Kris Tsuchiyama: CS120B Custom Lab Project

Bomb Defusal Manual

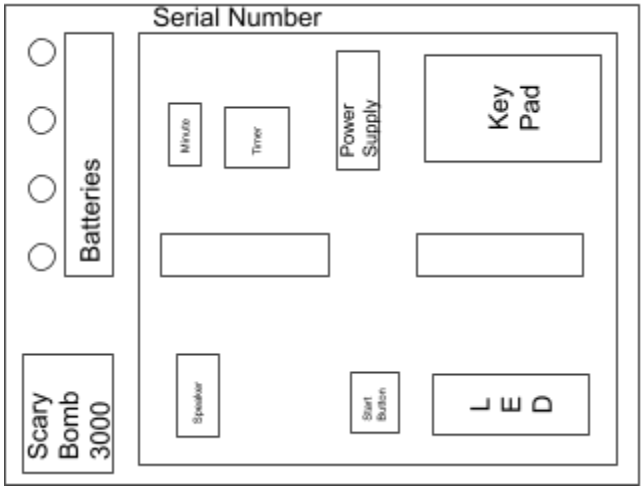
Version 1
Verification #963

Welcome to the dangerous and challenging world of bomb defusing. Study this manual carefully; you are the expert. In these pages you will find everything you need to know to defuse even the most insidious of bombs. And remember — One small oversight and it could all be over!

Defusing Bombs

A bomb will explode when its countdown timer reaches 0, or when too many mistakes have been recorded. The only way to defuse a bomb is to disarm all of its modules before its countdown timer expires.

Example Bomb



Modules

Each bomb will include 4 modules that must be disarmed. Each module must be completed before the next module will be displayed.

Instructions for disarming modules can be found in Section 1.

Gathering Information

Some disarming instructions will require specific information about the bomb, such as the serial number. This type of information can typically be found on the top, bottom, or sides of the bomb casing.

Section1: Modules

Modules can be identified on the LED screen on the bottom left of the bomb.
All given modules must be disarmed to defuse the bomb.
Not all modules in this manual will be on any given bomb.
Input can be unreliable, may take multiple button presses to register on some older bombs.

On the Subject of Wires

Wires are the lifeblood of electronics! Wait, no, electricity is the lifeblood. Wires are more like the arteries. The veins? No matter…

- A bomb can have any number of wires on it
- Only the one correct wire needs to be cut to disarm the module
- Wire ordering begins with the first on the top

3 Wires

If there are no red wires, cut the second wire.
Otherwise, if the last wire is white, cut the last wire.
Otherwise, if there is more than one blue wire, cut the last blue wire.
Otherwise, cut the last wire

4 Wires

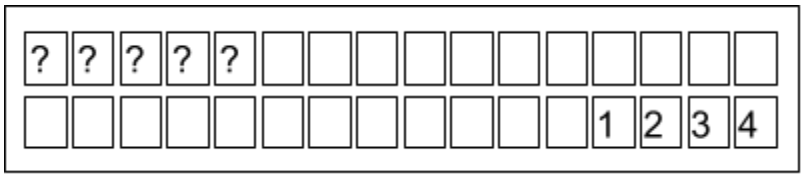
If there is more than one red wire and the last digit of the serial number is odd, cut the last red wire.
Otherwise, if the last wire is yellow and there are no red wires, cut the first wire.
Otherwise, if there is exactly one blue wire, cut the first wire.
Otherwise, if there is more than one yellow wire, cut the last wire.
Otherwise, cut the second wire.

5 Wires

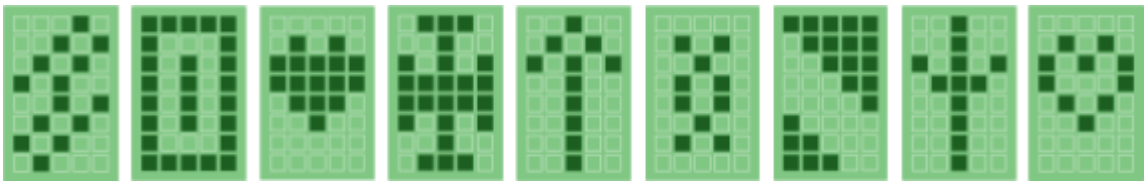
If the last wire is black and the last digit of the serial number is odd, cut the fourth wire.
Otherwise, if there is exactly one red wire and there is more than one yellow wire, cut the first wire.
Otherwise, if there are no black wires, cut the second wire.
Otherwise,cut the first wire.

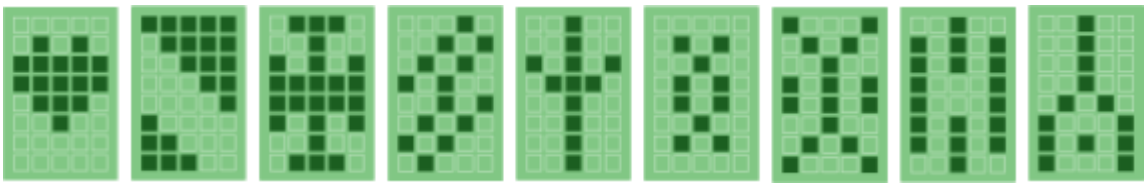
On the Subject of Keypads

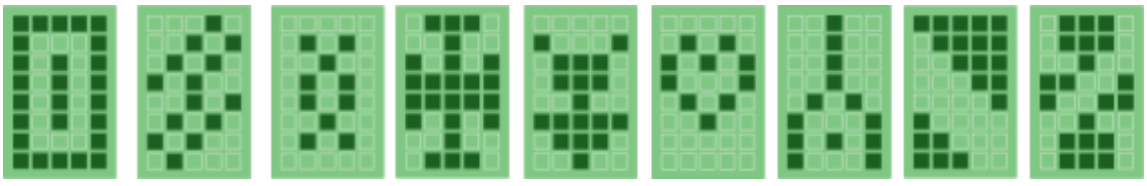
I'm not sure what these symbols are, but I suspect they have something to do with the occult.

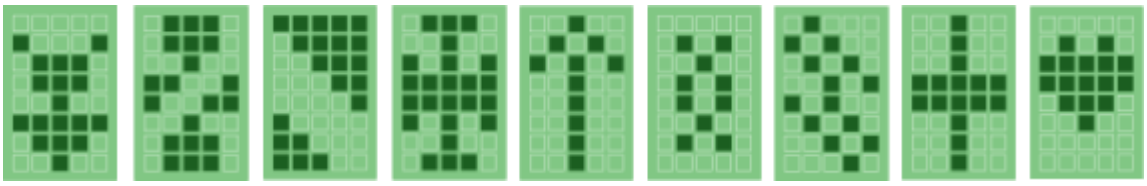


- Only one rows below has all four of the symbols from the keypad
- Press the corresponding button of the correct row

1.) 

2.) 

3.) 

4.) 

On the Subject of Memory

Memory is a fragile thing but so is everything else when a bomb goes off, so pay attention!

- Press the correct button to progress the module to the next stage. Complete all stages to disarm the module.
- Pressing an incorrect button will reset the module back to stage 1.
- Button positions are ordered from left to right.

Stage 1:

If the display is 1, press the button in the second position.
If the display is 2, press the button in the second position.
If the display is 3, press the button in the third position.
If the display is 4, press the button in the fourth position.

Stage 2:

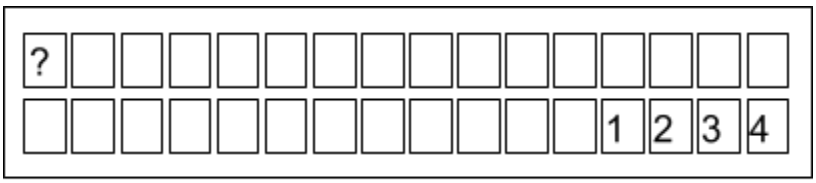
If the display is 1, press the button labeled “4”.
If the display is 2, press the button in the same position as you pressed in stage 1.
If the display is 3, press the button in the first position.
If the display is 4, press the button in the same position as you pressed in stage 1.

Stage 3:

If the display is 1, press the button with the same label as you pressed in stage 2.
If the display is 2, press the button with the same label you pressed in stage 1.
If the display is 3, press the button in the third position.
If the display is 4, press the button labeled “4”.

On the Subject of Simon Says

This is like one of those toys you had as a kid where you have to match the pattern that appears, except this one is a knockoff that was probably purchased at the dollar store.



- One of the four symbols will appear on the screen
- Using the correct table below, press the button with the corresponding symbol
- The previous symbols will remain on screen while a new symbol will appear on each correct input
- Inputting 3 incorrect symbols will result in failure

Symbols

Heart: 2 Diamond: 1 Spade: 4 Club: 3

If the serial number contains a vowel:

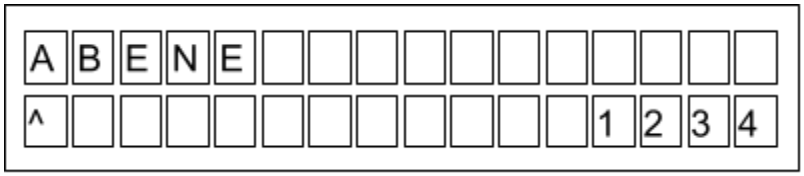
		Heart	Diamond	Spade	Club
Button to Press	No Batteries	Spade	Heart	Club	Diamond
	1 Battery	Heart	Club	Diamond	Club
	2+ Batteries	Diamond	Spade	Spade	Diamond

If the serial number does **not** contain a vowel:

		Heart	Diamond	Spade	Club
Button to Press	No Batteries	Diamond	Club	Spade	Diamond
	1 Battery	Club	Diamond	Heart	Heart
	2+ Batteries	Heart	Spade	Club	Spade

On the Subject of Passwords

Fortunately this password doesn't seem to meet standard government security requirements: 22 characters, mixed case, numbers in random order without any palindrome longer than length three.



- You can cycle above and below each letter to see the possibilities of each space using A and B
- You can cycle between each column using C and D
- Only one combination of the available letters will match a password below

about	after	again	below	could	every
first	found	great	house	large	learn
never	other	place	plant	point	right
small	sound	spell	still	study	stall
their	there	thing	think	these	three
water	where	which	world	would	write

On the Subject of Mazes

This seems to be some sort of maze, probably stolen off a restaurant placemat.

- Find the maze with matching circular markings
- The defuser must navigate the diamond marker to the other side of the screen
- The marker will only be able to progress forward in the maze, any wrong input will result in failure
- **Warning**: Do not cross the lines shown in the maze. These lines are invisible on the bomb

Movement can be done using the following:

2 = up, 4 = left, 6 = right, 8 = down