



Southern Avionics Company's DS410 Homing Beacon

General Description

The model DS410 homing beacon is a continuous wave transmitter with an adjustable output power of up to 25 watts. This is the power of a single carrier. A second carrier is added to the first to provide modulation. This produces a signal with an AM type wave form and a SSB bandwidth. The bandwidth of a dual carrier emission is the same as the audio tone (400 Hz). The transmitter operates on 115/230 VAC 50/60 Hz or 48 VDC. An automatic shutdown circuit automatically shuts down the transmitter if power falls below an adjustable level, if the "ident" signal fails or if extreme distortion is present. There are several remote and local timer options available. The transmitter is housed in a rain-tight enclosure that permits it to be mounted out-of-doors at the base of the antenna.

Specifications

Frequency: 410 kHz

Frequency Control and Stability: Crystal controlled, 0.005%, (-50 ° to +50 ° C).

Type of Emission: N0N. Keyed CW or Dual carrier, one carrier runs continuously with modulation accomplished by adding the keyed second carrier. Output wave form is amplitude modulation with one-half the bandwidth of conventional amplitude modulation.

Power Output: 5 to 25 watts continuously adjustable into a resistance from 20 to 50 ohms.

Modulation: Keyed 400 Hz tone, International Morse Code; any combination of up to five (5) letters or numerals, depending on identifier code selected. Modulation percentage adjustable from 80-100%

Bandwidth: 400 Hz based on tone frequency.

Harmonic Distortion: All Harmonics are below -60 dB below the 25 watt carrier, measured at a dummy antenna simulating a DS410 Mast Antenna.

Circuit Protection: Fuses in power line and final circuit. Zener protection on transistors in final circuit.

Working Conditions: Continuous operation in the following environments: Ambient temperature, (-50° to +70° C); Relative humidity, 0-100%, noncondensing; High salinity as encountered in offshore conditions.

Automatic Shutdown: Transmitter shuts down with loss of identification, extreme distortion due to a change in load, or when power falls below a preset value.

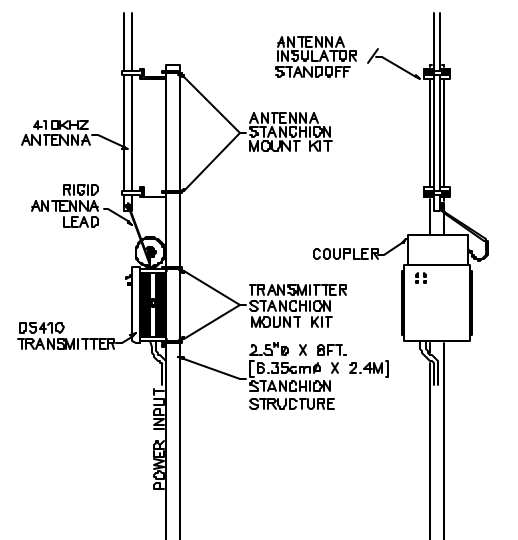
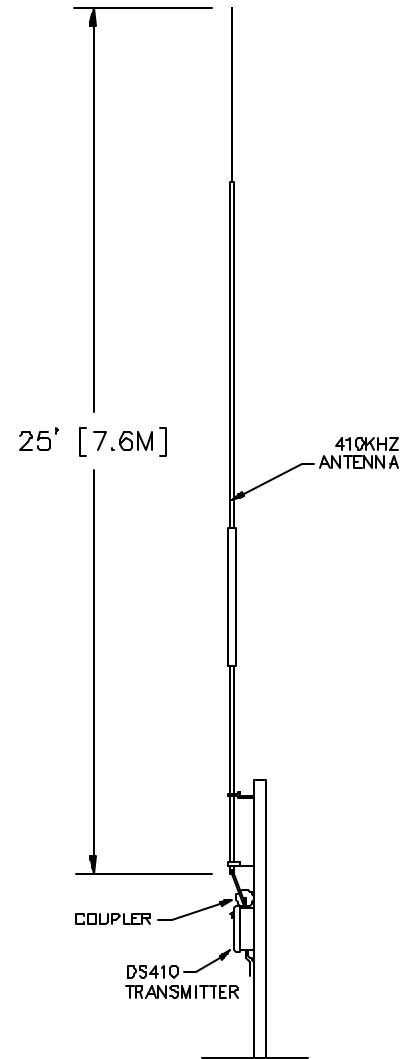
Input Power: 115/230 VAC ± 20%, 50/60 Hz, 100 watts maximum, or 48 VDC, 1.5 amperes maximum.

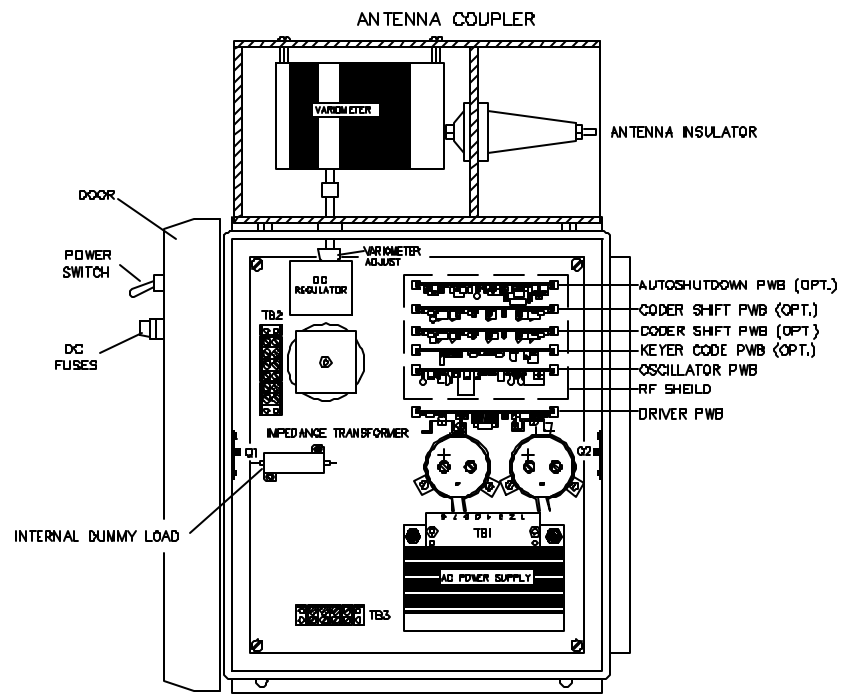
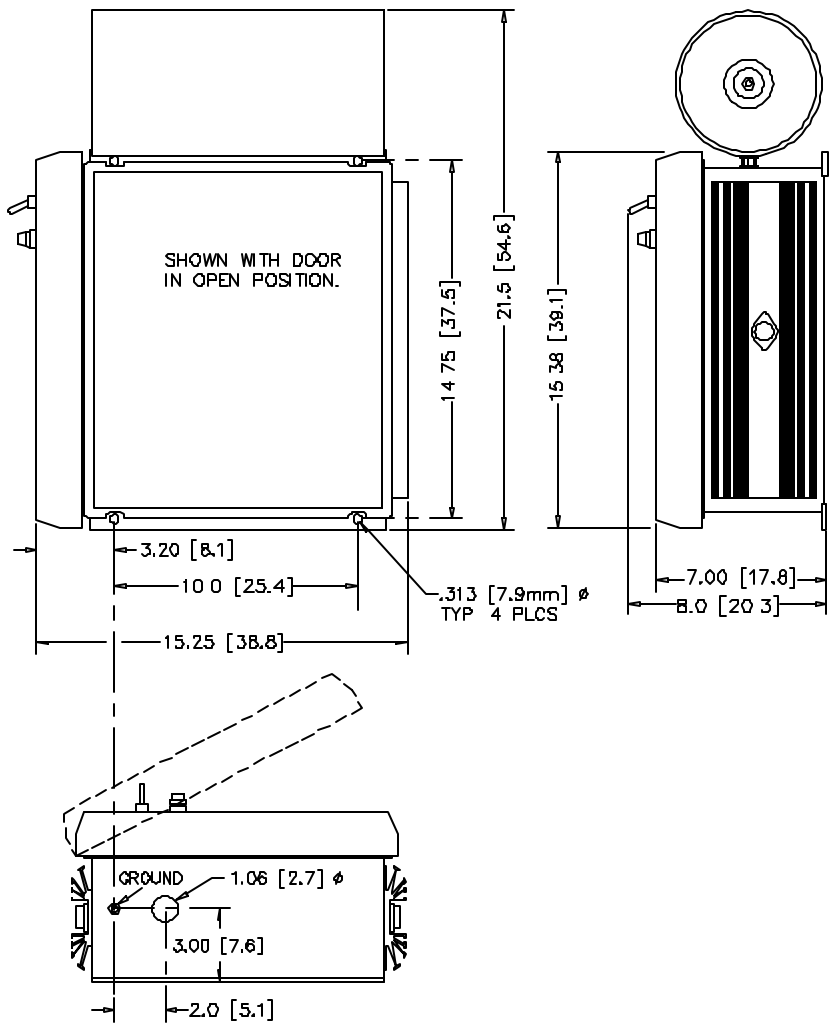
Installation Requirements: The DS410 is supplied in a weather proof enclosure. The DS410 is suitable for mounting out-of-doors.

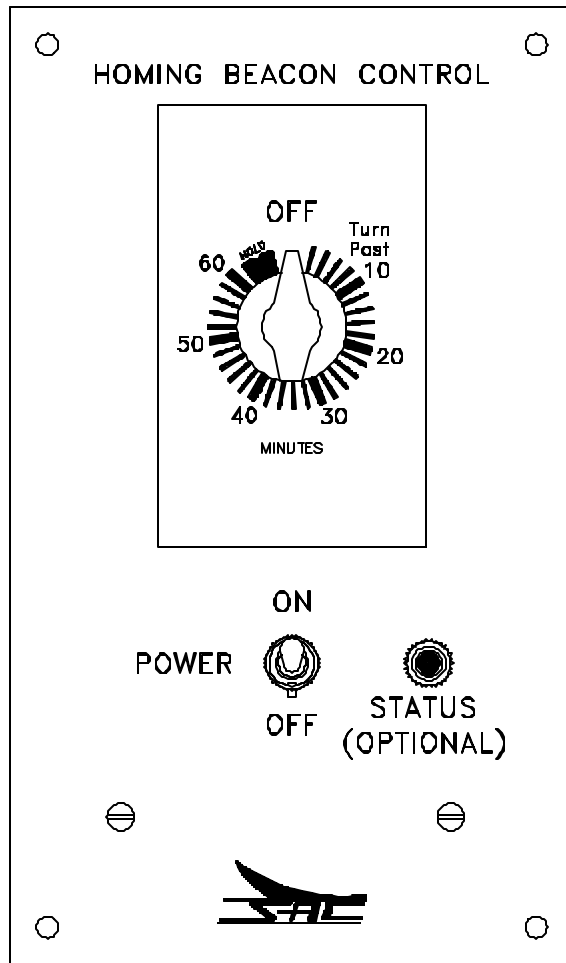
Approximate Dimensions: Height 21.5" {54.6}, Width 15.25" {38.8}, Depth 8.0" {20.3}. Weight 37 pounds.

Transmitter P/N SLF30213

Antenna P/N SLF10017

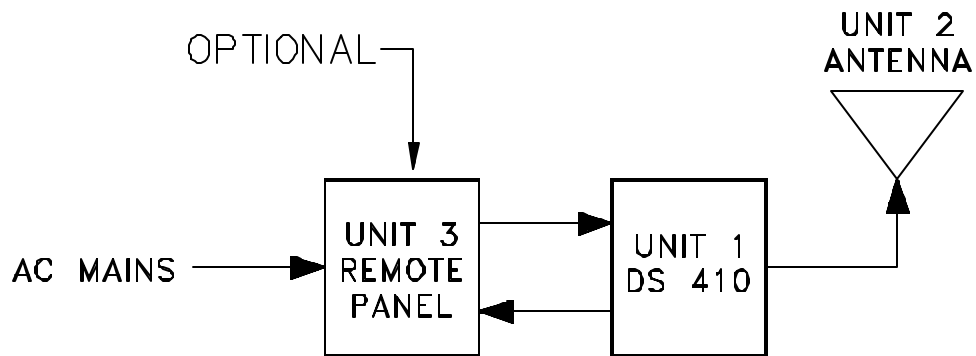






OPTIONAL REMOTE / STATUS INDICATOR TIMER

P/N SLE80115



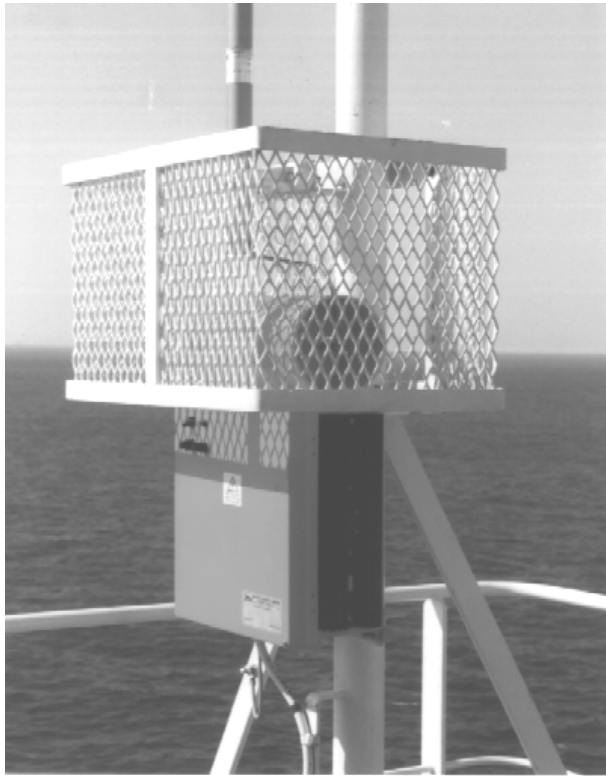


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Actual DS410 Homing Beacon Installation



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