

Publication Purpose:

This publication is designed to provide you with timely commercial and product information. Product questions, product technical information, Drive performance data, application examples and competitor product updates will all be covered in DRIVEFAX. Topic ideas, items of interest and/or comments should be brought to the attention of the DriveFax editor at fax: 414-242-8579.

HUMAN INTERFACE MODULE (HIM) COMPATIBILITY UPDATE

The Human Interface Module (HIM) was designed as an operator interface that could be connected to all SCANport supporting devices. During the design of the HIM all efforts were made to ensure that it would be fully backward compatible. Due to this backward compatibility feature, an occasional 'Anomaly' may occur when certain versions of HIMs and Drive Firmware versions are combined. The 'Anomolys' that have been identified are described in the following document along with the appropriate recommended corrective action.

COPY CAT COMPATIBILITY

The HIM was designed so that it would ignore a Drive's code version when downloading, and error checking and error messages would instead inform the user of any problems when downloading. It was also assumed that with revisions in the Drive code, new parameters could be added, but old parameters would not be removed.

PROBLEM VERSIONS

There can exist various combinations of Series B HIMs and Drive firmware versions in which the Copy Cat function will not work. The following paragraphs describe the conditions under which the HIM Copy Cat feature will not work, due to Drive usage of the Extended Master Type. Additional information is also being provided in the following paragraphs to further help describe the usage of the Master Type and Extended Master Type definitions.

MASTER TYPE DEFINITION

The Master Type designator indicates the family of Drive to which the Drive Profile belongs (ie. Bulletin 1305, Bulletin 1336 PLUS, etc.). The Master Type designator assists the HIM, in that it prevents the downloading of a 1305 Drive Profile into a 1336 PLUS Drive.

The Extended Master Type designator is used to provide more specific information about the Drive, such as Voltage Rating, Horsepower, # of Axes of Motion, etc. As indicated, the HIM will permit downloading of Drive Profiles between Drives with the same Master Type, yet different Extended Master Types. Should the User elect to continue with the download, he must be aware that certain parameters may need to be manually adjusted by the User prior to operation of the Drive. Further, the User may encounter an error message "Error 4" during the download. This error message will appear whenever the value of a certain parameter being downloaded, is found to be outside the range of the corresponding parameter within the Drive. The Download will halt and the parameter# of the parameter in question will be displayed. The User should note the parameter # for subsequent examination and modification. Pressing the ENTER key will continue the Download.

RECOMMENDED ACTION

The explanation and table information that follows will allow the reader to make an informed decision as to the compatibility of the HIM and Drive combination as pertains to Copy Cat functionality. In those cases where the user has a HIM and Drive combination which prevents Copy Cat from working, the user should be strongly encouraged to purchase the latest version of HIM.

HIM Firmware prior to FRN 1.05

HIMs with Firmware prior to FRN 1.05 do not allow downloading of Drive Profiles between Drives with different Extended Master Types. The HIM displays an error message "Error 3" and aborts the download.

HIM Firmware FRN 1.05 and later

HIMs with Firmware version 1.05 or later, will permit a download between Drives with different Extended Master Types. Should the Extended Master Type be different, the HIM will display an error message "Error 6". This message indicates that the Extended Master Types are different. In order to continue the download the User should press the ENTER key, otherwise to abort the download the User should press the ESC key.

Compatibility Table

The look up table on the following page provides a means to determine HIM Series B, Copy Cat and Drive compatibility via Firmware Versions. The "Drive Configuration" column refers to any differences between the source Drive (i.e. Drive which was uploaded from) and the target Drive (i.e. Drive which was downloaded to). These differences may comprise such items as Voltage/Horsepower ratings on the Bulletin 1305 or 1336 PLUS, or to the number of Axes of Motion as on the Bulletin 1394.

DISPLAY LOCKUP PHENOMENON

Under certain circumstances the HIM display may lockup and freeze when used with a 1336 PLUS Drive. This lockup phenomenon DOES NOT pose a safety risk as the STOP button is still active. The Drive DOES NOT fault when this phenomenon occurs.

RECOMMENDED ACTION

The fix for this problem is to upgrade to a Series B HIM containing firmware FRN 1.05 or later.

HIM CONNECTION ISSUE

The Series B HIM containing firmware FRN 1.05 may exhibit some delay in connecting via SCANport to a 1336 IMPACT or 1336 FORCE Drive. The HIM may time out several times before it eventually connects. This phenomenon may be due to multiple SCANport devices connected to the Drive, creating heavy communications traffic. The HIM will always ultimately connect to the Drive.

RECOMMENDED ACTION

The fix for this problem is to use a Series B HIM containing firmware FRN 1.06 or later.

STARTUP MODE WITH SERIES A HIM and 1336 FORCE™ or 1336 IMPACT™ DRIVE

If a Series A HIM containing firmware FRN 3.00 is connected to a 1336 FORCE drive containing FRN 3.01 or earlier firmware, the startup mode will not work correctly.

The same problem will occur if a Series A HIM with FRN 3.00 firmware is connected to any 1336 IMPACT drive.

RECOMMENDED ACTION

The fix for this problem is to use a Series B HIM containing firmware FRN 1.06 or later.

A CONCLUDING NOTE ON HIM COMPATIBILITY PROBLEMS

Most of your customers have not seen and probably will not see any of the anomalies described here. In cases where an anomaly does arise we are NOT necessarily recommending HIM replacement in every case. Please handle each customer on a case by case basis when determining whether a HIM replacement is warranted.

Compatibility Chart For SERIES B HIM Only

| | If you are uploading from: | And if you are downloading to: | The Drive Configuration is: | You are using a HIM prior to FRN 1.05 | You are using a HIM FRN 1.05 or later |
|---|----------------------------|--------------------------------|-----------------------------|---------------------------------------|---------------------------------------|
| Bulletin 1305 | A Drive prior to FRN 6.01 | A Drive prior to FRN 6.01 | Same or Different | Compatible* | Compatible* |
| | A Drive prior to FRN 6.01 | A Drive FRN 6.01 or later | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 6.01 or later | A Drive prior to FRN 6.01 | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 6.01 or later | A Drive FRN 6.01 or later | Same | Compatible* | Compatible* |
| | A Drive FRN 6.01 or later | A Drive FRN 6.01 or later | Different | Incompatible** | Compatible* |
| Bulletin 1336 PLUS | A Drive prior to FRN 3.00 | A Drive prior to FRN 3.00 | Same or Different | Compatible* | Compatible* |
| | A Drive prior to FRN 3.00 | A Drive FRN 3.00 or later | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 3.00 or later | A Drive prior to FRN 3.00 | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 3.00 or later | A Drive FRN 3.00 or later | Same | Compatible* | Compatible* |
| | A Drive FRN 3.00 or later | A Drive FRN 3.00 or later | Different | Incompatible** | Compatible* |
| Bulletin 1336 FORCE Standard Adapter Equipped | A Drive prior to FRN 4.00 | A Drive prior to FRN 4.00 | Same or Different | Compatible* | Compatible* |
| | A Drive prior to FRN 4.00 | A Drive FRN 4.00 or later | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 4.00 or later | A Drive prior to FRN 4.00 | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 4.00 or later | A Drive FRN 4.00 or later | Same | Compatible* | Compatible* |
| | A Drive FRN 4.00 or later | A Drive FRN 4.00 or later | Different | Incompatible** | Compatible* |
| Bulletin 1336 FORCE PLC Comm Adapter Equipped | A Drive prior to FRN 3.00 | A Drive prior to FRN 3.00 | Same or Different | Compatible* | Compatible* |
| | A Drive prior to FRN 3.00 | A Drive FRN 3.00 or later | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 3.00 or later | A Drive prior to FRN 3.00 | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 3.00 or later | A Drive FRN 3.00 or later | Same | Compatible* | Compatible* |
| | A Drive FRN 3.00 or later | A Drive FRN 3.00 or later | Different | Incompatible** | Compatible* |
| Bulletin 1336 IMPACT | A Drive FRN 1.00 or later | A Drive FRN 1.00 or later | Same | Compatible* | Compatible* |
| | A Drive FRN 1.00 or later | A Drive FRN 1.00 or later | Different | Incompatible** | Compatible* |
| Bulletin 1394 | A Drive prior to FRN 3.01 | A Drive prior to FRN 3.01 | Same or Different | Compatible* | Compatible* |
| | A Drive prior to FRN 3.01 | A Drive FRN 3.01 or later | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 3.01 or later | A Drive prior to FRN 3.01 | Same or Different | Incompatible** | Compatible* |
| | A Drive FRN 3.01 or later | A Drive FRN 3.01 or later | Same | Compatible* | Compatible* |
| | A Drive FRN 3.01 or later | A Drive FRN 3.01 or later | Different | Incompatible** | Compatible* |

* Series B HIM will work with Copy Cat function on this Drive firmware version
 ** Series B HIM will not work with Copy Cat function on this Drive firmware version
 Drive Configuration refer to differences in HP, Volts, Axes etc.

