

## Toshiba 1700 Series UPS Option Module Connection Guide IMPORTANT SAFETY INSTRUCTIONS

**SAVE THESE INSTRUCTIONS.** This sheet contains important instructions for Toshiba 1700 Series Transformer Modules. These instructions should be followed during the installation of the transformer module.

- The ambient temperature range in which this unit should be operated or stored is 32°F to 104 °F (0°C to 40 °C).
- This module should not be opened under any circumstances. There are no user servicable parts inside. For service contact your local Toshiba representative, or contact the Toshiba UPS marketing department toll-free at (800) 231-1412.
- When adding transformer modules, be sure to use the proper model unit.



### CAUTION

Misuse of this equipment could result in human injury and equipment damage. In no event will Toshiba Corporation be responsible or liable for either indirect or consequential damage or injury that may result from the use of this equipment.

### Inspection/Installation

#### After Unpacking:

- 1) Check the unit for loose, broken, bent or otherwise damaged parts. If damage has occurred during shipment, keep all original packing materials for return to shipping agent. Warranty will not apply to units damaged during shipment.
- 2) Check to see that the rated capacity and the model number specified on the nameplate conform to the order specifications.

#### Installation Precautions

This transformer module is intended for use with a Toshiba 1700 Series UPS. **Any electrical or mechanical modifications to this equipment, without prior written consent of Toshiba International Corporation will void all warranties and may void UL/CUL listing. Unauthorized modifications also can result in personal injury, death, or destruction of the equipment.** When installing this transformer module follow all installation instructions and precautions as listed in the 1700 Series user manual.

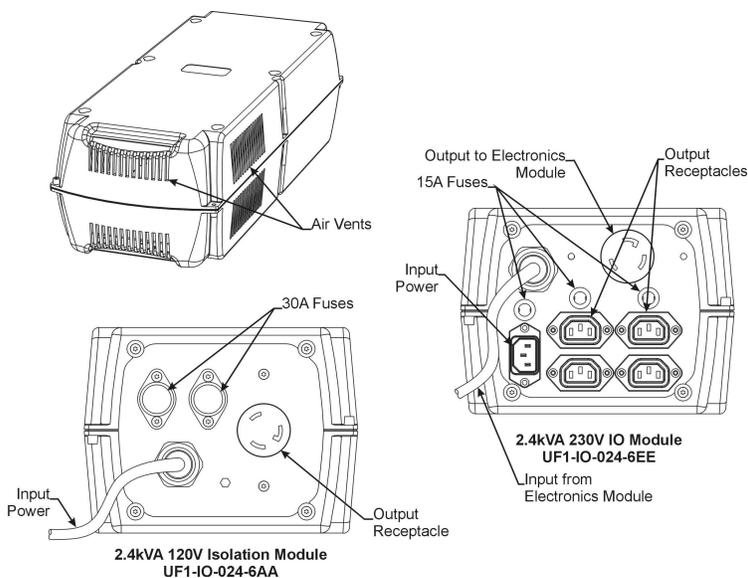


Figure 1  
Module Layout

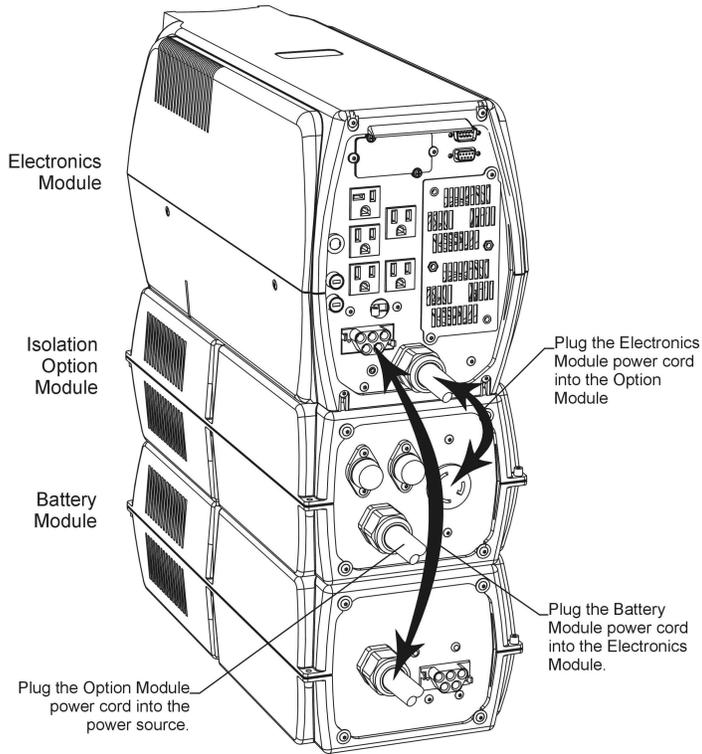
### Specifications

Model Number		UF1-IO-	
		024-6AA	024-6EE
Capacity		2400VA (1.68kW)	2400VA (1.68kW)
Input	Input voltage	Single phase 120VAC	Single phase 230VAC
	Input frequency	45 to 65 Hz	
	Input capacity	2400VA	2400VA
	Input power factor	Approximately unity (0.95 to 1.0)	
Output	Output voltage	Single phase 120VAC	Single phase 230VAC
	Output voltage regulation	Within +/- 3%, steady state	
	Output frequency	50/60 Hz (+/- 0.5% in free running mode, line sync range +/-1%)	
	Rated load power factor	0.7	
	Rated output current (rms)	20A	10A

## UPS Connections

### Standard Unit with 120V Isolation Module

Figure 2 shows the standard unit, consisting of one electronics module and one battery module, with the addition of the 120V isolation transformer module.



### Standard Unit with 230V IO Module

Figure 3 shows the standard unit, consisting of one electronics module and one battery module, with the addition on the 230V transformer module.

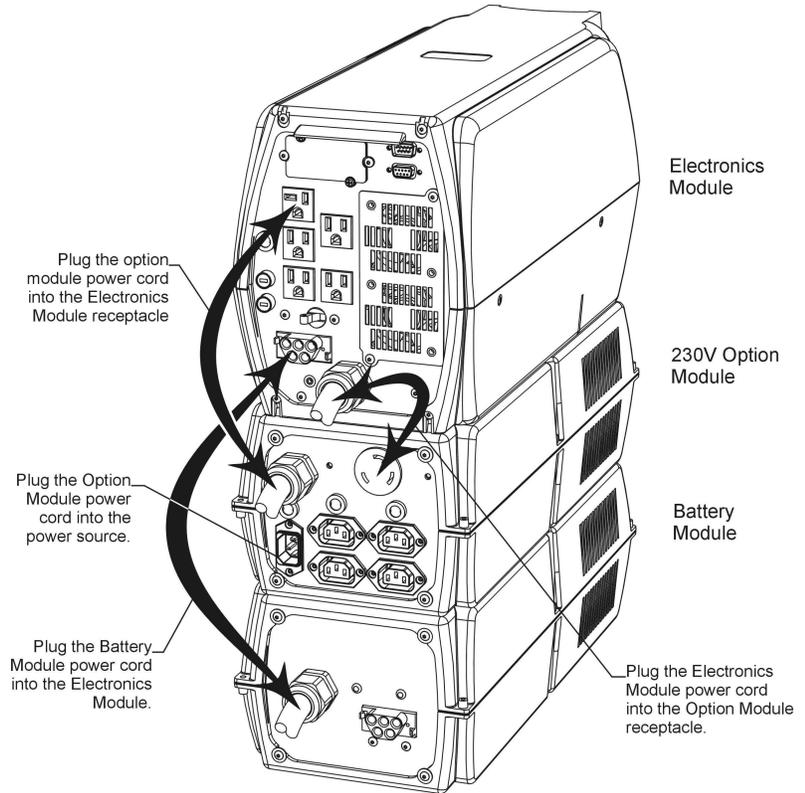


Figure 2 : 120V Isolation Transformer Module Configuration

The modules do not have to be stacked for the unit to operate; however, if the modules are to be stacked please refer to the 1700 Series user manual for instructions on interlocking modules.

To connect the modules electrically follow these steps:

1. The power cord from the electronics module must be plugged into the output receptacle on the back of the option module (see figure 1).
2. The input power cord from the option module must be plugged into a power source (see figure 1).

The battery power cord must also be plugged into the electronics module for the system to provide backup power (refer to the 1700 Series user manual or the battery module installation instructions for instructions on connecting the battery module).

**Note:** No more than three modules should be stacked in any configuration. If the option module is being used with a system that has an expansion battery module at least one module must be placed beside the others. Stacking four modules could result in a tipping hazard.

Figure 3: 230V Transformer Module Configuration

The modules do not have to be stacked for the unit to operate; however, if the modules are to be stacked please refer to the 1700 Series user manual for instructions on interlocking modules.

To connect the modules electrically follow these steps:

1. Plug the output power cord from the transformer module into one of the output receptacles on the back of the electronics module (in the case of the 2.4kVA model the cord can only be plugged into the 20A outlet, see figure 1).
2. Next, plug the power cord from the electronics module into the output receptacle on the back of the transformer module (see figure 1).
3. The input power cord from the transformer module must be plugged into a power source (see figure 1).

The battery power cord must also be plugged into the electronics module for the system to provide backup power (refer to the 1700 Series user manual or the battery module installation instructions for instructions on connecting the battery module). The unused receptacles on the back of the electronics module are still active, but they are providing 120V power, not 230V. All 230V power must be drawn from the output receptacles on the back of the option module.