

MUTLU

STARTER BATTERIES

Millennium Technology

mega
CALCIUM
EXPANDED METAL TECHNOLOGY

ultra
CALCIUM
CALCIUM



CHARGE INDICATOR

	GREEN 	BLACK 	YELLOW OR WHITE
	Ready	Charging Necessary	Add Distilled Water



BLOCK LID

VENT-PLUG
(under the label)

TERMINAL

CELL CONNECTOR

TERMINAL OF PLATE PACK

STRAP

BLOCK CONTAINER

NEGATIVE PLATE WITH ENVELOPE / POSITIVE PLATE

12 VOLT STARTER BATTERIES

Type				Capacity at 20 hour rate, +27°C Ah	Cold start performance at -18°C			Layout	Terminal	Holddown	Overall dimensions (mm)				Weight with acid kg.	Explanations	Lid type
MUTLU	EN	ETN	Equal DIN Type		EN A	TSE A	DIN A				Length mm	Width mm	Height Except Terminal mm	Height mm			
Special 35-A		535 020 024	535 20	35	240	175	150	0	3	B0	196	125	202	222	10.6	13	
Special 35-B		535 022 024	535 22	35	240	175	150	1	3	B0	196	125	202	222	10.6	13	
Special 42-C		542 103 030		42	300	180	175	1	1	B0	196	125	202	222	11.2	13	
Special 42-D		542 105 030		42	300	180	175	1	3	B0	196	125	202	222	11.2	13	
Special 42-E				42	300	180	175	0	1	B0	196	125	202	222	11.2	13	
Special 42-F				42	300	180	175	0	3	B0	196	125	202	222	11.2	13	
Special 45-A		545 150 036	545 23	45	360	220	200	0	1	B0	237	127	201	222	13.0	6.13	
Special 45-B		545 149 036	545 24	45	360	220	200	1	1	B0	237	127	201	222	13.0	6.13	
Special 45-C			545 84	45	360	220	200	0	3	B0	237	127	201	222	13.0	6.13	
Special 45-D			545 51	45	360	220	200	1	3	B0	237	127	201	222	13.0	6.13	
Special 56-C		556 101 042		56	420	255	230	0	1	B0	237	127	201	222	15.0	6.13	
Special 56-D				56	420	255	230	1	1	B0	237	127	201	222	15.0	6.13	
12B1-AD	LB1	536 046 030	536 46	36	300	175	175	0	1	B4	205	175	175	175	10.5	1.5.6	
12B1-ED	LB1	536 121 030		36	300	175	175	1	1	B4	205	175	175	175	10.5	1.5.6	
12B1-BD	LB1	536 053 030	536 53	36	300	175	175	0	1	B1	205	175	175	175	10.5	1.5.6	
12M2-CD	LS1	540 101 036		40	360	200	200	0	1	B13	207	175	190	190	12.0	1.5.6	
12M2-GD	LS1	540 123 036		40	360	200	200	1	1	B13	207	175	190	190	12.0	1.5.6	
12B1-JD	LBS1	543 024 033	543 24	43	330	230	210	0	1	B13	207	175	175	175	11.5	1.5.6	
12B1-HD	LBS1	543 119 033		43	330	230	210	1	1	B13	207	175	175	175	11.5	1.5.6	
12B1-FD	LBS1	544 117 036	544 65	44	360	220	210	0	1	B13	207	175	175	175	11.6	1.5.6	
12B1-GD	LBS1	544 118 036	544 66	44	360	220	210	1	1	B13	207	175	175	175	11.6	1.5.6	
12M2-AD	LS1	544 069 036	544 69	44	360	220	210	0	1	B13	207	175	190	190	12.0	1.5.6	
12M2-BD	LS1	544 064 036	544 64	44	360	220	210	1	1	B13	207	175	190	190	12.0	1.5.6	
12M2-DD	LS1	550 110 045	550 54	50	450	250	250	0	1	B13	207	175	190	190	12.6	1.5.6	
12M2-ED	LS1	550 136 045		50	450	250	250	1	1	B13	207	175	190	190	12.6	1.5.6	
12B1-CD	LBS1	543 017 033	543 17	43	330	230	210	0	19	B13	207	175	175	175	11.5	1.5.6	
*L0-AF	LS0	540 113 033	540 08	40	330	200	200	0	1	B13	175	175	190	190	10.5	1.6.14	
*12M2-AF	LS1	550 138 051		50	510	350	300	0	1	B13	207	175	190	190	13.6	1.6.14	
*12M2-BF	LS1	550 137 042	550 54	50	420	250	250	0	1	B13	207	175	190	190	12.7	1.6.14	
*12M4-AF	LS2	560 139 054	561 11	60	540	380	320	0	1	B13	242	175	190	190	15.8	1.6.14	
*LBS1-AD	LBS1	547 101 042		47	420	250	250	0	1	B13	207	175	175	175	12.1	1.2.5.6	
*LBS2-AD	LBS2			50	600	350	310	0	1	B13	242	175	175	175	15.0	1.2.5.6	
*LBS2-BD	LBS2	555 154 051		55	510	280	255	0	1	B13	242	175	175	175	14.4	1.2.5.6	
*LBS3-AD	LBS3	565 118 072		65	720	450	420	0	1	B13	278	175	175	175	17.9	1.2.5.6	
*LS1-AD	LS1	550 153 042		50	420	250	250	0	1	B13	207	175	190	190	13.45	1.2.5.6	
*LS2-AD	LS2	560 169 060		60	600	350	310	0	1	B13	242	175	190	190	16.5	1.2.5.6	
*LS3-LD	LS3	570 143 072		70	720	450	420	0	1	B13	278	175	190	190	19.45	1.2.5.6	
*12M2-HD	LS1			40	300	175	175	0	1	B13	207	175	190	190	12.0	1.5.6	
12B2-CD	LBS2	545 135 036	545 19	45	360	220	220	0	1	B13	242	175	175	175	13.0	1.5.6	
12M4-DD	LS2	560 093 048		60	480	280	255	0	1	B13	242	175	190	190	15.0	1.5.6	
*12M4-ND	LS2	560 136 054		60	540	380	300	0	1	B13	242	175	190	190	16.0	1.5.6	
*LS3-JD	LS3			65	600	350	310	0	1	B13	277	175	190	190	17.8	1.5.6	

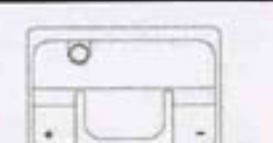
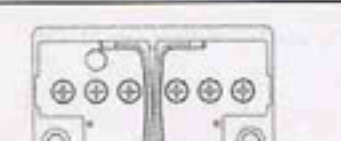
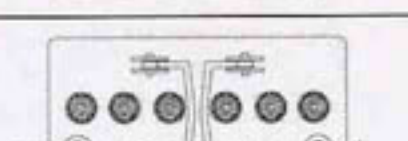
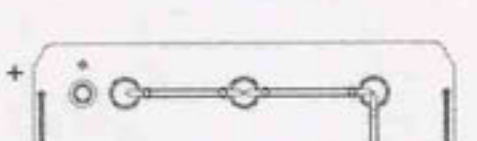
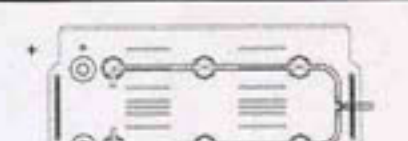
12 VOLT STARTER BATTERIES

Type				Capacity at 20 hour rate, +27°C Ah	Gold start performance at -18°C			Layout	Terminal	Holddown	Overall dimensions (mm)				Weight with acid kg.	Explanations	Lid type	
MUTLU	EN	ETN	Equal DIN Type		EN A	TSE A	DIN A				Length mm	Width mm	Height Except Terminal mm	Height mm				
12B2-AD	LBS2	545 133 036	545 19	45	360	220	220	0	1	B13	242	175	175	175	13.0	1.2.6		
12B2-BD	LBS2	545 134 036		45	360	220	220	1	1	B13	242	175	175	175	13.0	1.2.6		
12B2-DD	LBS2	550 134 042	550 40,550 56	50	420	250	210	0	1	B13	242	175	175	175	13.4	1.2.6		
12B2-FD	LBS2	550 135 042		50	420	250	210	1	1	B13	242	175	175	175	13.4	1.2.6		
12M4-PD	LS2			50	420	250	210	0	1	B13	242	175	190	190	13.5	1.2.6		
12M4-RD	LS2			50	420	250	210	1	1	B13	242	175	190	190	13.5	1.2.6		
12B2-ED	LBS2		555 66	55	420	280	255	0	1	B13	242	175	175	175	13.6	1.2.6		
12M4-AD	LS2	555 125 045	555 59	55	450	280	255	0	1	B13	242	175	190	190	14.4	1.2.6		
12M4-BD	LS2	555 126 045	555 65	55	450	280	255	1	1	B13	242	175	190	190	14.4	1.2.6		
12M4-CD	LS2	560 137 048		60	480	280	255	0	1	B13	242	175	190	190	15.0	1.2.6		
12M4-JD	LS2	560 138 048		60	480	280	255	1	1	B13	242	175	190	190	15.0	1.2.6		
12M4-FD	LS2	562 114 051	562 19	62	510	300	280	0	1	B13	242	175	190	190	15.6	1.2.6		
12M4-ED	LS2	562 115 051	562 21	62	510	300	280	1	1	B13	242	175	190	190	15.6	1.2.6		
12M4-KD	LS2	563 107 054		63	540	320	300	0	1	B13	242	175	190	190	15.7	1.2.6		
12M4-LD	LS2	563 108 054		63	540	320	300	1	1	B13	242	175	190	190	15.7	1.2.6		
12M4-OD	LS2			65	540	340	330	1	1	B13	242	175	190	190	15.8	1.2.6		
12M6-AD	LS3	566 038 051	566 38	66	510	340	300	0	1	B13	306	175	190	190	17.0	1.3.5.6		
12M6-FD	LS3	566 117 051	566 08	66	510	340	300	1	1	B13	306	175	190	190	17.0	1.3.5.6		
12M6-BD	LS3	572 104 064	572 30	72	640	390	380	0	1	B13	306	175	190	190	17.7	1.3.5.6		
12M6-CD	LS3	572 020 072	572 20	72	720	450	420	0	1	B13	306	175	190	190	18.4	1.3.5.6		
12M6-DD	LS3	572 106 072	574 13	72	720	450	420	1	1	B13	306	175	190	190	18.4	1.3.5.6		
12M6-GD	LS3	575 107 064		75	640	390	380	0	1	B13	306	175	190	190	18.2	1.3.5.6		
12M6-HD	LS3	575 108 064		75	640	390	380	1	1	B13	306	175	190	190	18.2	1.3.5.6		
12M8-AD	LS5	588 113 064	588 27	88	640	450	395	0	1	B13	381	175	190	190	22.0	1.3.5.6		
12M8-BD	LS5	588 114 064	588 21	88	640	450	395	1	1	B13	381	175	190	190	22.0	1.3.5.6		
12B4-BD	LBS3	560 147 060	560 97	60	600	350	310	0	1	B13	278	175	175	175	16.8	1.2.5.6		
*12B4-CD	LBS3			60	590	350	310	0	1	B13	278	175	175	175	16.8	1.2.5		
12B4-AD	LBS3	566 116 054	566 49	66	540	340	300	0	1	B13	278	175	175	175	16.8	1.2.5.6		
LS3-AD	LS3	566 124 051	566 38	66	510	340	300	0	1	B13	278	175	190	190	17.0	1.2.5.6		
LS3-BD	LS3	566 123 051	566 05	66	510	340	300	1	1	B13	278	175	190	190	17.0	1.2.5.6		
LS3-HD	LS3	570 135 064		70	640	400	380	0	1	B13	278	175	190	190	17.7	1.2.5.6		
LBS4-AD	LBS4	570 127 068		70	680	440	400	0	1	B13	315	175	175	175	19.7	1.2.5.6		
L3-AD	L3	572 107 057		72	570	300	270	0	1	B1	275	175	190	190	21.0	1.2.5.6.11		
LS3-CD	LS3	572 111 064	572 30	72	640	390	380	0	1	B13	278	175	190	190	17.7	1.2.5.6		
LS3-DD	LS3	572 112 072	572 20	72	720	450	420	0	1	B13	278	175	190	190	18.4	1.2.5.6		
LS3-ED	LS3	572 113 072	572 19	72	720	450	420	1	1	B13	278	175	190	190	18.4	1.2.5.6		
LS3-FD	LS3	575 111 064		75	640	390	380	0	1	B13	278	175	190	190	18.2	1.2.5.6		
LS3-GD	LS3	575 110 064		75	640	390	380	1	1	B13	278	175	190	190	18.2	1.2.5.6		
LBS4-BD	LBS4	580 115 064	580 14	80	640	450	420	0	1	B13	315	175	175	175	18.8	1.2.5.6		
*LBS4-DD	LBS4			80	700	440	400	0	1	B13	315	175	175	175	20.2	1.2.5		
*LS4-AD	LS4			84	800	480	450	0	1	B13	315	175	190	190	22.0	1.2.5		
LS5-AD	LS5	588 118 064	588 27	88	640	450	395	0	1	B13	353	175	190	190	22.0	1.2.5.6		
LS5-BD	LS5	588 119 064	588 21	88	640	450	395	1	1	B13	353	175	190	190	22.0	1.2.5.6		
LS5-ED	LS5	590 114 064	588 33	90	640	450	395	0	1	B13	353	175	190	190	22.1	1.2.5.6		
LS5-FD	LS5	590 113 064		90	640	450	395	1	1	B13	353	175	190	190	22.1	1.2.5.6		
LS5-GD	LS5	592 111 076	592 18	92	760	480	450	0	1	B13	353	175	190	190	22.8	1.2.5.6		
LS5-HD	LS5	592 110 076		92	760	480	450	1	1	B13	353	175	190	190	22.8	1.2.5.6		
LS5-CD	LS5	600 111 085	600 44	100	850	525	500	0	1	B13	353	175	190	190	23.5	1.2.5.6		
LS5-DD	LS5	600 113 085		100	850	525	500	1	1	B13	353	175	190	190	23.5	1.2.5.6		
*12B1-KD				45	410	220	220	0	1	B13	207	175	168	190	11.6	13		
*12B1-LD				55	500	280	255	0	1	B13	207	175	168	190	12.8	13		
*12H2-J				68	600	350	310	0	1	B1	262	175	205	226	18.7	13		
12H2-A		560 150 036		60	360	200	170	0	1	B1	262	175	205	226	17.3	6.13		
12H2-B		560 151 036		60	360	200	170	1	1	B1	262	175	205	226	17.3	6.13		
12H2-D		570 029 054	570 29	70	540	340	315	0	1	B1	262	175	205	226	19.0	6.13		
12H2-C		570 024 054	570 24	70	540	340	315	1	1	B1	262	175	205	226	19.0	6.13		
12H2-E		575 109 057	575 29	75	570	340	315	0	1	B1	262	175	205	226	19.6	6.13		
12H2-F		575 102 057	575 24	75	570	340	315	1	1	B1	262	175	205	226	19.6	6.13		
12H2-G		580 116 048		80	480	300	280	0	1	B1	262	175	205	226	20.2	6.13		
12H2-H		580 117 048		80	480	300	280	1	1	B1	262	175	205	226	20.2	6.13		
12H1-B	E3	560 113 045		60	450	255	255	0	1	B1	260	135	203	224	15.2	6		
12H3-A		580 104 048	580 26	80	480	300	280	0	1	B3	323	176	207	232	20.2	3.6.9		
12H3-B		590 102 068	590 43	90	680	380	340	0	1	B3	323	176	207	232	23.3	3.6.9		
12H3-C		590 106 068		90	680	380	340	1	1	B3	323	176	207	232	23.3	3.6.9		
12H3-D		600 119 076		100	760	440	395	0	1	B3	323	176	207	232	24.6	3.6.9		
12H3-E		600 120 076		100	760	440	395	1	1	B3	323	176	207	232	24.6	3.6.9		
12H4-A		605 103 076	605 28	105	760	440	395	0	1	B3	347	177	207	232	26.0	3.6.9		
12H4-C		605 106 076	605 27	105	760	440	395	1	1	B3	347	177	207	232	26.0	3.6.9		
12H4-B		605 102 072	605 28	105	720	400	360	0	1	B3	347	177	207	232	26.2	3.6.7.9		
12H4-D		610 108 076	610 47	110	760	450	420	0	1	B3	347	177	207	232	26.5	3.6.9		
12D7-A	D7	600 011 072	600 30	100	720			2	1	B0	286	269	208	230	30.5	3.4		
12D7-B	D7	625 023 000	625 23	125	800			2	1	B0	286	269	208	230	36.5	3.4		
D3-A	D3	628 101 072	625 11,625 12	128	720	430	410	0	1	B0	349	175	270	290	36.6	2.7		
12D1-F	D4a	620 111 080	620 40	120	800	490	420	3	1	B3	513	186	195	223	35.0	3.6.7.9		
12D1-G	D4		620 34	120	800	490	420	3	1	B0	513	186	195	223	35.0	3.6.7.9		
12D1-D	D4a	635 104 085	640 36	135	850	520	450	3	1	B3	513	186	195	223	36.7	3.6.7.9		
12D1-H	D4			135	850	520	450	3	1	B0	513	186	195	223	36.7	3.6.7.9		
12D2-A	D5a	650 105 090	640 36	150	900	550	500	3	1	B3	513	223	195	223	42.8	3.6.7.9		
12D2-S	D5		643 17,655 13	150	900	550	500	3	1	B0	513	223	195	223	42.8	3.6.7.9		
12D2-C	D5a	665 106 100	665 15	165	1000	620	540	3	1	B3	513	223	195	223	44.5	3.6.7.9		
12D2-L	D5	665 105 090	665 14	165	900	620	540	3	1	B0	513	223	195	223	44.5	3.6.7.9		
12D2-G	D5a	680 101 110	680 19	180	1100	690	600	3	1	B3	513	223	195	223	48.5	3.6.7.9		

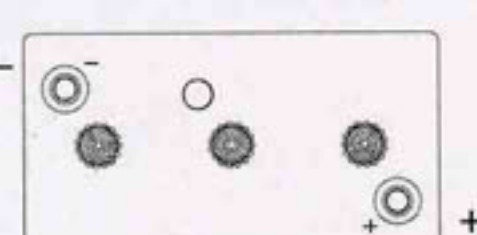
12 VOLT STARTER BATTERIES

Type				Capacity at 20 hour rate, +27°C Ah	Cold start performance at -18°C			Layout	Terminal	Holddown	Overall dimensions (mm)				Weight with acid kg.	Explanations	Lid type
MUTLU	EN	ETN	Equal DIN Type		EN A	TSE A	DIN A				Length mm	Width mm	Height Except Terminal mm	Height mm			
12D3-E	D6	690 101 110		190	1100	700	600	3	1	B0	518	273	215	242	57.0	3.6.7.9	
12D3-A	D6	700 103 115		200	1150	740	630	3	1	B0	518	273	215	242	57.5	3.6.7.9	
12D3-C	D6	700 027 105	700 27	200	1050	740	630	3	1	B0	518	273	215	242	58.8	3.6.8.9.12	
12D3-D	D6	710 101 120	710 14	210	1200	800	700	3	1	B0	518	273	215	242	58.0	3.6.7.9	
12D3-F	D6	720 105 130		220	1300	690	600	3	1	B0	518	273	215	242	61.5	3.6.7.9	
12D3-H	D6	720 102 115	720 18	220	1150	690	600	3	1	B0	518	273	215	242	61.6	3.6.8.9	
12D3-G	D6	725 101 115	725 11	225	1150	700	600	3	1	B0	518	273	216	242	61.6	3.6.8.9.12	
12D3-K	D6	725 101 140	725 12	225	1400	850	720	3	1	B0	518	273	216	242	63.0	3.6.7.9	
12D3-L	D6	740 101 145		240	1450	880	750	3	1	B0	518	273	216	242	64.0	3.6.7.9	

12 VOLT MARIN BATTERIES

Type				Capacity at 20 hour rate, +27°C Ah	Cold start performance at -18°C			Layout	Terminal	Holddown	Overall dimensions (mm)				Weight with acid kg.	Explanations	Lid type
MUTLU	EN	ETN	Equal DIN Type		EN A	TSE A	DIN A				Length mm	Width mm	Height Except Terminal mm	Height mm			
12M4-MD	LS2	560 135 045		60	450	260	255	0	1	B13	242	175	190	190	15.2	1.2.5.6.9.10	
12M8-MD	LS5	590 115 060		90	600	380	340	0	1	B13	353	175	190	190	22.2	1.2.5.6.9.10	
D3-M	D3	625 012 072	625 12	125	720	430	410	0	1	B0	349	175	263	290	36.6	2.9.10	
12D1-M	D4a	635 046 076	640 36	135	760	480	420	3	1	B3	513	186	195	223	36.7	3.6.9.10	
12D2-M	D5a	680 019 100	680 19	180	1000	630	560	3	1	B3	513	223	195	223	48.5	3.6.9.10	
12D3-M	D6	700 102 100	700 27	200	1000	690		3	1	B0	518	291	215	242	62.2	3.6.9.10	

6 VOLT STARTER BATTERIES

Type				Capacity at 20 hour rate, +27°C Ah	Cold start performance at -18°C			Layout	Terminal	Holddown	Overall dimensions (mm)				Weight with acid kg.	Explanations	Lid type
MUTLU	EN	ETN	Equal DIN Type		EN A	TSE A	DIN A				Length mm	Width mm	Height Except Terminal mm	Height mm			
6H1-A		150 101 076		150	760	450		0	1	B3	323	176	207	232	22.0	3.6.9	
6H1-B		165 101 085		165	850	500		0	1	B3	323	176	207	232	23.0	3.6.9	
6H1-C		200 101 100		200	1000	600		0	1	B3	323	176	207	232	26.0	3.6.9	
6H1-D		220 101 100		220	1000	600		0	1	B3	323	176	207	232	27.0	3.6.9	

* Supplied on request

EXPLANATIONS

- | | |
|--|---------------------------------------|
| 1- Block Lid (Post height within lid height) | 8- Super Heavy Duty Batteries |
| 2- Integrated Handle to Cover | 9- Additional Vibration Resistance |
| 3- Lateral Handle (from container) | 10- With High Cycle Capacity |
| 4- NATO VG 95282 | 11- Taxi Battery |
| 5- Kamina | 12- Bus Battery |
| 6- With Charge Indicator | 13- Special Battery for Japanese Cars |
| 7- Heavy Duty Batteries | 14- Sextuple plug |

KEY TO BATTERY LAYOUTS

	6 Volt	12 Volt		6 Volt	12 Volt
0			4		
1			9		
3			10	Not applicable	

L = Length
W = Width

KEY TO BATTERY TERMINALS

1	3	19

BATTERY HOLD DOWNS

B 00	Without hold down		B 09		
B 01			B 13		
B 03			B 14		
B 04					



MUTLU

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