

File E465558  
Project 4786428730

REPORT

On

PROGRAMMABLE CONTROLLERS

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Taipei, Taiwan

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## DESCRIPTION

## PRODUCT COVERED:

USL, CNL - Human Machine Interface (HMI), Model PT043-WST, followed by X0 or 4X, followed by -xxxxxxx.

PT, followed by 070, 080, 100, 104 or 150, followed by -xxxxx-xxxxxxx.

PX, followed by 070, 080, 100, 104, 121 or 150, followed by -xxxxx-xxxxxxx.

GX, followed by x, followed by 07, 08, 10, 11 or 12, followed by -xxxxx-xxxxxxx.

Where x can be 0 to 9, A to Z or blank. When x is blank, there is no "-".

## GENERAL:

These devices are open type should be installed in an enclosure. They are programmable controllers with communication interface and intended for use in industrial applications.

## ELECTRICAL RATINGS:

Model series	Input voltage	Input Current	Maximum Surrounding Air Temperature	Environmental type
PT043-WSTX0, PT043-WST4X	20-28 V dc, Class 2	0.4 A	60°C	open type
PT070,PT080, PT100,PT104, PT150,  PX070,PX080, PX100,PX104, PX121,PX150,  GXx07,GXx08, GXx10,GXx11, GXx12,GXx15		0.8 A		

Output one USB port only (Front side or back side): 5Vdc, 0.5A, 2.5W

## NOMENCLATURE:

PX 070 - xxxxx-xxxxxxx  
I II III

I. Series Name  
PX, GX - with Video-in Function.  
PT - without Video-in Function.

II. LCD Panel module  
043 - 4.3" TFT-LCD.  
070 or x07 - 7.0" TFT-LCD.  
080 or x08 - 8.0" TFT-LCD.  
100 or x11 - 10.1" TFT-LCD.  
104 or x10 - 10.4" TFT-LCD.  
121 or x12 - 12.1" TFT-LCD.  
150 or x15 - 15.0" TFT-LCD.

III. For marking purpose  
x can be any number, letter or blank

## TECHNICAL CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

The product has been evaluated to the requirements of UL and the Canadian National Standard with the description on the following pages.

USL - Indicates investigation to United States Standard for Industrial Control Equipment, UL 508.

CNL - Indicates investigation to Canadian Standard for Process Control Equipment, CSA C22.2 No. 142-M1987.

Note: CNL = Canadian National Standards - Listed.  
USL = United States Standards - Listed.

## CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following description and accompanying photographs.

Tolerances - Unless specified otherwise, all indicated dimensions are nominal.

Corrosion Protection - All parts are of corrosion resistant material or are painted or plated as corrosion protection.

Spacings - These devices have been judged on the basis of the spacing required in the Standard for Industrial Control Equipment, UL 508, paragraph 180 and Table 180.1 for the spacing between traces of opposite polarity on a printed wiring board, Table 36.4 for field-wiring terminals, Clause 32 for Isolated Secondary Circuit, Table 36.3 for other locations and Canadian Standard for Process Control Equipment, CSA C22.2 No. 142-M1987, Third Edition, Clause 4.14 and Table 3 and Table 4.

Permanence of Marking - Markings may be molded, die-stamped, paint-stenciled, stamped, laser engraved or etched in metal or indelibly stamped on an aluminum, pressure-sensitive label secured by adhesive. Unless otherwise specified, pressure sensitive labels which contain any of the required markings, shall be R/C (PGDQ2) or R/C (PGJI2), Printing Material, it shall be rated for an maximum operating ambient of 80°C or better and shall also be suitable for 0°C (indoor use) operating ambient, material shall be suitable for application Surface. If R/C (PGJI2), Printing Material was employed, the combination of the ink (ribbon) and the label material shall be used per the manufacturer's UL specifications, the printing of the label shall be done using compatible printing equipment.

Markings - Each device shall be plainly marked with Listee's company name or file number, model number, electrical ratings (include "Class 2" next to the voltage rating) and date of manufacture (the month and year, at least).

Markings - The following information shall be provided on a separable self-adhesive permanent label, wiring diagram or instruction manual, and shipped with the device.

- a. "Maximum Surrounding Air Temperature 60°C or similar verbiage.
- b. "For use in Pollution Degree 2 Environment" or similar verbiage. If the product is intended for use in Canada, "CAUTION: FOR USE IN A CONTROLLED ENVIRONMENT" should be provided in both English and French.
- c. Suitable wiring diagram to indicate the connection.
- d. Mounting instructions.
- e. Maximum rated voltage of all signal circuits.

Field Wiring Terminal Markings - "Use Copper Conductors Only". Field wiring terminals shall be marked to show a range of values or a normal value of tightening torque in pound-inches per the terminal block manufacturer. This marking is able to be located adjacent to the terminal or on a wiring diagram.

## MODEL PT043-WSTX0 - FIGS. 1 THRU 8

General - See below figures for overall view.

-	External view	Internal view	Power board	Main board
FIGS.	1,2	3,8	3,6	7,8

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick, (rated V-0, 120°C). Two pieces construction secured by screw, see ILL. 1 for dimensions detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 1 for dimensions details.
3. LCD Panel module - Manufactured by Innolux, model no. AT043TN24 V.7.  
Alternate - Vitek Display, model no. VT043A-LT05-T01B.  
Alternate - Shenzhen K&D, model no. KD43G18-40TB-A2.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, two pieces (Power board, Main board), printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Power board and Main board are provided.
5. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size, push in type). Located on the Power Board.
6. Capacitor (C78) - Electrolytic type, rated 470 uF, 35V, min. 85°C. Located on the Power Board.
7. Lithium Battery (CON2) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the Main Board.
8. Transformer (T1) - Constructed as below. Located on the Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
9. Isolator (U3) - R/C (FPQU2, FPQU8), or R/C (FPQU2), CSA certified, rated minimum 1500 V ac isolation voltage, minimum 100°C. Located on the Main Board.

## MODEL PT043-WST4X - FIGS. 9 THRU 16

General - See below figures for overall view.

-	External view	Internal view	Power board	Main board
FIGS.	9, 10	11 thru 16	13, 14	15,16

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, (rated V-0, 120°C). Two pieces construction secured by screw, see ILL. 1 for dimensions detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 1 for dimensions details.
3. LCD Panel module - Manufactured by Innolux, model no. AT043TN24 V.7.  
Alternate - Vitek Display, model no. VT043A-LT05-T01B.  
Alternate - Shenzhen K&D, model no. KD43G18-40TB-A2.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, two pieces (Power board and Main board), printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support.
5. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size, push in type). Located on the power board.
6. Output Terminal Block (CON4) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the power board.
7. Transformer (T1) - Constructed as below. Located on the power board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, 105°C.
8. Capacitor (C4) - Electrolytic type, rated 470 uF, 35 V, min. 105°C. Located on the power board.
9. Isolator (U2) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on the power board.

10. Lithium Battery (CON2) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the Main Board.

## MODELS PX070 - FIGS. 17 THRU 29

General - PX070 represents GXx07. See below figures for overall view.

-	External view	Internal view	VIDEO-IN BOARD	CPU board	Main board	COM2 Module board
FIGS.	17 THRU 19	20 THRU 29	22, 23	24, 25	26, 27	28, 29

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screws. See ILL. 2 for dimensions details.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 2 for dimensions details.
3. LCD Panel module - Manufactured by Innolux, model no. AT070TN83.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Video In board, CPU board, Main board and COM2 Module boards are provided.
5. Output Terminal Block (J19) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on Video-In board.
6. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
7. Isolator (U7) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on the CPU Board.
8. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
9. Input Terminal Block (J4) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on Main Board.

10. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
11. Resistor (R71) - Rated 0.22 Ohm, 1 W. Located on Main Board.
12. Capacitor (C69) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PX080 - FIGS. 20 THRU 29, 34 THRU 36

General - PX080 represents GXx08. See below figures for overall view.

-	External view	Internal view	VIDEO-IN BOARD	CPU board	Main board	COM2 Module board
FIGS.	34 THRU 36	20 THRU 29	22, 23	24, 25	26, 27	28, 29

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, (rated V-0, 120°C). Two pieces construction secured by screws. See ILL. 3 for dimensions detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 3 for dimensions detail.
3. LCD Panel module - Manufactured by Chimei, model no. LS080HT111.  
Alternate - Shenzhen K&D, model no. KD080D9-40NH-A1.  
Alternate - Tianma, model no. TM080SDH01.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated min. V-1, min. 105°C. Printed wiring material must be suitable for direct support. Video In board, CPU board, Main board and COM2 Module board are provided.
5. Output Terminal Block (J19) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the Video-In board.
6. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
7. Isolator (U7) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on the CPU Board.
8. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
9. Input Terminal Block (J4) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on Main Board.

10. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
11. Resistor (R71) - Rated 0.22 Ohm, 1 W. Located on Main Board.
12. Capacitor (C69) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PT070 - FIGS. 20 THRU 29, 34 THRU 36

General - PT070 represents GXx08. See below figures for overall view.

-	External view	Internal view	CPU board	Main board	COM2 Module board
FIGS.	17,18,30	26 thru 29, 31 THRU 33	32,33	26, 27	28, 29

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screws. See ILL. 2 for dimensions details.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. see ILL. 2 for dimensions details.
3. LCD Panel module - Manufactured by Innolux, model no. AT070TN83.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. CPU board, Main board and COM2 Module board are provided.
5. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Isolator (U7) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on the CPU Board.
7. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
8. Output Terminal Block (J4) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on Main Board.
9. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
10. Resistor (R71) - Rated 0.22 Ohm, 1 W. Located on Main Board.
11. Capacitor (C69) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PT080 - FIGS. 26 THRU 29, 31 THRU 35, 37

General - PT080 represents GXx08. See below figures for overall view.

-	External view	Internal view	CPU board	Main board	COM2 Module board
FIGS.	34, 35, 37	26 thru 29, 31 THRU 33	32,33	26, 27	28, 29

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screws. See ILL. 3 for dimensions details.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 3 for dimensions details.
3. LCD Panel module - Manufactured by Chimei, model no. LS080HT111.  
Alternate - Shenzhen K&D, model no. KD080D9-40NH-A1.  
Alternate - Tianma, model no. TM080SDH01.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Main board, CPU board and COM2 Module board are provided.
5. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Isolator (U7) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on the CPU Board.
7. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
8. Output Terminal Block (J4) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on Main Board.

9. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
10. Resistor (R71) - Rated 0.22 Ohm, 1 W. Located on Main Board.
11. Capacitor (C69) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PX100 - FIGS. 38 THRU 50

General - MODEL PX100 represents GXx11. See below FIGS for overall view.

-	External view	Internal view	Video In board	CPU board	Main board	COM2 Module board
FIGS.	38 thru 40	41 thru 50	43, 44	45, 46	47,48	49, 50

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screw, see ILL. 4 for dimensions details.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 4 for dimensions details.
3. LCD Panel module -Shenzhen K&D, model no. KD101N7-40NB-A6.  
Alternate - HannStar, model no. HSD100IFW4-A00.  
Alternate - CHIMEI, model no. N101LGE-L11.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated min. V-1, min. 105°C. Printed wiring material must be suitable for direct support. Video-in board, Main board, CPU board and COM2 Module boards are provided.
5. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
7. Output Terminal Block (J5) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on Main Board.
8. Output Terminal Block (J19) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the Video In board.

9. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
10. Isolator (U5) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.
11. Resistor (R66) - 0.22 Ohm, 1 W. Located on Main Board.
12. Capacitor (C89) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PT100 - FIGS. 38 AND 39, 47 AND 48, 50 THRU 54

General - MODEL PT100 represents GXx10. See below FIGS for overall view.

-	External view	Internal view	CPU board	Main board	COM2 Module board
FIGS.	38,39,51	52	53,54	47,48	49, 50

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screw, see ILL. 4 for dimensions detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. See ILL. 4 for dimensions details.
3. LCD Panel module - Shenzhen K&D, model no. KD101N7-40NB-A6.  
Alternate - HannStar, model no. HSD100IFW4-A00.  
Alternate - CHIMEI, model no. N101LGE-L11.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Main board, CPU board and COM2 Module board are provided.
5. Lithium Battery (BT1) - Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
7. Output Terminal Block (J5) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the main board.
13. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.

8. Isolator (U5) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.
9. Resistor (R66) - 0.22 Ohm, 1 W. Located on Main Board.
10. Capacitor (C89) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PX104 - FIGS. 41 THRU 50, 55 THRU 57

General - MODEL PX104 represents GXx10. See below FIGS for overall view.

-	External view	Internal view	Video In board	CPU board	Main board	COM2 Module board
FIGS.	55 thru 57	41 thru 50	43, 44	45, 46	47,48	49, 50

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screw, see ILL. 5 for dimensions detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. see ILL. 5 for dimensions details.
3. LCD Panel module - Manufactured by Tianma, model no. TM104SDH01.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Video-in board, Main board, CPU board and COM2 Module board are provided.
5. Lithium Battery (BT1) - Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
7. Output Terminal Block (J5) - /C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the main board.
8. Output Terminal Block (J19) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the Video In board.
9. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.

10. Isolator (U5) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.
11. Resistor (R66) - 0.22 Ohm, 1 W. Located on Main Board.
12. Capacitor (C89) - Electrolytic type, rated 470 uF, 35 V, min. 105°C. Located on Main Board.

## MODELS PT104 - FIGS. 45 THRU 50, 55 AND 56, 58

General - See below FIGS for overall view.

-	External view	CPU board	Main board	COM2 Module board
FIGS.	55, 56, 58	45, 46	47,48	49, 50

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured screw, see ILL. 5 for dimension detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. see ILL. 5 for dimensions detail.
3. LCD Panel module - Manufactured by Tianma, model no. TM104SDH01.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Main board, CPU board and COM2 Module board are provided.
5. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
7. Output Terminal Block (J5) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the main board.
8. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
9. Isolator (U5) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.
10. Resistor (R66) - 0.22 Ohm, 1 W. Located on Main Board.
11. Capacitor (C89) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PX121 - FIGS. 59 THRU 70

General - MODEL PX121 represents GXx12. See below FIGS for overall view.

-	External view	Internal view	Video In board	CPU board	Main board	COM2 Module board
FIGS.	59,60	61 thru 70	63,64	65,66	67,68	69,70

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screws, see ILL. 6 for dimensions detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. see ILL. 6 for dimensions detail.
3. LCD Panel module - Manufactured by Chimei, type G121X1-L04.  
Alternate - Sharp, type LQ121S1LG73.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Video-in board, Main board, CPU board and COM2 Module board are provided.
5. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
7. Output Terminal Block (CON1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the main board.
8. Output Terminal Block (J19) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the Video In board.

9. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
10. Isolator (U2) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.
11. Resistor (R87) - 0.22 Ohm, 1 W. Located on Main Board.
12. Capacitor (C133) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PX150 - FIGS. 61 THRU 72

General - MODEL PX150 represents GXx15. See below FIGS for overall view.

-	External view	Internal view	Video In board	CPU board	Main board	COM2 Module board
FIGS.	71, 72	61 thru 70	63,64	65,66	67,68	69,70

- Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screws, see ILL. 7 for dimension detail.
- Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. see ILL. 7 for dimensions detail.
- LCD Panel module - Manufactured by IVO, type M150GNN2.  
Alternate - AUO, type G150XTN05.0.  
Alternate - Sharp, type LQ150X1LG91.
- Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Video-in board, Main board, CPU board and COM2 Module board are provided.
- Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
- Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
- Output Terminal Block (CON1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the main board.
- Output Terminal Block (J19) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the Video In board.

9. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
10. Isolator (U2) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.
11. Resistor (R87) - 0.22 Ohm, 1 W. Located on Main Board.
12. Capacitor (C133) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.

## MODELS PT150 - FIGS. 67 THRU 70, 73 THRU 76

General - See below FIGS for overall view.

-	External view	CPU board	Main board	COM2 Module board
FIGS.	73,74	75,76	67,68	69,70

1. Housing - R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), minimum 2.0 mm thick, rated V-0, 120°C. Two pieces construction secured by screw, see ILL. 7 for dimension detail.
2. Front side Frame of housing - Aluminum Alloy or R/C (QMFZ2), SABIC INNOVATIVE PLASTICS JAPAN L L C (E207780), Type 945 (GG), min. 2.0 mm thick. see ILL. 7 for dimension detail.
3. Panel module - Manufactured by IVO, type M150GNN2.  
Alternate - AUO, type G150XTN05.0.  
Alternate - Sharp, type LQ150X1LG91.
4. Printed Wiring Board - R/C (ZPMV2, ZPMV8) or R/C (ZPMV2), CSA certified, printed wiring board whose solder time and temperature can be confirmed in the R/C Directory and rated minimum V-1, minimum 105°C. Printed wiring material must be suitable for direct support. Main board, CPU board and COM2 Module board are provided.
5. Lithium Battery (BT1) - R/C (BBCV2), PANASONIC CORPORATION OF NORTH AMERICA, (MH12210), type VL2330, (3 V dc, max. charging current 300 mA, 100°C). Located on the CPU Board.
6. Input Terminal Block (TB1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. 2EHDVC series, (rated 300 V, 15 A, 105°C, FW-1), mating with Cat. No. 2ESDSR series, (rated 300 V, 15 A, 105°C, FW-2, suitable for 14-28 AWG wire size). Located on Main Board.
7. Output Terminal Block (CON1) - R/C (XCFR2/8), DINKLE ENTERPRISE CO LTD (E102914), Cat. No. ECH381 series, minimum 105°C, rated 300 V, 8 A, (FW-1), mating with Cat. No. ESC series, (rated 300 V, 8 A, FW-2, 105°C, suitable for 16-28 AWG wire size). Located on the main board.
8. Transformer (T1) - Constructed as below. Located on Main Board.
  - a. Core - Ferrite core, overall dimension 19.6 mm by 19.3 mm by 5.7 mm.
  - b. Bobbin - Phenolic. min. 0.71 mm thick, RTI 150°C.
  - c. Coil - R/C (OBMW2), wound on core, min. 105°C.
9. Isolator (U2) - R/C (FPQU2, FPQU8) or R/C (FPQU2), CSA certified, rated min. 1500 V ac isolation voltage, min. 100°C. Located on CPU Board.

10. Resistor (R87) - 0.22 Ohm, 1 W. Located on Main Board.
11. Capacitor (C133) - Electrolytic type, rated 470 uF, 35V, min. 105°C. Located on Main Board.