

**DIGITAL CONVERSION ADDENDUM
FOR PORTABLE DIGITAL SCALER OPTION
(MODEL 3, 3A, 5, 12, 14C, 15, 16, & 18)**

Revised

August 2014

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LUDLUM MEASUREMENTS, INC
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LUDLUM MEASUREMENTS, INC.

501 OAK ST. / P.O. BOX 810
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Website: <http://www.ludlums.com> FEIN 75-1085764

**DESIGNER AND MANUFACTURER****OF***Scientific and Industrial
Instruments*

Digital Conversion Addendum August 2014

This unit has been modified to add a scaling digital readout in addition to its analog meter. The 5 ½ digit scaler readout can display counts up to “199999.” Any count greater than 199999 will generate an overflow and will be shown on the LCD display as a “←199999.”

When the unit is turned on, the following will be displayed on the LCD display:

- Test of all LCD segments
- Program number (example 36301)
- Program revision (example n02)
- The current setting of the count-time rotary switch (0.1, 0.5, 1, 2, or 10)
- “0” zero, indicating the unit is ready

The scaling time is selected by a rotary switch mounted on the bezel. The selections are 0.1, 0.5, 1, 2, and 10-minute counts. The count is started by depressing and releasing the button mounted at the end of the instrument handle. The scaling accuracy is 2% of reading or better. The count can be stopped by pressing and releasing the count button a second time.

When added to a unit with a window, or upper level discriminator control, the count is the result of the window setting. When the WIN switch is in the IN position, only the pulses within the window are counted. When the window is in the OUT position, all pulses are counted.

LUDLUM MEASUREMENTS, INC.

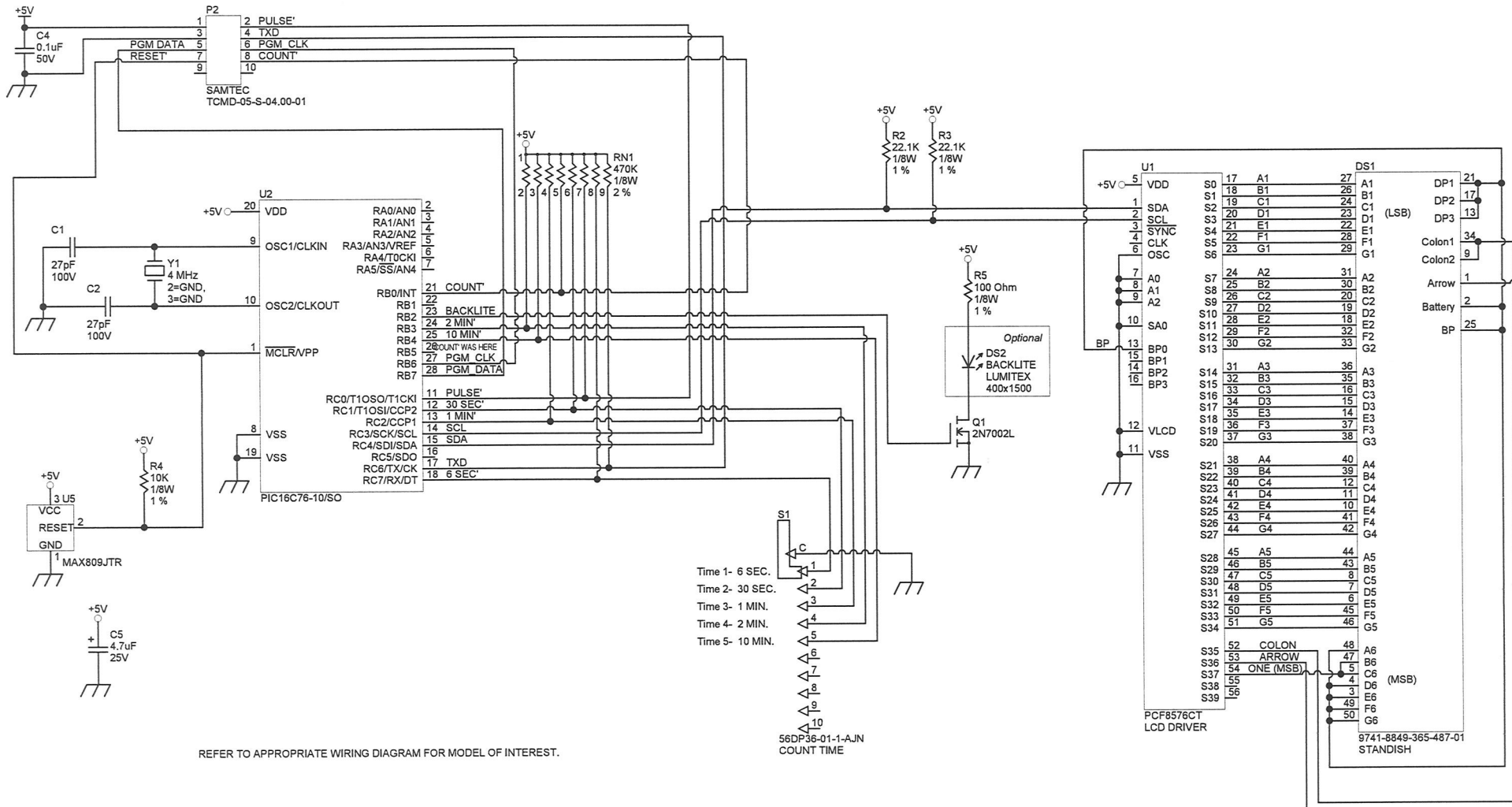
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Parts List

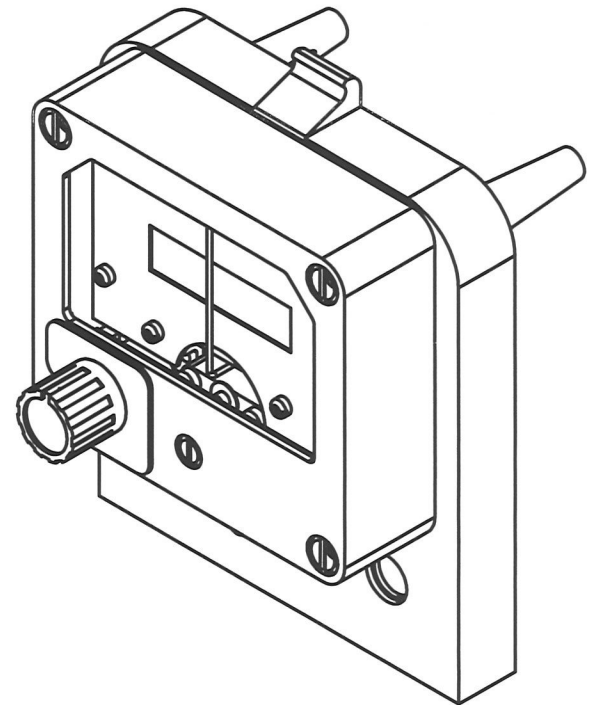
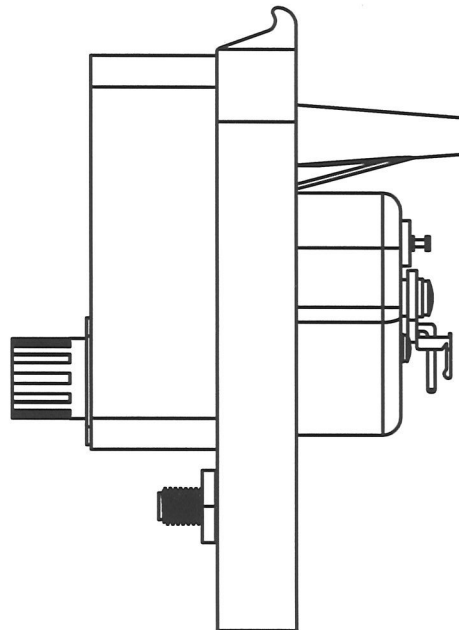
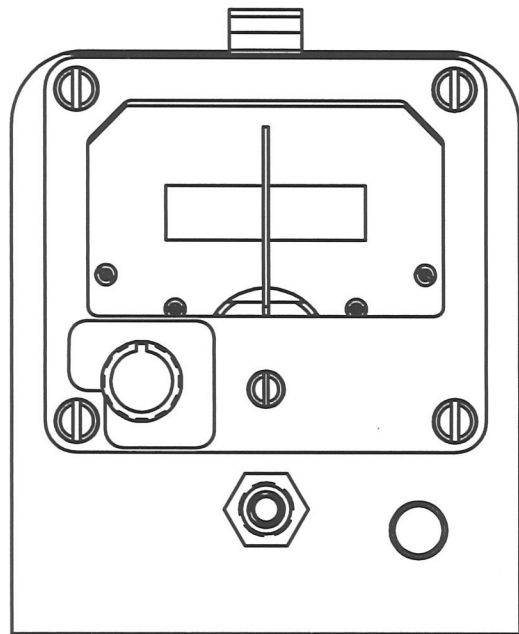
| | | |
|-----------------|-------------------------------------|-----------------|
| * | Portable Scaler Option | 4464-114 |
| Quantity | Description | Part No. |
| 1 | Knob | 08-6601 |
| 1 | RECPT-142-0701-406 | 18-8443 |
| 1 | Meter-Zero Adjust | 15-8065 |
| 2 | Screw-2-56 X 1/8 FIL | 17-8927 |
| 4 | Screw-6-32 X 1 1/8 BH | 17-8929 |
| 2 | Screw-2-56 X 1/2 FIL HD | 17-8960 |
| 2 | Spacer-2-56 X .50 M-F | 18-9112 |
| 2 | Spacer-#2 X .187 NYL | 18-9143 |
| 2 | Wash-#4 (#5) Nylon Flat | 20-9012 |
| 1 | Portable Bezel w/glass (Dig) | 4464-125 |
| 1 | Portable Digital Display Board | 5390-206 |
| 1 | Portable Digital Interconnect Board | 5390-261 |
| 1 | Portable Digital Meter Face | 7464-124 |
| 1 | Harness-Portable Scaler Option | 8464-140 |
| 1 | Digital Nameplate | 9363-714 |




REFER TO APPROPRIATE WIRING DIAGRAM FOR MODEL OF INTEREST.

| | | | |
|--|-------------|--|--------|
| | | PO Box 810 501 Oak Street Sweetwater, Texas 79556 U.S.A. 1-800-622-0828 | |
| | | Title: Portable Digital Scaler Board | |
| Drawn: CKB | 07/18/2001 | Model: Portables | |
| Design: RSS | 08/06/1999 | Board#: 5390-206 | |
| Approve: <i>JMC</i> | 09/16/12 | Sheet: 1 of 1 | Series |
| Print Date: 7/8/2012 | 11:11:46 AM | Rev: 3.0 | Sheet |
| W:\Projects\LMP\Portables\5390-206\rev.03\90206R3P1.SchDoc | | 390 | 206 |

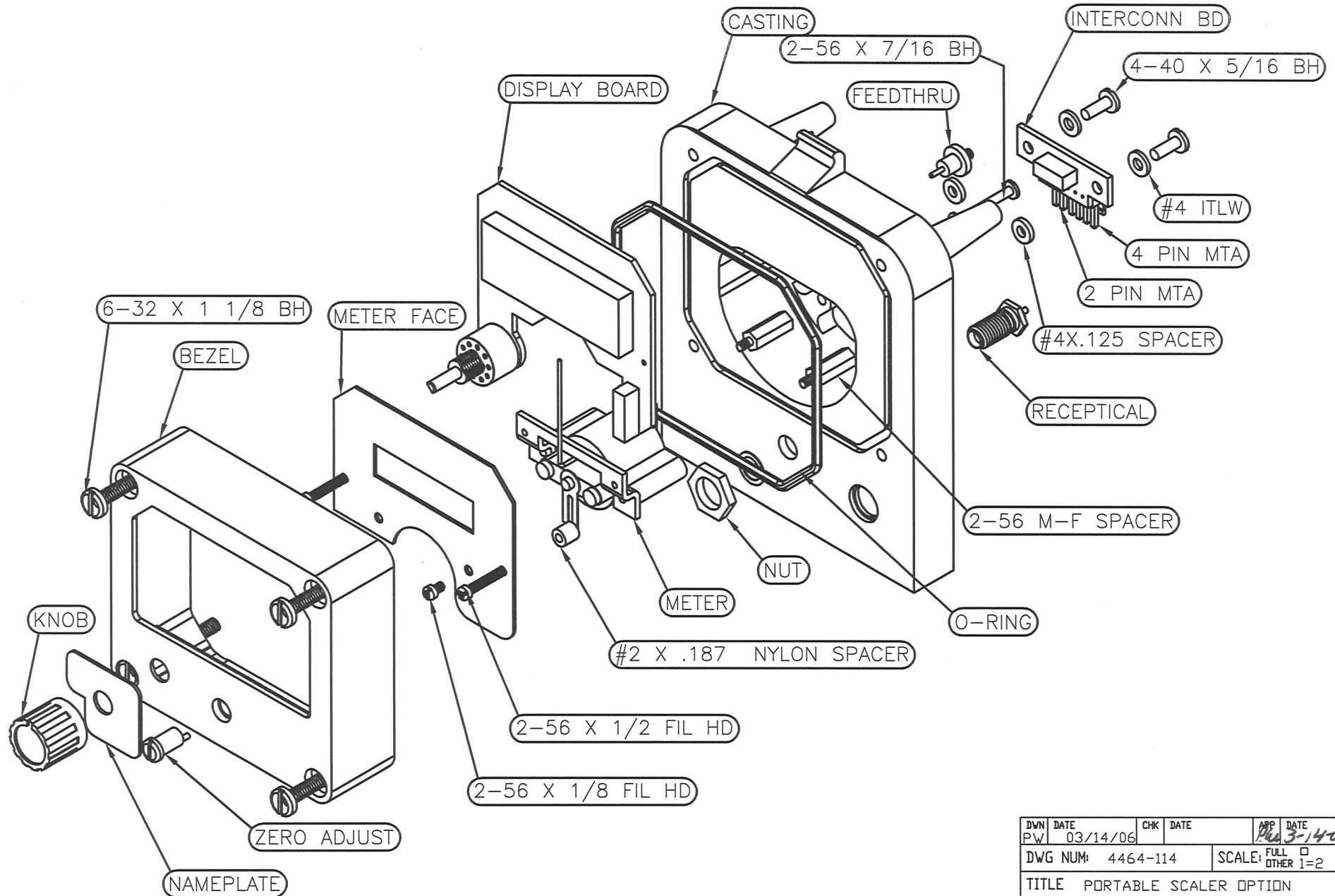
| REV # | ALTERATIONS | DATE | BY |
|-------|-------------|---------|-----|
| 1 | VALID | 3/14/02 | DSW |



| | | | | | |
|--|---------|-----|---|--------------|------|
| DWN | DATE | CHK | DATE | APP | DATE |
| DSW | 3/14/02 | AD | 3-14-02 | | |
| DWG NUM: 4464-114 | | | SCALE: <input type="checkbox"/> FULL <input type="checkbox"/> OTHER 1=0.75 | | |
| TITLE PORTABLE SCALER OPTION | | | | | |
|  LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 75556 | | | SERIES 464 | SHEET 114 | |

NOTE: ON THROUGH HOLE BOARDS
ATTACH THE BLK WIRE ON THE
4 PIN MTA CONNECTOR TO CHASSIS
GROUND NOT BOARD GROUND.

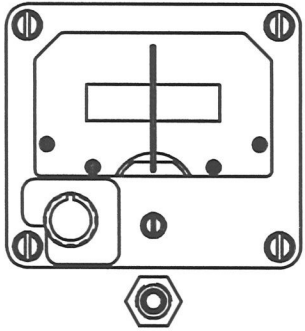
| REV # | ALTERATIONS | DATE | BY |
|-------|-------------|----------|-----|
| 1 | VALID | 09/01/05 | PW |
| 2 | ECF# 1863 | 1/30/06 | CMC |



| | | | | | |
|--|----------|---|-------|-----------|---------|
| DWN | DATE | CHK | DATE | APP | DATE |
| PW | 03/14/06 | | | <i>PW</i> | 3-14-06 |
| DWG NUM: 4464-114 | | SCALE: <input type="checkbox"/> FULL <input checked="" type="checkbox"/> OTHER 1=2 | | | |
| TITLE PORTABLE SCALER OPTION | | | | | |
| LUDLUM MEASUREMENTS, INC. 501 OAK STREET SWEETWATER, TEXAS 79556 | | SERIES | SHEET | | |
| | | 464 | 114B | | |

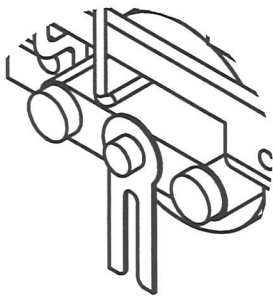
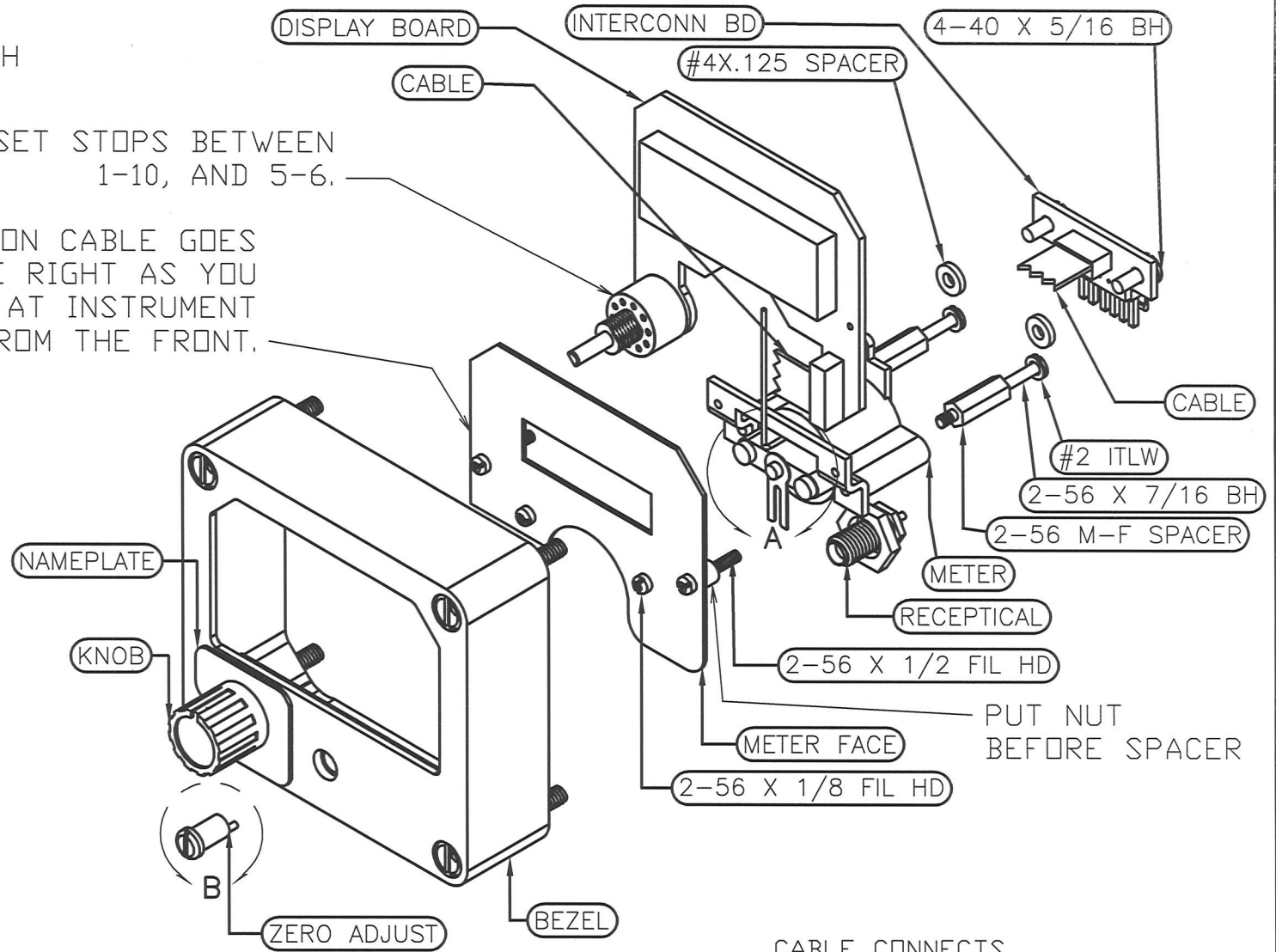
| REV # | ALTERATIONS | DATE | BY |
|-------|-------------|----------|----|
| 1 | VALID | 03/13/06 | PW |

NOTE: CHECK THE NEEDLE
TO SEE IF IT IS TOO HIGH
OR TOO LOW.



SET STOPS BETWEEN
1-10, AND 5-6.

RIBBON CABLE GOES
TO THE RIGHT AS YOU
LOOK AT INSTRUMENT
FROM THE FRONT.



DETAIL A
SCALE 1.6:1

METER ADJUST
IS TO BE BENT
BACK @ 90° THEN
BENT DOWN @ 90°



DETAIL B
SCALE 1.6:1

ZERO ADJUST
TO BE CLIPPED
TO APPROX. 1/16"

CABLE CONNECTS
FROM DISPLAY BOARD
TO INTER-CONNECT BOARD

| DWN | DATE | CHK | DATE | APP | DATE |
|--|----------|-----|---|---------------|----------|
| PW | 03/13/06 | | | | 03-14-06 |
| DWG NUM: 4464-114 | | | SCALE: FULL <input type="checkbox"/> OTHER <input type="checkbox"/> | | |
| TITLE PORTABLE SCALER OPTION | | | | | |
| LUDLUM MEASUREMENTS, INC. 501 DAK STREET SWEETWATER, TEXAS 79556 | | | SERIES 464 | SHEET 114C | |