SHARP®

POS TERMINAL

MODEL

UP-3301

INTER-REGISTER
COMMUNICATION SYSTEM

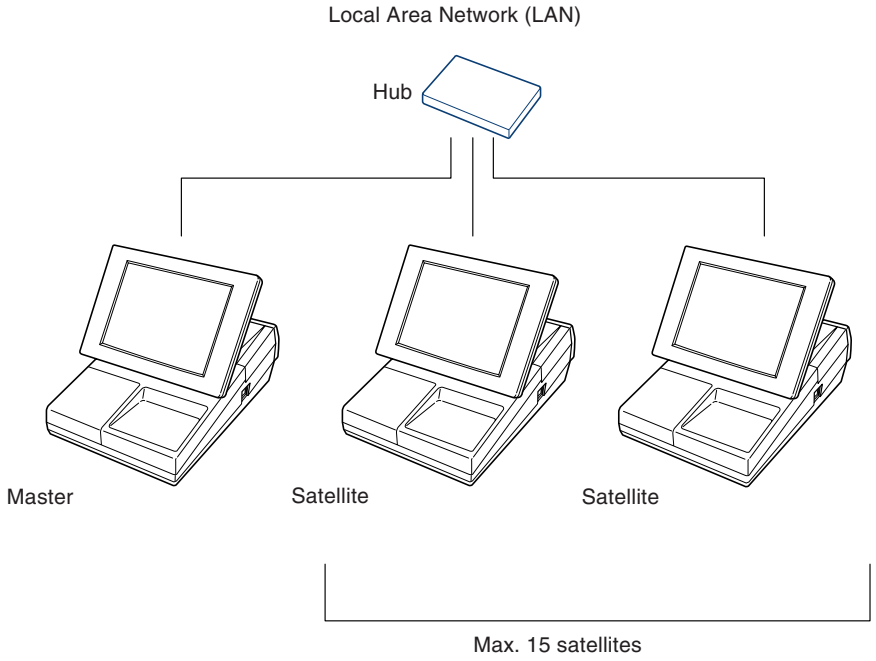
INSTRUCTION MANUAL

TABLE OF CONTENTS

Page

Introduction

The UP-3301 inter-register communication (IRC) system consists of one master machine and up to 15 satellite machines which are all interconnected by the Local Area Network (LAN) to provide data transmission among them. This system allows the manager to exercise centralized control over the satellites through the master.



- One of the satellites may be used as a back-up master.

1 Inline Operation

1. Message display

(1) The message displayed during inline communication

1) The message shown below is displayed at the satellites engaged in IRC transmissions.
ex.:

SENDING DATA

2) Based on the system settings, the machine number of the satellite that is communicating with the master is instantaneously displayed at the master during IRC transmissions.
In this case, the machine number of the satellite is “000022.”
ex.:

000022

(2) Error messages

When an error occurs, a corresponding error message is displayed.
To clear an error, touch the CLEAR key. For error messages, see the “List of error messages” below.

List of error messages

Error message (Default)	Description
BUSY	• The target machine is busy.
LACKING MEMORY	• The GLU, drive-through code, or related file memory is full.
MOTOR LOCK	• The remote printer head did not operate correctly.
NO AUTHORITY	• The server who entered a GLU/PBLU code was not authorized.
UNDEFINED CODE	• The specified server code is not present in the master.
	• The entered GLU/PBLU code is not listed.
CODE NOT FREE	• The specified server has signed on at another machine.
	• The entered GLU/PBLU code is in use.
POWER OFF	• The power was not turned on.
T-LOG FULL	• The T-LOG file is full.
NON RESET	• IRC initial D/L before resetting.
TYPE ERROR	• IRC Download file type mismatch.
LINE ERROR	• Transmission error.
SYSTEM CLOSED	• Entry is executed in close store state.
IS SIGNED ON	• IRC server sign-on error (when all server resetting executed).
NO REPLY/MASTER	• Master does not reply to the request.
NO REPLY/BACKUP	• Backup master does not reply to the request.
ATTEMPT RETRY?	• System retry message.

2. Open store operation (PGM2 mode) — master and satellite

When the open store operation is performed at the master, the IRC system is opened and the registration function becomes available at all the machines in the IRC system. After this operation, the following types of communications between the master and satellites are allowed.

From the master to the satellite

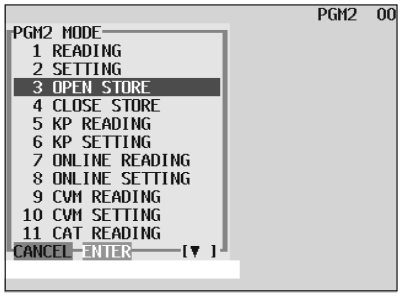
- Sending a request for the satellite to receive data (T-LOG polling)
- Sending a response to inquiry from the satellite

From the satellite to the master

- Sending data to the T-LOG buffer
- Sending a request for T-LOG polling
- Sending a request for updating of the GLU/PBLU file
- Inquiring for data on the GLU/PBLU and employee files

Open store procedure (PGM2 mode)

Procedure



Select OPEN STORE from the PGM2 MODE menu and touch the ENTER key.

NOTE

- *You may also perform the open store operation at each satellite. Once the open store operation is performed at a satellite, you can make registration entries at the satellite. With the open store operation at a satellite, T-LOG polling will not take place.*
- *The open store operation cannot be performed at any machines whose terminal numbers have not been programmed.*
- *If a transmission error occurs when the open store operation is being performed, the master displays and prints the machine number of the satellite that encountered the error*. When the master has been programmed to enable the system retry function**, retry the open store operation.*

* A journal printer must be installed for printing the error messages.

** For the system retry function, see pages 59 - 60.

3. Close store operation (PGM2 mode) — master and satellite

When the close store operation is performed at the master, the inline system is closed and the registration function becomes unavailable at all the machines in the inline system. It should be noted that for the close store operation, all the satellites must be in their SIGN-OFF state. After this operation, the communications between the master and satellites which have been enabled with the open store operation are disabled. The master, however, can download preset data and reset the sales data at the satellites.
In the close store state, any key operation in the REG or MGR mode is invalid.

Procedure

Menu selection

Select CLOSE STORE from the PGM2 MODE menu and touch the [ENTER] key.

NOTE

- *You can also perform the close store operation at each satellite. Once the close store operation is performed at a satellite, you can no longer make a registration at the satellite.*
- *If a satellite is in the SIGN-ON state, the master encounters an error and prints the machine number of the satellite.*
- *When the close store operation is performed, the data remaining in the T-LOG buffers of all the satellites is collected by the master.*
- *If a transmission error occurs during the close store operation, the master displays and prints the machine number of the satellite that has encountered the error.*
  In this case, a receipt is issued and the close store operation ends with an error.

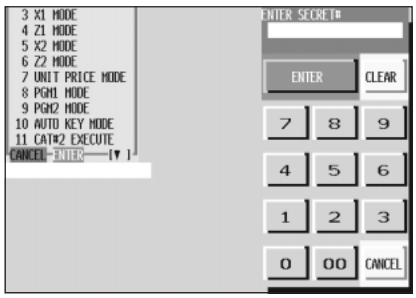
4. Sign-on operation (server assignment) (REG mode/MGR mode)

The sign-on operation is intended to assign a server to a machine (satellite or the master) and enable the server to perform entry operations at the machine.
If a server successfully signs on at a machine, his or her server name appears on the LCD of the machine.
The server memory is under the control of the master terminal.

The sign-on operation can be done whether the machine is in the open store or close store state. If the sign-on operation is done at a machine that is in the close store state, however, any registration cannot be made at the machine.

Sign-on procedure
(This procedure is the same as for server assignment at a standalone machine.)

Procedure (using menu)



1. Touch the [MODE] key to display the mode selection window. Enter your server code and touch the [SRV#] key. The pop-up window for the secret code will open, if a secret code for the server is programmed.

2. If a secret code is programmed, enter your secret code and touch the [ENTER] key.

3. The pop-up window for the drawer number will open if drawer number entry is compulsory. Enter your drawer number and touch the [ENTER] key.

NOTE

- *The sign-on operation can be made only for one server at a time.*
- *If an item entry is made when the server has not been signed-on, the server entry pad will be opened prompting the server code entry.*
- *If a server attempts to sign on when another server has already signed on, an entry error will occur.*
- *Every server that is listed in the system can sign on at any satellite.*
- *If a server has signed on at a machine, that server cannot sign on at any other machine in the system until he or she signs off at the original machine.*
- *In case of trouble, the sign-on state can be cleared at the master. (Please consult your authorized SHARP dealer for further details.)*

5. Server sign-on report

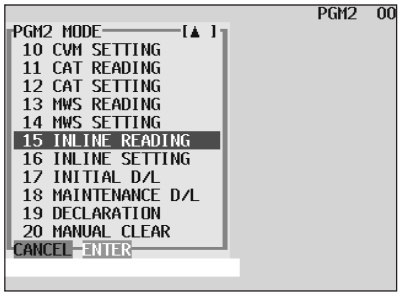
A server sign-on report can be generated at the master. This report is used to determine which terminal each server has signed on.

Report generation procedure

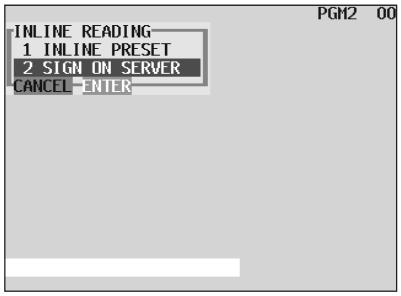
Procedure

Example:

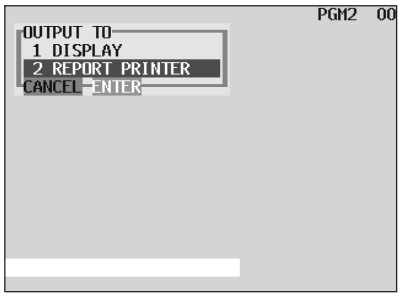
1. Select “PGM2 MODE” from the mode selection menu and touch the ENTER key.



2. Select “INLINE READING” from the PGM2 MODE menu and touch the ENTER key.



3. Select “SIGN ON SERVER” from the INLINE READING menu and touch the ENTER key.



4. Select “DISPLAY” or “REPORT PRINTER” and touch the ENTER key.

Sample Print (master)

```
        *PGM2*
SIGN  ON

NAME       CODE   M-NO.
SERV. 001  0001   000123
SERV. 002  0002   000234
SERV. 003  0003   000001
```

Server name, server code and the machine no. of the machine where the server has signed on

6. Sign-off operation (cancellation of server assignment) (REG mode/MGR mode)

The sign-off operation is intended to cancel the assignment of a server to a machine and terminate the server entry operation.
The sign-off operation at a machine (master or satellite) can be done only for the servers who have signed on at the machine.

Sign-off procedure

Keyboard entry sequence (REG/MGR mode)

→ SRV#

NOTE

- *The server assigned will be automatically signed off after a sales operation is finalized when the machine is set to "auto sign-off mode".*
- *The sign-off operation can be made only for one server at a time.*
- *If a server signs on at a machine while another server has already signed on, the previous server is automatically signed off so long as items have not yet been entered.*

7. Look-up and updating of the GLU/PBLU file

Based on the system setting in the IRC system, the GLU/PBLU file control resides only in the master. All satellites in the IRC system can access the GLU/PBLU file in the master for registration.

GLU/PBLU-file-related inline communications are made for the following purposes:

- New order or reorder
- Payment entry or temporary finalization
- Bill printing
- Bill transfer/bill totalizing
- Bill separate (Split checks)
- Edit tip operations

1) There are two types of GLU/PBLU data transmission.
   The GLU/PBLU data is transmitted from the master to a satellite for GLU/PBLU file look-up (in case of a new order/reorder). In this case, the GLU/PBLU reserve counter* is retained at the master.

   * The reserve counter reserves some records of GLU/PBLU files to prevent a “LACKING MEMORY” error in finalization.

2) The GLU/PBLU data is transmitted from a satellite to the master for finalization of a transaction (in case of payment entry or temporary finalization).
   The data transmitted from the satellite is once saved in the GLU/PBLU data receiving file and then in the GLU/PBLU file. In this case, the GLU/PBLU reserve counter is cleared at the mater.

   If a satellite looks up the GLU/PBLU file in the master or asks the master to update the file, the backup master performs the same process as the master.

8. Drive-through function

Depending on the setup of your system, drive-through data is either centrally controlled by the master or Individually looked up at each terminal. For more information, please contact your authorized SHARP Dealer.

Automatic code generation

Drive-through codes are generated automatically: when the end code for a transaction is generated, the start code for the next transaction code is automatically generated when the drive-through order is initiated.

The start/end codes are programmable in the PGM mode.

Automatic look-up

As drive-through codes are temporarily finalized by touching the SRVC or FINAL key, data for these codes is automatically looked up in the same sequence as the code was generated.

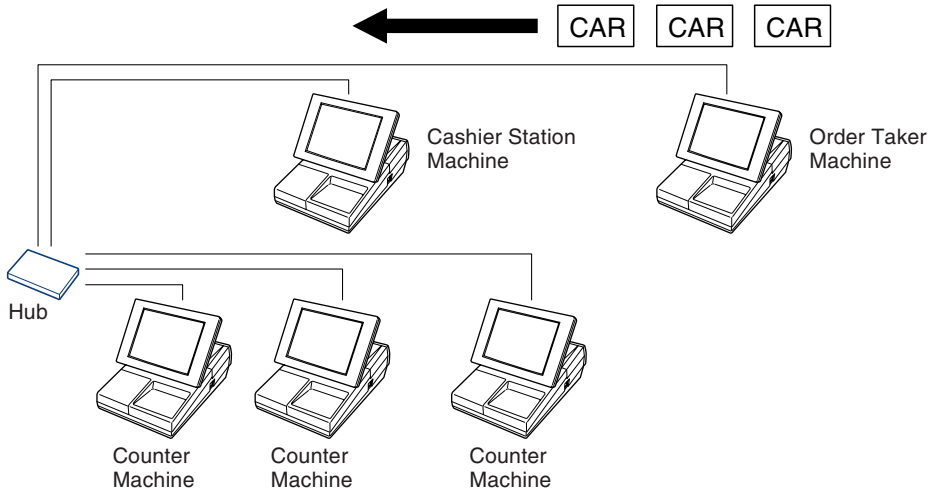
Drive-through-related inline communications are made for the following purposes:

- New order or re-order
- Payment entry or temporary finalization
- Bill printing

The drive-through data is transmitted from the master to a satellite for drive-through file look-up (in case of a new order/re-order). In this case, the drive-through reserve counter is retained at the master.

The data is transmitted from a satellite to the master for finalization of a transaction (in case of a payment entry or temporary finalization). The data transmitted from the satellite is once saved in the drive-through data receiving file and then in the drive-through file. In this case, the drive-through reserve counter is cleared at the master.

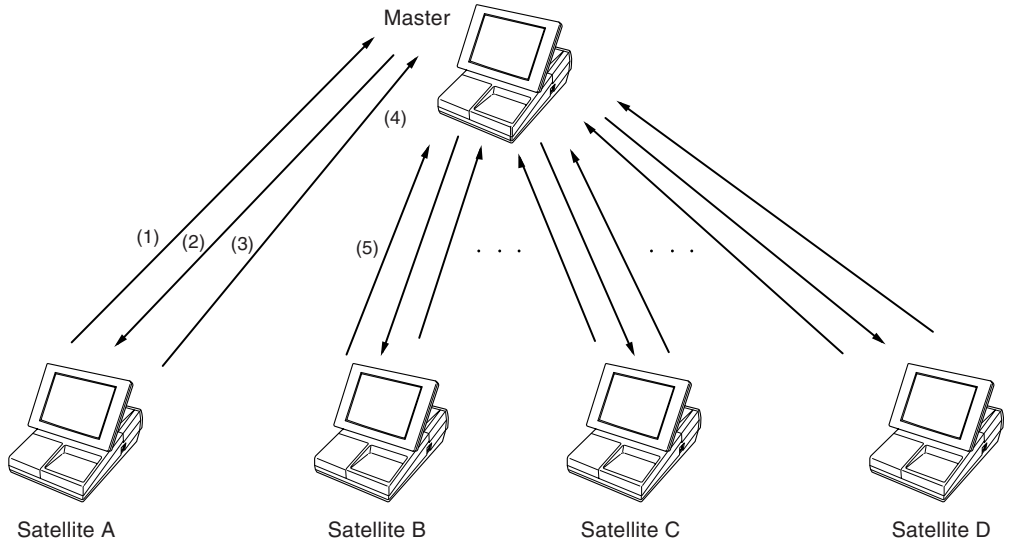
NOTE *The drive-through system provides with three types of the terminal (Order Taker Machine/Cashier Station Machine/Counter Machine).*
For the system configuration, please consult your authorized SHARP Dealer.



9. T-LOG polling

All REG-mode transaction data in each satellite is saved in its T-LOG buffer. T-LOG polling is a data collecting system in which the master collects data from the T-LOG buffers held at each satellite. T-LOG polling becomes available upon the open-store operation and becomes unavailable upon the close store operation.

A request for T-LOG polling is issued from the satellite to the master when the number of data records in its T-LOG buffer exceeds a certain number in the open store state.
As the master detects such a request, it starts collecting the T-LOG buffer data. After the collection of data from one satellite, the master waits for a preset time and starts collecting data from another satellite. In T-LOG polling, the data transmitted to the master is stored in the master's corresponding T-LOG file.
The data flow in T-LOG polling is shown below.



Polling sequence (see the figure above)

(1) Satellite A makes a request for polling.
(2) The master detects the request and starts collecting T-LOG data from satellite A.
(3) The T-LOG data is sent to the master.
(4) After receiving T-LOG data from satellite A, the master waits for a preset time.
(5) The master detects a request from another satellite (B, C or D) and starts polling for it.

If its T-LOG buffer becomes full, registration will be disallowed at a satellite when it has been programmed to "LOCK UP" when the T-LOG is full, and allowed when it has been programmed to "CONTINUE." For how to specify whether the registration is disabled or enabled when the T-LOG buffer becomes full, see page 34.

10. Communication with a remote printer (option)

When a remote printer is configured in the inline system, order data is output to the remote printer according to the preset data on the sending terminal.

The remote printer is used to print all or part of the data entered at a machine. It is also called a kitchen printer. This device can also be operated at a location other than the kitchen.

If a remote printer number is assigned to a department or PLU, the information for the department or PLU is output to the remote printer when an entry for the department or PLU is made and the transaction is finalized at a machine.
The data which can be output to a remote printer is as follows:

1) Item text
2) Quantity*
3) Unit price*/Price*
4) Amount*
5) PLU/department code*

* Whether to print or not is programmable

(1) Second (back-up) remote printer

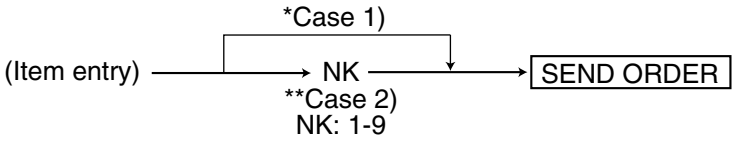
A second kitchen printer can be assigned to each remote printer for automatic back-up.
If an error occurs during data output to the first remote printer, the data is output to the second remote printer assigned to it.
If an error occurs during data output to the second remote printer, the data is output to the receipt printer when installed (the receipt printed at this printer is called a chit).
For how to specify the chit print format, see page 43.

Up to two remote printers can be preset to print data on each item (PLU or department).
If two printers are preset to print data on each item, the data is simultaneously output to both printers.
If either of these printers encounters an error, the data is output to the backup printer.*
If the second printer encounters an error, one receipt is printed.*

*: If a backup printer and a receipt printer is installed to the terminal.

(2) Remote printer send function

This function sends a partial food order to remote printers prior to finalizing the sale.
The printer to receive the order is programmable.
This function is intended to alert the cooking staff to prepare food items before the entire order is given.



*Case 1)

A partial food order is sent to one or several remote printers which have been specified by the department/PLU programming.

**Case 2)

A partial food order is sent to the remote printer specified here.

(3) Priority printing function

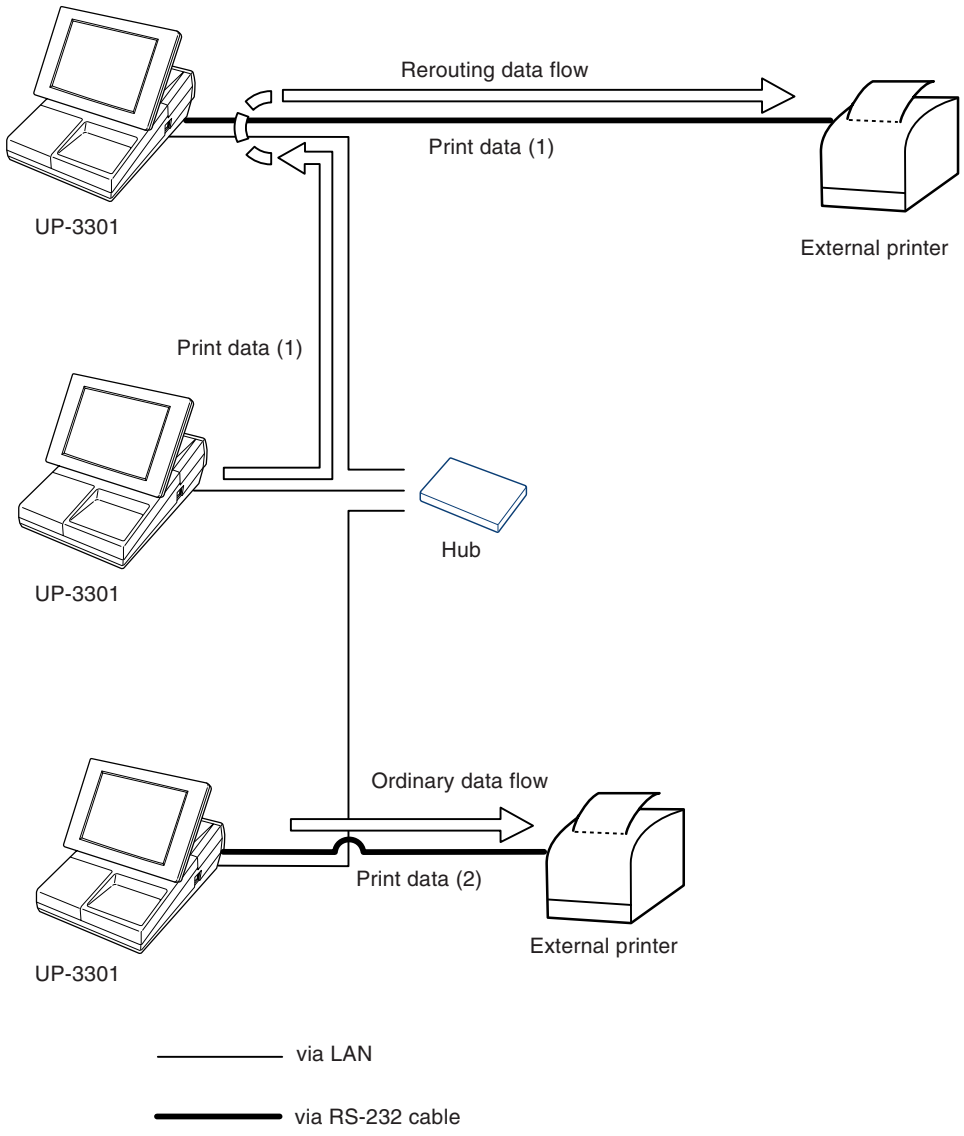
It may be desirable for the cooking staff to see the order items that require the longest cooking time at the top of the kitchen chit. This function can send food items in the programmed order of priority by assigning PLUs to priority groups (1 - 9).

If an error occurs in data output to a remote printer, a corresponding error message appears on the display and the data is output to the remote printer (if the remote printer is installed) and printed on the receipt.
For remote printer error messages, see page 5.

11. Rerouting receipt/journal print data

In some restaurant environments, a receipt/journal printer is not required at every terminal. One external printer connected to any terminal on the LAN can be shared by two or more UP-3301 machines for cost reduction using a RS-232 connection.

Receipt/journal print data rerouting chart



2 Consolidated and Individual Reports

The system can generate two types of sales reports: consolidated reports (reports on all or specified machines in the system) and individual reports (reports on an individual machine). At the master, you can generate consolidated reports on all or specified satellites and reports on the master itself. At each satellite, you can generate reports on the satellite.

1. Operating modes

X1 mode: Daily sales reading reports.
Z1 mode: Daily sales resetting reports.
X2 mode: Periodic consolidation reading reports.
Z2 mode: Periodic consolidation resetting reports.
OP XZ mode: Individual server daily sales reading (X) and resetting (Z) reports.

2. Job number*

Each job number is expressed as “XYnn” according to the table below.
Job number: XYnn

	Entry	Category of report
X	0	Individual report
	1	Consolidated report
Y	0	Server report in the OP XZ mode
	1	Daily sales report (X1 or Z1)
	2	Periodic sales report (X2 or Z2)
nn	Item code*	

* An item code corresponds to the lower two digits of each job number listed in the tables on the following pages.

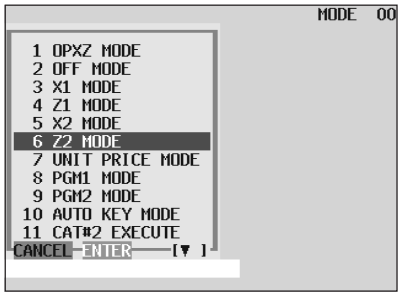
3. Consolidated reports — master/back-up master

(1) Report generation procedure

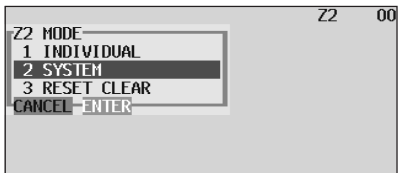
To generate respective reports, use the following procedure, referring to the list of consolidated reports on the following pages.

Procedure

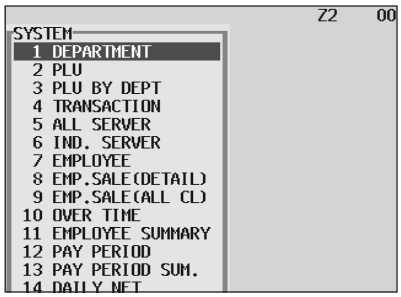
Example:



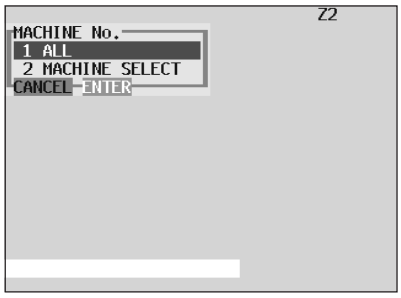
1. Select the required operating mode (OP XZ, X1, Z1, X2, or Z2) from the mode selection menu and touch the ENTER key.



2. Select SYSTEM and touch the ENTER key.



3. Select the type of report you wish to generate and touch the ENTER key. (If the desired type of report is not listed on the display, scroll up or down the screen.)



4. If you need to enter data to generate the report, follow the instructions given on the display for entry.

5. If you wish to generate a report on all the machines in the system, select ALL and touch the ENTER key. If you wish to generate a report on specific machines, select MACHINE SELECT and touch the ENTER key. In this case, the MACHINE SELECT window will open. Move the cursor to the machine number, select YES, and touch the ENTER key.

NOTE

To toggle between YES and NO, touch the • key.

(2) List of consolidated reports (SYSTEM READING/RESETTING)

These reports can be printed on the printer unit (option) or shown on the display screen.

Report type	Description	Operating modes					Job #	Required data/Remarks
		OP XZ	X1	Z1	X2	Z2		
DEPARTMENT	Full department report		○	○			1110	
					○	○	1210	
DEPT. IND. GROUP	Individual dept. group report		○				1112	Group no. (0 thru 9)
					○		1212	
DEPT. GROUP TOTAL	Dept. group total report		○				1113	
					○		1213	
M-DOWN FOR DEPT.	Department markdown report		○				1119	
					○		1219	
PLU	PLU report by specified range		○	○			1120	PLU no. (To specify a PLU no. range, enter start and end PLU nos.)
					○	○	1220	
PLU BY DEPT	PLU report by associated dept.		○	○			1121	Department no.
					○	○	1221	
PLU IND. GROUP	Individual PLU specified report		○				1122	Group no.
					○		1222	
PLU GROUP TOTAL	PLU group total report		○				1123	
					○		1223	
PLU STOCK	PLU stock report		○				1124	PLU no.
PLU COST	PLU cost report		○				1125	PLU no.
					○		1225	
PLU TOP 20	PLU top-20 report		○				1126	Amount or quantity can be selected.
					○		1226	Amount or quantity can be selected.
PLU ZERO SALES	PLU zero sales report		○				1127	All PLUs of zero sales.
					○		1227	
	PLU zero sales report by specified dept.		○				1127	PLUs of zero sales by department
					○		1227	
PLU MIN. STOCK	PLU minimum stock report		○				1128	
PLU HOURLY GROUP	Hourly PLU group report		○	○			1129	
TRANSACTION	Transaction report		○	○			1130	
					○	○	1230	

Report type	Description	Operating modes					Job #	Required data/Remarks
		OP XZ	X1	Z1	X2	Z2		
CID	Cash-in-drawer report		○				1131	For all servers
TAX	Tax report		○				1133	
					○		1233	
ALL SERVER	Full server report		○	○			1140	
					○	○	1240	
IND. SERVER	Individual server report	○					1041	
			○	○			1141	
					○	○	1241	
EMPLOYEE	Employee report specified range		○				1155	Employee code. (The range can be specified by entering start and end codes.)
					○	○	1255	
EMP. ADJUSTMENT	Employee adjustment report				○		1256	Employee code. (The range can be specified by entering start and end codes.)
EMP. ACTIVE STS.	Employee active status report		○				1157	Employee code. (The range can be specified by entering start and end codes.)
EMPLOYEE SALES	Detailed employee sales report				○	○	1258	(Detailed cleared)
EMPLOYEE SALES	Full employee sales report					○	1259	(All reset)
HOURLY	Hourly report		○				1160	Use the military time. (24-hour) system. For example, to set 2:30 a.m., enter 230; and to set 2:30 p.m., enter 1430.
			○	○			1160	For all 48 half-hours with zero skipped
LABOR COST%	Labor cost percentage report		○				1161	
OVER TIME	Employee over time report		○				1162	Employee no.
					○	○	1262	
EMPLOYEE SUMMARY	Employee summary report				○	○	1265	Employee no.
PAY PERIOD	Payment period report				○	○	1266	Employee no.
PAY PERIOD SUM.	Payment period summary report				○	○	1267	Employee no.
DAILY NET	Daily net report				○	○	1270	

Report type	Description	Operating modes					Job #	Required data/Remarks
		OP XZ	X1	Z1	X2	Z2		
INGREDIENT STOCK	Ingredient stock report		○				1175	Ingredient table no.
GLU	GLU report		○	○			1180	GLU/PBLU code. (The range can be specified by entering start and end codes.)
GLU BY SERVER	GLU report by server		○	○			1181	
CLOSED GLU	Closed GLU report		○	○			1182	Bill no. (The range can be specified by entering start and end bill numbers.)
CL-GLU BY SERVER	Closed GLU report by server		○	○			1183	
DRIVE THRU	Drive-through code report		○	○			1185	Drive-through code. (The range can be specified by entering start and end codes.)
D-THRU BY SERVER	Drive-through code report by server		○	○			1186	
CLOSED D-THRU	Closed drive-through report		○	○			1187	Bill no. (The range can be specified by entering start and end bill numbers.)
CL-DT BY SERVER	Closed drive-through report by server		○	○			1188	
SERVICE TIME	Drive-through service time report		○	○			1189	
STACKED REPORT	Stacked report (X1/Z1)		○	○			1190	Stacked report 1
							1191	Stacked report 2
STACKED REPORT	Stacked report (X2/Z2)				○	○	1290	Stacked report 1
							1291	Stacked report 2

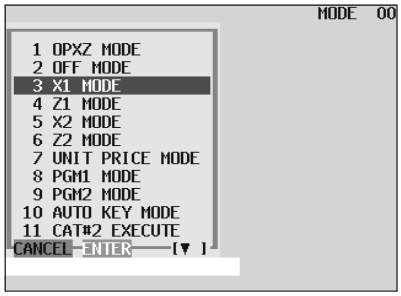
4. Individual reports — master/back-up master/satellite

(1) Report generation procedure

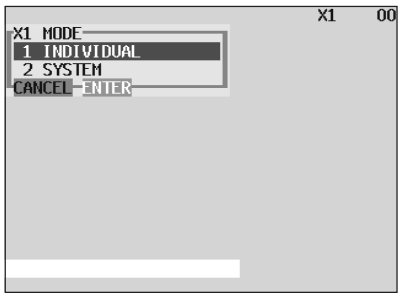
To generate respective reports, use the described procedures, referring to the list of individual reports on the following pages.

Procedure

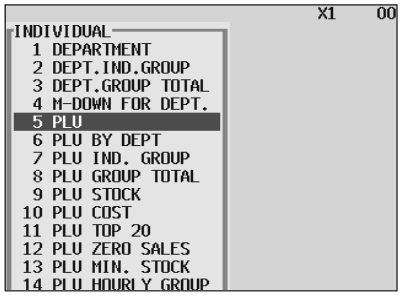
Example:



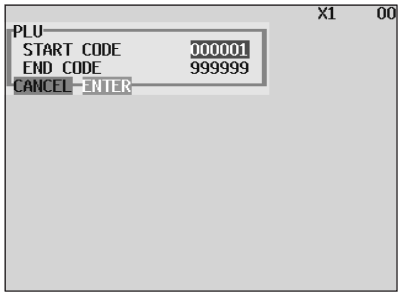
1. Select the required operating mode (OP XZ, X1, Z1, X2 or Z2) from the mode selection menu and touch the ENTER key.



2. Select INDIVIDUAL and touch the ENTER key.



3. Select the type of report you wish to generate and touch the ENTER key. (If the desired type of report is not listed on the display, scroll up or down the screen.)



4. If you need to enter data to generate the report, follow the instructions given on the display for entry.

(2) List of individual reports (READING/RESETTING)

These reports can be printed on the report printer unit (option) or shown on the display screen.

Report type	Description	Operating modes					Job #	Required data/ Remarks	Notes*
		OP XZ	X1	Z1	X2	Z2			
DEPARTMENT	Full department report		○	○			110		MA, SA
					○	○	210		
DEPT. IND. GROUP	Individual dept. group report		○				112	Group no. (0 thru 9)	MA, SA
					○		212		
DEPT. GROUP TOTAL	Dept. group total report		○				113		MA, SA
					○		213		
M-DOWN FOR DEPT.	Department markdown report		○				119		MA, SA
					○		219		
PLU	PLU report by specified range		○	○			120	PLU no. (The range can be specified by entering start and end codes.)	MA, SA
					○	○	220		
PLU BY DEPT	PLU report by associated dept.		○	○			121	Department no.	MA, SA
					○	○	221		
PLU IND. GROUP	Individual PLU group report		○				122	Group no. (0 thru 9)	MA, SA
					○		222		
PLU GROUP TOTAL	PLU group total report		○				123		MA
					○		223		
PLU STOCK	PLU stock report		○				124	PLU no. (The range can be specified by entering start and end codes.)	MA, SA
PLU COST	PLU cost report		○				125	PLU no.	MA, SA
					○		225		
PLU TOP 20	PLU top-20 report		○				126	Amount or quantity can be selected.	MA, SA
					○		226		
PLU ZERO SALES	PLU zero sales report		○				127	All PLUs of zero sales	MA, SA
					○		227		
	PLU zero sales report by specified dept.		○				127	PLUs of zero sales by department	MA, SA
					○		227		
PLU MIN. STOCK	PLU minimum stock report		○				128		MA
PLU HOURLY GROUP	Hourly PLU group report		○	○			129		MA, SA
TRANSACTION	Transaction report		○	○			130		MA, SA
					○	○	230		

Notes* : MA → Master, SA → Satellite

Report type	Description	Operating modes					Job #	Required data/ Remarks	Notes*
		OP XZ	X1	Z1	X2	Z2			
CID	Cash-in-drawer report		○				131	For all servers	MA, SA
TAX	Tax report		○				133		MA, SA
					○		233		
ALL SERVER	Full server report			○			140		MA
					○	○	240		
IND. SERVER	Individual server report	○					41		MA, SA
			○	○			141		
					○	○	241		
EMPLOYEE	Employee report specified range		○				155	Employee code. (The range can be specified by entering start and end codes.)	MA
					○	○	255		
EMP. ADJUSTMENT	Employee adjustment report				○		256	Employee code. (The range can be specified by entering start and end codes.)	MA
EMP. ACTIVE STS.	Employee active status report		○				157	Employee code. (The range can be specified by entering start and end codes.)	MA
EMPLOYEE SALES	Detailed employee sales report				○	○	258	(Details cleared)	MA
EMPLOYEE SALES	Full employee sales report					○	259	(All reset)	MA
HOURLY	Hourly report		○				160	For an individual time range	MA, SA
			○	○			160	For all 48 half-hours with zero skipped	MA, SA
LABOR COST%	Labor cost percentage report		○				161		MA
OVER TIME	Employee over time report		○				162	Employee no.	MA
					○	○	262		
EMPLOYEE SUMMARY	Employee summary report				○	○	265	Employee no.	MA, SA
PAY PERIOD	Pay period report				○	○	266	Employee no.	MA, SA
PAY PERIOD SUM.	Pay period summary report				○	○	267	Employee no.	MA, SA
DAILY NET	Daily net report				○	○	270		MA, SA
INGREDIENT STOCK	Ingredient stock report		○				175	Ingredient table no.	MA

Notes* : MA → Master, SA → Satellite

Report type	Description	Operating modes					Job #	Required data/ Remarks	Notes*
		OP XZ	X1	Z1	X2	Z2			
GLU	GLU report		○	○			180	GLU/PBLU code. (The range can be specified by entering start and end codes.)	MA, SA
GLU BY SERVER	GLU report by server		○	○			181		MA, SA
CLOSED GLU	Closed GLU report		○	○			182	Bill no. (The range can be specified by entering start and end numbers.)	MA, SA
CL-GLU BY SERVER	Closed GLU report by server		○	○			183		MA, SA
DRIVE THRU	Drive-through code report		○	○			185	Drive-through code. (The range can be specified by entering start and end codes.)	MA, SA
D-THRU BY SERVER	Drive-through code report by server		○	○			186		MA, SA
CLOSED D-THRU	Closed drive-through report		○	○			187	Bill no. (The range can be specified by entering start and end numbers.)	MA, SA
CL-DT BY SERVER	Closed drive-through report by server		○	○			188		MA, SA
SERVICE TIME	Drive-through service time report		○	○			189		MA, SA
STACKED REPORT	Stacked report (X1/Z1)		○	○			190	Stacked report 1	MA, SA
							191	Stacked report 2	MA, SA
STACKED REPORT	Stacked report (X1/Z1)				○	○	290	Stacked report 1	MA, SA
							291	Stacked report 2	MA, SA

Notes* : MA → Master, SA → Satellite

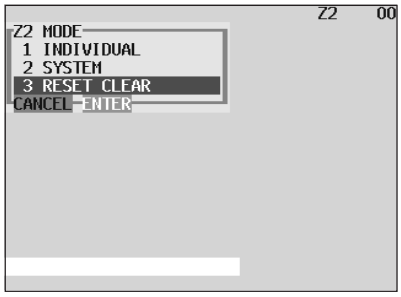
5. Reset clear operation (Z1 and Z2 modes) — master

Even when a machine has been programmed to disallow entries after full item total resetting or has not been programmed to allow automatic reset clearing operation upon open store operation, you can unlock the machine through full item daily total resetting operation in order to restart entries.

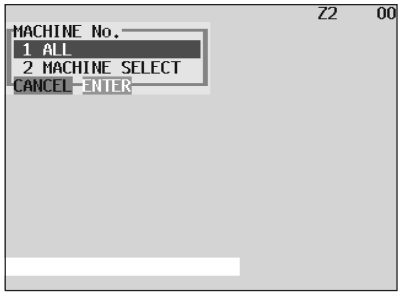
Procedure

Example:

1. Select the required operating mode (Z1 or Z2) from the mode selection menu and touch the ENTER key.



2. Select RESET CLEAR and touch the ENTER key.



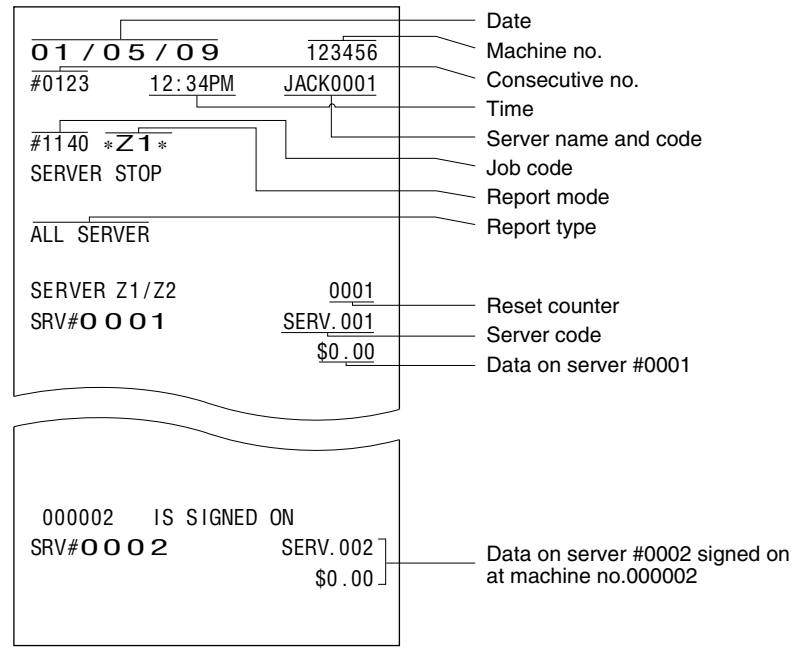
3. If you wish to unlock all the machines in the system, select ALL and touch the ENTER key. If you wish to unlock specific machines, select MACHINE SELECT and touch the ENTER key. In this case, the MACHINE SELECT window will open. Move the cursor to the corresponding machine number(s), select YES and touch the ENTER key.

6. Server report

At the master, you can generate consolidated transaction reports on all servers or individual servers by initiating the system's reading and resetting operations.
At each satellite, you can generate a transaction report on individual servers by initiating the terminal's reading or resetting operation.
If a specific server is signed on at a machine when the resetting operation for the individual server report is made at the machine, the data on transactions being handled by the server is also added and printed out.
If that server is signed on at another machine, the message "IS SIGNED ON" is printed, thus the resetting operation for the sever cannot be made.

Full server report sample

Sample Print (master)



3 IRC Programming

First, turn on the machines in the IRC system and place them in the PGM2 mode. The programming procedures for both the master and satellites will be explained below.

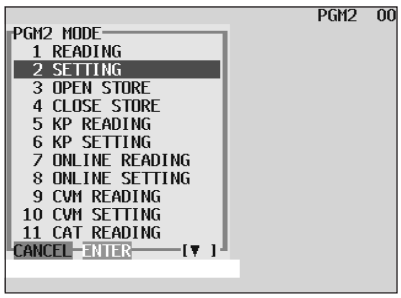
1. Setting the machine numbers — master and satellite

It is necessary to assign machine numbers to the master and satellites before the IRC programming.

Procedure

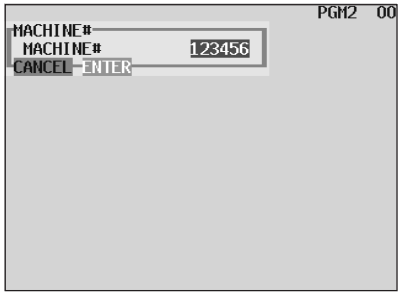
Example:

1. Select “PGM2 MODE” from the mode selection menu and touch the ENTER key to enter the PGM2 mode.



2. Select “SETTING” and touch the ENTER key.

3. Select “TERMINAL” and touch the ENTER key.
Select “MACHINE#” from the REGISTER menu and touch the ENTER key.



4. Enter a machine number and touch the ENTER key.
Machine number: up to 6 digits (0 - 999999)

5. Repeat steps 1 to 4 for all machines in the IRC system.

NOTE

In an IRC network, each machine number must be unique.
Do not use the same number for more than one machine.

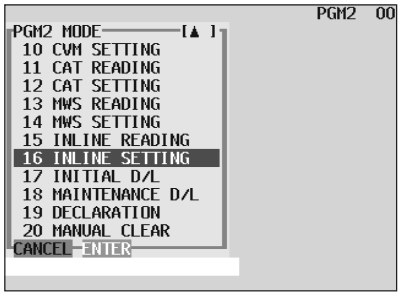
2. Setting the terminal numbers (IRC machine numbers) — master and satellite

It is assumed that your terminal's setting for inline operations has been performed during initial setup.

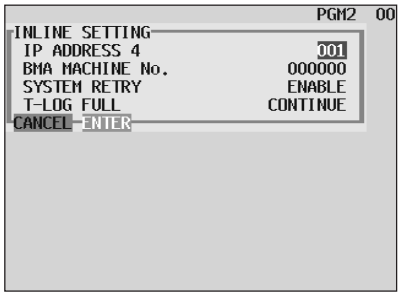
Procedure

Example:

1. Enter the PGM2 mode.



2. Select "INLINE SETTING" and touch the ENTER key.



3. Enter a terminal number for IP ADDRESS 4 from (1 to 254) and touch the ENTER key.

(For programming for BMA MACHINE No., SYSTEM RETRY and T-LOG FULL, see pages 32 - 34.)

4. Repeat steps 1 to 3 for all machines in the IRC system.

NOTE

- *Terminal numbers must be assigned to the master and each satellite in the IRC system. (For setting the master's terminal number, see the next paragraph.)*
- *If an inline network contains two or more machines with the same terminal number, IRC communications will not be achieved correctly. Each terminal number must be unique.*
- *The terminal number should be within the range from 1 to 254.*
- *If the terminal number "000" is programmed for a machine, it is put in the OFF LINE mode and cannot take part in IRC communications.*

3. Creating/updating the master list — master

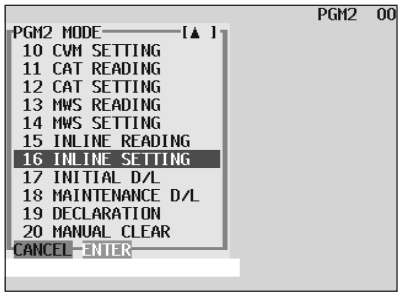
(1) Creating the master list (subwindow program)

This may only be performed on the pre-designated master.

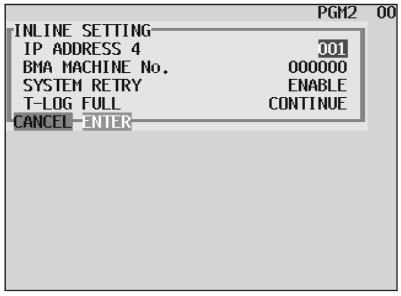
Procedure

Example:

1. Enter the PGM2 mode.

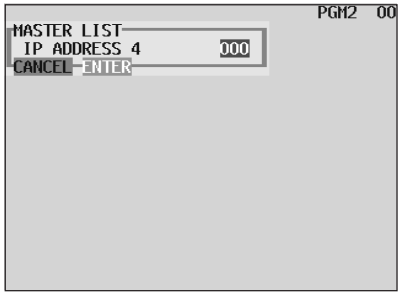


2. Select “INLINE SETTING” and touch the ENTER key.

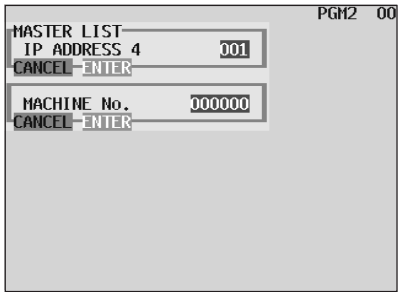


3. Enter a terminal number for IP ADDRESS 4 from (1 - 254) for the master carry out the programming for other INLINE SETTING items and touch the CASH key. The subwindow for the creation of the master list will open.

(For programming the BMA MACHINE No., SYSTEM RETRY and T-LOG FULL settings, see pages 32 - 34.)



4. Enter the terminal number (1 - 254) for the master in the IRC system and touch the ENTER key. The subwindow for machine number entry will open.



5. Enter the machine number (1 - 999999) that corresponds to the master's entered terminal number and touch the ENTER key.

6. Repeat steps 4 to 5 for all satellite in the IRC system. Touch the CASH key to complete the master list.

NOTE

- *The terminal numbers and machine numbers of the master and satellites must be entered into the master list for IRC communications.*
- *The terminal numbers and machine numbers of up to 16 machines (one master and 15 satellites) can be entered into the master list.*
- *The terminal number should be within the range from 1 to 254 and the machine number from 1 to 999999.*
- *No satellite can perform inline communications unless its terminal and machine numbers are present in the master list.*
- *If a machine number which already exists in the master list is entered, a lock error will occur even when the corresponding terminal number does not exist in the list.*
- *If a set of terminal and machine numbers that exists in the master list is entered, no error will occur (the list will remain unchanged.)*
- *Touching the [ENTER] key enters the programmed terminal numbers and machine numbers on the master. Touching the [CASH] key issues a receipt on the receipt/journal printer (option).*

(2) Deleting a satellite from the master list (subwindow program)

To delete a satellite from the master list, proceed as follows:

1. Select “PGM2 MODE” from the mode selection menu and touch the [ENTER] key to enter the PGM2 mode.
2. Select “INLINE SETTING” and touch the [ENTER] key. The INLINE SETTING menu will open.
3. Touch the [CASH] key. The subwindow for the master list will open.
4. Enter the terminal number of the satellite to be deleted and touch the [DEL] key.
5. The machine will ask you as follows: “ARE YOU SURE?” If you are sure to delete it, select “YES.” If not, select “NO.”
6. Touch the [CASH] key to complete the master list.

NOTE

- *You can delete any of the terminal numbers that are in the master list.*
- *Touching the [CASH] key issues a receipt on the receipt and journal printer (optional).*
- *Deleting the master from the master list will inhibit all requests of the satellites from being serviced.*

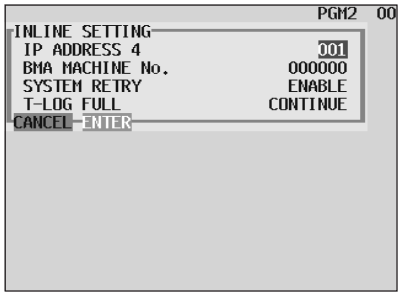
4. Specifying whether to enable or disable the system retry function when a transmission error occurs — master and satellite

You can specify whether the system retry function is disabled or enabled in the event that the communication between machines does not end successfully.

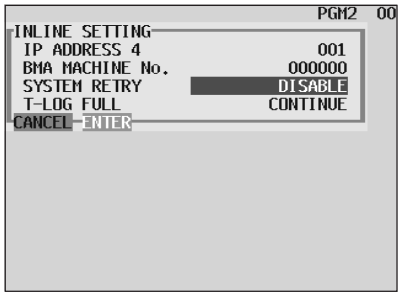
Procedure

Example:

1. Enter the PGM2 mode.



2. Select “INLINE SETTING” and touch the ENTER key.
The INLINE SETTING menu will open.



3. Move the cursor to the “SYSTEM RETRY” line.
Select “DISABLE” or “ENABLE” with the • key (toggle key) and touch the ENTER key.

NOTE

- *If the system retry function is enabled, a transmission job with which an error has occurred is not finalized immediately, but the master waits for a selection of one of the three commands (RETRY, ABORT and IGNORE) through the keyboard. Then the master retries access to the satellite where the transmission error occurred, then terminates the access as a successful or unsuccessful transmission depending on the selection made.*
- *If the function is disabled, the job is terminated immediately.*
- *The default setting is “ENABLE.”*

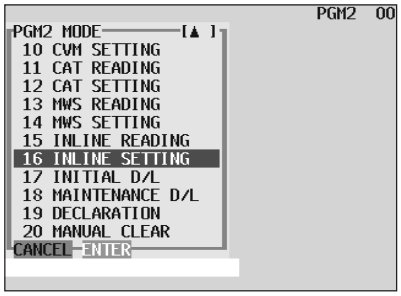
5. Specifying the terminal to serve as a back-up master — master

You can assign one satellite to function as a back-up master. If the master fails during guest check operation, the assigned terminal will perform the master's function.
A machine number within the range from 1 to 999999 can be entered.
If zero is entered, there will be no back-up master in the IRC system.
This job can be done in the INLINE SETTING window of the master.
The default setting is 0 (no back-up master).

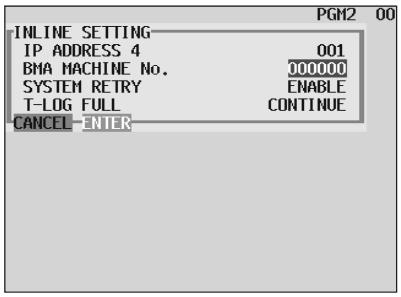
Procedure

Example:

1. Enter the PGM2 mode.



2. Select "INLINE SETTING" and touch the ENTER key.
The INLINE SETTING menu will open.



3. Move the cursor to the "BMA MACHINE No." line. Then enter the machine number of the terminal to serve as a back-up master and touch the ENTER key.

- For determining which satellite should be selected as the back-up master machine, please consult your authorized SHARP dealer.

NOTE

The DECLARATION function in the PGM2 mode enables the back-up master or the master to declare control for the master when the master or back-up master breaks down, and inform satellites of the master's or back-up master's recovery.
For details of these functions, see "Master declaration" and "Recovery declaration" on pages 50 - 55.

6. Specifying whether to enable or disable the entry function when the T-LOG buffer is full — master and satellite

You can specify whether the entry function of a satellite is disabled (LOCK UP) or enabled (CONTINUE) when the T-LOG buffer is full. If it is disabled, an error message will be displayed when you try any entry in the REG/MGR mode at the satellite. If it is enabled, you can continue entries but cannot save the entered data. Even if data is entered after the T-LOG buffer becomes full, the data saved in the file will not be erased.

Procedure

Example:

1. Enter the PGM2 mode.

2. Select “INLINE SETTING” and touch the ENTER key.
The INLINE SETTING menu will open.

3. Move the cursor to the “T-LOG FULL” line.

4. Select “CONTINUE” or “LOCK UP” with the • key (toggle key) and touch the ENTER key.

NOTE

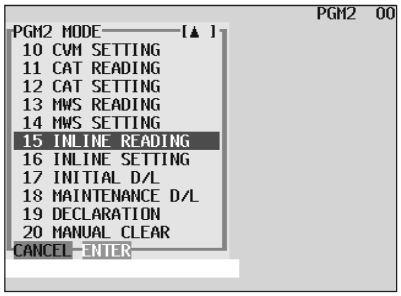
- *The T-LOG buffer is provided in each satellite to store the data to be transmitted to the master by T-LOG polling. The data is automatically transmitted to the master in the open store state. For more information about T-LOG polling, see “T-LOG polling” on page 13.*
- *When the entry function is disabled, “LOCK UP” will be printed on the receipt. (Option)*
- *When the entry function is enabled, “CONTINUE” will be printed on the receipt. (Option)*
- *The default setting is “CONTINUE.”*

7. Reading the contents of the IRC programming — master and satellite

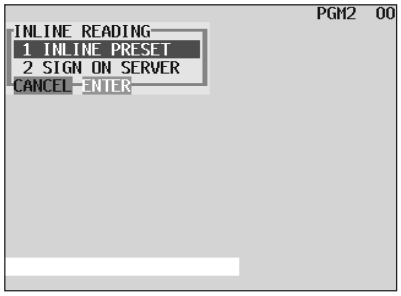
Procedure

Example:

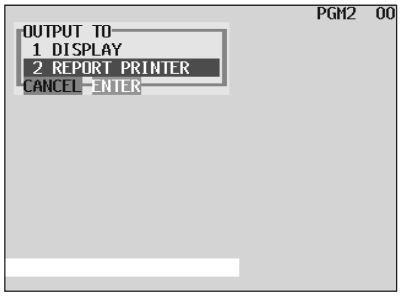
1. Enter the PGM2 mode.



2. Select “INLINE READING” and touch the ENTER key.
The INLINE READING menu will open.

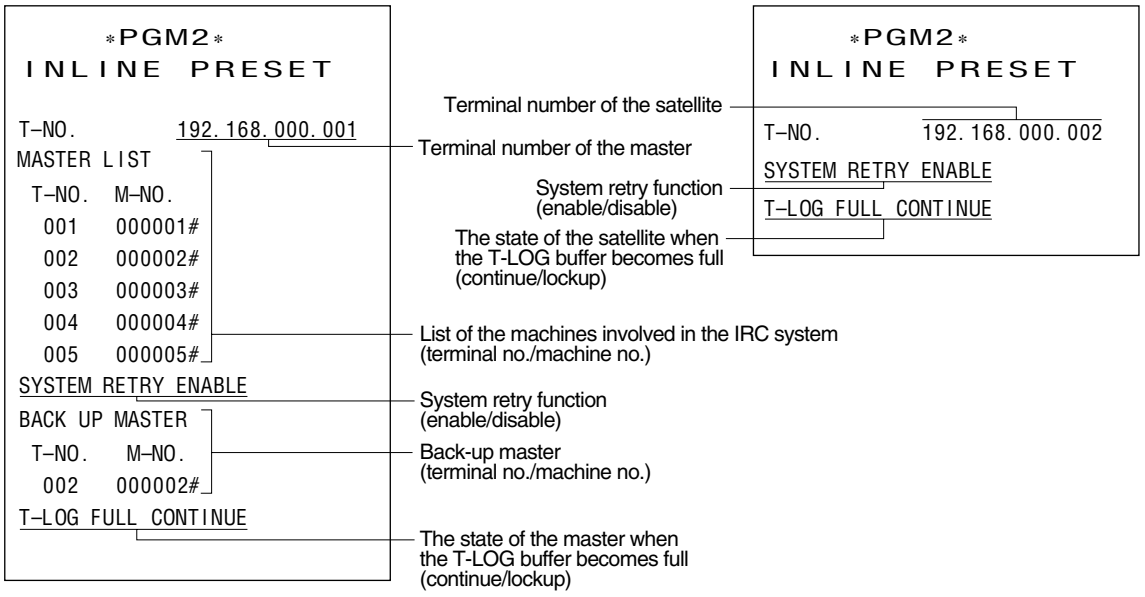


3. Select “INLINE PRESET” and touch the ENTER key.



4. Select “DISPLAY” or “REPORT PRINTER” and touch the ENTER key.

Sample Print (master)



Sample Print (satellite)

- You can also read the same contents of the IRC Programming on the display screen.

8. Downloading the contents of the IRC programming to satellites — master

When you have completed the IRC programming, you can distribute the IRC preset data from the master to all satellites in the IRC system.

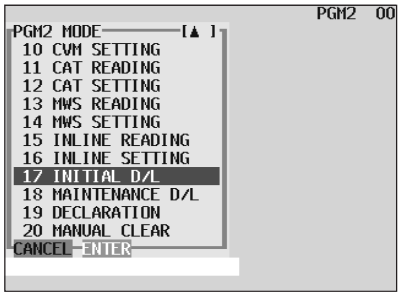
(1) Initial downloading

For initial setup of the IRC system, use this downloading method. The preset data in the master is downloaded to each satellite, when the existing preset data in the satellite is cleared.

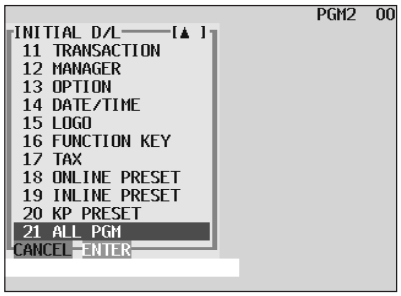
Procedure

Example:

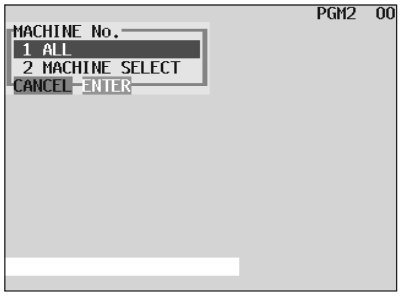
1. Enter the PGM2 mode.



2. Select “INITIAL D/L” and touch the ENTER key.
The INITIAL D/L menu will open.



3. In order to distribute all preset data files in the master to satellites, select “ALL PGM” and touch the ENTER key.
In order to distribute an individual preset data file, select the corresponding item and touch the ENTER key.
For initial downloading of PLU preset data, it is necessary to enter the code range and machine numbers to receive the data.



4. If you wish to download the IRC programming data to all satellites, select “ALL” and touch the ENTER key. If you wish to download the data to certain satellite(s), select “MACHINE SELECT” and touch the ENTER key.
In this case, the “MACHINE SELECT” menu will open. Move the cursor to the machine numbers and select “YES.”

NOTE

Check the contents of the programming on all the satellites in the IRC system that have received the preset data.

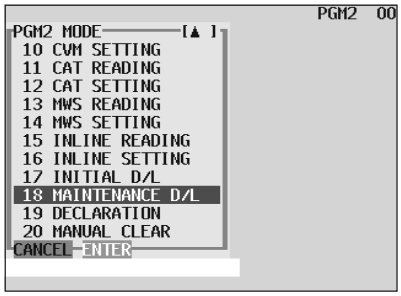
(2) Maintenance downloading

To update preset data for the IRC system, use this downloading method. The preset data in the master is downloaded to each satellite without clearing the existing preset data.

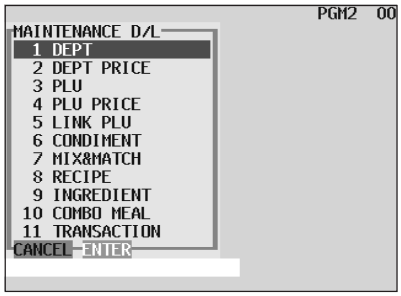
Procedure

Example:

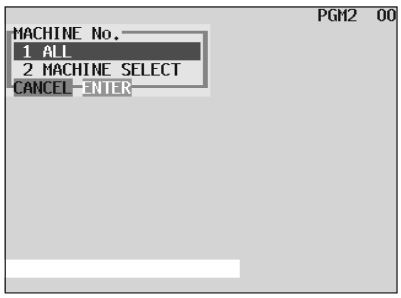
1. Enter the PGM2 mode.



2. Select “MAINTENANCE D/L” and touch the ENTER key. The MAINTENANCE D/L menu will open.



3. Select a preset data item for maintenance and touch the ENTER key.
If needed, enter the code range.



4. If you wish to download the IRC programming data to all satellites, select “ALL” and touch the ENTER key. If you wish to download the data to certain satellite(s), select “MACHINE SELECT” and touch the ENTER key. In this case, the “MACHINE SELECT” menu will open. Move the cursor to the machine numbers and select “YES.”

List of downloading jobs (PGM2 mode)

Menu	Job #	Item	Description	Note
INITIAL D/L	4100	DEPT	Department preset data	Preset data copying with clearing
	4119	DIRECT KEY	Dept./PLU key preset data for direct depts./PLUs	
	4200	PLU	PLU/Link PLU	Preset data copying with clearing
	4218	PLU MENU KEY	PLU menu key preset data	Preset data copying with clearing
	4220	LINK PLU	Link PLU preset data	Preset data copying with clearing
	4223	CONDIMENT	Condiment PLU preset data	Preset data copying with clearing
	4225	MIX & MATCH	Mix & Match preset data	Preset data copying with clearing
	4226	RECIPE	Recipe preset data	Preset data copying with clearing
	4227	INGREDIENT	Ingredient preset	Preset data copying with clearing
	4228	COMBO MEAL	Combo meal preset data	Preset data copying with clearing
	4300	TRANSACTION	Transaction preset data	Preset data copying with clearing
	4450	MANAGER	Manager preset data	Preset data copying with clearing
	4600	OPTION	Other preset data	Programming Job #2324, 2615 - 2621, 2630 - 2632, 2900
	4610	DATE/TIME	Date, time	Preset data copying with clearing
	4614	LOGO	Logo text preset data	Programming Job #2614, 2642, 2643 and 2646
	4629	FUNCTION KEY	Function key preset data	Preset data copying with clearing
	4700	TAX	Tax preset data	Preset data copying with clearing
	4800	ONLINE PRESET	Online preset data	Preset data copying with clearing
	4900	INLINE PRESET	Inline preset data	Preset data copying with clearing
	4950	KP PRESET	Remote printer preset data	Preset data copying with clearing
	4999	ALL PGM	All PGM-mode preset data	Downloading of Job #4000 to 4950 is performed collectively.
MAINTENANCE D/L	5100	DEPT	Department preset data	Only preset data copying
	5110	DEPT PRICE	Department price preset data	Only preset data copying
	5200	PLU	PLU/Link PLU	Only preset data copying
	5210	PLU PRICE	PLU price preset data	Only preset data copying
	5220	LINK PLU	Link PLU preset data	Only preset data copying
	5223	CONDIMENT	Condiment PLU preset data	Only preset data copying
	5225	MIX & MATCH	Mix & Match preset data	Only preset data copying
	5226	RECIPE	Recipe preset data	Only preset data copying
	5227	INGREDIENT	Ingredient preset data	Only preset data copying
	5228	COMBO MEAL	Combo meal preset data	Only preset data copying
	5300	TRANSACTION	Transaction preset data	Only preset data copying

NOTE

- *The PLU/LINK PLU file (INITIAL D/L and MAINTENANCE D/L) does not include stock data.*
- *The OPTION file includes the following data:*
  Optional feature preset, scale preset, hourly report, stacked report, secret code, auto key, location preset, GLU range.
- *The LOGO file includes the following data:*
  Logo text and bill logo, dept. group text, PLU group text, hourly group text, currency descriptor.
- *The PLU/LINK PLU file (INITIAL D/L and MAINTENANCE D/L) includes LINK PLU preset data.*
- *The INLINE PRESET file include MWS preset data.*
- *Initial D/L job #4999 should not be performed when totals exist in the system. (The totalizers of the receiving satellite are erased.)*
- *Performed individual initial D/L jobs will result in a non-reset error.*

9. Programming for the remote printer

For connection of remote printers to the machines, please consult your authorized SHARP dealer.

(1) Assigning kitchen printer numbers to remote printers — master and satellite

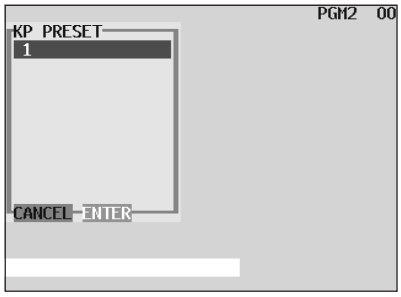
With the following procedure, you can do programming for the remote printers connected to the LAN. For initial setup of remote printers, please contact your authorized SHARP dealer.

Procedure

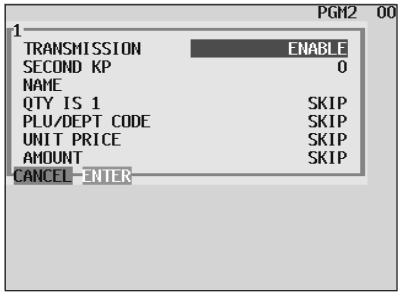
Example:

1. Enter the PGM2 mode.

2. Select “KP SETTING” and touch the ENTER key.
The KP SETTING menu will open.



3. Select the kitchen printer number to be programmed.



4. Complete the programming for the remote printer.
(See the following pages for programming for individual remote printer items.)

- Be sure to consult your authorized SHARP dealer for the correct settings.

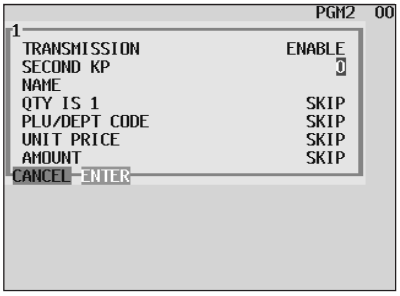
5. After programming for the remote printer, touch the ENTER key.

(2) Assigning the second kitchen printer number to each remote printer — master and satellite

With the following procedure, you can assign a second remote printer to which data should be output when the first remote printer encounters an error during transmission of data. This assignment is made to reroute the remote printer data due to printer breakdown or other troubles.

After the KP SETTING menu appears, proceed as follows:

Procedure



Example:

1. Move the cursor to the “SECOND KP” line and enter the second kitchen printer number.

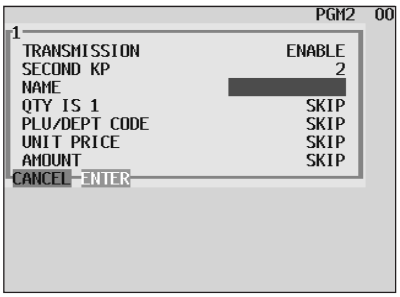
2. Touch the [ENTER] key to finish the programming for the remote printer.

(3) Naming the remote printer — master and satellite

The programmed name will be printed together with item data on the remote printer. This enables clear identification of the printout if the remote printer fails.

After the KP SETTING menu appears, proceed as follows:

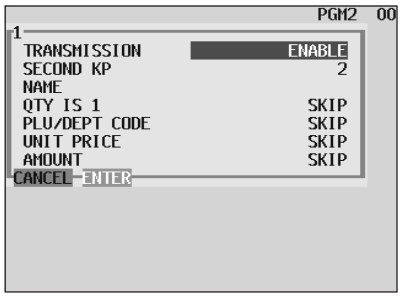
Procedure



Move the cursor to the “NAME” line and enter a desired name for the remote printer.

(4) Specifying whether to enable or disable the function for data transmission to the remote printer — master and satellite

If a remote printer is disconnected from the IRC system or any other problem occurs in it, you can disable your machine to stop data transmission to the remote printer. This prevents any error message from appearing on the machine display each time an entry to be transmitted to that printer is made.



Move the cursor to the “TRANSMISSION” line and select “DISABLE” or “ENABLE” with the [•] key (toggle key) or display the choices by touching the [LIST] key.

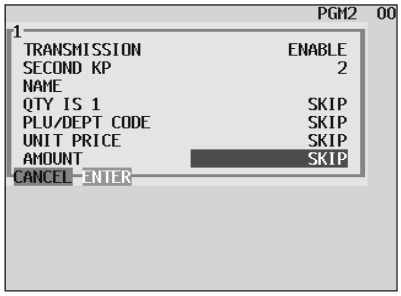
NOTE

When the receipt printer is installed and an error occurs during data transmission to the remote printer, the data will be printed at the receipt printer in the form of a chit.

(5) Specifying the format of printing — master and satellite

With the following procedure, you can specify what items to be printed on the remote printer.

Procedure

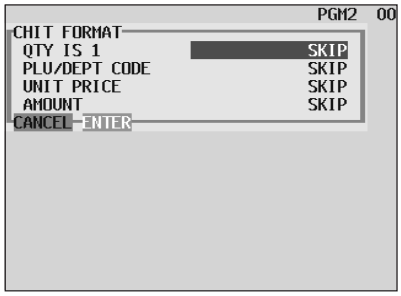


Example:

1. Move the cursor to the following printing format items and select PRINT or SKIP with the [•] key (toggle key) or display them by touching the [LIST] key.

Printing when quantity is one:	PRINT/SKIP
PLU/department code:	PRINT/SKIP
Unit price	PRINT/SKIP
Amount:	PRINT/SKIP

The default setting for these items is SKIP.



2. Touch the [CASH] key to finish the programming for the remote printer. The CHIT FORMAT window will open. (For programming for CHIT FORMAT, see the next paragraph.)

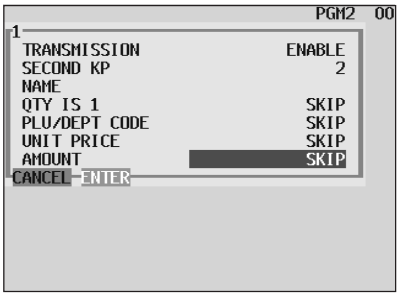
(6) Specifying the format of chit printing — master and satellite

If so desired, each PLU/department item may be preset to output to the receipt printer in a chit format. (Option)

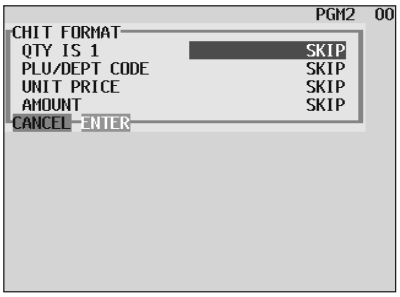
With the following procedure, you can specify what items to be printed on chits.

Procedure

Example:



1. After programming for the KP PRESET items, touch the [ENTER] key.



2. Move the cursor to the following CHIT FORMAT items and select PRINT or SKIP with the [•] key (toggle key).

Printing when quantity is one:	PRINT/SKIP
PLU/department code:	PRINT/SKIP
Unit price:	PRINT/SKIP
Amount:	PRINT/SKIP

The default setting for these items is SKIP.

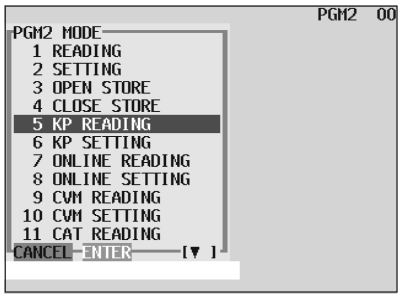
3. Touch the [ENTER] key to finish the programming for chit printing.

10. Reading the contents of the remote printer programming — master and satellite

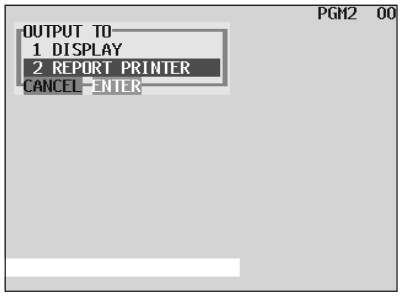
Procedure

Example:

1. Enter the PGM2 mode.

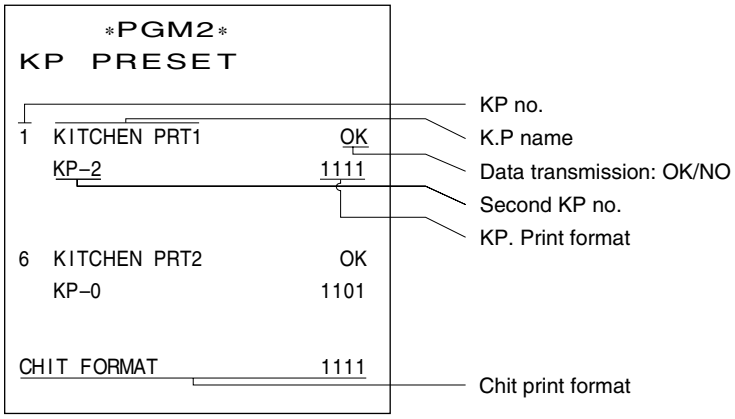


2. Select “KP READING” and touch the ENTER key.



3. Select “DISPLAY” or “REPORT PRINTER” and touch the ENTER key.

Sample Print (master)



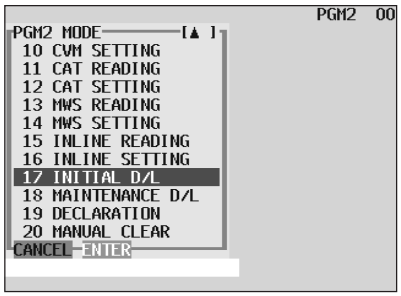
11. Downloading the contents of the remote printer programming to satellites — master

When you have completed the remote printer programming, you can distribute the preset data from the master to all satellites in the IRC system.

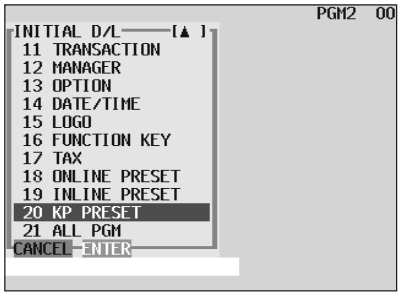
Procedure

Example:

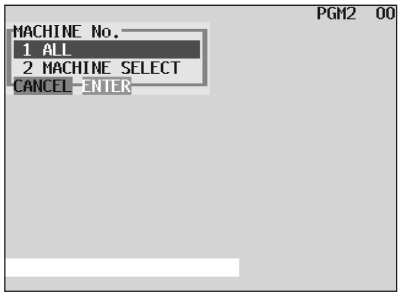
1. Enter the PGM2 mode.



2. Select “INITIAL D/L” and touch the ENTER key.



3. The INITIAL D/L menu will open. Select “KP PRESET” and touch the ENTER key.



4. If you wish to download the KP PRESET data to all satellites, select “ALL” and touch the ENTER key. If you wish to download the data to certain satellite(s), select “MACHINE SELECT” and touch the ENTER key. In this case, the MACHINE SELECT menu will open. Move the cursor to the machine numbers and select “YES.”

NOTE

Check if all the satellites in the IRC system have received the preset data for the remote printer.

12. Programming for the Manager Work Station (MWS) — master and satellite

The inline interface for the UP-3301 POS enables the UP-3301 to perform in-line communications to a host P.C. through the connection to a Manager Work Station (MWS).

The functions of Manager Work Station:

1) Down load of the terminal data [Terminal ← PC]
2) Up load of the terminal data [Terminal → PC]
3) Remote Job Entry (RJE) function [Terminal ← PC]
4) T-Log function [Terminal → PC]
5) ELECTRONIC MAIL function [Terminal ← PC]

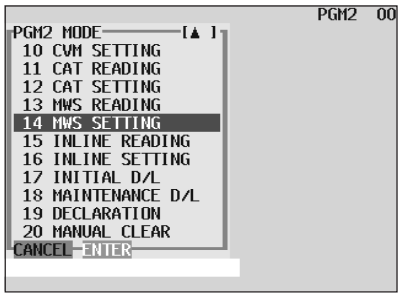
(1) Programming of the terminal number

The terminal number of MWS can be specified by the following procedure:

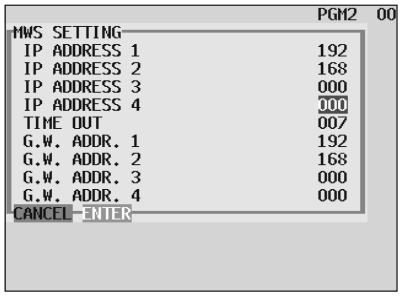
Procedure

Example:

1. Enter the PGM2 mode.



2. Select “MWS SETTING” and touch the ENTER key.
The MWS SETTING window will appear.



3. Enter the terminal number (1 - 254) of MWS on “IP ADDRESS 4” and touch the ENTER key.

NOTE

The MWS IP ADDRESS must be a unique number within the system. Please consult your authorized Sharp dealer.

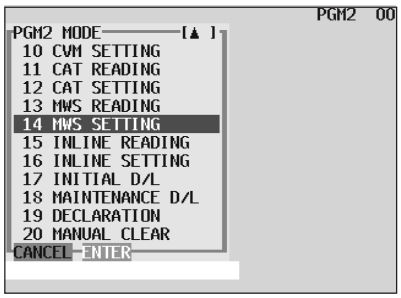
(2) Programming of the communications time-out

The time-out value for receiving the data can be specified by the following procedure:

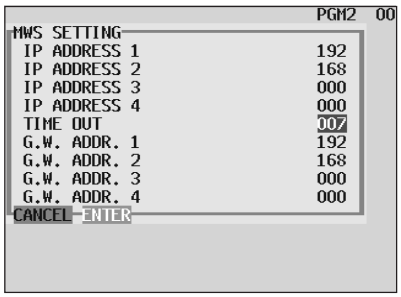
Procedure

Example:

1. Enter the PGM2 mode.



2. Select “MWS SETTING” and touch the ENTER key.
The MWS SETTING window will appear.



3. Enter the time-out time (1 - 255 (sec)) for “TIME OUT” and touch the ENTER key.

NOTE

This value will depend upon the system configuration. Please consult your authorized SHARP dealer.

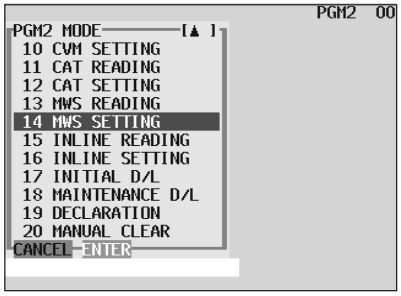
(3) Programming of the gateway address

The gateway address can be specified by the following procedure:

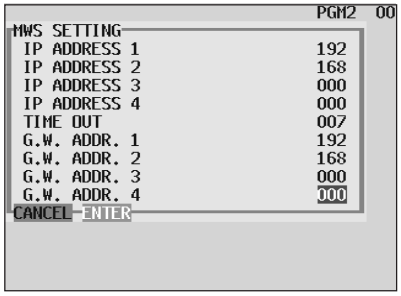
Procedure

Example:

1. Enter the PGM2 mode.



2. Select “MWS SETTING” and touch the ENTER key.
The MWS SETTING window will appear.



3. Enter the gateway address (1 - 254) for “G.W. ADDR. 4” and touch the ENTER key.

NOTE

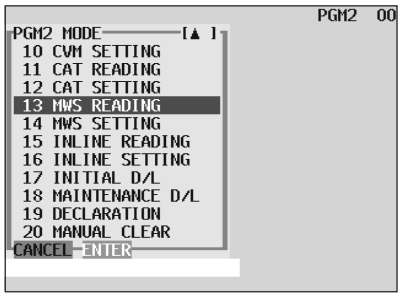
The setting requirement for the gateway address will depend on your system configuration. Please consult your authorized SHARP dealer.

13. Reading the contents of the Manager Work Station (MWS) programming — master and satellite

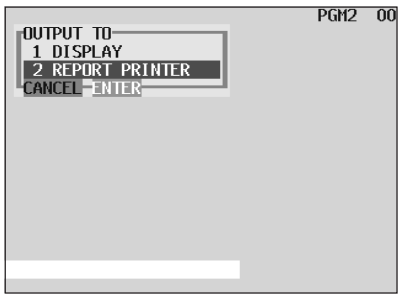
Procedure

Example:

1. Enter the PGM2 mode.



2. Select “MWS READING” and touch the ENTER key.



3. Select “DISPLAY” or “REPORT PRINTER” and touch the ENTER key.

Sample Print (master)

```
        *PGM2*
MWS PRESET

TERMINAL NO.  192.168.000.001
TIME OUT                  007
GATEWAY NO.   192.168.000.000
```

Terminal No. (001)

Time-out time (7 sec)

Gateway No.

4 System Back-Up

1. How the IRC back-up system works

The IRC system incorporates a back-up system.
One of the satellites can be designated to serve as a back-up master.

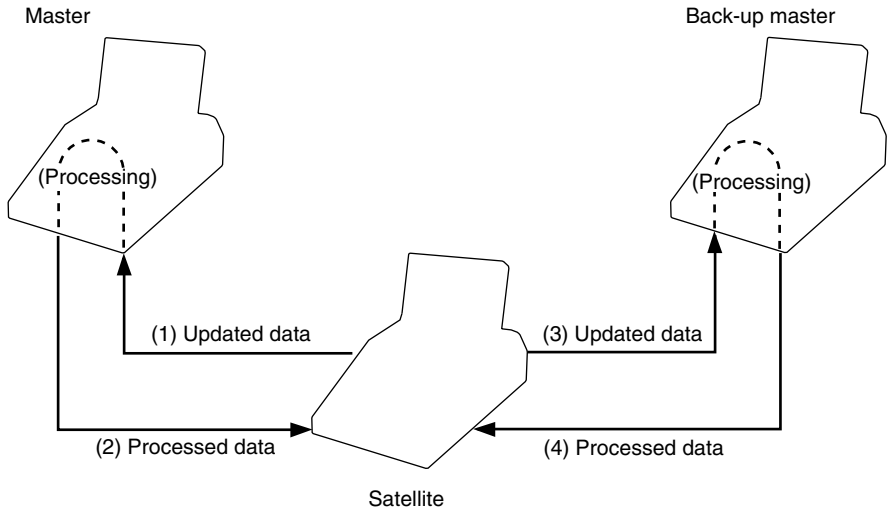
When both the master and back-up master are in order, the system works in the following sequence:

(1) Each satellite sends updated GLU/PBLU data to the master.

(2) The master receives the data, processes it and sends it back to the satellite.

(3) The satellite sends the updated data to the back-up master.

(4) The back-up master receives the data, processes it and sends it back to the satellite.



If the master breaks down, the back-up master serves as the master after a master declaration is made at the back-up master. If the back-up master breaks down, updated data transmission to it can be stopped by a master declaration at the master. When the master or back-up master recovers from the breakdown, it resumes its function as the master or back-up master by the recovery declaring operation.

2. Master declaration — when the master or back-up master breaks down

When the master or back-up master breaks down, the master declaration procedure should be taken to inform satellites of the breakdown.

(1) Master declaration — when the master breaks down

1) A satellite detects a breakdown of the master through the system retry function when it is sending updated GLU/PBLU data to the master. At this point, the message “NO REPLY/MASTER” appears in the pop-up window of the display.

   NO REPLY/MASTER

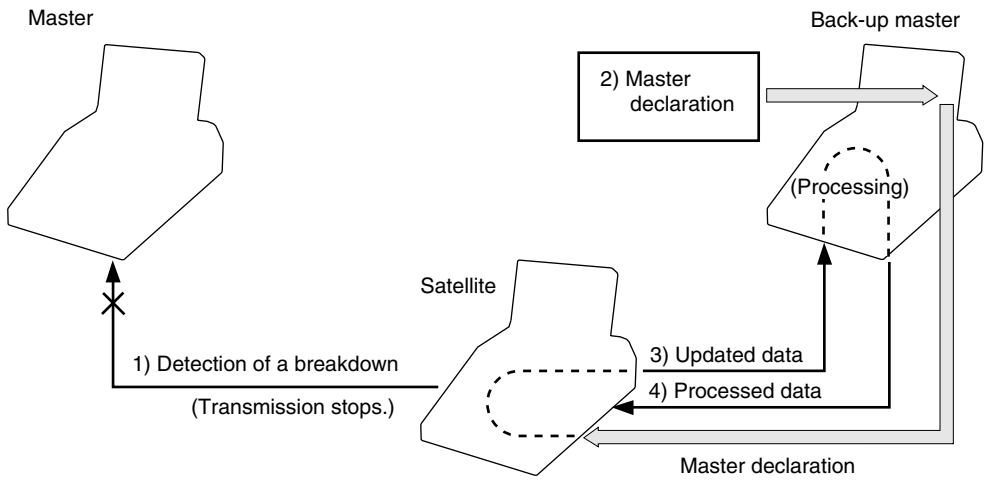
   * For the system retry function, see pages 59 - 60.

2) The master declaration operation must be done at the back-up master. This operation informs the other satellites that the master has broken down and the back-up master will serve as the master hereafter. (During this process, no other operation cannot be performed at any satellite.)

3) Each satellite in the IRC system starts sending updated GLU/PBLU data to the back-up master.

4) The back-up master processes the received data and sends back the processed data to each satellite.

Flow of a master declaration at the back-up master

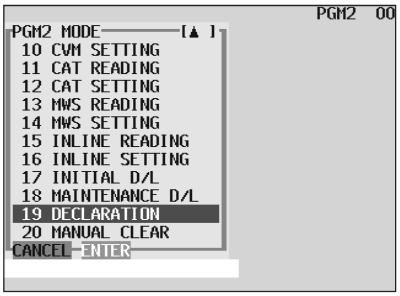


The master declaration procedure is as follows:

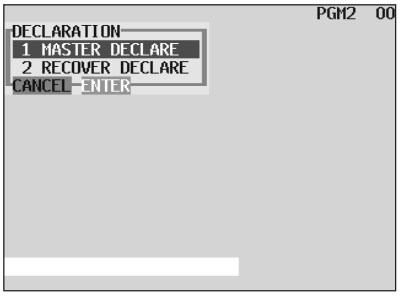
Procedure

Example:

1. Select “PGM2 MODE” from the mode selection menu and touch the ENTER key.



2. Select “DECLARATION” and touch the ENTER key.



3. Select “MASTER DECLARE” and touch the ENTER key.

(2) Master declaration — when the back-up master breaks down

1) A satellite detects a breakdown of the back-up master through the system retry function when it is sending updated GLU/PBLU data to both the master and back-up master. At this point, the message “NO REPLY/BACKUP” appears in the pop-up window of the display.

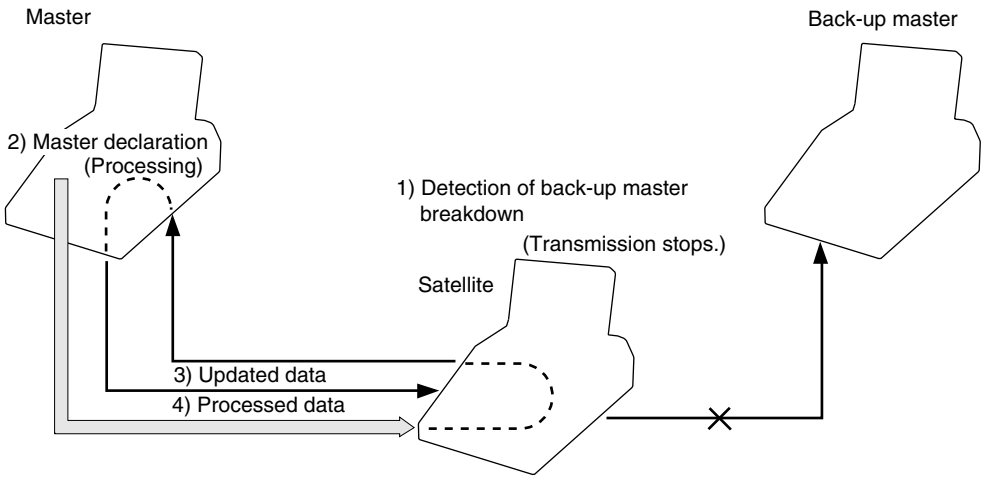
NO REPLY/BACKUP

2) The master declaration operation must be done at the master. This operation causes each master to inform all satellites of the breakdown of the back-up master.

3) Each satellite in the IRC system sends updated GLU/PBLU data only to the master.

4) The master processes the received data and sends back the processed data to each satellite.

Flow of a master declaration at the master



The master declaration procedure is the same as “(1) When the master breaks down.”

3. Recovery declaration — when the master or back-up master recovers from a breakdown

When the master or back-up master recovers from a breakdown, the recovery declaration operation should be taken to inform satellites of the recovery.

(1) Recovery declaration — the master is recovered

1) The recovery declaration operation is done at the back-up master.

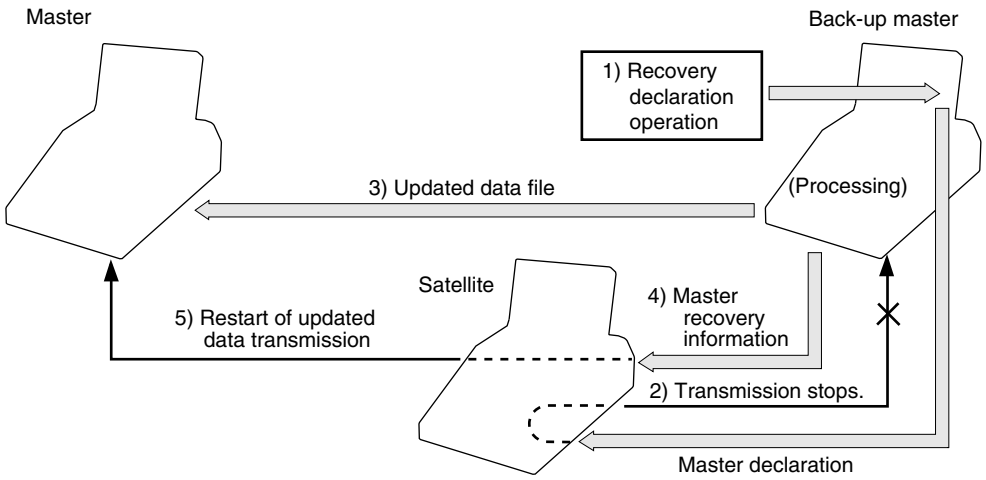
2) Each satellite stops sending updated GLU/PBLU data to the back-up master.

3) The back-up master sends the updated GLU/PBLU data files to the master.

4) The back-up master informs all satellites of the master's recovery.

5) The satellites restart sending updated GLU/PBLU data to the master.

Flow of a recovery declaration at the back-up master

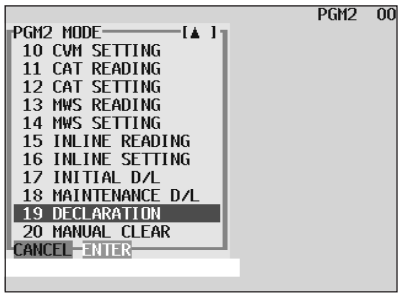


The recovery declaration procedure is as follows:

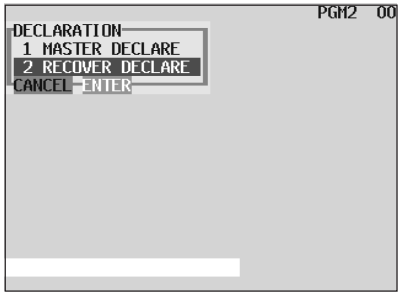
Procedure

Example:

1. Select “PGM2 MODE” from the mode selection menu and touch the ENTER key.



2. Select “DECLARATION” and touch the ENTER key.



3. Select “RECOVER DECLARE” and touch the ENTER key.

(2) Recovery declaration — when the back-up master is recovered

1) The recovery declaration operation is done at the master.

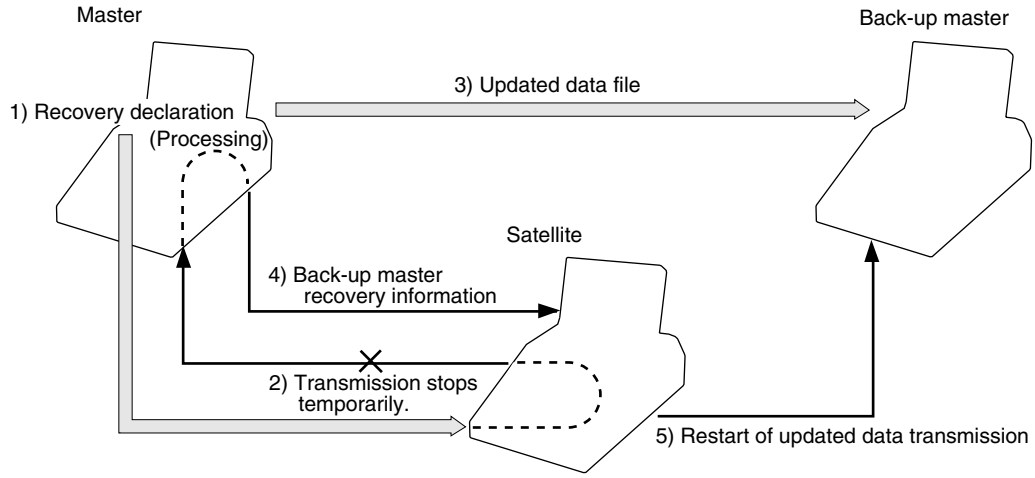
2) Each satellite stops sending updated GLU/PBLU data to the master temporarily.

3) The master sends the updated GLU/PBLU data files to the back-up master.

4) The master informs all satellites of the back-up master's recovery.

5) The satellites restart sending updated GLU/PBLU data to the back-up master.

Flow of a recovery declaration at the master



The recovery declaration procedure is the same as "(1) When the master recovers from a breakdown."

5 Error Recovery

1. Manual clear operation

With the manual clear operation, you can clear various item memories when necessary. This operation should be done only when the master or system breaks down.

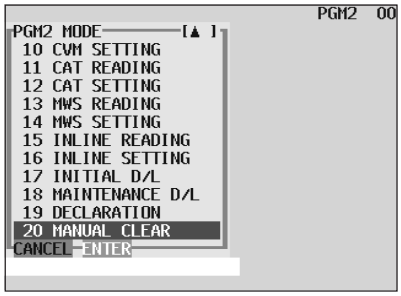
(1) Manual clearing of the server sign-on state — master

You can clear the server sign-on state in case of trouble.
This operation is effective only for the sign-on flag for servers who are signed on at the master.

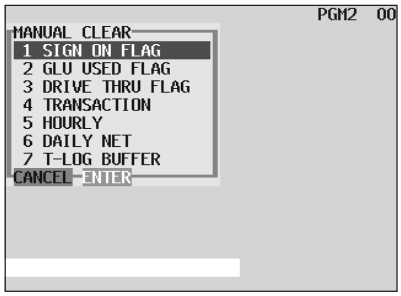
Procedure

Clearing procedure

1. Select “PGM2 MODE” from the mode selection menu and touch the ENTER key.



2. Select “MANUAL CLEAR” and touch the ENTER key.



3. Select “SIGN ON FLAG” and touch the ENTER key.

NOTE

Server sales data for each satellite at which a server has signed on is not collected by the manual clearing of the sign-on state. Server sales data is collected only when the sign-off operation is done successfully at satellites.

(2) Manual clearing of the GLU/PBLU data in use — master

You can clear the GLU/PBLU data in use in the event of some trouble.
This operation clears all GLU/PBLU data that is currently in use.

Clearing procedure

After selecting “MANUAL CLEAR” from the PGM2 MODE menu with the same procedure as steps 1 and 2 in “(1) Manual clearing of the sign-on state,” select “GLU USED FLAG.”

(3) Manual clearing of the drive-through data in use — master

You can clear the drive-through data in use in the event of some trouble.
This operation clears all drive-through data that is currently in use.

Clearing procedure

After selecting “MANUAL CLEAR” from the PGM2 MODE menu with the same procedure as steps 1 and 2 in “(1) Manual clearing of the sign-on state,” select “DRIVE THRU FLAG.”

(4) Manual clearing of the transaction memory — master and satellite

You can clear the transaction memory in the event of some trouble.
This function is available at the master and satellites.

Clearing procedure

After selecting “MANUAL CLEAR” from the PGM2 MODE menu with the same procedure as steps 1 and 2 in “(1) Manual clearing of the sign-on sate,” select “TRANSACTION.”

(5) Manual clearing of the hourly sales data memory — master and satellite

You can clear the hourly sales data memory in the event of some trouble. This function is available at the master and satellites.

Clearing procedure

After selecting “MANUAL CLEAR” from the PGM2 MODE menu with the same procedure as steps 1 and 2 in “(1) Manual clearing of the sign-on state,” select “HOURLY.”

(6) Manual clearing of the daily net sales data memory — master and satellite

You can clear the daily net sales data memory in the event of some trouble. This function is available at the master and satellites.

Procedure

Clearing procedure

After selecting “MANUAL CLEAR” from the PGM2 MODE menu with the same procedure as steps 1 and 2 in “(1) Manual clearing of the sign-on state,” select “DAILY NET.”

(7) Manual clearing of the T-LOG buffer — master and satellite

You can clear the T-LOG buffer in the event of some trouble. This function is available at the master and satellites.

Clearing procedure

After selecting “MANUAL CLEAR” from the PGM2 MODE menu with the same procedure as steps 1 and 2 in “(1) Manual clearing of the sign-on state,” select “T-LOG BUFFER.”

NOTE

- *For T-LOG polling, see page 13.*
- *The manual clearing jobs should be performed at the advice of your authorized SHARP dealer.*

2. System retry function

If a satellite terminates a transmission job unsuccessfully, the master either terminates the job immediately or awaits a command given through the keyboard, depending on whether the system retry function is disabled or enabled. When the system retry function is enabled, the master awaits the entry of a command and retries access depending on the command as explained below.

This function is used in the following cases:

- The master has failed to download preset or updated data to all or some of the satellites.
- The master has failed to upload sales reports from all or some of the satellites.
- The satellite has failed to download data to other machines.

Whether the system retry function is enabled or disabled when a transmission error occurs is programmed at the master. (See “4. Specifying whether to enable or disable the system retry function when a transmission error occurs” on page 32.)

(1) When the system retry function is disabled:

The master terminates the transmission job immediately in the following two ways.
If none of the satellites have successfully transmitted data, the transmission is regarded as having ended with an error, which is equivalent to ABORT as discussed below.
If there is any satellite which has successfully transmitted data, the transmission is regarded as either successful or unsuccessful depending on the type of transmission job. In this case, the transmission regarded as successful and the one regarded as unsuccessful are equivalent to IGNORE and ABORT, respectively both of which are explained below.

(2) When the system retry function is enabled:

If a transmission error occurs, the number and error state of the satellite in which the error has occurred and the relevant menu will appear on the display and the master awaits the entry of one of the following commands given through the keyboard:

A) RETRY command (touching the RETRY key)
B) ABORT command (touching the ABORT key)
C) IGNORE command (touching the IGNORE key)

A) RETRY command:
When RETRY is selected, the master attempts a RETRY to the satellite; however, it does not retry when, due to the type of error (for example, command error), it is obvious that the RETRY will fail. This means that the master will not gain access if errors that have occurred during transmission are such types of errors.

B) ABORT command:
When ABORT is selected, the master terminates access to the satellite and regards the transmission as having unsuccessfully ended. However, in the case of program data downloading, the ABORT command may be issued only when all the satellites accessed are in the error state.

C) IGNORE command:
When IGNORE is selected, the master terminates access to the satellite, regards the transmission as having successfully ended and prints only transmitted data.
If no satellites have successfully transmitted data, the IGNORE command may be issued to the master in the case of sales data inquiry (X report), though the result is not printed.

[Retry during sales data inquiry]
During resetting, the CANCEL command may be given only when every accessed satellite is in the error state. The IGNORE and RETRY commands are available unconditionally.

BASIC SPECIFICATIONS

Transmission system:	10 Base-T
Transmission speed:	10 Mbits/sec
Transmission distance:	Segment length max. 100 m (300 feet)
Transmission cable:	Twisted pair cable (Category 5)
No. of connectable machines:	Master: 1 Satellites: max. 15
Hub:	10 Base-T

SHARP

SHARP CORPORATION

UP3301A_2IE10