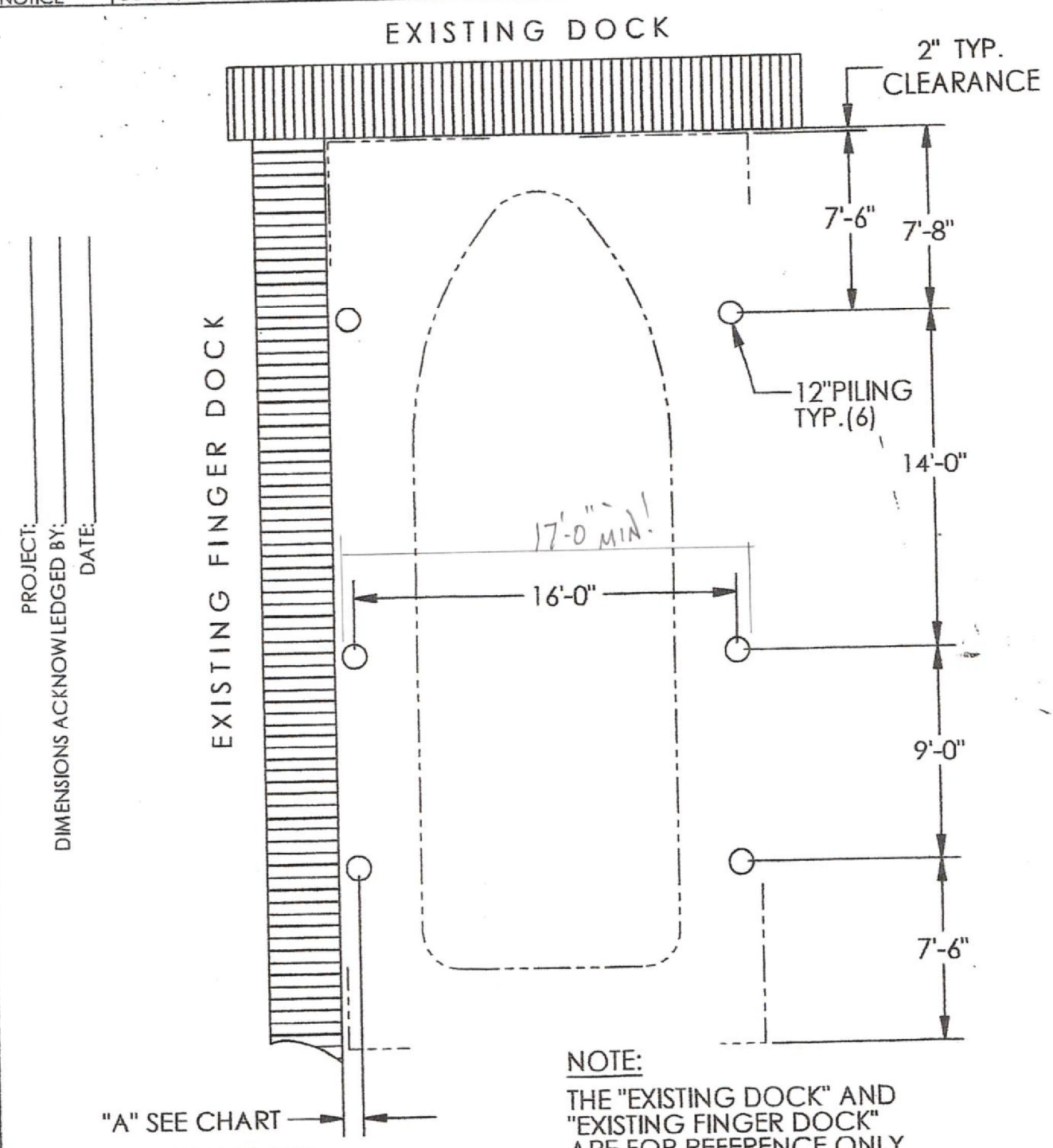


PROJECT:

DIMENSIONS ACKNOWLEDGED BY:

DATE:

NOTE:

THE "EXISTING DOCK" AND "EXISTING FINGER DOCK" ARE FOR REFERENCE ONLY AND MAY NOT APPLY TO YOUR PROJECT.

PILING DIA.	DIM " A"
12"	9"
10"	8"

NO PROFILE™ BOAT LIFTS

DRAWN BY:	DATE	CUSTOMER:
EM	6/12/2013	DESCRIPTION: PILE PLACEMENT DIAGRAM 20K PLATFORM LIFT (15'X38' PLATFORM)
DO NOT SCALE DRAWING		
COMMENTS:		SIZE A / DWG. NO. PPD-20KP / REV. –
		SCALE: / WEIGHT: / SHEET 1 OF 1

CAD FILE: PPD-20KP 6/12/2013

4/13/18

NO PROFILE™
BOAT LIFTS

20K Boat lift, 5K Kayak and 5K Jet ski lifts

No-Profile 2HP Boat Lift

- **2HP Wiring Installation Guide**

Important Contractor Information Enclosed.

Please familiarize yourselves with this document prior to starting the installation:

Table of Contents

Rev. B.2HP (B07082019)

NO PROFILE™ BOAT LIFTS

Electrical Installation Practices

To make the installation a simple procedure, it is imperative that this document is read and understood by the dock builder and the electrician before attempting to wire the lift. If any questions, do not hesitate contacting Way Marine.

Pre Installation Considerations:

The **Control Box Location** is to be determined utilizing the following considerations:

1. Mount the **Control Box** away from other electrical distribution points (10 foot minimum) that may provide interference or cause poor performance with the Remote Control System. Example high voltage and or buildings.

2. Mount within 20 feet of the Main Junction Box (see pages 12 & 13).

3. When possible, mount control Box **"leeward"** of prevailing local weather systems.

4. The selected Control Box location **must** have a clear **"line of sight"** location when operating from the vessel from all directions when departing and or approaching the lift (this is necessary due to the Radio Frequency RF waves that need to communicate with the receiver within the Control Box). Observe for buildings or metal structures that may interfere with the transmission of the Remote Radio Waves.

Note: Contractors with Generators please confirm that the generator is capable of generating and meeting the Power requirements of the Lift being installed. A Generator Power Control Pigtail is available through Way Marine.
(Example 20AMPS X 240V = 4,800 watts).

NO PROFILE™
BOAT LIFTS

Electrical Description & Recommendations:

1. The power requirements for the 2HP "No Profile™" Lift System, whether configured as a "Cradle" or "Platform" are Single Phase, 208-230/240 VAC using **20 AMP Fuse Protection.**

2. The wiring harness kit is comprised of all the Color Coded interconnecting "control" wiring needed to interface between the Manual Control Box and each of the CHU assemblies (Cable Handling Unit Port and Starboard).
   The Lift Kit includes both the Port & Starboard wire harnesses which include two (2) 25ft. or a 25ft. & 75ft. harnesses depending on the type of installation.

The electrical contractor must provide wiring between the load center and the Power Receptacle on the Control Box.

3. The QD (quick disconnect) Power Connector, (J1/P1), as well as the QD Control Connector is provided as part of the Control Box Kit (standard). There is a Power Pedestal included that provides an attractive powder coated mount for the Control Box if desired.

Note: This power pedestal **is not** to be used as a base to incorporate the mounting of the facility load center or additional power distribution. Mounting of additional electrical equipment may lead to poor performance with the "Wireless Control" system due to electrical EMI.

4. After wiring is completed, a system check out is required prior to system delivery signoff.
   Platform lifts may also require that decking be trimmed along the CHU length. This is best performed with the platform deck raised to its maximum position. This can only be done after power is provided.

Control Box Power In 6-Way Connector Wiring Locations

2HP Control Module Power In Connector Wiring Locations		
Connector No.	**Wire Color**	**Wire Gauge**
1	N/A	N/A
2	White	10
3	Black	10
4	Red	10
5	N/A	N/A
6	N/A	N/A
Frame Ground	Green	10

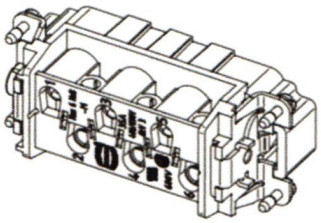
Note: Contractor shall calculate correct Wire Gauge to be used from the facility source to Way Marines Power Wiring Harness, by using a similar Wire Size Calculator as shown in the example on Page 6, which can be found on the WEB or the use of an Electrical Handbook.

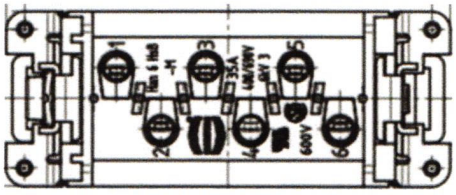
Note: Way Marine assumes No responsibility on the Final Wire Gauge selected to be routed from facility source to WMD Power Harness Based on amperage and distance.

EXAMPLE WIRE SIZE CALCULATOR

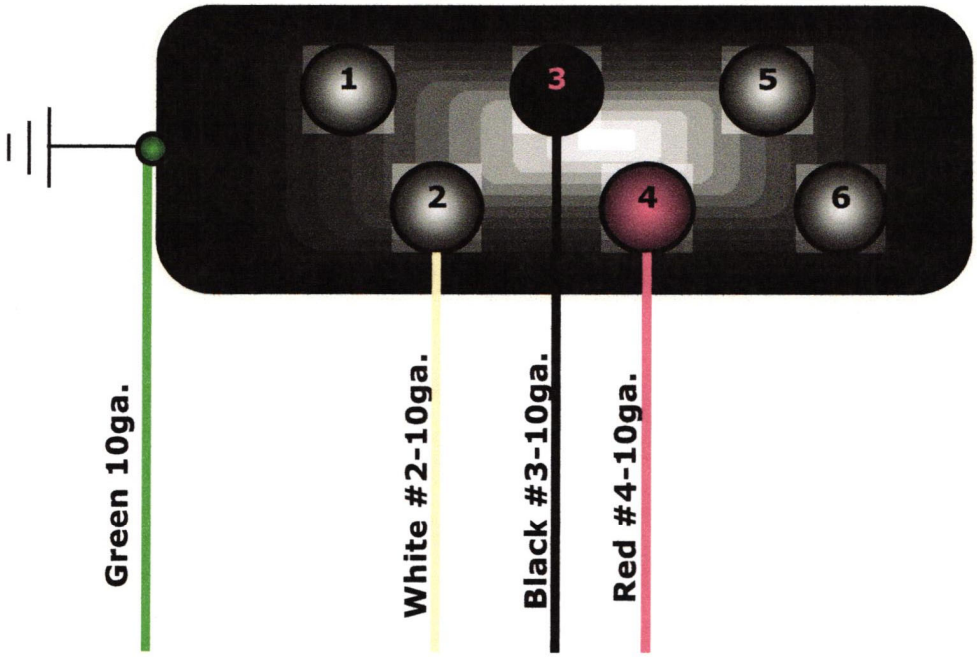
	Input Values	Result	
Source Voltage:	◉ 120 ○ 240 ○ 480		
Number of Phases:	◉ Single-Phase ○ 3-Phase		
*Amperes:			
One Way Distance (feet):			
Allowable Voltage Drop:	◉ 3% of source ○ 5% of source ○ Volts		
Wire Size		Copper	Aluminum

2HP Control Module Power In 6-Way Connector Wiring Locations





Rear View of Power In Connector

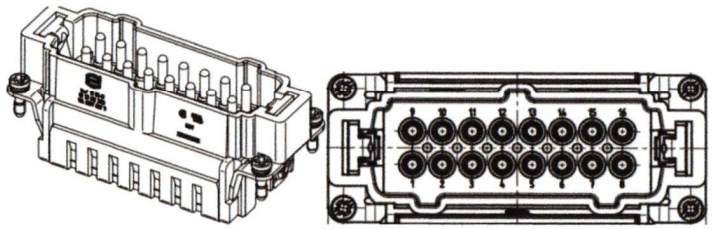


Facility Power
240VAC Single Phase
With Neutral & Ground

20 AMP Fuse Recommended

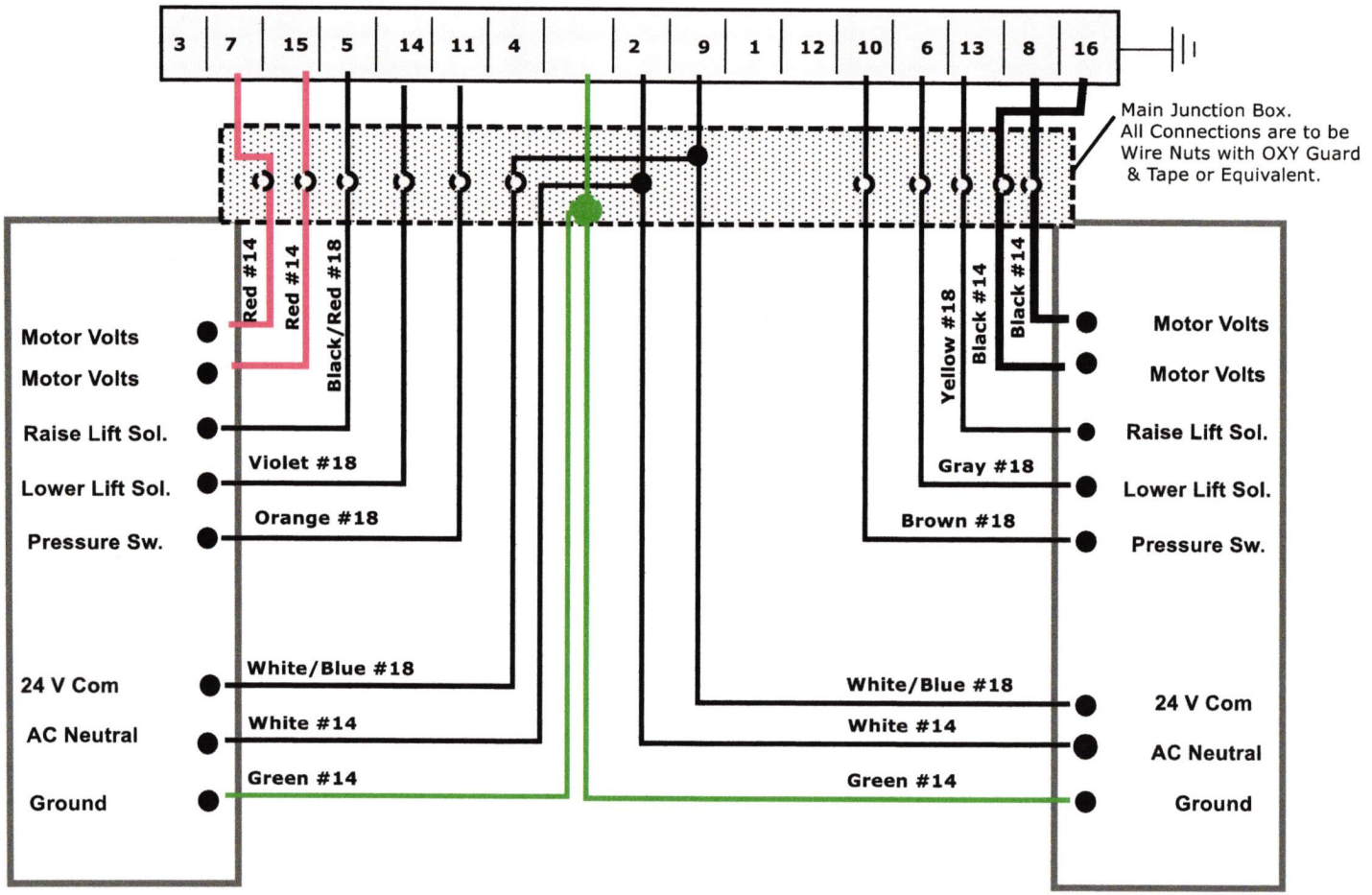
File: 2 & 3hp Control Module Power In 35Amp 6-Way Connector Wiring Rev.A.

PORT HYD Unit Junction Box Function	2 HP Module Power Out & Signal 16-Way Connector Wiring Harness							Starboard HYD Unit Junction Box Function
	Wire Color	Wire Gauge	Connector Term. #	Junction Box Connection Y/N	Connector Term. #	Wire Gauge	Wire Color	
Motor Volts	*Red*	*14*	*2*	*No*	*5*	*14*	*Black*	**Motor Volts**
Motor Volts	*Red*	*14*	*1*	*No*	*4*	*14*	*Black*	**Motor Volts**
Raise Lift Sol.	*Black/Red*	*18*	*15*	*No*	*21*	*18*	*Yellow*	**Raise Lift Sol.**
Lower Lift Sol.	*Violet*	*18*	*22*	*No*	*16*	*18*	*Gray*	**Lower Lift Sol.**
Pressure Sw.	*Orange*	*18*	*19*	*No*	*18*	*18*	*Brown*	**Pressure Sw.**
24V Com	*White/Blue*	*18*	*17*	*Y*	*17*	*18*	*White/Blue*	**24V Com**
AC Neutral	*White*	*14*	*12*	*Y*	*12*	*14*	*White*	**AC Neutral**
Ground	*Green*	*14*	*Housing*	*Y*	*Housing*	*14*	*Green*	**Ground**



Rear View of 2HP Module Power Out & Signal 16-Way Connector

2HP Control Module 16-Way Motor/Signal Connector Wiring



Name: **2-HP Signal Connector Wiring**	Drawing: 2hp-Connector Wiring	Project: WMD 2HP Control Module	Drawn: T.P. Lyon	Notes: WMD/No-Profile Boat Lift Wiring Diagram for Power Out 16-way Connector.	*** Spare locations shown in wiring schematic above is only used in Control Box. Note: Other Locations also Not Used**
Cat: **2-hp Signal-Connector**	Scale: N/A	Date: **08/18/2017**	Rev: **A**		

2HP Electrical Motor Data			
CAT. NO.	G575	**MODEL No. :** RVH56B17F330L	
HORSEPOWER	2 // 1/2		
SPECIFICATION	N/A		
RPM/POLES	1725 // 1425		
VOLTAGE / PHASE	115/SINGLE; 230/SINGLE		
AMPS	115/208: 20A/10.8A; 230 //110/220: 10A/22A		
FRAME	56HC		
FREQUENCY	60HZ / 50HZ		
ENCLOSURE / DEGREE OF PROTECTION	TEFC		
FULL LOAD RPM	N/A		
SERVICE FACTOR	1.0		
INSULATION CLASS	F3		
LOCKED ROTOR AMPS (STARTING)	N/A		
NO LOAD CURRENT	N/A		
EFFICENY / POWER FACTOR	N/A	**KW:** 1.49 //1.12	
DUTY CYCLE	Continuous		
TORQUE	N/A		
SLIP	N/A		
NEMA DESIGN	N	**Code:** L	
MOMENT OF INERTIA	N/A		
MAX. AMBIENT TEMPERATURE	40 DEG. C		
BEARING TYPE	Permanently Lubricated – Ball Bearing		
GREASE TYPE	N/A		
MOUNTING	N/A	**IP:** 43	
ROTATION	N/A		
APPROX. WEIGHT	N/A		
PF	(COS Q) 81 (0.81) // 64 (0.64)	IEC: 34-1 IEC: 34-5	

Transmitter Programming Procedure

Contact Information:

Way Marine: 1-904-819-0128

Adding Transmitters to Your System: (Transmitter may be Yellow in Color).

Open Control Box and locate the Yellow Wireless Receiver box which is located on the inside of the Control Box door.

Follow steps 1 – 6 to program a New Transmitter to the Receiver.

1. Remove Yellow Receiver cover by pressing screws inward and rotating.
2. Press the Receiver Function Button (F) and release. The function LED lights Red. Button is located top right corner of box.
3. Press Button Receiver Select Button (S) and release. The relay LED's light Red. Button is located under the Function Button.
4. Press Buttons 1 and 2 at the same time while keep pressed, the relay LEDs will light Red. The relay LEDs then flash Red 2 times.
5. Release buttons 1 and 2. The relay LEDs flash Red 1 time.

Your Remote is now programmed to communicate with your control Box.

NOTE: If no transmitter is found in approximately 10 seconds, the receiver returns to normal operation.

6. If all is successful, replace Yellow Cover and Close Control Box Door.

Start the Transmitter:

Start the transmitter by pressing any button on the transmitter. The Green LED when the battery capacity is good, Red when the battery capacity is low.

Switch the Transmitter Off:

The transmitter switches off when no buttons are pressed. Transmitter is also equipped with an On/Off switch when not in use for long time periods.

ELECTRICAL DISTRIBUTION 2HP MOTORS
FUNCTIONAL BLOCK DIAGRAM

* SHOWING PORT SIDE TORWARD THE DOCK
* WIRE HARNESS KITS ARE MADE PER THE LIFT TO DOCK ORIENTATION

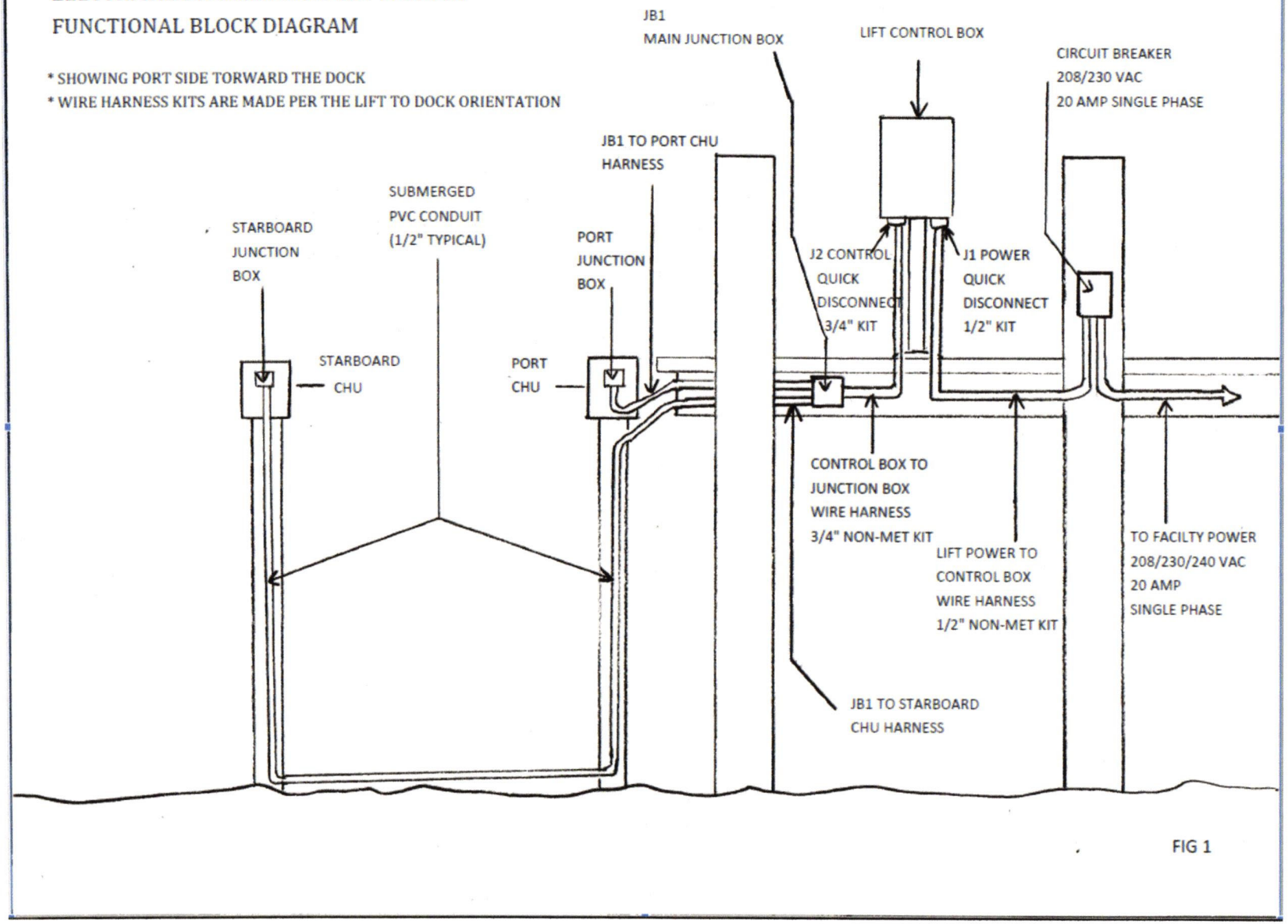


FIG 1

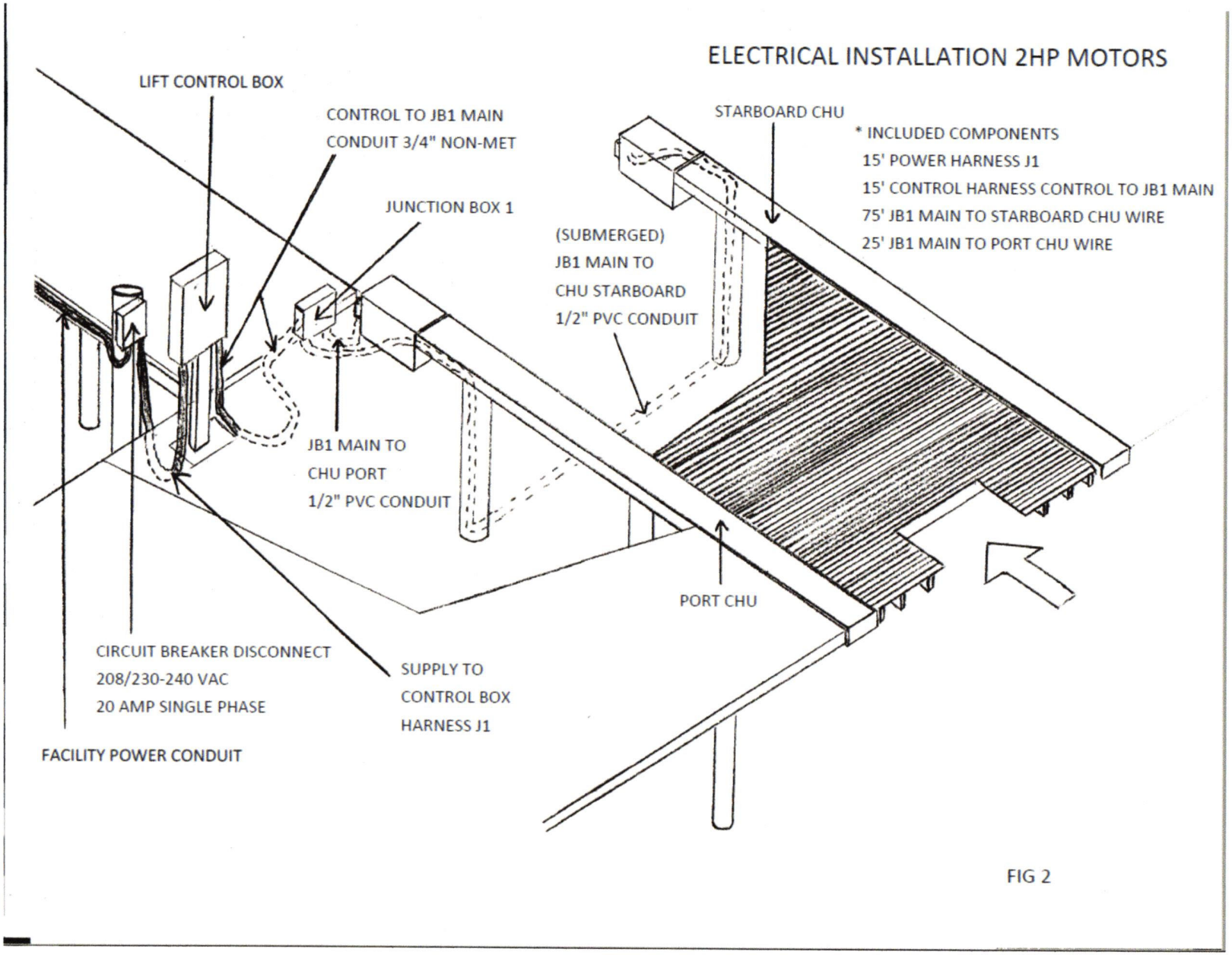
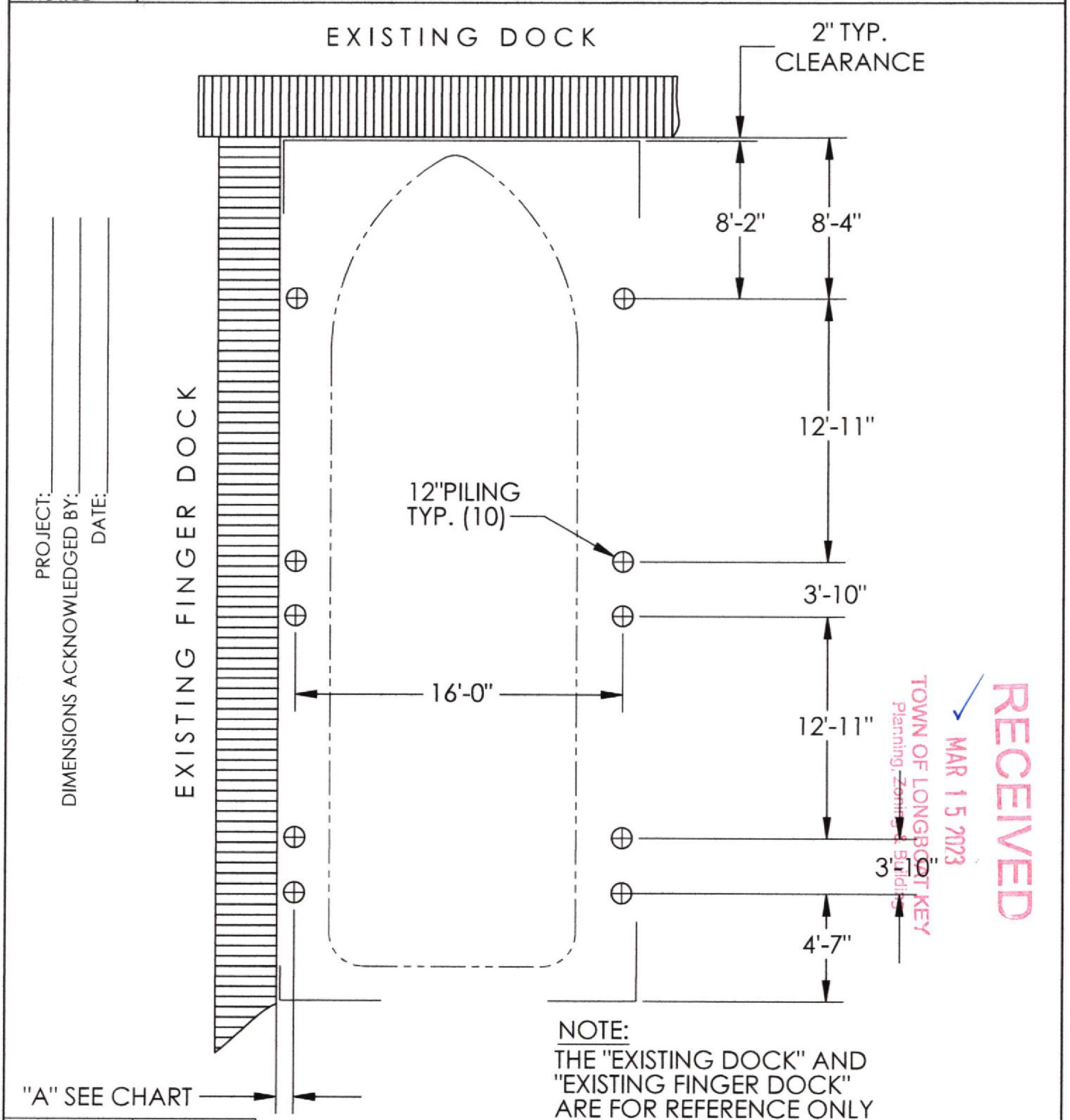

ELECTRICAL INSTALLATION 2HP MOTORS
LIFT CONTROL BOX
CONTROL TO JB1 MAIN
CONDUIT 3/4" NON-MET
JUNCTION BOX 1
STARBOARD CHU
* INCLUDED COMPONENTS
15' POWER HARNESS J1
15' CONTROL HARNESS CONTROL TO JB1 MAIN
75' JB1 MAIN TO STARBOARD CHU WIRE
25' JB1 MAIN TO PORT CHU WIRE
(SUBMERGED)
JB1 MAIN TO
CHU STARBOARD
1/2" PVC CONDUIT
JB1 MAIN TO
CHU PORT
1/2" PVC CONDUIT
PORT CHU
CIRCUIT BREAKER DISCONNECT
208/230-240 VAC
20 AMP SINGLE PHASE
SUPPLY TO
CONTROL BOX
HARNESS J1
FACILITY POWER CONDUIT

FIG 2

2HP Wiring Installation Guide Revision History

1. Initial Release: Rev. I04272018
2. Revision change. Rev. B.2HP. (Rev. B07082019) Note: Changed revision lettering from "I" to "B".
    A. Page(s) 2 & 14. Added 2HP Wiring Installation Guide Revision History page.



PROJECT:

DIMENSIONS ACKNOWLEDGED BY:

DATE:

PILING DIA.	DIM " A"
12"	9"

NOTE:
THE "EXISTING DOCK" AND "EXISTING FINGER DOCK" ARE FOR REFERENCE ONLY AND MAY NOT APPLY TO YOUR PROJECT.

NO PROFILE™ BOAT LIFTS

DRAWN BY:	DATE	CUSTOMER:	
EM	6/12/2013	DESCRIPTION:	PILE PLACEMENT DIAGRAM 30K PLATFORM LIFT (15'X46' PLATFORM)
DO NOT SCALE DRAWING			
COMMENTS:		SIZE: A / DWG. NO.: PPD-30KP	REV.: _
		SCALE: / WEIGHT:	SHEET 1 OF 1

CAD FILE: PPD-30KP 6/12/2013

NO PROFILE™
BOAT LIFTS

No-Profile 5HP Boat Lift -30K BOAT LIFT

- **5HP Wiring Installation Guide**

Important Contractor Information Enclosed.
Please familiarize yourselves with this document prior to starting the installation:

Table of Contents

NO PROFILE™ BOAT LIFTS

Electrical Installation Practices

To make the installation a simple procedure, it is imperative that this document is read and understood by the dock builder and the electrician before attempting to wire the lift. If any questions, do not hesitate contacting Way Marine.

Pre Installation Considerations:

The **Control Box Location (CB)** is to be determined utilizing the following considerations:

1. Mount the **Control Box** away from other electrical distribution points (10 foot minimum) that may provide interference or cause poor performance with the Remote Control System. Example high voltage and or buildings.

2. Mount Control Box within 20 feet of the Main Junction Box. (See pages 14 & 15).

3. When possible, mount Control Box **"Leeward"** of prevailing local weather systems.

4. The selected Control Box location **must** have a clear **"line of sight"** to the Control Box when operating from the vessel from all directions when departing and or approaching the lift (this is necessary due to the Radio Frequency RF waves that need to communicate with the receiver within the Control Box). Observe for buildings or metal structures that may interfere with the transmission of the Remote Radio Waves.

   Note: Contractors with Generators please confirm that the generator is capable of generating and meeting the Power requirements of the Lift being installed. A Generator Power Control Pigtail is available through 4,400 watts). Example 60AMPS X 240V = 14,400 watts).

NO PROFILE™
BOAT LIFTS

Electrical Description & Recommendations:

1. The power requirements for the 5HP "No Profile™" Lift System, whether configured as a "Cradle" or "Platform" are Single Phase, 208-230/240 VAC using **60 AMP Fuse Protection.**

2. The wiring harness kit is comprised of all the Color Coded interconnecting "control" wiring needed to interface between the Manual Control Box and each of the CHU assemblies (Cable Handling Unit Port and Starboard).
   The Lift Kit includes both the Port & Starboard wire harnesses which include two (2) 25ft. or a 25ft. & 75ft. harnesses depending on the type of installation.

3. **The electrical contractor must provide wiring between the load center and the Power Receptacle on the Control Box.**

4. The QD (quick disconnect) Power Connector, (J1/P1), as well as the QD Control Connector is provided as part of the Control Box Kit (standard). There is a Power Pedestal included that provides an attractive powder coated mount for the Control Box if desired.

Note: This power pedestal **is not** to be used as a base to incorporate the mounting of the facility load center or additional power distribution. Mounting of additional electrical equipment may lead to poor performance with the "Wireless Control" system due to electrical EMI.

5. After wiring is completed, a system check out is required prior to system delivery signoff.
   Platform lifts may also require that decking be trimmed along the CHU length. This is best performed with the platform deck raised to its maximum position. This can only be done after power is provided.

POWER IN 5HP CONNECTOR

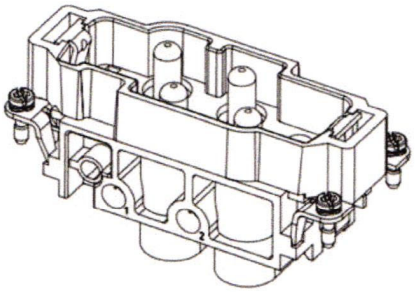
Control Box 4-Way Power In Connector Wiring Locations

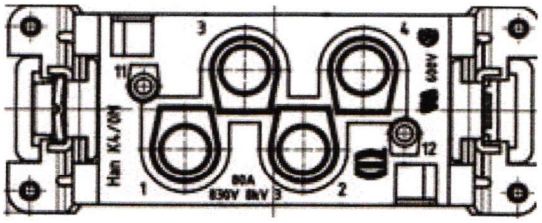
5HP Control Module Power In Connector Wiring Locations		
Connector No.	**Wire Color**	**Wire Gauge**
1	N/A	N/A
2	White	8
3	Black	8
4	Red	8
Frame Ground	Green	10

Note: Contractor shall calculate correct Wire Gauge to be used from the facility source to Way Marines Power Wiring Harness, by using a similar Wire Size Calculator as shown in the example ON Page 7, which can be found on the WEB or the use of an Electrical Handbook.

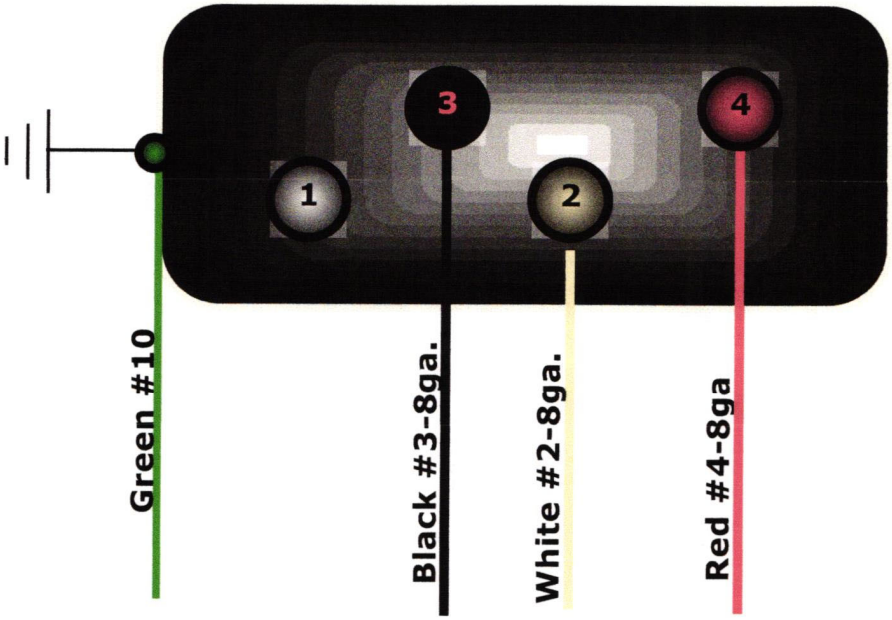
Note: Way Marine assumes No responsibility on the Final Wire Gauge selected to be routed from facility source to WMD Power Harness based on distance and amperage.

5HP Control Module Power In Connector Wiring Locations





Rear View of Power In Connector



Facility Power
240VAC Single Phase
With Neutral & Ground

60 AMP Fuse Recommended

File: 5hp Control Module Power In 80 Amp 4-Way Connector Wiring Rev.A.

EXAMPLE WIRE SIZE CALCULATOR

	Input Values	Result
Source Voltage:	◉ 120 ○ 240 ○ 480	
Number of Phases:	◉ Single-Phase ○ 3-Phase	
*Amperes:		
One Way Distance (feet):		
Allowable Voltage Drop:	◉ 3% of source ○ 5% of source ○ Volts	
Wire Size		Copper / Aluminum

POWER OUT 5HP CONNECTOR

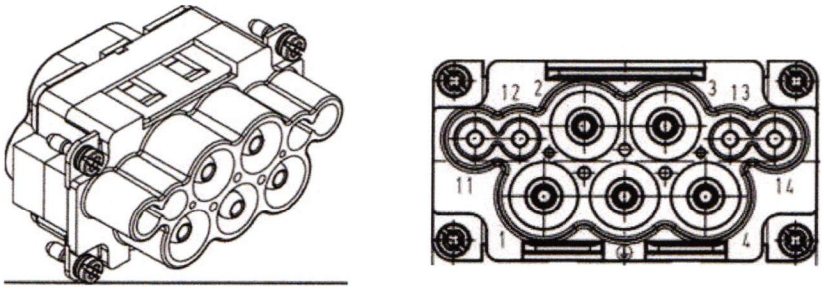
Control Box 9-Way Power Out Connector Wiring Locations

5HP Control Module Power In Connector Wiring Locations		
Connector No.	**Wire Color**	**Wire Gauge**
1	Red	10
2	Black	10
3	Black	10
4	Red	10
11	N/A	N/A
12	N/A	N/A
13	N/A	N/A
14	N/A	N/A
Frame Ground Center Terminal	Green	10

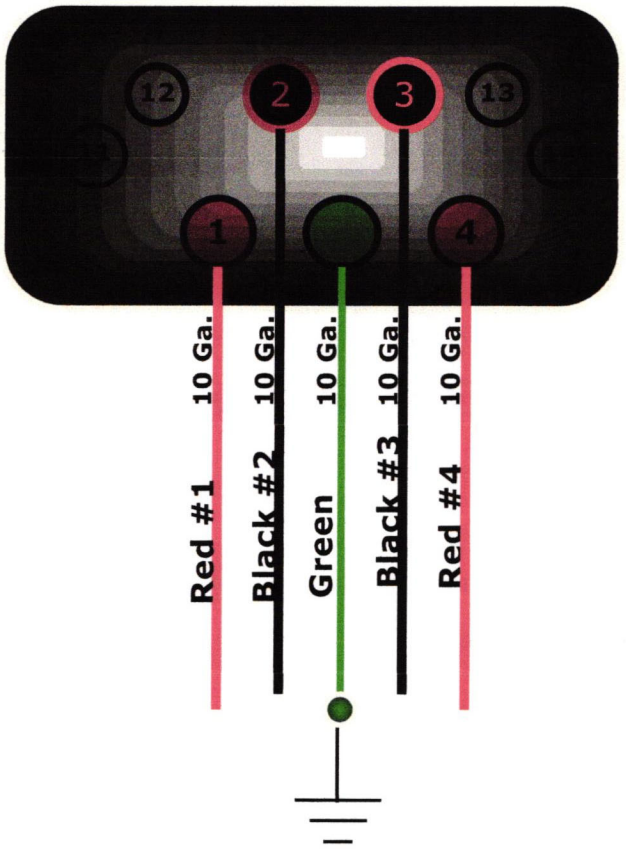
Note N/A = Not Used.

Note: Contractor shall calculate correct Wire Gauge to be used from the facility source to Way Marines Power Wiring Harness, by using a similar Wire Size Calculator as shown in the example ON Page 4 which can be found on the WEB or the use of an Electrical Handbook.

5HP Control Module Power Out
9-Way Connector Wiring Locations



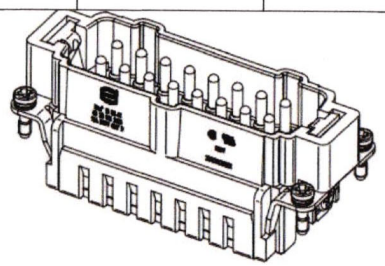
Rear View of Power In Connector

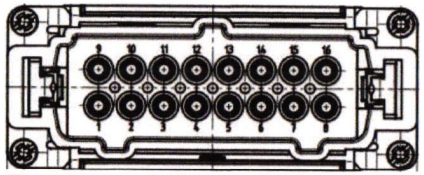


Facility Power
240VAC Single Phase
With Neutral & Ground

File: 5hp Control Module Power Out 64Amp 9-Way Connector Wiring

Port HYD Unit Junction Box Function	5 HP Module Power Out & Control 16-Way Connector Wiring Harness							Starboard HYD Unit Junction Box Function
	Wire Color	*Wire Gauge*	*Connector Term. #*	*Junction Box Connection Y/N*	*Connector Term. #*	*Wire Gauge*	*Wire Color*	
Raise Lift Sol.	*Black/Red*	*18*	*5*	*No*	*13*	*18*	*Yellow*	**Raise Lift Sol.**
Lower Lift Sol.	*Violet*	*18*	*14*	*No*	*6*	*18*	*Gray*	**Lower Lift Sol.**
Pressure Sw.	*Orange*	*18*	*11*	*No*	*10*	*18*	*Brown*	**Pressure Sw.**
24V Com.	*White/Blue*	*18*	*9*	*Yes*	*9*	*18*	*White/Blue*	**24V Com.**
AC Neutral.	*White*	*14*	*2*	*Yes*	*2*	*14*	*White*	**AC Neutral.**
Ground.	*Green*	*14*	*Housing*	*Yes*	*Housing*	*14*	*Green*	**Ground.**

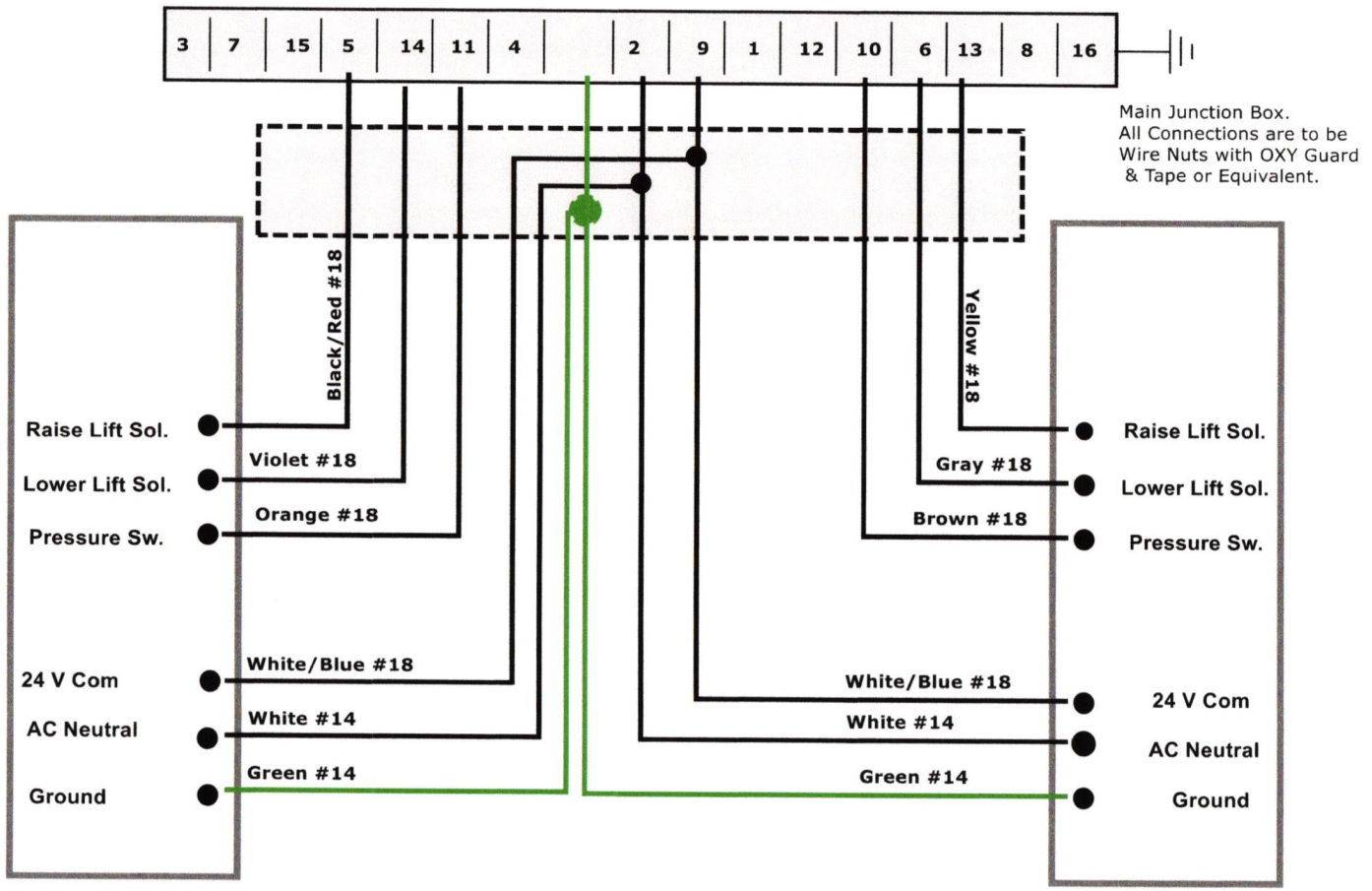




Rear View of 16-Way Signal Connector

File: 5 HP Module Power Out & Control 16-Way Connector Wiring Harness Rev.A

5 HP Control Module 16-Way Signal Connector Wiring



Name: 5-HP Signal Connector Wiring	Drawing: 3hp-Connector Wiring	Project: WMD 3HP Control Module	Drawn: T.P. Lyon	Notes: WMD/No-Profile Boat Lift Wiring Diagram for Power Out 18-way Connector.	* Spare location shown in wiring schematic above is only used in Control Box. Note: Other Locations also Not Used
Cat: 5-hp Signal-Connector	Scale: N/A	Date: 08/07/2017	Rev: A		

Electrical Motor Data

Record # 10712 - Typical performance - not guaranteed values

Winding: 36WGW279-R001	**Type:** 3646LC	**Enclosure:** TEFC

Nameplate Data				230 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	5			Full Load Torque	15 LB-FT
Volts	230			Start Configuration	direct on line
Full Load Amps	23			Breakdown Torque	43 LB-FT
R.P.M.	1725			Pull-up Torque	36 LB-FT
Hz	60	Phase	1	Locked-rotor Torque	46 LB-FT
NEMA Design Code	L	KVA Code	J	Starting Current	163 A
Service Factor (S.F.)	1			No-load Current	10 A
NEMA Nom. Eff.	80	Power Factor	88	Line-line Res. @ 25°C	0.353 Ω A Ph 2.23 Ω B Ph
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	97°C

Load Characteristics 230 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	54	71	85	89	89	91
Efficiency	65	76.1	81.5	80.8	79.3	75.5
Speed	1786	1769	1750	1732	1713	1687
Line amperes	12.7	14	18.5	22.6	27.3	33.5

Transmitter (FOB) Programming Procedure

Contact Information:

Way Marine: 1-904-819-0128

Adding Transmitters to Your System: (Transmitter may be Yellow in Color).

Open Control Box and locate the Yellow Wireless Receiver box which is located on the inside of the Control Box door.

Follow steps 1 – 6 to program a New Transmitter to the Receiver.

1. Remove Yellow Receiver cover by pressing screws inward and rotating.
2. Press the Receiver Function Button (F) and release. The function LED lights Red. Button is located top right corner of box.
3. Press Button Receiver Select Button (S) and release. The relay LED's light Red. Button is located under the Function Button.
4. Press Buttons 1 and 2 at the same time while keep pressed, the relay LEDs will light Red. The relay LEDs then flash Red 2 times.
5. Release buttons 1 and 2. The relay LEDs flash Red 1 time.

Your Remote is now programmed to communicate with your control Box.

NOTE: If no transmitter is found in approximately 10 seconds, the receiver returns to normal operation.

6. If all is successful, replace Yellow Cover and Close Control Box Door.

Start the Transmitter:

Start the transmitter by pressing any button on the transmitter. The Green LED when the battery capacity is good, Red when the battery capacity is low.

Switch the Transmitter Off:

The transmitter switches off when no buttons are pressed. Transmitter is also equipped with an On/Off switch when not in use.

ELECTRICAL DISTRIBUTION 5HP MOTORS
FUNCTIONAL BLOCK DIAGRAM

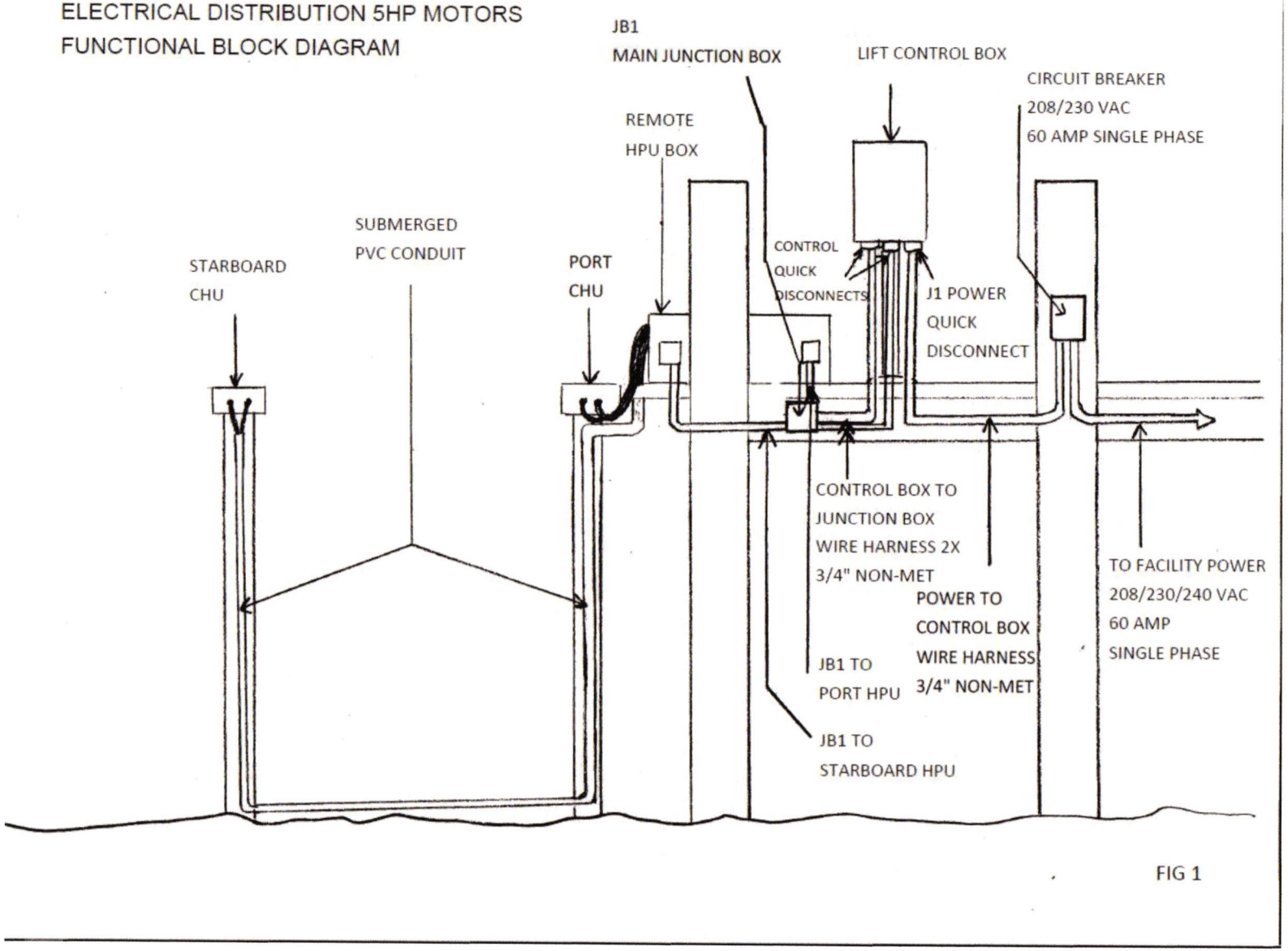
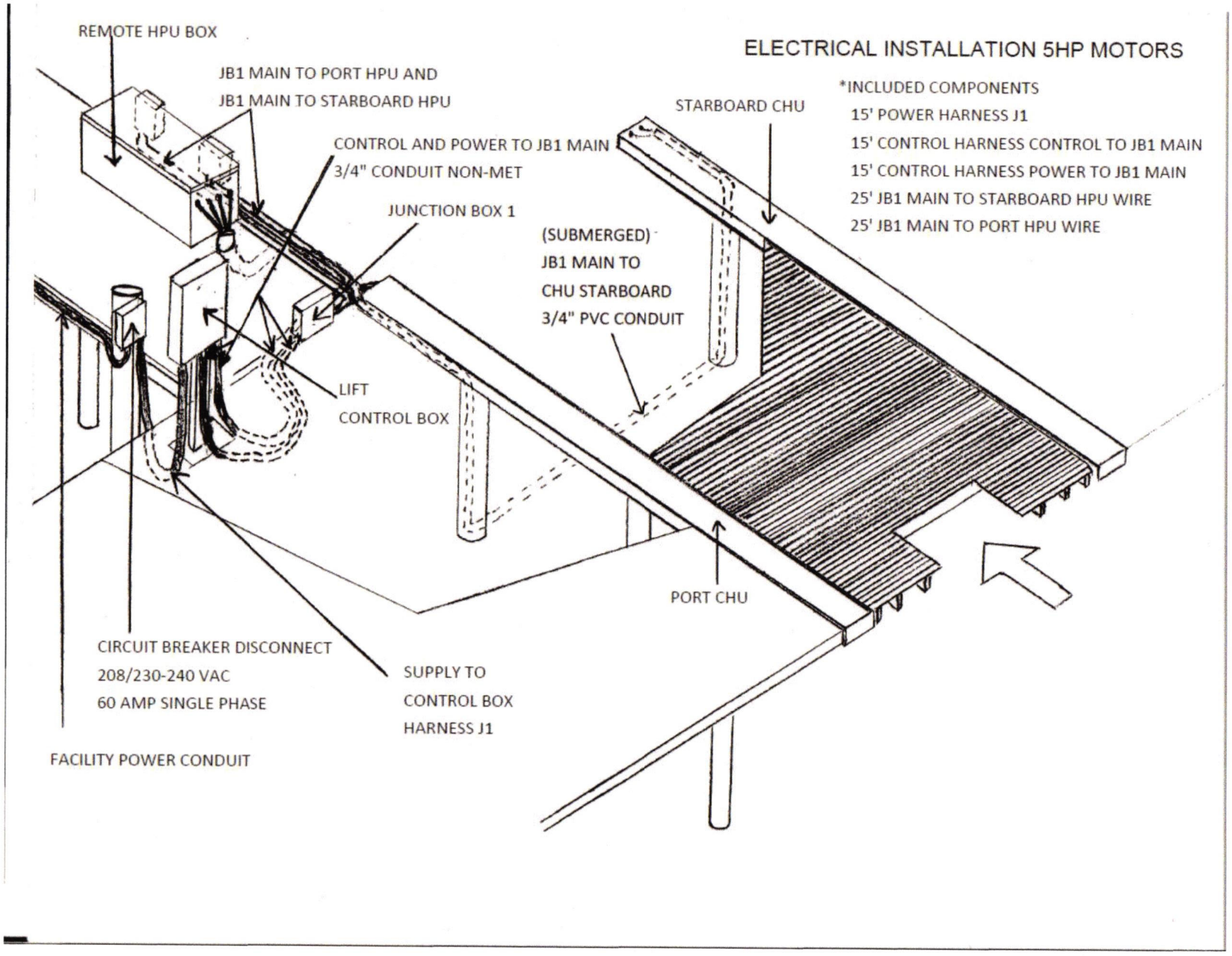
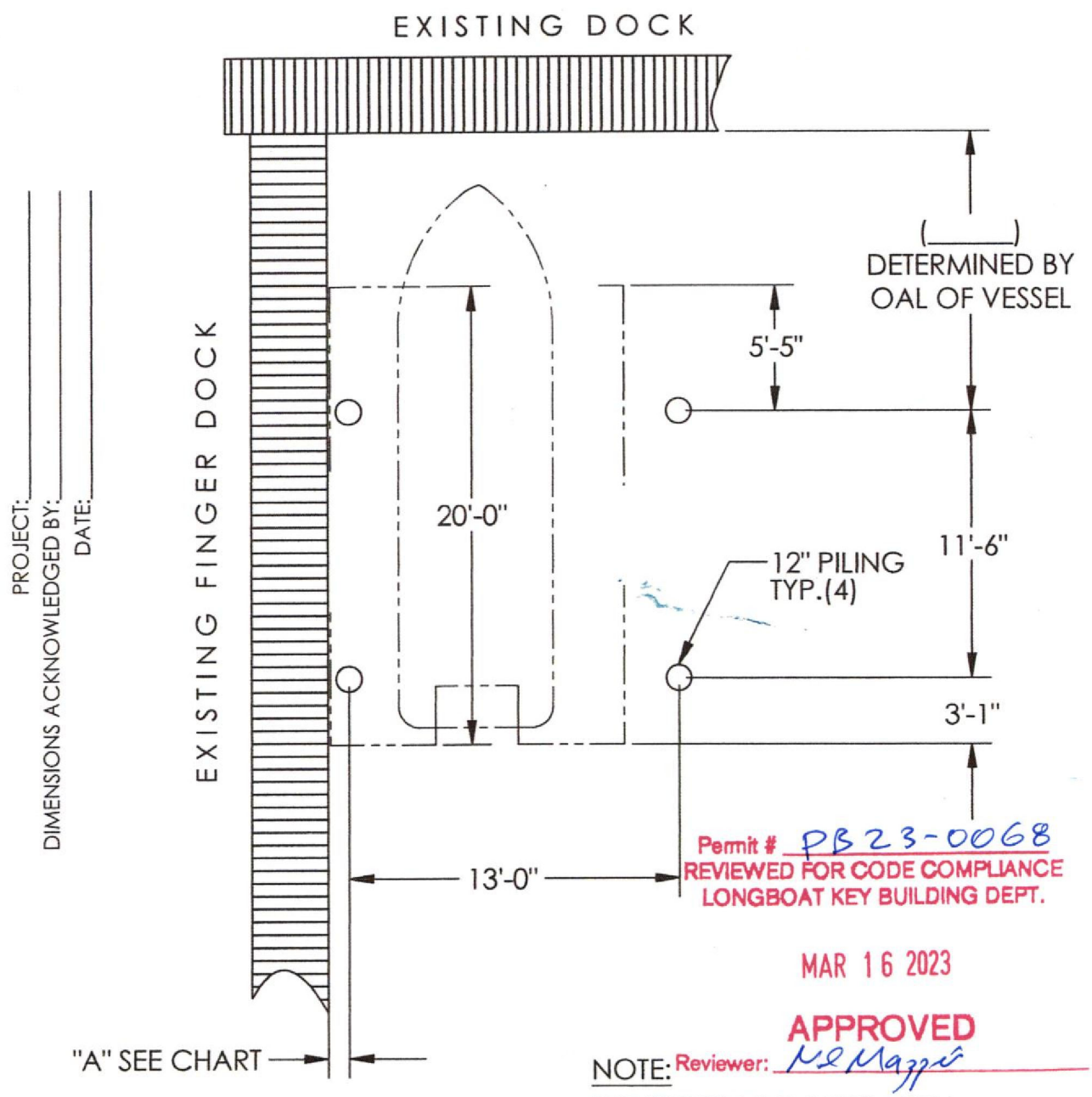


FIG 1


ELECTRICAL INSTALLATION 5HP MOTORS
*INCLUDED COMPONENTS
15' POWER HARNESS J1
15' CONTROL HARNESS CONTROL TO JB1 MAIN
15' CONTROL HARNESS POWER TO JB1 MAIN
25' JB1 MAIN TO STARBOARD HPU WIRE
25' JB1 MAIN TO PORT HPU WIRE
REMOTE HPU BOX
JB1 MAIN TO PORT HPU AND
JB1 MAIN TO STARBOARD HPU
CONTROL AND POWER TO JB1 MAIN
3/4" CONDUIT NON-MET
JUNCTION BOX 1
STARBOARD CHU
(SUBMERGED)
JB1 MAIN TO
CHU STARBOARD
3/4" PVC CONDUIT
LIFT
CONTROL BOX
PORT CHU
CIRCUIT BREAKER DISCONNECT
208/230-240 VAC
60 AMP SINGLE PHASE
SUPPLY TO
CONTROL BOX
HARNESS J1
FACILITY POWER CONDUIT

5HP Wiring Installation Guide Revision History

1. Initial Release: I 04272018
2. Revision change. Rev. B.5HP (Rev. B07082019) Note: Changed revision lettering from "I" to "B".
    A. Page 8. Removed Neutral (white) 14Ga. circuits in connector locations 11 & 12.
    B. Page 9. Removed Neautral circuits on 5HP Control Module Power out 9-Way Connector location.
    C. Pages 14 & 15 Changed Electrical Drawings to reflect changes above.
    D. Page(s) 2 & 16. Added 5HP Wiring Installation Guide Revision History page.



Permit # PB23-0068
REVIEWED FOR CODE COMPLIANCE
LONGBOAT KEY BUILDING DEPT.

MAR 16 2023

APPROVED

NOTE: Reviewer: M. Mazzè

THE "EXISTING DOCK" AND "EXISTING FINGER DOCK" ARE FOR REFERENCE ONLY AND MAY NOT APPLY TO YOUR PROJECT.

PILING DIA.	DIM " A"
12"	9"
10"	8"

NO PROFILE™ BOAT LIFTS

DRAWN BY:	DATE	CUSTOMER:
EM	12/9/2013	DESCRIPTION: PILE PLACEMENT DIAGRAM
DO NOT SCALE DRAWING		V 5K PLATFORM LIFT (12'X20' PLATFORM)
COMMENTS:		SIZE A / DWG. NO. PPD-5KP-12X20 / REV. –
		SCALE: / WEIGHT: / SHEET 1 OF 1

CAD FILE: PPD-5KP-12X20 12/9/2013

BOAT

NO PROFILE™
BOAT LIFTS

No-Profile 5HP Boat Lift

- **5HP Wiring Installation Guide**

Important Contractor Information Enclosed.
Please familiarize yourselves with this document prior to starting the installation:

Table of Contents

NO PROFILE™ BOAT LIFTS

Electrical Installation Practices

To make the installation a simple procedure, it is imperative that this document is read and understood by the dock builder and the electrician before attempting to wire the lift. If any questions, do not hesitate contacting Way Marine.

Pre Installation Considerations:

The **Control Box Location (CB)** is to be determined utilizing the following considerations:

1. Mount the **Control Box** away from other electrical distribution points (10 foot minimum) that may provide interference or cause poor performance with the Remote Control System. Example high voltage and or buildings.

2. Mount Control Box within 20 feet of the Main Junction Box. (See pages 14 & 15).

3. When possible, mount Control Box **"Leeward"** of prevailing local weather systems.

4. The selected Control Box location **must** have a clear **"line of sight"** to the Control Box when operating from the vessel from all directions when departing and or approaching the lift (this is necessary due to the Radio Frequency RF waves that need to communicate with the receiver within the Control Box). Observe for buildings or metal structures that may interfere with the transmission of the Remote Radio Waves.

   Note: Contractors with Generators please confirm that the generator is capable of generating and meeting the Power requirements of the Lift being installed. A Generator Power Control Pigtail is available through 4,400 watts). Example 60AMPS X 240V = 14,400 watts).

NO PROFILE™ BOAT LIFTS

Electrical Description & Recommendations:

1. The power requirements for the 5HP "No Profile™" Lift System, whether configured as a "Cradle" or "Platform" are Single Phase, 208-230/240 VAC using **60 AMP Fuse Protection.**

2. The wiring harness kit is comprised of all the Color Coded interconnecting "control" wiring needed to interface between the Manual Control Box and each of the CHU assemblies (Cable Handling Unit Port and Starboard).
   The Lift Kit includes both the Port & Starboard wire harnesses which include two (2) 25ft. or a 25ft. & 75ft. harnesses depending on the type of installation.

3. **The electrical contractor must provide wiring between the load center and the Power Receptacle on the Control Box.**

4. The QD (quick disconnect) Power Connector, (J1/P1), as well as the QD Control Connector is provided as part of the Control Box Kit (standard). There is a Power Pedestal included that provides an attractive powder coated mount for the Control Box if desired.

Note: This power pedestal **is not** to be used as a base to incorporate the mounting of the facility load center or additional power distribution. Mounting of additional electrical equipment may lead to poor performance with the "Wireless Control" system due to electrical EMI.

5. After wiring is completed, a system check out is required prior to system delivery signoff.
   Platform lifts may also require that decking be trimmed along the CHU length. This is best performed with the platform deck raised to its maximum position. This can only be done after power is provided.

POWER IN 5HP CONNECTOR

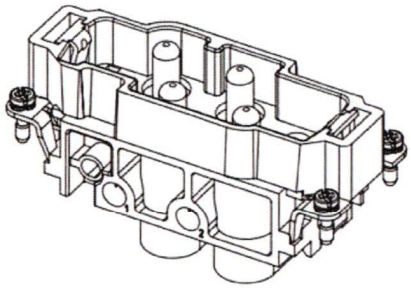
Control Box 4-Way Power In Connector Wiring Locations

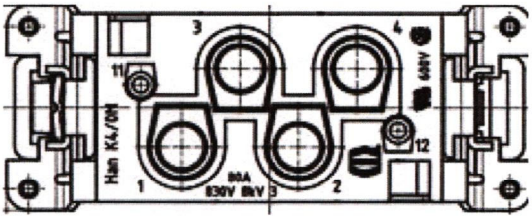
5HP Control Module Power In Connector Wiring Locations		
Connector No.	**Wire Color**	**Wire Gauge**
1	N/A	N/A
2	White	8
3	Black	8
4	Red	8
Frame Ground	Green	10

Note: Contractor shall calculate correct Wire Gauge to be used from the facility source to Way Marines Power Wiring Harness, by using a similar Wire Size Calculator as shown in the example ON Page 7, which can be found on the WEB or the use of an Electrical Handbook.

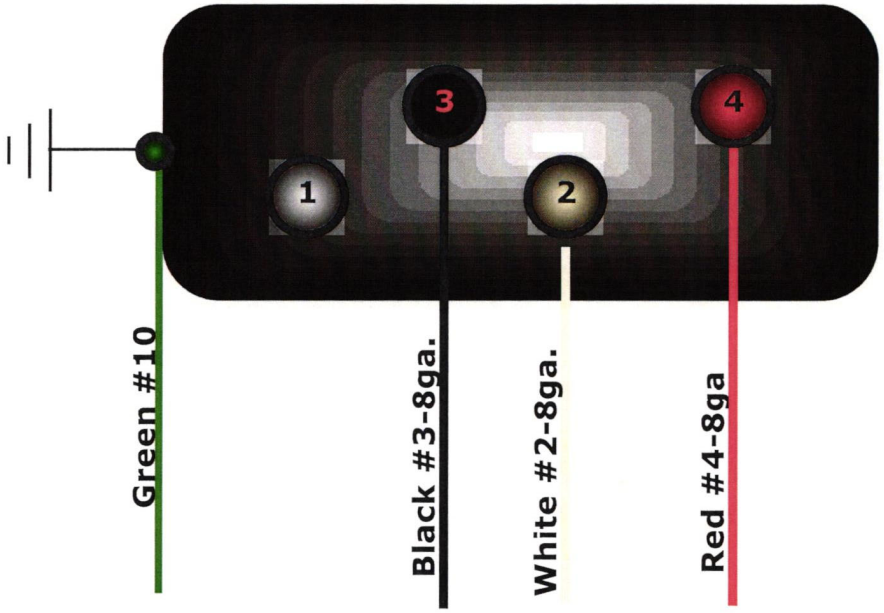
Note: Way Marine assumes No responsibility on the Final Wire Gauge selected to be routed from facility source to WMD Power Harness based on distance and amperage.

5HP Control Module Power In Connector Wiring Locations





Rear View of Power In Connector



Facility Power
240VAC Single Phase
With Neutral & Ground

60 AMP Fuse Recommended

File: 5hp Control Module Power In 80 Amp 4-Way Connector Wiring Rev.A.

EXAMPLE WIRE SIZE CALCULATOR

	Input Values	Result	
Source Voltage:	◉ 120 ○ 240 ○ 480		
Number of Phases:	◉ Single-Phase ○ 3-Phase		
*Amperes:			
One Way Distance (feet):			
Allowable Voltage Drop:	◉ 3% of source ○ 5% of source ○ Volts		
Wire Size		Copper	Aluminum

POWER OUT 5HP CONNECTOR

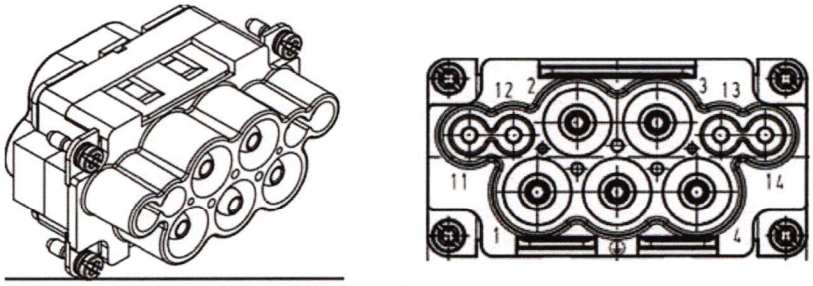
Control Box 9-Way Power Out Connector Wiring Locations

5HP Control Module Power In Connector Wiring Locations		
Connector No.	**Wire Color**	**Wire Gauge**
1	Red	10
2	Black	10
3	Black	10
4	Red	10
11	N/A	N/A
12	N/A	N/A
13	N/A	N/A
14	N/A	N/A
Frame Ground Center Terminal	Green	10

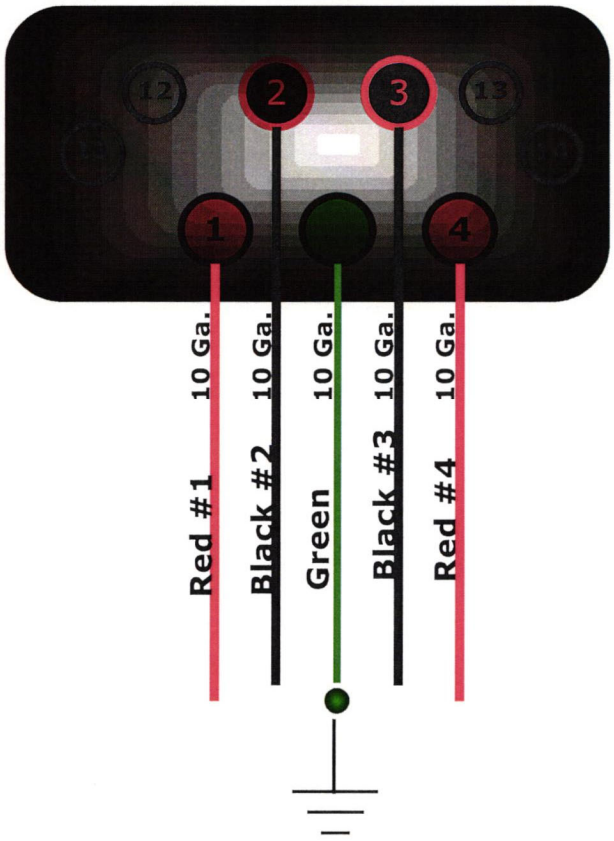
Note N/A = Not Used.

Note: Contractor shall calculate correct Wire Gauge to be used from the facility source to Way Marines Power Wiring Harness, by using a similar Wire Size Calculator as shown in the example ON Page 4 which can be found on the WEB or the use of an Electrical Handbook.

5HP Control Module Power Out
9-Way Connector Wiring Locations



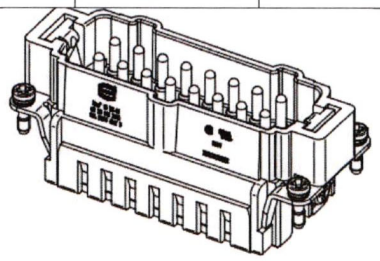
Rear View of Power In Connector

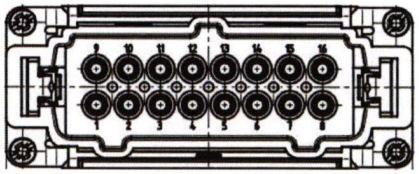


Facility Power
240VAC Single Phase
With Neutral & Ground

File: 5hp Control Module Power Out 64Amp 9-Way Connector Wiring

Port HYD Unit Junction Box Function	5 HP Module Power Out & Control 16-Way Connector Wiring Harness							Starboard HYD Unit Junction Box Function
	Wire Color	*Wire Gauge*	*Connector Term. #*	*Junction Box Connection Y/N*	*Connector Term. #*	*Wire Gauge*	*Wire Color*	
Raise Lift Sol.	*Black/Red*	*18*	*5*	*No*	*13*	*18*	*Yellow*	**Raise Lift Sol.**
Lower Lift Sol.	*Violet*	*18*	*14*	*No*	*6*	*18*	*Gray*	**Lower Lift Sol.**
Pressure Sw.	*Orange*	*18*	*11*	*No*	*10*	*18*	*Brown*	**Pressure Sw.**
24V Com.	*White/Blue*	*18*	*9*	*Yes*	*9*	*18*	*White/Blue*	**24V Com.**
AC Neutral.	*White*	*14*	*2*	*Yes*	*2*	*14*	*White*	**AC Neutral.**
Ground.	*Green*	*14*	*Housing*	*Yes*	*Housing*	*14*	*Green*	**Ground.**

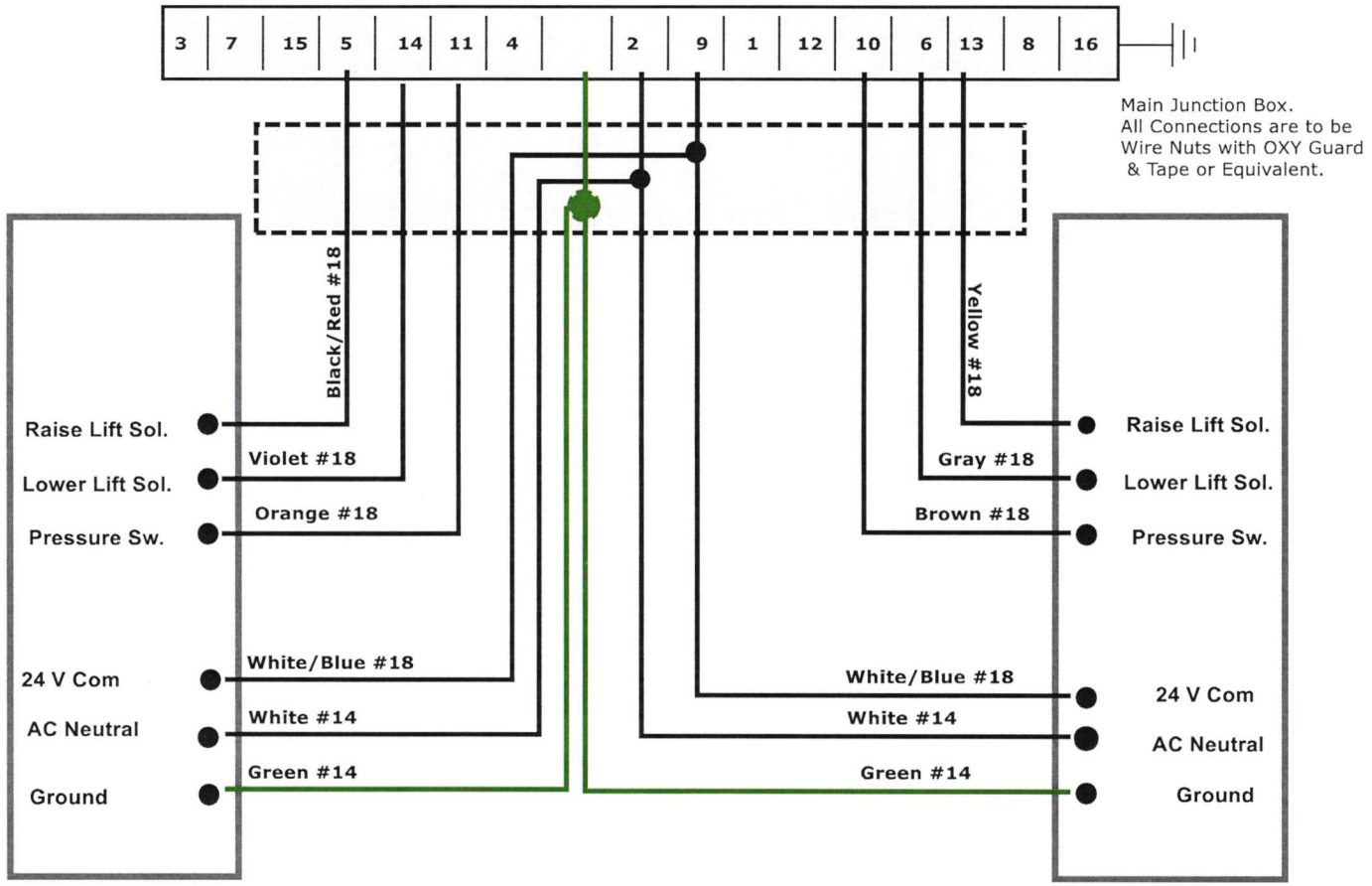




Rear View of 16-Way Signal Connector

File: 5 HP Module Power Out & Control 16-Way Connector Wiring Harness Rev.A

5 HP Control Module 16-Way Signal Connector Wiring



Name: 5-HP Signal Connector Wiring	Drawing: 3hp-Connector Wiring	Project: WMD 3HP Control Module	Drawn: T.P. Lyon	Notes: WMD/No-Profile Boat Lift Wiring Diagram for Power Out 18-way Connector.	* Spare location shown in wiring schematic above is only used in Control Box. Note: Other Locations also Not Used
Cat: 5-hp Signal-Connector	Scale: N/A	Date: 08/07/2017	Rev: A		

Electrical Motor Data

Record # 10712 - Typical performance - not guaranteed values

Winding: 36WGW279-R001	**Type:** 3646LC	**Enclosure:** TEFC

Nameplate Data				230 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	5			Full Load Torque	15 LB-FT
Volts	230			Start Configuration	direct on line
Full Load Amps	23			Breakdown Torque	43 LB-FT
R.P.M.	1725			Pull-up Torque	36 LB-FT
Hz	60	Phase	1	Locked-rotor Torque	46 LB-FT
NEMA Design Code	L	KVA Code	J	Starting Current	163 A
Service Factor (S.F.)	1			No-load Current	10 A
NEMA Nom. Eff.	80	Power Factor	88	Line-line Res. @ 25°C	0.353 Ω A Ph 2.23 Ω B Ph
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	97°C

Load Characteristics 230 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	54	71	85	89	89	91
Efficiency	65	76.1	81.5	80.8	79.3	75.5
Speed	1786	1769	1750	1732	1713	1687
Line amperes	12.7	14	18.5	22.6	27.3	33.5

Transmitter (FOB) Programming Procedure

Contact Information:

Way Marine: 1-904-819-0128

Adding Transmitters to Your System: (Transmitter may be Yellow in Color).

Open Control Box and locate the Yellow Wireless Receiver box which is located on the inside of the Control Box door.

Follow steps 1 – 6 to program a New Transmitter to the Receiver.

1. Remove Yellow Receiver cover by pressing screws inward and rotating.
2. Press the Receiver Function Button (F) and release. The function LED lights Red. Button is located top right corner of box.
3. Press Button Receiver Select Button (S) and release. The relay LED's light Red. Button is located under the Function Button.
4. Press Buttons 1 and 2 at the same time while keep pressed, the relay LEDs will light Red. The relay LEDs then flash Red 2 times.
5. Release buttons 1 and 2. The relay LEDs flash Red 1 time.

Your Remote is now programmed to communicate with your control Box.

NOTE: If no transmitter is found in approximately 10 seconds, the receiver returns to normal operation.

6. If all is successful, replace Yellow Cover and Close Control Box Door.

Start the Transmitter:

Start the transmitter by pressing any button on the transmitter. The Green LED when the battery capacity is good, Red when the battery capacity is low.

Switch the Transmitter Off:

The transmitter switches off when no buttons are pressed. Transmitter is also equipped with an On/Off switch when not in use.

ELECTRICAL DISTRIBUTION 5HP MOTORS
FUNCTIONAL BLOCK DIAGRAM

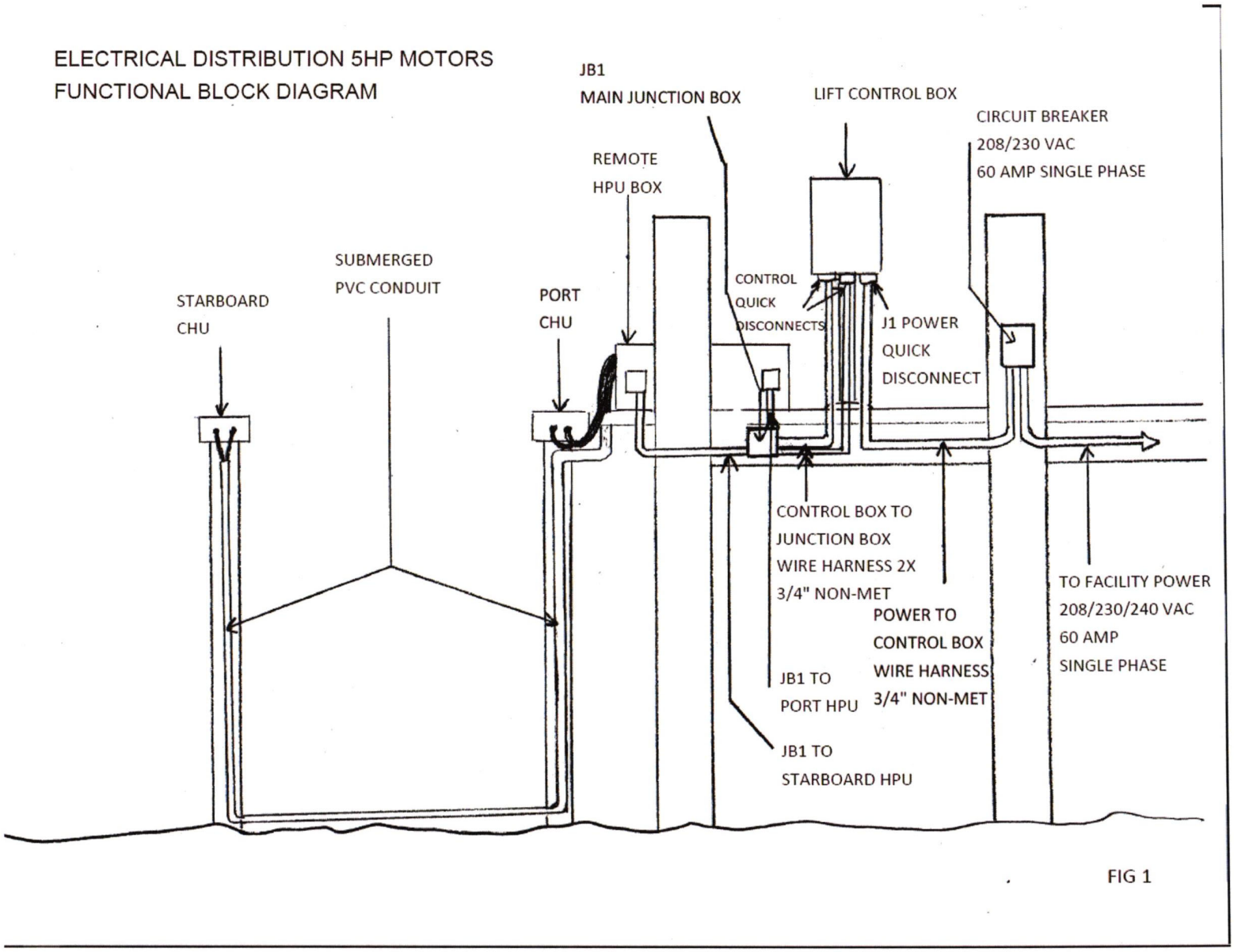
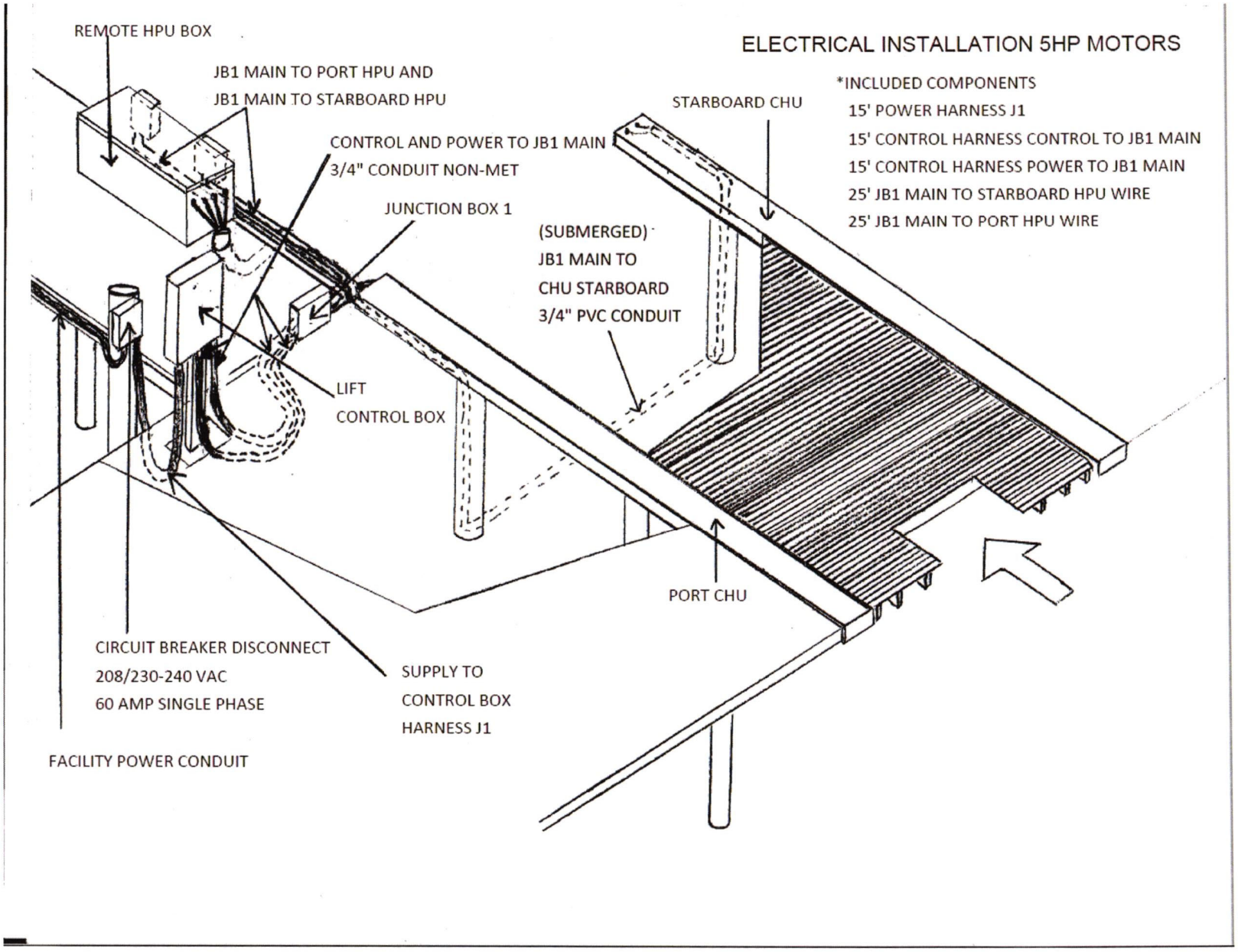


FIG 1


ELECTRICAL INSTALLATION 5HP MOTORS
*INCLUDED COMPONENTS
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CONTROL AND POWER TO JB1 MAIN
3/4" CONDUIT NON-MET
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STARBOARD CHU
(SUBMERGED)
JB1 MAIN TO
CHU STARBOARD
3/4" PVC CONDUIT
LIFT
CONTROL BOX
PORT CHU
CIRCUIT BREAKER DISCONNECT
208/230-240 VAC
60 AMP SINGLE PHASE
SUPPLY TO
CONTROL BOX
HARNESS J1
FACILITY POWER CONDUIT

5HP Wiring Installation Guide Revision History

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    B. Page 9. Removed Neautral circuits on 5HP Control Module Power out 9-Way Connector location.
    C. Pages 14 & 15 Changed Electrical Drawings to reflect changes above.
    D. Page(s) 2 & 16. Added 5HP Wiring Installation Guide Revision History page.

DESIGN CRITERIA: THE STRUCTURAL SYSTEM FOR THIS PROJECT HAS BEEN DESIGNED TO COMPLY WITH ASCE 7-16 & THE FLORIDA BUILDING CODE, BUILDING 2020. WIND LOADS HAVE BEEN CALCULATED FOR RISK CATEGORY I, 160 MPH ULTIMATE, EXPOSURE D.

DECK LIVE LOAD: 40 PSF DECK DEAD LOAD: 5 PSF

MATERIALS: UNLESS NOTED OTHERWISE, ALL WOOD CONSTRUCTION SHALL MEET OR EXCEED REQUIREMENTS OF CHAPTER 23, FBC 2020.

DIMENSIONAL LUMBER SHALL BE RATED IN ACCORDANCE WITH THE STANDARDS OF THE CURRENT EDITION OF THE AMERICAN WOOD COUNCIL'S NATIONAL DESIGN SPECIFICATIONS.

ALL WOOD MEMBERS SHALL BE SYP #2 U.N.O. WOOD EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH CONCRETE SHALL BE EITHER PRESSURE TREATED OR A NATURALLY DURABLE SPECIES.

ALL FASTENERS IN CONTACT WITH PRESSURE TREATED SHALL BE STAINLESS STEEL.

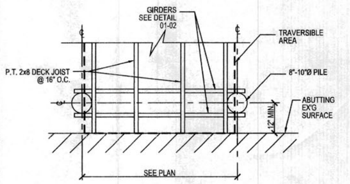
BOLTS: ALL HEX OR CARRIAGE STYLE BOLTS SHALL BE ASTM 1556, GRADE 36 OR GREATER. BOLTS SHALL BE HDG (G185 MARINE GRADE) OR STAINLESS STEEL.

TERMS

DECK:	WALKING SURFACE MATERIAL
JOISTS:	ELEMENTS SUPPORTING DECK
GIRDERS:	ELEMENTS SUPPORTING JOISTS
PILES:	VERTICAL ELEMENTS SUPPORTING HORIZONTAL ELEMENTS.
LONGITUDINAL:	DIRECTION OF DOCK THAT IS PARALLEL WITH THE JOISTS
TRANSVERSE:	DIRECTION OF DOCK THAT IS PARALLEL WITH THE GIRDERS
TRAVERSABLE:	OVERALL LENGTH X WIDTH OF DECKING AREA, MEASURED BY EDGE/END OF DECK MATERIAL.
RIPARIAN LINE:	EXTENSION OF PROPERTY LINE INTO WATERS AS DETERMINED BY APPROPRIATE LICENSEES AND/OR GOVERNING BODIES.
MOORING AREA:	REASONABLE BOUNDARY A WATER VESSEL OCCUPIES WHEN PRESENT AND SECURED
M.H.W.L.:	MEAN HIGH WATER LEVEL

01-01 GENERAL SPECIFICATIONS

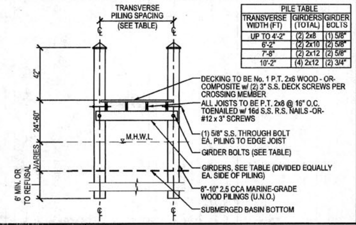
SCALE: N.T.S. PEDESTRIAN WOOD DOCKS



01-06 ABUTTING EX'G SURFACE

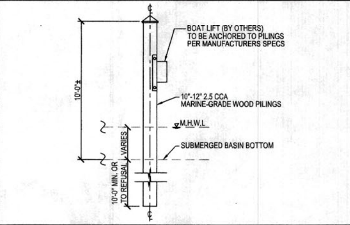
SCALE: N.T.S. TYP. DOCK DETAIL

PILE TABLE		
TRANSVERSE WIDTH (FT)	GIRDERS (TOTAL)	GIRDER BOLTS
UP TO 4'-2"	(2) 2x8	(1) 5/8"
6'-2"	(2) 2x10	(2) 5/8"
7'-8"	(2) 2x12	(2) 5/8"
10'-2"	(4) 2x12	(2) 3/4"



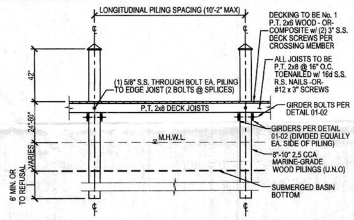
01-02 TRANSVERSE PILE SECTION

SCALE: N.T.S. TYP. UNLESS NOTED OTHERWISE



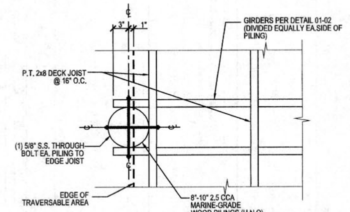
01-07 EQUIPMENT PILINGS

SCALE: N.T.S. TYP. UNLESS NOTED OTHERWISE



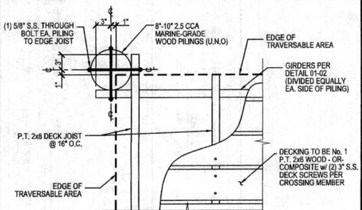
01-03 LONGITUDINAL PILE SECTION

SCALE: N.T.S. TYP. UNLESS NOTED OTHERWISE



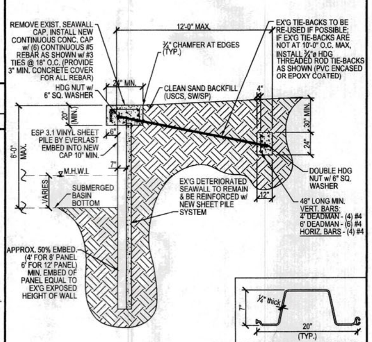
01-04 MID-SPAN CONNECTION

SCALE: N.T.S. TYP. UNLESS NOTED OTHERWISE



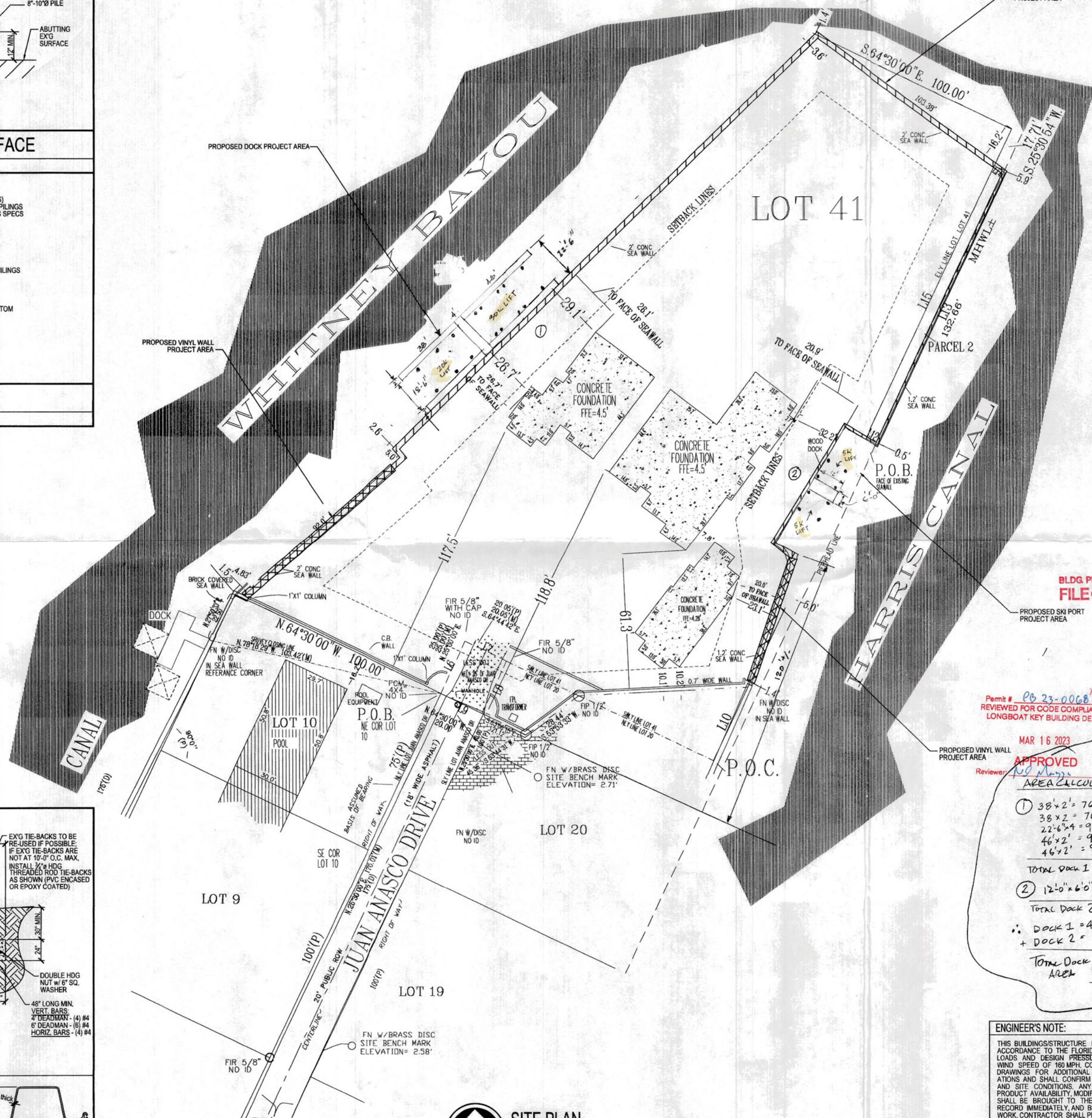
01-05 CORNER CONNECTION

SCALE: N.T.S. TYP. UNLESS NOTED OTHERWISE



01-51 CROSS SECTION AT SEAWALL

SCALE: N.T.S. TYP. REPAIR UNLESS NOTED OTHERWISE



SITE PLAN

SCALE: N.T.S.

AREA CALCULATIONS

① 38'x2' = 76#
38x2 = 76#
22-6"x4 = 90#
46'x2' = 92#
46'x2' = 92#

TOTAL DOCK 1 = 426#

② 12'-0"x6'0" = 72#

TOTAL DOCK 2 = 72#

∴ DOCK 1 = 426#
+ DOCK 2 = 72#

TOTAL DOCK AREA = 498# < 500 ALLOWED ✓

BLDG. PERMIT PLANS
FILE COPY OF RECORD

RECEIVED
MAR 15 2023
TOWN OF LONGBOAT KEY
Planning, Zoning & Building

Permit # PB 23-0068
REVIEWED FOR CODE COMPLIANCE
LONGBOAT KEY BUILDING DEPT.
MAR 16 2023
APPROVED
Reviewer:

ENGINEER'S NOTE:

THIS BUILDINGS/STRUCTURE HAS BEEN DESIGNED IN GENERAL ACCORDANCE TO THE FLORIDA BUILDING CODE 2020 FOR GRAVITY LOADS AND DESIGN PRESSURES GENERATED BY AN ULTIMATE WIND SPEED OF 160 MPH. CONTRACTOR SHALL CONSULT THESE DRAWINGS FOR ADDITIONAL STRUCTURAL NOTES AND SPECIFICATIONS AND SHALL CONFIRM ALL FIELD MATERIAL CONFORMANCE AND SITE CONDITIONS. ANY DISCREPANCIES OF DIMENSIONS, PRODUCT AVAILABILITY, MODIFICATIONS, OR GENERAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY, AND BEFORE PROCEEDING WITH AFFECTED WORK. CONTRACTOR SHALL PROVIDE ENGINEER WITH TRUSS MANUFACTURER'S DRAWINGS AND LAYOUT FOR REVIEW AND STRUCTURAL INTERFACE ASSESSMENT PRIOR TO START OF CONSTRUCTION. THESE DRAWINGS WHEN SIGNED AND SEALED, ARE AN INDICATION THAT THE ENGINEER OF RECORD HAS REVIEWED THE STRUCTURAL COMPONENTS ONLY OF THE STRUCTURE FOR CONFORMANCE WITH THE FLORIDA BUILDING CODE 2020. NOT OTHER CERTIFICATION, INCLUSIVE OF ARCHITECTURAL ELEMENTS AND DIMENSIONAL ACCURACY, ETC. IS EXPRESSED OR IMPLIED.

CAROTTI ENGINEERING LLC

Digitally signed by Renato Carotti
DN: c=US, st=Florida, l=Oneco, o=Carotti Engineering LLC, cn=Renato Carotti, email=rcarotti@carottiengineering.net
Date: 2022.12.16 16:48:03 -05'00'

PROPOSED PROJECT FOR DOCK
612 Juan Anasco Dr
Longboat Key, FL 34228

REVISIONS
7 12/31/20 FBC 2020
6 12/31/17 FBC 2017
5 6/30/15 FBC 2014
4 3/15/12 FBC 2010
REVIEWED & ACCEPTED BY: RCAROTTI

DATE
16 DEC 22

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SHEET NO.
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