

# PRODUCT SPECIFICATION GUIDE

*A Comprehensive Battery Selection Guide*



 **Trojan.**  
BATTERY COMPANY  
*Clean energy for life.*

## Before getting started:

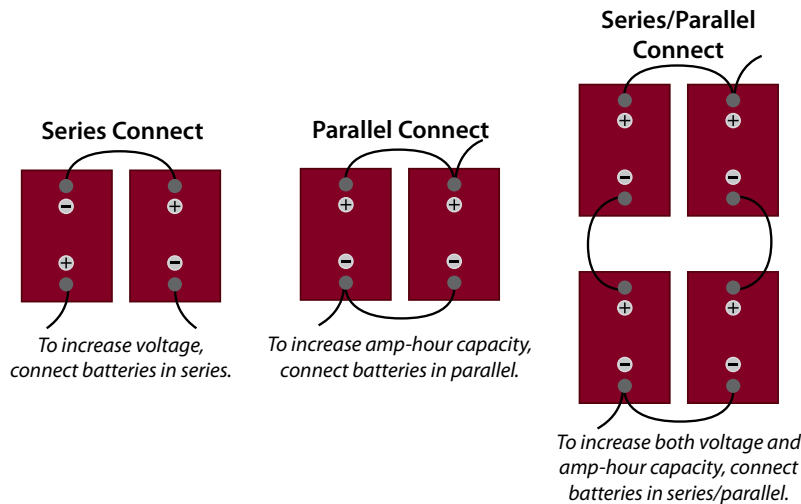
- **Make sure you know your system voltage, battery compartment size (length, width and height) and your energy needs**
- **Determine whether you want to use a deep cycle flooded, Deep-Cycle Gel or Cycling AGM battery**

### Step 1: Determine your battery voltage and how many to use

1-1 Based on your system voltage, you must first decide which battery is needed and how many to use in order to meet your requirements. For example, you may connect a series of eight 6V batteries, six 8V batteries or four 12V batteries for a 48-volt system. The size of your battery compartment, your performance requirements and costs may limit your options.

1-2 Make sure there is enough space between batteries to allow for minor battery expansion that occurs during use and to allow proper airflow to keep battery temperature down in hot environments.

**TIP:** Connecting batteries in series does not increase the capacity of the batteries; it simply increases the overall voltage to meet your system requirements. Once your voltage requirements are met, if space allows you can double the batteries in a parallel connection—thereby doubling your battery capacity. See diagrams below.



### Step 2: Choose your best battery model

2-1 When choosing your battery model, first consider your battery compartment space as this may limit your options. Within your size restrictions you may have several battery options to choose from. For example, you can use a T-605, T-105 or T-125 in the same space, as they are the exact same physical size. The difference between these batteries is the amount of energy they have to offer.

2-2 Next consider your energy needs. If replacing an existing battery, use it as a reference point. If your old battery provided enough energy, it can be replaced with a similar capacity battery. If you need more energy you can size up, or if you need less energy you can size down.

**TIP:** If you do not know what battery to use, contact your equipment manufacturer for their recommended battery specification. Trojan Battery also offers outstanding technical support provided by full-time applications engineers to help you select your ideal batteries.

### Step 3: Select your best terminal

3-1 Finally determine which terminal option best meets your needs based on the type of cable connections you plan to use. Look for the terminal(s) available for the battery you have selected.

*(Please see the back page of this guide for available terminals to make your selection.)*

**TIP:** Make sure you use the proper cable size when connecting your batteries so that you do not overheat your connections. For information regarding correct wire sizes you can refer to the National Electric Code, Trojan Battery User's Guide, or contact Trojan's live technical support at 800.423.6569.

| BCI GROUP SIZE  | TYPE                | CAPACITY <sup>A</sup> Minutes |          |          | CAPACITY <sup>B</sup> Amp-Hours (AH) |            |             | KILOWATT (kWh) | TERMINAL Type | DIMENSIONS <sup>C</sup> Inches (mm) |              |                | WEIGHT lbs. (kg) |
|---|---------------------|-------------------------------|----------|----------|--------------------------------------|------------|-------------|----------------|---------------|-------------------------------------|--------------|----------------|------------------|
|   |                     | @25 Amps                      | @56 Amps | @75 Amps | 5-Hr Rate                            | 20-Hr Rate | 100-Hr Rate |                |               | 100-Hr Rate                         | Length       | Width          |                  |
| <b>2 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™</b>  |                     |                               |          |          |                                      |            |             |                |               |                                     |              |                |                  |
| 903   | <b>L16RE-2V*</b>    | -                             | -        | -        | 909                                  | 1110       | 1235        | 2.47           | 5             | 11-5/8 (295)                        | 7 (178)      | 17-11/16 (450) | 119 (54)         |
| <b>6 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™</b>  |                     |                               |          |          |                                      |            |             |                |               |                                     |              |                |                  |
| GC2   | <b>T-605</b>        | 383                           | -        | 105      | 175                                  | 210        | 232         | 1.39           | 1, 2, 3, 4    | 10-3/8 (264)                        | 7-1/8 (181)  | 10-7/8 (276)   | 58 (26)          |
| GC2   | <b>T-105</b>        | 447                           | -        | 115      | 185                                  | 225        | 250         | 1.50           | 1, 2, 3, 4, 5 | 10-3/8 (264)                        | 7-1/8 (181)  | 10-7/8 (276)   | 62 (28)          |
| GC2   | <b>T-105 Plus</b>   | 447                           | -        | 115      | 185                                  | 225        | -           | -              | 1, 2, 3, 4    | 10-3/8 (264)                        | 7-1/8 (181)  | 10-11/16 (272) | 62 (28)          |
| GC2H  | <b>T105-RE</b>      | -                             | -        | -        | 185                                  | 225        | 250         | 1.50           | 5             | 10-3/8 (264)                        | 7-1/8 (181)  | 11-3/4 (299)   | 67 (30)          |
| GC2   | <b>T-125</b>        | 488                           | -        | 132      | 195                                  | 240        | 266         | 1.60           | 1, 2, 3, 4    | 10-3/8 (264)                        | 7-1/8 (181)  | 10-7/8 (276)   | 66 (30)          |
| GC2   | <b>T-125 Plus</b>   | 488                           | -        | 132      | 195                                  | 240        | -           | -              | 1, 2, 3, 4    | 10-3/8 (264)                        | 7-1/8 (181)  | 10-11/16 (272) | 66 (30)          |
| GC2H  | <b>T-145</b>        | 530                           | -        | 145      | 215                                  | 260        | 287         | 1.72           | 1, 2, 3, 4    | 10-3/8 (264)                        | 7-1/8 (181)  | 11-5/8 (295)   | 72 (33)          |
| GC2H  | <b>T-145 Plus</b>   | 530                           | -        | 145      | 215                                  | 260        | -           | -              | 1, 2, 3, 4    | 10-3/8 (264)                        | 7-1/8 (181)  | 11-1/2 (292)   | 72 (33)          |
| DIN   | <b>TE35</b>         | 500                           | -        | 135      | 200                                  | 245        | 271         | 1.63           | 8             | 9-5/8 (244)                         | 7-1/2 (191)  | 10-7/8 (276)   | 68 (31)          |
| 901   | <b>J250G</b>        | 475                           | -        | 130      | 195                                  | 235        | -           | -              | 7             | 11-1/2 (292)                        | 7 (178)      | 11-7/8 (302)   | 67 (30)          |
| 901   | <b>J250P*</b>       | 540                           | -        | 135      | 215                                  | 250        | -           | -              | 6             | 11-11/16 (297)                      | 7 (178)      | 11-1/2 (292)   | 72 (33)          |
| 902   | <b>J305E-AC</b>     | 645                           | -        | 160      | 250                                  | 305        | -           | -              | 7             | 12-1/4 (311)                        | 7 (178)      | 14-3/8 (365)   | 83 (38)          |
| 902   | <b>J305G-AC</b>     | 678                           | -        | 175      | 258                                  | 315        | -           | -              | 7             | 12-1/4 (311)                        | 7 (178)      | 14-3/8 (365)   | 88 (40)          |
| 902   | <b>J305P-AC*</b>    | 711                           | -        | 195      | 271                                  | 330        | 367         | 2.20           | 6             | 11-5/8 (295)                        | 7 (178)      | 14-3/8 (365)   | 96 (44)          |
| 902   | <b>J305H-AC*</b>    | 781                           | -        | 215      | 295                                  | 360        | 400         | 2.40           | 6             | 11-5/8 (295)                        | 7 (178)      | 14-3/8 (365)   | 98 (45)          |
| 903   | <b>L16E-AC</b>      | 766                           | -        | 185      | 303                                  | 370        | -           | -              | 7             | 12-1/4 (311)                        | 7 (178)      | 16-3/8 (417)   | 100 (46)         |
| 903   | <b>L16G-AC</b>      | 789                           | -        | 200      | 320                                  | 390        | -           | -              | 7             | 12-1/4 (311)                        | 7 (178)      | 16-3/8 (417)   | 107 (49)         |
| 903   | <b>L16P-AC*</b>     | 850                           | -        | 220      | 344                                  | 420        | 467         | 2.80           | 6             | 11-5/8 (295)                        | 7 (178)      | 16-3/4 (424)   | 114 (52)         |
| 903   | <b>L16H-AC*</b>     | 935                           | -        | 245      | 357                                  | 435        | 483         | 2.89           | 6             | 11-5/8 (295)                        | 7 (178)      | 16-3/4 (424)   | 125 (57)         |
| 903   | <b>L16RE-A*</b>     | -                             | -        | -        | 267                                  | 325        | 360         | 2.16           | 5             | 11-5/8 (295)                        | 7 (178)      | 17-11/16 (450) | 115 (52)         |
| 903   | <b>L16RE-B*</b>     | -                             | -        | -        | 303                                  | 370        | 410         | 2.46           | 5             | 11-5/8 (295)                        | 7 (178)      | 17-11/16 (450) | 118 (54)         |
| <b>8 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™</b>  |                     |                               |          |          |                                      |            |             |                |               |                                     |              |                |                  |
| GC8   | <b>T-860</b>        | 260                           | 90       | -        | 125                                  | 150        | -           | -              | 1             | 10-3/8 (264)                        | 7-1/8 (181)  | 10-7/8 (276)   | 58 (26)          |
| GC8   | <b>T-875</b>        | 295                           | 117      | -        | 145                                  | 170        | -           | -              | 1, 2, 3       | 10-3/8 (264)                        | 7-1/8 (181)  | 10-7/8 (276)   | 63 (29)          |
| GC8   | <b>T-890</b>        | 340                           | 132      | -        | 155                                  | 190        | -           | -              | 1, 2, 3       | 10-3/8 (264)                        | 7-1/8 (181)  | 10-7/8 (276)   | 69 (31)          |
| <b>12 VOLT DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™</b> |                     |                               |          |          |                                      |            |             |                |               |                                     |              |                |                  |
| 24  | <b>24TMX</b>        | 140                           | -        | 36       | 70                                   | 85         | 94          | 1.13           | 5, 9          | 11-1/4 (286)                        | 6-3/4 (171)  | 9-3/4 (248)    | 47 (21)          |
| 27  | <b>27TMX</b>        | 175                           | -        | 45       | 85                                   | 105        | 117         | 1.40           | 5, 9          | 12-3/4 (324)                        | 6-3/4 (171)  | 9-3/4 (248)    | 55 (25)          |
| 27  | <b>27TMH</b>        | 200                           | -        | 51       | 95                                   | 115        | 128         | 1.54           | 5, 7, 8, 9    | 12-3/4 (324)                        | 6-3/4 (171)  | 9-3/4 (248)    | 61 (28)          |
| 30H   | <b>30XHS</b>        | 225                           | -        | 57       | 105                                  | 130        | 144         | 1.73           | 5, 7, 8, 9    | 13-15/16 (355)                      | 6-3/4 (171)  | 10-1/16 (256)  | 66 (30)          |
| 30H   | <b>31XHS</b>        | 225                           | -        | 57       | 105                                  | 130        | -           | -              | 11            | 13 (330)                            | 6-3/4 (171)  | 9-1/2 (241)    | 67 (30)          |
| N/A   | <b>T-1260 Plus</b>  | 260                           | 90       | 60       | 113                                  | 140        | -           | -              | 1             | 12-7/8 (327)                        | 7-1/8 (181)  | 10-11/16 (272) | 78 (35)          |
| N/A   | <b>T-1275</b>       | 280                           | 102      | 70       | 120                                  | 150        | -           | -              | 1             | 12-7/8 (327)                        | 7-1/8 (181)  | 10-7/8 (276)   | 82 (37)          |
| N/A   | <b>T-1275 Plus</b>  | 280                           | 102      | 70       | 120                                  | 150        | -           | -              | 1             | 12-7/8 (327)                        | 7-1/8 (181)  | 10-11/16 (272) | 82 (37)          |
| N/A   | <b>J150</b>         | 280                           | -        | 70       | 120                                  | 150        | 166         | 1.99           | 1, 2          | 13-13/16 (351)                      | 7-1/8 (181)  | 11-1/8 (283)   | 84 (38)          |
| N/A   | <b>J150 Plus</b>    | 280                           | -        | 70       | 120                                  | 150        | -           | -              | 1, 2, 3       | 13-13/16 (351)                      | 7-1/8 (181)  | 11-1/8 (283)   | 84 (38)          |
| 921   | <b>J185E-AC</b>     | 312                           | -        | 82       | 144                                  | 175        | -           | -              | 7, 9          | 15-1/2 (394)                        | 7 (178)      | 14-5/8 (371)   | 102 (46)         |
| 921   | <b>J185G-AC</b>     | 324                           | -        | 93       | 152                                  | 185        | -           | -              | 7, 9          | 15-1/2 (394)                        | 7 (178)      | 14-5/8 (371)   | 106 (48)         |
| 921   | <b>J185P-AC*</b>    | 380                           | -        | 104      | 168                                  | 205        | 226         | 2.71           | 6             | 15 (381)                            | 7 (178)      | 14-5/8 (371)   | 114 (52)         |
| 921   | <b>J185H-AC*</b>    | 440                           | -        | 121      | 185                                  | 225        | 249         | 2.99           | 6             | 15 (381)                            | 7 (178)      | 14-5/8 (371)   | 128 (58)         |
| N/A   | <b>DC-500ML**</b>   | 1050                          | -        | 272      | 361                                  | 450        | 500         | 6.00           | 5, 8          | 19-1/4 (489)                        | 10-5/8 (270) | 16-3/4 (425)   | 332 (151)        |
| <b>36 VOLT DEEP CYCLE BATTERIES</b>                       |                     |                               |          |          |                                      |            |             |                |               |                                     |              |                |                  |
| N/A   | <b>18DC-500ML**</b> | 1050                          | -        | 272      | 361                                  | 450        | -           | -              | 12            | 35-1/4 (895)                        | 19-1/8 (486) | 16-3/4 (425)   | 986 (447)        |

\* Polyon™ Case (see back page)  
\*\* Unavailable with T2 Technology.

| BCI GROUP SIZE                  | TYPE     | VOLTAGE | CAPACITY <sup>A</sup> Minutes |          | CAPACITY <sup>B</sup> Amp-Hours (AH) |            |             | KILOWATT (kWh) | TERMINAL Type  | DIMENSIONS <sup>C</sup> Inches (mm) |                |          | WEIGHT lbs. (kg) |
|---------------------------------|----------|---------|-------------------------------|----------|--------------------------------------|------------|-------------|----------------|----------------|-------------------------------------|----------------|----------|------------------|
|                                 |          |         | @25 Amps                      | @75 Amps | 5-Hr Rate                            | 20-Hr Rate | 100-Hr Rate |                |                | 100-Hr Rate                         | Length         | Width    |                  |
| <b>DEEP-CYCLE GEL BATTERIES</b> |          |         |                               |          |                                      |            |             |                |                |                                     |                |          |                  |
| GC2                             | 6V-GEL   | 6 VOLT  | 394                           | 154      | 189                                  | 198        | 1.19        | 7              | 10-1/4 (260)   | 7-1/8 (181)                         | 10-7/8 (276)   | 68 (31)  |                  |
| DIN                             | TE35-GEL | 6 VOLT  | -                             | 180      | 210                                  | 220        | 1.32        | 5, 8           | 9-5/8 (244)    | 7-1/2 (190)                         | 10-7/8 (276)   | 69 (31)  |                  |
| 8D                              | 8D-GEL   | 12 VOLT | 500                           | 188      | 225                                  | 265        | 3.18        | 5              | 21-1/16 (534)  | 11 (279)                            | 10-13/16 (233) | 157 (71) |                  |
| 24                              | 24-GEL   | 12 VOLT | 147                           | 66       | 77                                   | 85         | 1.02        | 6, 7           | 10-7/8 (276)   | 6-3/4 (171)                         | 9-5/16 (236)   | 52 (24)  |                  |
| 27                              | 27-GEL   | 12 VOLT | 179                           | 76       | 91                                   | 100        | 1.20        | 7              | 12-3/4 (324)   | 6-3/4 (171)                         | 9-1/4 (234)    | 63 (29)  |                  |
| 31                              | 31-GEL   | 12 VOLT | 200                           | 85       | 102                                  | 108        | 1.30        | 7              | 12-15/16 (329) | 6-3/4 (171)                         | 9-5/8 (245)    | 69 (31)  |                  |
| DIN                             | 5SHP-GEL | 12 VOLT | -                             | 110      | 125                                  | 137        | 1.64        | 5, 8           | 13-9/16 (345)  | 6-3/4 (171)                         | 11-1/8 (283)   | 85 (39)  |                  |

| BCI GROUP SIZE  | TYPE   | VOLTAGE | CAPACITY <sup>A</sup> Minutes |          | CRANKING Performance     |                         | CAPACITY <sup>B</sup> Amp-Hours (AH) |            |             | KILOWATT (kWh) | TERMINAL Type | DIMENSIONS <sup>C</sup> Inches (mm) |             |             | WEIGHT lbs. (kg) |
|---|--------|---------|-------------------------------|----------|--------------------------|-------------------------|--------------------------------------|------------|-------------|----------------|---------------|-------------------------------------|-------------|-------------|------------------|
|   |        |         | @25 Amps                      | @75 Amps | C.C.A. <sup>D</sup> @0°F | C.A. <sup>E</sup> @32°F | 5-Hr Rate                            | 20-Hr Rate | 100-Hr Rate |                |               | 100-Hr Rate                         | Length      | Width       |                  |
| <b>MARINE/RV DEEP CYCLE BATTERIES - with T2 TECHNOLOGY™</b> |        |         |                               |          |                          |                         |                                      |            |             |                |               |                                     |             |             |                  |
| 24  | SCS150 | 12 VOLT | 150                           | 36       | 530                      | 650                     | 80                                   | 100        | -           | -              | 10            | 11-1/4 (286)                        | 6-3/4 (171) | 9-3/4 (248) | 50 (23)          |
| 27  | SCS200 | 12 VOLT | 200                           | 52       | 620                      | 760                     | 95                                   | 115        | -           | -              | 10            | 12-3/4 (324)                        | 6-3/4 (171) | 9-3/4 (248) | 60 (27)          |
| 30H   | SCS225 | 12 VOLT | 225                           | 57       | 665                      | 820                     | 105                                  | 130        | -           | -              | 10            | 13-15/16 (355)                      | 6-3/4 (171) | 9-7/8 (251) | 66 (30)          |

| <b>CYCLING AGM BATTERIES</b> |                   |         |     |   |     |     |    |     |     |      |    |               |               |               |         |
|------------------------------|-------------------|---------|-----|---|-----|-----|----|-----|-----|------|----|---------------|---------------|---------------|---------|
| 24                           | 24-AGM            | 12 VOLT | 137 | - | 500 | 600 | 67 | 76  | 84  | 1.01 | 6  | 10-3/4 (274)  | 6-13/16 (174) | 8-11/16 (220) | 54 (24) |
| 27                           | 27-AGM            | 12 VOLT | 158 | - | 550 | 660 | 77 | 89  | 99  | 1.19 | 6  | 12-9/16 (318) | 6-13/16 (174) | 8-3/4 (221)   | 64 (29) |
| 31                           | 31-AGM            | 12 VOLT | 177 | - | 600 | 720 | 82 | 100 | 111 | 1.33 | 6  | 13-7/16 (341) | 6-13/16 (174) | 9-3/16 (233)  | 69 (31) |
| 31                           | OverDrive™ AGM 31 | 12 VOLT | 180 | - | 600 | 720 | 84 | 102 | -   | -    | 11 | 13-7/16 (341) | 6-13/16 (174) | 9-1/4 (234)   | 69 (31) |

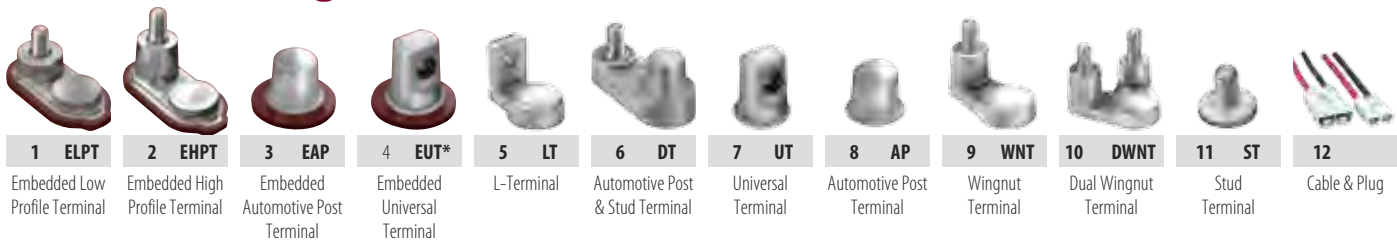
| <b>DUAL PURPOSE AGM BATTERIES</b> |        |         |     |   |      |      |     |     |     |      |   |              |               |              |          |
|-----------------------------------|--------|---------|-----|---|------|------|-----|-----|-----|------|---|--------------|---------------|--------------|----------|
| GC2                               | 6V-AGM | 6 VOLT  | 385 | - | 1100 | 1400 | 154 | 200 | 221 | 1.33 | 6 | 10-1/4 (260) | 7-1/8 (181)   | 10-3/4 (274) | 65 (29)  |
| 8D                                | 8D-AGM | 12 VOLT | 460 | - | 1450 | 1850 | 179 | 230 | 254 | 3.05 | 6 | 20-1/2 (521) | 10-9/16 (269) | 9-3/16 (233) | 167 (76) |

\* Polygon™ Case



- A. The number of minutes a battery can deliver when discharged at a constant rate at 80°F (27°C) and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- B. The amount of amp-hours (AH) a battery can deliver when discharged at a constant rate at 80°F (27°C) for the 20-Hour and 86°F (30°C) for the 5-Hour rate and maintain a voltage above 1.75 V/cell. Capacities are based on peak performance.
- C. Dimensions are based on maximum size. Dimensions may vary depending on type of handle or terminal. Batteries to be mounted with .5 inches (12.7mm) spacing minimum.
- D. C.C.A. (Cold Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 0°F at a voltage above 1.2 V/cell.
- E. C.A. (Cranking Amps) - the discharge load in amperes which a new, fully charged battery can maintain for 30 seconds at 32°F at a voltage above 1.2 V/cell. This is sometimes referred to as marine cranking amps @ 32°F or M.C.A. @ 32°F.
- F. Dimensions taken from bottom of the battery to the highest point on the battery. Heights may vary depending on type of terminal.

## Terminal Configurations



\*EUT Terminal Available Fall 2010



Trojan batteries are available worldwide through Trojan's Master Distributor Network. We offer outstanding technical support, provided by full-time application engineers.

**For a Trojan Master Distributor near you,  
call 800.423.6569 or + 1.562.236.3000 or visit [www.trojanbattery.com](http://www.trojanbattery.com)**

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