

T-5 SAFETY SIGNS AND LABELS**Table of Contents**

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T-5 SAFETY SIGNS AND LABELS

BACKGROUND

This technical information report presents a system for the design, installation, and text of signs and labels used for safety information.

INTENT

This technical information report applies to all safety information labels used on boats, associated equipment, instructions, and manuals.

NOTE: *This technical information report is not intended to require a change in any existing label that was made to comply with any existing standard. It is intended for reference in the design of new labels, revisions to existing labels, and revisions to ABYC standards.*

EXCEPTION: *Labels required by law or government regulation.*

NOTE: *The words "sign" and "label" are used interchangeably within this report.*

REFERENCED ORGANIZATIONS

SAE - Society of Automotive Engineers - 400 Commonwealth Drive, Warrendale, PA 15096-0001. Phone: (724) 776-4841. Fax: (724) 776-5760. Web site: www.sae.org.

DEFINITIONS

For the purposes of this report the following definitions apply.

Pictorial - A graphic representation intended to convey a message without the use of words. It may represent a hazard, a hazardous situation, a precaution to avoid a hazard, a result of not avoiding a hazard, or any combination of these messages.

REQUIREMENTS - IN GENERAL

Appropriate danger, warning, or caution labels should be considered if all of the following four conditions exist:

1. the hazard is associated with the use of the product,
2. the manufacturer knows of the hazard,
3. the hazard is not obvious or readily discoverable by the user, and
4. the hazard will exist during normal use or foreseeable misuse.

Installation

Location - Signs should be placed in a readable location to warn of the hazard in sufficient time to take appropriate action. Each label must withstand the combined effects of exposure to water, oil, sea spray, direct sunlight, heat, cold, and wear expected in the normal operation of the boat, or the equipment to which it is attached, without loss of legibility. Protective top surfaces, such as UV-resistant top coat can greatly affect resistance to weathering.

ELEMENTS OF A LABEL

A hazard label or sign should contain all four of the following messages:

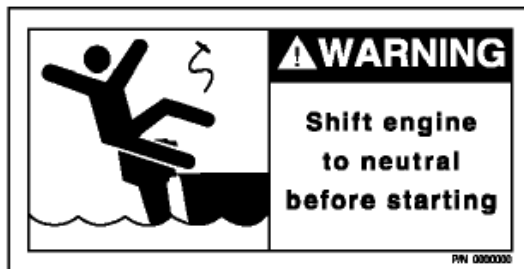
1. Signal word - The level of hazard intensity:
DANGER, or
WARNING, or
CAUTION;
2. the nature of the hazard, such as:
high voltage, or
swinging doors, or
sharp edges;

3. the consequences that can result if the instructions to avoid the hazard are not followed include, but should not be limited to:
 - electric shock (death), or
 - crushed hand or foot, or
 - cuts and lacerations; and
4. message panel - Instructions on how to avoid the hazard, include, but are not limited to:
 - turn off power, or
 - use door handle, or
 - place protective padding.

It is strongly suggested that the Safety Alert Symbol, as defined in SAE J284, *Safety Alert Symbol for Agricultural, Construction and Industrial Equipment*, be placed immediately to the left of the signal word on safety signs and labels. The symbol should be the same height as the lettering in the signal word and should meet all the conditions specified in SAE J284.

PICTORIAL

When used, the pictorial should normally have a black picture on a white background. (See below.)



**TYPICAL HORIZONTAL FORMAT
THREE-PANEL SIGN OR LABEL**

REQUIREMENTS - SIGNAL WORDS

DANGER - indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

WARNING - indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION - indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury or property damage. It may also be used to alert against unsafe practices.

NOTE: *"DANGER" or "WARNING" should not be considered for property damage accidents unless personal injury risk appropriate to these levels is also involved. "CAUTION" is permitted for accident hazards that could result only in property damage.*

COLOR - SIGNAL WORD PANEL

If color is used, it should be colorfast.

DANGER - black or white letters on a red background.

NOTE: *Black letters on a red background for exterior applications, where the label is exposed to sunlight or red (night) light.*

WARNING - black or white letters on an orange background.

NOTE: *Black letters on an orange background for exterior applications, where the label is exposed to sunlight or red (night) light.*

CAUTION - black letters on a yellow background.

Other colors may be used for compliance. When special circumstances preclude the use of safety colors on base materials, the marking used should contrast with the background color of the base material.

MULTIPLE HAZARD LABEL

When more than one hazard situation exists that might be preventable with warnings posted at a common location, a multiple hazard label may be used under a common signal word.

If multiple hazard levels are combined on a single label, the hazard levels should be grouped together in decreasing level of hazard intensity and separated by borders, color bars or different background colors.

When multiple hazard situations exist, and the hazards are classified at different hazard levels, the hazard level signal word, and appropriate color, should be used for each separate level of hazard intensity.

WORDING OF LABELS

Use active construction - subject first, action verb next, and object last. Example: DISCONNECT TRANSFORMER LEADS [In this case, the subject (you) is understood.]

Use concrete, specific nouns. If you mean “lever,” do not use “handle.” Do not use “threaded fastener” if you mean “screw.”

Use precise, pure, action verbs. Do not use “remove” if you mean “disconnect.” “Use” is more direct than “utilize.”

Use strong auxiliary verbs. Use “will” and “can” as auxiliary verbs. Write “hazardous voltage ‘will’ or ‘can’ cause severe injury or death.” Do not write “...‘may’ cause severe injury or death.”

Do not use contractions. Do not use “don’t,” “can’t,” or “won’t” in label writing. “DO NOT” is more emphatic than “DON’T.”

Use explicit modifiers. “Red handle” is more explicit than “colored handle.”

Eliminate non-essential words. Do not use adjectives like “very,” “extremely,” “slowly,” etc., unless they add significance to the message. Write “to” instead of “in order to.” Use “if” instead of “in the event of.” “Before” is more direct than “prior to.”

Organize the message to break the lines logically.

Use descriptive phrasing. “Will cause shock, burn, or death” is better than “will cause severe injury or death.”

LETTERING

Signal words should be plain block letters, such as Helvetica Bold, and in upper case only.

Signal word letters should be at least 1.5 times as high as the upper case letters in the message panel.

Words in the message panel should be plain block letters in either upper case or upper and lower case.

The minimum height of letters in the message panel, based on viewing distance, should be in accordance with [TABLE I](#).

TABLE I

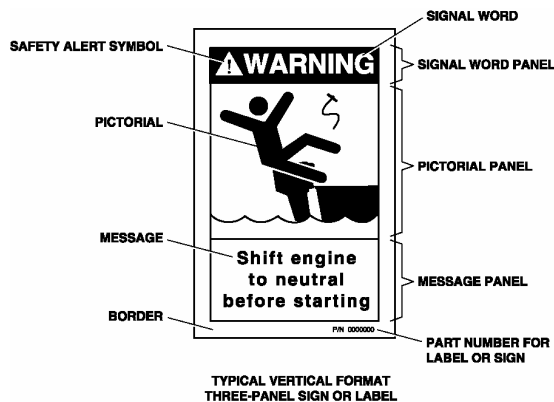
Minimum Height of Letters in Inches/Millimeters	Maximum Viewing Distance in Feet/Meters
1/8 (3.2 mm)	less than 5 (1.5 m)
1/4 (6.4 mm)	10 (3 m)
1/2 (12.7 mm)	20 (6 m)
3/4 (19 mm)	30 (9.1 m)
1 (25.4 mm)	40 (12.2 m)
1-1/2 (38.1 mm)	50 (15.25 m)
2 (50.8 mm)	60 (18.3 m)

INFORMATION FOR OWNERS

A list of warning labels containing sufficient information to aid in replacement of lost or illegible labels should be included in the owner/operator's manual provided to the purchaser of the boat or associated equipment.

A label part number may be included in the label border provided it is identified as such.

FIGURE 1 - EXAMPLES OF TYPICAL FORMATS (See text for colors and lettering specifications.)



SHIFT NEUTRAL W/LABEL

NOTE: Each safety sign or label should consist of a signal word plus a message panel in a vertical or horizontal format.

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Origin and development of ABYC T-5, Safety Signs and Labels

ABYC published the first edition of T-5 in the 90-91 issue of the standards. A revised edition was published in the 12/96 issue. This 2002 edition is the work of the Technical Information Project Technical Committee.

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