

2 on board, one per recorder

**DUKANE**

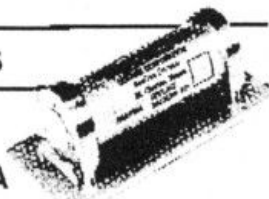
# Underwater Acoustic Beacon

**Model N15F210B**  
NSN 5845-01-009-4702**Specifications**

Operating Frequency:	37.5 - 1 kHz.
Operating Depth:	Surface to 20,000 feet.
Pulse Length:	Not less than 9 milliseconds.
Pulse Repetition Rate:	Not less than 0.9 pulse per second.
Operating Life:	30 days.
Acoustic Output, Initial:	1500 dynes/cm <sup>2</sup> peak pressure at 1 meter.
Acoustic Output, After 30 Days:	1000 dynes/cm <sup>2</sup> peak pressure at 1 meter.
Operating Temperature:	-28° F. to +100° F.
Actuation:	Fresh or salt water, surface to 20,000 feet.
Radiation Pattern:	Rated output over 80 per cent of sphere.
Size:	1.3" diameter x 4" long.
Weight:	Less than 9 oz. (including battery).
Power Source:	Mercury battery, DUKANE P.N. 810-418A.



## Mounting Kits

**Model No. N30A20A**  
NSN 5845-01-012-8241

This kit is widely used for mounting beacon to recorder or where space is limited. Requires through-holes with nuts and lock-washers on far side of bulkhead. For use with Dukane Model N15F210B Beacon.

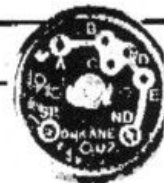
**Model No. N30A26**  
NSN 5845-01-133-1960

This mounting kit shown with beacon in place is usually used for mounting to the airframe. May be mounted from one side where necessary. For use with Dukane Model N15F210B Beacon. Beacon may be removed with mount left in place.

**Model No. N30A27**

Channel mount occupies minimum space yet affords considerable protection to beacon. It may be bolted on from one side — through bolts not necessary. Beacon may be removed with mount left in place. For use with Dukane Model N15F210B S and N15F210B/HS Beacons. Material is aluminum; (N30A27 not shown — configuration same as N30A26 shown above).

## Time Delay Caps

**30TD Series**

Models TDB, TDH, TDS2, TDS20, TDHS

The TD Series Time Delay Caps are for use in the field as a direct replacement for the standard battery access cap of the Dukane Underwater Beacons. These interchangeable caps offer the user a variety of pre-set signal delays for the recovery of selected hardware with no more effort than the removal and replacement of the original cap for battery replacement. Selection of the five delay sequences on each cap is accomplished by inserting a small screw into the desired delay position. A no-delay position is also on each cap for immediate signal activation if desired. Caps available to depths of 20,000 feet with delay functions from 3 hours to 64 days. The last letters of the TD series model numbers correspond with the last letters of the various beacon configuration numbers to provide ease in matching. Consult factory for time-delay sequences and parameters available to meet customer specifications and needs.

## Battery

**Model No. 810-418A**  
NSN 6135-01-009-4929

(Not Pictured) Battery for use in Dukane Model Beacons N15F210B.

Dukane Corporation / Seacom Division / St. Charles, IL 60174 / (312) 584-2300 / Telex: 72-0426



Sonne

### Pinger

a) nominal frequency: 37.5 +/- 1 khz  
about pressure related drift of freq / ppr nothing is known.

b) however, deviations occur due to ageing and deficiencies in design/construction.  
Dukane Pinger possess only weak level source, 70-75 db,  
and no crystal controlled oscillator, so that also

c) temperature influences are effective.

Total possible frequency drift is estimated as follows:

1. Dukane: 37,5 khz - 38,0 khz

2. Sonatech: 34,5 khz - 40,5 khz

tests with our own pinger indicate correctness the 2. statement

Pulse - repetition rate increases with lower temperatures,

Pulse - width decreases with temperature.

Locator system

## CONDENSED SPECIFICATIONS

FREQUENCY RANGE:	30 to 45 kHz continuous tuning.*
RECEIVER GAIN:	130db minimum at 30kHz.
RECEIVER NOISE LEVEL:	0.1 Microvolt rms equivalent at receiver input.
RECEIVING BANDWIDTH:	Response down minimum of 10 db at ± 500 cycles with 5 microvolt input signal.
LINEARITY:	Output linear with input up to 2000 Dynes/cm <sup>2</sup> at hydrophone.
AUDIO OUTPUT:	300 mw nominal at peak response between 1000 and 3000 cps.
RECEIVER DIRECTIVITY:	Acoustic response at least -10 db at ± 30° to maximum at 38 kc.
POWER SOURCE:	Commercially available mercury battery provides 50 hours of normal operation.
OPERATING TEMPERATURE:	0° F. to 130° F.
STORAGE TEMPERATURE:	-65° F. to +140° F.
DIMENSIONS:	4-1/2" diameter x 9" length.
WEIGHT IN AIR:	5 lbs.

\* Frequency range can be expanded, contracted or otherwise modified on special order.

## GENERAL

The Model N15A235 is a portable, hand-held for use in conjunction Underwater Sound System removable so that it support and immersed characteristics of the maximum signal area.

With the receiving transducer receiver and with an underwater microphone follow the acoustic signal effect a recovery. The visual indicator on the the diver to "see" or

The receiver assembly pressure up to 150 PSI case is constructed of not deteriorate upon The battery is housed in the handle and is interior of main housing