

Warning!!!

This charger is connected to high voltage electricity which can injure or kill. We strongly recommend installation by a qualified marine electrician.

Start Here

Wall Mount
Allow room for ventilation

Mount charger. Allow at least 3" clearance on bottom for cable routing and cooling. Refer to Table 1.



Mounting (Table #1)

Screw length: 1" min
Screw diameter: 1/4" min

Connect Remote Display

Consult remote display instructions. Connect display to provided jack. Note: Jack is not Ethernet.

Connect optional battery temperature sensors

Ring lugs are positioned over power conducting posts on either battery terminal. Connect other end to Easy Change Connector. Observe polarity and bank number. Consult remote battery temperature sensor instructions.



Connect DC Batteries

- Common Ground Only Negative Ground System -
Use only appropriate gauge wire (see table 2) and ring lugs. Remove DC cover. Connect to any of the four banks. Place Red Insulating Caps over positive terminal wires, Black Insulating Caps over the negative terminal wires prior to installing. Tighten to 75 in-lbs. Position Insulating Caps properly over the studs. Secure cable with strain reliefs.

Connection Wire Gauges in AWG (Table #2)

| Model | 120 VAC Input | | | 240 VAC Input | | | DC Output | |
|-------------|---------------|-----|------|---------------|-----|------|-----------|-----|
| | 25' | 50' | 100' | 25' | 50' | 100' | 15' | 25' |
| 93-IMC80-A | 10 | 8 | 8 | 12 | 12 | 10 | 4 | 2 |
| 93-IMC100-A | 6 | 6 | 4 | 10 | 8 | 8 | 2 | 1/0 |
| 93-IMC120-A | 4 | 4 | 4 | 8 | 6 | 6 | 1/0 | 2/0 |

Connect AC Power Source

Warning: HIGH VOLTAGE

Turn off AC power source. Use only appropriate gauge wire (see table 2) and ring lugs. Remove AC cover. Place ring lugs over appropriate terminals. Tighten to 75 in-lbs. Secure cable with strain reliefs. Replace AC & DC covers before turning on AC power.

You are now ready to perform initial configuration. To configure the system, you will need the following for each bank:
• Battery voltage • Battery type • Maximum charging amps
Follow the instructions on the other side of this guide.
Note: The charger will not operate until configured.

Configuring your IMC Charger

You must have your IMC Charger mounted and wired.
See instructions on flip side of this sheet.

Configuration

Turn Charger ON

Enter Setup Mode

Follow Flow chart below

If display is blank, press and hold the ON button for 3 seconds to turn on charger. Wait for startup messages to complete.

Press **↵** to enter setup mode

Use the buttons as described in table 3.

Button Functions active during Setup (Table #3)

Up Arrow ↑ Moves icon up /increases level
Down Arrow ↓ Moves icon down /decreases level
Enter ↵ Moves to next menu
Back Arrow ← Backs up one menu

Bank Summary
Shows nominal voltage for all banks and set battery type.

Individual Summary
Shows battery type, nominal voltage, and max amps

Enable Bank
Enable only banks that are used

Bank Voltage
Select nominal bank voltage

```

Edit  12v  Off
Next  Off  Off
    
```

Edit

```

Edit Bank 1 FB0
Next  24v  20A
    
```

Edit

```

On   Bank 1
Off  Enable
    
```

```

12v  Bank 1
24v  Voltage
    
```

Next

```

F  Display
C  Temperature
    
```

Temperature

Battery Type
AGM, Lead Acid, NiCAD, Gel or Fixed Bank Output mode

```

Battery Type B1
Fixed Output →
    
```

Tip: "B1" indicates Bank 1 is being modified

System will display a scrolling message asking you to verify the correct output voltage. Prior to answering YES, please double check your battery banks output voltage.

```

On   Audio Beep
Off  and Alarm
    
```

Audio

```

On   Password
Off  Enable
    
```

Password
Protects setup (Refer to owner's manual when enabling password)

Customize Voltage
• 1st ..Customize the Bulk/Equalize output voltage
• 2nd ..Customize the Float voltage (n/a in Fixed Bank Output mode)

Bulk Charge Duration
Set the time the charger will stay in Bulk Charge (Equalize for NiCADs)

```

Bulk Voltage B1
12.0  15.5  14.3v
    
```

```

Float Voltage B1
12.0  15.5  13.6v
    
```

```

Bulk Duration B1
0.4  10.0  2.6h
    
```

```

Save Settings
Cancel
    
```

Save Changes

Maximum Amps
Set the maximum amps the bank will supply

Equalize Cycle
Set the number of days between Equalize Cycles

```

Maximum Amps B1
15  40  22A
    
```

```

Equalize Cycle B1
7.0  30.0  13.0d
    
```

Summary
After making your selections, you are returned to the Individual Summary

```

Edit Bank 1 FB0
Next  24v  20A
    
```

• Selecting "Edit" will return to modifying this bank.
• Selecting "Next" will advance to next bank. After the 4th bank, system returns to the Bank Summary page (near start of flow chart)

Normal Operation

The IMC Charger employs a round robin approach to battery charging. During normal operation, each bank is charged individually, with the current bank being charged displayed on the screen along with important bank statistics. All enabled banks are automatically charged one at a time using repeating short charging intervals. The length of the charging interval varies based on the bank's current charging requirements.
* Charger will not overcharge batteries. *

Typical Display during IMC Charger Operation

Bank Number currently being charged

Battery Voltage

```

Battery 28.6v
32c  17A
    
```

Output Amperage

Optional External Temperature Probe measurement