



HOLDS THE COURSE YOU GIVE IT

WOOD FREEMAN[®]
Automatic Pilots
Since 1934

INSTALLATION INSTRUCTIONS

211, 215 & 225

Electronic Control Units

UPGRADE VERSION (4a)

for

Models 10, 11, 11TR, 11A, 11B, 11C, 15, 15A, 15B & 15C



Manufactured by: MMP, Inc. 3033 S Lawrence St Tacoma WA 98409 U.S.A. Printed September 1, 2002

WARNING

A qualified **MAN ON WATCH** is **LEGALLY REQUIRED** whenever vessel is **UNDERWAY**. **WOOD FREEMAN®** Autopilots are **NAVIGATIONAL AIDS** designed (when installed in accordance with instructions furnished), to assist the man on watch to maintain the average course he selects.

These Autopilots and it's accessories are NOT designed and not approved to replace the man on watch, nor relieve him of the responsibilities required by the Federal Collision Regulation a.k.a. "the Rules of the Road" for maintaining a good lookout or for continual safe navigation of the vessel.

Activate autopilot only in open waters, well clear of other vessels, obstructions, or local magnetic attractions, and monitor heading at all times.

Close quarters approaches to external "Local Magnetic Attractions" such as, but not limited to, large iron ore deposits, pipelines, steel vessels, cargoes, bridges or piers, may cause unpredictable deviation of any magnetic compass, including the compass of the autopilot. Therefore, *the AUTOPILOT MUST NOT BE USED FOR STEERING WHEN SUCH CLOSE QUARTERS EXIST.*

Be prepared to resume manual steering and inactivate autopilot immediately in the event that:

- (a) Chosen heading is not maintained.**
- (b) An unscheduled change of heading occurs. (See Par. VIII(3) of Limited Warranty)**
- (c) Any situation arises wherein continuing set course might put own vessel or other vessels in jeopardy.**

MOTOR WIRING:

211/215

Gear Case Forward steering wheel should run to the right with the compass leads not connected.

Gear Case Aft steering wheel should run to the left with the compass leads not connected.

If motor runs the wrong way reverse wires on Left_Out & Right_Out

Remote Master SwitchOption:

All ECU's are equipped with a remote master switch option that will allow the user to turn off/on the ECU from a simple low current toggle switch.

To use this option - Connect a 2 conductor #22 or larger wire to Pin #6 of the upper Input Connector(same as black cat whisker terminal) and to pin #6 of the lower InputConnector or to a ship's ground circuit (must be ground for Input Line voltage). Remove the Master Switch option jumper and set on only one (1) pin as a keeper.

MMP, Inc. offers a Remote Master Switch kit, with includes the Switch plate, Switch and Input Terminal Connector K-211-MS.

Model 82 Dodger:

Catwisker Compass Units - Model 82 style dodger connect the same way as they did before

"H" Series Compass Units - Model 82 dodgers can not be used with the H series Compass interface - See Model 8200 Remote.

Model 8200 Remote Control:

The 211/215 ECU is pre-wired to accept and function with a 8200 Remote Control Handle.

The 8200 Remote control is available with a 50' cord or a 75' cord. The 8200 Remote control will provide:

Dodger control - momentary course deflection with course memory.

Manual push button power steering with course memory.

On the 225 ECU and a Model 15 (flex shaft connection between Compass & Motor Unit), an optional Course Change Soleniod may be install to provide remote course change function with out dis-engaging the clutch.

Remote wiring: Old Plug pin 1 -5 to Upper Input Connector pins 1-5 Color Code: Black, White, Red, Green & Brown

H Series Compass: Contact Your Wood Freeman dealer or MMP, Inc for details to upgrade existing compasses.

The H series compass replaces the Catwiskers with an electronic sensor. Model 11's require installation of a double center contact & double split spring assembly. The compass wire must be replace with a 3 conductor #18 or better wire. Place Jumper JP_C_H from A,B,C & D to E,F,G & H.

Connect Black to pin #6, Red to pin #7 and Green to Pin #8

Upgrading from Model 10, early 11 and TR units

Model 11 series upgrades required for H Series Compass

Model 15 series upgrades required for H Series Compass

In Case of Problems:

Contact MMP, Inc. Have your unit serial number available when you speak to the tech.

Customer service Phone: Toll Free 877-564-5902 Mon.- Fri 8:30AM to 5:00PM (except holidays) Pacific Time. (253) 564 5902

211/215 (v4a) Board Connections

CHECK POLARITY TO AVOID DAMAGE!

Input Voltage Selector
Top 2 pins = 24/32vDC
Bottom 2 pins = 12V only

Course Change Solenoid
Model 225 only

DC Power Top =+Positive/White or Red
Bottom=-Negative/Black

Motor Output

Cut off existing Motor Plug

Motor Connects

Plug wire to

Pin 3 Neg_out

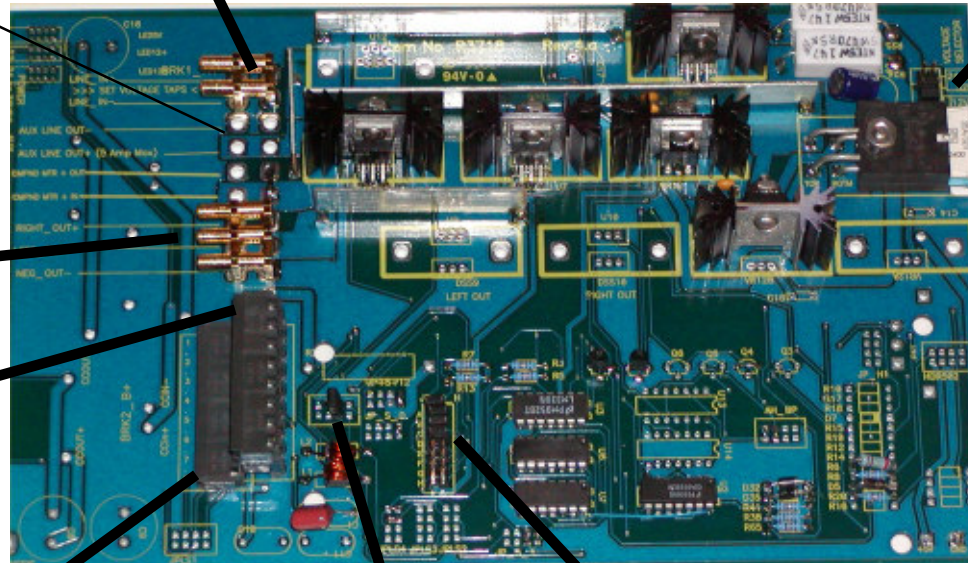
Pin 1 Left_out

Pin 4 Right_out

Refer to instruction sheet

Top Fuse - Motor
12v=25amp
24v=20amp
32v=15amp

Bottom Fuse -
Control Circuit = 5amp



Pin1

Catwisker connections

Pins 6 & 8 Top Row

**Catwisker black on
pin 6**

JP_C_H

Compass type Selector

Catwisker = A,B,C,D

H Series = E,F,G,H

Input Connector

Upper Model 11 & 15 Compass & Remote Control

Lower Pin #6 Remote Master Switch Option

Remote Master Switch

Option Jumper

LIMITED WARRANTY

LIMITED WARRANTY APPLIES TO THESE PRODUCTS OF MMP, INC.
manufactured on or After March 1st, 2000.

- I. The Warrantor is MMP, INC., 3033 S Lawrence St., Tacoma WA. 98409 U.S.A, Tel.: (253) 564-5902 Fax: (253) 565-1811
- II. This Limited Warranty shall extend only to the original purchaser of the equipment.
- III. If the original purchaser of the equipment is a MMP, Inc. approved dealer, then the dealer may transfer the Limited Warranty to his customer by completing a Limited Warranty transfer in full and returning it to the Warrantor, within 30 calendar days of the sale and not more than 90 days from date of original invoice to the dealer.
- IV. This Limited Warranty registration card* must be returned to Warrantor at the address indicated above before there will be any Limited Warranty coverage service for the equipment.
- V. This Limited Warranty applies to all equipment manufactured by or bearing the nameplate of MMP, INC., and Warrantor warrants all such equipment to be free from defects in workmanship or material under normal use and service, provided that all installation instructions and provisions there in have been met.
- VI. This Limited Warranty is in effect for a period of twelve (12) months from the date the equipment is shipped from the factory.
 - 1) If any part of the equipment proves to be defective in workmanship or material, the Warrantor will examine said equipment after it is returned to Warrantor as hereinafter stated; and
 - 2) If the returned equipment is found by the Warrantor to be defective in workmanship or material, the equipment will be repaired or replace at the above address of Warrantor's place of business without charge, except for transportation charges as herein provided; and there will be no option for the purchaser to receive a refund of the purchase price until after a reasonable number of attempts to remedy the defect have been made by the Warrantor.
 3. Only persons expressly authorized in writing by Warrantor shall be permitted to perform Limited Warranty service. Those persons must complete a Limited Warranty authorization form and receive a Limited Warranty control number, before any Limited Warranty service may begin.
- VII.
 1. If purchaser believes any part of the equipment is defective, he shall return said part within twelve (12) months of the date of purchase to the MMP, Inc. factory at the address herein provided.
 2. The expense of transporting the defective equipment to the Warrantor's factory and the expense of returning the repaired or replaced equipment shall be paid in advance by the purchaser.

- VIII. 1. **There are no warranties which extend beyond the description on the face hereof.** This Limited Warranty is expressly in lieu of all other warranties, guarantees, obligations or liabilities expressed or implied, by the Warrantor or its representatives. All statutory or implied warranties, other than title, are hereby expressly excluded. This Limited Warranty will not apply where the purchaser or others have misused or abused or failed to normally service the equipment and Warrantor will not be liable for any damages of any kind caused by such misuse, abuse or lack of service.
2. There is no limited Warranty coverage of any kind for defects or damage due to water immersion or salt water spray, except for equipment which is designated as water resistant, and equipment so designated is warranted as set forth in Paragraph VI herein.
3. There is no Limited Warranty and Warrantor shall not be held liable for any damages incurred as a result of malfunction of any part of Warrantor's products if said damages occur during or as a result of the autopilot being left unattended by the operator. Warrantor will not be liable for any damages arising from collisions with other vessels or objects. The autopilot product, including parts thereof, is designed to assist the operator or the man on watch to navigate accurately by maintaining an average course selected by the man on watch. **The Warrantor's product is not designed to, and does not, replace the man on watch.** Due to the potential of a collision with an object in the vessel's path or of an electrical, mechanical, or hydraulic malfunction of the parts of the autopilot or the associated equipment of the vessel, **the energized pilot should never be left unattended when the vessel is moving.**
4. There is no Limited Warranty for Model Nos. 11E, 15E, 420E, 211,215,225 or 440 if they are used on hydraulic steering gear or installed or operated without properly set limit switches.
5. There is no Limited Warranty for any product manufactured by MMP, Inc. when it is connected to or controlled by any other device not manufactured by or approved in writing by MMP, Inc.
6. The sole remedy available to the purchaser if there is a defect in material or workmanship of the equipment is as set forth in Paragraph VI.
7. The Warrantor assumes no liability for incidental or consequential damages of any kind.
8. This Limited Warranty DOES NOT provide for any field labor or transportation cost related to a Limited Warranty claim.
- IX. The Purchaser's obligations in the event of defect are to:
1. Prepare a written detailed statement of the defect;
 2. Deliver the written statement to Warrantor's factory at the above indicated address;
 3. Deliver or arrange for the delivery of the equipment to Warrantor's factory; and
 4. Arrange for the return of the equipment from Warrantor to purchaser by either agreeing to pick up the equipment at Warrantor's factory or by depositing with Warrantor sufficient funds to pay to have the equipment delivered to purchaser by means of commercial transportation.
- IX. Purchaser hereby agrees that he has read the above and understands that the above Limited Warranty sets forth the exclusive Limited Warranty for this equipment.
- X. If Purchaser does not agree with the terms of this Limited Warranty, he may returned the unopened box(s) as shipped from the warrantor's address, at his expenses for a full refund of the invoice amount, within 30 days of the original invoice date.

MMP, INC. 3033 S Lawrence St, Tacoma WA 98409 U.S.A
Michael W. Freeman. President
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Tel.: (253) 564-5902
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* A copy of the sales invoice or facsimile showing the owners name, address, city, state, zip, phone number and vessel name where equipment installed may be substituted for a "Limited Warranty Card"