

F1 | BRAKE CIRCUIT IDENTITY CARDS

FORMULA 1 GRAND PRIX
DE MONACO 2015

22-24 MAY 2015

CIRCUIT DE MONACO (MONTE CARLO)

TYPE OF CIRCUIT	HARD
TIME SPENT BRAKING	26%
AVERAGE DECELERATION	2.7 g
BRAKING ENERGY PRODUCED BY A CAR DURING THE GP	127 kWh
TOTAL PEDAL LOAD DURING THE GP	83,460 Kg

HARDER BRAKING

	STOPPING DISTANCE	MAXIMUM PEDAL LOAD
10	139 m	142 Kg
01	120 m	140 Kg
03	89 m	136 Kg

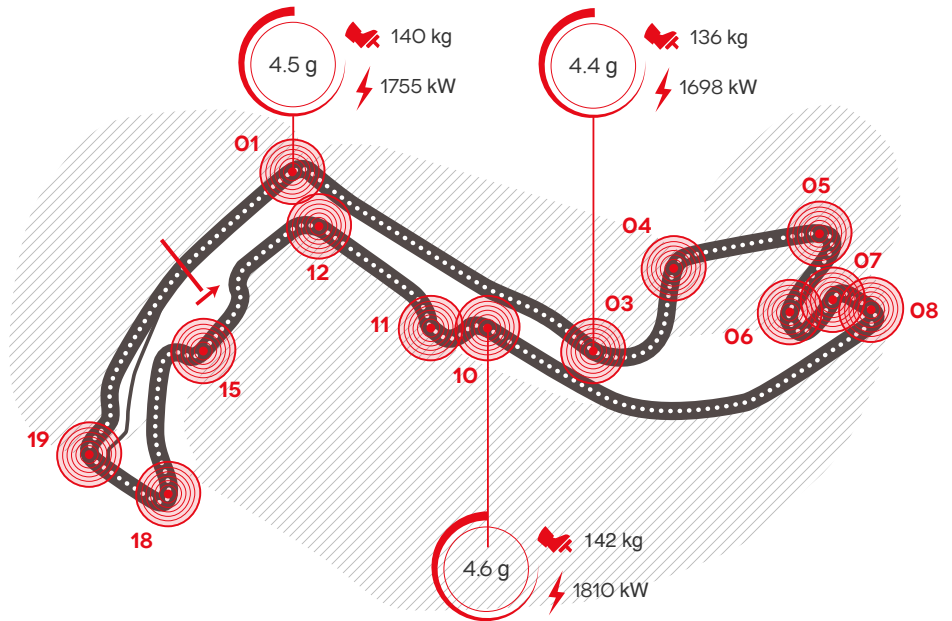
CIRCUIT DATA

Length: 3,340 m
Number of laps: 78
Number of brake zones/lap: 13

COMMENT

This is a historic city circuit that winds through the streets of the Principality and can create many problems for the single-seater brakes. In fact, the winding track with poor grip often means that the drivers need to control the car often using the brakes, with negative reflexes on the caliper and brake fluid temperature. In the past this event has often been a theatre of problems connected to overheating and vapour lock of the braking system (a phenomenon in which the brake fluid reaches the boiling point inside the caliper), leading to a lengthening of the pedal in braking which has many times caused drivers to retire, if not crash. In our day and age the progress made in cooling the brakes has held these problems at bay, although particular attention still needs to be given to managing temperatures during the race weekend. The braking sections are not particularly sudden, but the time spent on the brakes here is among the highest of the season at 26%.

*** Turn 10 is considered the most demanding for the braking system.**



01

Initial speed	289	(Km/h)
Final speed	100	(Km/h)
Stopping distance	120	(m)
Braking time	1.38	(sec)
Maximum deceleration	4.5	(g)
Maximum pedal load	140	(Kg)
Braking power	1755	(Kw)

03

Initial speed	285	(Km/h)
Final speed	143	(Km/h)
Stopping distance	89	(m)
Braking time	1.05	(sec)
Maximum deceleration	4.4	(g)
Maximum pedal load	136	(Kg)
Braking power	1698	(Kw)

04

Initial speed	171	(Km/h)
Final speed	112	(Km/h)
Stopping distance	24	(m)
Braking time	0.79	(sec)
Maximum deceleration	2.2	(g)
Maximum pedal load	67	(Kg)
Braking power	397	(Kw)

05

Initial speed	222	(Km/h)
Final speed	64	(Km/h)
Stopping distance	106	(m)
Braking time	1.46	(sec)
Maximum deceleration	3.1	(g)
Maximum pedal load	99	(Kg)
Braking power	882	(Kw)

06

Initial speed	142	(Km/h)
Final speed	49	(Km/h)
Stopping distance	74	(m)
Braking time	1.31	(sec)
Maximum deceleration	1.8	(g)
Maximum pedal load	55	(Kg)
Braking power	190	(Kw)

07

Initial speed	95	(Km/h)
Final speed	83	(Km/h)
Stopping distance	18	(m)
Braking time	0.69	(sec)
Maximum deceleration	1.2	(g)
Maximum pedal load	25	(Kg)
Braking power	41	(Kw)

08

Initial speed	119	(Km/h)
Final speed	95	(Km/h)
Stopping distance	21	(m)
Braking time	0.79	(sec)
Maximum deceleration	1.5	(g)
Maximum pedal load	41	(Kg)
Braking power	54	(Kw)

10*

Initial speed	293	(Km/h)
Final speed	69	(Km/h)
Stopping distance	139	(m)
Braking time	1.68	(sec)
Maximum deceleration	4.6	(g)
Maximum pedal load	142	(Kg)
Braking power	1810	(Kw)

11

Initial speed	68	(Km/h)
Final speed	60	(Km/h)
Stopping distance	20	(m)
Braking time	0.79	(sec)
Maximum deceleration	1.0	(g)
Maximum pedal load	42	(Kg)
Braking power	58	(Kw)

12

Initial speed	231	(Km/h)
Final speed	148	(Km/h)
Stopping distance	61	(m)
Braking time	0.87	(sec)
Maximum deceleration	3.3	(g)
Maximum pedal load	104	(Kg)
Braking power	971	(Kw)

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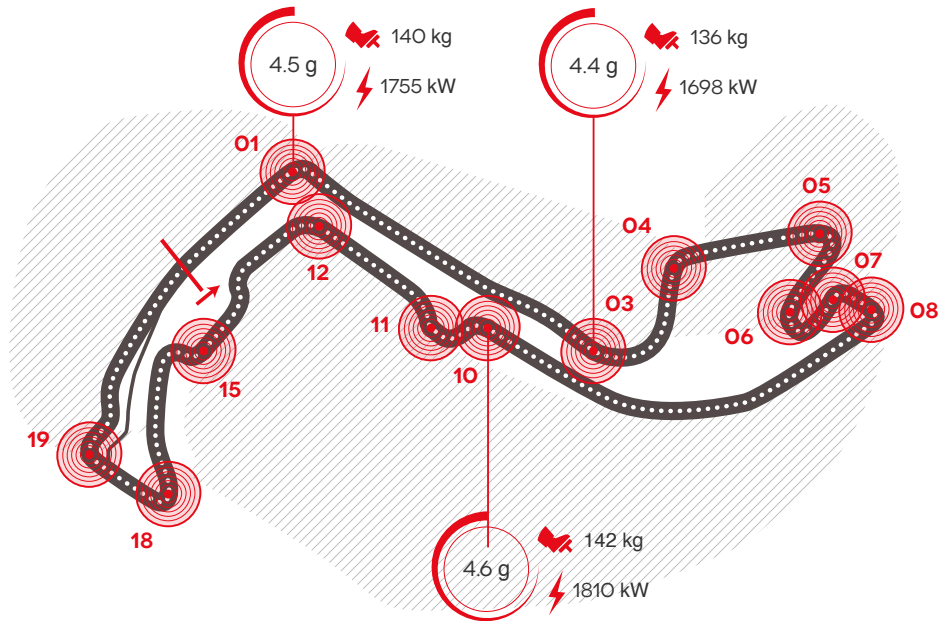
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15

Initial speed	233	(Km/h)
Final speed	87	(Km/h)
Stopping distance	84	(m)
Braking time	1.10	(sec)
Maximum deceleration	3.3	(g)
Maximum pedal load	103	(Kg)
Braking power	1000	(Kw)

18

Initial speed	192	(Km/h)
Final speed	57	(Km/h)
Stopping distance	90	(m)
Braking time	1.33	(sec)
Maximum deceleration	2.5	(g)
Maximum pedal load	76	(Kg)
Braking power	546	(Kw)

19

Initial speed	112	(Km/h)
Final speed	89	(Km/h)
Stopping distance	44	(m)
Braking time	0.81	(sec)
Maximum deceleration	1.4	(g)
Maximum pedal load	40	(Kg)
Braking power	35	(Kw)