

# Air-Eagle Gold, Dozer Stop Switch System Installation Notes

## **Dozer components:**

- 1) Dozer stop switch transmitter (Model 480-5100-DC or 480-5100NS-DC)**
- 2) Magnetic roof-mount antenna (Model 49-2102)**

The transmitter should be located in the cab of the vehicle, mount so the operator can see the visual status led's and be able to reach and depress the stop switch if needed.

A two conductor cable is supplied to power the dozer transmitter. The black lead is always negative.

Depending on the cable/ plug supplied, the white wire ( or red ) will go directly to the vehicle battery power. The voltage range is 9VDC up to 36VDC.

Next mount the magnetic roof-mount antenna on the roof of the dozer. Always try to find a location as far as possible from any other antennas that may be on the roof of the dozer. Feed the cable into the cab of the dozer and attach by screwing the "TNC" connector to the "RF" connector on the right side of the transmitter.

## **Receiver components:**

- 1) 8 Relay receiver in NEMA 4 enclosure (model # 480-5240) Double check model # !!!**
- 2) TNC "T" adapter ( if using dual antennas), (Model 49-5001)**
- 3) Coax cable with connectors (Model 49-4000-XX)**
- 4) Omni directional antenna with mounting hardware (Model 49-3101)**

It is recommended that the receiver be located above the dozer stock pile on the stacking tubes. Locate a 120 VAC source for powering the receiver.

Mount the omni antennas on the rail or floor of the cat walk. It is recommended to have the antenna pointing "down", below the cat walk floor, at the dozer stock pile. If 2 antennas were purchased, mount the second antenna on the opposite corner from the first antenna to get a good 360 degree reception pattern around the stacking tube(s).

Attach the antenna to coax and then to the receiver's antenna connector.

If the belt controls are available, (usually a PLC IO port) on the stacker tube then continue to wire the control relays . If not then installation is finished with this receiver. Now the "Slave Receiver" must be installed at the plant control room.

**Slave receiver components:**

- 1) 8 relay “slave receiver” in a NEMA 4 enclosure (Model # 480-5440) please check model # !!!**
- 2) Coax cable with connectors (Model 49-4000-XX)**
- 3) Omni directional antenna with mounting hardware**

The slave receiver is recommended to be located in the Control Room in the plant where personnel are located. Locate a 120VAC power source for this receiver.

Mount the omni antenna on the outside of the plant, as high as possible so the antenna can “see” the antenna from the stacker tube receiver for maximum performance and range. This receiver DOES NOT communicate directly with the dozer transmitters, It gets all information and dozer signal from the stacker tube receiver.

Run the supplied coax from the antenna back to the Slave receiver and attach to the TNC connector on the receiver enclosure.

Install control wiring from the relays in the slave receiver to the belt feeder control circuits. See product information bulletin for relay output logic.