

AUTOMOTIVE BATTERY

MAINTENANCE FREE TYPE





SPACEFLIGHT POWER



1994

Company established



1995

Launched the first maintenance-free battery in China



1996

Obtained the production license

2006

Jiangxi plant (Phase 1) put in to operation (2.5 million units/year)



2007

Injection molding plant put into operation



1996-2010

"DYVINITY" "DIVINE" AND "LEOPARD" were recognized as the National well-known Trademark



2015

Jiangxi plant (Phase 2) started construction



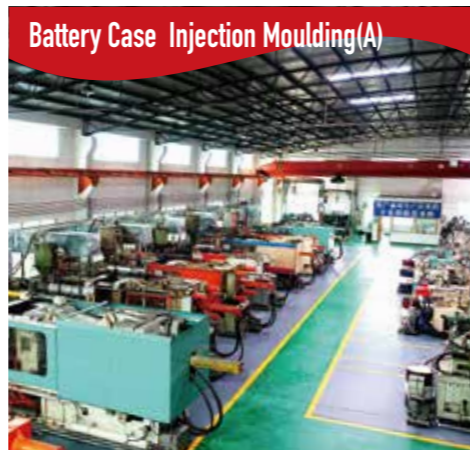
COMPANY PROFILE



INTRODUCTION

Established in 1994, Zhongshan Spaceflight power supply Co., Ltd is a professional lead acid battery provider in China. We specialize in maintenance free car battery, ups battery, solar battery and golf battery. Our factory is located in Jiangxi Province, covering 290, 000 square metres manufacturing area with production capacity of 2.5 million pieces per year. To guarantee our product quality, all production processes are strictly controlled under the standard of ISO 9001. As an industry leader of expertise, we don't just offer great product, service and expertise, we're also committed to offer you peace of mind long after you have received your products.

01 FACTORY IMAGE



02 PRODUCTION PROCESS







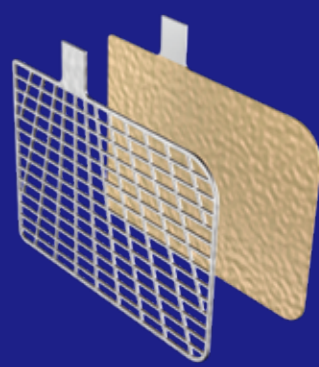
03 PRODUCTION PROCESS



04 STRONG STARTING POWER

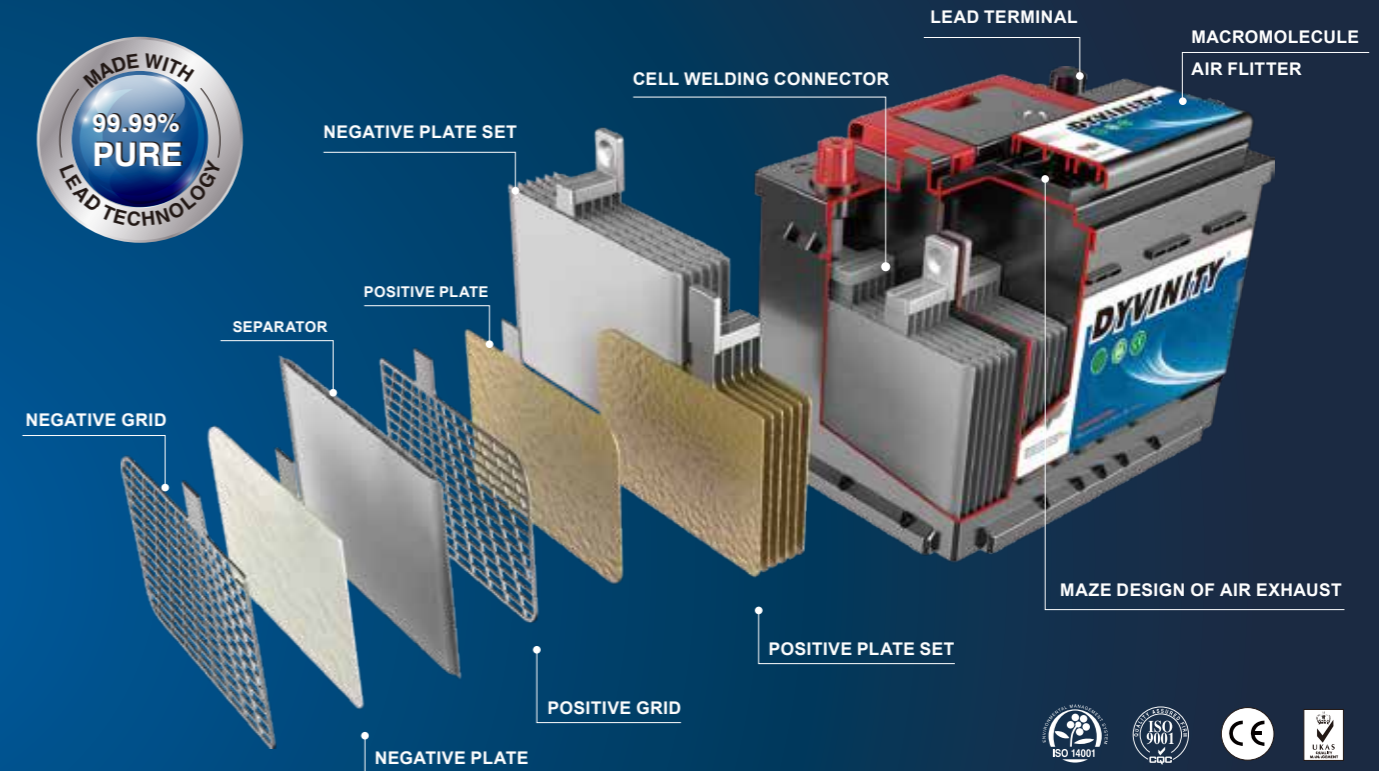








-  •Plates are made of high purity lead, Pb-Ca alloy and stannum(Sn) alloy, helps to keep the car batteries anti-oxidization, anti-corrosion, less water loss, low self-discharge and superior performance.
-  •Forging technique enable the car batteries with low water loss, minimized self-discharge rate and improved life cycle.
-  •Unique grid design, significantly reduce short circuits caused by grid corrosion.
-  •Highway – like grid design optimize current path so that the current transmission is more efficient.



INTRODUCING LEAD ACID BATTERIES

05 Brand/Product Features



-  **SEALED MAINTENANCE FREE & LOW SELF DISCHARGE**
No need for checking electrolyte level and topping throughout its life. Sealed construction ensures no leakage or seepage of electrolyte from terminal or casing.
-  **STARTING POWER**
Strong starting and staying power so your battery stays strong and performs like new, day after day.
-  **EXTREME CLIMATE**
Advanced heavy duty grids provide added durability under today's harsh operating conditions.
-  **SPILL PROOF**
Clean, safe, non-spillable battery construction.
-  **ECO-FRIENDLY**
No liquid or acid leakage. stronger resistance to corrode the unique gas recombination technology effectively nullifies generation of gas during normal use.
-  **SUPERIOR HIGH RATE DISCHARGE**
Very low internal resistance and very high electrolyte - active material reactive interface - allows very high currents for short and medium duration.

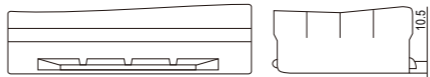
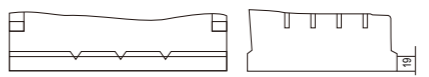






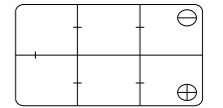
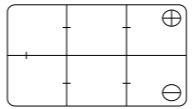
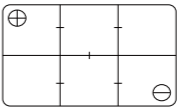
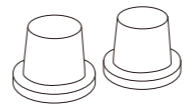
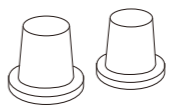
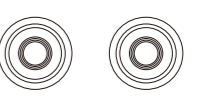
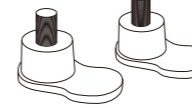
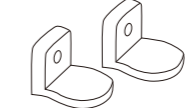
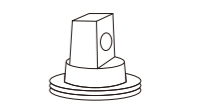
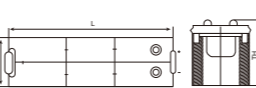
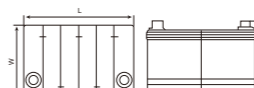
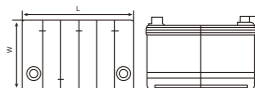
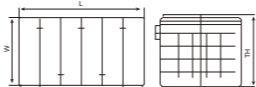
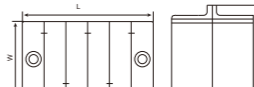
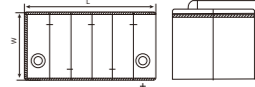
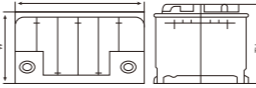
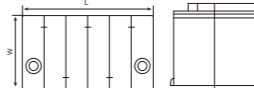
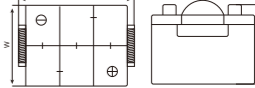
AUTOMOTIVE, HEAVY DUTY, MARINE, GOLF, OTHER ELECTRIC EQUIPMENT

Spaceflight offers one of the most extensive lines of automotive and light truck batteries – with sizes and power levels to fit 97% of vehicles on the road today. Our expanding range of products and technologies enables you to present a variety of application solutions and quality tiers resulting in increased sales and greater customer satisfaction.

06 PRODUCT APPLICATION



07 BAR CHARTS

HOLD-DOWN			
 B1 3 notches 10.5mm on long sides only.	 B4 3 notches 19.0mm on long sides only.	 B13 5 notches on long sides, 3 notches on short sides. 19.0mm on all four sides.	
 B2 3 notches 12mm on all four sides.	 B8 12mm on long sides only.	 B14 5 notches on long sides, 3 notches on short sides. 19.0mm on long sides, 10.5mm on short sides.	
LAYOUT			
0 	1 	3 	
4 	5 		
TERMINAL TYPE			
A 	B 	SIDE 	
S 	E 	F 	
BCI LAYOUT			
8 	10 	11 	
17 	18 	19 	
24 	26 	27 	

08 MAINTENANCE FREE SERIES - DIN

GROUP NUMBER	TYPE (NEW)	CAPACITY	RC	CCA(-18°C)	DIMENSION(mm)				APPROX WET WEIGHT(KG)	LAYOUT	TERMINAL	HOLD-DOWN
		20HR (AH)	(MIN)		LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT				
LBN1	53628	36	54	320	211	175	175	175	11.3	1/0	A	B14
	54465	44	68	350	211	175	175	175	11.7	1/0	A	B14
LN1	54459	44	70	350	211	175	190	190	11.9	1/0	A	B14
LBN2	55046	50	79	460	245	174	177	177	13.8	1/0	A	B14
	55515	55	90	500	248	175	175	175	14	1/0	A	B14
LN2	55415	54	79	460	245	175	190	190	13.6	1/0	A	B14
	55530	55	88	460	245	175	190	190	13.9	1/0	A	B14
	56219	60	98	500	245	175	190	190	15.5	1/0	A	B14
	56068	60	98	500	248	175	190	190	15.2	1/0	A	B14
LBN3	56069	60	108	500	248	175	190	190	15.4	1/0	A	B14
	55415	54	88	500	281	172	175	175	16.4	1/0	A	B14
	57117	71	122	550	273	174	175	175	15.9	1/0	A	B14
LN3	56420	64	106	520	273	173	171	171	15.6	1/0	A	B14
	56069I	60	110	530	273	173	191	191	15	1/0	A	B14
	57217	66	110	540	273	173	191	191	15.9	1/0	A	B14
	57219	72	122	600	273	173	191	191	16	1/0	A	B14
LN4	57220	72	124	610	273	174	190	190	16.5	1/0	A	B14
	58043	80	140	550	315	175	190	190	19.8	1/0	A	B3
LBN5	56420	64	106	520	281	172	175	175	15.8	1/0	A	B14
	56618	66	112	600	281	172	175	175	16.4	1/0	A	B14
	58815	88	156	650	352	175	176	176	21.5	1/0	A	B3
LN5	58821	88	154	670	351	175	192	192	21	1/0	A	B14
	58827	88	154	670	351	175	192	192	21.4	1/0	A	B14
	59040	95	175	650	352	175	190	190	23	1/0	A	B14
LN6	60038	100	182	650	352	175	190	190	24	1/0	A	B14
	60026	100	203	650	381	175	190	190	24.8	1/0	A	B3



MAINTENANCE FREE SERIES-JIS

GROUP NUMBER	TYPE (NEW)	TYPE (OLD)	CAPACITY	RC	CCA(-18°C)	DIMENSION(mm)				APPROX WET WEIGHT(KG)	LAYOUT	TERMINAL	HOLD-DOWN
			20HR (AH)	(MIN)		LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT				
B20	36B20L	NS40L	34	50	320	198	130	195	215	9.8	0	B	B0
	36B20R	NS40	34	50	320	198	130	195	215	9.8	1	B	B0
	36B20L	NS40ZL	36	55	330	198	130	195	215	10.2	0	B	B0
	36B20R	NS40Z	36	55	330	198	130	195	215	10.2	1	B	B0
B24	46B24L	NS60L	45	71	350	237	128	192	213	11.9	0	A	B0/B4
	46B24R	NS60	45	71	350	237	128	192	213	11.9	1	A	B0/B4
	46B24LS	NS60L(S)	45	71	350	237	128	192	213	11.9	0	B	B0/B4
	46B24RS	NS60R(S)	45	71	350	237	128	192	213	11.9	1	B	B0/B4
	55B24L	NX100-S6L	48	75	450	237	128	192	213	12.3	0	A	B0/B4
	55B24R	NX100-S6	48	75	450	237	128	192	213	12.3	1	A	B0/B4
	55B24LS	NX100-S6L(S)	48	75	450	237	128	192	213	12.3	0	B	B0/B4
	55B24RS	NX100-S6(S)	48	75	450	237	128	192	213	12.3	1	B	B0/B4
D23	55D23L		50	90	500	234	172	180	201	14.2	0	A	B4
	55D23R		50	90	500	234	172	180	201	14.2	1	A	B4
	75D23L		65	110	600	230	172	195	217	15.4	0	A	B4
	75D23R		65	110	600	230	172	195	217	15.4	1	A	B4
D26	55D26L	N50ZL	60	98	530	265	172	199	221	16.1	0	A	B8
	55D26R	N50ZL	60	98	530	265	172	199	221	16.1	1	A	B8
	65D26L	NC70L	60	100	570	265	172	199	221	16.8	0	A	B8
	65D26R	NCS70	60	100	570	265	172	199	221	16.8	1	A	B8
	80D26L	NX110-5L	70	120	620	265	172	199	221	17.6	0	A	B8
	80D26R	NX110-5	70	120	620	265	172	199	221	17.6	1	A	B8
D31	65D31L	N70L	70	118	550	309	172	199	221	18.7	0	A	B8
	65D31R	N70	70	118	550	309	172	199	221	18.7	1	A	B8
	75D31L	N70ZL	75	130	620	309	172	199	221	19.6	0	A	B8
	75D31R	N70Z	75	130	620	309	172	199	221	19.6	1	A	B8
	95D31L	NX120-7L	80	140	600	309	172	199	221	20.4	0	A	B8
	95D31R	NX120-7	80	140	600	309	172	199	221	20.4	1	A	B8
34-60			60	100	500	265	171	190	211	16.7	1/0	A	B8
	65-6YD	-	65	110	600	302	191	187	198	19.2	1/0	A	B8
E41	N100L	95E41L	100	182	650	402	170	206	230	25.5	0	E/A	B0
	N100	95E41R	100	182	650	402	170	206	230	25.5	1	E/A	B0
	NS120L	115E41L	110	212	720	402	170	206	230	26.1	0	E/A	B0
	NS120	115E41R	110	212	720	402	170	206	230	26.1	1	E/A	B0
F51	N120	115F51	120	224	700	508	180	218	240	34.5	4	A	B0
	N120R	115F51R	120	224	700	508	180	218	240	34.5	3	A	B0
G51	N150	145G51	150	292	800	490	202	171	207	38.5	4	E/A	B0
	N150R	145G51R	150	292	800	490	202	171	207	38.5	3	E/A	B0
	N170	195G51	150	292	800	508	222	220	252	43	4	E/A	B0
	N170R	195G51R	150	292	800	508	222	220	252	43	3	E/A	B0
H52	N200	190H52	200	409	1000	508	265	218	250	50.2	4	E/A	B0
	N200R	190H52R	200	409	1000	508	265	218	250	50.2	3	E/A	B0

MAINTENANCE FREE SERIES-BCI



MAINTENANCE FREE SERIES-BCI

BCI GR. NO.	CATALOGUE NO.	CCA(BCI)	RC (MIN)	DIMENSION(MM)				LAYOUT	TERMINAL	HOLD-DOWNM
				LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT			
21	21-450	450	80	200	172	200	220	10	A	B1
21R	21R-450	450	80	200	172	200	220	11	A	B1
24	24-450	450	80	256	176	193	214	10	A	B1
	24-500	500	90	256	176	193	214	10	A	B1
	24-550	550	100	256	176	193	214	10	A	B1
	24-600	600	113	256	176	193	214	10	A	B1
	24-630	630	125	256	176	193	214	10	A	B1
24R	24R-450	450	80	256	176	193	214	11	A	B1
	24R-500	500	90	256	176	193	214	11	A	B1
	24R-550	550	100	256	176	193	214	11	A	B1
	24R-600	600	113	256	176	193	214	11	A	B1
24R-630	630	125	256	176	193	214	11	A	B1	
25	25-500	500	100	225	172	200	222	10	A	B1
26	26-450	450	80	208	172	176	197	10	A	B1
	26-550	550	100	208	172	176	197	10	A	B1
26R	26R-450	450	80	208	172	176	197	11	A	B1
	26R-550	550	100	208	172	176	197	11	A	B1
27	27-600	600	113	300	172	200	221	10	A	B1
	27-630	630	130	300	172	200	221	10	A	B1
	27-670	670	140	300	172	200	221	10	A	B1
	27-710	710	140	300	172	200	221	10	A	B1
	27-750	750	155	300	172	200	221	10	A	B1
27R	27R-600	600	113	300	172	200	221	11	A	B1
	27R-630	630	130	300	172	200	221	11	A	B1
	27R-670	670	140	300	172	200	221	11	A	B1
	27R-710	710	140	300	172	200	221	11	A	B1
27R-750	750	155	300	172	200	221	11	A	B1	
31	31-700	700	160	330	172	218	242	18	S	-
	31-750	750	170	330	172	218	242	18	S	-
	31-800	800	180	330	172	218	242	18	S	-
34	34-550	550	100	263	175	184	205	10	A	B8
	34-600	600	110	263	175	184	205	10	A	B8
	34-650	650	115	263	175	184	205	10	A	B8
34R	34R-550	550	100	263	175	184	205	11	A	B8
	34R-600	600	110	263	175	184	205	11	A	B8
34R-650	650	115	263	175	184	205	11	A	B8	
35	35-500	500	100	225	172	201	222	11	A	B8
40R	40R-500	500	110	280	174	175	175	24	A	B13
	40R-550	550	120	280	174	175	175	24	A	B13
41	41-525	525	110	284	173	172	172	24	A	B1
42	42-450	450	85	241	174	175	175	24	A	B13
	42-480	480	95	241	174	175	175	24	A	B13
43	43-650	650	120	312	173	190	190	24	A	B13
47	47-480	480	80	241	176	190	190	24	A	B13
	47-500	500	90	241	176	190	190	24	A	B13
	47-550	550	100	241	176	190	190	24	A	B13

BCI GR. NO.	CATALOGUE NO.	CCA(BCI)	RC (MIN)	DIMENSION(MM)				LAYOUT	TERMINAL	HOLD-DOWNM
				LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT			
47R	47R-480	480	80	241	176	190	190	24	A	B13
	47R-500	500	90	241	176	190	190	24	A	B13
	47R-550	550	100	241	176	190	190	24	A	B13
48	48-600	600	110	278	174	189	189	24	A	B13
	48-650	650	120	278	174	189	189	24	A	B13
49	49-710	710	140	352	174	189	189	24	A	B13
	49-750	750	150	352	174	189	189	24	A	B13
	49-850	850	160	352	174	189	189	24	A	B13
51	51-430	430	71	234	127	200	220	10	A	-
51R	51R-431	430	71	234	127	200	220	11	A	-
55	55-430	430	71	230	154	202	222	10	A	B8
58	58-450	450	75	236	176	159	180	26	A	B1
58R	58R-451	450	75	236	176	159	180	19	A	B1
65	65-650	650	130	294	187	171	191	10	A	B8
	65-750	750	155	294	187	171	191	10	A	B8
65R	65R-650	650	130	294	187	171	191	11	A	B8
	65R-750	750	155	294	187	171	191	11	A	B8
70	70-400	400	71	208	179	181	181	17	SIDE	B8
	70-450	450	80	208	179	181	181	17	SIDE	B8
	70-500	500	90	208	179	181	181	17	SIDE	B8
	70-550	550	100	208	179	181	181	17	SIDE	B8
74	74-500	500	100	260	180	201	222	17	SIDE	B8
	74-550	550	110	260	180	201	222	17	SIDE	B8
	74-600	600	120	260	180	201	222	17	SIDE	B8
75	75-500	500	90	230	179	181	181	17	SIDE	B8
	75-550	550	100	230	179	181	181	17	SIDE	B8
	75-600	600	113	230	179	181	181	17	SIDE	B8
75-630	75-630	630	125	230	179	181	181	17	SIDE	B8
	75-650	650	130	230	179	181	181	17	SIDE	B8
	75-700	700	140	230	179	181	181	17	SIDE	B8
78	78-550	550	100	263	181	185	185	17	SIDE	B8
	78-610	610	105	263	181	185	185	17	SIDE	B8
	78-630	630	115	263	181	185	185	17	SIDE	B8
85	85-550	550	90	225	172	186	207	11	A	B8
	85-610	610	90	225	172	186	207	11	A	B8
86	86-550	550	90	225	172	186	207	10	A	B8
	86-610	610	90	225	172	186	207	10	A	B8
90	90-450	450	80	241	174	175	175	24	A	B13
91	91-600	600	100	280	174	175	175	24	A	B13
92	92-650	650	130	312	174	175	175	24	A	B13
93	93-800	800	150	352	174	175	175	24	A	B13
94R	94R-640	640	135	312	173	190	190	24	A	B13
4D	4D-1000	1000	300	507	220	212	235	8	A	-
8D	8D-1200	1200	420	512	265	216	240	8	A	-
	8D-1400	1400	460	512	265	216	240	8	A	-
6T	6T-750	750	180	287	255	207	230	27	A	-

09 USER GUIDE

For our battery end user

- Please choose correct model for your vehicle.
- Check the mgaic-eye indicator is in green before you buy.
- Confirm your car engine charging system with an output voltage between 13.8V to 14.4V.
- If the total power of equipment is higher than the battery design work load, please change to higher capacity model.

Please noted during charging

- Constant coltage charging:please charge with16V (maximum 16.2V) keep good ventilation. Reduce charging voltage if battery temperature rise over 45°C or charging current over 25A.
- Constant current charging: please charge with current 0.1C₂₀A, and can not over this limit. Please stop charging if indicator turn green or open circuit over 12.65V.

Something you should know

- Do not connet and avoid accidentally connection between positive and nagative pole with metallic conductor to avoid short circuit.
- Avoid convert connection or unstable connection.
- Do not fill in unqualified electrolyte or water.
- Do not operate under insufficient electrolyte condition. Semi maintenance free battery should be filled in pure water regularly.
- Do not use in deep cycle(capacity lower than 50%, electrolyte density below 1,200g/ml).
- Keep safe vent-valve work properly to avid explosion caused by valve failure.
- Do not invert or incline more than 45° during transfer or storing.
- Keep ventilation on during charging. No smoking.
- Wear goggle when remove or check the battery.

10 ENTERPRISE SCALE

SPACEFLEIGHT POWER SUPPLY (LONGNAN) CO., LTD

Battery Production Base
ADD:Liren Industrial Zone, Longnan, Ganzhou, Jiangxi Province

ZHONGSHAN SPACEFLIGHT POWER SUPPLY CO., LTD(A)

Battery Sales, business Center
ADD:Weimin High-teah Development Area, Fusha, Zhongshan, Guangdong Province

ZHONGSHAN SPACEFLIGHT POWER SUPPLY CO., LTD(B)

Battery Sales, business Center
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GUANGZHOU BASED OFFICE

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