

BTAS Installation Guidelines

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JFM Engineering Inc.
8030 NW 67th Street
Miami, Florida 33166 - USA
PH 305-592-2272
FX 305-594-4933
www.jfmeng.com

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1. Introduction

The following are guidelines for the successful installation and operation of the BTAS-16 system and the BTAS-16K software. Details comprise computer selection, compatible Charger-Analyzers and physical location.

2. Computer

Any “modern” computer running will do, including laptops.

2.1 Operating System

Windows Vista, Windows 7, Windows 8 or Windows 10

2.2 Processor

Minimum: Pentium, dual core, running at 2GHz. Preferred: i5

2.3 Memory

4GB recommended for best experience.

2.4 Hard Drive

Hard drive size is unimportant. The storage capacity available today allows for many, many years of operation even in the busiest of battery shops.

3. Peripherals

3.1 Monitor:

Any monitor will do, but for comfortable viewing a 22 to 24 inch wide screen is a good choice. Program also works well with dual monitor setups (Dual monitors are highly recommended).

3.2 Printer:

Any color inkjet or laser printer will do.

3.3 Barcode Reader:

Any simple Barcode reader capable of reading reliably barcode labels in batteries.

4. UPS (Uninterruptible Power Supply)

Power protection for the computer, peripherals and BTAS devices is a requirement for reliable operation.¹

4.1 Computer and Peripherals:

500VA minimum, 1000VA recommended

4.2 BTAS devices (C-Scan, etc.)

250VA minimum, 500VA recommended

5. Computer Operation

- 5.1 Computer is ideally connected to the internet to take advantage of the program's automatic updating feature and notification service capabilities.
- 5.2 Change Windows Update Settings to "Download Updates but let me choose whether to install them.", to prevent windows from restarting the computer during test operations.
- 5.3 Disable Hibernation for the computer (OK for the monitor).

6. Installation

6.1 Physical location:

The recommendation is that the computer be placed comfortably close to the equipment and batteries being tested².

6.2 Electrical grounding (earthing):

The integrity of the grounding between the computer and the battery test equipment is of utmost importance to insure data transmission with no errors and no losses and for accurate and stable measurements of charge and discharge currents³.

¹ The choice of UPS capability is determined by how much the system is monitored (or left alone) by the operator(s). That is, how long could power be interrupted with no one present for an orderly shutdown of equipment to prevent data loss.

² The method of data transmission (RS-485) is very tolerant of long runs of cables but it is most efficient (work wise) for the computer to be close to the batteries being tested.

³ Note that good grounding is a basic safety requirement for power distribution systems (mains distribution). But, even a "safe" ground may still may not be good enough for reliable measurements and data transmission. The ultimate choice is for the grounding for the computer outlet and the battery test equipment outlets to be as direct as practically possible (check with electrician).

7. Battery Test Equipment (Charger-Analyzers)

The basic requirement is for the BTAS to be able to measure the charge/discharge current provided by the Charger-Analyzer.

A secondary option is to be able to monitor and control the Charge-Analyzer⁴.

7.1 Preferred Equipment:

7.1.1 SuperMasterCharger and SupersederXG

The SuperMasterCharger and SupersederXG have bi-directional communication port with the BTAS computer. This enables the BTAS program to monitor the status of the Charger-Analyzer and to fully control it: Start/Stop, Settings, Mode, Hold and Reset.

7.1.2 miniMasterCharger and 24-400xg

The miniMasterCharger and 24-400xg (replacing the original 24-400T) have the same capabilities of the SuperMasterCharger and SupersederXG (including BTAS interfacing) differing only in the charge and discharge current capabilities.

7.1.3 MasterCharger LXC and Superseder IIC

The MasterCharger LXC and Superseder IIC are equipped with internal secondary shunts and ports for basic status monitoring and control⁵.

7.2 Other Superseders:

For Superseders other than the IIC, a shunt must be inserted in the negative lead of the battery cable⁶. This provides information on current and also carries a shunt code.

7.3 Other Charger-Analyzers:

Almost any⁷ other Charger-Analyzer can be used as long as the Charge/Discharge current can be measured⁸.

⁴ If this is available, the BTAS software can start/stop the Charger-Analyzer thus synchronizing it with the acquisition of data from the battery being tested.

⁵ Through the C-Scan Control Port (rear panel).

⁶ JFM Engineering can provide battery cables with the shunt installed or shunts ready to be connected by the end user. Check with the factory for upgrades to "C" level.

⁷ Even the RF80K and the RF80 M can be connected except that the measurement of current during Reflex® operation is of little value (due to its large fluctuations).

⁸ JFM Engineering can provide battery cables with the shunt installed or shunts ready to be connected by the end user.

8. REVISION INDEX

Table 1 - Index of Revisions

REVISION	DATE	NOTES
V0.1	22 June 2010	Preliminary writing
V0.2	29 November 2010	Update
V0.3	1 December 2010	Release
V1.0	27 January 2011	Text enhancements.
V1.1	4 April 2011	Added i5 processor choice to 2.2
V2.0	24 March 2016	Updated to reflect BTAS-16K changes.

9. Notes