

# Fitness Machine Service (FTMS)

## **Bluetooth® Implementation Conformance Statement (ICS) Proforma**

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- **Group Prepared By:** Sports and Fitness Working Group



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# 1 Identification of the implementation

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## 1.1 Implementation Under Test (IUT) identification

Identification of the Implementation Under Test (IUT) is to be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma is named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

## 1.2 Roles and versions

**Table 0: Service Version**

Item	Version	Reference	Status
1	Fitness Machine Service v1.0	[2]	M

**Table 0a: No longer used**

**Table 1: No longer used**

## 1.3 Transport requirements

**Table 2: Transport Requirements**

Item	Transport	Reference	Status
1	Service supported over BR/EDR	[2] 1.5	C.1
2	Service supported over LE	[2] 1.5	C.1

C.1: Mandatory to support at least one of FTMS 2/1 “Service supported over BR/EDR” OR FTMS 2/2 “Service supported over LE”.

## 1.4 Service requirements

**Table 3: Feature Requirements**

Item	Feature	Reference	Status
1	Average Speed Supported	[2] 4.3.1.1	O
2	Cadence Supported	[2] 4.3.1.1	O
3	Total Distance Supported	[2] 4.3.1.1	O
4	Inclination Supported	[2] 4.3.1.1	O
5	Elevation Gain Supported	[2] 4.3.1.1	O
6	Pace Supported	[2] 4.3.1.1	O
7	Step Count Supported	[2] 4.3.1.1	O
8	Resistance Level Supported	[2] 4.3.1.1	O
9	Stride Count Supported	[2] 4.3.1.1	O
10	Expended Energy Supported	[2] 4.3.1.1	O
11	Heart Rate Measurement Supported	[2] 4.3.1.1	O
12	Metabolic Equivalent Supported	[2] 4.3.1.1	O
13	Elapsed Time Supported	[2] 4.3.1.1	O
14	Remaining Time Supported	[2] 4.3.1.1	O
15	Power Measurement Supported	[2] 4.3.1.1	O
16	Force on Belt and Power Output Supported	[2] 4.3.1.1	O
17	User Data Retention Supported	[2] 4.3.1.1	O
18	Speed Target Setting Supported	[2] 4.3.1.2	O

Item	Feature	Reference	Status
19	Inclination Target Setting Supported	[2] 4.3.1.2	O
20	Resistance Target Setting Supported	[2] 4.3.1.2	O
21	Power Target Setting Supported	[2] 4.3.1.2	O
22	Heart Rate Target Setting Supported	[2] 4.3.1.2	O
23	Targeted Expended Energy Configuration Supported	[2] 4.3.1.2	O
24	Targeted Step Number Configuration Supported	[2] 4.3.1.2	O
25	Targeted Stride Number Configuration Supported	[2] 4.3.1.2	O
26	Targeted Distance Configuration supported	[2] 4.3.1.2	O
27	Targeted Training Time Configuration supported	[2] 4.3.1.2	O
28	Targeted Time In Two Heart Rate Zones Configuration supported	[2] 4.3.1.2	O
29	Targeted Time In Three Heart Rate Zones Configuration supported	[2] 4.3.1.2	O
30	Targeted Time In Five Heart Rate Zones Configuration supported	[2] 4.3.1.2	O
31	Indoor Bike Simulation Parameters Supported	[2] 4.3.1.2	O
32	Wheel Circumference Configuration Supported	[2] 4.3.1.2	O
33	Spin Down Control Supported	[2] 4.3.1.2	O
34	Targeted Cadence Configuration Supported	[2] 4.3.1.2	O

Table 4: Service Requirements

Item	Feature	Reference	Status
1	Fitness Machine Features	[2] 4.3.1.1	M
2	Target Setting Features	[2] 4.3.1.2	M
3	Treadmill Data Characteristic	[2] 4.4	O
4	Cross Trainer Data Characteristic	[2] 4.5	O
5	Step Climber Data Characteristic	[2] 4.6	O
6	Stair Climber Data Characteristic	[2] 4.7	O
7	Rower Data Characteristic	[2] 4.8	O
8	Indoor Bike Data Characteristic	[2] 4.9	O
9	Training Status	[2] 4.10	O
10	Supported Speed Range	[2] 4.11	C.1
11	Supported Inclination Range	[2] 4.12	C.2
12	Supported Resistance Level Range	[2] 4.13	C.3
13	Supported Power Range	[2] 4.14	C.4
14	Supported Heart Rate Range	[2] 4.15	C.5
15	Fitness Machine Control Point	[2] 4.16	O
16	Fitness Machine Status	[2] 4.17	C.6
17	FTM Status – Reset	[2] 4.17	C.6
18	FTM Status – Fitness Machine Stopped or Paused by the User	[2] 4.17	C.6

Item	Feature	Reference	Status
19	FTM Status – Fitness Machine Stopped by Safety Key	[2] 4.17	C.25
20	FTM Status – Fitness Machine Started or Resumed by the User	[2] 4.17	C.6
21	FTM Status – Target Speed Changed	[2] 4.17	C.10
22	FTM Status – Target Incline Changed	[2] 4.17	C.11
23	FTM Status – Target Resistance Level Changed	[2] 4.17	C.12
24	FTM Status – Target Power Changed	[2] 4.17	C.13
25	FTM Status – Target Heart Rate Changed	[2] 4.17	C.14
26	FTM Status – Targeted Expended Energy Changed	[2] 4.17	C.15
27	FTM Status – Targeted Number of Steps Changed	[2] 4.17	C.16
28	FTM Status – Targeted Number of Strides Changed	[2] 4.17	C.17
29	FTM Status – Targeted Distance Changed	[2] 4.17	C.18
30	FTM Status – Targeted Training Time Changed	[2] 4.17	C.19
31	FTM Status – Targeted Time in Two Heart Rate Zones Changed	[2] 4.17	C.20
32	FTM Status - Targeted Time in Three Heart Rate Zones Changed	[2] 4.17	C.21
33	FTM Status - Targeted Time in Five Heart Rate Zones Changed	[2] 4.17	C.22
34	FTM Status – Indoor Bike Simulation Parameters Changed	[2] 4.17	C.7
35	FTM Status – Wheel Circumference Changed	[2] 4.17	C.23
36	FTM Status – Spin Down Status	[2] 4.17	C.24
37	FTM Status – Control Permission Lost	[2] 4.17	C.6
38	SDP Record Support	[2] 5	C.8
39	Requirement for Time Sensitive Data	[2] 4.18	O
40	Transmission of a Data Record	[2] 4.19	O
41	FTM Status – Targeted Cadence Changed	[2] 4.17	C.9
42	FTM Status - Server Supports Connections to Multiple Clients	[2] 4.17.1	O
43	FTM Status – Control Permission Revoked by UI or Other Means	[2] 4.17	C.6

- C.1: Mandatory IF FTMS 3/18 “Speed Target Setting Supported”, otherwise Excluded.
- C.2: Mandatory IF FTMS 3/19 “Inclination Target Setting Supported”, otherwise Excluded.
- C.3: Mandatory IF FTMS 3/20 “Resistance Target Setting Supported”, otherwise Excluded.
- C.4: Mandatory IF FTMS 3/21 “Power Target Setting Supported”, otherwise Excluded.
- C.5: Mandatory IF FTMS 3/22 “Heart Rate Target Setting Supported”, otherwise Excluded.
- C.6: Mandatory IF FTMS 4/15 “Fitness Machine Control Point”, otherwise Excluded.
- C.7: Mandatory IF FTMS 3/31 “Indoor Bike Simulation Parameters Supported”, otherwise Excluded.
- C.8: Mandatory IF FTMS 2/1 “Service supported over BR/EDR”, otherwise Excluded.
- C.9: Mandatory IF FTMS 3/34 “Targeted Cadence Configuration Supported”, otherwise Excluded.
- C.10: Mandatory IF FTMS 3/18 “Speed Target Setting Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.11: Mandatory IF FTMS 3/19 “Inclination Target Setting Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.

- C.12: Mandatory IF FTMS 3/20 “Resistance Target Setting Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.13: Mandatory IF FTMS 3/21 “Power Target Setting Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.14: Mandatory IF FTMS 3/22 “Heart Rate Target Setting Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.15: Mandatory IF FTMS 3/23 “Targeted Expended Energy Configuration Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.16: Mandatory IF FTMS 3/24 “Targeted Step Number Configuration Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.17: Mandatory IF FTMS 3/25 “Targeted Stride Number Configuration Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.18: Mandatory IF FTMS 3/26 “Targeted Distance Configuration supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.19: Mandatory IF FTMS 3/27 “Targeted Training Time Configuration supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.20: Mandatory IF FTMS 3/28 “Targeted Time In Two Heart Rate Zones Configuration supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.21: Mandatory IF FTMS 3/29 “Targeted Time In Three Heart Rate Zones Configuration supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.22: Mandatory IF FTMS 3/30 “Targeted Time In Five Heart Rate Zones Configuration supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.23: Mandatory IF FTMS 3/32 “Wheel Circumference Configuration Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.24: Mandatory IF FTMS 3/33 “Spin Down Control Supported” AND FTMS 4/16 “Fitness Machine Status”, otherwise Excluded.
- C.25: Optional IF FTMS 4/15 “Fitness Machine Control Point”, otherwise Excluded.

**Table 5: Treadmill Data Characteristic**

*Prerequisite: FTMS 4/3 “Treadmill Data Characteristic”*

Item	Feature	Reference	Status
1	Average Speed	[2] 4.4.1.3	C.1
2	Total Distance	[2] 4.4.1.4	C.2
3	Inclination	[2] 4.4.1.5	C.3
4	Ramp Angle Setting	[2] 4.4.1.6	C.3
5	Positive Elevation Gain and Negative Elevation Gain	[2] 4.4.1.7	C.4
6	Instantaneous Pace	[2] 4.4.1.8	C.5
7	Average Pace	[2] 4.4.1.9	C.5
8	Total Energy	[2] 4.4.1.10	C.6
9	Energy per Hour	[2] 4.4.1.11	C.6
10	Energy per Minute	[2] 4.4.1.12	C.6
11	Heart Rate	[2] 4.4.1.13	C.7
12	Metabolic Equivalent	[2] 4.4.1.14	C.8
13	Elapsed Time	[2] 4.4.1.15	C.9
14	Remaining Time	[2] 4.4.1.16	C.10



Item	Feature	Reference	Status
15	Force on Belt	[2] 4.4.1.17	C.11
16	Power Output	[2] 4.4.1.18	C.11

- C.1: Optional IF FTMS 3/1 “Average Speed Supported”, otherwise Excluded.  
 C.2: Optional IF FTMS 3/3 “Total Distance Supported”, otherwise Excluded.  
 C.3: Optional IF FTMS 3/4 “Inclination Supported”, otherwise Excluded.  
 C.4: Optional IF FTMS 3/5 “Elevation Gain Supported”, otherwise Excluded.  
 C.5: Optional IF FTMS 3/6 “Pace Supported”, otherwise Excluded.  
 C.6: Optional IF FTMS 3/10 “Expended Energy Supported”, otherwise Excluded.  
 C.7: Optional IF FTMS 3/11 “Heart Rate Measurement Supported”, otherwise Excluded.  
 C.8: Optional IF FTMS 3/12 “Metabolic Equivalent Supported”, otherwise Excluded.  
 C.9: Optional IF FTMS 3/13 “Elapsed Time Supported”, otherwise Excluded.  
 C.10: Optional IF FTMS 3/14 “Remaining Time Supported”, otherwise Excluded.  
 C.11: Optional IF FTMS 3/16 “Force on Belt and Power Output Supported”, otherwise Excluded.

**Table 6: Cross Trainer Data Characteristics**

*Prerequisite: FTMS 4/4 “Cross Trainer Data Characteristic”*

Item	Feature	Reference	Status
1	Average Speed	[2] 4.5.1.3	C.1
2	Total Distance	[2] 4.5.1.4	C.2
3	Step Per Minute	[2] 4.5.1.5	C.3
4	Average Step Rate	[2] 4.5.1.6	C.3
5	Stride Count	[2] 4.5.1.7	C.4
6	Positive Elevation Gain and Negative Elevation Gain	[2] 4.5.1.8	C.5
7	Inclination	[2] 4.5.1.9	C.6
8	Ramp Angle Setting	[2] 4.5.1.10	C.6
9	Resistance Level	[2] 4.5.1.11	C.7
10	Instantaneous Power	[2] 4.5.1.12	C.8
11	Average Power	[2] 4.5.1.13	C.8
12	Total Energy	[2] 4.5.1.14	C.9
13	Energy per Hour	[2] 4.5.1.15	C.9
14	Energy per Minute	[2] 4.5.1.16	C.9
15	Heart Rate	[2] 4.5.1.17	C.10
16	Metabolic Equivalent	[2] 4.5.1.18	C.11
17	Elapsed Time	[2] 4.5.1.19	C.12
18	Remaining Time	[2] 4.5.1.20	C.13

- C.1: Optional IF FTMS 3/1 “Average Speed Supported”, otherwise Excluded.  
 C.2: Optional IF FTMS 3/3 “Total Distance Supported”, otherwise Excluded.  
 C.3: Optional IF FTMS 3/7 “Step Count Supported”, otherwise Excluded.  
 C.4: Optional IF FTMS 3/9 “Stride Count Supported”, otherwise Excluded.  
 C.5: Optional IF FTMS 3/5 “Elevation Gain Supported”, otherwise Excluded.  
 C.6: Optional IF FTMS 3/4 “Inclination Supported”, otherwise Excluded.



- C.7: Optional IF FTMS 3/8 “Resistance Level Supported”, otherwise Excluded.
- C.8: Optional IF FTMS 3/15 “Power Measurement Supported”, otherwise Excluded.
- C.9: Optional IF FTMS 3/10 “Expended Energy Supported”, otherwise Excluded.
- C.10: Optional IF FTMS 3/11 “Heart Rate Measurement Supported”, otherwise Excluded.
- C.11: Optional IF FTMS 3/12 “Metabolic Equivalent Supported”, otherwise Excluded.
- C.12: Optional IF FTMS 3/13 “Elapsed Time Supported”, otherwise Excluded.
- C.13: Optional IF FTMS 3/14 “Remaining Time Supported”, otherwise Excluded.

**Table 7: Step Climber Data Characteristic**

*Prerequisite: FTMS 4/5 “Step Climber Data Characteristic”*

Item	Feature	Reference	Status
1	Step per Minute	[2] 4.6.1.4	C.1
2	Average Step Rate	[2] 4.6.1.5	C.1
3	Positive Elevation Gain	[2] 4.6.1.6	C.2
4	Total Energy Field	[2] 4.6.1.7	C.3
5	Energy per Hour	[2] 4.6.1.8	C.3
6	Energy per Minute	[2] 4.6.1.9	C.3
7	Heart Rate	[2] 4.6.1.10	C.4
8	Metabolic Equivalent	[2] 4.6.1.11	C.5
9	Elapsed Time	[2] 4.6.1.12	C.6
10	Remaining Time	[2] 4.6.1.13	C.7

- C.1: Optional IF FTMS 3/7 “Step Count Supported”, otherwise Excluded.
- C.2: Optional IF FTMS 3/5 “Elevation Gain Supported”, otherwise Excluded.
- C.3: Optional IF FTMS 3/10 “Expended Energy Supported”, otherwise Excluded.
- C.4: Optional IF FTMS 3/11 “Heart Rate Measurement Supported”, otherwise Excluded.
- C.5: Optional IF FTMS 3/12 “Metabolic Equivalent Supported”, otherwise Excluded.
- C.6: Optional IF FTMS 3/13 “Elapsed Time Supported”, otherwise Excluded.
- C.7: Optional IF FTMS 3/14 “Remaining Time Supported”, otherwise Excluded.

**Table 8: Stair Climber Data Characteristic**

*Prerequisite: FTMS 4/6 “Stair Climber Data Characteristic”*

Item	Feature	Reference	Status
1	Step per Minute	[2] 4.7.1.3	C.1
2	Average Step Rate	[2] 4.7.1.4	C.1
3	Positive Elevation Gain	[2] 4.7.1.5	C.2
4	Stride Count	[2] 4.7.1.6	C.3
5	Total Energy	[2] 4.7.1.7	C.4
6	Energy per Hour	[2] 4.7.1.8	C.4
7	Energy per Minute	[2] 4.7.1.9	C.4
8	Heart Rate	[2] 4.7.1.10	C.5
9	Metabolic Equivalent	[2] 4.7.1.11	C.6

Item	Feature	Reference	Status
10	Elapsed Time	[2] 4.7.1.12	C.7
11	Remaining Time	[2] 4.7.1.13	C.8

- C.1: Optional IF FTMS 3/7 “Step Count Supported”, otherwise Excluded.  
C.2: Optional IF FTMS 3/5 “Elevation Gain Supported”, otherwise Excluded.  
C.3: Optional IF FTMS 3/9 “Stride Count Supported”, otherwise Excluded.  
C.4: Optional IF FTMS 3/10 “Expended Energy Supported”, otherwise Excluded.  
C.5: Optional IF FTMS 3/11 “Heart Rate Measurement Supported”, otherwise Excluded.  
C.6: Optional IF FTMS 3/12 “Metabolic Equivalent Supported”, otherwise Excluded.  
C.7: Optional IF FTMS 3/13 “Elapsed Time Supported”, otherwise Excluded.  
C.8: Optional IF FTMS 3/14 “Remaining Time Supported”, otherwise Excluded.

**Table 9: Rower Data Characteristic**

*Prerequisite: FTMS 4/7 “Rower Data Characteristic”*

Item	Feature	Reference	Status
1	Average Stroke Rate	[2] 4.8.1.4	C.1
2	Total Distance	[2] 4.8.1.5	C.2
3	Instantaneous Pace	[2] 4.8.1.6	C.3
4	Average Pace	[2] 4.8.1.7	C.3
5	Instantaneous Power	[2] 4.8.1.8	C.4
6	Average Power	[2] 4.8.1.9	C.4
7	Resistance Level	[2] 4.8.1.10	C.5
8	Total Energy	[2] 4.8.1.11	C.6
9	Energy per Hour	[2] 4.8.1.12	C.6
10	Energy per Minute	[2] 4.8.1.13	C.6
11	Heart Rate	[2] 4.8.1.14	C.7
12	Metabolic Equivalent	[2] 4.8.1.15	C.8
13	Elapsed Time	[2] 4.8.1.16	C.9
14	Remaining Time	[2] 4.8.1.17	C.10

- C.1: Optional IF FTMS 3/2 “Cadence Supported”, otherwise Excluded.  
C.2: Optional IF FTMS 3/3 “Total Distance Supported”, otherwise Excluded.  
C.3: Optional IF FTMS 3/6 “Pace Supported”, otherwise Excluded.  
C.4: Optional IF FTMS 3/15 “Power Measurement Supported”, otherwise Excluded.  
C.5: Optional IF FTMS 3/8 “Resistance Level Supported”, otherwise Excluded.  
C.6: Optional IF FTMS 3/10 “Expended Energy Supported”, otherwise Excluded.  
C.7: Optional IF FTMS 3/11 “Heart Rate Measurement Supported”, otherwise Excluded.  
C.8: Optional IF FTMS 3/12 “Metabolic Equivalent Supported”, otherwise Excluded.  
C.9: Optional IF FTMS 3/13 “Elapsed Time Supported”, otherwise Excluded.  
C.10: Optional IF FTMS 3/14 “Remaining Time Supported”, otherwise Excluded

**Table 10: Indoor Bike Data Characteristic***Prerequisite: FTMS 4/8 "Indoor Bike Data Characteristic"*

Item	Feature	Reference	Status
1	Average Speed	[2] 4.9.1.3	C.1
2	Instantaneous Cadence	[2] 4.9.1.4	C.2
3	Average Cadence	[2] 4.9.1.5	C.2
4	Total Distance	[2] 4.9.1.6	C.3
5	Resistance Level	[2] 4.9.1.7	C.4
6	Instantaneous Power	[2] 4.9.1.8	C.5
7	Average Power	[2] 4.9.1.9	C.5
8	Total Energy	[2] 4.9.1.10	C.6
9	Energy per Hour	[2] 4.9.1.11	C.6
10	Energy per Minute	[2] 4.9.1.12	C.6
11	Heart Rate	[2] 4.9.1.13	C.7
12	Metabolic Equivalent	[2] 4.9.1.14	C.8
13	Elapsed Time	[2] 4.9.1.15	C.9
14	Remaining Time	[2] 4.9.1.16	C.10

- C.1: Optional IF FTMS 3/1 "Average Speed Supported", otherwise Excluded.
- C.2: Optional IF FTMS 3/2 "Cadence Supported", otherwise Excluded.
- C.3: Optional IF FTMS 3/3 "Total Distance Supported", otherwise Excluded.
- C.4: Optional IF FTMS 3/8 "Resistance Level Supported", otherwise Excluded.
- C.5: Optional IF FTMS 3/15 "Power Measurement Supported", otherwise Excluded.
- C.6: Optional IF FTMS 3/10 "Expended Energy Supported", otherwise Excluded.
- C.7: Optional IF FTMS 3/11 "Heart Rate Measurement Supported", otherwise Excluded.
- C.8: Optional IF FTMS 3/12 "Metabolic Equivalent Supported", otherwise Excluded.
- C.9: Optional IF FTMS 3/13 "Elapsed Time Supported", otherwise Excluded.
- C.10: Optional IF FTMS 3/14 "Remaining Time Supported", otherwise Excluded.

**Table 11: Training Status Characteristic***Prerequisite: FTMS 4/9 "Training Status"*

Item	Feature	Reference	Status
1	Training Status String	[2] 4.10.1.1	O
2	Training Status Extended String	[2] 4.10.1.1	O

**Table 12: Fitness Machine Control Point Characteristic***Prerequisite: FTMS 4/15 "Fitness Machine Control Point"*

Item	Feature	Reference	Status
1	Request Control	[2] 4.16.2.1	M
2	Reset Procedure	[2] 4.16.2.2	M
3	Set Target Speed Procedure	[2] 4.16.2.3	C.1



Item	Feature	Reference	Status
4	Set Target Inclination Procedure	[2] 4.16.2.4	C.2
5	Set Target Resistance Level Procedure	[2] 4.16.2.5	C.3
6	Set Target Power Procedure	[2] 4.16.2.6	C.4
7	Set Target Heart Rate Procedure	[2] 4.16.2.7	C.5
8	Start or Resume Procedure	[2] 4.16.2.8	M
9	Stop Procedure	[2] 4.16.2.9	M
10	Pause Procedure	[2] 4.16.2.9	M
11	Set Targeted Expended Energy Procedure	[2] 4.16.2.10	C.6
12	Set Targeted Number of Steps Procedure	[2] 4.16.2.11	C.7
13	Set Targeted Number of Strides Procedure	[2] 4.16.2.12	C.8
14	Set Targeted Distance Procedure	[2] 4.16.2.13	C.9
15	Set Targeted Training Time Procedure	[2] 4.16.2.14	C.10
16	Set Targeted Time in Two Heart Rate Zones Procedure	[2] 4.16.2.15	C.11
17	Set Targeted Time in Three Heart Rate Zones Procedure	[2] 4.16.2.16	C.12
18	Set Targeted Time in Five Heart Rate Zones Procedure	[2] 4.16.2.17	C.13
19	Set Indoor Bike Simulation Parameters	[2] 4.16.2.18	C.14
20	Set Wheel Circumference	[2] 4.16.2.19	O
21	Spin Down Control	[2] 4.16.2.20	C.16
22	Targeted Cadence	[2] 4.16.2.21	C.15
23	Procedure Complete	[2] 4.16.2.22	M

- C.1: Mandatory IF FTMS 3/18 “Speed Target Setting Supported”, otherwise Excluded.
- C.2: Mandatory IF FTMS 3/19 “Inclination Target Setting Supported”, otherwise Excluded.
- C.3: Mandatory IF FTMS 3/20 “Resistance Target Setting Supported”, otherwise Excluded.
- C.4: Mandatory IF FTMS 3/21 “Power Target Setting Supported”, otherwise Excluded.
- C.5: Mandatory IF FTMS 3/22 “Heart Rate Target Setting Supported”, otherwise Excluded.
- C.6: Mandatory IF FTMS 3/23 “Targeted Expended Energy Configuration Supported”, otherwise Excluded.
- C.7: Mandatory IF FTMS 3/24 “Targeted Step Number Configuration Supported”, otherwise Excluded.
- C.8: Mandatory IF FTMS 3/25 “Targeted Stride Number Configuration Supported”, otherwise Excluded.
- C.9: Mandatory IF FTMS 3/26 “Targeted Distance Configuration supported”, otherwise Excluded.
- C.10: Mandatory IF FTMS 3/27 “Targeted Training Time Configuration supported”, otherwise Excluded.
- C.11: Mandatory IF FTMS 3/28 “Targeted Time In Two Heart Rate Zones Configuration supported”, otherwise Excluded.
- C.12: Mandatory IF FTMS 3/29 “Targeted Time In Three Heart Rate Zones Configuration supported”, otherwise Excluded.
- C.13: Mandatory IF FTMS 3/30 “Targeted Time In Five Heart Rate Zones Configuration supported”, otherwise Excluded.
- C.14: Mandatory IF FTMS 3/31 “Indoor Bike Simulation Parameters Supported”, otherwise Excluded
- C.15: Mandatory IF FTMS 3/34 “Targeted Cadence Configuration Supported”, otherwise Excluded
- C.16: Mandatory IF FTMS 3/33 “Spin Down Control Supported”, otherwise Excluded.

## 1.5 GATT requirements

**Table 13: GATT Requirements**

Item	Feature	Reference	Status	Inter-Layer Dependency
1	Generic Attribute Profile (GATT) Server	[2] 1.4	M	[3] GATT 1/2
2	Write Characteristic Value	[2] 1.4	M	[3] GATT 4/14
3	Read Long Characteristic Values	[2] 1.4	O	[3] GATT 4/10
4	Notifications	[2] 1.4	M	[3] GATT 4/17
5	Indications	[2] 1.4	C.1	[3] GATT 4/18
6	Read Characteristic Descriptors	[2] 1.4	M	[3] GATT 4/19
7	Write Characteristic Descriptors	[2] 1.4	M	[3] GATT 4/21

C.1: Mandatory IF FTMS 4/15 “Fitness Machine Control Point”, otherwise not defined.

## 1.6 SDP requirements

**Table 14: SDP Requirements**

*Prerequisite: FTMS 2/1 “Service supported over BR/EDR”*

Item	Feature	Reference	Status	Inter-Layer Dependency
1	Support for Server role	N/A	M	[5] SDP 1b/1
2	ProtocolDescriptorList	N/A	M	[5] SDP 9/2
3	BrowseGroupList	N/A	M	[5] SDP 9/5

## 2 References

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- [1] Bluetooth Core Specification, Version 4.0 or later
- [2] Fitness Machine Service Specification, Version 1.0
- [3] ICS Proforma for Generic Attribute Profile (GATT.ICS)
- [4] ICS Proforma for Generic Access Profile (GAP.ICS)
- [5] ICS Proforma for Service Discovery Protocol (SDP.ICS)
- [6] Cycling Speed and Cadence Service Specification, Version 1.0
- [7] ICS Proforma for Cycling Speed and Cadence Service Specification (CSCS.ICS)

### 3 Revision history and acknowledgments

#### Revision History

Publication Number	Revision Number	Date	Comments
	D05r00	2015-10-28	Initial draft based on specification d05r04.
	D05r01	2015-11-23	Re-arrange tabled 4.0 "Service Requirement" to have several tables, the first table indicate support for the different characteristic and added one table per characteristic with precondition for this table linked to the corresponding item of the first table
	D05r02	2015-12-02	Added 3/17 – Force on Belt and Power Output Support Added 3/31 – Indoor bike Simulation Parameters Supported Added 4/14 – Fitness Machine Status and the C.6 condition
	D05r03	2016-03-31	Added the following Feature Requirements to Table 3 3/18 – User Data Retention Supported 3/19 – Target Setting Features 3/34 – Wheel Circumference Configuration Supported Added the following Service Requirements to Table 4 4/17 – Requirement for Time Sensitive Data 4/18 – Transmission of a Data Record Corrected the heading of Table 4.4 Added Stride Count (4.4/5) to Stair Climber Data Characteristic Added the following to FTM Control Point Characteristic Table 11 11/1 – Request Control 11/18 – Set Indoor Bike Simulation 11/19 – Set Wheel Circumference 11/20 – Spin Down Control 11/21 – Procedure Complete Corrected formatting and references throughout the document to synchronize with spec revision d05_r09
	D05r04	2016-04-26	Removed "Fitness Machine Features" & "Target Setting Features" from Table 3, per WG review comments. Added "Extended String " as Feature in Table 4 Added FTM Status Op Codes to Table 4 Updated / renumbering Table 4 Conditional statements Updated Table numbering and minor editorial changes per WG review comments. Added Table 11 for Training Status Characteristic
	D09r00	2016-05-27	Corrected references hyperlink, font and color Editorial update throughout the document to match the latest ICS template.



Publication Number	Revision Number	Date	Comments
	D09r01	2016-06-30	Synchronized with the latest version of the Fitness Machine Service spec
	D09r02	2016-08-03	Synchronized with the latest version of the Fitness Machine Service spec (FTMS_d09_r01a) Added entry for Targeted Cadence
	D09r03	2016-08-03	Changes made to match the new ICS template
	D1.0.0	2016-10-31	Document updated after the formal IOP based on the feedback from the testers
	D1.0.0b	2016-12-09	Updated to the new ICS template and resolved BTI comments.
	D1.0.0c	2016-12-15	Resolved additional BTI comments
	D1.0.0r03	2017-01-26	Approved by BTI.
0	1.0.0	2017-02-17	Prepared for publication by Bluetooth SIG staff.
	1.0.1r00	2018-04-26	TSE 10622 (rating 1): Changed 3/33 to 3/34 in C.15 of Table 12: Fitness Machine Control Point Characteristic. TSE 10624 (rating 2): Changed status of item 4/42 from M to O.
1	1.0.1	2018-06-27	Approved by BTI. Prepared for TCRL 2018-1 publication.
	1.0.2r00	2018-10-02	TSE 10705 (rating 4): For Table 12, modified status for Item 21 and added conditional note C.16. TSE 10834 (rating 2): For Table 4, modified status for Items 19, 21–33, 35, and 36; and added conditional notes C.10–C.25.
2	1.0.2	2018-11-21	Approved by BTI. Prepared for TCRL 2018-2 publication.
	p3r00–r03	2022-03-18 – 2022-04-28	TSE 18594 (rating 2): Removed Table 1 and made corrections to Table 6's C.6 and Table 14's prerequisite. TSE 18672 (rating 1): Removed Table 0a. TSE 18719 (rating 1): Editorials to align the document with the latest ICS template in anticipation of a .Z release. Assigned publication number 2 to previous v1.0.2 and aligned copyright page with v2 of the DNMD. Consistency checker editorials.
3	p3	2022-06-28	Approved by BTI on 2022-05-31. Prepared for TCRL 2022-1 publication.

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