



APPLICATION		REVISIONS			
NEXT ASSY	USED ON	REV	DESCRIPTION	DATE	APPROVED
		A	PRODUCTION RELEASE/SEE E.O. 33431	12-16-97	L.D.HATCH
		B	SEE E.O. 34673	9-30-99	L.D.HATCH
		C	SEE E.O. 35345	9-20-01	<i>[Signature]</i>

MANUAL

- SHEET 0 - THIS SHEET
- SHEET 1 - FEATURES
- SHEET 2 - GENERAL SPECIFICATIONS
- SHEET 3 - EXPLODED ASSY VIEW & PARTS REFERENCE
- SHEET 4 - ASSY INSTRUCTIONS
- SHEET 5 - CASH DRAWER MOUNTING CONFIGURATIONS
- SHEET 6 - OPERATION & KIT NUMBERING SCHEME



REV STATUS OF SHEETS	REV	C	C	B	B	B	B	C										
	SHEET	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE : FRACTIONS DECIMALS ANGLES ± .XXX± ±	CONTRACT NO.		 INDUSTRIAL ELECTRONIC ENGINEERS, INC. VAN NUYS, CALIFORNIA
	APPROVALS	DATE	
TREATMENT	DRAWN	ISIS WOLFE	12-12-97
FINISH	CHECKED	D.SUMMERS	12-16-97
	ISSUED	L.D.HATCH	12-16-97
SIZE		CAGE CODE	DWG NO.
A		05464	PDK-220B-INOPML
SCALE -		PROJ NO. 468	SHEET 0 OF 6





DISPLAYS  
KEYBOARDS  
INTEGRATED PANELS

INDUSTRIAL ELECTRONIC ENGINEERS, INC. 7740 Lemona Ave., Van Nuys, CA 91409-9234, U.S.A. • Tel 818-787-0311

---

---

# PDK-220B-XXXXXX\* "Ultimate Compatible" Pole Display Kit

## INSTALLATION and OPERATING INSTRUCTIONS

---

### Key Features:

- Vacuum Fluorescent (VF) display - 2 line x 20 character 9mm 5x7 dot matrix - with contrast enhancing filter, EIA-232 interface, detachable DB-9F host interface/power supply cable and available 24Vdc wall mount power supply.
- Ultimate 220XL software personality.
- Display module housed in a compact, impact resistant enclosure with smooth tilt-recline and 330° swivel adjustment. Pole and mounting base kit selections are available.
- Display certified to the requirements of UL, CE, TUV and FCC Part 15, Class A.

(\* Refer to Page 6 for exact configuration of your kit).

### Table of Contents:

**Page 2** provides General Specifications and an introduction to the Assembly and Installation of the pole display.

**Page 3** provides an exploded view of your pole display assembly with part numbers, so you can identify and verify that you have all the parts ordered.

**Pages 4 and 5** provide instructions for assembling the display and attaching it using one of many mounting configurations.

**Page 6** provides information on how to operate the display.

**Page 6** also provides the kit numbering scheme that defines the exact contents as referenced by the number on the lid of the shipping box. **PDK-220B-XXX** defines the characteristics of the display head (i. e. display type, software functionality, pole position, housing color and filter color) and cannot be revised.

---

## PRODUCT SUPPORT

---

For information not found in these Instructions, please contact IEE's Sales Application Engineering Department:

Industrial Electronic Engineers, Inc.  
7740 Lemona Avenue  
Van Nuys, California 91409-9234 USA

Phone: (800) 422-0867 or (818) 787-0311  
Fax: (818) 901-9046  
E-mail: mail@ieeinc.com

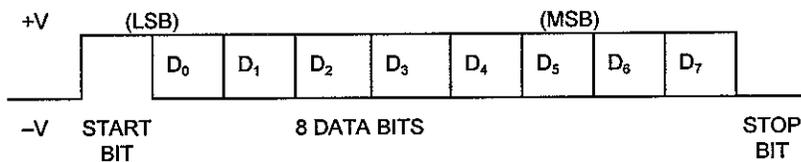
PDK-220B-INOPML  
September 17, 2001

## GENERAL SPECIFICATIONS

### Interface:

<ul style="list-style-type: none"> <li>• <b>Power:</b></li> <li>• <b>Caution:</b></li> <li>• <b>Signal:</b></li> </ul>	<p>Supply voltage 11-29 Vdc          Supply current @24 Vdc 213 ma (max)          Supply risetime 100 milliseconds (max)</p> <p>Supply sequencing Rapid ON/OFF sequencing is not recommended.          Start cycle The display is not ready to accept data until 1.2 seconds after application of power.</p> <p>Serial EIA-232 9600 baud - 8 bits - no parity          Serial input levels +3V to +15V (space/logic 0)          -3V to -15V (mark/ logic 1)</p>	<ul style="list-style-type: none"> <li>• <b>Pin Assignments:</b></li> </ul> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; width: 10%;">(Host)</td> <td style="width: 10%;"></td> </tr> <tr> <td></td> <td>DB-9F</td> <td></td> </tr> <tr> <td></td> <td>COM</td> <td>1</td> <td>COM</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>RXD</td> <td>2</td> <td>TXD</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>TXD</td> <td>3</td> <td>RXD</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>DTR</td> <td>4</td> <td>DSR</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>SIG GND</td> <td>5</td> <td>SIG GND</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>DSR</td> <td>6</td> <td>DTR</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>N.A.</td> <td>7</td> <td>N. C.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>CTS</td> <td>8</td> <td>DTR</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>N.A.</td> <td>9</td> <td>N. C.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	(Host)													DB-9F												COM	1	COM										RXD	2	TXD										TXD	3	RXD										DTR	4	DSR										SIG GND	5	SIG GND										DSR	6	DTR										N.A.	7	N. C.										CTS	8	DTR										N.A.	9	N. C.								
(Host)																																																																																																																																						
	DB-9F																																																																																																																																					
	COM	1	COM																																																																																																																																			
	RXD	2	TXD																																																																																																																																			
	TXD	3	RXD																																																																																																																																			
	DTR	4	DSR																																																																																																																																			
	SIG GND	5	SIG GND																																																																																																																																			
	DSR	6	DTR																																																																																																																																			
	N.A.	7	N. C.																																																																																																																																			
	CTS	8	DTR																																																																																																																																			
	N.A.	9	N. C.																																																																																																																																			

Data Format



### Environmental:

- **Operating Temperature:** 0 to +70 °C (+32 to +158 °F)
- **Storage Temperature:** -20 to +70 °C (-4 to +158 °F)
- **Relative Humidity:** 0 to 95% (non-condensing)

## ASSEMBLY and INSTALLATION

### Overview

To achieve the greatest mounting and cabling flexibility available in a POS pole display system, this kit provides a cable break a few inches from the pod. The DIN8M on the module pigtail cable connects to the DIN8F on the Host/Power cable assembly after it has been installed and routed through the pole. This allows easy connect and disconnect of the display module.

The DIN8F should be routed through any holes, slots, etc in the installation and mounting hardscape (organizers, hardware, mounting surfaces, mounting bases or kits) between the Host DB9 and Power Supply connections before it is routed through the pole, from the bottom (threaded end). The independent power supply cable provides additional flexibility in locating the wall mount power supply.

Pages 3, 4 and 5 provide information on the assembly and installation/attachment of the pole display. Details are provided for attaching the pole to a variety of bases, kits, surfaces and organizers.

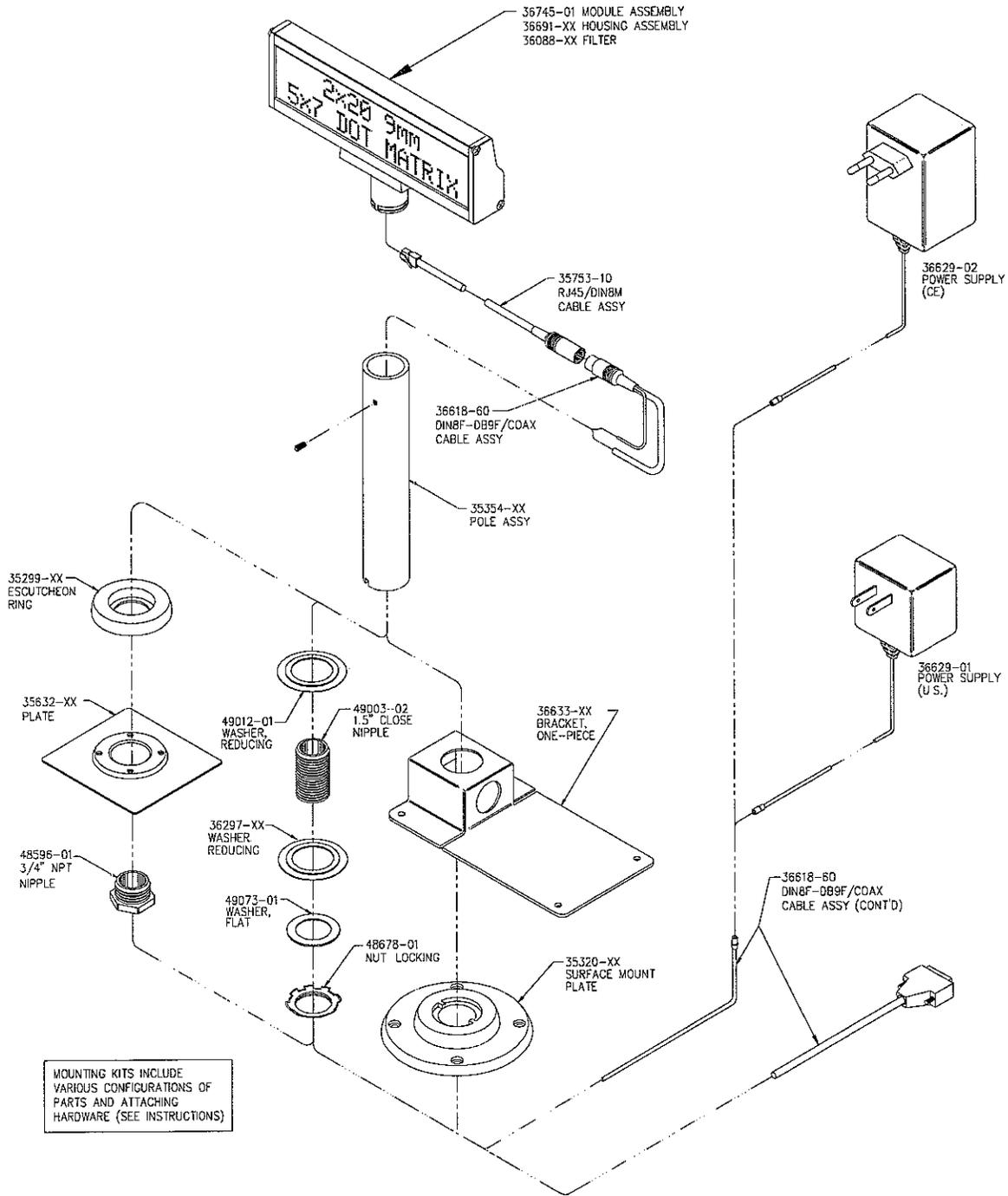
### Installation Instructions:

Perform these electrical installation steps after, or as a part of, the attachment instructions appropriate for the specific mechanical installation

1. Connect the DB-9 (female) to the appropriate port on the host system.
2. Plug the wall mount power supply into an appropriate AC outlet.
3. A blinking cursor should appear in the left-most position on the top line. The POS display is now ready for operation as described on page 6

# EXPLODED ASSEMBLY VIEW and PARTS REFERENCE

## PDK-220B-XXXXXX POS POLE DISPLAY DISTRIBUTOR KIT TYPE 3C POD RS232 INTERFACE



# ASSEMBLY INSTRUCTIONS

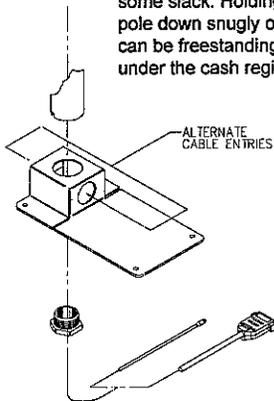
## Mounting Kits:

- **35360-0X SURFACE MOUNTING KIT (standard)**
  - (1) 35320-XX SURFACE MOUNT PLATE
  - (1) 48596-01 CONDUIT NIPPLE
- **35697-0X BASE KIT, HEAVY METAL**
  - (1) 35632-XX PLATE, MULTI-PURPOSE
  - (1) 35299-XX ESCUTCHEON RING
  - (1) 48596-01 CONDUIT NIPPLE
- **36231-0X ICD POLE KIT**
  - (1) 36297-XX WASHER, REDUCING
  - (1) 49003-02 CLOSE NIPPLE
  - (1) 49012-01 WASHER, REDUCING
  - (1) 48678-01 LOCKNUT
- **36634-0X MOUNTING KIT, SHEET METAL BASE**
  - (1) 36633-XX BASE, SHEET METAL
  - (1) 48596-01 CONDUIT NIPPLE
  - (4) 48765-10 #8-18 PAN HEAD SCREW, THD FORMING
- **36631-99 APG BRACKET KIT**
  - (1) 36630-99 BRACKET, POLE
  - (1) 48596-01 CONDUIT NIPPLE
  - (2) 48989-02 #8-32 PAN HD. SCREW, LOCKWASHER
  - (2) 43311-04 #8-32 NUT, HEX
- **36632-0X MS CASH KIT**
  - (1) 36297-XX WASHER, REDUCING
  - (1) 49073-01 WASHER, FLAT
  - (1) 48596-01 CONDUIT NIPPLE

## Surface Mount and Freestanding Configurations:

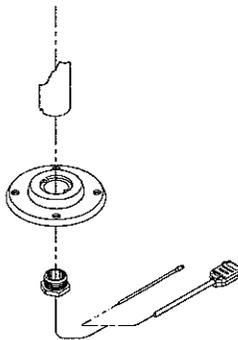
### Mounting Kit, Sheet Metal

Thread the DIN8F connector through a hole in the mounting surface or one of the two side openings in the bracket and then through the conduit nipple. Thread the connector through the bracket top hole and into the threaded end of the pole, continue to feed the cables in until the connector emerges from the pole, and pull out some slack. Holding the conduit nipple in place screw the pole down snugly onto the bracket. The sheet metal base can be freestanding, mounted with 48765-10 screws or slid under the cash register, etc



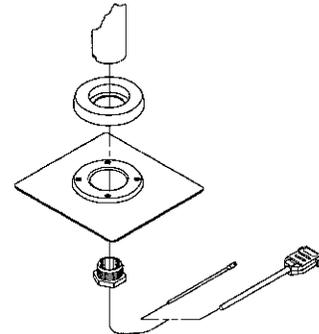
### Surface Mount Plate

Thread the DIN8F connector through a hole in the mounting surface and conduit nipple, or breakout one of the tabs in the surface mount plate (use wide, square jaw pliers) and route the cable through the conduit nipple. Thread the cable through the surface mount plate and pole. Holding the pole in the plate, tighten the conduit nipple into the pole. Attach the mounting plate to the surface, being careful to route the cables through the breakout tab if applicable



### Base Kit, Heavy Metal

Thread the DIN8F connector through a hole in the mounting surface and conduit nipple or just through the conduit nipple. Thread the cable through the base, escutcheon ring and pole. Pull some cable slack through, push the nipple into the recess in the base, put the pole in place in the escutcheon ring and tighten it onto the nipple threads until snug



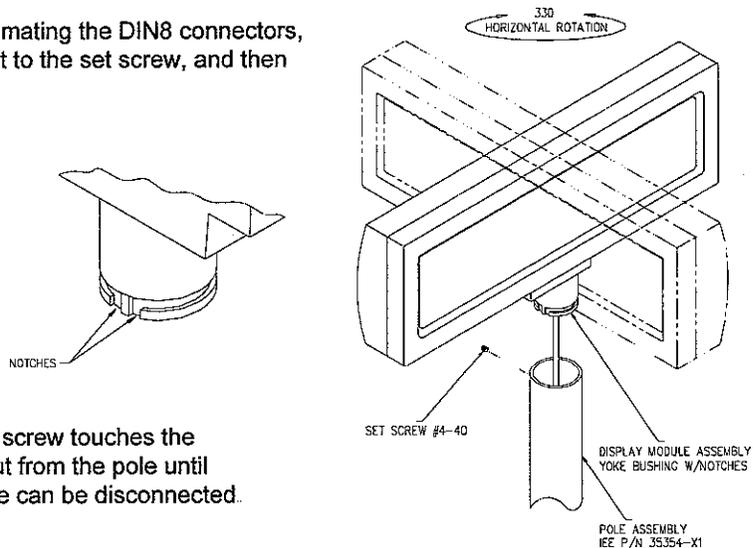
## Display Module and Pole Assembly:

The display module is attached to the pole assembly by mating the DIN8 connectors, inserting the display yoke into the pole at the end closest to the set screw, and then rotating the display.

1. Push the cable slack back into the pole.
2. Insert the display module partially into the pole and align the set screw with one of the two notches on the yoke bushing.
3. Push the yoke bushing completely into the pole, then rotate the module on the pole as desired

### TO REMOVE THE MODULE:

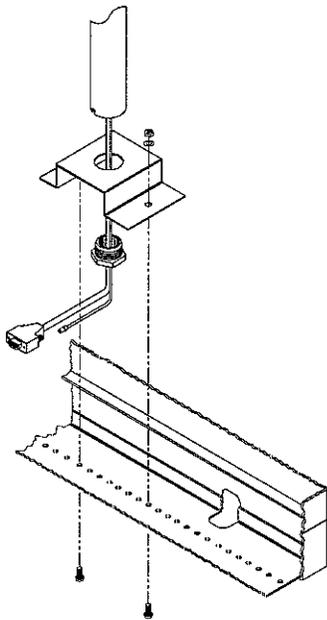
Rotate the module in either direction until the set screw touches the stop on the yoke, then pull the module straight out from the pole until the DIN8 connectors are exposed and the module can be disconnected.



## CASH DRAWER MOUNTING CONFIGURATIONS

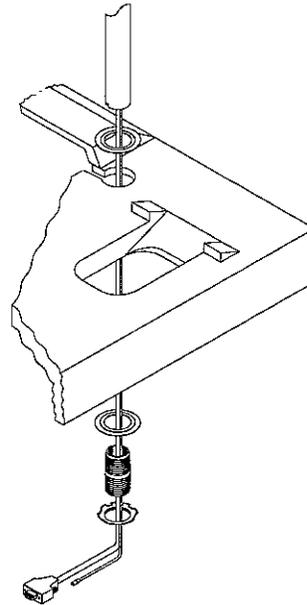
### • APG CASH DRAWER

Thread the DIN8F connector through the conduit nipple, bracket and pole, pulling out some slack. Hold the nipple in place and tighten the pole down onto the bracket. Mount the assembly (through the partner) in the selected position along the row of mounting holes at the rear of the drawer using the hardware as shown.



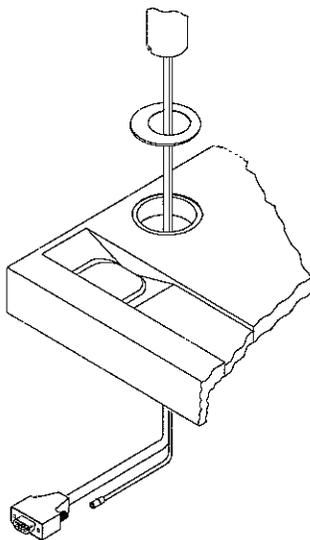
### • INDIANA CASH DRAWER

Remove the mounting bracket on the underside of the shoe. Tighten the close nipple into the pole. Thread the DIN8F connector through the locknut, metal washer, shoe, painted washer and pole. Put the pole on the painted washer and tighten it in place with the locknut.



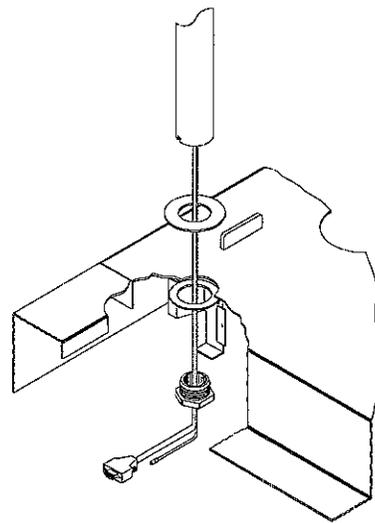
### • MMF CASH DRAWER

Loosen the U-clamp nuts on the pole mounting bracket in the POS platform system. Thread the DIN8F connector through the POS platform, eccentric washer and pole. Seat the pole in the bracket to full depth and tighten the U-clamp nuts to secure the assembly in place.



### • MS CASH DRAWER

Remove the clamp assembly from the mounting bracket on the underside of the POS deck. Thread the DIN8F connector through conduit nipple, small washer, POS deck, painted washer and pole, pulling out some slack. Slide the small washer under the edges of the spotwelded bracket at the underside surface of the POS deck. Hold the nipple in place through the washer and tighten the pole onto the nipple, over the painted washer, to secure the pole in place.



---

## OPERATION

---

After power-up the display is ready to operate as a plug-and-play emulation of the Ultimate software personality. This display is pre-set to 9600 baud, no parity and one stop bit.

---

## KIT NUMBERING SCHEME

---

PDK-[220B]- X<sub>1</sub> X<sub>2</sub> X<sub>3</sub> X<sub>4</sub> X<sub>5</sub> X<sub>6</sub>

### POLE POSITION

- 0 = CENTER/NO OPTION
- C = CENTER
- L = LEFT SIDE
- R = RIGHT SIDE

### HOUSING COLOR

- W = WHITE (IEE IVORY GRAY)
- B = JET BLACK

### FILTER COLOR

- A = AMBER
- B = BLUE
- G = GREEN
- N = NEUTRAL GRAY  
(DISPLAY APPEARS AQUA)

### POLE LENGTH

- 0 = NOT PROVIDED
- B = MINIMUM LENGTH (2 IN.)
- S = SHORT (6 IN.)
- D = MEDIUM SHORT (10 IN.)
- M = MEDIUM (12 IN.)
- L = LONG (18 IN.)
- X = EXTRA LONG (22 IN.)

### MOUNTING KIT

- 0 = NOT SUPPLIED
- 1 = MNTG KIT, UNIVERSAL
- 2 = MNTG KIT, HARD
- 3 = MNTG KIT, SHEET METAL
- 4 = BASE KIT, PASS THRU
- 5 = BASE KIT, HEAVY METAL
- 6 = SURFACE MOUNT KIT
- A = MNTG KIT, APG BRACKET
- I = MNTG KIT, ICD POLE
- C = MNTG KIT, MS CASH

### POWER SUPPLY

- 0 = NOT SUPPLIED
- 1 = 115VAC-24VDC/US-COAX (2.1MM)
- 2 = 230VAC-24VDC/CE-COAX (2.1MM)

NOTE: THE SUB-SET PDK -[220B] -X<sub>1</sub>X<sub>2</sub>X<sub>3</sub> DEFINES THE DISPLAY ASSEMBLY IN THIS PDK KIT.