SEA Code Breakdown

By Fëanen
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Acknowledgement: A lot of the big breakthroughs and early heavy lifting were done by the Digimon 0nl1ne Discord community - my work has mostly built on, fine-tuned, and independently verified these breakthroughs. Special credit goes to Red Ranger and Virus Tamer for working out the basics of the battle and scan codes and to Airdramon for providing me with a lot of SEA codes.

Devices I've tested:
D-3 V2 US
D-Tector V1 US
D-Tector V2 US (same as V1 Asia)
D-Tector V3 Asia
D-Gather
Pendulum Cycle 7 & 8

SEA Battle

Battle Flow

SEA battles are actually a lot like DMOG battles. Each Digimon does four attacks. The first three don't mean anything: for the last attack, the winning Digimon will dodge the attack, and the loser will be hit. The big difference is that during battle, each Digimon may digivolve. Digivolved Digimon shoot double or large projectiles, while undigivolved Digimon shoot small projectiles. On at least some devices (the US/SEA D-3 and D-Tector) evolving doesn't seem to make a Digimon stronger at all, and there's absolutely no way of telling from a code whether your Veemon digivolved to Flamedramon, ExVeemon or Imperialdramon. On devices where digivolving does matter (so far, only the D-Gather) the final Digimon's power is the only one that's used to determine the results.

The Code

SEA Battle codes look like this. Underlined digits are mirrors of the corresponding main digit, the sum of a digit and its mirror is always 15 (0F). The digits will be numbered as follows:

<p style="text-align:center">1234-5678-<u>349</u>A-<u>7812</u>-9A<u>56</u></p>

We'll start by analyzing this code from my D-3 V2

Digits 1-3: Power: Digits 1, 2 and 3 are the Digimon's power - the higher it is compared to the opponent, the better its chance of winning. The digits are actually backwards, so in the example above the power is 88.

Digits 4 and 9: Unused: These digits are always 3, so their mirrors are always C. Actually, since they never change it's impossible to say which is the mirror, but it doesn't really matter. I've experimented with changing these digits to other values and it doesn't seem to make a difference - the devices battle as normal against the modified code, and it doesn't seem to affect the battle results. It's been suggested that these digits are for overflow, but I think they could have also been put in as a way to add to the code in the future and maintain backward compatibility. If so, they were never used.

DIgit 5: Digivolution: This digit determines which rounds in battle the sending Digimon Digivolves - 1 means the start of the battle (before round 1), 2 means before the second round, and so on. For timing reasons, any time one Digimon digivolves, both will go through the sequence. If they aren't both due to digivolve, one of them will stay in the same form - it's possible to have digivolutions all 4 rounds, but each Digimon only digivolves twice. Devices that don't digivolve in battle (the Pendulum Cycle, D-Cyber and Digimon Neo) will always send a 0 in this digit and do an idle animation (including pooping!) while its opponent digivolves. This table shows which turns are indicated by the signal - digits in *italics* have been tested but never seen with legitimate codes (if you have one, please comment and let me know!)

Digit	Digivolution turns
0	No digivolution
1	4
2	4
3	2
4	2, 4
5	1, 4
6	No digivolution
7	2, 3
8	3
9	1

A	1, 3, 4
B	1, 4
C	1
D	1
E	2, 4
F	2, 3, 4

The SEA D-Power has failed digivolutions programmed in. On the SEA D-Power codes 2 and 8 indicate this (thanks to Jarpoks for the samples): there may be others that haven't been recorded yet. The failed Digimon will still send out a big projectile, because the opposing Digimon may think the digivolution was a success. Other devices like the D-3 and D-Gather use 8 to signify successful digivolutions on turn 3, but generally 1 is the signal used for turn 4 digivolution. Why Bandai programmed in duplicate codes for some turn patterns is a total mystery.

As you can see, our sample Digimon digivolved before the start of turn 3.

Digits 6-8: Experience. These digits are used a bit differently by each device, but it amounts to the same thing: they increase with certain actions, and once they reach 1,000 they roll over to 000 and the Digimon levels up and gets 1 power. Like Digits 1-3, they're actually encoded backwards, so our sample Digimon has 330 EXP. It's *possible* that these digits are actually the least significant digits of a 6-digit power figure, but my tests so far suggest that they have no obvious impact in battle, so for now it's better just to treat them as indicating how close the Digimon is to powering up. See the **Individual Devices** section for how different devices use these digits.

Digit A: Victory. This is very simple. The device that initiates battle (V1) always sends 0, and the receiving device (V2) sends either a 1 or a 2. 1 means V2 wins, and 2 means V1 wins. Using a D-Com, I've discovered that this code is actually pretty much foolproof. If V1 sends anything but a 0, V2 just ignores it. If V2 sends anything *but* a 1, V1 wins. The only thing that *ever* breaks a SEA code is if the mirror digits are wrong.

Decimal and Hexadecimal

Like other Digimon connection systems, the values used in the SEA system are encoded in hexadecimal, and any value from 0-F works in each digit. However, for reasons that aren't clear, only decimal digits are generally used for the data, with hex usually being used exclusively by mirrors. A few devices sometimes use hexadecimal in the power value - this has been observed on the D-Tector and the D-Cyber. How the battle system decodes these values is a mystery, but

it's *possible* that a power level that reads 10 is actually the equivalent of 16 in decimal - in effect, any time a Digimon's power increases by 10 it may really get 6 extra points of power. Since the exact effect of power on victory odds is unknown, this hasn't been tested.

Individual Devices

Many devices make small modifications to power depending on certain factors, and most of them register EXP differently. These devices have been thoroughly tested.

D-3 - The EXP meter is the last 3 digits of the step count, and the device gains 1 power for every 1,000 steps. This means that the first 3 digits of the step count are the power. All Digimon have the same power, and digivolution does not increase power. Shaking the pedometer at a moderately fast, consistent rhythm helps the partner Digimon digivolve to stronger forms in battle, but whether digivolved Digimon have better odds at winning is unknown for all devices.

D-Tector - All tested versions have a major bug. The EXP value is meant to be the last 3 digits of the step count, but power seems to increase unpredictably. Whenever the 5th digit of the step counter is anything but 0, power goes up to 999 and EXP becomes somewhere between 999 and 99F at all times. This is a catastrophic error that makes the device completely unfair to battle against between 10,000-100,000 steps, 110,000-200,000 steps, and so on.

Digivolution can occur between any Digimon in the D-Docks, and sometimes even to Hybrid Digimon, depending on the shake count. The Digimon that appear are usually in the order of power, so it may go something like Gabumon>Metal Greymon>Imperialdramon. Bad shakes (too few, or *maybe* also bad rhythm) will summon Numemon. Which Digimon appears does not impact the power stat.

D-Gather - SEA battles are always with your chosen partner Digimon. Experience increases by winning training battles and getting points in the catcher game. Exp is always in 10s, so only digits 7 and 8 are used. For every 1,000 EXP, the Digimon gains 1 level and 1 point of power. Digivolution increases power by a fixed amount and can occur up to twice per battle: Digivolution stages are unlocked by leveling up.

Pendulum Cycle - Only digit 8 of EXP is used. EXP is gained by training and feeding protein, and for every 1,000 points the Digimon gains 1 point of power for its entire life. Digivolving temporarily boosts power, as does getting good or perfect shakes, and strength hearts appear to temporarily boost power as well (this needs more testing). It's not unusual for a long-lived and well trained Digimon to have hundreds of points of power. Since Cycle Digimon don't digivolve in battle, the device always has digit 5 as 0 and shows an idle animation when its opponent digivolves.

SEA Scan mode

Most SEA devices have a scan mode that allows a Digimon's data to be read by one of the encyclopedia devices (D-Terminal, D-Gather, and D-Spirit 1-2). This is *not* compatible with the Japanese Digimon Analyzer or D-Terminal. The D-Tector series uses the same codes to trade Digimon. The actual scan code is long, but only 5 digits and their mirrors are important. Since there are so many digits, I will be referring to each digit by its packet, then the order in the packet: so 5-3 is the third digit of packet 5.

Here's a sample code: Imperialdramon. The important packets are in bold, and the mirrors are in italics.

<p align="center">V1-9993-0999-30D0-6C60-6666-2FF6-9FCF</p>

1-4 (Mirror: 4-2): This indicates which version of the scan code is used, as follows:

Code	Compatibility
3	D-Terminal, D-Gather, D-Spirit 1-2
4	D-Gather, D-Spirit 1-2
5	D-Spirit 1-2
6	D-Spirit 2

Since Imperialdramon is 3, its data can be scanned by any device.

3-1, 4-4 and 4-3 (Mirrors 7-3, 7-2 and 7-1): These digits represent the Digimon's SEA index number *in that order* - so for Imperialdramon, this is 306. A full list of index numbers can be found [here](#) under "Obtainable Digimon."

3-2 (Mirror 7-4): This digit is used for Digimon that have multiple forms. The default form (Dragon Mode for Imperialdramon) is always 0. The next form is 2, the form after that is 3, and so on. So, for Imperialdramon, Fighter Mode's code is this:

<p align="center">V1-9993-0999-32D0-6C60-6666-2FF6-9FCD</p>

Only the mode digit and its mirror changed. Now, let's look at Paladin Mode.

<p align="center">V1-9994-0999-33D0-6B60-6666-2FF6-9FCC</p>

Here, the version digit also changed, because Imperialdramon Paladin Mode isn't in the D-Terminal.