2XX-DAC

Digital To Analog Converter
Analog Output Option
Installation Manual

For 200 Series Indicators

TABLE OF CONTENTS

SERIAL NUMBER _____

DATE OF PURCHASE _____

PURCHASED FROM _____

_____

_____

_____

RETAIN THIS INFORMATION FOR FUTURE USE

PRECAUTIONS

Before using this instrument, read this manual and pay special attention to all "WARNING" symbols:

IMPORTANT

ELECTRICAL WARNING

STATIC SENSITVE

STATIC ELECTRICITY PRECAUTION

CAUTION! This device contains static sensitive circuit cards and components. Improper handling of these devices or printed circuit cards can result in damage to or destruction of the component or card. Such actual and/or consequential damage IS NOT covered under warranty and is the responsibility of the device owner. Electronic components must be handled only by qualified electronic technicians who follow the guidelines listed below:

ALWAYS handle printed circuit card assemblies by the outermost edges. NEVER touch the components, component leads or connectors.

ALWAYS observe warning labels on static protective bags and packaging and NEVER remove the card or component from the packaging until ready for use.

ALWAYS store and transport electronic printed circuit cards and components in anti-static protective bags or packaging.

ATTENTION! ALWAYS use a properly grounded wrist strap when handling, removing or installing electronic circuit cards or components. Make certain that the wrist strap ground lead is securely attached to an adequate ground. If you are uncertain of the quality of the ground, you should consult a licensed electrician.

FCC COMPLIANCE STATEMENT

WARNING! This equipment generates uses and can radiate radio frequency and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference in which case the user will be responsible to take whatever measures necessary to correct the interference.

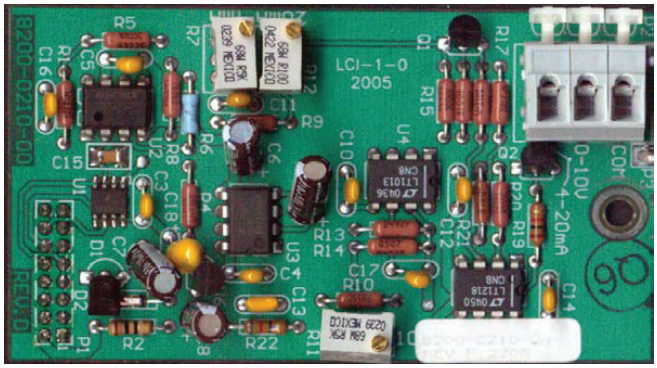
You may find the booklet “How to Identify and Resolve Radio TV Interference Problems” prepared by the Federal Communications Commission helpful. It is available from the U.S. Government Printing Office, Washington, D.C. 20402, stock No. 001-000-00315-4.

While every precaution has been taken in the preparation of this manual, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from use of the information contained herein. All instructions and diagrams have been checked for accuracy and ease of application; however, success and safety in working with tools depend to a great extent upon the individual accuracy, skill and caution. For this reason the Seller is not able to guarantee the result of any procedure contained herein. Nor can they assume responsibility for any damage to property or injury to persons occasioned from the procedures. Persons engaging the procedures do so entirely at their own risk.

INTRODUCTION

Thank you for purchasing the Cardinal 2XX-DAC (Digital to Analog Converter) Analog Output option board. This option board for your 200 Series (Models 200, 205, 210, 215, 220 and 225) Weight Indicator was built with quality and reliability.

This document describes the installation, setup and calibration of the board.



The 2XX-DAC is a 14-bit (16,383 states) analog representation of the displayed weight. It has both a 0 to 10 volt and 4 to 20 mA analog output. The minimum load resistance for voltage output is 2K ohms. The maximum load resistance for current output is 500 ohms. Connections are made using a terminal block on the rear of the board. Refer to Figure No. 1 for the connector pin layout.

The indicators feature complete "ranging" for DAC output. Users may select a weight range to be used for a selectable voltage range. This covers all current indicators/users and expands the capabilities for new applications. The indicators also have auto-detect for option board installation. When the 2XX-DAC board is found, additional prompts will be added to Setup. In addition, the calibration sequence includes the steps necessary to calibrate the analog output.

SPECIFICATIONS

Temperature Range:	14° to 104° F (-10° to +40° C)
Maximum Load Resistance: (For Current Output)	500 ohms
Minimum load resistance: (For voltage output)	2K ohms
Internal Connections:	(1) 16 pin DIL
External Connections:	(1) three terminal connector block

INSTALLATION
MODELS 205/210/215, 220 AND 225

Mounting the 2XX-DAC Board

NOTE! Should your indicator come with the 2XX-DAC board already installed, the following section describing mounting it does not apply. Proceed to the Cable Installation section.

ATTENTION! OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.

1. Make sure the power to the indicator is OFF. Unplug the AC power cord.
2. Loosen the gland connectors where the AC power cord and any other cables enter the indicator.
3. On the 205/210/215, remove the three acorn nuts securing the Battery Access Cover to the bottom of the indicator. On the 205/210, if using the optional battery, remove it. On the 215, even if not using batteries, remove the battery tray.
4. After removing the battery or battery tray, remove the acorn nuts (12 on 205/210/215, 14 on 220 & 225) securing the back panel to main housing.
5. Lift the back panel from the main housing, taking care not to stretch the cable and wires between the panel and main housing. Lay the back panel on the workbench next to the indicator.
6. Locate the threaded stand-off and the OPTION BOARD connector on the indicator main board.
   - 205/210/215 – The threaded stand-off is below P7 and the OPTION BOARD connector is P4.
   - 220 – The threaded stand-off is near P3 and the OPTION BOARD connector is P4.
   - 225 – The threaded stand-off is near P7 and the OPTION BOARD connector is P11.
7. To install the 2XX-DAC board, carefully align the connector P1 (pins on trace side of 2XX-DAC board) with connector P4 on the 205/210/215 and 220 main board or P11 on the 225 main board and then apply even downward pressure to the end of the 2XX-DAC board with P1.
8. Align the hole in the 2XX-DAC board with the threaded stand-off on the indicator main board and using the lock washer and screw supplied with the 2XX-DAC board, secure the 2XX-DAC to the indicator main board.

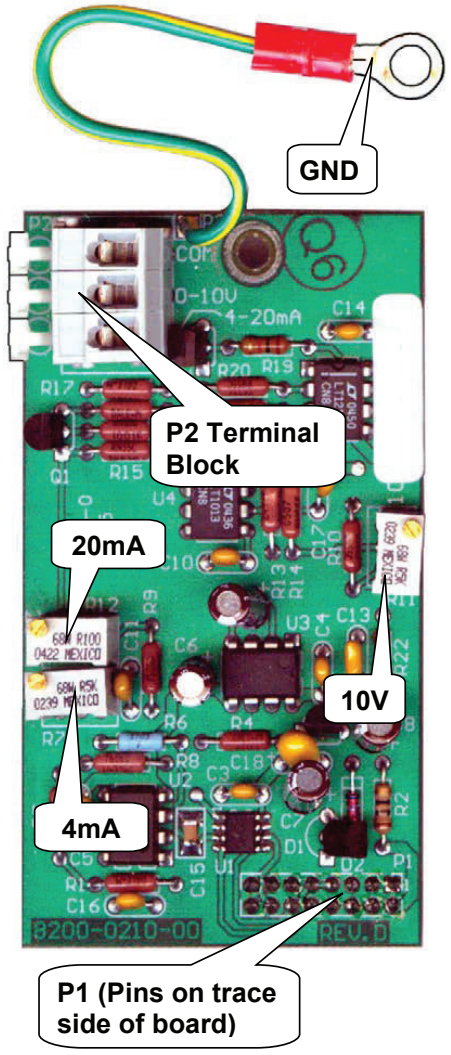


Figure No. 1

9. To attach the ground wire, remove a 6-32 nut and washer from the corner of the indicator main board.
10. Connect the ground wire from the 2XX-DAC board by placing the ring terminal over the 6-32 threaded stud.
11. Reinstall the washer and 6-32 nut and tighten.

INSTALLATION, CONT.
MODELS 205/210/215, 220 AND 225

Cable Installation

1. Loosen a cable gland connector for the Analog Output cable.
2. Slip a two wire cable through the gland connector and into enclosure.
3. Remove 2" of outer insulation jacket then remove 1/4" of insulation from each of wires.
4. Connect each of the wires to terminal block (P2).
5. To terminate, first press down on the terminal release bar and then insert the wire into opening. Allow the release bar to return to its original position, locking the wire in place. Repeat the procedure until all wires are in place.

PIN NO.	Function
COM	Common
0-10V	0 to 10 volt output (2K Ω Min. Load)
4-20 mA	4 to 20 mA current output (500 Ω Max. Load)

P2 TERMINAL BLOCK

Re-Installing the Rear Panel

After all terminations have been made, remove the excess cable from the instrument enclosure and securely tighten each of the cable gland connectors. Do not over-tighten these connectors but make certain they are snug. **DO NOT USE TOOLS!** Finger tighten only! Insure any unused gland connectors are plugged.

1. Make certain no cables or wires are exposed between the main housing and rear panel and then place the rear panel onto the main housing.
2. Secure with the acorn nuts (12 on the 205/210/215, 14 on the 220 and 225) removed earlier. Follow a diagonal pattern when tightening the acorn nuts.
3. On the 205/210, if using the optional battery,
   A. Insure the (**-**) negative polarity markings of the battery are positioned facing up (towards the front of the indicator) and the alignment notch in the battery is to the left.
   B. Slide the battery into the opening, compressing the battery ejector spring, until you feel resistance and the battery is almost flush with the bottom of the indicator.
   C. Replace the Battery Access Cover and install the three acorn nuts removed earlier, securing the battery in place.

4 On the Model 215,

   A. Turn the battery tray so that the batteries (or empty battery holder) are facing the rear of the indicator and place the battery tray in the opening.
   B. Slide the battery tray into the opening, aligning the holes in the battery tray with the threaded studs on the bottom of the indicator.
   C. Install the three acorn nuts removed earlier, securing the battery tray in place.

IMPORTANT! On the Model 215, the battery tray (with or without batteries) must be installed for the indicator to function.

5. If required, install the lead and wire calibration seal.

INSTALLATION, CONT.
MODEL 200

Mounting the 2XX-DAC Board

NOTE! If your indicator is a 200-A, the DAC board is already installed and the following information describing the mounting of the board does not apply. Proceed to the External Cable Installation section.

1. Make sure the power to the indicator is OFF. Remove the AC adapter from the jack on the rear panel.
2. Referring to Figure No. 2, remove the 4 screws securing the rear panel to the enclosure.
3. Referring to Figure No. 3, grasp the edges of the rear panel and gently pull it back away from the enclosure, sliding the main board assembly out of the enclosure.

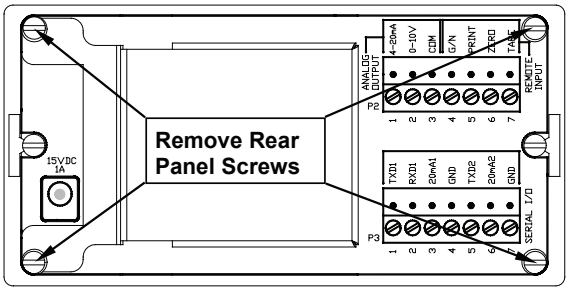


Figure No. 2

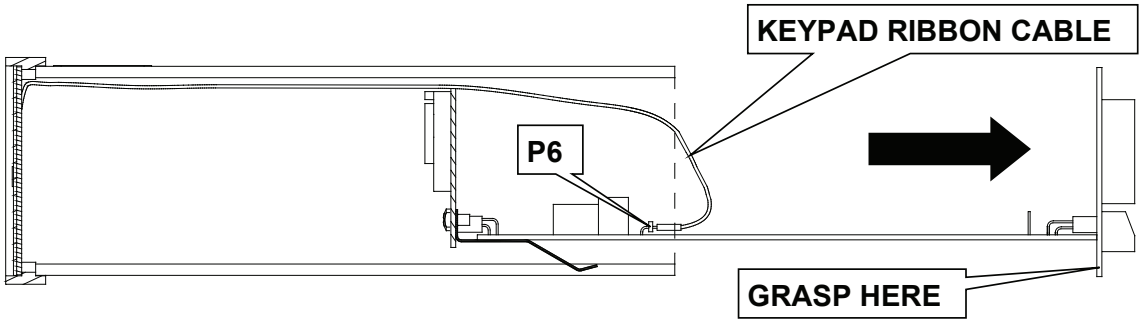


Figure No. 3

CAUTION! Only slide the main board assembly out of the enclosure far enough to see and reach the keypad ribbon cable attached to connector P6.

4. Remove the keypad ribbon cable from P6, and then slide the main board assembly completely out of the enclosure.
5. Referring to Figure No. 4, locate the threaded mounting stud and connector P3 (Option Board) on the main board.
6. To install the 2XX-DAC board, carefully align the 2XX-DAC board P1 (pins on the trace side of the board) with connector P3 on the main board.
7. Align the hole in the 2XX-DAC board with the threaded mounting stud on the main board.
8. Apply even downward pressure to the end of the 2XX-DAC board with P1.
9. Using the lock washer and screw supplied with the 2XX-DAC board, secure the 2XX-DAC board to the main board.

INSTALLATION, CONT.
MODEL 200

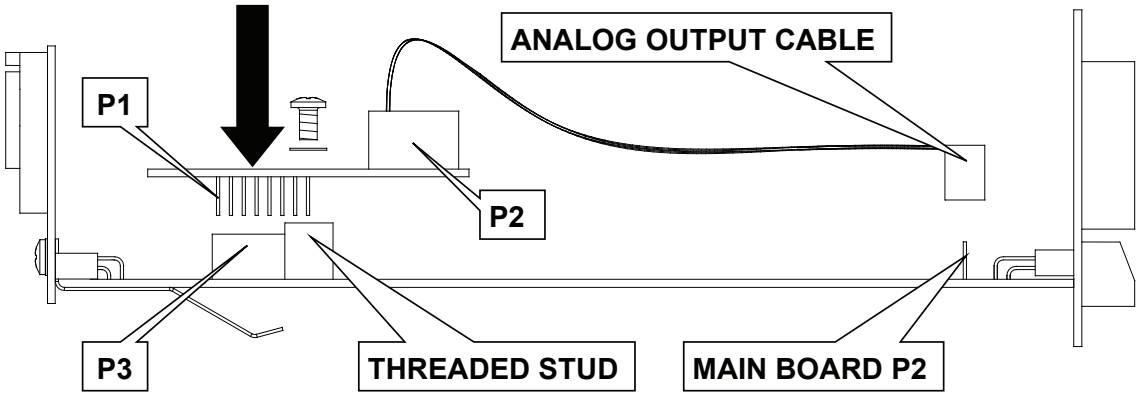


Figure No. 4

Internal Cable Installation

1. Referring to Figure No. 4, locate the Analog Output connector P2 on the main board.
2. Plug the analog output cable 3 pin connector into the main board P2 connector, making sure the polarizing tab is correctly aligned.
3. Locate the Analog Output terminal block P2 on the 2XX-DAC board. See Figure No. 5.
4. Connect each wire of the analog output cable to terminal block P2 on the 2XX-DAC board, referring to the labels on both the main board and the 2XX-DAC board for correct terminal connections.
5. To terminate a wire, press down on the terminal release bar. Insert the wire into the terminal opening then release the bar, locking the wire in place. Repeat the procedure until all wires are in place.

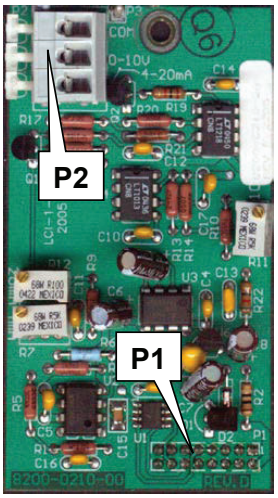


Figure No. 5

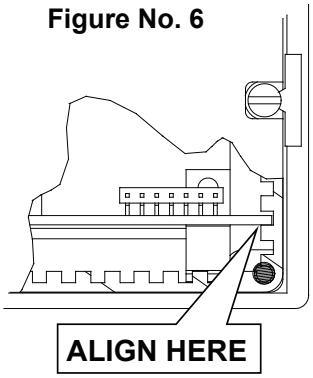
ANALOG OUTPUT CONNECTIONS
P2 on Main Board and 2XX-DAC P2 Terminal Block

PIN ID	Function
COM	Common
0-10V	0 to 10 volt output (2K Ω Min. Load)
4-20 mA	4 to 20 mA current output (500 Ω Max. Load)

Re-Assemble the Indicator

1. With one hand, lift the keypad ribbon cable up out of the enclosure and hold out of the way.
2. Align the front edge (display end) of the main board assembly with the second slot (from the bottom) on both sides of the enclosure. See Figure No. 6.
3. Slide the main board assembly into the enclosure approximately 1 inch.
4. Attach the keypad ribbon cable to P6, and then slide the main board assembly into the enclosure until the rear panel meets the back edge of the enclosure. See Figure No. 7.

Figure No. 6



INSTALLATION, CONT.
MODEL 200

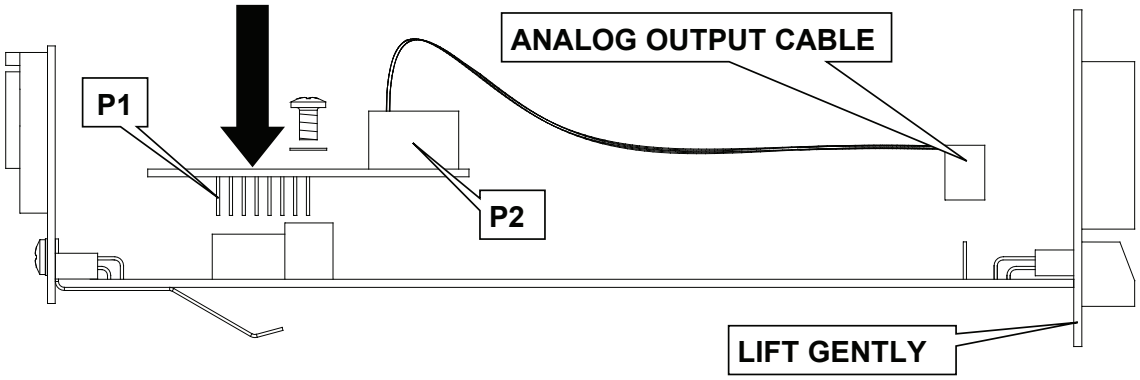


Figure No. 7

CAUTION! If the main board assembly doesn't go completely into the enclosure, DO NOT attempt to force it in. Gently lift the rear edge of the main board assembly, and then continue to slide it into the enclosure until the rear panel is against the back edge of the enclosure.

External Cable Installation

1. The wires from the external ANALOG OUTPUT cable are connected to the P2 terminal block on the rear panel of the indicator. Refer to Figure No. 8 for the location of P2.
2. Remove 2" of the outer insulation jacket then remove 1/4" of insulation from each wire.
3. Connect each of the wires to terminal block P2 referring to the labels on the rear panel and the P2 detail view for terminal connections.
4. Loosen the screws in the terminal block, then slip the wire into the terminal opening and tighten the screw to lock the wire in place. Repeat the procedure until all wires are in place.

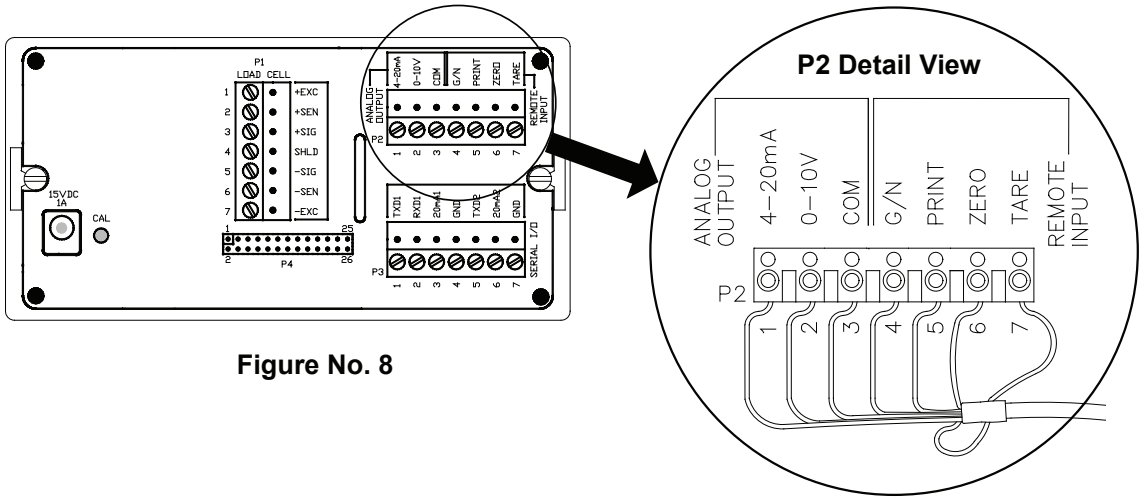


Figure No. 8

Securing the Rear Panel

After all adjustments have been made, replace the calibration access cover (if required) and install the 4 screws removed earlier to secure the rear panel to the enclosure. If required, install the lead and wire calibration seal.

CALIBRATION OF ANALOG OUTPUT
MODELS 200/205/210/215

The analog output has been calibrated at the factory and should require no other adjustment. If, for some reason, it is found necessary or desirable to readjust this output, the procedure listed below may be used.

In order to calibrate the analog output, it is first necessary to enter the Calibration mode by gaining access to the calibration switch. Refer to the Setup and Calibration section of the indicator manual for additional information.

The following prompts apply only if the 2XX-DAC board is installed.

dAC (dAC2) – Digital to Analog Converter

With dAC (dAC2) displayed, press the **ENTER** key. The display will change to show Lo:.

Lo:

Press the **ENTER** key to show stored value. This is the value, in weight, which outputs zero volts (or 4 mA) from the DAC. All weight below this target will output zero volts (or 4 mA). If the setting is acceptable, press the **ENTER** key again to save it. Otherwise, using the numeric keys enter the desired weight value, then press the **ENTER** key to save it. Note that the **NET/GROSS** key is used to change the weight sign. For example, to input –1000 as the weight value, press 1 0 0 0 **NET**. Allowable values are: -99999 to 999999.

Hi:

Press the **ENTER** key to show the stored value. This is the value, in weight, which outputs the maximum selected voltage and current (see oUt:). All weights above this value will output maximum volts from the DAC. If the setting is acceptable, press the **ENTER** key again to save it. Otherwise, using the numeric keys enter the desired weight value, then press the **ENTER** key to save it. This weight must be a positive value, up to capacity of scale, and above the Lo: value. Allowable values are: 1 to 999999.

oUt:

Press the **ENTER** key to show the stored value. This is the maximum output value in volts (00.01 to 10.00). All weight values equal to or greater than Hi: will output this value. Note, that if the scale goes OCAP (over capacity), this value is used also. If the setting is acceptable, press the **ENTER** key again to save it. Otherwise, using the numeric keys enter the desired, then press the **ENTER** key to save it. Allowable values are: 00.01 to 10.00.

NOTE! If the 4 to 20 mA current output is used, set oUt: to: $10 \times \frac{(\text{max current} - 4)}{16}$

$$\text{Current} = \frac{\text{oUt:}}{10} \times 16 + 4 \text{ (mA)}$$ (*Can not be greater than 20*

AdJ Hi

This sets the DAC output to oUt: level for adjusting the level. Adjustment potentiometers ”pots” (10V and 20 mA) on the option board are used.

- Adjust the 10V pot for the maximum voltage output entered for oUt:.
- For 4 to 20 mA current output, adjust the 20mA pot for the calculated maximum current.

Press the **ENTER** key to proceed to the AdJ Lo prompt, or the **ASTERISK** key to return to the previous prompt.

CALIBRATION OF ANALOG OUTPUT, CONT.
MODELS 200/205/210/215

AdJ Lo

This sets the DAC output to zero for adjusting the level. Adjustment "pots" (10V and 4 mA) on the option board are used.

- There is no adjustment for zero volts out.
- For 4 to 20 mA current output, adjust the 4mA pot for the low (4 mA) current output.

Press the **ASTERISK** key to return to the AdJ Hi prompt or press the **ENTER** key to proceed to the GdAc prompt.

NOTE! Cycling between AdJ Hi and AdJ Lo is necessary when adjusting the current out. This must be repeated until no adjustment is necessary.

GdAc:

This sets the DAC output to follow the Gross weight only or the displayed weight (gross or net).

Press the **ENTER** key to show the current value. If the setting displayed is acceptable, press the **ENTER** key again to save it and return to the SEtUP prompt.

Otherwise, using the numeric keys, **0/NO** or **1/YES**, enter the new setting, then press the **ENTER** key to save it and return to the SEtUP prompt.

GdAc: YES
DAC output is Gross Weight Only

GdAc: no
DAC output is the displayed Weight (gross or net)

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 220

The analog output has been calibrated at the factory and should require no other adjustment. If, for some reason, it is found necessary or desirable to readjust this output, the procedure listed below may be used.

In order to calibrate the analog output, it is first necessary to enter the Calibration mode by gaining access to the calibration switch. Refer to the Setup and Calibration section of the indicator manual for additional information.

The following prompts apply only if the 2XX-DAC board is installed.

ANALOG OUTPUT - Analog Output Option

With the *ANALOG OUTPUT* prompt displayed, press the **ENTER** key. The display will change to show *LOW WT=*.

LOW WT=

Press the **ENTER** key to show stored value. This is the value, in weight, which outputs zero volts (or 4 mA) from the DAC. All weight below this target will output zero volts (or 4 mA). If the setting is acceptable, press the **ENTER** key again to save it. Otherwise, using the numeric keys enter the desired weight value, then press the **ENTER** key to save it. Note that the **NET/GROSS** key is used to change the weight sign. For example, to input –1000 as the weight value, press 1 0 0 0 **NET**. Allowable values are: -99999 to 999999.

HIGH WT=

Press the **ENTER** key to show the stored value. This is the value, in weight, which outputs the maximum selected voltage and current (see *VOLTS OUT=*). All weights above this value will output maximum volts from the analog output board. If the setting is acceptable, press the **ENTER** key again to save it. Otherwise, using the numeric keys enter the desired weight value, then press the **ENTER** key to save it. Allowable values are: 1 to 999999.

NOTE! This weight must be a positive value, up to the capacity of the scale, and above the **LOW WT=** value.

VOLTS OUT=

Press the **ENTER** key to show the stored value. This is the maximum output value in volts (00.01 to 10.00). All weight values equal to or greater than *HIGH WT=* will output this value. Note, that if the scale displays *CAPACITY* (over capacity), this value is used also. If the setting is acceptable, press the **ENTER** key again to save it. Otherwise, using the numeric keys enter the desired, then press the **ENTER** key to save it. Allowable values are: 00.01 to 10.00.

NOTE! If the 4 to 20 mA current output is used, set *VOLTS OUT=* to: $10 \times \frac{(\text{max current} - 4)}{16}$

$$\text{Current} = \frac{\textit{VOLTS OUT=}}{10} \times 16 + 4 \text{ (mA)} \qquad (\textit{Cannot be greater than 20 mA})$$

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 220

ADJ HIIGH

This sets the analog output to *VOLTS OUT=* level for adjusting the level. Adjustment potentiometers “pots” (10V and 20 mA) on the option board are used.

- Adjust the 10V pot for the maximum voltage output entered for *VOLTS OUT=*.
- If the 4 to 20 mA current output is to be used, adjust the 20mA pot for the calculated maximum current.

Press the **ENTER** key to proceed to the *ADJ LOW* prompt, or the **ASTERISK** key to return to the previous prompt.

ADJ LOW

This sets the analog output to zero for adjusting the level. Adjustment “pots” (10V and 4 mA) on the option board are used.

- There is no adjustment for zero volts out.
- If the 4 to 20 mA current output is to be used, adjust the 4mA pot for the low (4 mA) current output.

Press the **ASTERISK** key to return to the *ADJ HIGH* prompt, or the **ENTER** key to return to the *SETUP* prompt

NOTE! Cycling between *ADJ HIGH* and *ADJ LOW* is necessary when adjusting the current out. This must be repeated until no adjustment is necessary.

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 225

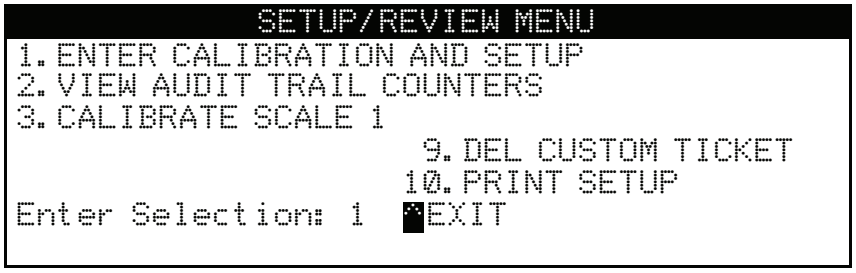
The analog output has been calibrated at the factory and should require no other adjustment. If, for some reason, it is found necessary or desirable to readjust this output, the procedure listed below may be used.

In order to calibrate the analog output, it is first necessary to enter the Calibration mode. Refer to the Setup and Calibration section of the indicator manual for additional information.

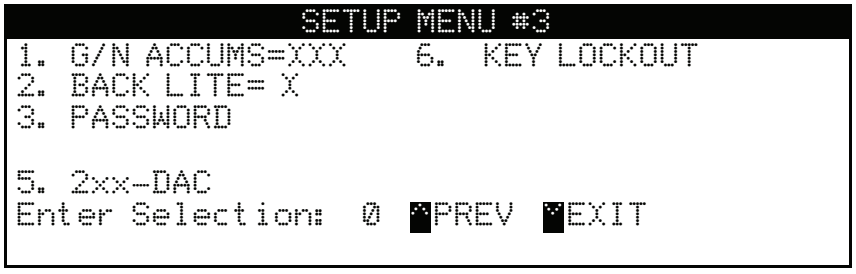
The following prompts apply only if the 2XX-DAC board is installed.

To Begin Setup and Calibration

With the indicator ON, hold the **SHIFT** key down and press the Navigation **ENTER** key (red square key in center of the Navigation arrows). The display will change to show the SETUP/REVIEW MENU.



Press the **ENTER** key, then press the **NEXT** key (Navigation Keys ▽ Down Arrow) until SETUP MENU #3 is displayed.



Press the **5** key and then the **ENTER** key, the 2xx-DAC SETUP MENU will be displayed.

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 225

1. GROSS ONLY=XXX

The output can be set to follow the Gross weight only or the displayed weight (gross or net).

With the 2xx-DAC SETUP MENU displayed the current setting for the GROSS ONLY= parameter will be shown. Note that XXX is the current value. If the setting displayed is acceptable, proceed to the next setup parameter.

Otherwise, press the **1** key and then the **ENTER** key. The display will change to show the following screen.

Press the **YES** or **NO** (on the soft keys) and then the **ENTER** key to save the new setting and return to the 2xx-DAC SETUP MENU

GROSS ONLY=YES
DAC output is Gross Weight Only

GROSS ONLY=NO
DAC output is the displayed Weight (gross or net)

2. LOW WT= XXXXXX

This is the weight value which outputs zero volts (or 4 mA) from the DAC.

With the 2xx-DAC SETUP MENU displayed the current setting for the LOW WT= parameter will be shown. Note that XXXXXX is the current value. If the setting displayed is acceptable, proceed to the next setup parameter.

Otherwise, press the **2** key and then the **ENTER** key. The display will change to show the following screen.

Using the numeric keys, enter the new weight and then press the **ENTER** key to save the new setting and return to the 2xx-DAC SETUP MENU. If the weight is to be negative, press the **+/-** key to toggle the sign and then press the **ENTER** key. Allowable values are: -99999 to 999999.

Ex. If the low weight is to be -1000, then key-in **1 0 0 0 +/- ENTER** keys.

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 225

3. HIGH WT= XXXXXX

This is the weight value which outputs maximum selected voltage and current (see VOLTS OUT) from the DAC.

With the 2xx-DAC SETUP MENU displayed the current setting for the HIGH WT= parameter will be shown. Note that XXXXXX is the current value. If the setting displayed is acceptable, proceed to the next setup parameter.

Otherwise, press the **3** key and then the **ENTER** key. The display will change to show the following screen.

Using the numeric keys, enter the new weight and then press the **ENTER** key to save the new setting and return to the 2xx-DAC SETUP MENU. This weight must be a positive value, up to capacity of scale, and above the LOW WT value. Allowable values are: 1 to 999999.

4. VOLTS OUT=XX.XX

This is the maximum output value in volts (00.01 to 10.00). All weight values equal to or greater than HIGH WT will output this value. Note, that if the scale goes over capacity, this value is used also.

With the 2xx-DAC SETUP MENU displayed the current setting for the VOLTS OUT= parameter will be shown. Note that XX.XX is the current value. If the setting displayed is acceptable, proceed to the next setup parameter.

Otherwise, press the **4** key and then the **ENTER** key. The display will change to show the following screen.

Using the numeric keys, enter the desired voltage and then press the **ENTER** key to save the new setting and return to the 2xx-DAC SETUP MENU. Allowable values are: 00.01 to 10.00.

NOTE! If the 4-20 mA output is used, set VOLTS OUT = 10 X (max current-4)/16.

Current= (VOLTS OUT/10) X 16 + 4(mA) (Can not exceed 20 mA)

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 225

5. ADJUST HIGH

This sets the DAC output to the VOLTS OUT level for adjusting the level. Adjustment potentiometers (pots) (10V and 20 mA) on the option board are used.

With the 2xx-DAC SETUP MENU displayed, press the **5** key and then the **ENTER** key. The display will change to show the following screen.

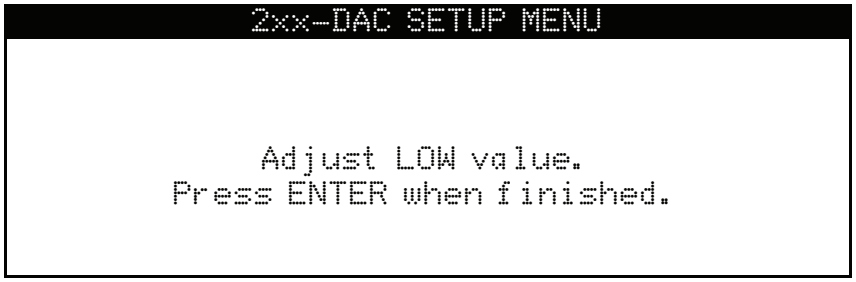
Adjust the 10 V pot for the maximum voltage output entered for VOLTS OUT.

For 4-20 mA current output, adjust the 20 mA pot for the calculated maximum current.

6. ADJUST LOW

This sets the DAC output to zero for adjusting the level. Adjustment potentiometers (pots) (10V and 20 mA) on the option board are used.

With the 2xx-DAC SETUP MENU displayed, press the **6** key and then the **ENTER** key. The display will change to show the following screen.



There is NO adjustment for zero volts out.

For 4-20 mA current output, adjust the 20 mA pot for the calculated maximum current.

NOTE! Cycling between the ADJUST HIGH and ADJUST LOW is necessary when adjusting the current out. This MUST be repeated until no adjustment is necessary.

CALIBRATION OF ANALOG OUTPUT, CONT.
MODEL 225

7. SCALE=X

In a multi scale configuration the scale to be tracked by the DAC card can be selected.

With the 2xx-DAC SETUP MENU displayed the current setting for the SCALE= parameter will be shown. Note that X is the current value. If the setting displayed is acceptable, press the **EXIT** key (Navigation Keys △ UP Arrow) until the indicator returns to the weight display mode.

Otherwise, press the **7** key and then the **ENTER** key. The display will change to show the following screen.

Using the numeric keys, enter the value for the scale to be tracked by the DAC and then press the **ENTER** key to save the new setting and return to the 2xx-DAC SETUP MENU. Valid values are:

0 = Current selected scale (scale that is in reverse video mode)
1 = Scale #1
2 = Scale #2
3 = Scale #3
4 = Total Scale

Setup and Calibration Complete

The 2xx-DAC setup and calibration has been completed, press the **EXIT** key (Navigation Keys △ UP Arrow) until the indicator returns to the weight display mode.

Cardinal Scale Mfg. Co.
102 E. Daugherty, Webb City, MO 64870 USA
Ph: 417-673-4631 or 1-800-641-2008
Fax: 417-673-2153
www.cardinalscale.com

Technical Support: 1-866-254-8261
E-mail: tech@cardet.com

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