



EAST PENN manufacturing co., inc.

LYON STATION, PA 19536 • 610-682-6361

Congratulations on your choice of a new Deka industrial battery. The complete line of Deka industrial batteries incorporates every feature required by today's user of electric industrial trucks. Designed with East Penn engineering technology and built by master battery craftsmen according to strict quality assurance guidelines, Deka industrial batteries are the finest available to meet today's material handling requirements. Deka precision construction provides new equipment performance throughout a long life. This battery has been inspected prior to shipment to insure that it meets your specifications as ordered. By following the operating and maintenance instructions, you will be insuring optimum life and performance of your new Deka industrial battery.

MAX POWR® OPERATING INSTRUCTIONS

⚠ DANGER			
 HIGH VOLTAGE... RISK OF SHOCK. DO NOT TOUCH UNINSULATED TERMINALS OR CONNECTORS.	 SHIELD EYES EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY.	 NO • SPARKS • FLAMES • SMOKING	 SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS.
 FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.		KEEP VENT CAPS TIGHTLY IN PLACE.	
SEE INSTALLATION, MAINTENANCE AND OPERATION INSTRUCTIONS FOR IMPORTANT SAFETY PRECAUTIONS.		REPAIR SHOULD BE PERFORMED ONLY BY A QUALIFIED SERVICE TECHNICIAN.	

**CALIFORNIA
 PROPOSITION 65
 WARNING:**

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Wash hands after handling.

IMPORTANT: ALWAYS WEAR EYE PROTECTION WHEN WORKING AROUND BATTERIES! FOLLOW ALL SAFETY PRECAUTIONS AND MANUFACTURER'S INSTRUCTIONS.

1. Upon receipt of the battery, if there are signs of rough handling or of electrolyte leakage, file a claim with the carrier and advise your East Penn representative.

The electrolyte level should normally be above the perforated separator protector, which can be seen in the cell when the vent caps are removed. However vibrations during shipping often shake enough gas out of the cell that the electrolyte level may drop below the separator protector, especially on taller cells. If the electrolyte level is still above the top of the plates and can be seen with a flashlight through the holes in the separator protector, the battery may be given its initial charge without adjusting the electrolyte level.

If the electrolyte level is not visible or is below the top of the plates, check again for leaking cells and call your East Penn representative before charging the battery.

2. Check the nameplate of your charger against the nameplate of the battery to **make sure they both show the same voltage** and that the six-hour ampere hour capacity of the battery falls within the eight-hour recharge range of the charger.
3. The "Battery Type Identification" shown on the battery (E, EO, EE, EX) should match the "Battery Type Identification" specified on the truck nameplate.

4. **Make sure that the battery "SERVICE WEIGHT,"** which is stamped below the lifting hole in the steel tray, **falls within the battery weight range shown on the truck nameplate.** East Penn Manufacturing Co., Inc. cannot be responsible for determining that the battery weight is sufficient to counter-balance your particular truck.

5. Prior to placing the battery in service, it should be given an **equalizing charge.** Near the end of the charge, check to make sure that the electrolyte levels of all cells are visible and above the separator protector. The full charge specific gravity is 1.320 to 1.330 when temperature corrected to 77°F (25°C).
6. Upon installation in the truck, **battery restraints should be adjusted** to restrict movement of the battery to no more than 1/2" in a horizontal direction. An insulated spreader bar should be used any time the battery is lifted or hoisted.
7. The battery has delivered its normal ampere hour capacity when it has been discharged to a specific gravity of between 1.155 and 1.175. **Discharging below 1.155 specific gravity can shorten the battery's service life.**
8. The battery should be placed on charge upon completion of the work shift and returned to full charge. If at the end of the work shift the specific gravity has not fallen below 1.260, it is advisable to use the battery for another shift. Normally, batteries should not be used for more than two successive shifts before recharging. **All vent caps should be kept in place and the steel tray cover or the truck compartment cover kept open while charging.**
9. After the daily charge and prior to the start of the workshift, a specific gravity reading should be taken with a hydrometer on at least one cell in order to insure full recharge. The specific gravity should be between 1.310 and 1.330 when temperature corrected to 77°F (25°C).
10. A copy of the DEKA INDUSTRIAL BATTERY SERVICE MANUAL, which gives more detailed information on the Operation and Maintenance of motive power batteries, can be obtained from your Deka representative by asking for form number 0656.

MAX POWR® MAINTENANCE

ALWAYS WEAR SAFETY GLASSES WHEN WORKING AROUND BATTERIES! KEEP SPARKS AND FLAMES AWAY!

1. Once each week the electrolyte level should be checked in every cell. It may be necessary to add water to the battery on a weekly to a monthly basis, depending on the type of battery and the type of service for which it is used.
2. Only distilled, deionized or approved water should be added to the battery. **Water should be added only near the end of the charge** to raise the electrolyte level to the bottom of the vent well. Water should be stored in a clean non-metallic container as impurities, even in small amounts, may be harmful to battery life.
3. Depending on the type of service, it will be necessary to give the battery an **equalizing charge** every one to four weeks. Set the charger to the equalize position.
4. **Specific gravity readings should be recorded for all cells once each month** immediately after an equalizing charge. If the readings average below 1.310 the charger output should be checked. If two successive monthly readings indicate more than 20 points deviation in any cell from the average specific gravity, you should contact your Deka representative.
5. **The top of the battery should be kept clean and dry at all times.** When required, the top of the battery should be neutralized, after removing the shrouds, with a non-corrosive water based neutralizing solution. Make sure vent caps are securely in place to prevent any solution from entering cells. After the battery has been neutralized, rinse thoroughly with clear water, dry and then reinstall the cleaned shrouds.
6. The **cables and connectors** should be **inspected monthly** for exposed copper wires, fraying or cracked insulation, loose connections, or pitted contacts, and repaired as required.
7. Be especially careful to keep metallic objects off the top of the battery, as any metal touching two or more connectors may cause a short circuit resulting in **an arc or spark which could ignite battery gasses explosively.**
8. **The output rate of the charger should be checked periodically.** The starting rate should correspond to the starting rate shown on the charger nameplate. The following chart shows the ampere hour capacity at the six-hour rate, as well as the recommended finish rate for every cell size in the "MAX POWR" line manufactured by East Penn Manufacturing Co., Inc.

TYPE	PLATES PER CELL	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33
P38	6 HR. A.H. RATING	76	114	152	190	228	266	304	342	380	418	456	494	532	570	608
	FINISH RATE—AMPS	4	6	8	10	11	13	15	17	19	21	23	25	27	28	30
P49	6 HR. A.H. RATING	98	147	196	245	294	343	392	441	490	539	588	637	686	735	784
	FINISH RATE—AMPS	5	7	10	12	15	17	20	22	24	27	29	32	34	37	39
P60	6 HR. A.H. RATING	120	180	240	300	360	420	480	540	600	660	720	780	840	900	960
	FINISH RATE—AMPS	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
P71	6 HR. A.H. RATING	142	213	284	355	426	497	568	639	710	781	852	923	994	1065	1136
	FINISH RATE—AMPS	7	11	14	18	21	25	28	32	36	39	43	46	50	53	57
P82	6 HR. A.H. RATING	164	246	328	410	492	574	656	738	820	902	984	1066	1148	1230	1312
	FINISH RATE—AMPS	8	12	16	20	25	29	33	37	41	45	49	53	57	62	66
P95	6 HR. A.H. RATING	190	285	380	475	570	665	760	855	950	1045	1140	1235	1330	1425	1520
	FINISH RATE—AMPS	10	15	20	24	29	34	38	43	47	52	57	62	67	71	76
P110	6 HR. A.H. RATING	220	330	440	550	660	770	880	990	1100	1210	1320	1430	1540	1650	1760
	FINISH RATE—AMPS	11	16	22	28	33	38	44	50	55	60	66	72	77	82	88
P121	6 HR. A.H. RATING	242	363	484	605	726	847	968	1089	1210	1331	1452	1573	1694	1815	1936
	FINISH RATE—AMPS	12	18	24	30	36	42	48	54	60	67	73	79	85	91	97
P140	6 HR. A.H. RATING	280	420	560	700	840	980	1120	1260	1400	1540	1680	1820	1960	2100	2240
	FINISH RATE—AMPS	15	21	28	35	42	49	56	63	70	77	84	91	98	105	112
P165	6 HR. A.H. RATING			660	825	990	1155	1320	1485	1650						
	FINISH RATE—AMPS			33	41	50	58	66	74	82						
P170	6 HR. A.H. RATING			680	850	1020	1190	1360	1530	1700						
	FINISH RATE—AMPS			34	42	51	60	68	76	85						