

# FREEDOM EXPORT ADDENDUM

---

**IMPORTANT:  
READ THIS ADDENDUM PRIOR TO INSTALLATION**

**Freedom Export Addendum for:**

**Freedom 10 Export  
Freedom 20 Export  
Freedom 25 Export**

**Freedom 10 CE  
Freedom 20 CE  
Freedom 25 CE**

fdmceexptadd.pm65  
07/16/97 CLTh



Heart Interface Corporation • 21440 68th Ave. S. • Kent, WA 98032-2416  
Office (253) 872-7225 • FAX (253) 872-3412 • [www.heartinterface.com](http://www.heartinterface.com)

## Freedom Manual Addendum for Export and CE Models

---

This addendum was prepared specifically for Freedom Export and CE models. Please review this information carefully before beginning your installation. Observe all cautions noted in your manual.

### INSTALLATION

#### AC Wiring

You must use 2.5mm<sup>2</sup> ES copper wire with insulation rated for 60° C or higher for both the AC input and the AC output. (Not 6.0mm<sup>2</sup>).

#### Grounding

Use 5.0mm<sup>2</sup> ES (Euro Standard) green insulated wire, strip one end and use a screwdriver to secure it to the chassis ground bonding lug. This wire will connect to the ground in your AC electrical system, typically the vehicle chassis. Make sure the connection is clean and tight. (Not 16mm<sup>2</sup>).

If you have questions regarding the installation of your Freedom Inverter/Charger, contact your technical dealer or a Heart Interface field service center.

fdmceexpladd.pm6  
07/16/97 CLTh



A Valley Forge Company

Heart Interface Corporation • 21440 68th Ave. S. • Kent, WA 98032-2416  
Office (253) 872-7225 • FAX (253) 872-3412 • [www.heartinterface.com](http://www.heartinterface.com)

# BATTERY CHARGER VOLTAGE SETTINGS

IMPORTANT NOTE: Replace page 13 in your Owner's Manual with this page.

Battery Type and Temperature	Bulk Voltage/ Max Time	Float Voltage	Equalize Voltage
12 Volt Wet Cell Warm Temperature	14.0 / 1 hr	13.1	15.8
12 Volt Wet Cell Cool Temperature	14.4 / 1 hr	13.5	16.3
12 Volt Gel Cell Warm Temperature	13.8 / 3 hr	13.3	13.8
12 Volt Gel Cell Cool Temperature	14.1 / 3 hr	13.6	14.1
24 Volt Wet Cell Warm Temperature	28.0 / 1 hr	26.2	31.6
24 Volt Wet Cell Cool Temperature	28.8 / 1 hr	27.0	32.6
24 Volt Gel Cell Warm Temperature	27.6 / 3 hr	26.6	27.6
24 Volt Gel Cell Cool Temperature	28.2 / 3 hr	27.2	28.2

fdmceexptadd.pm65  
07/16/97 CLTh



A Valley Forge Company

Heart Interface Corporation • 21440 68th Ave. S. • Kent, WA 98032-2416  
Office (253) 872-7225 • FAX (253) 872-3412 • [www.heartinterface.com](http://www.heartinterface.com)

# SPECIFICATIONS

IMPORTANT NOTE: Replace SPECIFICATIONS in your Owner's Manual with this page.

MODEL	FREEDOM 10		FREEDOM 20		FREEDOM 25	
	12 V	24 V	12 V	24 V	12 V	24 V
Nominal Battery Voltage	12 VDC	24 VDC	12 VDC	24 VDC	12 VDC	24 VDC
Battery Voltage Range	10.0 - 15.5 VDC	20 - 31 VDC	10.0 - 15.5 VDC	20 - 31 VDC	10.0 - 15.5 VDC	20 - 31 VDC
Low Battery Cutout	10.0 VDC	20.0 VDC	10.0 VDC	20.0 VDC	10.0 VDC	20.0 VDC
AC Input Voltage Range	180 - 260 VAC	180 - 260 VAC	180 - 260 VAC	180 - 260 VAC	180 - 260 VAC	180 - 260 VAC
Frequency Regulation	.05% @ 60 Hz	.05% @ 60 Hz	.05% @ 60 Hz	.05% @ 60 Hz	.05% @ 60 Hz	.05% @ 60 Hz
Inverter Output Power (Continuous)	1000 VA	1000 VA	2000 VA	2000 VA	2500 VA	2500 VA
Inverter Voltage Regulation	230V +/- 10% True RMS	230V +/- 10% True RMS	230V +/- 10% True RMS	230V +/- 10% True RMS	230V +/- 10% True RMS	230V +/- 10% True RMS
Wave Shape	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave	Modified Sine Wave
Surge Power (15 seconds)	3000 VA	3000 VA	4500 VA	4500 VA	5200 VA	5200 VA
No Load Current Drain (Idle Mode)	.12 Amp	.06 Amp	.12 Amp	.06 Amp	.12 Amp	.06 Amp
Power Factors Allowed	All	All	All	All	All	All
Full Load Efficiency	85%	85%	84%	84%	86%	86%
Peak Efficiency	92%	92%	93%	93%	94%	94%
Protection	Circuit Breaker, Electronic, Thermal, High Battery, Low Battery	Circuit Breaker, Electronic, Thermal, High Battery, Low Battery	Circuit Breaker, Electronic, Thermal, High Battery, Low Battery	Circuit Breaker, Electronic, Thermal, High Battery, Low Battery	Circuit Breaker, Electronic, Thermal, High Battery, Low Battery	Circuit Breaker, Electronic, Thermal, High Battery, Low Battery
Charging Rate	50 Amps	25 Amps	100 Amps	50 Amps	130 Amps	65 Amps
AC Input (Max. Charge Mode)	11 Amps	11 Amps	23 Amps	23 Amps	27 Amps	27 Amps
Bulk Charge Voltage	14.4 VDC*	28.8 VDC*	14.4 VDC*	28.8 VDC*	14.4 VDC*	28.8 VDC*
Float Charge Voltage	13.5 VDC*	27.0 VDC*	13.5 VDC*	27.0 VDC*	13.5 VDC*	27.0 VDC*
Equalizing Charge Voltage	16.3 VDC*	32.6 VDC*	16.3 VDC*	32.6 VDC*	16.3 VDC*	32.6 VDC*
Status Panel	Opt. Remote or Link Instruments	Opt. Remote or Link Instruments	Opt. Remote or Link Instruments	Opt. Remote or Link Instruments	Opt. Remote or Link Instruments	Opt. Remote or Link Instruments
Weight	31 lbs.	31 lbs.	52 lbs.	52 lbs.	56 lbs.	56 lbs.
Dimensions	12" x 9.75" x 7"	12" x 9.75" x 7"	12" x 11.5" x 8.75"	12" x 11.5" x 8.75"	12" x 11.5" x 8.75"	12" x 11.5" x 8.75"

\* Adjustable setting with the optional Freedom Remote Control Panel or Link Instrumentation.

fdmceexpadd.pm65  
07/16/97 CLTh



Heart Interface Corporation • 21440 68th Ave. S. • Kent, WA 98032-2416  
Office (253) 872-7225 • FAX (253) 872-3412 • [www.heartinterface.com](http://www.heartinterface.com)