Big Talking, Big Explosions Bomb Manual

On the Subject of Wires

- Follow these rules in the order they are listed and perform the first action that applies.
- Only one wire must be cut to solve the module.

If the first two wires are red, cut the second wire.

Otherwise, if just one wire is blue and the first digit of the serial number is greater than 6, cut the blue wire.

Otherwise, if at least one of the middle two wires is green and the last digit of the serial number is less than 5, cut the first wire.

Otherwise, if the third wire is yellow, cut the third wire.

Otherwise, if one of the last two wires is green, cut the last green wire.

Otherwise, cut the last wire.

On the Subject of Dual Buttons

- There are two buttons, a press button and a check button.
- The press button must be pressed a specific amount of times and then the check button must be pressed once to complete the module.
- Use STEP ONE to determine which button is the press button and which is the check button.
- Use STEP TWO to determine how many times the press button needs to be pressed.

Step 1:

- Follow these rules in the order they are listed and perform the first action that applies.
- The press button will be the button stated in the rules below, so the button that is not stated will be the check button.

If both buttons are yellow, the left is the press button.

Otherwise, if just one of the buttons is red and the sum of the first two digits of the serial number is greater than 10, the red button is the press button.

Otherwise, if at least one button is green and the last digit of the serial number is greater than 4, the right button is the press button.

Otherwise, if the left button is blue, the left button is the press button.

Otherwise, if at least one button is yellow, the right button is the press button.

Otherwise, the left button is the press button.

- Go through every rule and press the press button the specified amount of times for each rule.
- When you are sure you have pressed the button the correct amount of times, press the check button to complete the module.
- If the check button is pressed when the press button has been pressed the wrong amount of times, you will receive a strike and any presses on the press button will be reset.

If the check button is yellow, press the press button once.

If there is at least one wires module on the bomb, press the press button twice.

If the press button is green, press the press button twice.

If at least one of the buttons is red, press the press button once.

If the left button is yellow, press the press button once.

If the right button is blue, press the press button once.

Press the button once.

On the Subject of LEDs

- To defuse this module you must use LEDs to find the correct frequency.
- Use STEP ONE to find which LED to use.
- Use STEP TWO to find the frequency to submit.

Step One:

- Each LED has a red value, a green value, and a blue value.
- These values can be either 0 or 1 depending on the colour of the LED.
- Use the table below to determine the LED values.
- Follow the rules in the order they are listed and do the first one that applies.
- Note what LED is stated as it will be used in step two.

If all three LEDs have green values of 1, use the first LED.

Otherwise, if all three LEDs have red values of 0, use the third LED.

Otherwise, if there is only one LED that has a blue value of 1, use the LED with the blue value of 1.

Otherwise, if there is only one LED that has a green value of 0, use the LED with the green value of 0.

Otherwise, use the second LED.

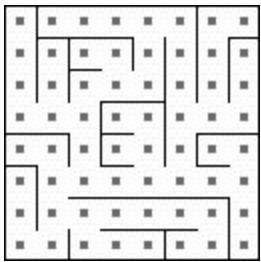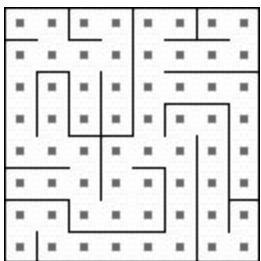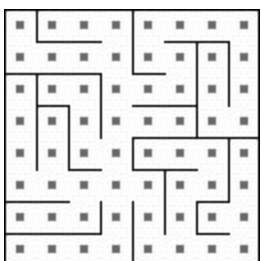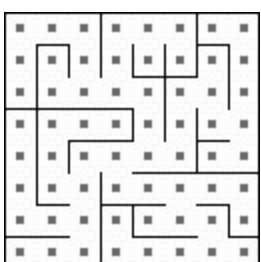| Value	Red	Green	Blue	Cyan	Magenta	Yellow
Red	1	0	0	0	1	1
Green	0	1	0	1	0	1
Blue	0	0	1	1	1	0

Step Two:

- Find the Frequency that matches the colour of the LED found in step one.
- Use the arrow buttons to locate the correct frequency then press the submit button to complete the module.

LED Colour	Frequency
Cyan	98.48
Red	98.53
Green	98.63
Magenta	98.68
Yellow	98.78
Blue	98.88

On the Subject of Mazes

- The blue button at the bottom of the module must be pressed before the square can be moved.
- Use the arrow keys or WASD to navigate the square to the plus.
- Find the matching maze using the two LEDs on the right of the module.
- Do not cross the lines of the maze, note that the maze is not visible on the bomb.

Maze	LED Indicator
	Blue Blue
	Blue Yellow
	Green Yellow
	Red Blue

On the subject of Big Talking, Big Problems

- Read the display to find what numbers to use.
- The first two words are used for table A and the next two words are used for table B.
- Find the two numbers in the tables using the display, then with those two numbers, press the yellow button on the module when the first number is equal to the rightmost digit in the timer, a green LED will illuminate, then press it again when the second number is equal to the rightmost digit in the timer.

TABLE A	"Big"	"Small"	TABLE B	"Big"	"Small"
"Forehead"	9	3	"Forehead"	5	4
"Foreheads"	7	5	"Foreheads"	1	2
"Fourhead"	5	9	"Fourhead"	6	9
"4head"	8	0	"4head"	0	3
"Twohead"	1	4	"Twohead"	8	6
"Twoheads"	2	7	"Twoheads"	1	2
"2head"	4	5	"2head"	5	4
"Bighead"	0	1	"Bighead"	0	7
"Smallhead"	8	3	"Smallhead"	3	1
"Business"	9	2	"Business"	4	5
"Problems"	3	8	"Problems"	8	6
"History"	7	6	"History"	0	9
"James"	6	4	"James"	6	9
"Explosions"	1	5	"Explosions"	4	3
"Talking"	0	9	"Talking"	2	7
"Explosion"	6	0	"Explosion"	1	8
"Jamo"	5	2	"Jamo"	6	3

On the Subject of Keypads

- Use STEP ONE the find the four digits of the PIN.
- Use STEP TWO to find the order to input the digits.

Step One:

- For each digit follow these rules in the order they are listed
  until one applies.

Digit A:
If the fourth digit of the serial number plus the fifth digit of the
serial number is less than 10, digit A is the fourth digit of the
serial number plus the fifth digit of the serial number.

Otherwise, digit A is the eighth digit of the serial number.

Digit B:
If the current day of the month is less than 10, digit B is the
current day of the month.

Otherwise, digit B is the last digit of the serial number.

Digit C:
If the current month comes after June in the year, digit C is the
second digit of the serial number.

Otherwise, if the sixth digit of the serial number multiplied by the
seventh digit of the serial number is greater than 25, digit C is the
number 8.

Otherwise, digit C is the second last digit of the serial number.

Digit D:
If the first digit of the serial number minus the last digit of the
serial number is less than 0, digit D is the number 4.

Otherwise, if there is at least one dual button module on the bomb,
digit D is the fourth digit of the serial number.

Otherwise, digit D is the fifth digit of the serial number.

Step Two:

- Find the correct order for the digits using the two LED
  indicators on the left side of the module.
- Press the digits in the order below.
- If you press the wrong digit you will receive one strike and
  any digits you've already pressed will reset.

Digit Order	LED Indicator
D, C, A, B	Pink, Blue
A, C, B, D	Yellow, Blue
B, C, A, D	Yellow, Green
C, A, B, D	Blue, Green
C, B, D, A	Blue, Red
D, A, B, C	Pink, Red

On the Subject of Advanced Wires

- Each wire has a symbol below it.
- Use the table below to decide whether or not to cut each wire.
- When you have performed the appropriate action for each wire, press the submit button to complete the module.

Colours	+	x	O	=	|	
Red	C	L	F	S	N	T
Green	T	N	S	C	L	F
Blue	L	C	F	S	T	N
Yellow	N	F	L	T	S	C

Letter	Instruction
C	Cut the wire
N	Do not cut the wire
L	Cut the wire if the wire is in the far right position
F	Cut the wire if the wire is in the far left or one right from the far left wire
T	Cut the wire if the third digit of the serial number is greater than 4
S	Cut the wire if the seventh digit of the serial number is less than 5

On the subject of Symbols on First

- This module has a displayed symbol and six buttons with a symbol on them.
- Read the display and use STEP 1 to find what button label to read.
- Then use STEP 2 to find what button to press.

Step 1:

- For the displayed symbol, find which button to read using the chart below.

🔔		✉		☺		✍		✌	
X							X	X	
			X						
				X					

📫		◑		✠		⚑		⌨	
X							X	X	
			X		X				

Step 2:

- Use the display on that button to find which ruleset to follow.
- Remember: (TL = Top Left, TR = Top Right, ML = Middle Left, MR = Middle Right, BL = Bottom Left, BR = Bottom Right).

🔔	For the first digit of the serial number, press the following: 0: then press TL. 1: then press TR. 2: then press MR. 3: then press BL. 4: then press TL. 5: then press BR. 6: then press ML. 7: then press TR. 8: then press BR. 9: then press ML.
✉	If the ML button is ✉ , 🔔 or 📫 , press ML. If none of the buttons are 🐦 , press BR. If any button on the left side has ✠ , press MR. Otherwise, press BL.
😐	For the current day, press the following: If the current day is Monday, press BL. If the current day is on the weekend, press ML. Any Other Day: If the first digit of the serial number is 4, press TL. If the current day is Wednesday, press BR. Otherwise, press MR.
🚫	If the TR button is ⚘ , press BL. For the third digit of the serial number, press the following: If the 3rd digit of the serial number is larger than 5, press MR. If the 3rd digit of the serial number is smaller than 5, press BR. If the 3rd digit of the serial number is equal to 5, press TL.

✌	Press Any Button
✉📬	If any button has ✉ , press that button. Otherwise, press TR.
☉	For the last digit of the serial number, press the following: 0: then press MR. 1: then press TR. 2: then press ML. 3: then press TL. 4: then press TL. 5: then press MR. 6: then press MR. 7: then press BL. 8: then press BR. 9: then press ML.
✠	If at least half of the total modules have been completed, press BR. *At least half of the total modules have to of been completed before this module can be solved.
⚑	If the fifth digit of the serial number is a prime number press ML. If there is a wires module on the bomb, press BR. Otherwise, press BL.
⌨	Add the last digit of the serial number to the total amount of letters in the current month's name. If that value is less than or equal to 8, press MR Otherwise, press BL.

On the subject of Morse To Binary

- For this module convert each letter into morse code, then into binary and find an answer with the mathematical operators.
- + is Addition, - is Subtraction, * is Multiplication.
- Remember to use the order of operations, multiplication before Addition!
- Once you have an answer, input the number using the keypad and then press the '=' button.
- To convert to a negative number, press the '-' button after the number has been inputted.
- To reset, press the 'R' button.
- Dashes are ones and dots are zeros. If a letter has less than 4 parts, add zeros to the front to get a four digit binary number.

See Binary Appendix on the last page of the manual for information on how to convert binary to decimal.

Letter	Morse Code	Letter	Morse Code
A	·−	N	−·
B	−···	O	−−−
C	−·−·	P	·−−·
D	−··	Q	−−·−
E	·	R	·−·
F	··−·	S	···
G	−−·	T	−
H	····	U	··−
I	··	V	···−
J	·−−−	W	·−−
K	−·−	X	−··−
L	·−··	Y	−·−−
M	−−	Z	−−··

On the subject of Accents

- This module has 5 letters with an accent above.
- Press the left and right arrow buttons to cycle through each letter. The above number shows what number the letter is.
- Find a number using the rules for each letter in the table below.
- Then press each letter in order from highest number to lowest number using the blank submit button.
- If two letters have the same number, you may press them in any order.
- If a number is 10 or greater the number is the leftmost digit.
- Note: a number can be a negative number or 0.

Accent names:
` - Grave
´ - Acute
^ - Circumflex
~ - Tilde
¨ - Diaeresis
° - Ring

First Letter:
If the first letter has the diaeresis accent, the number is the first digit of the serial number plus the last.
Otherwise, if the first letter has the tilde accent, the number is the first digit of the serial number multiplied by the last digit of the serial number.
Otherwise, if the first letter has the circumflex accent, the number is the first digit of the serial number minus the last digit of the serial number.
Otherwise, the number is the first digit of the serial number.

Second Letter:
If the second letter is 'î', the number is 4.
Otherwise, if the second letter is a 'u' with any accent, the number is the fourth digit of the serial number.
Otherwise, if the second letter is an 'a' with any accent, the number is the fourth digit of the serial number squared.
Otherwise, the number is 7.

Third Letter:
If the third letter is 'ð', the number is 8.

Otherwise, if the third letter is an 'i' with any accent, the number is the seventh digit of the serial number.
Otherwise, if the third letter has the grave accent, the number is 11 minus the seventh digit of the serial number.
Otherwise, the number is the seventh digit of the serial number plus the fifth digit of the serial number minus 3.

Fourth Letter:
If the fourth letter is a 'y' with any accent, the number is 2.
Otherwise, if the fourth letter is an 'e' with any accent, the number is the fifth digit of the serial number plus the third digit of the serial number.
Otherwise, if the fourth letter is 'ü' or "é", the number is 5.
Otherwise, the number is the total amount of modules on the bomb.

Fifth Letter:
If the fifth letter is 'å', the number is 1.
Otherwise, if the fifth letter has the tilde accent, the number is the second digit of the serial number.
Otherwise, if the fifth letter is an 'o' with any accent, the number is the 2 times the sum of the second digit of the serial number and the third digit of the serial number.
Otherwise, the number is 4.

On the subject of 9 Maths

- This module displays a student and a reason and has three buttons labeled: 'NO', 'GO' and 'KILL' on the bottom.
- Use the rules to find which button you need to press and use the table below to find when to press the button

*If there is less than 20 seconds on the bomb timer, press 'NO' at any time.

<u>To find what button to press:</u>
If the student is Rielly, press 'GO'.
Otherwise, if the student is James and the reason is toilet, press 'KILL'.
Otherwise, if the third digit of the serial number is equal to 0, press 'GO'.
Otherwise, if today is on the weekend, press 'GO'.
Otherwise, if the student is Tom or Josh, press 'GO'.
Otherwise, if the third digit of the serial number is not equal to 0 and the student is Rumi, James or Jacob, press 'NO'.
Otherwise, if the student is James, press 'KILL'.
Otherwise, if the student is Rex and the reason is not new book or locker, press 'KILL'.
Otherwise, if the reason is new book, press 'GO'.
Otherwise, if the student is Issac or Declan, press 'NO'.
Otherwise, if the student is Rumi or Tom, press 'NO'.
Otherwise, if the student is Alec, press 'GO'.
Otherwise, if the current month is December, press 'KILL'.
Otherwise, if the reason is toilet, press 'KILL'.
Otherwise, if the reason is drink, press 'GO'.
Otherwise, press 'NO'.

To find when to press the button:
- Find the value for the first and last digit of the serial number on the table below, where the left side is the first digit and the top side is the last digit.
- Then add an amount to that value using the rules below, add take the rightmost digit if the value is over 9.
- With the new number, press the button found on the previous page when the rightmost digit of the timer is equal to the value found in the table.

	0	1	2	3	4	5	6	7	8	9
0	0	6	3	1	5	4	2	9	8	7
1	7	8	9	4	2	3	6	0	1	5
2	6	9	0	5	8	2	7	1	4	3
3	2	4	1	6	7	5	0	3	8	9
4	4	3	5	0	1	6	9	2	7	8
5	1	5	4	3	9	7	8	6	2	0
6	3	0	6	7	4	9	1	8	5	2
7	9	1	7	2	6	8	3	5	0	4
8	8	7	2	9	3	0	5	4	6	1
9	5	2	9	8	0	1	4	7	3	6

Number to add:
If the reason is new book, add 5 to the value.
If the reason is wagging, add 9 to the value.
If the reason is toilet, add 0 to the value.
If the reason is locker, add 5 to the value.
If the reason is drink, add 3 to the value.

On the subject of Memory

- This module displays a number.
- After every module on the bomb that has been solved, a new number will appear and the module will advance to the next stage.
- The number on the left is the current stage of the module.
- The number on the right is the number that needs to be remembered.
- Remember all numbers from each stage and then complete the following steps for each number.
- **If the number calculated is larger than 10, take only the rightmost digit.**
- After all numbers have been solved, input the whole string of numbers onto the keypad to complete the module.

*Other memory modules and the big button module are ignored when advancing stages.

First Number:
If the first digit of the serial number is equal to 3. The first number is 3.
Otherwise, if the first digit of the serial number is less than 5, add 3 to the remembered number.
Otherwise, add 6 to the remembered number.

Every other Number:
If the last digit of the serial number is greater than 5, add the last digit of the serial number to the remembered number.
Otherwise, multiply the remembered number by the last digit in the serial.

On the subject of Big Button

- Just press the button it's not that hard.
- Press the button **exactly** at the same time as the current bomb time. No later, no earlier.

On the Subject of Dual Capacitors

- This module is a needy module so it can't be disarmed.
- Make sure neither of the capacitors overload by discharging them.
- Hold a button to discharge the capacitor it's connected to.
- If either one of the capacitors overloads you will receive one strike and both capacitors will completely discharge.

On the Subject of Button Masher

- This is a needy module, so it cannot be disarmed.
- The module will activate after a certain amount of time.
- After the module has activated, a timer and a number will appear on the module.
- Press the button the exact amount of times displayed on the button before the time runs out.
- If you do not press the button enough times before the time runs out, the module will deactivate and a strike will occur.
- If you press the button more times than required, the module will strike.

Binary Appendix

- This page should give you more information on how to convert binary numbers to decimal numbers.

Example:

Binary Number	1	1	1	1
Each bit converted	8	4	2	1
aka	2^3	2^2	2^1	2^0

Add up each bit depending on if it's 0 or 1.
So: 1111 has all 4 bits as 1, which means we DO add them if any digit was 0, we would not add any number. Each bit from right to left is 2 to the power of 1, 2 to the power of 2, 2 to the power of 3, etc.
$1111 = 2^3 + 2^2 + 2^1 + 2^0 = 8 + 4 + 2 + 1 = 15$

Examples:
$1001 = 2^3 + 0 + 0 + 2^0 = 8 + 0 + 0 + 1 = 9$
$0110 = 0 + 2^2 + 2^1 + 0 = 0 + 4 + 2 + 0 = 6$
$1011 = 2^3 + 0 + 2^1 + 2^0 = 8 + 0 + 2 + 1 = 11$