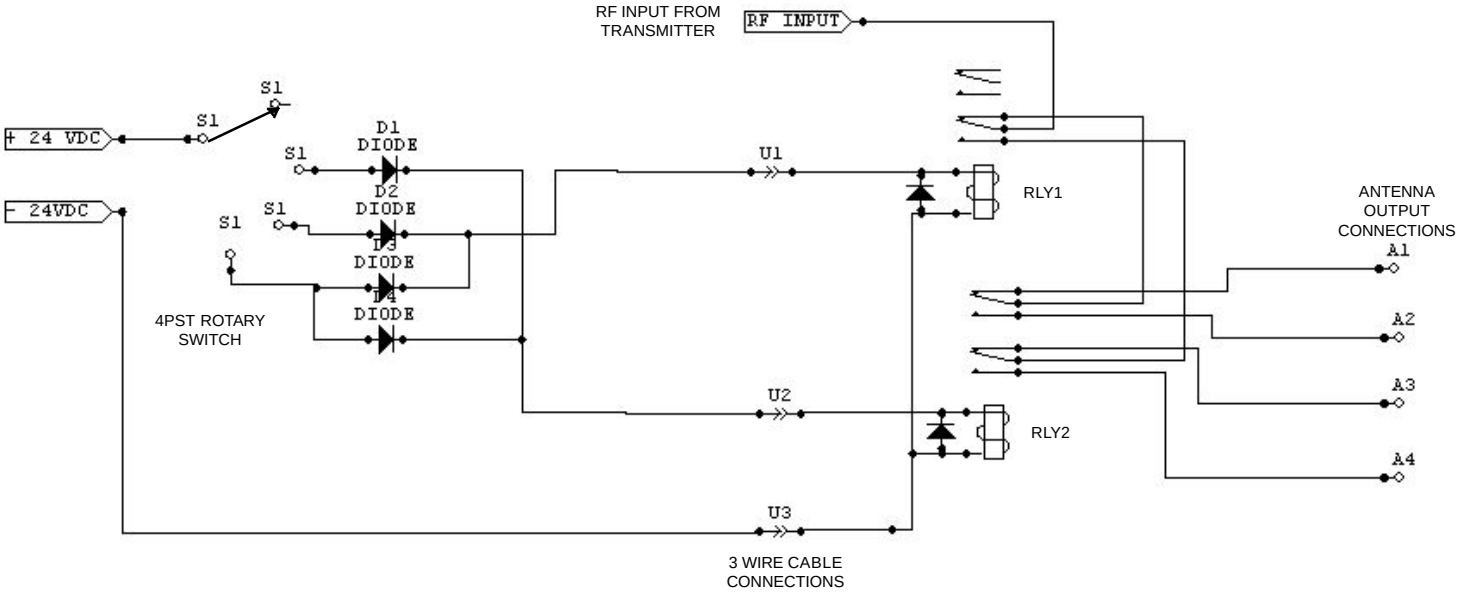
Dave's Patio Antenna

This antenna was inspired to fill the need of a vision handicaped amateur friend of mine that lives in one of the "antenna restricted Condos". It is made from four mobile whips of the Ham Stick Variety. They are placed around the sides of a Medium sized 21 quart plastic Flower pot from Home Depot. The individual whips are encased in 3/4" PVC pipe to hide their identity and to look like supports for the Flowers that will be added to the pot when the antenna setup is finished. The antennas will be switched on to the main feedline coax by a remote antenna switch. The counter poise is made from flashing alumimuum with a circle cut the same size at the top of the pot and then the two 5' strips that are 7" wide are attached. The ends of the 5' strips have two 10 foot wires attached to the corners and they are placed around the perimeter of the space where it is being placed. The Alumimuum can then be covered with dirt to help hide it's true purpose. If installing on a cement patio use a green grass rug to cover the counterpoise.

Concrete was poured into the bottom of the pot after four wires were connected to the through bolts to the bottom plate. These were covered with RTV before the concrete was poured. “U” bolts were used to connect the individual whips to the side of the plastic pot. The addition of the antenna switching network will go in the center above the concrete. Be sure to make drain holes so it doesn’t collect water.

The schematic of the antenna switching and control box is shown below. The 24 Volt DC power source was a wall wart.



My schematic drawing program was not the greatest as it didn't have a 4PST Rotary switch in it's parts files, so I had to kind of wing it. But it came out pretty well and should not be very hard for anyone to duplicate. The Relays that I used were surplus 24 VDC coils with two sets of SPDT contacts. It is a very easy system to select four antennas while only using 3 control wires. This antenna system can be duplicated in function with what ever local materials available. You could even make your own elements using wire and the PVC pipe as the coil form. You don't necessarily have to use the same mobile whips that I used in your "hidden antenna". My chassis on the relay end of the circuit was a piece of PC Board inside a plastic food container with lid placed upside down and the wires coming up through holes punched in the lid. After it was finished the bottom of the food container was placed over the circuit.

The above picture is the Flower pot antenna completely assembled bfore painting it with flat black paint. The flat black paint job makes it almost disappear in a patio enviorment but other colors could be used to make it match up with it's background. It is a excellent way to hide atennas in plain site.

This antenna has low SWR and good bandwidth on 40, 20 17, 12 and 10 meters. In restrictive antenna settings, other methods of operations such as, Low power and using bands that don't usually interfere with other consumer electronics equipment can be helpful. Proximity to other electronics is really a problem in tightly packed Condo areas. So good operating techniques and running low power with hidden antennas will usually keep you from confronting the CONDO COPS.

This is the after picture of my Flower pot antenna installed it is final resting place. Against the bushes and trees it it almost invisible and surly is not easily noticed. We will see how long this survives the sharp eyes of the CONDO PATROL. My friend is operating on 40 through 10 metes with 100 watts. His Amateur Radio Call is W5PNQ and is working hard to meet you all on the CW bands.