Installation Instructions

Interface Part Number 14-3871-000
AQUATek 50 BCD Output Cable

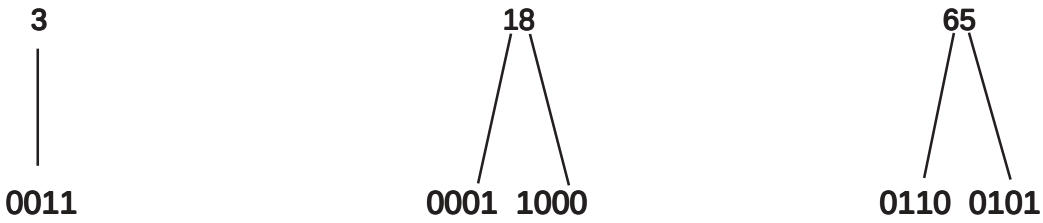
A Brief Lesson on Binary Coded Decimal

BCD (binary coded decimal) is a code composed of a combination of 0s and 1s. The combinations of 0s and 1s represent the decimal digits 0 through 9. You can compare the 0s and 1s in binary coded decimal to the dots and dashes in the Morse Code.

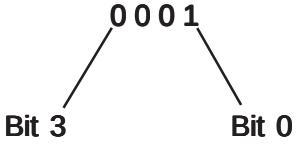
The chart below shows all the combinations of 0s and 1s or *bits* in the BCD code. Each combination of bits represents a decimal number.

Binary Coded Decimal	Decimal Equivalent
0000	0
0001	1
0010	2
0011	3
0100	4
0101	5
0110	6
0111	7
1000	8
1001	9

Using the chart above, convert the numbers 3, 18 and 65 into BCD:



The bits are numbered from right to left, starting with the number 0:



A Brief Lesson on Binary Coded Decimal, continued

The bit "1" usually represents a high signal or approximately 5 volts. The bit "0" usually represents a low signal or approximately 0 volts.

What is the Purpose of the Cable?

The cable is the link between the AQUATek 50 and a BCD device. BCD is used to designate the number or position (in decimal) of the sample that is currently being run.

Connecting the Cable to the AQUATek 50

1. Locate the connector labeled "BCD" on the rear panel of the AQUATek 50.
2. Plug the 9-pin connector from the cable into the BCD connector.

Connecting the Cable to the BCD Device

1. Referring to the table below, connect the 9 loose wires at the end of the cable to the BCD device.

BCD Output	Wire Color	9-Pin Connector
Ground	Black	1
BCD Bit 1	White	2
BCD Bit 3	Red	3
BCD Bit 5	Green	4
BCD Bit 7	Brown	5
BCD Bit 0	Blue	6
BCD Bit 2	Orange	7
BCD Bit 4	Yellow	8
BCD Bit 6	Purple	9

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