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You can read the recommendations in the user guide, the technical guide or the installation guide for THOMSON BCM 1220. You'll find the answers to all your questions on the THOMSON BCM 1220 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual THOMSON BCM 1220
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Manual abstract:

com www.thomsontechnology.com BCM 1220 BATTERY CHARGER 1. INSTALLATION Ensure that the battery charger is securely installed in a dry location where it will receive adequate ventilation. The ambient air temperature around the battery should not exceed 40°C. Connect a 120VAC or 240VAC, 50/60Hz, 15AAC supply circuit, c/w grounding conductor, to the battery charger supply terminals. Note: The internal transformer is reconnectable with jumpers for 120 or 240VAC input. Caution: The charger is supplied for 120 VAC input as standard. Connect the DC output to the battery to be charged. Excessively long or undersized DC leads will reduce the battery charger's output and will increase the time required to re-charge the battery.

It is essential to observe the DC polarity. Ensure that all electrical connections are made in accordance with the applicable regulatory authorities. CAUTION! Batteries may produce explosive gases when being charged. Do not make electrical sparks or introduce It is flame of any kind in vicinity of a battery. from the battery and charger during recommended that all electrical loads be disconnected adjustment procedures. Always isolate the charger from the supply and the battery before making any electrical connections or adjustments. All servicing procedures should be Dangerous undertaken by a qualified technician only. @@@@This is the normal mode for continuous operation. The "equalize" voltage is adjusted to a specific voltage higher than "float". A battery should be "equalized" periodically in order to ensure that all cells are equally and fully charged. In either "float" or "equalize" mode, the charger will automatically adjust its output current between zero and full output as required to maintain the correct voltage. PM004 Rev 2 00/09/21 1 Thomson Technology BCM 1220 BATTERY CHARGER WARNING: Never leave the switch in the "equalize" Excessive "equalize" position for long periods of time (6 hours per month is adequate for most installations). charging will cause cells to gas (through electrolysis) and consume excessive quantities of electrolyte. Never let the electrolyte level drop below the minimum level line of the battery. Factory preset levels (for lead-acid batteries): Battery Voltage 12VDC Nominal 24VDC Nominal Float 13.5 27.0 Equalize 14.5 29.0 Current Limit is set at 100% of nameplate rating. 3.

OUTPUT ADJUSTMENTS 3.1. "FLOAT" VOLTAGE ADJUSTMENT CAUTION! Do not leave battery charger energized if the current output exceeds the unit nameplate rating. If necessary re-adjust the battery charger's current limit setting before adjusting float/equalize settings. 3.1.1. Attach a precision voltmeter of the correct range in parallel with the battery. (Accuracy should be better than +/- 0.5%.

) 3.1.2. Switch the charger's switch to "float". equalize charge until the timer times out.

) 3.1.3. Wait until the battery voltage stabilizes. @@This may take many hours!) 3.

1.4. If the voltage is incorrect adjust the float potentiometer located on the printed circuit card. @@@@3.2.1. Switch the charger to the "equalize" mode with switch. 3.2.2.

Wait until the battery voltage stabilizes. @@This may take many hours!) 3.2.3. @@@@When properly set, return the switch to "float". 3.3. @@It is factory set at 100% of the nameplate rating. Do not exceed this setting or damage to the charger may result. @@@@3.

3.1. @@@@12 volt battery for 24 volt charger). 3.3.

2. Observe the output current. @@3.3.3.

@@@@@Recommended Wire Size (AWG): Output Up to 10 ft. Up to 25 ft. @@@@The transformer is reconnectable with jumpers for 120 or 240VAC input. NEGATIVE POSITIVE GROUND OUTPUT TO BATTERY (SEE NOTE 1) 120 VAC or 240 VAC INPUT (15A CIRCUIT) #14 AWG MINIMUM (SEE NOTE 4) Note: Specifications subject to change without notice. PM004 Rev 2 00/09/21 4 Thomson Technology LINE 1 BCM 1220 BATTERY CHARGER 6. OPTIONAL APB 1210 ALARM / CONTROL MODULE The optional APB 1210 alarm/control module is divided into two sections, as follows. (Any or all of these features may be provided according to requirements): 6.1. ALARM SECTION 6.1.

1. A.C.Fail Indicates a loss of A.C. power supply to the charger (The charger must be connected to the battery for visual indication to be operative. The alarm contact does not require the battery to alarm). 6.1.2.

Rectifier Fail Indicates an S.C.R. failure in the power circuit of the charger. 6.

1.3. Low Battery Voltage Indicates that the battery voltage has dropped below a preset voltage for longer than three minutes. battery). 6.

1.4. High Battery Voltage Indicates that the battery voltage has risen above a preset voltage for longer than 10 seconds. The factory high voltage setting is 125% of nominal EQUALIZE voltage for lead acid batteries (15.2VDC for 12VDC battery, 30.4VDC for 24VDC battery). 6.2. ALARM CONTACTS The factory voltage setting is 95% of nominal FLOAT voltage for lead acid batteries (12.8VDC for 12VDC battery, 25.

6VDC for 24VDC - Shown with charger in normal operation (float mode). - Rated 0.5A @ 110VAC, 2A @ 24VDC, Form "C". - Connections to contacts are made to Terminal Block mounted on APB 1210 Printed Circuit Board. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 1 Equalize 2 Low Battery Voltage 1 High Battery Voltage 2 AC Fail 1 SCR Fail Not Used 1 2 Relay contacts shown in de-energized (non-alarm) state (relays pick-up upon alarm condition). Relay contacts shown in de-energized (alarm) state (relay energizes upon normal state and drops out on failure). PM004 Rev 2 00/09/21 5 Thomson Technology Inc.

BCM 1220 BATTERY CHARGER 6.3. CONTROL SECTION NOTE: When the APB 1210 control section is provided, the standard "FLOAT/EQUALIZE" switch on the charger upper faceplate is relabelled to "FLOAT ONLY/AUTO MODE".

With this switch in the "FLOAT ONLY" position, the control section of the APB module is effectively bypassed and the charger will only float charge the battery. With this switch in the "AUTO MODE" position, the charger is controlled by the APB module. With the APB 1210 removed, the switch reverts to standard Float/Equalize functions. @@6.3.

1. @@@@6.3.2. @@(Equalize timer running light) illuminates.

Equalize mode may also be optionally initiated by the following, as indicated by the labeling on the APB faceplate: 6.3.2.1. Automatic Period Timer Factory set for once every 28 days unless otherwise specified. 6.3.2.2. Battery Voltage Dip Factory set at 75% of nominal battery voltage.

6.3.2.3. Return of AC power supply. 7. CONNECTION OF LOOSE APB TO BCM BOARD Insert all the way down the header female connector of APB Board into the six pin white male connector of BCM Board. Note: APB header female connector can plug in only in one direction. NOTES: 1) It is recommended that adjustments to the APB 1210 be done at the factory only, since instruments are required.



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