

# Visiplex Technician System Installation Overview

## 1. Visiplex Technician Scope of Work

Visiplex will be providing a factory-trained technician for on-site installation services of the wireless system's fixed end equipment.

The Visiplex technician will mount the outdoor antenna on the mast pole provided, ground the antenna and terminate all connections between the controller, transmitter and antenna.

The Visiplex technician will also perform all required programming and testing of the fixed end equipment components.

It's recommended that maintenance and/or administrative personnel will be available during the installation to provide support and access as required. These personnel should be available for longer work hours during the installation day/s.

The Visiplex technician will NOT perform the following tasks:

1. Drill holes, seal connections and openings, etc.
2. Install or mount wireless receivers (unless specifically included with the order).
3. Make any modifications to the building or structure.

## 2. Prerequisites for Installation by Visiplex Technician

Prior to the arrival of Visiplex technician to the site, the end user is required to provide the following:

1. Identify an indoor location for the controller, transmitter and other system components (see guidelines on next pages).
2. Provide three standard 120V AC electrical power outlets inside of the equipment room location.
3. Provide UPS/surge protector for the controller and transmitter.
4. For system with up to 40 watts transmitter, provide a flat clean surface (shelf, desk, etc.) inside of the equipment room location. The controller and transmitter will be placed on this surface. The surface should be located within 4' from the AC electrical outlets. The surface needs to support at least 50lbs, and have minimum dimensions of 24" X 20" (W X D).
5. For system with more than 40 watts transmitter, provide a level clean floor area inside of the equipment room location. The provided 19" rack should be located on this floor area and within 4' from the AC electrical outlets. The rack requires an approximate floor area of 24" X 24" (W X D), and installation clearance of 24" from its surroundings and 72" clearance from the floor. The rack should be secured to the floor after Visiplex technician completes installation.
6. Provide a 1" opening (conduit is optional) for the 0.5" coax cable that will connect the outdoors antenna and transmitter located indoors.
7. For PC time based system, provide a computer network (LAN) connection to the to equipment room where the controller will be located. The controller will be connected to a nearby PC using a direct RS232 cable or to a remote networked PC using LAN-RS232 adaptor (optional).

For GPS time based system, provide 1" opening (conduit is optional) for CAT5 cable that will connect the outdoors GPS receiver to the controller.

For all other systems, it's recommended that computer network (LAN) connection will be provided to the equipment room.

8. Run the coax cable and CAT5 cable (if provided) from the outside in to the equipment room.
9. Provide 1.5" to 2" mast pole that is side wall-mounted and is at least two feet above the roofline. The mast pole will be used to install the outdoor fiberglass antenna (Visiplex will provide all required mounting hardware to attach the antenna to the mast pole).

### 3. System Location

Consider the following requirements when planning system installation and choosing a location for the controller and other system components:

1. The transmitting antenna should be located as high as possible and as close as possible to the center of the site. The antenna should not be surrounded by large metal objects that may block the RF signal and decrease the coverage.
2. Locate a path for running the coax cable between the antenna and the transmitter such as a riser (if there is no existing path, create one).
3. For systems with outdoors antenna, the transmitter should be placed as close as possible to the roof or the antenna location. Keep the distance between the antenna and the transmitter as short as possible to minimize RF power loss.
4. Choose a location that is easily accessible in case you need to perform maintenance on the antenna.

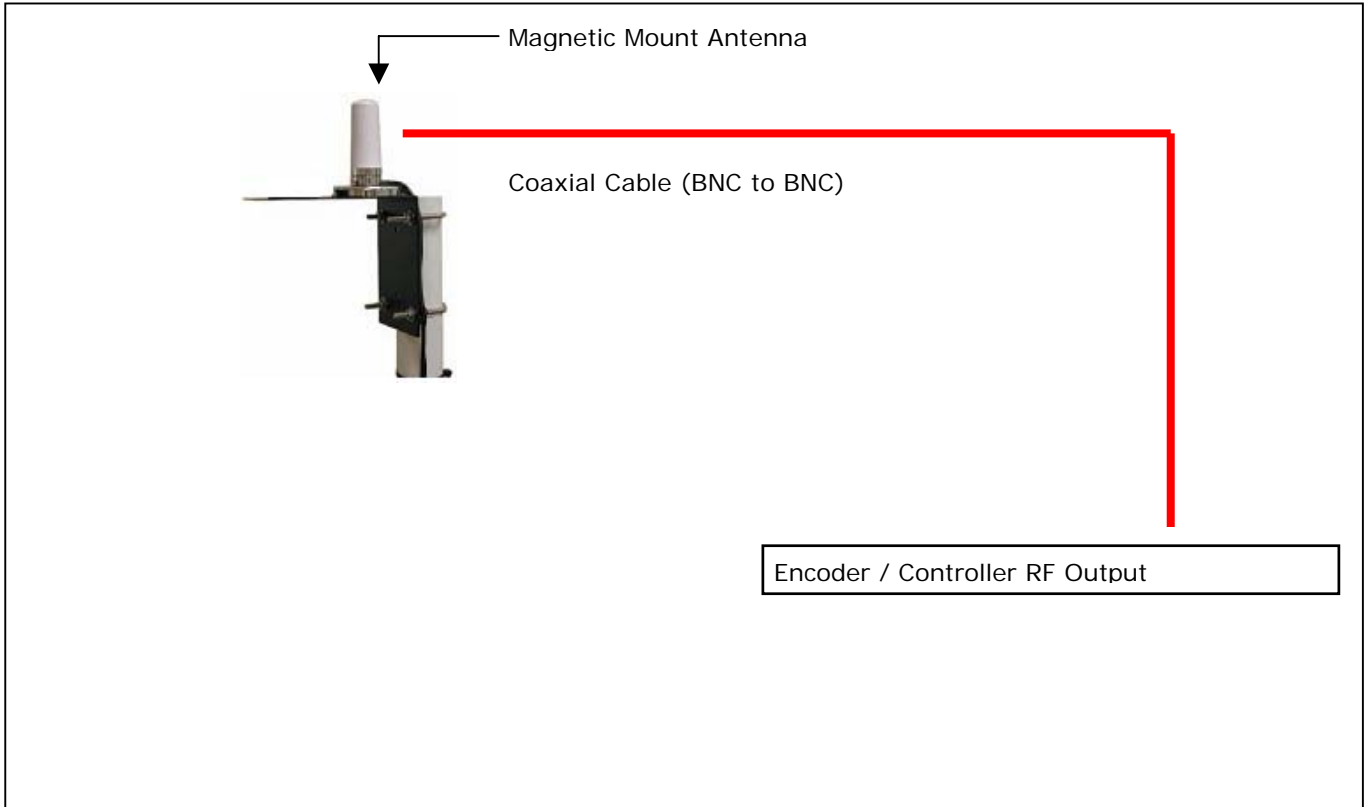
### 4. Magnetic Mount Antenna Location

1. The antenna will require an adequate grounding surface, such as metal surface, HVAC duct or metal "I" beam.
2. Choose a location that will provide free space for RF radiation. If the antenna is mounted too close to metal or closed in heavy concrete walls room, a high VSWR may occur which may cause damage to the transmitter.
3. The optional wall-mount "L" bracket allows mounting the magnetic antenna on the side of a building or other structure, providing the roof's overhang is not excessive.

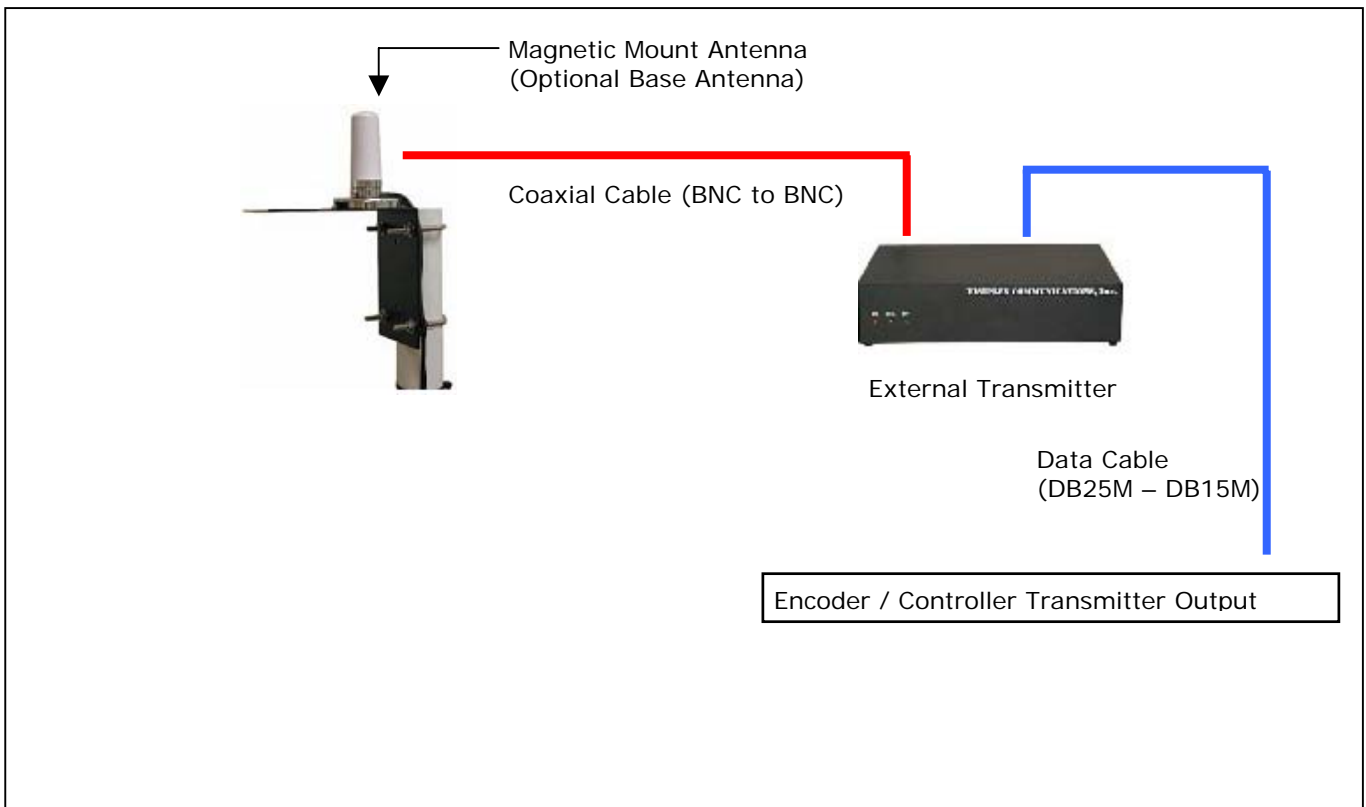
### 5. Base Station Outdoors Antenna Location

1. Choose a location that is not obstructed by trees, branches, power-lines, etc.
2. Choose a location that will provide free space for RF radiation. If the antenna is mounted too close to metal or closed in heavy concrete walls room, a high VSWR may occur which may cause damage to the transmitter.
3. Make sure the antenna is installed at an elevation that will provide sufficient clearance to allow the antenna to radiate without interference.
4. The antenna should be secured to a well-grounded metal structure or to a pole on the roof.
5. It is recommended to mount the antenna where the path of the antenna cable is straight and as close as possible to the system transmitter.

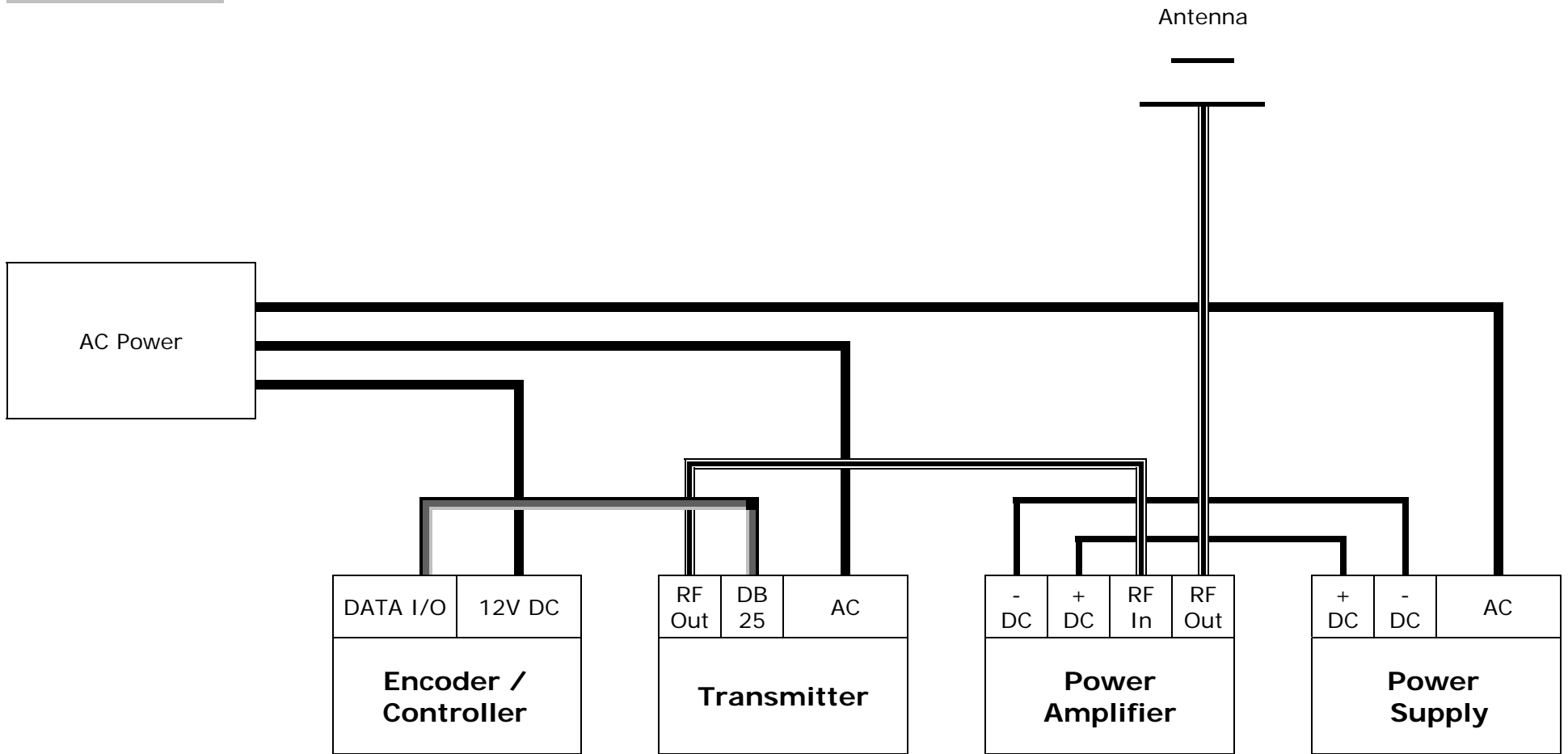
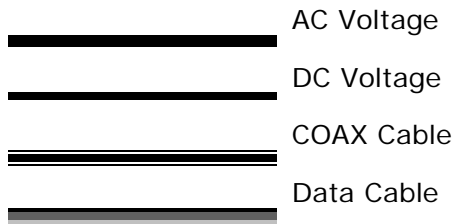
## 6. Installation Diagrams



**Low Power System Installation Diagram**



**Medium Power System Installation Diagram**



High Power System Installation Diagram