

Introducing the Calibrated CB TOUR Index System

A New Era of Fairness, Consistency, and Competitive Integrity

Championship Bowling is proud to publish the updated, calibrated operating model for our player rating system: the **CB TOUR Index**. Developed from deep analysis of over 480 active bowler profiles, historical scoring telemetry, and direct competitor feedback, this system establishes unprecedented equity across divisions and handicapping.

What is the CB TOUR Index?

The CB TOUR Index is a performance-based rating model measuring how a bowler performs relative to the competitive field in CB TOUR events. Rather than relying on static house-shot league averages that fluctuate drastically across centers, the Index uses a dynamic, challenge-adjusted differential to establish a player's true scoring baseline.

How is the Index Calculated?

At the core of the CB TOUR Index is the **Differential**:

Differential = Bowler Score - Field Average

- **Example A:** You bowl **215** on a squad where the scratch field average is **185.00**. Your differential is **+30.00**.
- **Example B:** You bowl **165** on a squad where the scratch field average is **185.00**. Your differential is **-20.00**.

This metric eliminates pattern biases, adjusting automatically whether you are bowling on high-scoring medium patterns or demanding flat conditions.

The Symmetrical Trimmed Average (Olympic Drop)

To calculate an established CB TOUR Index:

1. We pull your most recent **30 tournament games** in descending chronological order.
2. We sort those 30 differentials from highest to lowest.
3. We **drop your 3 highest outlier games and your 3 lowest outlier games**.
4. We take the arithmetic mean of the **middle 24 games**.

CB TOUR Index = (Sum of Middle 24 Differentials) / 24

By trimming outliers from both ends, the system ignores anomalous single-squad strike heaters while simultaneously ensuring that mechanical breakdowns, transition traps, or bad pairs do not unfairly drag your rating down.

What if I Don't Have 30 Games?

Bowlers with **15 to 29 games** receive an active, established Index. The system applies a proportional sliding scale to trim outliers based on total games bowled:

Total Tour Games Bowled	Highest Outliers Trimmed	Lowest Outliers Trimmed	Middle Games Averaged	% of Data Kept
30+ games	Top 3	Bottom 3	Middle 24 games	80.0%
24 – 29 games	Top 2	Bottom 2	Middle 20 – 25 games	83.3% – 86.2%
18 – 23 games	Top 2	Bottom 2	Middle 14 – 19 games	77.8% – 82.6%
15 – 17 games	Top 1	Bottom 1	Middle 13 – 15 games	86.7% – 88.2%
7 – 14 games	Top 1	Bottom 1	Middle 5 – 12 games	71.4% – 85.7%
<6 games	0	0	All games used	100%

A minimum of **15 games** is required to establish an official CB TOUR Index.

Division Placement (Open vs. Under)

The CB TOUR Index serves as the sole governing metric for Championship Series division placement.

Under Division Eligibility:

- A verified **CB TOUR Index of -3.0 or lower**, OR

- A converted **USBC Standard Composite Average of 199 or lower** (for non-established competitors with under 15 tour games).

Open Division:

- A verified **CB TOUR Index of -2.9 or higher**, OR
- An incoming **USBC Standard Composite Average of 200 or higher**.
- Any bowler with a national professional title (PBA/PWBA) or an active national touring card must compete in the Open Division regardless of average or index.

Placeholder Averages for Handicap Calculations

Our tournament software requires a whole-number average to calculate handicap pins in the Challenge Series and side brackets. We translate your Index into an assigned **Placeholder Average** anchored to our verified 185 tour scratch baseline:

Placeholder Average = 185 + CB TOUR Index

Handicap Formula

Handicap Per Game = 75% x (220 - Placeholder Average)

(Fractions are dropped; negative handicap is never assessed. Max average: 220; tournament floor: 120).

Official Index to Placeholder Average Conversion Table

(Formula: Assigned Average = Index + 185 | Baseline: 185 | Floor: 120)

Index Range	Assigned Ave.	Index Range	Assigned Ave.	Index Range	Assigned Ave.	Index Range	Assigned Ave.
59.1 to 60.0	245	26.1 to 27.0	212	-6.9 to -6.0	179	-39.9 to -39.0	146
58.1 to 59.0	244	25.1 to 26.0	211	-7.9 to -7.0	178	-40.9 to -40.0	145
57.1 to 58.0	243	24.1 to 25.0	210	-8.9 to -8.0	177	-41.9 to -41.0	144
56.1 to 57.0	242	23.1 to 24.0	209	-9.9 to -9.0	176	-42.9 to -42.0	143
55.1 to 56.0	241	22.1 to 23.0	208	-10.9 to -10.0	175	-43.9 to -43.0	142
54.1 to 55.0	240	21.1 to 22.0	207	-11.9 to -11.0	174	-44.9 to -44.0	141
53.1 to 54.0	239	20.1 to 21.0	206	-12.9 to -12.0	173	-45.9 to -45.0	140
52.1 to 53.0	238	19.1 to 20.0	205	-13.9 to -13.0	172	-46.9 to -46.0	139
51.1 to 52.0	237	18.1 to 19.0	204	-14.9 to -14.0	171	-47.9 to -47.0	138
50.1 to 51.0	236	17.1 to 18.0	203	-15.9 to -15.0	170	-48.9 to -48.0	137
49.1 to 50.0	235	16.1 to 17.0	202	-16.9 to -16.0	169	-49.9 to -49.0	136

48.1 to 49.0	234	15.1 to 16.0	201	-17.9 to -17.0	168	-50.9 to -50.0	135
47.1 to 48.0	233	14.1 to 15.0	200	-18.9 to -18.0	167	-51.9 to -51.0	134
46.1 to 47.0	232	13.1 to 14.0	199	-19.9 to -19.0	166	-52.9 to -52.0	133
45.1 to 46.0	231	12.1 to 13.0	198	-20.9 to -20.0	165	-53.9 to -53.0	132
44.1 to 45.0	230	11.1 to 12.0	197	-21.9 to -21.0	164	-54.9 to -54.0	131
43.1 to 44.0	229	10.1 to 11.0	196	-22.9 to -22.0	163	-55.9 to -55.0	130
42.1 to 43.0	228	9.1 to 10.0	195	-23.9 to -23.0	162	-56.9 to -56.0	129
41.1 to 42.0	227	8.1 to 9.0	194	-24.9 to -24.0	161	-57.9 to -57.0	128
40.1 to 41.0	226	7.1 to 8.0	193	-25.9 to -25.0	160	-58.9 to -58.0	127
39.1 to 40.0	225	6.1 to 7.0	192	-26.9 to -26.0	159	-59.9 to -59.0	126
38.1 to 39.0	224	5.1 to 6.0	191	-27.9 to -27.0	158	-60.9 to -60.0	125
37.1 to 38.0	223	4.1 to 5.0	190	-28.9 to -28.0	157	-61.9 to -61.0	124
36.1 to 37.0	222	3.1 to 4.0	189	-29.9 to -29.0	156	-62.9 to -62.0	123
35.1 to 36.0	221	2.1 to 3.0	188	-30.9 to -30.0	155	-63.9 to -63.0	122
34.1 to 35.0	220	1.1 to 2.0	187	-31.9 to -31.0	154	-64.9 to -64.0	121
33.1 to 34.0	219	0.1 to 1.0	186	-32.9 to -32.0	153	-65.9 to -65.0	120
32.1 to 33.0	218	-0.9 to 0.0	185	-33.9 to -33.0	152	-66.0 or lower	Floor: 120
31.1 to 32.0	217	-1.9 to -1.0	184	-34.9 to -34.0	151		
30.1 to 31.0	216	-2.9 to -2.0	183	-35.9 to -35.0	150		
29.1 to 30.0	215	-3.9 to -3.0	182	-36.9 to -36.0	149		
28.1 to 29.0	214	-4.9 to -4.0	181	-37.9 to -37.0	148		
27.1 to 28.0	213	-5.9 to -5.0	180	-38.9 to -38.0	147		

Rules for Incoming Non-Established Bowlers

- **USBC 17-Pin Reduction Rule:** If you have fewer than 15 CB TOUR games, your highest USBC standard composite average from the last three seasons will be reduced by **17 pins** to establish your initial tournament playing average (*USBC - 17*).
- **Automatic Placement:** Once 15 tournament games are logged, outside league averages are permanently retired, and your CB TOUR Index exclusively determines your standing.

Detailed Footnotes on System Adjustments

[1] Transition from Top-21 to Symmetrical Trimmed Average

- **Old Method:** Averaged the top 21 of a bowler's last 30 differentials, discarding only the lowest 9 games.

- **Problem:** High-variance bowlers who had 4 or 5 hot games were seeing their index artificially surge by 10 to 14 pins, forcing solid ~180 sport bowlers into the Open Division against 220+ scratch pros.
- **Adjustment:** By dropping the top 3 and bottom 3 outlier games proportionally across 30 games (averaging the middle 24), the system captures true median skill, moving volatile averages down to an accurate, competitive rating.

[2] Recalibration of the Under Division Cutoff to -3.0

- **Old Cutoff:** An Index of 2.9 or lower.
- **Problem:** With our tour scratch field average at 185, an index of +2.9 corresponds to an actual tournament average of ~188, which equates to a 205–207 USBC house average. This caused the Under Division to absorb ~55% of the roster, leaving the Open Division smaller than desired and forcing true 195–199 league bowlers into competitive mismatches.
- **Adjustment:** Setting the cut at -3.0 creates an exact 1:1 mathematical alignment with our 199 USBC rule: $199 - 17 = 182$ tournament average, which corresponds to -3.0 on the conversion scale ($182 - 185 = -3.0$). This balances the field to roughly 60% Open and 40% Under.

[3] Realignment of Placeholder Baseline from 180 to 185

- **Old Baseline:** Assigned Average = Index + 180
- **Problem:** An index of 0.0 (exact field average) assigned a placeholder average of 180, despite the field empirically averaging 185. This handed tour regulars 3 to 4 free unearned handicap pins compared to incoming first-time USBC entrants.
- **Adjustment:** Pinned the baseline to Assigned Average = Index + 185 so that a 0.0 index yields a 185 tournament average, restoring complete handicap parity across all brackets.

[4] Expanded Conversion Table Down to 120 Floor

- **Old Table:** Terminated at -60.0 (120 average).
- **Adjustment:** Formally extended down to -65.0 (120 average) with a declared floor policy: any index of -66.0 or lower is assigned a 120 placeholder average (yielding 75 handicap pins at 75% of 220).