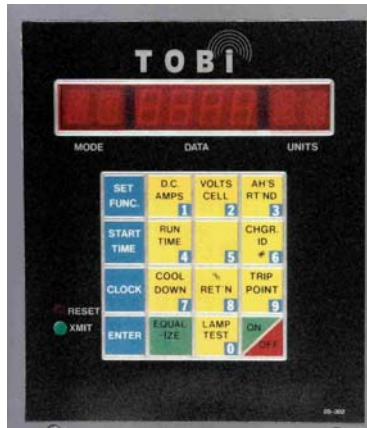


## 172 Control (046-172)



### Display Capabilities

- LED display test at startup
- Accumulated amp-hours, amps output, volts per cell
- Total time of charge to present, or to end of charge
- Time of day, delayed-start time
- Faults and errors
- Equalize mode set.
- % Return setting (factory set)
- 80% trip point (factory set)
- Current Mode of Charger

### Features

- Fully automatic, utilizes dV/dt-dI/dt termination of charge.  
The control will start the charging approximately 5 seconds after the battery is connected. Charge cycle termination is controlled by the slope of the battery's voltage with relationship to time. The nearer to fully charged, the flatter the charge voltage curve.
- Wrong battery voltage-discrimination.  
If a battery with too many or too few cells is connected to the charger it will not start.
- Jump start for dead batteries.  
Using battery voltage-discrimination requires a means to initiate the charge cycle if a properly sized battery is so discharged that the charger does not see it.
- Thermal runaway protection (hot battery shutdown)  
If a battery starts to overheat, its voltage will drop, and at the same time, the charge current will increase. This will be sensed by the control, and the charge cycle will terminate under fault.
- Watchdog circuit for microprocessor and timed faults.  
If the microprocessor fails, or if it takes too long to reach certain milestones during the charge cycle, the control realizes it and terminates the charge.
- High DC voltage shutdown (primarily for sealed batteries).  
Standard factory setting of 3.00 volts-per-cell can be re-programmed to what ever voltage the customer desires.
- Timed delay start (0-9 hours).  
Prevents opportunity charging or delays charge until after AC Peak Demand Periods
- Time-of-day delay start.  
Prevents opportunity charging or delays charge until after AC Peak Demand Periods, programmable by time of day
- Zero DC current shutdown (disconnected battery).  
If the battery is disconnected during the charge cycle, the loss of current flow is sensed and the charger is de-energized.
- Manual/auto equalize (by number of cycles or day of week).  
In addition to the manual equalize keypad button, a default factory setting of automatic equalize every 7 charge cycles is programmed into the control. It is field changeable from 0 to 15 cycles via the control keypad.
- Overcharge adjustment (cold storage, undersized AH batteries etc.)  
Allows adjustment of the end of charge-cycle time
- Adjustable hysteresis loop (automatic re-charge cycling).  
Allows the charger to cycle on and off based on a pre-set self discharge point.
- Capable of automatic watering of the battery.
- Serial cable-ready for Battery Management System computer