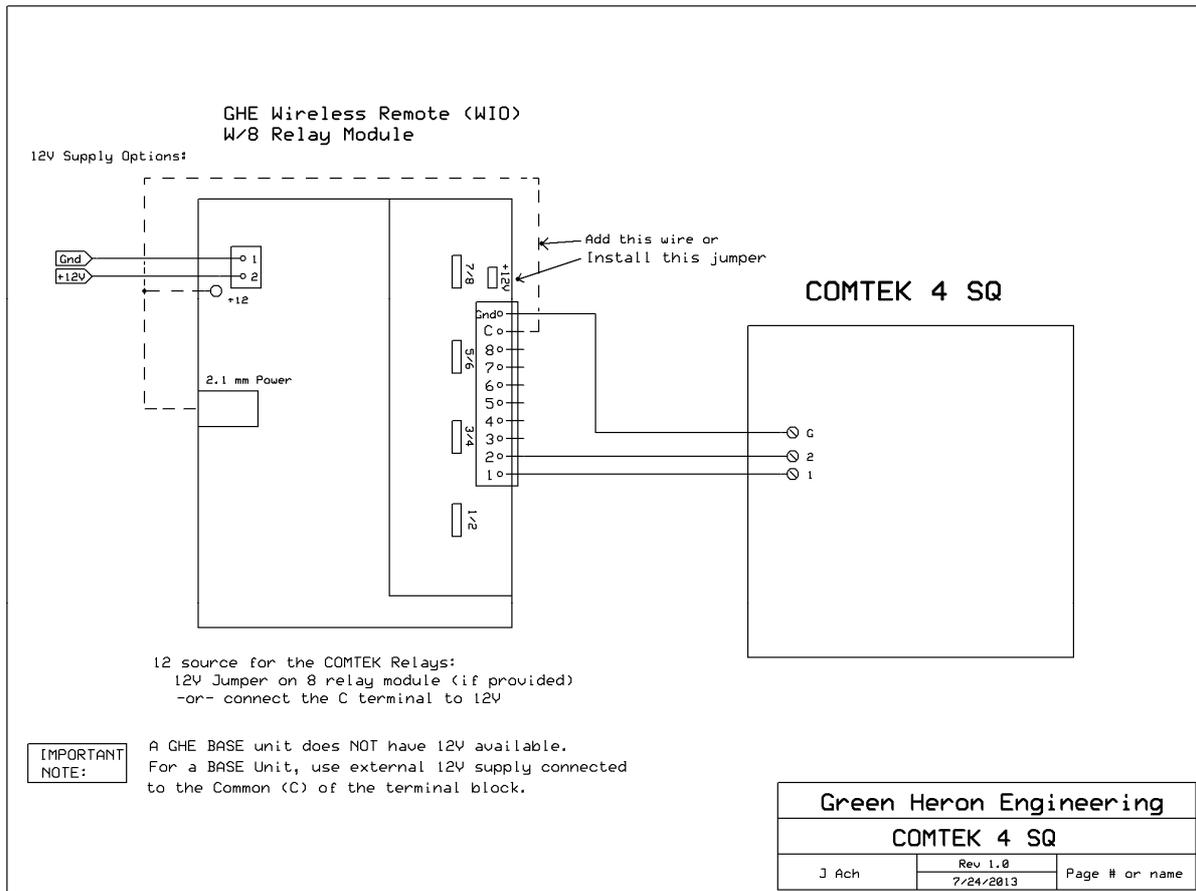
NOTE: The Comtek 4 Sq controller uses only two bits (relays) on a GHE device. This application note uses only outputs 1 and 2 of the GHE control. You may use any two outputs by making the corresponding changes to the wiring and the WIO Profile.



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Create a WIO Profile using GHE Server Device Manager to create the on-screen display that you desire. Here's an example of a Map Display entry that uses the default compass rose for the background. This profile and wiring utilize the normal direction configuration of a 4 Square where NE is the default (all relays off) position.

