MSSC

QM1610

Technical Manual

P/N 462377-01

Revision: AD, May 2013

MSSC, LLC

926 McDonough Lake Road,
Collinsville,
IL 62234 USA
www.msscllc.com

Phone: (618) 343-1006
Phone: (800) 854-8905
Fax: (618) 343-1016

Customer Support and Training

Contact Information

If you have any questions or need assistance, please contact MSSC, LLC at 1-800-854-8905 (for all customers within the United States). Outside the U.S., customers should contact their MSSC, LLC distributor or subsidiary for assistance.

MSSC, LLC

926 McDonough Lake Road

Collinsville, IL 62234 U.S.A.

Phone: 1-800-854-8905

Fax: 1-618-343-1016

Web: www.msscllc.com

Table of Contents

Chapter 6 — Illustrated Parts List

Introduction

1

This QM1610 Technical Manual provides you with complete maintenance, troubleshooting and servicing information for the QM1610 Ink Jet Printer. It also contains a replacement parts list.

The QM1610 will support porous ink applications.

Caution

EQUIPMENT DAMAGE. To avoid serious injury or damage to the equipment, perform procedures in this manual only if you are a qualified technician.

Caution

For continued protection against fire, replace F1 with the same type and fuse rating.

Fuse Rating: 250 V, 3 A Fast Acting

Dimensions: 5 mm x 20 mm

Specifications

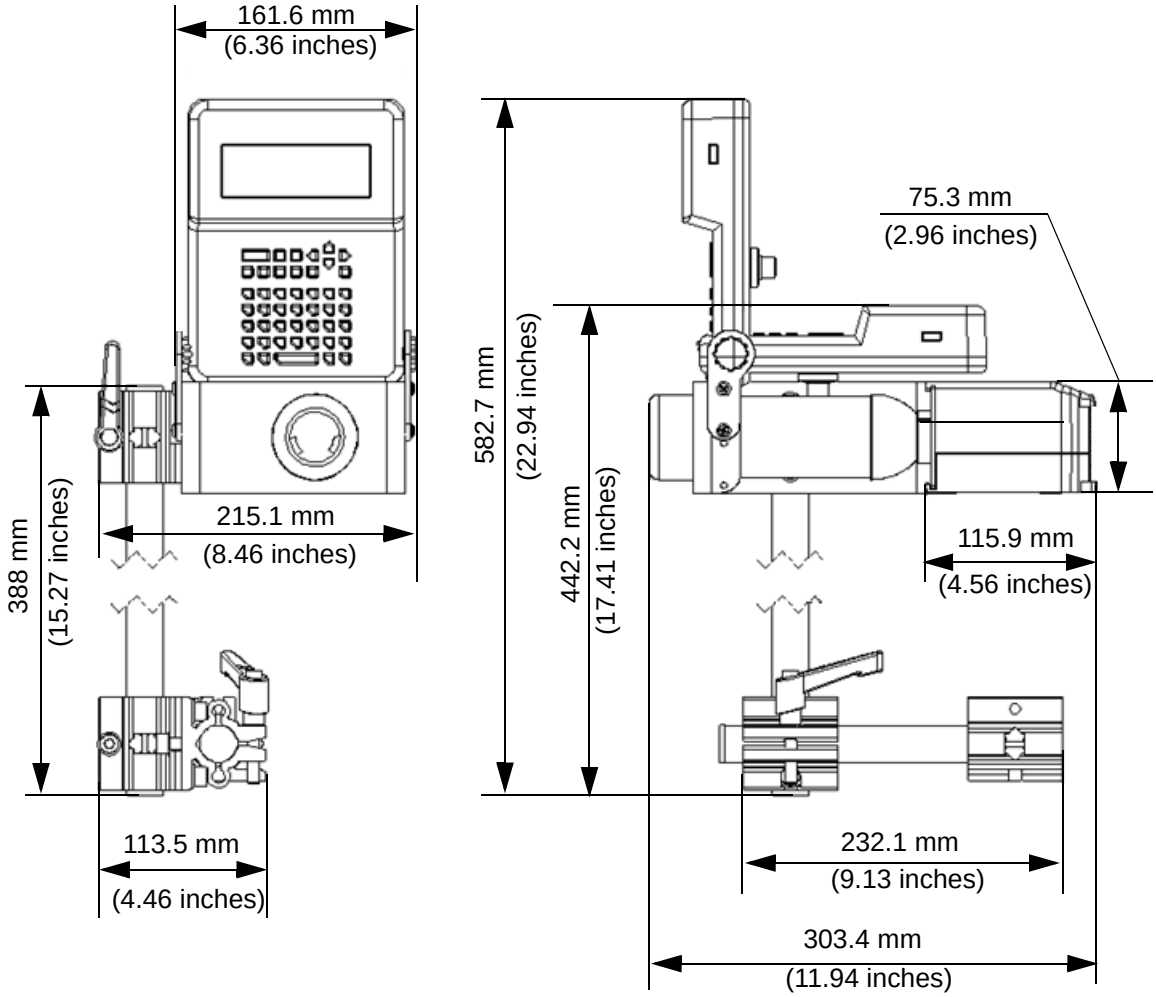


Figure 1-1: QM1610 Dimensions

Maintenance

2

Startup Procedure

At the beginning of each shift, perform the following tasks:

1. With the spray cap on the solvent bottle, spray the nozzles with solvent. In harsh environments, you may need to spray the nozzles more often than once per shift.
2. Purge the printhead.
3. Check the ink level in the bottle; install a new bottle if necessary. In harsh environments, or if print quality declines, replace the ink bottle with solvent and purge solvent through the unit.

Shutdown Procedure

If you are shutting down a porous unit for less than two weeks, simply turn off the controller. You do not need to purge the printheads with ink or solvent. Also, do not remove any ink that may have caked on the nozzle block. This will keep contaminants from entering the nozzles.

When you restart the unit, follow the daily maintenance procedures on "Startup Procedure" on page 2-1.

If you are shutting down a porous unit for more than two weeks purge the printheads with porous solvent. Leave the solvent in the ink lines until you restart the unit.

Troubleshooting

3

Problems, Causes and Solutions

Problem	Possible Cause	Solution
Row of keys fails to work.	Controller PCBA is defective.	Replace the Controller PCBA. (refer to “Replacing the Controller PCBA” on page 5-11.)
	Keypad is bad.	Replace the Keypad
The green light is on, but the unit will not print.	Cable connection loose.	Reseat the cable connector. Unit must be powered down when connections are being made.
	Ink is out.	Replace ink bottle
The unit prints intermittently.	Cable connection loose.	Reseat the cable connector.
The unit comes on and the print light is constantly orange.	Printhead PCBA defective.	Replace the printhead PCBA. (refer to “Replacing the Printhead PCBA” on page 5-8.)
	Unit locked up.	Unplug the power supply from the unit, then plug it back in.
The machine resets itself.	Valve shorted out.	Replace the defective valve. (refer to “Replacing a Valve” on page 5-6.)
The unit will purge but not print.	Cable connection loose.	Reseat the cable connector.

Table 3-1: Problems, Causes and Solutions

Problem	Possible Cause	Solution
A dot or dots missing.	Unit ran out of ink.	Replace the ink bottle.
	Nozzle clogged	1. Spray the nozzle block with solvent. 2. Backflush the nozzle. (refer to "Backflushing a Nozzle" on page 5-2.) 3. Replace nozzle block. (refer to "Replacing the Nozzle Block" on page 5-4.)
	Tube and jewel assembly in the nozzle block cracked.	Replace the nozzle block. (refer to "Replacing the Nozzle Block" on page 5-4.)
	Worn valve.	Increase dot size to temporarily adjust for worn valve.
	Valve became loose from the Printhead PCBA.	Reseat the valve on the Printhead PCBA.
	Valve is defective.	Replace the valve. (refer to "Replacing a Valve" on page 5-6.)
	Ink line became loose.	Reattach the ink line.
	Cable connection loose.	Reseat the cable connector.
One or more valves fail to work, resulting in missing dots.	Cable from the controller to the printhead touched the PCBA causing a short.	Secure the cable from the controller to the printhead with a fixed mounting.
	Valve is defective.	Replace the valve. (refer to "Replacing a Valve" on page 5-6.)
	Printhead PCBA is defective.	Replace the Printhead PCBA. (refer to "Replacing the Printhead PCBA" on page 5-8.)
The dots are splattering on the print sample.	Printhead too far away from the product.	Position the printhead as close as possible to the product without rubbing against it and no further than 0.24" (6 mm) away. **Note:** Avoid contact between the printhead and the product as this may cause print quality to suffer.
	Air in system.	Purge unit until air is removed.
No power.	Unit is not properly plugged in.	Plug unit into an appropriate power source.
Ink is leaking from the regulator.	Regulator is cracked or defective.	Replace the regulator. (refer to "Replacing the Regulator" on page 5-7.)

Table 3-1: Problems, Causes and Solutions (Continued)

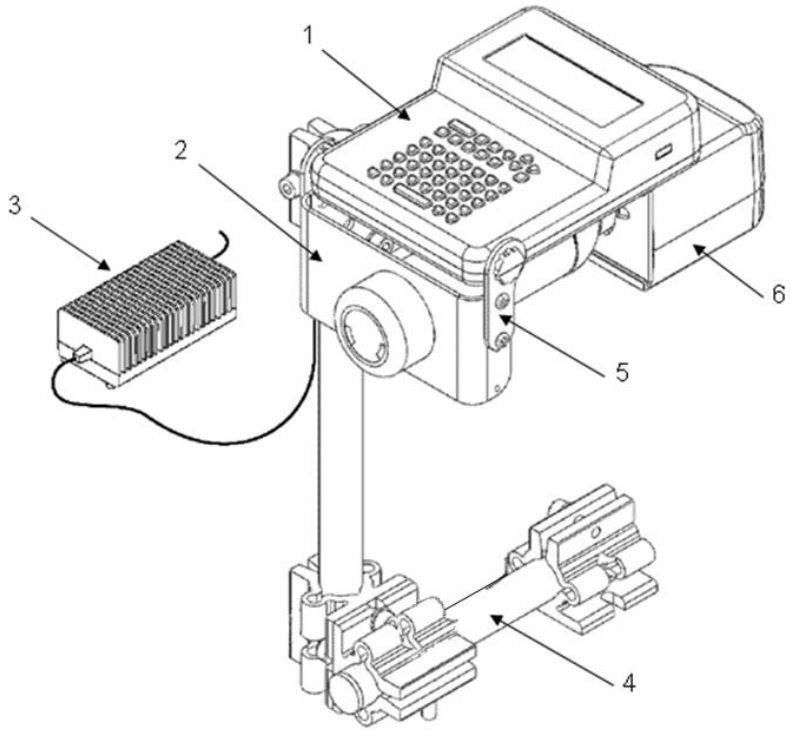
Problem	Possible Cause	Solution
The bottle will not engage when replacing the bottle.	Regulator is not properly seated in the saddle of the printhead base.	Reseat the regulator in the printhead base.
	Regulator is cracked.	Replace the regulator. (refer to “Replacing the Regulator” on page 5-7.)
Display screen is blank or garbled.	Display is defective.	Replace the display. (refer to “Replacing the Display” on page 5-9.)
Message prints backwards or is too long.	One of the two photocells is dirty.	1. Clean the photocells. 2. Manually set the conveyor direction, eliminating the need for two photocells. Refer the User‘s manual for instructions on setting the conveyor direction.
	Printhead PCBA is defective.	Replace the printhead PCBA.
Keypad is not responding.	Contacts on the PC board are dirty.	Clean the contacts.
	Contacts on the back of the keypad are dirty.	Clean the contacts.

Table 3-1: Problems, Causes and Solutions (Continued)

Main Parts

4

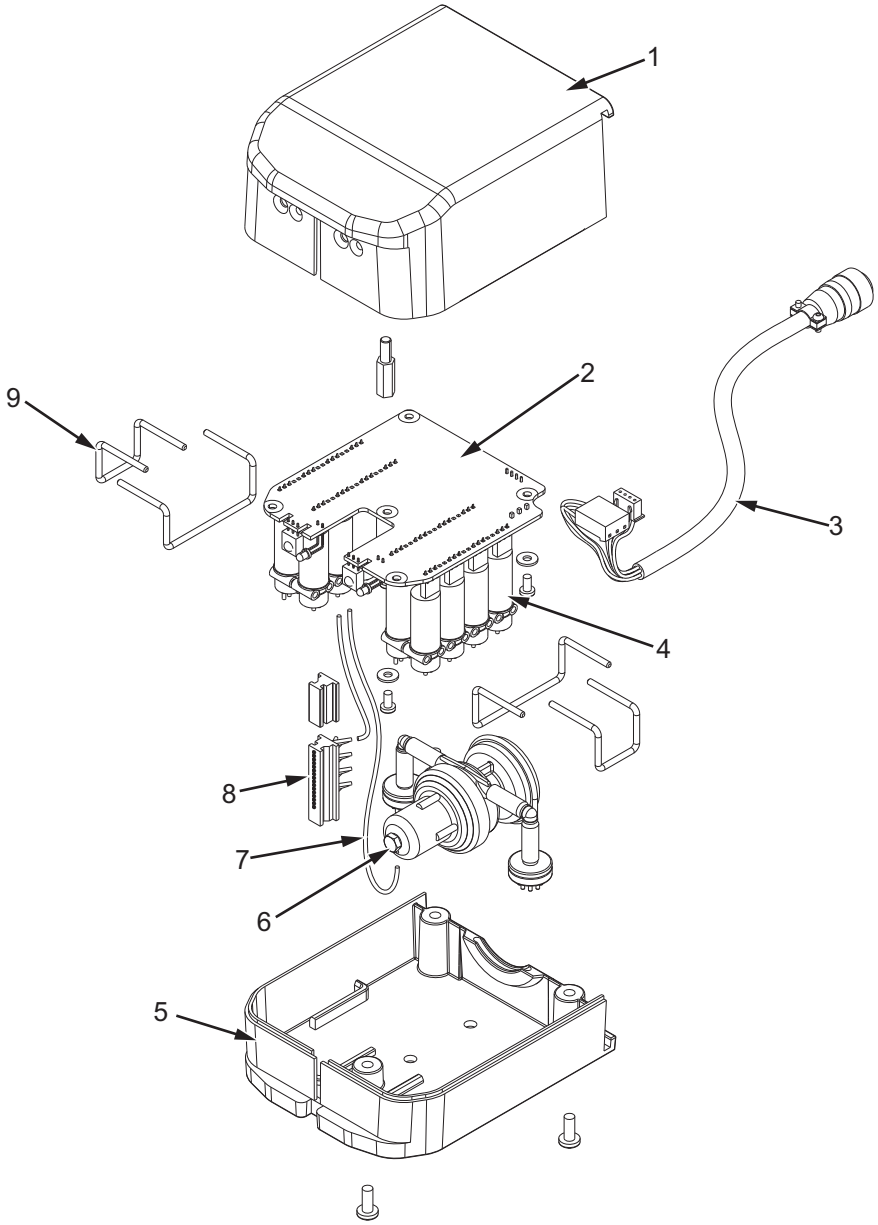
Standard QM1610 Assembly



1. Controller Assembly
2. Controller Mounting Frame
3. Power Supply
4. Bracket Assembly
5. Mounting Tab
6. Printhead Assembly

Figure 4-1: Standard QM1610 Assembly

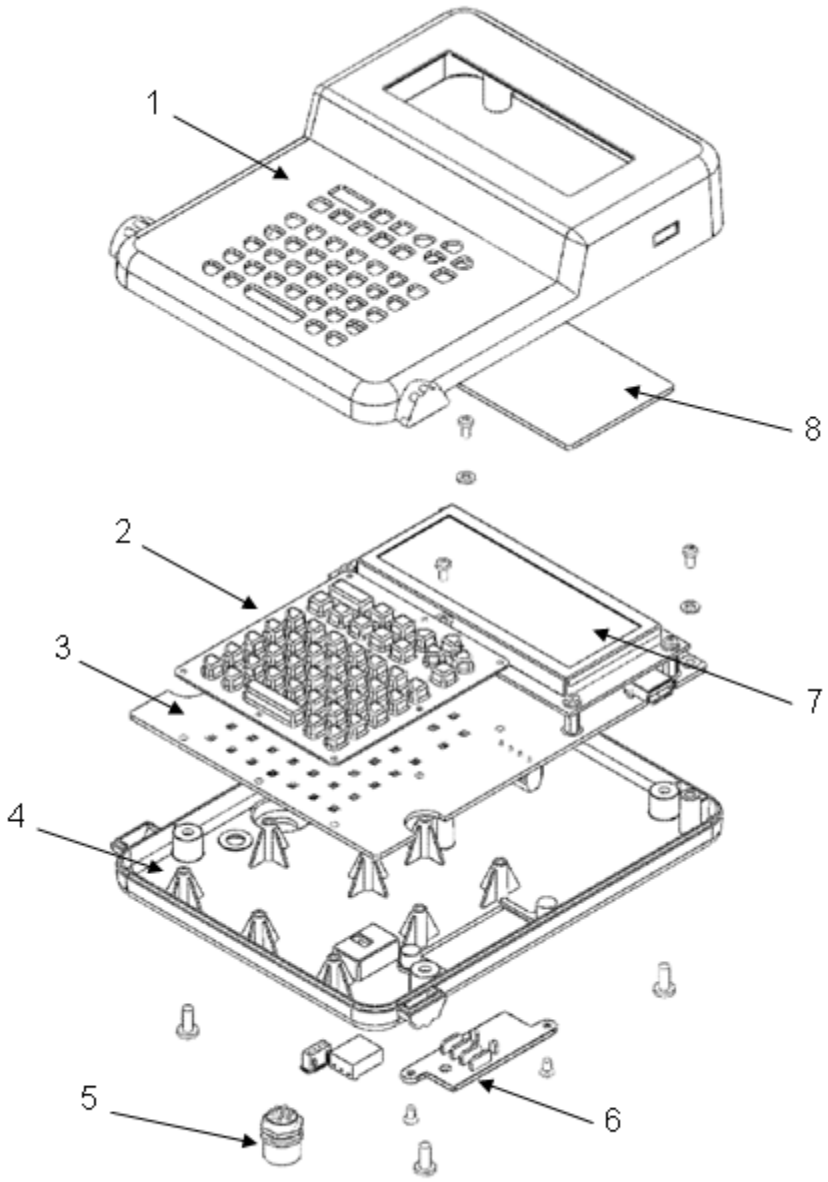
Printhead Assembly



1. Printhead Top Cover
2. PCB Assembly
3. Cable Assembly
4. Valve
5. Printhead Bottom Cover
6. Regulator
7.Tubing (Manifold to Valve)
8. Nozzle Block
9. Supporting pin

Figure 4-2: Standard Printhead Assembly

Controller Assembly



1. Controller Top Cover
2. Rubber Keypad
3. Controller PCBA
4. Controller Bottom Cover
5. Cable Assembly
6. Photoelectric Sensor Cover
7. LCD Assembly
8. LCD Cover

Figure 4-3: Controller Assembly

Servicing Procedures

5

Preparing the QM1610 for Servicing

Before beginning work on the QM1610, follow these steps. Failure to follow these steps may result in serious injury or damage to the unit.

To begin servicing the QM1610:

1. Remove the ink bottle.
2. Cover the front of the printhead with an absorbent cloth and purge the printhead to remove any ink from the system.
3. Remove the QM1610 and power supply to a well-lit, static-free workbench.

Special Notes for Reassembling the QM1610 Printhead

Make sure the regulator is properly seated in the saddle of the printhead base to allow proper connection of ink bottles. Also ensure that the valve supporting pins are installed properly to prevent valves unseating from the valve board.

Finally, make sure that valves are properly oriented and seated in the PCB, and that all wiring and tubing will not be kinked when the printhead cover is replaced.

Backflushing a Nozzle

1. Prepare the QM1610 for servicing. (refer to “Preparing the QM1610 for Servicing” on page 5-1.)
2. Remove the printhead bottom cover by removing the three screws from the bottom of the printhead. With the unit flat on the workbench, place your thumb on the regulator and press down lightly as you lift up the Bottom half of the printhead.

   Note: *Hold the components in place with your finger if necessary. Make sure the inner assembly remains in the printhead top cover. Also, avoid unnecessary flexing of the inner tubing and connected cable to prevent damaging the connections.*
3. From a print sample, locate the nozzle that needs backflushing.
4. Disconnect the tubing connected between the valve and the nozzle from the valve end only; allow it to hang free.

Caution

EQUIPMENT DAMAGE. Remaining ink pressure may cause ink to shoot out of the tubing.

5. Place a cloth at the open end of the tubing.
6. Install the cleaner assembly nozzle (from the service kit) on a bottle of solvent.
7. Press the solvent bottle against the clogged nozzle and spray solvent through it for several seconds.
8. Reconnect the tubing to the valve.
9. Replace printhead bottom cover, remount, and purge for several minutes.

Backflushing a Valve

1. Prepare the QM1610 for servicing. (refer to “Preparing the QM1610 for Servicing” on page 5-1.)
2. Remove the printhead bottom cover by removing the three screws from the bottom of the printhead. With the unit flat on the workbench, place your thumb on the regulator and press down lightly as you lift up the Bottom half of the printhead.

   ***Note**: Hold the components in place with your finger if necessary. Make sure the Inner assembly remains in the printhead top cover. Also, avoid unnecessary flexing of the inner tubing and connected cable to prevent damaging the connections.*
3. Locate the valve that needs backflushing. (Valves requiring backflushing can be identified by a print sample or by drooling or leaking ink.)
4. Disconnect the tubing between the regulator and the valve from the regulator.

Caution

EQUIPMENT DAMAGE. Remaining ink pressure may cause ink to shoot out of the tubing.

5. Remove the tubing between the valve and the nozzle from the valve.
6. Install the cleaner assembly nozzle (from the service kit) on a bottle of solvent.
7. Install tubing (from the service kit) on the cleaner assembly nozzle.
8. Connect the tubing from the cleaner assembly nozzle to the outlet (center) port of the valve.
9. Place an absorbent cloth around the open end of the other tubing connected to the valve.
10. Plug in the power supply and purge. (Refer the User's Manual for how to purge.)

    ***Note**: If the QM1610 is not purging, you will not be able to run solvent through the valve.*
11. Spray solvent through the valve for several seconds.
12. Disconnect the solvent bottle from the valve port.

13 Reconnect the tubing from the inlet (off-center) port of the valve to the regulator; reconnect the tubing from the nozzle to the outlet (center) port of the valve.

14 Replace the printhead bottom cover, remount, and purge for several minutes.

Replacing the Nozzle Block

Removing the Nozzle Block

1 Prepare your QM1610 for servicing. (refer to "Preparing the QM1610 for Servicing" on page 5-1.)

2 Remove the printhead bottom cover (see Figure 4-2 on page 4-2) by removing the three screws from the bottom of the printhead. With the unit flat on the workbench, place your thumb on the regulator and press down lightly as you lift up the bottom half of the printhead.

***Note**: Hold the components in place with your finger if necessary. Make sure the inner assembly remains in the printhead top cover. Also, avoid unnecessary flexing of the inner tubing and connected cable to prevent damaging the connections.*

3 Carefully lift the controller mounting frame off the top half of the printhead.

4 Slide out the nozzle block.

Installing the New Nozzle Block

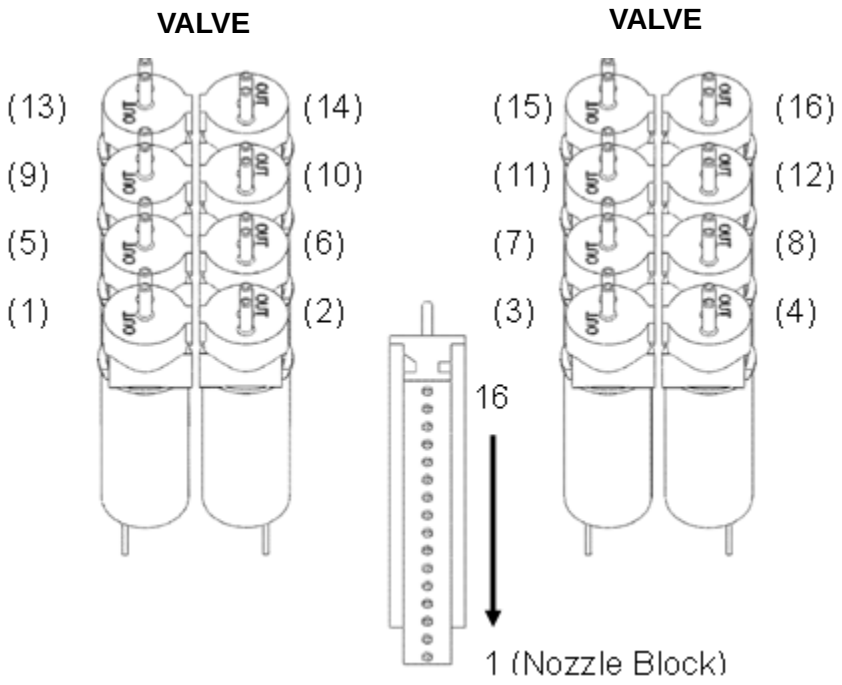
1 Pull off the ink tubes one at a time. As you disconnect an ink tube from the old nozzle block, connect it to the corresponding nozzle of the replacement nozzle block. (refer to Figure 5-1 on page 5-5.)

2 Slide the newly connected nozzle block into its slot in the printhead.

3 Replace the printhead cover. Be careful not to pinch any of the wires or tubing in the printhead.

4 Install an ink bottle, plug the system in, and purge the QM1610 with ink to remove any air introduced into the system.

Your unit is ready to return to normal operation.



Connection rule: (1)----1 (2)---- 2.....(16)----16

Figure 5-1: Printhead PCBA to Nozzle Block Diagram

Optional 20 mm, 32 mm and 48 mm Nozzle Blocks

An optional 20 mm, 32 mm and 48 mm nozzle block is available for the QM1610 printhead. If you wish to install a 20 mm, 32 mm or 48 mm nozzle block, refer to the Chapter 6, "Illustrated Parts List" for ordering information and follow the procedure "Installing the New Nozzle Block" on page 5-4.

Replacing a Valve

Removing the Valve

1. Prepare your QM1610 for servicing. (refer to “Preparing the QM1610 for Servicing” on page 5-1.)
2. Remove the printhead bottom cover by removing the three screws from the bottom of the printhead. With the unit flat on the workbench, place your thumb on the regulator and press down lightly as you lift up the bottom half of the printhead.

   ***Note**: Hold the components in place with your finger if necessary. Make sure the Inner assembly remains in the printhead top cover. Also, avoid unnecessary flexing of the inner tubing and connected cable to prevent damaging the connections.*
3. Locate the defective valve. (If a valve has shorted, it will usually be locked open with ink leaking. A good valve has a resistance reading of approximately 24 ohms.)
4. Remove the valve supporting pins and tie wraps if necessary.
5. If necessary move aside functioning valves to get to the defective valve.
6. Disconnect both pieces of tubing from the valve.

Caution

EQUIPMENT DAMAGE. Remaining ink pressure may cause ink to shoot out of the tubing.

7. Disconnect the old valve from the valve board.

Installing the New Valve

1. Connect the tubing from the ink manifold to the intake (off-center) port on the new valve.
2. Connect the tubing from the nozzle to the outlet (center) port on the new valve.
3. Plug the new valve into the valve board.
4. Replace the valve supporting pins.

5 Replace the printhead bottom cover, remount, and purge for several minutes.

Replacing the Regulator

Removing the Regulator

1 Prepare your QM1610 for servicing. (refer to "Preparing the QM1610 for Servicing" on page 5-1.)

2 Remove the printhead bottom cover by removing the three screws from the bottom of the printhead. With the unit flat on the workbench, place your thumb on the regulator and press down lightly as you lift up the bottom half of the printhead.

***Note**: Hold the components in place with your finger if necessary. Make sure the inner assembly remains in the printhead top cover. Also, avoid unnecessary flexing of the inner tubing and connected cable to prevent damaging the connections.*

3 Carefully lift the controller mounting frame off the top half of the printhead.

4 Carefully pull the tubing off the regulator ports.

***Note**: Over time the tubing end may stretch. You must trim the tubing to ensure a snug fit on the new regulator ports.*

5 Remove the regulator.

Installing the New Regulator

***Note**: The new regulator has been factory adjusted. Any additional adjustment will void your warranty and cause operating difficulties.*

1 Position the new regulator in the saddle of the printhead cover.

2 Using pliers, carefully slide the tubing onto the regulator ports, one at a time.

3 Replace the printhead cover. Be careful not to pinch any of the wires in the printhead.

4 Secure the printhead halves with the three screws.

5 Install an ink bottle, plug the system in, and purge the QM1610 with ink to remove any air introduced into the system.

Your unit is ready to return to normal operation.

Replacing the Printhead PCBA

Removing the Printhead PCBA

1 Prepare your QM1610 for servicing. (refer to "Preparing the QM1610 for Servicing" on page 5-1.)

2 Remove the printhead bottom cover by removing the three screws from the bottom of the printhead. With the unit flat on the workbench, place your thumb on the regulator and press down lightly as you lift up the bottom half of the printhead.

***Note**: Hold the components in place with your finger if necessary. Make sure the inner assembly remains in the printhead top cover. Also, avoid unnecessary flexing of the inner tubing and connected cable to prevent damaging the connections.*

3 Carefully lift the controller mounting frame off the top half of the printhead.

4 Carefully pull the tubing off the Manifold ports (2 ports total).

***Note**: Over time the tubing end may stretch. You must trim the tubing to ensure a snug fit on the new regulator ports or you may need to replace the tubing.*

5 Remove the regulator assembly.

6 Disconnect the 2 sockets (3 pins and 4 pins) from the PCBA.

7 Remove cable assembly.

8 Remove the valve supporting pins.

9 Remove the screws which fix the PCBA on the top cover.

10 Slide out the nozzle block; pull off the old PCBA.

11 Disconnect the valves from the old PCBA taking care not to bend or break valve leads.

Installing the New Printhead PCBA

1. Plug the valves in on the new Printhead PCBA. (refer to “Printhead PCBA to Nozzle Block Diagram” on page 5-5.)
2. Slide in the valve supporting pins and seat the valves.
3. Carefully slide in the new PCBA making sure to line up sensors in opening of printhead cover.
4. Slide the nozzle block into position.
5. Tighten PCBA with screws.
6. Connect the 2 sockets (3 pins and 4 pins) to the PCBA.
7. Reposition the regulator.
8. Replace the printhead bottom cover, remount, and purge for several minutes.

Replacing the Display

Removing the Display

1. Prepare your QM1610 for servicing. (refer to “Preparing the QM1610 for Servicing” on page 5-1.)
2. Remove the controller from the controller mounting frame by removing the two screws from the mounting tabs on one side.

Caution

EQUIPMENT DAMAGE. If there is photoelectric sensor installed, loosen two screws and overturn the cover aside. Then loosen four screws and pull off the wire away from the terminal.

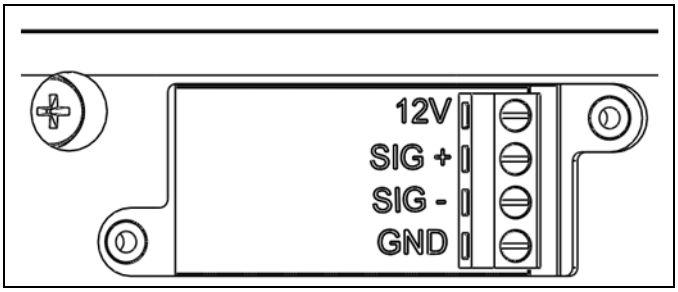
3. Remove the four screws from the controller bottom to remove the controller top.
4. Loosen the four washers & screws which secure the display.
5. Disconnect the display from the connector on the PCBA.

Installing the New Display

1. Plug the new display connector into the PCBA and secure with four washers & screws.
2. Reconnect the halves of the controller and secure with four screws.

Caution

EQUIPMENT DAMAGE. If a photoelectric sensor needs to be installed, assemble the wire to the terminal first and tighten screws. Reinstall the cover and secure with two screws.



3. Remount the controller to its mounting frame.

Replacing the Battery

Caution

EQUIPMENT DAMAGE. Danger of explosion if battery is incorrectly installed. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Removing the Battery

1. Prepare your QM1610 for servicing. (refer to “Preparing the QM1610 for Servicing” on page 5-1.)
2. Remove the controller from the controller mounting frame by removing the two screws from the mounting tabs on one side.

Caution

EQUIPMENT DAMAGE. If there is photoelectric sensor installed, loosen two screws and overturn the cover aside. Then loosen four screws and pull off the wire away from the terminal.

3 Remove the four screws from the controller bottom to remove the controller bottom and rubber keypad.

4 Loosen three screws which fix PCBA to bottom cover.

5 Overturn the PCBA with taking care of the cable connection.

6 Using a small screwdriver, carefully remove the battery.

Installing the New Battery

1 Install the new battery. Make sure to line up the mark on the battery with the notch on the chip.

2 Reinstall the PCBA to bottom cover, secure with 3 washers & screws.

3 Reinstall the top cover, and secure with four screws.

4 Reinstall the controller onto the mounting frame.

5 Reinstall the mounting frame on the conveyor bracketry.

6 Plug the power cable into the controller.

7 Plug in the power supply.

8 Reinstall the ink bottle.

Replacing the Controller PCBA

Removing the Controller PCBA

1 Prepare your QM1610 for servicing. (refer to “Preparing the QM1610 for Servicing” on page 5-1.)

2 Remove the controller from the controller mounting frame by removing the two screws from the mounting tabs on one side.

Caution

EQUIPMENT DAMAGE. If there is photoelectric sensor installed, loosen two screws and overturn the cover aside. Then loosen four screws and pull off the wire away from the terminal.

3 Remove the four screws from the controller bottom to remove the controller top and rubber Keypad.

***Note**: Avoid handling the new PCBA as much as possible; repeated handling could damage it.*

4 Loosen three screws and overturn the PCBA with taking care of the cable connection.

5 Disconnect the 2 sockets (3 pins and 4 pins) from the PCBA.

6 Loosen four screws on the back of PCBA and remove display with four standoffs together.

7 Remove the old Controller PCBA.

Installing the New Controller PCBA

1 Replace the display in the new Controller PCBA.

2 Reconnect the 2 sockets (3 pins and 4 pins) to the PCBA.

3 Place the new Controller PCBA on the bottom half of the controller.

4 Place rubber Keypad and top half of the controller.

Caution

EQUIPMENT DAMAGE. If there is photoelectric sensor should be installed, assemble the wire (obey with connection rule) to the terminal firstly and tighten screws. Reinstall the cover and secure with two screws.

5 Place controller assembly to the mounting frame.

Illustrated Parts List

6

Introduction

Use the Parts List to obtain whatever you might need to expand, upgrade, repair, or maintain your system. The Parts List includes exploded illustrations of system components with a textual parts listing.

To place an order, provide your local distributor or MSSC with part numbers and quantities.

System part numbers for QM1610 Printers in available regions are listed in Table 6-1:

Printer	Regions	Part Numbers
QM1610	US, 100/240 V with US Power Cord	QM1610
	European, 100/240 V with International Power Cord	QM1610-INTL
	Japanese, 100/240 V with Japanese Power Cord	QM1610-JAPAN
	Korean, 100/240 V with Korean Power Cord	QM1610-KOREA
	Thai, 100/240 V with Thai Power Cord	QM1610-THAI
	Simplified Chinese, 100/240 V with Chinese Power Cord	QM1610-SCHIN
	Traditional Chinese, 100/240 V with Chinese Power Cord	QM1610-TCHIN
	Arabic, 220 V with International Power Cord	QM1610-ARAB

Table 6-1: Part Numbers

QM1610 Standard Assembly

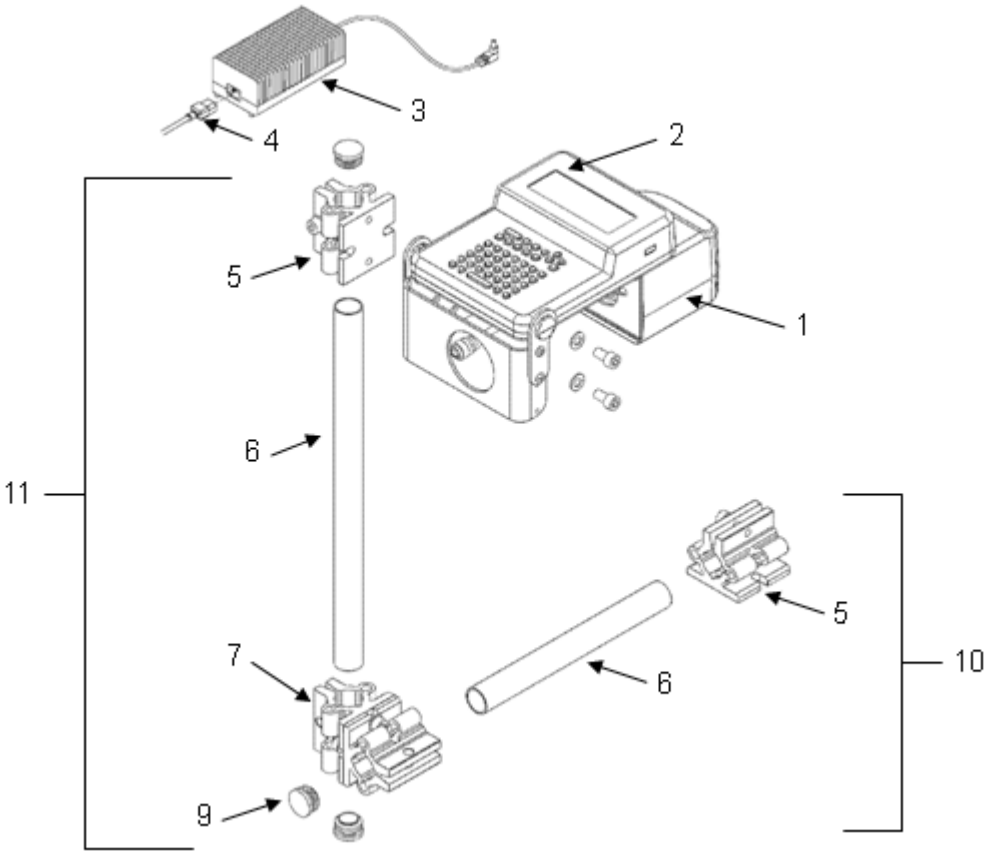


Figure 6-1: QM1610 Standard Assembly

Item No.	Description	Part Number	Quantity per Package
1	Printhead Assembly	QMRP35226	1
2	Controller Assembly (US/European Language)	QMRP35575	1
3	Power Supply, with China Power Cord	RP35474	1
	Power Supply, with US Power Cord	RP16061	1
	Power Supply, with International Power Cord	RP19706	1
4	Power Cord, China	RP35443	1
	Power Cord, US	RPJ500-0043-001	1
	Power Cord, International (flying lead without plug)	RPJ500-0043-002	1

Table 6-2: QM1610 Standard Assembly Parts List

Item No.	Description	Part Number	Quantity per Package
5	Clamp, Parallel / Perpendicular Mounting	RP28800	1
6	Tubing, 1" x 9" (2.5 cm x 22.9 cm)	19161B	1
	Tubing, 1" x 15" (2.5 cm x 38.1 cm)	RP19160	1
7	Clamp, Cross	RP28801	1
8*	Ratchet Handle (Optional)	19321	1
9	Plug, Pry-Out 7/8”	RP19757	1
10	Bracket Assembly	RP21506	1
11	Kit, Bracket and Frame	QM35253	1

Table 6-2: QM1610 Standard Assembly Parts List (Continued)

* - Items are not shown in the illustration

QM1610 Printhead Assembly

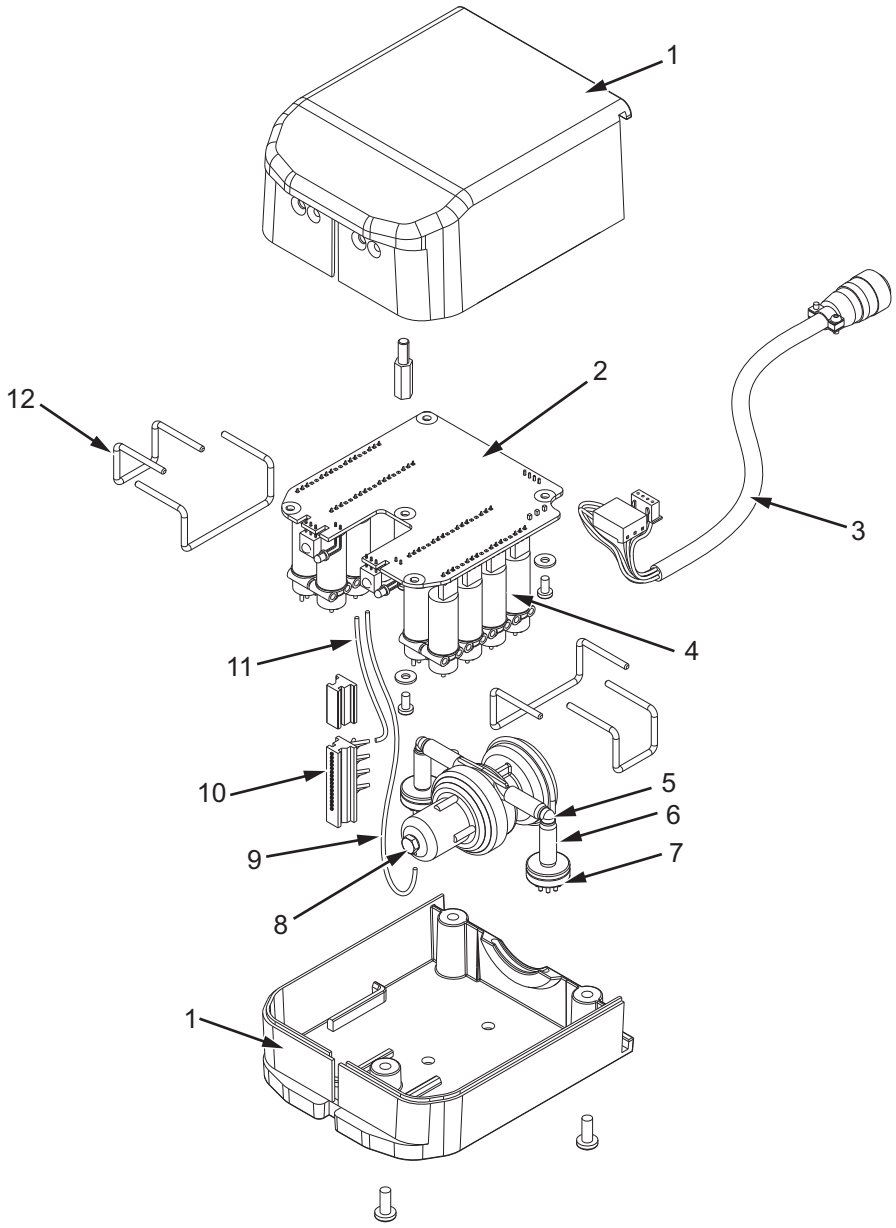


Figure 6-2: QM1610 Printhead Assembly

Item no.	Description	Part Number	Quantity per Package
QM1610 Printhead Assembly			
1	Housing Kit, Printhead Enclosure	QMRP35712	1
2	Board Assembly, Printhead Valve	RP35719	1
3	Cable Assembly, External,1 ft	RP35238	1
4	Valve, 600 LT 12 V 600 Hz Square Pin	RP27339	1
5	Fitting, L 1/8 X 1/8 White Nylon	RP29726	10
6	Tubing, Bevaline 1/8 X 1/4	10162	Order per feet
7	Manifold 8 Outlet	19399A	1
8	Regulator Assembly	RP35714	1
9	Tubing, Regulator to Manifold	J501-0030-004	1
10	Nozzle Block Standard 25 mm	RP35462	1
	Nozzle Block Optional 20 mm	35506	1
	Nozzle Block Assembly Optional 32 mm	35508	1
	Nozzle Block Assembly Optional 48 mm	35510	1
11	Tubing, Valve 713, 14H, 16H	J501-0030-004	1
12	Supporting Pin, Valve	RP35720	1
13*	Nozzle Assembly, Cleaner	RP15943	1
14*	Clip, Valve Retaining	RP35208	

Table 6-3: QM1610 Printhead Assembly Parts List

* - Items are not shown in the illustration

QM1610 Controller Assembly

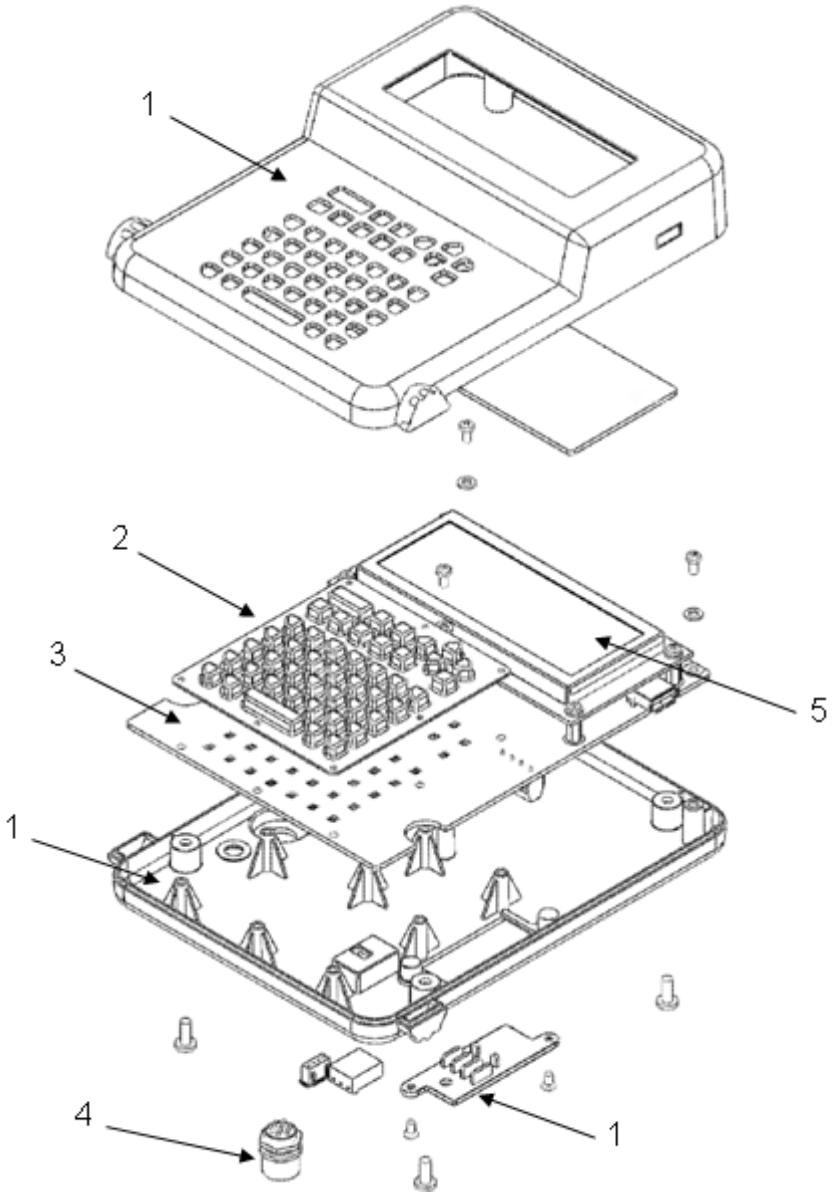


Figure 6-3: QM1610 Controller Assembly

Item no.	Description	Part Number	Quantity per Package
1	Housing Kit, Controller Enclosure (Non silk screened)	QMRP35244	1
	Housing Kit, Controller Enclosure (Silk screened)	QMRP35541	1

Table 6-4: QM1610 Controller Assembly Parts List

Item no.	Description	Part Number	Quantity per Package
2	Keypad, Rubber (refer to Table 6-5 for part numbers for different languages)	-	1
3	Controller, PCBA (refer to Table 6-6 for part numbers for different languages)	-	1
4	Cable Assembly, Internal Controller	RP35211	1
5	Display Assembly, LCD	RP35205	1

Table 6-4: QM1610 Controller Assembly Parts List (Continued)

Keypad in Different Languages

Part Number	Keypad
RP35218	Keypad, Rubber, Simplified Chinese
RP35535	Keypad, Rubber, Western (US/European)
RP35537	Keypad, Rubber, Japanese
RP35538	Keypad, Rubber, Korean
RP35539	Keypad, Rubber, Thai
RP35536	Keypad, Rubber, Traditional Chinese
RP35596	Keypad, Rubber, Arabic

Table 6-5: Keypads

PCB Board Assembly with Different Languages

Part Number	PCB Board Assembly
QMRP35560	Board Assembly, PCB, US/European (Western)
QMRP35562	Board Assembly, PCB, Japanese
QMRP35563	Board Assembly, PCB, Korean
QMRP35564	Board Assembly, PCB, Thai
QMRP35565	Board Assembly, PCB, Simplified Chinese
QMRP35561	Board Assembly, PCB, Traditional Chinese
QMRP35593	Board Assembly, PCB, Arabic

Table 6-6: PCB Board Assembly

Consumables and Other Components

Sl. No	Description	Part Number	Quantity Per Package
Consumables - Porous			
1	Ink	QM20943	12
2	Ink, Porous Cartridge Red	QM20945	12
3	Solvent, Porous Cartridge	QM20947	12
Other Components			
1	Photocell, External (Optional)	35464	
2	Cover, Controller Harsh Environment	35251	
3	Cleaner, Nozzle	RP15943	
4	Kit, QM1610 Hardware	RP21823	
5	Frame Kit, Controller Mount	QMRP35242	
6	CD, Operator Manual and Declaration of Conformity	462379	
7	CD, Service Manual Documentation, English	462380	
8	Manual, QM1610 Technical (US)	462377-01	
9	Manual, QM1610 Technical (UK)	462377-21	

Table 6-7: Consumables and Other Components

QM1610 Owner's Manual in Different Languages

Part Number	Language
462376-01	English (US)
462376-02	French
462376-03	German
462376-04	Spanish
462376-05	Portuguese
462376-06	Japanese
462376-07	Russian
462376-08	Italian

Table 6-8: Owner's Manual

Part Number	Language
462376-09	Dutch
462376-10	Chinese (Simplified)
462376-12	Korean
462376-13	Thai
462376-15	Norwegian
462376-16	Finnish
462376-17	Swedish
462376-21	English (UK)
462376-23	Polish
462376-24	Turkish
462376-26	Hungarian
462376-36	Chinese (Traditional)

Table 6-8: Owner's Manual (Continued)