# RAPID-AIR

# OPERATING INSTRUCTIONS FOR PMD35, PMDH35, PMD50, PMDH50, PMD100 PALLET MASTER DECOILERS

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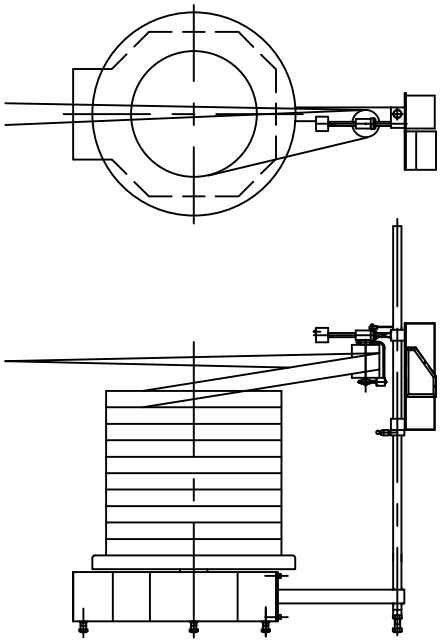
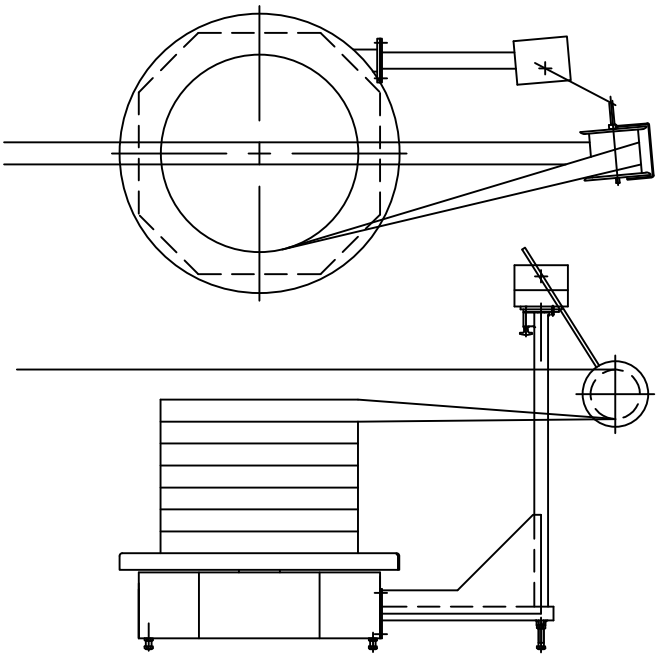
# PALLET MASTER DECOILER



PMDH35 SHOWN
(HORIZONTAL ARM MODEL)



PMD50 SHOWN
(PIVOT ARM MODEL)

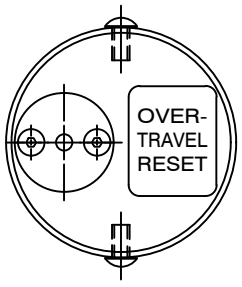
| MODEL | MAX. COIL DIA. | MAX. COIL WIDTH | MAX. COIL WEIGHT | MOTOR HP |
|---|---|---|---|---|
| PMD35 | 36" | 4" | 3500 lbs. | 3/4 |
| PMDH35 | 36" | 4" | 3500 lbs. | 3/4 |
| PMD50 | 50" | 6" | 5000 lbs. | 1 |
| PMDH50 | 50" | 6" | 5000 lbs. | 1 |
| PMD100 | 50" | 6" | 10,000 lbs. | 2 |

Electrical requirements:

| | |
|---|---|
| PMD35 & PMDH35 | 120vac, 1ph,60hz, 7.5 amps |
| PMD50 & PMDH50 | 120vac, 1ph,60hz, 10.0 amps |
| PMD100 | 230vac, 1ph,60hz, 9.5 amps |

WARNING! (on PMDH models only)

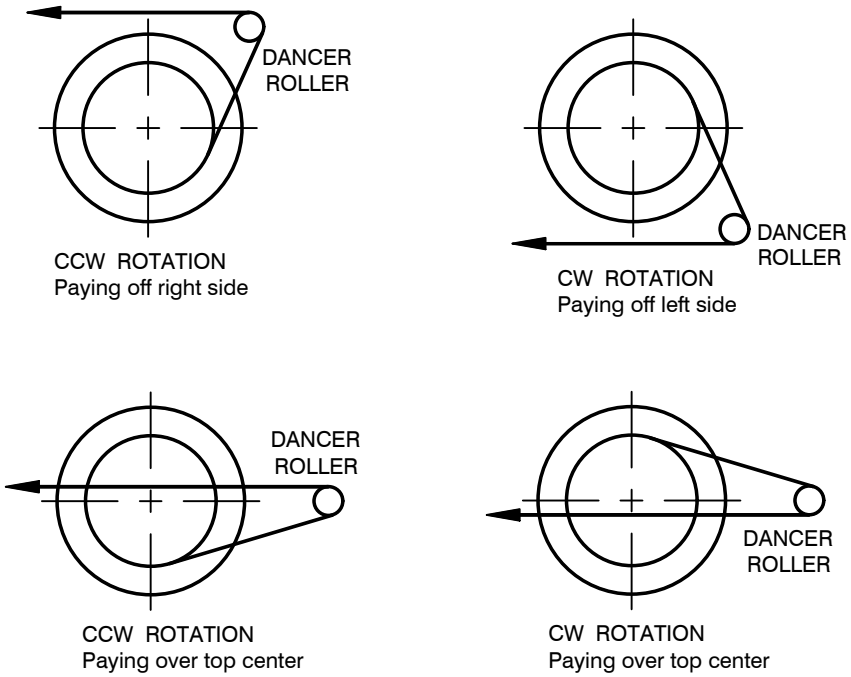
Taut stock (over travel reset) not connected. See wiring diagram (page 12) to connect interface with material pulling device.



# INSTALLATION

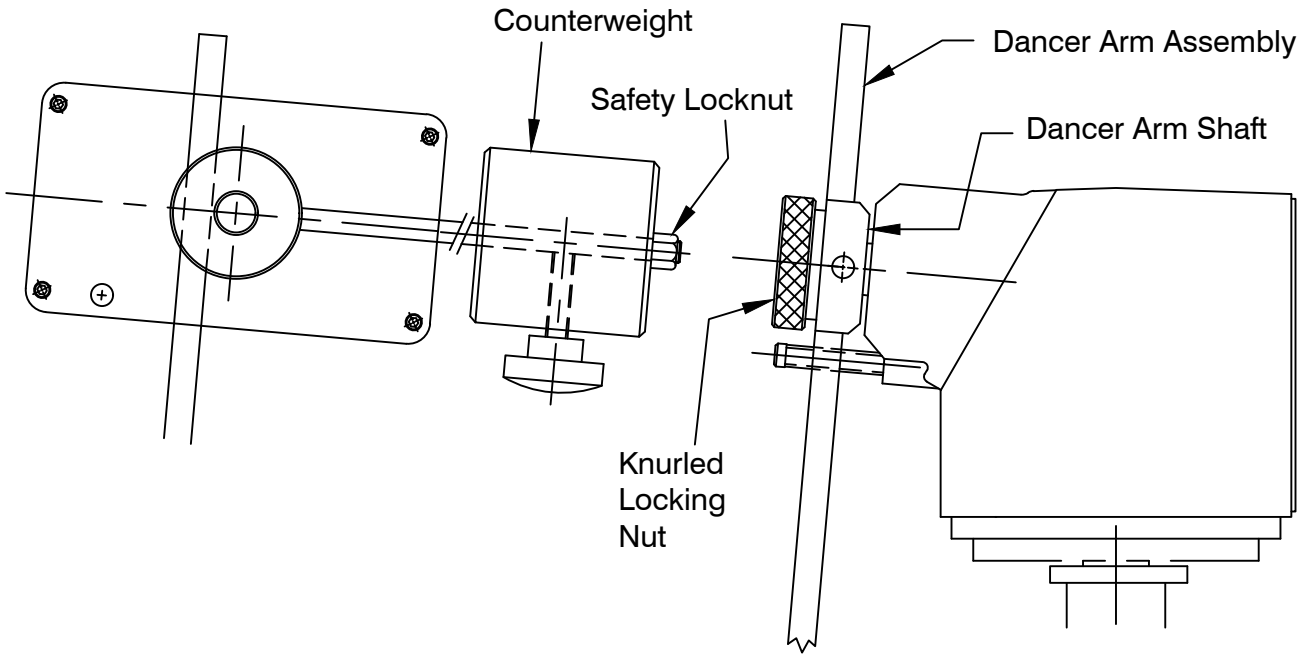
1. Your Pallet Master Decoiler was disassembled for shipping. Visually inspect unit for damaged or loose parts due to shipment. If there is physical damage, consult carrier. Install your Pallet Master Decoiler on a level surface with sufficient clearance for loading and unloading coils. Once you have determined your setup configuration (see various setup configurations below) you can attach the control assembly to the base of the unit. You will need to put the power cord from the control assembly thru the 1 1/2" diameter hole in the base, then attach control assembly to base with screws provided. You will now have to remove the coil plate to connect the power cord from the control assembly to the motor.

## Various Setup Configurations



# INSTALLATION

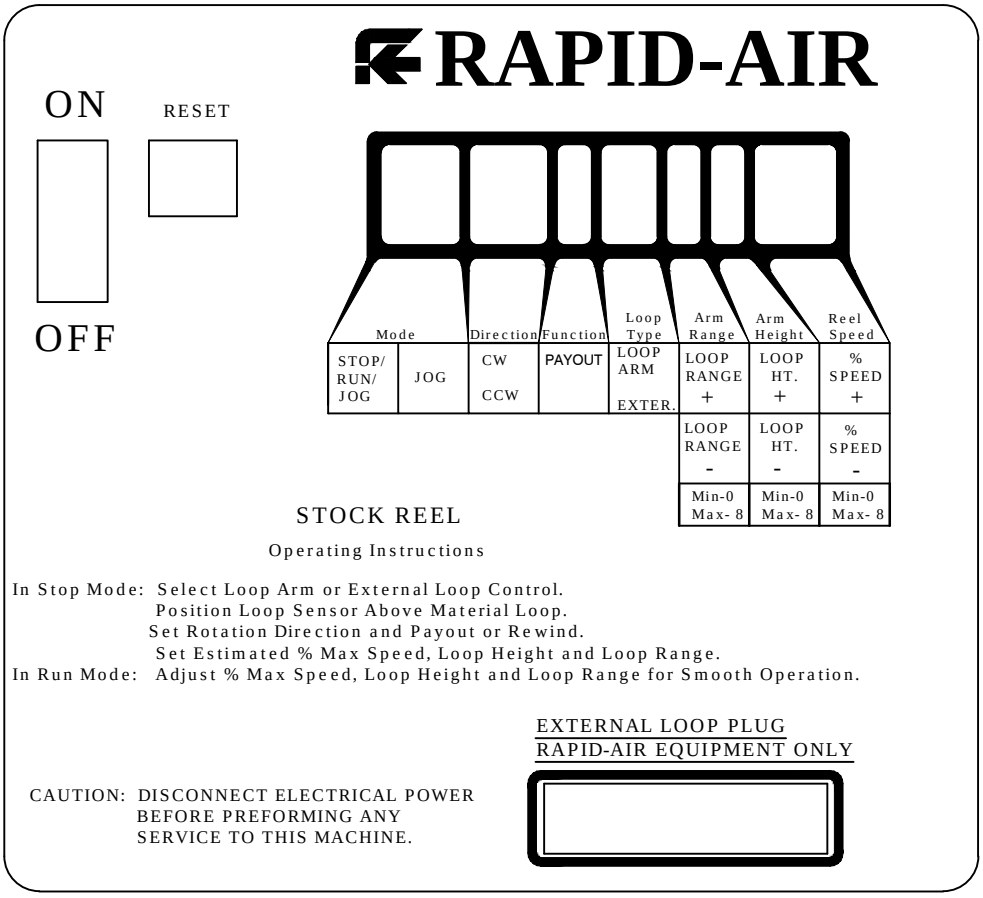
2. Once the control assembly is installed you can now install the dancer arm assembly. (this applies only to PMD35, PMD50 & PMD100 units). Loosen the knurled locking nut, slide the dancer arm assembly into the slot in the dancer arm shaft, tighten knurled locking nut, install counterweight and safety locknut.




3. Coils must be centered on coil plate. Adjust dancer arm roller assembly even with or slightly above the coil to be unwound. Cut material band, take leading end of material and thread material in behind roller. Your unit is now ready for operation.

4. Included with your Pallet Master Decoiler is a spring loaded I.D. keeper which can be used to keep the I.D. of the coil from springing inward and falling down into the coil below. This can also be used to keep the coil in place when the O.D. of the coil becomes very small.

# KEYPAD FUNCTIONS




On/Off switch

This illuminated switch is the main power switch for the controller. It must be "ON" for the reel to function.

Reset switch

This is the main circuit breaker for the reel.

Run/Stop/Jog

In the Run mode, if the dancer arm is moved the coil will turn.

In the Jog mode, the jog button has to be depressed for the coil to turn. Jog function is used mainly for setup or rewinding excess material.

In the Stop mode there is no movement of the coil.

# KEYPAD FUNCTIONS

Directional control function

Selects the direction the reel will turn, clockwise or counter-clockwise. Look at how the coil is wound and determine which way the coil should unwind. Push button until correct rotation is displayed. CW=Clockwise CCW=Counter-clockwise

Note: this function can only be changed with reel in "Stop mode"

Payout function

The Payout function selects how the dancer arm will work as the dancer arm is raised or lowered.
In the Payout mode the reel speed will increase as the dancer arm is raised.

Note: this function can only be changed with reel in "Stop mode"

Loop arm/external switch

When using a dancer arm, select loop arm button to display "LH" for horizontal reel. This button will also allow you to select "LV" for vertical reel. (use only "LH" for Pallet Master Decoilers)

When using an external loop control, select external loop to display "RT" for RTB or "RS" for RS2.

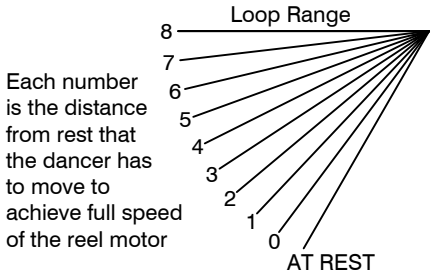
Note: Remote interface port "D" connector, if used, communicates with external loop control.

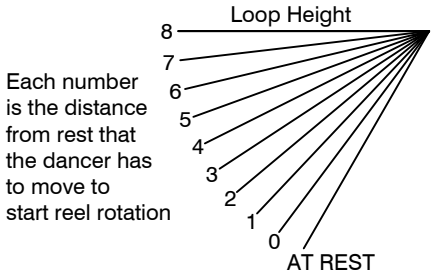
Warning! - Never plug any type of computer or non Rapid-Air equipment into this plug or severe damage will result. Consult factory when installing new external controls.

# KEYPAD FUNCTIONS

## Loop range/height

The loop range function selects the degree of arm movement to achieve maximum motor speed. If a loop range of "0" was selected the the arm would only have to travel approximately 6° to have the reel at full speed. If a loop range of "8" was selected the arm would travel approximately 60° to have the reel at full speed. This function is active in the "RUN" mode.




The loop height function selects the degree of arm movement to start reel rotation. If a loop range of "0" was selected the the arm would only have to travel approximately 6° to start reel rotation. If a loop range of "8" was selected the arm would travel approximately 60° before starting reel rotation.

To set the loop height, thread up the material with the dancer arm resting on the material. If the reel is running with the dancer arm in this position adjust the loop height until reel stops. This is your new at rest position. This function is active in the "RUN" mode.

## % Speed setting

The % speed setting allows you to adjust the maximum speed the reel will rotate. This should be set to maintain a constant feed rate. This function is active in the "RUN" mode.

# JOG SPEED ADJUSTMENT & DANCER ARM CALIBRATION

Your reel was shipped with the dancer arm set up for it's correct position so the only thing that has to be reset would be the jog speed if you need your unit to jog faster or slower.

To reset the jog speed, turn off the main power switch. Press and hold the "Run/Stop/Jog" button while turning the main power switch on. The first screen you will see will display the jog speed percentage.

| | | |
|---|---|---|
| JOG SPEED | 23% | + |
| NEXT | | − |

To increase the jog speed, press the "Reel Speed" 

pushbutton. If you want to decrease the jog speed press the "Reel Speed" 

pushbutton.

The jog speed is shown in the percent of maximum jog speed. Once you have set the desired jog speed push the "Run/Stop/Jog" button once for next. Your jog speed is now set.

The next screen asks if you want to set up the sensor (commonly referred to as "dancer arm calibration"). Use the percent speed buttons to select "yes" or "no".

Select "no" if all you wanted to do was change the jog speed, select "yes" if you want to calibrate the dancer arm by resetting the sensor.

| | |
|---|---|
| SETUP SENSOR | YES |
| NEXT | NO |

After making your selection, press "Run/Stop/Jog" for next.

If you selected "yes" the next screen asks you to set the low set point. If the dancer arm is resting on the positive stop then just save this setting by pushing the "Run/Stop/Jog" button.

| | |
|---|---|
| SENSOR LOW SETPOINT | |
| SAVE | xxx |

# JOG SPEED ADJUSTMENT & DANCER ARM CALIBRATION

The next screen is for setting the high set point. Raise the dancer arm to it's upper stop position and press the "Run/Stop/Jog" button once to save this setting.

| SENSOR HIGH SETPOINT | |
|---|---|
| SAVE | xxx |

The next screen is to set the offset of the program. Potentiometers are hard to get set perfectly so we've built in an offset. After setting the high & low points, with the dancer arm resting on the positive stop, put the unit in the "Run" mode. If the unit starts running with the dancer arm on the positive stop then an offset needs to be put in. If an offset needs to be put in go through the setup procedure again until you get to the low offset screen. Using the percent speed buttons put in an offset value of -3 to -5. Press the "Run/Stop/Jog" button to save this setting.

| LOW OFFSET | +0 | + |
|---|---|---|
| NEXT | | − |

You now have set the dancer arm limits. The next screen to appear allows you to exit the setup. Use the percent speed button to enter "yes or no".

| EXIT SETUP | YES |
|---|---|
| | NO |

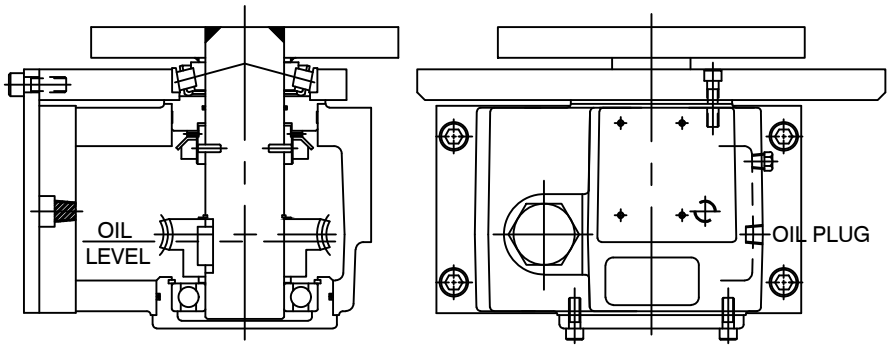
If "yes" was selected press "Run/Stop/Jog" button and the next screen appears.

| SHUT OFF POWER TO |
|---|
| SAVE AND EXIT |

Power off unit, the dancer arm is now ready for production running.

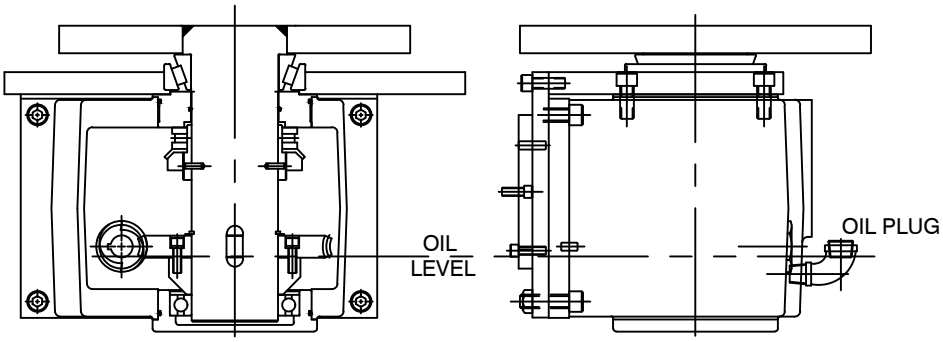
# MAINTENANCE

Gearbox lubrication - change oil every 1000 hours as follows:



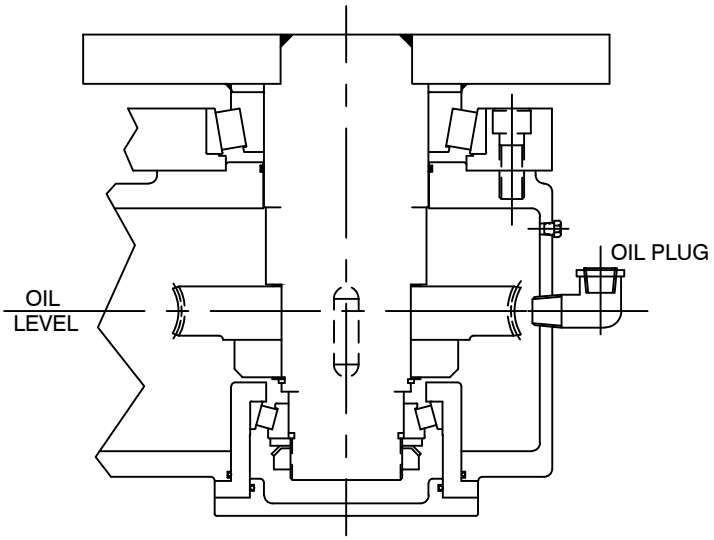

PMD35
PMDH35

Fill to oil plug
Mobil SHC 630
Approx. 48 oz.




PMD50
PMDH50

Fill to oil plug
Mobil SHC 630
Approx. 96 oz.




PMD100

Fill to oil plug
Mobil SHC 630
Approx. 10 quarts

Electrical - all brushes on motors should be checked every 1500-2000 hours.

Caution-Disconnect electrical power before performing any service to this machine

# TROUBLESHOOTING

MAIN SWITCH ON BUT NOT LIT

1. Circuit breaker tripped
   a. Reset circuit breaker
2. Unit not plugged into main power
   a. Plug into main power
3. No power in incoming line
   a. Check outlet
   b. Check power cord
4. Loose wiring
   a. Check terminals and connections

MOTOR CREEPS IN STOP POSITION

1. "Min." speed pot on RAMM board out of adjustment
2. Offset in dancer arm setup out of adjustment (see page 8)

UNIT ON BUT MOTOR WON'T RUN
(armature voltage present on RAMM board)

1. Check motor wiring
   a. replace motor cord or correct motor wiring (consult factory)
2. Check motor
   a. Worn brushes or defective motor (consult factory)
   b. Check for oil in motor, gear box oil seal may have failed

UNIT ON BUT MOTOR WON'T RUN
(no armature voltage present on RAMM board)

1. Selector switch not in "RUN" position
   a. Turn selector switch to "RUN" position
2. If running with a dancer arm control
   a. Check that the external/loop arm function is in the loop arm position
3. If running with external control
   a. Check that the external/loop arm function is in the external position
4. Loop height switch setting to high
   a. Set height setting to "0"

# TROUBLESHOOTING

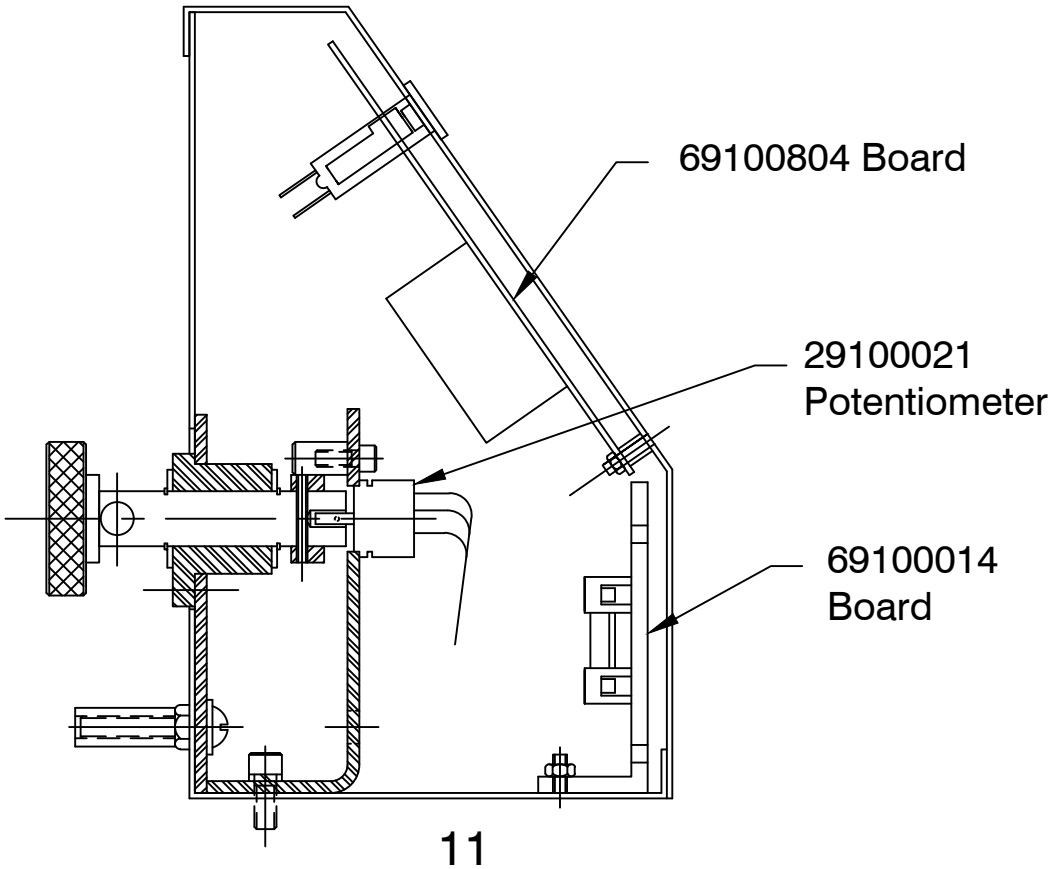
5. Percent speed function set too low
   a. Adjust percent speed function to 100%

6. Fuses blown
   a. Check fuses & circuit breaker

7. No AC voltage at DC drive board
   a. Check wiring

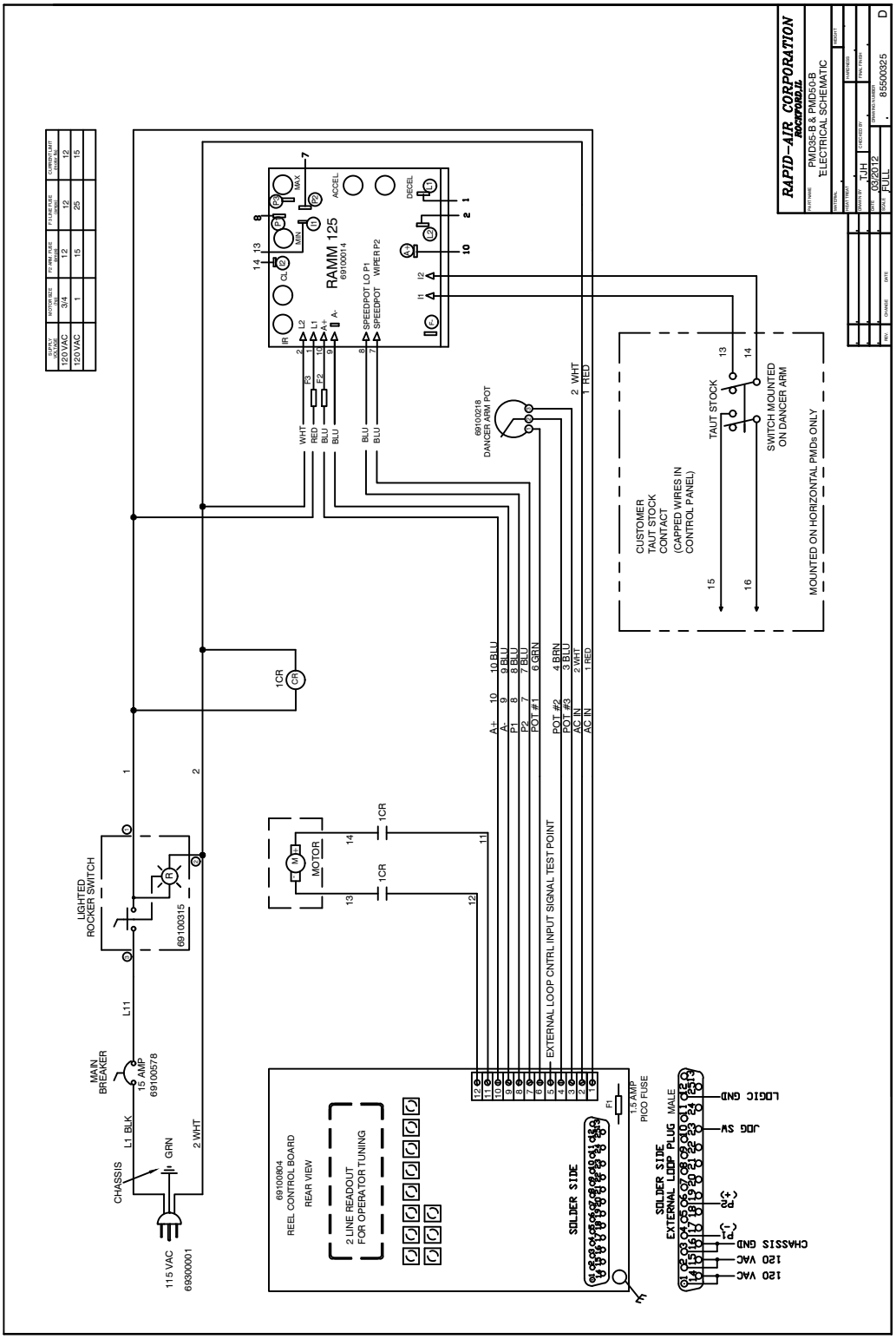
8. Check signal voltage between P2 to P1 on DC drive
   0-6 VDC - RAMM
   0-9 VDC - Regen drive
   while moving dancer arm
   a. If there is a signal, check continuity between I1 & I2
   If no continuity, replace DC drive or consult factory

9. Check pico fuse on 69100804 board (F1)
   a. Replace fuse,1 amp pico fuse-consult factory



# WIRING DIAGRAM

PMD35, PMDH35, PMD50, PMDH50



# WIRING DIAGRAM

PMD100